



Texas Potato Breeding Report 2009

**Texas AgriLife Research
Department of Horticultural Sciences
Texas A&M University**

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Prefix Source Key for Numbered Advanced Selections:

A = cross made in Aberdeen, Idaho and selected in Idaho

AC = cross made in Aberdeen, Idaho and selected in Colorado

AD = cross made in Aberdeen, Idaho and selected in California (Davis)

ADX = cross (diploid X diploid) made in Aberdeen, Idaho, and selected in Idaho

AF = cross made and selected in Maine at Aroostook Farm, Presque Isle

AND = cross made in Aberdeen, Idaho and selected in North Dakota

AO = cross made in Aberdeen, Idaho and selected in Oregon

AOA = cross made in Aberdeen, Idaho, seedling produced in Oregon, and selected in, Idaho

AOTX = cross made in Aberdeen, Idaho, tuberlings produced in Corvallis, Oregon greenhouse, and original field selection in Texas

ATD = cross (tetraploid X diploid) made in Aberdeen, Idaho and selected in Idaho

ATTX = cross made in Aberdeen, Idaho, tuberlings produced in College Station, Texas greenhouse, and original field selection in Texas

ATX = cross made in Aberdeen, Idaho and selected in Texas

CS = Campbell Institute for Agricultural Research, Camden, New Jersey

AWN = cross made in Aberdeen, Idaho and selected in Washington

B = cross made in Beltsville, Maryland and selected in Maine

BC = cross made in Beltsville, Maryland and selected in Colorado

BO = cross made in Beltsville, Maryland and selected in Oregon

BN = cross made in Beltsville, Maryland and selected in North Dakota

BTX = cross made in Beltsville, Maryland and selected in Texas

CO = cross made and selected in Colorado

COO = cross made in Colorado and selected in Oregon

CORN = Colorado selections (strains) out of Russet Norkotah made by the Colorado program

COTX = cross made in Colorado and selected in Texas

DT = cross made in North Dakota and selected in Texas

FL = cross made and selected by Frito-Lay

LA = cross made and selected in Louisiana

MB = cross made in Minnesota and selected in Maine (Beltsville, Maryland program)

MN = cross made and selected in Minnesota

MNTX = cross made in Minnesota and selected in Texas

MWTX = cross made by USDA/ARS Madison, Wisconsin and selected in Texas

ND = cross made and selected in North Dakota
NDA= cross made in North Dakota and selected in Idaho (Aberdeen)
NDC = cross made in North Dakota and selected in Colorado
NDD = cross made in North Dakota and selected in California (Davis)
NDO = cross made in North Dakota and selected in Oregon
NDTX = cross made in North Dakota and selected in Texas
NY = cross made and selected in New York
OR = cross made and selected in Oregon
PA = cross made and selected in Prosser, Washington
POR = cross made in Prosser, Washington and selected in Oregon
RZ = cross made and selected at the Potato Research Institute, Czech Republic
TX = cross made and selected in Texas
TXA = cross made in Texas and selected in Idaho (Aberdeen)
TXAV = cross made in Texas, selected in Idaho (Aberdeen) and reselected in Alberta, Canada
TXCR “numbers” = Texas selections (strains) out of Century Russet made by Texas program
TXND = cross made in Texas and selected in North Dakota
TXNS "numbers" = Texas selections (strains) out of Russet Norkotah made by Texas program
TXYG “numbers” = Texas selections (strains) out of Yukon Gold made by Texas program
WC = cross made in Washington and selected in Colorado
WD = cross made in Washington and selected in California (Davis)
WN = cross made in Washington and selected in North Dakota
VC = cross made in Lethbridge, Alberta and selected in Colorado

Mission Statement

The mission of the Texas Potato Breeding and Variety Development Program of Texas AgriLife Research is to identify and/or develop improved varieties adapted to the diverse Texas environmental conditions that will result in increased profits for the industry and provide superior products for consumers.

Impact Statement

Since the inception of the Texas Potato Breeding and Variety Development Program in 1973, 1,993,408 seedlings have been grown for selection in Texas, from which 8,946 original selections have been made. Twelve improved varieties have been developed/co-developed and/or released from this program. Most of the russet potatoes grown in Texas in 2009 were to the improved Texas Russet Norkotah strains. When this program was initiated in 1973, the average yield of the summer crop in Texas was about 200 Cwt/A. Over the past several years, the average summer crop yield in Texas was reported to be 440-460 Cwt/A, the highest in the nation among 11 states with summer crop production. In addition, the farm gate value of the crop has grown from less than \$20 million to more than \$100 million, with an annual economic impact to the state estimated to exceed \$300 million. Of the new varieties developed/released in the US in the last 10 years, those developed by the Texas program collectively ranked fourth in total seed acreage entered into certification in 2008.

ZC Research Summary

The overall objective has been to evaluate a wide range of germplasm for possible tolerance/ resistance to the ZC complex (and good chip quality), in order to identify and/or develop varieties for the industry which can be more successfully grown when/where conditions for expression of ZC are present. The studies are an integral part of the Texas Potato Breeding and Variety Development Program, and in 2009 were conducted at College Station, with field planting at Springlake (7 April; vine kill 28 July and 11 August), Dalhart (29 April; vine kill 4 and 13 September), and Weslaco (7 January; harvest 13 April). Insecticides were applied at Springlake and Dalhart locations. The Weslaco trial included a limited number of entries that have not exhibited ZC in Springlake or Dalhart.

Some 185 varieties/advanced selections, including 30 chip entries, were evaluated for ZC expression at Springlake, both as fresh cut tubers and as chips. At Dalhart, nearly 437 varieties/advanced selections were grown, including 104 chip selections from the Western Regional Chip Trial (5), the Snack Food Trial (10), and the Texas breeding program (89). A total of 216 samples, representing 210 varieties/advanced selections, were chipped and evaluated for ZC and other chip quality characteristics. Funds were provided to Dr. Ron French to monitor psyllid egg and nymph levels during the growing season at Springlake.

A total of 401 samples were fried, representing more than 16,000 individual tubers from the three locations. A similar number of tubers were fresh-cut evaluated for ZC. When the fresh cut and the ZC fry evaluations were integrated, the following ZC-free entries from Springlake and Dalhart 2009 trials were judged to merit further evaluation: AOTX02060-1Ru, AOTX96084-1Ru, ATTX98500-3P-W/Y, ATX97147-4Ru, ATX99194-3Ru, BTX1544-2W/Y, BTX1749-1W/Y, COTX94218-1R, NDTX049265-2WRSP/Y, NDTX059759-3Pinto/Y, NDTX059828-2W, NDTX731-1R, NY138, TX03196-1W, TX05249-10W, TX05249-11W, TX05249-3W and TX1674-1W/Y.

Collaborators in 2009 included Dr. Ron French, Dr. Herman Scholthof, Dr. Veria Alvarado, Dr. T.X. Liu, and Dr. Christian Nansen.

Introduction

Program Summary

The Texas Potato Breeding and Variety Development Program used two locations in the 2009 growing season (Table 1). The first planting was on 7 April near Springlake and harvested on 3 and 17 August. This location included sixteen replicated trials and first generation seedlings for selection. The second planting was on 29 April near Dalhart and harvested on 13, 28 September, and 12 October. Eleven replicated trials, a seed increase nursery, and first year seedlings for selection were planted at this site. The Texas program entered 21 selections (ATTX98493-1R/Y, ATTX98518-5Pu/Y, ATX9132-2Y, BTX2103-1R/Y, PORTX03PG25-2R/R, Sierra Gold-2, Sierra Gold-3, TXYG055, TXYG057, TXYG079, TXYG098, TXYG105, TXYG107, AOTX95265-1Ru, AOTX96265-2Ru, ATX9332-12Ru, ATX97232-1Ru, ATTX98453-11BR, ATTX01178-1R, COTX00104-7R, and NDTX5003-2R) in the Southwestern Regional Trials conducted in Texas, Colorado, and two sites in California. The Texas Program also had five entries in the Western Regional Red/ Specialty Trial (ATTX98453-6R, BTX2332-1R, COTX94216-1R, COTX94218-1R, and NDTX4784-7R). These trials were conducted at multiple locations in six western states. Plant Variety Protection (PVP) is pending for Stampede Russet, and Rio Rojo.

A major focus of the program in 2009 was on Zebra Chip Research, with emphasis on varietal resistance/susceptibility. The program also continued to stress virus testing, clean-up, and minituber multiplication of a number of selected clones. A field day was held on 22 July at Springlake, and was well attended by growers and Zebra Chip collaborators.

Seedling program

In 2009, 56,501 first year seedlings, resulting from 386 different parental combination or families (crosses), were grown for selection on the Barrett Farm (28,271) near Springlake and on the CSS Farm (28,230) near Dalhart. Two hundred seventy nine original selections were made from this material (Figure 1).

The 2009 first year seedling tubers from Texas (8,302) were grown during the fall of 2008 at College Station, from true seed crosses made in Lubbock, and Aberdeen, Idaho. The remaining seedling tubers were provided by Rich Novy, Idaho (7,589), Isabel Vales, Oregon (10,615), David Holm, Colorado (19,928), and Susie Thompson, North Dakota (10,615). Dave Holm also provided mini tubers (1,000) from advanced Texas selections for seed increase. Texas also sent second and third-size seedling tubers to Idaho (2,530), Colorado (6,220), and North Dakota (4,102) for first year selections.

Table 1. Trial locations, name of trial, number of entries, and number of plots evaluated in 2009.

Springlake			Dalhart		
Trial	# of Entries	# of Plots	Trial	# of Entries	# of Plots
Field day (not reported)	187	187	Zebra Free	6	24
Western Regional Russet	19	76	Western Regional Chip	5	20
Western Regional Red Skin White Flesh	7	28	Snack Food	10	40
Western Regional Red Skin Yellow Flesh	5	20	Texas Adv. Chip	31	124
Western Regional White Skin Yellow Flesh	6	24	2008 Chip Selection	58	58
Western Regional Red/Purple Flesh	4	16	Texas Adv. Russet	33	132
Southwestern Regional Russet	6	24	2008 Russet Selection	40	40
Southwestern Regional Red Skin White Flesh	6	24	Texas Adv. Red	35	140
Southwestern Regional Red Skin Yellow Flesh	4	16	2008 Red Selection	55	55
Southwestern Regional White Skin Yellow Flesh	11	44	Texas Adv. Red Skin Yellow Flesh	24	96
Southwestern Regional Purple Flesh	2	8	2008 Red Skin Yellow Flesh Selection	47	47
Texas Adv. Russet (Colorado source)	12	48	Texas Adv. White Skin Yellow Flesh	20	80
Texas Adv. Russet (Dalhart source)	14	56	2008 White Skin Yellow Flesh Selection	32	32
Texas Adv. Red (Colorado source)	7	28	Texas Adv. Small Potato	13	52
Texas Adv. Red (Dalhart source)	12	48	2008 Small Potato Selection	5	5
Texas Adv. Red Skin Yellow Flesh (Colorado source)	4	16	Texas Adv. Fingerling/Colored Flesh	5	20
Texas Adv. Red Skin Yellow Flesh (Dalhart source)	9	36	2008 Fingerling/Colored Flesh Selection	7	7
Texas Adv. White Skin Yellow Flesh (Colorado source)	2	8	Yukon Gold Strain	15	60
Texas Adv. White Skin Yellow Flesh (Dalhart source)	13	52	Total	441	1032
Texas Adv. Small Potato	8	32	Total Entries and Plots	846	2091
Texas Adv. Fingerling	6	24			
Chip	30	120			
Yukon Gold Strain	16	64			
Plant Variety Protection Nursery (not reported)	15	60			
Total	405	1059			

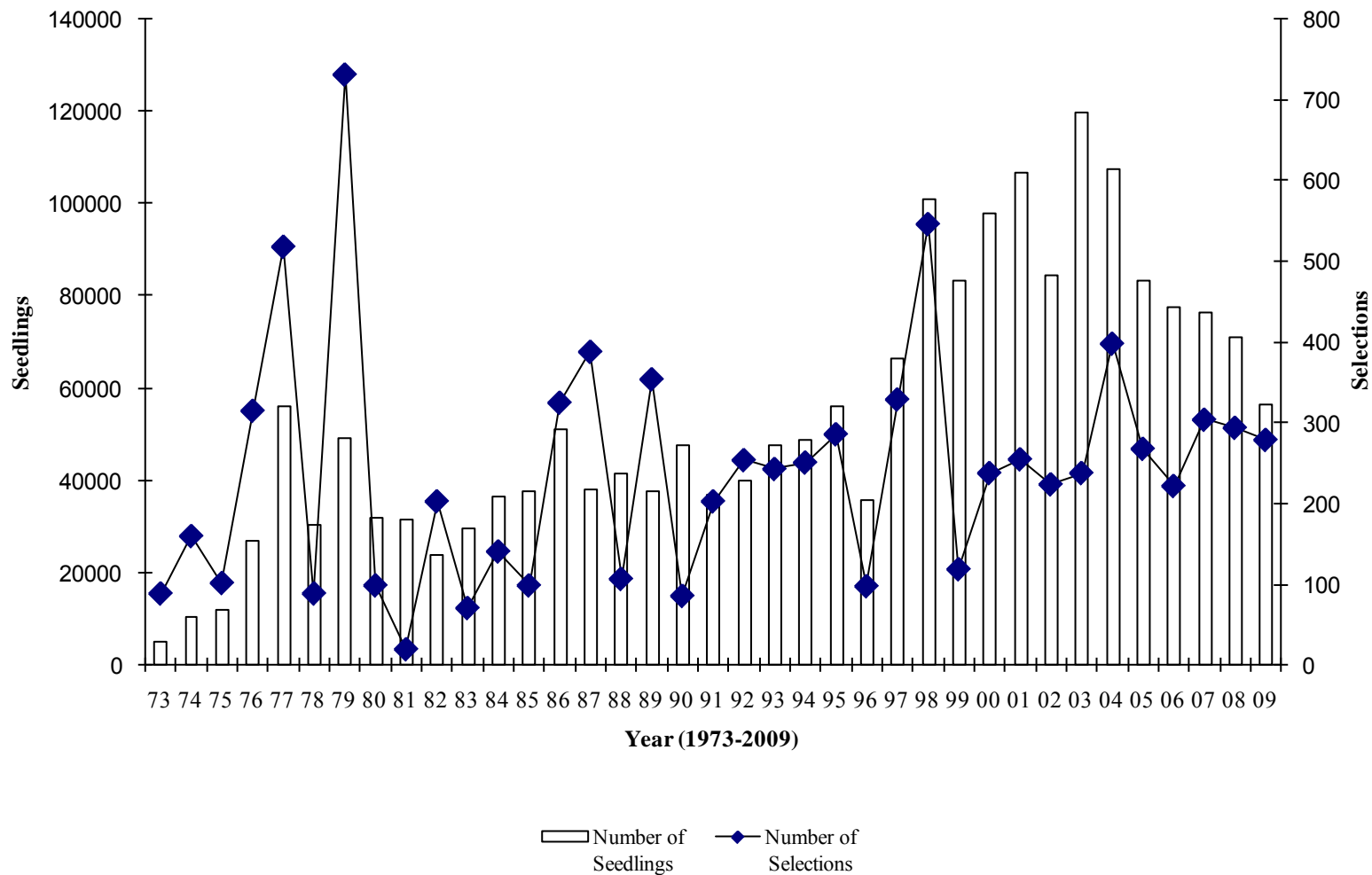


Figure. 1. Number of first year seedling tubers grown for original selection and number of selections made since the inception of the Texas Potato Variety Development Program.

Adaptation trials

The objectives of the adaptation trials were: (1) to test advanced selections and named varieties to determine their potential as replacement varieties for those presently grown in Texas, and (2) to identify potential parents for use in the Texas breeding program. Some 405 advanced selections/varieties were tested in replicated and non-replicated trials near Springlake, 441 entries were evaluated near Dalhart. A total of 2,092 plots were planted and harvested in the two locations. A seed increase nursery was grown at the San Luis Valley Research Center, Center, Colorado, by Dr. David Holm.

Since 1973, 26,516 entries have been evaluated (Figure 2). Findings from the Texas Potato Variety Development Program trials have resulted in the release of several improved varieties which have contributed significantly to the competitiveness, profitability, and sustainability of the Texas potato industry.

Results from the various trials are presented in chronological sequence in which they were planted/harvested, Springlake to Dalhart. Table A for each trial provides basic information regarding total yield and grade distribution of individual entries. Tables B, C, D, E, F, and G provide a more in-depth insight regarding variety characteristics. General notes on the entries can be found in Appendix A at the end of this report. Likewise, parentage can be found in Appendix B.

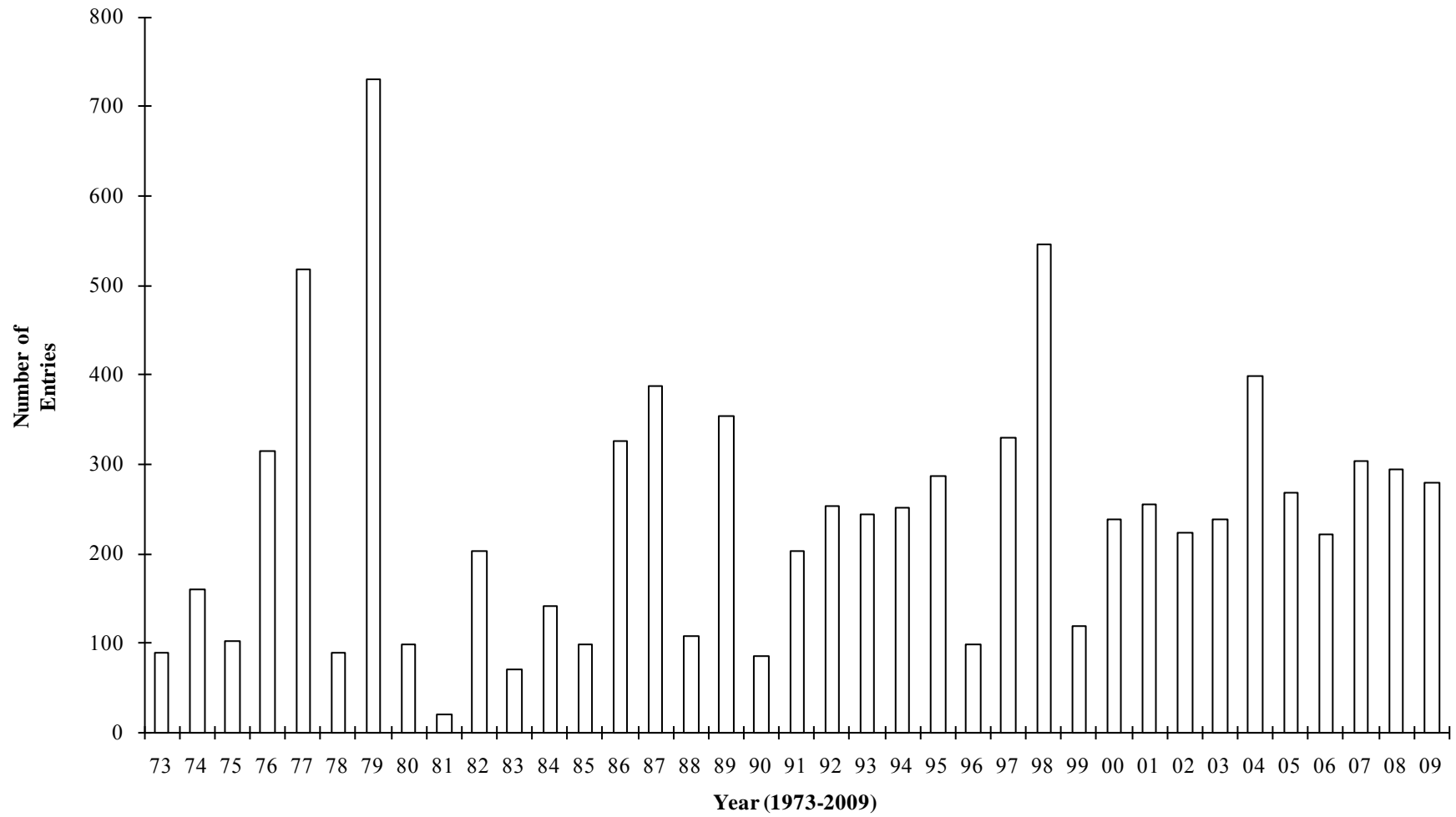


Figure 2. Number of varieties and advanced selections tested for their adaptability to Texas environmental conditions each year since the inception of the Texas Potato Variety Development Program in 1973.

Springlake Trials, 2009

Summary of growing conditions:

The trials were planted near Springlake, Texas on 7 to 10 April and harvested on 3 and 17 August using standard cultural practices for the area (Table 2). These trials were subjected to higher than normal precipitation in the first three weeks of June, and the fourth week of July. Temperatures were higher than normal for the last week in April and the first and second weeks of May (Figure 3).

Trials conducted:

- Field day (not reported)
- Western Regional Russet
- Western Regional Red Skin White Flesh
- Western Regional Red Skin Yellow Flesh
- Western Regional White Skin Yellow Flesh
- Western Regional Red/Purple Flesh
- Southwestern Regional Russet
- Southwestern Regional Red Skin White Flesh
- Southwestern Regional Red Skin Yellow Flesh
- Southwestern Regional White Skin Yellow Flesh
- Southwestern Regional Purple Flesh
- Texas Advanced Russet Selection (Colorado seed source)
- Texas Advanced Russet (Dalhart seed source)
- Texas Advanced Red (Colorado seed source)
- Texas Advanced Red (Dalhart seed source)
- Texas Advanced Red Skin Yellow Flesh (Colorado seed source)
- Texas Advanced Red Skin Yellow Flesh (Dalhart seed source)
- Texas Advanced White Skin Yellow Flesh (Colorado seed source)
- Texas Advanced White Skin Yellow Flesh (Dalhart seed source)
- Texas Advanced Small Potato
- Texas Advanced Fingerling
- Chip

Table 2. Environmental and cultural inputs for the 2009 Springlake trials.

Location:

Springlake, Texas

Soil Type

Tivoli Fine Sand

Seed Source

Michigan, Main, New York, Wisconsin, Colorado, Oregon, Texas and Idaho

Date:

DAP

Planted	April 8, 2009	
Vines Killed (Red, Red/Yellow)	July 28, 2009	110
Vines Killed (Chip, White/Yellow, Russet)	August 11, 2009	123
Harvested (Red, Red/Yellow)	August 3, 2009	115
Harvested (Chip, White/Yellow)	August 16, 2009	128
Harvested (Russet)	August 17, 2009	129

Plot Information:

Size of plots	21' or 18'
Spacing between hills	9"
Spacing between rows	36"
Hills per plot	28 or 24
Number of rows	2
Number of reps	4

Method of Harvest:

Two-row drag digger, with hand pick up

Fertilizer:

Application:

Red 117-33-33-24# per acre

Russet, Chip, White/Yellow 201-33-33-24 # per acre

Irrigation:

Center Pivot

Seed Treatment Applied:

Tops MZ Gaucho

Insecticide:

Movento, Rimon

Fungicides Applied:

Bravo, Dithane, Quadris, Nu Cop

Herbicides Applied:

Sencor, Matrix, Roundup

Environmental Factors:

These trials were subjected to higher than normal precipitation in the first three weeks of June, and the fourth week of July. Temperatures were higher than normal for the last week in April and the first and second weeks of May.

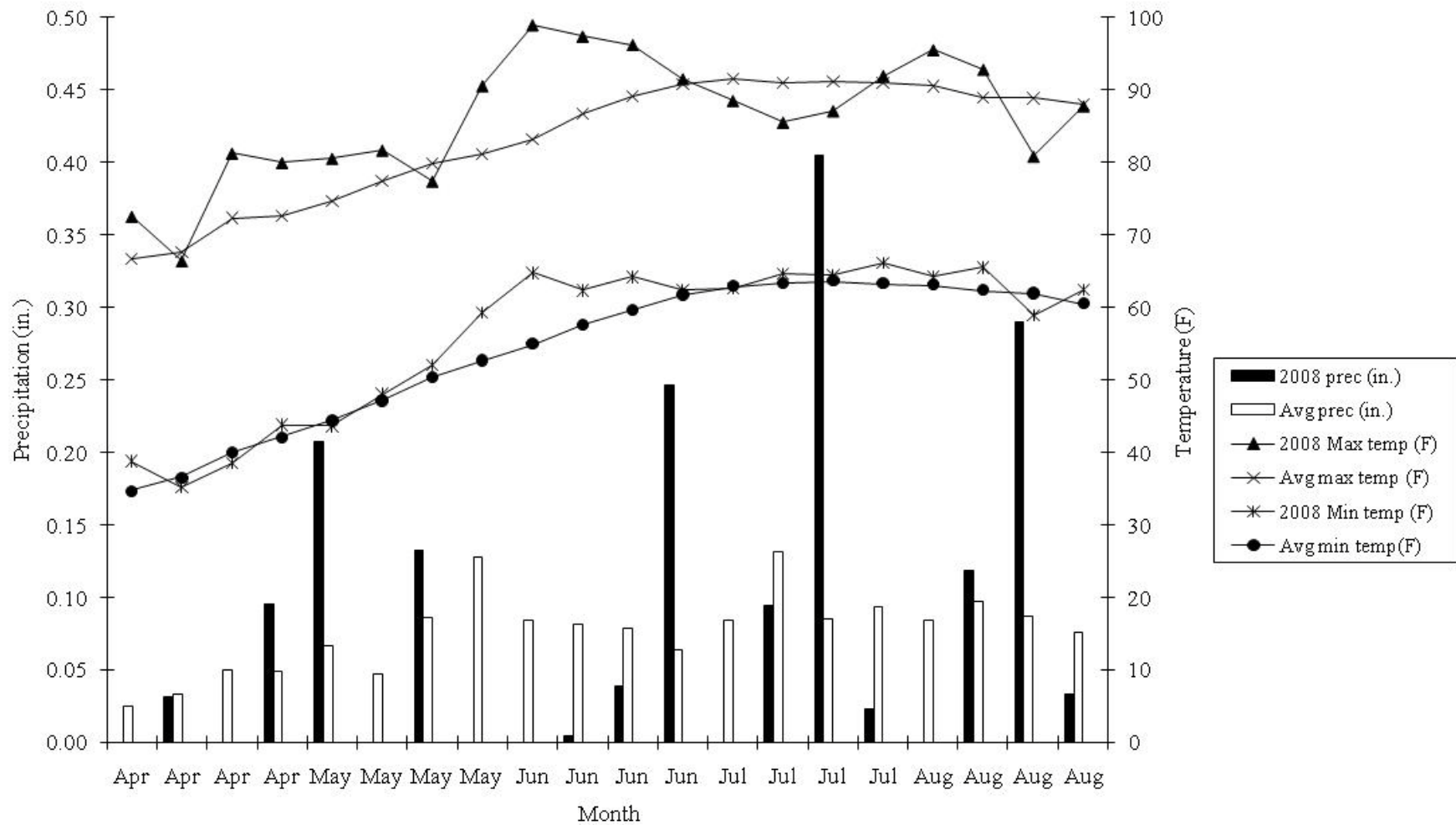


Figure 3. Weekly minimum/maximum temperatures and precipitation for the 2008 growing season near Springlake, Texas compared to the average minimum/maximum temperatures and precipitation (1949-2008).

- Yukon Gold Strain
- Plant Variety Protection Nursery (not reported)

WESTERN REGIONAL RUSSET TRIAL

The Western Regional Trials were grown at 12 sites throughout the western United States as part of the WERA-27 project, with cooperators in California, Oregon, Washington, Idaho, Colorado, and Texas. The 2009 russet trial consisted of 19 entries, including the three check varieties Ranger Russet, Russet Norkotah, and Russet Burbank.

Results were as follows: (Springlake Tables 1a, 1b, 1c, 1d, 1e, 1f, and 1g)

- The outstanding entries for this trial, based on general rating were Russet Norkotah, CO99053-3RU, and CO99100-1RU. CO98368-2RU, CO99053-3RU, and CO99100-1RU received best of trial designations (Tables 1a and 1e).
- Russet Norkotah and PA99N82-4 had the highest total and marketable yields (Table 1a)
- A98345-1 and CO99053-3RU had the highest yield of over 18 oz. tubers. AO96365-2 and A96814-65LB had the highest yield of less than 4 oz. tubers. Russet Burbank and CO99053-3RU had the highest yield of culls/No.2 tubers (Table 1a).
- Russet Norkotah and CO99100-1RU had the highest and second highest percent of marketable yield respectively (Table 1b).
- CO99053-3RU and A98345-1 had the highest and second highest percentage yield of over 18 oz. tubers. PA99N2-1 and AC99375-1RU had the highest and second highest percentage yield of less than 4 oz. tubers. Russet Burbank and CO99053-3RU had the highest and the second highest percentage yield of cull/No. 2 tubers (Table 1a and Table 1b).
- The highest specific gravity was recorded for A97066-42LB and A96814-65LB (Table 1b).
- AO96365-2 and A96814-65LB were the latest maturing clones. PA00N14-2 and CO99100-1RU were the earliest maturing entries (Table 1c).
- AO9635-2 had 15% vascular discoloration (Table 1d).
- A98345-1 did not exhibit Zebra Chip. AO96365-2 and A0008-1TE had highest (21 and 18) percent Zebra Chip (Table 1f).
- Among the varieties/selections exhibiting high anti-oxidant activity include Ranger Russet, CO99053-3RU, CO98067-7RU, CO99053-4RU, Russet Norkotah, and CO98368-2RU (Table 1g).

Comments on entries:

- Russet Norkotah Long Russet, Rhizoctonia, low yield
- PA99N82-4 Oblong Russet, Rhizoctonia+, blocky++, drop++
- CO97087-2RU Long Russet, nice flesh, rough++, nice interior
- AO96305-3 Long Russet, uneven net, long skinny, nice flesh, rot, drop for appearance
- A96814-65LB Long Russet, course Russ, blocky, heat sprouts, drop+
- A98345-1 Oblong Russet, heat sprouts+, blocky, drop+
- Ranger Russet Long Russet, sticky stolon, drop
- CO98368-2RU Long Russet, pointed, BOT
- AO96365-2 Oblong Russet, blocky, some pointed to stem end, heavy set, drop+
- CO99053-4RU Oblong Russet, Rhizoctonia, pointed, skinny, light skin
- CO99053-3RU Long Russet, Rhizoctonia, too long, skinny rot, repeat, drop, BOT-
- CO99100-1RU Oblong Russet, nice flesh and shape, smooth, low yield, BOT-
- CO98067-7RU Oblong Russet, flat, rot+
- PA99N2-1 Oblong Russet, Rhizoctonia, heat sprouts, blocky, rot on stem end, drop+
- A97066-42LB Oblong Russet, heat sprouts, Rhizoctonia, blocky, drop+
- PA00N14-2 Oblong Russet, small, light net, nice flesh, keep
- AC99375-1RU Oblong Russet, blocky++, small, Rhizoctonia, heat sprouts, poor shape, very white flesh, drop++
- Russet Burbank Long Russet, many culls, Rhizoctonia++, rough, poor shape, skinny
- A0008-1TE Oblong Russet, blocky, smooth, yield-, nice shape, Rhizoctonia, keep

Summary:

Overall, the outstanding entry based on general rating and marketable yield was Russet Norkotah. Other entries deserving mention include CO98368-2RU, CO99053-3RU, and CO99100-1RU.

WESTERN REGIONAL RED SKIN WHITE FLESH

This trial consisted of seven entries, including the check varieties Red LaSoda and Dark Red Norland

Results were as follows: (Springlake Tables 2a, 2b, 2c, 2d, 2e, 2f, and 2g)

- ATTX98453-6R, BTX2332-1R, and COTX94218-1R had the highest general ratings (Table 2a).
- Red LaSoda and BTX2332-1R produced the highest total yield and marketable yield (Table 2a).
- COTX94218-1R and Dark Red Norland had the highest yield of less than 4 oz. tubers. (Table 2a).
- Red LaSoda and ATTX98453-6R had the highest percentage of marketable yield, while COTX94218-1R and COTX98216-1R had the highest percentage of less than 4 oz. tubers. (Table 2b).
- COTX94218-1R and COTX98216-1R had the highest specific gravity (Table 2b).
- COTX94218-1R had the highest average number of tubers per plant. COTX94218-1R was the latest maturing, while NDTX4784-1R was the earliest (Table 2c).
- Red LaSoda and Dark Red Norland had the deepest eyes (Table 2d).
- BTX2332-1R and Dark Red Norland had higher percentages of vascular discoloration (Table 2d).
- Red LaSoda NDTX4784-7R, COTX94218-1, and COTX94216-1R had over 10% Zebra Chip, while BTX2332-1R, Dark Red Norland, and ATTX98453-6R did not have any Zebra Chip defect (Table 2f).
- Among the varieties/selections exhibiting high anti-oxidant activity include Red LaSoda, COTX94216-1R, and Dark Red Norland (Table 2g).

Comments on entries:

- Red LaSoda Oblong Red, deep eyes, nice white flesh, poor internals
- BTX2332-1R Round Red, yield, heavy set, poor internals, BOT
- Dark Red Norland Oblong Red, light skinned, Rhizoctonia, silver scurf, drop
- ATTX98453-6R Round Red, nice, nice flesh, poor skin finish, silver scurf, Rhizoctonia, smooth skin, keep

- NDTX4784-7R Round Red, low yield, nice, better rep, Rhizoctonia++, road map, poor skin finish, drop
- COTX94218-1R Round Red, nice shape, late, yield
- COTX94216-1R Round Red, second growth, nice shape, zipper eyes, road map, poor skin finish, silver scurf, drop

Summary:

BTX2332-1R and ATTX98453-6R were the outstanding entries. COTX94218-1R also deserves mention.

WESTERN REGIONAL RED SKIN YELLOW FLESH

This trial consisted of five entries

Results were as follows: (Springlake Tables 3a, 3b, 3c, 3d, 3e, 3f, and 3g)

- AC99330-1P/Y and POR01PG45-5 received the highest general rating (Table 3a).
- A99326-1PY and AC99329-7PW/Y produced the highest total yield, while POR03PG80-2 and A99326-1PY produced the highest marketable yield (Table 3a).
- AC99330-1P/Y and POR01PG45-5 had the highest yield of less than 4 oz. tubers. A99326-1PY had the highest yield of over 18 oz. tubers (Table 3a).
- POR03PG80-2 and A99326-1PY had the highest percentage of marketable yield. AC99330-1P/Y and POR01PG45-5 had the highest percentage of less than 4 oz. tubers. (Table 3b).
- POR01PG45-5 and AC99329-7PW/Y had the highest specific gravity (Table 3b).
- POR01PG45-5 and AC99329-7PW/Y had the highest average number of tubers per plant (Table 3c).
- POR03PG80-2 was latest in maturity (Table 3c).
- AC99330-1P/Y had the darkest yellow flesh color (Table 3d).
- AC99329-7PW/Y had the deepest eyes (Table 3d).
- A99326-1PY and POR01PG45-5 had high percentages of hollow heart (Table 3d)
- All of the entries had low levels of internal defects (Table 3d).

- POR03PG80-2 and AC99330-1P/Y showed no Zebra Chip defect, while all the other entries had over 3% ZC (Table 3f).
- Among the varieties/selections exhibiting high anti-oxidant activity include POR03PG80-2, A99326-1PY, and POR01PG45-5 (Table 3g).

Comments on entries:

- POR03PG80-2 Oblong Purple, nice+, oblong, rough, silver scurf, poor skin finish
- A99326-1PY Round Purple, nice size & shape, yield+, late, oversize+, lenticels, silver scurf+
- AC99329-7PW/Y Round Purple-White, nice purple color, rough, deep eyes, purple white skin
- POR01PG45-5 Oblong Purple, nice+, hollow heart, rough, poor skin finish, drop+
- AC99330-1P/Y Round Purple, heavy set, yield+, late, lenticels+, salad??, drop

Summary:

None of the entries performed satisfactorily.

WESTERN REGIONAL WHITE SKIN YELLOW FLESH

This trial consisted of five entries with Yukon Gold as the check variety.

Results were as follows: (Springlake Tables 4a, 4b, 4c, 4d, 4e, 4f, and 4g)

- Yukon Gold had the highest general rating and a best of trial designation. POR02PG37-2 had a high general rating (Table 4a and 4e).
- A00286-3Y and CO99045-1W/Y produced the highest total and marketable yield (Table 4a).
- A00293-2Y and POR02PG37-2 had the highest yield of less than 4 oz. (Table 4a).
- Yukon Gold had the highest percent marketable yield, while all of the other entries had over 27% of less than 4 oz. tubers (Table 4b).
- CO00412-5W/Y had the highest specific gravity (Table 4b).
- A00286-3Y, CO99045-1W/Y, CO00412-5W/Y, and A00293-2Y were very late in maturity. Yukon Gold and POR02PG37-2 were very early in maturity (Table 4c).

- A00293-2Y had the darkest flesh color. CO00412-5W/Y had 10% hollow heart (Table 4d).
- All of the entries had over 5% Zebra Chip (Table 4f).
- Among the varieties/selections exhibiting high anti-oxidant activity include Yukon Gold, AO0286-3Y, and POR02PG37-2 (Table 4g).

Comments on entries:

- A00286-3Y Round Yellow with pink eyes, second growth, nice internals, heat sprouts+, red splash eyes, drop
- CO99045-1W/Y Long White, variable color, small, heat sprouts, sticky stolon+, drop+
- Yukon Gold Round White, small, rough, bad rep, BOT
- CO00412-5W/Y Oblong White, poor internals, small, russet skin, drop++
- POR02PG37-2 Round Yellow with red eyes, red eyes, nice
- A00293-2Y Oblong Yellow, small, nice shape, heat sprouts, pointed, drop

Summary:

In summary, none of the entries appear to be superior to Yukon Gold.

WESTERN REGIONAL RED/PURPLE FLESH

This trial consisted of four entries with Purple Majesty as the check variety.

Results were as follows: (Springlake Tables 5a, 5b, 5c, 5d, 5e, 5f, and 5g)

- POR03PG23-1 had the highest general rating (Table 5a).
- OR00068-11 and Purple Majesty had the highest total and marketable yield (Table 5a).
- PA96RR1-193 had highest yield of less than 4 oz. tubers (Table 5b).
- OR00068-11 and Purple Majesty had the highest percentage of marketable yield, while POR03PG23-1 and PA96RR1-193 had over 56% percent of less than 4 oz. tubers (Table 5b).
- OR00068-11 had the highest specific gravity (Table 5b).

- POR03PG23-1 had the highest average number of tubers per plant (Table 5c).
- OR00068-11 was the latest maturing, while POR03PG23-1 and PA96RR1-193 were the earliest maturing entries (Table 5c).
- Purple Majesty and POR03PG23-1 had darkest flesh color, while PA96RR1-193 had very light red flesh color (Table 5d).
- PA96RR1-193 did not have any Zebra Chip defect and received a best of trial notation for chip appearance (Table 5f).
- As expected, these colored selections all exhibited relatively high antioxidant activity with POR03PG23-1, OR00068-11, and Purple Majesty notably higher than PA96RR1-193 (Table 5g).

Comments on entries:

- OR00068-11 Oblong Purple, yield+, flesh all blue like, silver scurf
- Purple Majesty Oblong Purple, road map, yield +, road map-alligator skin, silver scurf, yield+, small, smooth
- POR03PG23-1 Oblong Red with white swirl, nice red color, Rhizoctonia, yellow and red skin
- PA96RR1-193 Round Red, nice shape, light red flesh, silver scurf, poor skin finish, heat sprouts

Summary:

POR03PG23-1 appeared to be the outstanding entry in this trial.

SOUTHWESTERN REGIONAL TRIALS

This is the tenth year for the Southwestern Regional Trials, which in 2009 included Russet, Red, and Specialty Trials. The Southwestern Regional Potato Research Program includes California, Colorado, and Texas. The objective is to evaluate promising advanced selections from the Texas and Colorado breeding programs. Entries that are successful in these trials are then graduated to the various Western Regional Trials.

SOUTHWESTERN REGIONAL RUSSET TRIAL

This trial consisted of six entries, including the check variety Russet Norkotah.

Results were as follows: (Springlake Tables 6a, 6b, 6c, 6d, 6e, 6f, and 6g)

- The outstanding entry based on general rating and best of trial designation was AOTX96265-2Ru. Russet Norkotah and AOTX95265-1Ru also had high general ratings. (Table 6a and Table 6e).
- Russet Norkotah and ATX9332-12Ru had the highest total and marketable yield (Table 6a).
- AOTX96265-2Ru had the highest yield of over 18 oz. tubers. ATX97232-1Ru and AC97306-1Ru had the highest yield of less than 4 oz. tubers. AC97306-1RU had the highest yield of cull/No. 2 tubers (Table 6a).
- Russet Norkotah had the highest percent marketable yield (Table 6b).
- AC97306-1RU and ATX97232-1Ru had the over 29% percent of less than 4 oz. tubers. AC97306-1Ru had the highest percentage of culls/No.2 tubers (Table 6b).
- AC97306-1RU had the highest specific gravity (Table 6b).
- Russet Norkotah had the highest average number of tubers per plant (Table 6c).
- AC97306-1RU, ATX9332-12Ru, and AOTX96265-2Ru were the latest maturing entries, while Russet Norkotah, AOTX95265-1Ru, and ATX97232-1Ru were the earliest maturing (Table 6c).
- ATX97232-1Ru had 18% hollow heart (Table 6d).
- ATX9332-12Ru showed no Zebra Chip, while all the other entries had over 3 % Zebra Chip (Table 6f).
- Among the varieties/selections exhibiting high anti-oxidant activity include AC97306-1RU and Russet Norkotah (Table 6g).

Comments on entries:

- Russet Norkotah Long Russet, Rhizoctonia, low yield
- ATX9332-12Ru Long Russet, stem end darkening, poor skin finish, drop+
- AOTX96265-2Ru Long Russet, advance to WR, large tubers, Rhizoctonia, BOT-
- AOTX95265-1Ru Long Russet, advance to WR, nice shape, rot
- ATX97232-1Ru Oblong Russet, Rhizoctonia, blocky, nice flesh, high yield, smooth, keep
- AC97306-1RU Long Russet, Rhizoctonia, drop+

Summary:

Russet Norkotah, AOTX96265-2Ru, and AOTX95265-1Ru were the outstanding entries. The latter two should be considered for advancement to the Western Region Trial.

SOUTHWESTERN REGIONAL RED TRIAL

The Southwestern Regional Red Trial consisted of six entries, including the check varieties Red LaSoda and Dark Red Norland.

Results from the trial were as follows: (Springlake Tables 7a, 7b, 7c, 7d, 7e, 7f, and 7g)

- The outstanding entries based on general rating and best of trial designation were ATTX98453-11BR and NDTX5003-2R, while COTX00104-7R and ATTX01178-1R also received high general ratings (Tables 7a and 7e).
- Red LaSoda and Dark Red Norland had the highest total and marketable yield. ATTX98453-11BR had the highest yield of less than 4 oz. tubers. COTX00104-7R had the highest yield of culls/No.2 tubers (Table 7a).
- Red LaSoda and COTX00104-7R had the highest percentage of marketable yield, while ATTX98453-11BR had the highest percentage of less than 4 oz. tubers. COTX00104-7R had the highest percentage of culls/No. 2 tubers (Table 7b).
- ATTX98453-11BR and NDTX5003-2R had the highest specific gravity (Table 7b).
- ATTX98453-11BR had the highest average number of tubers per plant (Table 7c).
- ATTX98453-6R was the latest in maturity, while Red LaSoda and Dark Red Norland were the earliest in maturity (Table 7c).
- Red LaSoda, Dark Red Norland, and ATTX01178-1R had the deepest eyes (Table 7d).
- ATTX01178-1R had the most feathering (Table 7d).
- Dark Red Norland had 8% vascular discoloration (Table 7d).
- Dark Red Norland showed no Zebra Chip, while all the other entries had over 13% Zebra Chip (Table 7f).
- Red LaSoda appeared to be the highest anti-oxidant entry in this trial (Table 7g).

Comments on entries:

- Red LaSoda Oblong Red, deep eyes, poor internals, nice white flesh
- Dark Red Norland Oblong Red, light skinned, sliver scurf, Rhizoctonia, drop
- COTX00104-7R Round Red, large tubers, growth cracks, lenticels
- ATTX01178-1R Round Red, nice shape, Red LaSoda like, deep eyes, drop
- ATTX98453-11BR Round Red, nice shape & color, nice internals, nice skin finish, BOT
- NDTX5003-2R Round Red, nice, Rhizoctonia, nice flesh +, BOT

Summary:

The outstanding entry was ATTX98453-11BR followed by NDTX5003-2R.

SOUTHWESTERN REGIONAL RED SKIN YELLOW FLESH TRIAL

The Southwestern Regional Red Skin Yellow Flesh Trial consisted of four entries.

Results from the trial were as follows: (Springlake Tables 8a, 8b, 8c, 8d, 8e, 8f, and 8g)

- ATTX98518-5Pu/Y and BTX2103-1R/Y were the outstanding entries based on general rating and best of trial designations (Table 8a and 8e).
- BTX2103-1R/Y and CO01399-10P/Y had the highest total yield. CO01399-10P/Y and ATTX98518-5Pu/Y had the highest marketable yield. BTX2103-1R/Y had the highest yield of less than 4 oz. tubers (Table 8a).
- ATTX98518-5Pu/Y had the highest percentage of marketable yield. BTX2103-1R/Y had the highest percentage of less than 4 oz. tubers (Table 8b).
- BTX2103-1R/Y and had the highest specific gravity (Table 8b).
- BTX2103-1R/Y and had the highest average number of tubers per plant (Table 8c).
- CO01399-10P/Y and BTX2103-1R/Y were the latest in maturity, while ATTX98518-5Pu/Y was the earliest in maturity (Table 8c).
- BTX2103-1R/Y had the darkest yellow flesh color (Table 8d).
- CO01399-10P/Y had high percentages of vascular discoloration (Table 8d).
- ATTX98518-5Pu/Y had no Zebra Chip. All of the other clones had over 5% Zebra Chip (Table 8f)
- The entry BTX2103-1R/Y had the highest anti-oxidant content (Table 8g).

Comments on entries:

- CO01399-10P/Y Round Purple, late++, poor internals, poor skin finish, drop
- ATTX98518-5Pu/Y Oblong Purple, large tubers, oblong, pointed, roadmap, nice shape, smooth, BOT
- ATTX98493-1R/Y Oblong Red, light skin++, nice, nice shape, some pointed
- BTX2103-1R/Y Round Red, nice yield, uniform, very heavy set, B's , BOT

Summary:

ATTX98518-5Pu/Y and BTX2103-1R/Y were the outstanding entries based on yield and general rating. ATTX98493-1R/Y also received a high general rating.

SOUTHWESTERN REGIONAL WHITE SKIN YELLOW FLESH TRIAL

The Southwestern Regional White Skin Yellow Flesh Trial consisted of 11 entries including six line selections of Yukon Gold and two of Sierra Gold. This trial also included the check varieties Yukon Gold and Sierra Gold.

Results from the trial were as follows: (Springlake Tables 9a, 9b, 9c, 9d, 9e, 9f, and 9g)

- Among the Yukon Gold selections, TXYG079 appeared to be the outstanding entry followed by TXYG098, TXYG055, TXYG107, and TXYG105. All of the other, except for ATX9132-2Y had general rating of over 4 (Table 9a and 9e).
- Sierra Gold and TXYG098 had the highest total yield. Sierra Gold and TXYG079 had the highest marketable yield. TXYG098 had the highest yield of over 18 oz. tubers. TXYG105 had the highest yield of less than 4 oz. tubers. (Table 9a).
- Sierra Gold and TXYG079 had the highest percentage of marketable yield. ATX9132-2Y had the highest percentage of less than 4 oz. tubers (Table 9b).
- Sierra Gold-2 had the highest specific gravity (Table 9b).
- TXYG098 and had the highest average number of tubers per plant (Table 9c).
- Sierra Gold-2, Sierra Gold-3, and ATX9132-2Y were the latest in maturity, while all the other entries were very early in maturity (Table 9c).

- ATX9132-2Y had the darkest yellow flesh color (Table 9d).
- TXYG098 and TXYG107 had high percentages of hollow heart (Table 9d).
- TXYG098 had no Zebra Chip. All of the other clones had over 6% Zebra Chip – in general, however, the Sierra Golds had less ZC than the Yukon Golds (Table 9f).
- Among the Sierra Golds, Sierra Gold-3 and Sierra Gold had better tuber shape than Sierra Gold-2, Sierra Gold-2 also exhibited growth cracks. The Sierra Gold line selections -2 and -3 significantly yielded less than Sierra Gold (Table 9a and d).
- TXYG098, TXYG057, and Yukon Gold appeared to be highest among entries in this trial for anti-oxidant content (Table 9g).

Comments on entries:

- Sierra Gold Oblong Russet, small, very nice, BOT
- TXYG079 Round White, high yield, smooth, rot
- TXYG098 Round White, very nice, large tubers
- TXYG107 Round White, Rhizoctonia, nice+
- TXYG055 Round White, Rhizoctonia, small
- Yukon Gold Round White, small, rough, BOT
- TXYG105 Round White
- Sierra Gold-2 Oblong Russet, Rhizoctonia, growth cracks
- TXYG057 Round White, large tubers
- Sierra Gold-3 Oblong Russet, very nice
- ATX9132-2Y Round White, deep eyes, drop++

Summary:

Based on general rating and yield, Sierra Gold was the outstanding entry.

SOUTHWESTERN REGIONAL PURPLE FLESH TRIAL

The Southwestern Regional Purple Flesh Trial consisted of two entries, including the check variety Purple Majesty.

Results from the trial were as follows: (Springlake Tables 10a, 10b, 10c, 10d, 10e, 10f, and 10g)

- PORTX03PG25-2R/R had a slightly higher general rating than Purple Majesty (Table 10a).
- Purple Majesty had the highest total yield. PORTX03PG25-2R/R had the highest marketable yield. Purple Majesty had the highest yield of less than 4 oz. tubers. (Table 10a).
- PORTX03PG25-2R/R had the highest percentage of marketable yield. Purple Majesty had the highest percentage of less than 4 oz. tubers (Table 10b).
- Purple Majesty had the highest specific gravity (Table 10b).
- PORTX03PG25-2R/R was the later in maturity than Purple Majesty (Table 10c).
- Purple Majesty had the darkest purple flesh color (Table 10d).
- PORTX03PG25-2R/R had 6% Zebra Chip, while Purple Majesty had 8% (Table 10f)
- Both entries are relatively high in anti-oxidant content however; PORTX03PG25-2R/R was slightly higher. (Table 10g).

Comments on entries:

- PORTX03PG25-2R/R Long Red, pointed
- Purple Majesty Oblong Purple, road map, yield +, road map-alligator skin, silver scurf, yield+, small, smooth

Summary:

PORTX03PG25-2R/R compared favorably to Purple Majesty.

OUTSTANDING TEXAS ADVANCED RUSSET SELECTIONS, 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced Russet Trial at Springlake included 26 entries, with 33 entries planted at Dalhart. Russet Norkotah, Russet Norkotah278, and Russet Norkotah296 were the check varieties for both locations. Based on both trials the following entries will be re-evaluated in the 2010 season: AOTX02060-1Ru, AOTX95265-3Ru, AOTX95265-4Ru, AOTX96084-1Ru, AOTX96208-1Ru, AOTX96216-2Ru, AOTX98096-1Ru, AOTX98152-3Ru, AOTX98202-1Ru, ATX05142-2Ru, ATX84378-6Ru, ATX91137-1Ru, ATX9202-3Ru, ATX99013-1Ru, TXA549-1Ru, TXNS410, and TXNS551.

TEXAS ADVANCED RUSSET (Colorado seed source) TRIAL

This russet trial consisted of 12 entries, including the check variety Russet Norkotah

Results were as follows: (Springlake Tables 11a, 11b, 11c, 11d, 11e, 11f, and 11g)

- AOTX98152-3Ru, TXA549-1Ru, and AOTX96216-2Ru were the outstanding entries based on general rating and best of trial designations. Russet Norkotah and ATX91137-1Ru also received high general ratings (Tables 11a and 11e).
- Russet Norkotah and TXA549-1Ru had the highest total yield, while AOTX98152-3Ru and Russet Norkotah had the highest yield of marketable tubers (Table 11a).
- AOTX96216-2Ru had the highest yield of over 18 oz. tubers, while AOTX98152-3Ru had the highest yield of less than 4 oz. tubers (Table a).
- ATX97147-4Ru had the highest yield of culls/No. 2 tubers (Table 11a).
- Russet Norkotah had the highest percentage of marketable yield (Table 11b).
- AOTX96216-2Ru had the highest percentage of over 18 oz. tubers, while AOTX95265-4Ru had the highest percentage of less than 4 oz. tubers. ATX97147-4Ru had the highest percentage of culls/No.2 tubers (Table 11b).
- AOTX96216-2Ru had the highest specific gravity (Table 11b).
- AOTX98152-3Ru had the highest average number of tubers per plant (Table 11c).
- All of the entries were early in maturity (Table 11c).
- AOTX96208-1Ru and ATX97147-4Ru showed no Zebra Chip, while ATX9202-3Ru and ATX99013-1Ru had the highest percentage of Zebra Chip (Table 11f).
- Entries scoring highest in anti-oxidant content were AOTX96216-2Ru and ATX99013-1Ru (Table 11g).

Comments on entries:

- AOTX98152-3Ru Oblong Russet, blocky+, Rhizoctonia+, large tubers+, keep, BOT
- Russet Norkotah Long Russet, Rhizoctonia, low yield
- TXA549-1Ru Oblong Russet, blocky, Rhizoctonia, large tubers, BOT
- ATX91137-1Ru Oblong Russet, smooth, blocky, BOT
- ATX9202-3Ru Oblong Russet, blocky, poor shape, rough, deep eyes, high yield, nice flesh, drop+
- ATX99013-1Ru Long Russet, Rhizoctonia, nice flesh, keep+, advance to SWR
- AOTX95265-2ARu Long Russet, rough+, deep eyes, Rhizoctonia, drop
- AOTX98202-1Ru Long Russet, pointed, drop
- AOTX96208-1Ru Long Russet, nice shape, drop
- AOTX96216-2Ru Long Russet, rough, very nice interior, large tubers, ATX84378-6Ru like, parent, Rhizoctonia, BOT-
- ATX97147-4Ru Long Russet, rough, many culls, Rhizoctonia+, too long, drop++
- AOTX95265-4Ru Oblong Russet, small, drop+

Summary:

The outstanding entries in this trial were AOTX98152-3Ru and TXA549-1Ru. Other entries deserving mention were ATX91137-1Ru, ATX99013-1Ru, and AOTX96216-2Ru.

TEXAS ADVANCED RUSSET (Dalhart seed source) TRIAL

This russet trial consisted of 14 entries, including the check varieties Russet Norkotah, Russet Norkotah278, and Russet Norkotah296.

Results were as follows: (Springlake Tables 12a, 12b, 12c, 12d, 12e, 12f, and 12g)

- AOTX95265-3Ru and AOTX98096-1Ru were the outstanding entries based on general rating and best of trial designations. Russet Norkotah296, Russet Norkotah278, ATX05142-2Ru, Stampede Russet, and ATX84378-6Ru also received high general ratings (Tables 12a and 12e).
- Russet Norkotah296 and AOTX95265-3Ru had the highest total and marketable yield (Table 12a).
- ATX84378-6Ru and Russet Norkotah278 had the highest yield of over 18 oz. tubers, while COTX05002-2Ru and AOTX95265-3Ru had the highest yield of less than 4 oz. tubers (Table 12a).
- ATX84378-6Ru had the highest yield of culls/No. 2 tubers (Table 12a).
- Russet Norkotah296 had the highest percentage of marketable yield (Table 12b).
- ATX84378-6Ru had the highest percentage of over 18 oz. tubers, while Russet Norkotah had the highest percentage of less than 4 oz. tubers. ATX84378-6Ru had the highest percentage of culls/No.2 tubers (Table 12b).
- ATX05142-2Ru had the highest specific gravity (Table 12b).
- Russet Norkotah296 had the highest average number of tubers per plant (Table 12c).
- Russet Norkotah278 was the latest in maturity, while Russet Norkotah, ATX99194-3Ru, and AOTX02060-1Ru were the earliest in maturity (Table 12c).
- ATX03068-1Ru showed no Zebra Chip, while ATX05142-2Ru had the highest percentage of Zebra Chip (Table 12f).
- Entries high in anti-oxidant content included ATX0368-1Ru and the Russet Norkotah strains (Table 12g).

Comments on entries:

- Russet Norkotah296 Long Russet
- AOTX95265-3Ru Long Russet, nice, BOT-
- Russet Norkotah278 Long Russet, Rhizoctonia
- TXNS410 Long Russet, nice shape
- AOTX02060-1Ru Oblong Russet, blocky, deep eyes, drop+, keep
- ATX05142-2Ru Oblong Russet, smooth, Stampede Russet like
- Stampede Russet Long Russet, smooth, nice shape and skin

- ATX99194-3Ru Long Russet, poor skin finish, drop
- AOTX98096-1Ru Long Russet, nice shape+, low yield+, BOT
- ATX84378-6Ru Oblong Russet, growth cracks, large tubers, nice white flesh, rough
- COTX05002-2Ru Oblong Russet, w/p flower, mix, rouge p flower, drop+
- TXNS551 Long Russet, nice shape, low yield
- ATX03068-1Ru Oblong Russet, blocky, drop+
- Russet Norkotah Long Russet, nice shape, small

Summary:

The outstanding entries in this trial were Russet Norkotah296 Russet Norkotah278 along with AOTX95265-3Ru.

OUTSTANDING TEXAS ADVANCED REDS, 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced Red Trials had 19 entries at Springlake and 24 at Dalhart. Red LaSoda and Dark Red Norland were the check varieties for both locations. Based on both trials the following entries will be re-evaluated in the 2010 season: AOTX91861-4R, AOTX93483-1R, ATTX01178-1R, ATTX98453-11BR, ATTX98453-6R, ATX03516-2R, ATX03550-2R, BTX2332-1R, COTX00104-7R, COTX05211-5R, COTX05211-7R, COTX94216-1R, NDTX050070-1R, NDTX050169-1R, NDTX050239-2R, NDTX4271-5R, NDTX4784-7R, NDTX4828-2R, NDTX4847-7R, NDTX5438-11R, NDTX731-1R, and Rio Rojo.

TEXAS ADVANCED RED (Colorado seed source) TRIAL

This trial consisted of seven entries, including the check varieties Red LaSoda and Dark Red Norland.

Results were as follows: (Springlake Tables 13a, 13b, 13c, 13d, 13e, 13f, and 13g)

- AOTX93483-1R, AOTX91861-4R, and NDTX5438-11R were the outstanding entries based on general rating (Tables 13a).
- AOTX93483-1R and Red LaSoda had the highest total and marketable yield (Table 13a).

- AOTX93483-1R had the highest yield of over 18 oz. tubers. Dark Red Norland had the highest yield of less than 4 oz tubers. NDTX5438-11R had the highest yield of culls/No.2 tubers (Table 13a).
- AOTX91861-4R had the highest percentage of marketable yield (Table 13b).
- AOTX93483-1R had the highest percentage of over 18 oz. tubers. NDTX5438-11R had the highest percentage of less than 4 oz. tubers (Table 13b).
- AOTX93483-1R and NDTX4828-2R had the highest specific gravity (Table 13b).
- Dark Red Norland had the highest average number of tubers per plant (Table 13c).
- AOTX93483-1R, NDTX7590-3R, and NDTX4828-2R were the latest maturing, while Red LaSoda and Dark Red Norland were the earliest maturing entries (Table 13c).
- NDTX7590-3R showed the most growth cracks (Table 13d).
- AOTX93483-1R, Dark Red Norland, and Red LaSoda had the highest percentage of vascular discoloration (Table 13d).
- AOTX93483-1R, Dark Red Norland, NDTX7590-3R, AOTX91861-4R, and NDTX4828-2R showed no Zebra Chip, while Red LaSoda and NDTX5438-11R had the highest percentage of Zebra Chip (Table 13f).
- Among the entries in this trial, Red LaSoda exhibited the highest anti-oxidant content (Table 13g).

Comments on entries:

- AOTX93483-1R Oblong Red, large tubers, oversize, Rhizoctonia, nice flesh, light set, large tubers
- Red LaSoda Oblong Red, deep eyes, nice white flesh, poor internals
- Dark Red Norland Oblong Red, light skinned, Rhizoctonia, silver scurf, drop
- AOTX91861-4R Oblong Red, yield -, Red LaSoda like, yield+, Advance to SW
- NDTX7590-3R Oblong Red, growth cracks, lenticels, drop
- NDTX5438-11R Round Red, nice, low yield, nice skin finish, silver scurf, nice flesh, Advance to SW
- NDTX4828-2R Round Red, low yield, road map+, zipper eyes, Rhizoctonia+, low yields, silver scurf++, drop++

Summary:

AOTX91861-4R, NDTX5438-11R, and AOTX93483-1R were the notable entries in this trial.

TEXAS ADVANCED RED (Dalhart seed source) TRIAL

This trial consisted of 12 entries, including the check varieties Red LaSoda and Dark Red Norland.

Results were as follows: (Springlake Tables 14a, 14b, 14c, 14d, 14e, 14f, and 14g)

- NDTX5438-11R, NDTX4271-5R, and NDTX4847-7R were the outstanding entries based on general rating and best of trial notations. Red LaSoda and ATX03516-2R also received high general ratings (Tables 14a and 14e).
- NDTX5438-11R and Red LaSoda had the highest total yield. Red LaSoda and ATX03516-2R had the highest marketable yield (Table 14a).
- COTX05211-7R had the highest yield of less than 4 oz tubers (Table 14a).
- Red LaSoda had the highest percentage of marketable yield (Table 14b).
- COTX05211-7R had the highest percentage of less than 4 oz. tubers (Table 14b).
- COTX05211-7R had the highest specific gravity (Table 14b).
- COTX05211-7R had the highest average number of tubers per plant (Table 14c).
- NDTX5438-11R, NDTX050258-2R/Y, and COTX05211-7R were the latest maturing, while NDTX4847-7R, NDTX059827-1R, and NDTX4271-5R were the earliest maturing (Table 14c).
- Red LaSoda and NDTX050258-2R/Y had the deepest eyes (Table 14d).
- Red LaSoda, ATX03516-2R, NDTX731-1R, ATX03550-2R, COTX05211-4R, COTX05211-7R, NDTX059827-1R, and COTX05211-5R showed no Zebra Chip, while NDTX5438-11R, NDTX4271-5R, NDTX050258-2R/Y, and NDTX4847-7R had the highest percentage of Zebra Chip (Table 14f).
- ATX03516-2R was the outstanding entry with regard to anti-oxidant content (Table 14g).

Comments on entries:

- Red LaSoda Round Red, Rhizoctonia
- ATX03516-2R Round Red, nice color & shape, nice, sticky stem

- NDTX5438-11R Round Red, nice, nice flesh, TC, BOT+
- NDTX731-1R Round Red, very nice, nice shape & color, poor skin finish, drop, BOT
- NDTX4271-5R Round Red, very nice, nice flesh, BOT+++
- NDTX050258-2R/Y Round Red, yield+, light skin, rough, deep eyes, drop
- ATX03550-2R Round Red, low yield, nice color+
- COTX05211-4R Oblong Red, low yield, nice shape, nice color, silvers scurf, drop?
- COTX05211-7R Round Red, very low yield, small, b size, heavy set
- NDTX4847-7R Round Red, low yield+, nice, BOT
- NDTX059827-1R Round Red, small, very nice, uniform shape, drop
- COTX05211-5R Round Red, low yield, yield+, poor shape, lenticels, drop?

Summary:

ATX03516-2R, NDTX5438-11R, NDTX731-1R, and NDTX4271-5R were the outstanding entries included. COTX05211-7R may be a candidate as a small potato.

OUTSTANDING TEXAS ADVANCED RED SKIN YELLOW FLESH SELECTIONS, 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced Red Skin Yellow Flesh Trials included 13 entries at Springlake and 24 at Dalhart. Based on both trials, the following entries will be tested again in 2009: ATTX00289-5R/Y, ATTX961014-1BR/Y, ATTX961014-1R/Y, ATTX98500-2P/Y, ATTX99325-1P, ATX03515-1R/Y, ATX03546-2R/Y, ATX98448-6R/Y, COTX04188-3R/Y, COTX04193-2R/Y, COTX04267-1R/Y, COTX05261-1R/Y, and NDTX050184-1R/Y.

TEXAS ADVANCED RED SKIN YELLOW FLESH (Colorado seed source) TRIAL

This trial consisted of four entries.

Results were as follows: (Springlake Tables 15a, 15b, 15c, 15d, 15e, 15f, and 15g)

- ATTX00289-5R/Y, ATTX961014-1R/Y, and ATX98448-6R/Y received the highest general ratings (Tables 15a and 15e).
- ATTX00289-5R/Y and ATX98448-6R/Y had the highest total and marketable yield (Table 15a)
- ATTX961014-1R/Y had the highest yield of less than 4 oz. tubers (Table 15a).
- ATX98448-6R/Y had the highest percentage of marketable yield. ATTX961014-1R/Y had the highest percentage of less than 4 oz. tubers (Table 15b).
- ATTX98500-2P/Y had the highest average number of tubers per plant (Table 15c).
- ATTX98500-2P/Y was the latest maturing entry, while ATTX961014-1R/Y was the earliest (Table 15c).
- ATTX961014-1R/Y had the darkest yellow flesh (Table 15d).
- ATTX961014-1R/Y and ATTX00289-5R/Y had the highest percentage of Zebra Chip (Table 15f).
- ATTX961014-1R/Y appeared to be the outstanding entry with regard to anti-oxidant content (Table 15g).

Comments on entries:

- ATTX00289-5R/Y Oblong Red, very light red++, heat sprouts, nice shape & yield, light skin, smooth, Advance to SW
- ATX98448-6R/Y Oblong Red, yield+, light red skin++, eye tubers, light skin, advance to SW
- ATTX98500-2P/Y Round Purple, late++, nice yield, heavy yield
- ATTX961014-1R/Y Round Red, nice yield, smaller tubers, Rhizoctonia+, silver scurf, roadmap, heat sprouts, BOT-

Summary:

ATTX961014-1R/Y was the outstanding entry for this trial. ATX98448-6R/Y and ATTX00289-5R/Y deserve mention.

TEXAS ADVANCED RED SKIN YELLOW FLESH (Dalhart seed source) TRIAL

This trial consisted of nine entries.

Results were as follows: (Springlake Tables 16a, 16b, 16c, 16d, 16e, 16f, and 16g)

- ATTX961014-1R/Y, ATX03515-1R/Y, and COTX04193-2R/Y received the highest general ratings and best of trial designations (Tables 16a and 16e).
- ATTX961014-1R/Y and COTX04267-1R/Y had the highest total and marketable yield (Table 16a)
- ATX05178-2P had the highest yield of less than 4 oz. tubers (Table 16a).
- ATTX99325-1P had the highest percentage of marketable yield. ATX05178-2P had the highest percentage of less than 4 oz. tubers (Table 16b).
- COTX05037-5P/Y and ATX05178-2P had the highest average number of tubers per plant (Table 16c).
- COTX05037-5P/Y and ATX05178-2P were the latest maturing entries. ATTX99325-1P and ATX03515-1R/Y were the earliest maturing entries (Table 16c).
- COTX04193-2R/Y and COTX04188-3R/Y had the darkest yellow flesh (Table 16d).
- ATX03515-1R/Y and ATTX99325-1P showed no Zebra Chip. ATTX961014-1R/Y, COTX05037-5P/Y, and COTX05261-1R/Y had the highest percentage of Zebra Chip (Table 16f).
- The entry with the highest anti-oxidant content was COTX05261-1R/Y (Table 16g).

Comments on entries:

- ATTX961014-1R/Y Oblong Red, heat sprouts, BOT
- COTX04267-1R/Y Round Red, small, light skin, keep
- ATX03515-1R/Y Round Red, low yield+, light skin, smooth, BOT
- COTX04193-2R/Y Round Red, nice color, nice, dark red skin, dark yellow flesh, BOT
- COTX05037-5P/Y Round Purple, late++, nice color, drop+
- COTX05261-1R/Y Round Red, nice+, yield+, pear shape, pointed, rot, lenticels, drop++
- ATX05178-2P Oblong Purple, nice color+, sticky stolon, rough, drop++
- ATTX99325-1P Oblong Purple, nice color, low yield, pretty purple skin , drop, keep

- COTX04188-3R/Y Round Red, low yield+, small potatoes, heavy set, silver scurf, sticky stolon, drop++

Summary:

ATX03515-1R/Y was the outstanding entries for this trial. ATX03515-1R/Y and COTX04193-2R/Y also show promise.

OUTSTANDING TEXAS ADVANCED WHITE SKIN YELLOW FLESH SELECTIONS, 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced White Skin Yellow Flesh Trials included 15 entries at Springlake and 20 at Dalhart. Yukon Gold was the check variety for both locations. Based on both trials, the following entries will be tested again in 2009: ATTX00289-6Y/Y, ATX03496-3Y/Y, ATX03546-1W/Y, ATX03546-1W/Y-P, BTX1749-1W/Y, COTX04178-1Y/Y, King Harry, NDTX049265-2WRSP/Y, NDTX050025-1W/Y, NDTX050169-2W/Y, NDTX059759-3Pinto/Y, NDTX059759-3Pinto/Y-P, Sierra Gold, and TX1523-1Ru/Y.

TEXAS ADVANCED WHITE SKIN/YELLOW FLESH (Colorado seed source) TRIAL

This specialty trial consisted of two entries, including the check variety Yukon Gold.

Results were as follows: (Springlake Tables 17a, 17b, 17c, 17d, 17e, and 17f)

- The entry receiving the highest general ratings and best of trial designations was Yukon Gold (Tables 17a and 17e).
- ATTX00289-6Y/Y had the highest total and marketable yield (Table 17a)
- ATTX00289-6Y/Y had the highest yield of less than 4 oz. tubers (Table 17a).
- Both entries had similar percentages of marketable yield and less than 4 oz. tubers (Table 17b).
- Yukon Gold had the highest specific gravity (Table 17b).
- ATTX00289-6Y/Y had more tubers per plant (Table 17c).
- Yukon Gold was earlier than ATTX00289-6Y/Y (Table 17c).
- Yukon Gold had the darker yellow flesh (Table 17d).

- Yukon Gold had 18% Zebra Chip. ATTX00289-6Y/Y had 8% Zebra Chip (Table 17f).

Comments on entries:

- ATTX00289-6Y/Y Round White, very light flesh, poor skin color+, heat sprouts, drop+
- Yukon Gold Oblong White, small, rough, BOT

Summary:

ATTX00289-6Y/Y did not perform as well as Yukon Gold.

TEXAS ADVANCED WHITE SKIN/YELLOW FLESH (Dalhart seed source) TRIAL

This specialty trial consisted of 13 entries, including the check variety Yukon Gold.

Results were as follows: (Springlake Tables 18a, 18b, 18c, 18d, 18e, and 18f)

- The entry receiving the highest general ratings and best of trial designations was TX1523-1Ru/Y. BTX1749-1W/Y, Yukon Gold, NDTX059759-3Pinto/Y-P, and NDTX059759-3Pinto/Y had high general ratings (Tables 18a and 18e).
- NDTX050169-2W/Y and NDTX049265-2WRSP/Y had the highest total yield. BTX1749-1W/Y and Yukon Gold had the highest marketable yield (Table 18a)
- NDTX050169-2W/Y, ATX05202-3W/Y, and COTX04178-1Y/Y had the highest yield of less than 4 oz. tubers (Table 18a).
- Yukon Gold and TX1523-1Ru/Y had the highest percentage of marketable yield. ATX03546-1W/Y-P had the highest percentage of less than 4 oz. tubers (Table 18b).
- TX1523-1Ru/Y had the highest specific gravity (Table 18b).
- NDTX050169-2W/Y had the highest average number of tubers per plant (Table 18c).
- NDTX050169-2W/Y, NDTX059759-3Pinto/Y-P, ATX05202-3W/Y, and NDTX059759-3Pinto/Y were the latest in maturity. Yukon Gold, ATX03496-3Y/Y, and ATX03546-1W/Y were the earliest in maturity (Table 18c).
- ATX03546-1W/Y and ATX03546-1W/Y-P had the darkest yellow flesh (Table 18d).
- BTX1749-1W/Y, NDTX059759-3Pinto/Y-P, and NDTX059759-3Pinto/Y showed no Zebra Chip. TX1523-1Ru/Y, ATX05202-3W/Y, ATX03546-1W/Y, and ATX03546-1W/Y-P had the highest percentage of Zebra Chip (Table 18f).

- The entry exhibiting the highest anti-oxidant content ATX03546-1W/Y-P (Table 18g).

Comments on entries:

- BTX1749-1W/Y Oblong White
- Yukon Gold Oblong White, large tubers
- NDTX050169-2W/Y Oblong White, very light flesh, keep
- TX1523-1Ru/Y Oblong Russet, heat sprouts, some rot, BOT
- NDTX049265-2WRSP/Y Oblong White Red Splash, keep, drop?
- NDTX059759-3Pinto/Y-P Oblong Pinto, flat, some purple streaks, did not oversize , Advance to SW/WR
- TX04237-6Y/Y Oblong Yellow, flat, nice flesh
- ATX05202-3W/Y Round White, drop
- NDTX059759-3Pinto/Y Oblong Pinto, purple streaks, rough
- COTX04178-1Y/Y Oblong Yellow, some pear shaped, drop?
- ATX03496-3Y/Y Oblong Yellow, small, pronounced lenticels, keep
- ATX03546-1W/Y Round White, nice skin finish
- ATX03546-1W/Y-P Round White, nice skin finish, salad,

Summary:

TX1523-1Ru/Y was the outstanding entry for this trial. BTX1749-1W/Y, NDTX059759-3Pinto/Y, NDTX059759-3Pinto/Y-P, COTX04178-1Y/Y, ATX03546-1W/Y, and ATX03496-3Y/Y deserve mention.

OUTSTANDING TEXAS ADVANCED SMALL POTATO SELECTIONS, 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced Small Potato Trials included eight entries at Springlake and 13 at Dalhart. Based on both trials, the following entries will be tested again in 2009: ATTX98444-16R/Y, ATX02263-1R/Y, ATX03546-1W/Y-P, ATX05202-3W/Y, COTX04050-1P/P, COTX04050-1P/P, COTX05037-4Y/Y, COTX05249-3W/Y, NDTX050065-1R/Y, and NDTX059886-1Y/Y.

TEXAS ADVANCED SMALL POTATO TRIAL

This trial consisted of eight entries.

Results were as follows: (Springlake Tables 19a, 19b, 19c, 19d, 19e, 19f, and 19g)

- The entries receiving the highest general ratings and best of trial designations were COTX05037-4Y/Y and ATTX98444-16R/Y (Tables 19a and 19e).
- COTX05249-3W/Y and NDTX059886-1Y/Y had the highest total and marketable yield (Table 19a)
- COTX05037-4Y/Y and COTX05249-3W/Y had the highest yield of less than 4 oz. tubers (Table 19a).
- COTX05249-3W/Y and NDTX4756-R/Y had the highest percentage of marketable yield. COTX05037-4Y/Y, COTX04303-1R/Y, and ATTX98444-16R/Y had the highest percentage of less than 4 oz. tubers (Table 19b).
- ATX02263-1R/Y had the highest specific gravity (Table 19b).
- COTX05037-4Y/Y and COTX05249-3W/Y had the highest average number of tubers per plant (Table 19c).
- COTX05037-4Y/Y, COTX04050-1P/P, NDTX059886-1Y/Y, and COTX04303-1R/Y were the latest maturing entries, while ATTX98444-16R/Y and ATX02263-1R/Y were the earliest maturing entries (Table 19c).
- COTX05037-4Y/Y had the darkest yellow flesh. NDTX4756-R/Y had the highest percentage of hollow heart (Table 19d).
- COTX04303-1R/Y had no Zebra chip. COTX05249-3W/Y and NDTX059886-1Y/Y had the highest percentage of Zebra Chip (Table 19f).
- Entries exhibiting high anti-oxidant content were COTX04050-1P/P, COTX05249-3W/Y, and NDTX059886-1Y/Y (Table 19g).

Comments on entries:

- COTX05037-4Y/Y Round Yellow, BOT+
- COTX05249-3W/Y Round White, nice, chip??, poor internals

- COTX04050-1P/P Round Purple
- NDTX059886-1Y/Y Oblong Yellow, nice, low yield, too large
- COTX04303-1R/Y Round Red, low yield, too large, many large tubers, hollow heart, poor skin finish, silver scurf, drop+
- ATTX98444-16R/Y Oblong Red, nice size & shape, silver scurf, nice skin finish, BOT
- NDTX4756-R/Y Round Red, big, silver scurf, hollow heart++ , drop
- ATX02263-1R/Y Oblong Red, too big

Summary:

The outstanding entries for this trial were COTX05037-4Y/Y and ATTX98444-16R/Y.

OUTSTANDING TEXAS ADVANCED FINGERLING SELECTIONS, 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced Fingerling Trials included six entries at Springlake and Dalhart. Based on both trials, the following entries will be tested again in 2009: Banana, Purple Peruvian, COTX03187-1W, COTX05082-2P/P, PORTX03PG25-2R/R, PTTX05PG07-1W.

TEXAS ADVANCED FINGERLING TRIAL

This specialty trial consisted of six entries with Banana and Purple Peruvian.

Results were as follows: (Springlake Tables 20a, 20b, 20c, 20d, 20e, 20f, and 20g)

- The entries receiving the highest general ratings were COTX03187-1W and CO00415-1R (Tables 20a and 20e).
- COTX03187-1W and CO00405-1R had the highest total and marketable yield (Table 20a)
- Purple Peruvian had the highest yield of less than 1 inch long tubers Banana had the highest yield of culls/No. 2 tubers (Table 20a).
- COTX03187-1W, CO00405-1R, CO00415-1R, and Purple Peruvian had over 91 percent of marketable yield. Purple Peruvian had the highest percentage of less than 1 inch long tubers. Banana had the highest percentage of culls/No.2 tubers (Table 20b).
- COTX03187-1W had the highest specific gravity (Table 20b).

- Purple Peruvian, Banana, and COTX03187-1W had the highest average number of tubers per plant (Table 20c).
- COTX03187-1W, Banana, and Purple Peruvian were the latest maturing entries, while CO00405-1R and PTTX05PG07-1W were the earliest maturing entries (Table 20c).
- COTX03187-1W, CO00415-1R, Banana, and Purple Peruvian showed no Zebra Chip. CO00405-1R had 10% Zebra Chip (Table 20f).
- Purple Peruvian was clearly the highest anti-oxidant entry (Table 20g).

Comments on entries:

- COTX03187-1W Long White, second growth, smooth, very white flesh, lenticels, can oversize
- CO00405-1R Long Red, second growth, pointed
- CO00415-1R Long Red, second growth, nice, nice flesh, good skin finish, silver scurf, can oversize, BOT
- Banana Long White, crooked, rough, second growth, heavy set, lenticels, curved, poor shape, heat sprouts, Rhizoctonia,
- Purple Peruvian Long Purple, deep eyes+, white and purple flesh, drop
- PTTX05PG07-1W Long White, low yield+, nice shape

Summary:

The outstanding entries for this trial were COTX03187-1W and CO00415-1R.

CHIP TRIAL

The objectives of these trials were twofold. First, to identify potential new varieties which combine high yield and chip quality and second, to identify varieties which exhibit potential tolerance/resistance to Zebra Chip.

WESTERN REGIONAL CHIP TRIAL

This trial consisted of five entries, including Atlantic and Chipeta as check varieties. Results were as follows: (Springlake Tables 21a, 21b, 21c, 21d, 21e, and 21f)

- Atlantic had a high general rating and a best of trial designation for tuber appearance. CO00188-4W received of best of trial designation for tuber appearance. CO00197-3W and CO00270-7W had high general ratings. (Tables 21a and 21f).
- Atlantic and CO00197-3W had the highest total yield and marketable yield (Table 21a).
- Atlantic and Chipeta had the highest yield of over 3-inch tubers (Table 21a).
- Atlantic had the highest specific gravity (Table 21b).
- CO00188-4W had the highest average number of tubers per plant (Table 21c).
- Chipeta and CO00197-3W were the latest maturing entries, while CO00188-4W was the earliest maturing (Table 21c).
- Atlantic had 15% hollow heart and 28% internal brownspot (Table 21d).
- All of the entries had more than 5% Zebra Chip. CO00197-3W had the highest percent (19%) of Zebra Chip (Tables 21f).
- CO00188-4W was clearly the highest anti-oxidant entry (Table 21g).

Comments on entries:

- Atlantic Round Buff, poor internals, buff, BOT ¹CR= 1+
- CO00197-3W Oblong White, irregular shape, flat, drop CR=2
- Chipeta Oblong White, rough, oblong, stolon attachment, drop CR=1
- CO00270-7W Round White, Rhizoctonia, large CR= 1
- CO00188-4W Round White, Rhizoctonia, small+, nice, drop, BOT-CR=1

¹CR=chip color rating 1=light to 3= dark

Summary:

The top performing entry was CO00188-4W.

SNACK FOOD ASSOCIATION CHIP TRIAL

The trial consisted of 10 entries, including the check varieties Atlantic and Chipeta.

Results were as follows: (Springlake Tables 22a, 22b, 22c, 22d, 22e, and 22f)

- The outstanding entry for this trial based on general ratings and best of trial designations for tuber appearance was Atlantic. NY138, NY139, and MSJ126-9Y also had high general ratings. NY138 received a best of trial designation for chip appearance (Table 22a, 22e and 22f).
- NY138 and Atlantic had the highest total and marketable yield (Table 22a).
- NY138 and Atlantic had the highest yield of 1 to 3-inch tubers, while Atlantic and Chipeta had the highest yield of over 3-inch tubers (Table 22a).
- Chipeta had the highest percentage of over 3 inch tubers (Table 22b).
- Atlantic had the highest specific gravity (Table 22b).
- Kalkaska had the highest average number of tubers per plant (Table 22c).
- Chipeta, NY138, NY139, and AF2291-10 were the latest maturing entries, while CO97065-7W and CO96141-4W were the earliest maturing entries (Table 22c).
- Atlantic had the highest percent hollow heart (15%) and internal brownspot (28%) (Table 22d).
- NY138 and CO96141-4W had no Zebra Chip. CO97065-7W had 40% Zebra Chip (Table 22f).
- Chipeta was clearly the highest anti-oxidant entry (Table 22g).

Comments on entries:

- Atlantic Round Buff, poor internals, buff, BOT ¹CR=1+
- NY138 Round White, nice++ CR=1
- Chipeta Oblong White, rough, oblong, stolon attachment, drop CR=2
- CO96141-4W Round White, high yield, nice+ CR=1
- AF2291-10 Round White, sticky stolon, rough+, drop CR=1
- CO97065-7W Round White, bad rep CR=1
- CO97043-14W Round White, rough+, poor internals, small+, Rhizoctonia, flat CR=1
- MSJ126-9Y Round White, yellow flesh 3, Atlantic like skin, buff, nice flesh CR=1+

- Kalkaska Round White, buff, Rhizoctonia+, small, drop CR=1
- NY139 Oblong White, rough, small, yield + CR=1+

¹CR=chip color rating 1=light to 3= dark

Summary:

Based on chip appearance and quality NY138 was the outstanding entry.

OUTSTANDING TEXAS ADVANCED CHIP SELECTIONS 2009

Overall Summary - Springlake and Dalhart: The Texas Advanced Chip Selection Trial at Springlake included 18 entries and 31 in Dalhart. Atlantic and Chipeta were the check varieties at both locations. Based on both trials, the following entries will be reevaluated in 2010: AOTX95295-1W, AOTX95309-3W, ATTX98466-5R/W-R, ATX85404-8W, COTX02377-1W, COTX03270-1W, NDTX059632-1W, NDTX059828-2W, NDTX059979-1W, NDTX059997-2W, NDTX059997-6W, NDTX059997-7W, TX03196-1W, TX05249-10W, TX05249-5W, and TX1673-1W.

TEXAS ADVANCED CHIP TRIAL

The trial consisted of 19 entries, including the check varieties Atlantic and Chipeta. The seed was from Oregon, and Dalhart.

Results were as follows: (Springlake Tables 23a, 23b, 23c, 23d, 23e, and 23f)

- The outstanding entries for this trial based on general rating and best of trial designations were Atlantic, ATX85404-8W, TX1673-1W, AOTX95295-1W, COTX02377-1W, TX05249-8W, and TX05249-10W. When chip characteristics are considered, the outstanding entries were ATX85404-8W, AOTX95295-1W, COTX02377-1W, TX05349-10W, COTX03270-1W, AOTX95309-3W and TX03196-1W. Of these, AOTX95295-1W and TX03196-1W showed no Zebra Chip (23a, 23e and 23f).
- NDTX059897-1Y/Y and Atlantic had the highest total and marketable yield (Table 23a).
- Chipeta and Atlantic had the highest yield of over 3-inch tubers (Table 23a).
- TX05249-10W had greater than 50% of over 3-inch tubers (Table 23b).

- Atlantic and ATX03409-6W/Y had the highest specific gravity (Table 23b).
- NDTX059897-1Y/Y had the highest average number of tubers per plant (Table 23c).
- ATX85404-8W, King Harry, AOTX95295-1W, Chipeta, TX05249-12W, TX05249-11W were the latest maturing entries, while TX03196-1W, COTX03270-1W, and NDTX059828-2W were the earliest maturing entries (Table 23c).
- NDTX059897-1Y/Y and King Harry had the deepest eyes. Atlantic, TX05249-8W and TX05249-10W had the highest percentage hollow heart. Atlantic had the highest percentage of internal brownspot (Table 23d).
- TX1673-1W and Chipeta had the highest levels of antioxidants (Table 23g).

Comments on entries:

- NDTX059897-1Y/Y Round Yellow, yellow flesh 2.5, poor shape, deep eyes, drop+, rough, buff, alligator hide, ¹CR= 1+
- Atlantic Round Buff, poor internals, buff, BOT CR=2
- Chipeta Oblong White, rough, oblong, stolon attachment, drop CR= 2+
- ATX85404-8W Round White, very nice flesh, large tubers, yield+, oblong CR=1
- TX1673-1W Round White, yield+, flat, smooth, BOT CR= 2
- AOTX95295-1W Round White, very nice, nice internals, small, Rhizoctonia, BOT- CR=1
- COTX02377-1W Oblong White, Rhizoctonia, rough, large, BOT- CR=1+
- King Harry Round White, very rough++, deep eyes, poor shape, drop+ CR=2+
- TX05254-2W Oblong White, small CR=1+
- TX05249-8W Oblong White, CR=1
- ATX03409-6W/Y Round White, buff skin, nice shape, small, drop CR=1+
- TX05249-10W Round White, size parent, can oversize, drop CR=1
- TX03196-1W Oblong White, small+, salad?, drop CR=1
- COTX03270-1W Oblong White, some pear shape, poor internals, 10%PRV, pointed, small, drop+++ CR=1
- AOTX95309-3W Oblong White, rough, flat, drop CR=1+

- NDTX059828-2W Round White, pink skin+, growth cracks, drop, salad, Rhizoctonia, small, rot CR=1
- NDTX059632-1W Round White, poor shape drop, small, rot CR=2
- TX05249-11W Round White, small, drop CR=2+
- TX05249-12W Round White, drop CR=3

¹CR=chip color rating 1=light to 3= dark

Summary:

Based on all factors the outstanding entry was AOTX95295-1W. When tuber characteristics and chip quality are combined, ATX85404-8W, AOTX95295-1W, COTX02377-1W, TX05249-10W, and AOTX95309-3W were the outstanding entries.

YUKON GOLD STRAIN TRIAL G3 SEED

The Yukon Gold strain trial consisted of eight entries of G3 seed produced in Dalhart, including the check variety Yukon Gold.

Results from the trial were as follows: (Springlake Tables 24a, 24b, 24c, 24d, and 24e)

- All of the entries had high general ratings (Table 24a).
- TXYG107(G3) and TXYG079(G3) had the highest total yield and highest marketable yield. TXYG105(G3) and TXYG79(G3) had the highest yield of less than 4 oz. tubers (Table 24a).
- Yukon Gold had the highest percentage of marketable yield. TXYG105(G3) and TXYG079(G3) had the highest percentage of less than 4 oz. tubers (Table 24b).
- TXYG105(G3) and TXYG055(G3) had the highest specific gravity (Table 24b).
- TXYG079(G3) and TXYG105(G3) had the highest average tubers per plant (Table 24c).
- All of the strains had similar flesh color ratings to Yukon Gold (Table 24d).
- TXYG055(G3) had high percentage of hollow heart. TXYG079(G3) had the highest percentage of internal brownspot (Table 24d).

- Yukon Gold and TXYG055(G3) had the highest percentage of fresh cut evaluation of Zebra Chip. TXYG105(G3) had no Zebra Chip.

Comments on entries:

- TXYG107(G3) Round White, larger, Rhizoctonia
- TXYG079(G3) Round White, smaller
- TXYG055(G3) Round White, larger tubers, smaller
- TXYG057(G3) Oblong White, Rhizoctonia
- TXYG105(G3) Round White, Rhizoctonia++
- TXYG098(G3) Round White
- Yukon Gold Round White, small, rough, bad rep, BOT
- ZSC(G3) Round White, larger+, small

Summary:

All of the Yukon Gold Strains yielded more than the standard Yukon Gold.

YUKON GOLD STRAIN TRIAL TX SEED

The Yukon Gold strain trial consisted of nine entries of TX seed produced in Dalhart, including the check variety Yukon Gold.

Results from the trial were as follows: (Springlake Tables 24a, 24b, 24c, 24d, and 24e)

- All of the entries had high general ratings (Table 24a).
- TXYG055(TX) and TXYG098(TX) had the highest total yield and highest marketable yield. ZSC(TX) and TXYG105(TX) had the highest yield of less than 4 oz. tubers (Table 24a).
- Yukon Gold had the highest percentage of marketable yield. ZSC(TX) and TXYG105(TX) had the highest percentage of less than 4 oz. tubers (Table 24b).
- TXYG057(TX) and TXYG17(TX) had the highest specific gravity (Table 24b).
- TXYG057(TX), ZSC(TX), and TXYG105(TX) had the highest average tubers per plant (Table 24c).

- All of the strains had similar flesh color ratings to Yukon Gold (Table 24d).
- TXYG079(TX) had high percentage of hollow heart. TXYG105(TX) had the highest percentage of internal brownspot (Table 24d).
- Yukon Gold, TXYG105(TX), and TXYG055(TX) had the highest percentage of fresh cut evaluation of Zebra Chip. TXYG098(TX), TXYG057(TX), and ZSC(TX) had no Zebra Chip.

Comments on entries:

- TXYG055(TX) Round White, round
- TXYG098(TX) Round White, dumbbell, larger
- TXYG057(TX) Round White, smaller, buff skin
- TXYG079(TX) Round White, smaller, hollow heart
- TXYG105(TX) Round White, small
- ZSC(TX) Round White, more round, rot
- TXYG107(TX) Round White, round, small, dumbbell
- Yukon Gold Round White, small, rough, bad rep, BOT
- Yukon Gold(TX) Round White, small, hollow heart

Summary:

All of the Yukon Gold Strains yielded more than the standard Yukon Gold.

Springlake
Table 1a.Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 19 entries in the
Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
Russet Norkotah	448.9	386.2	178.0	134.5	73.6	4.1	49.1	9.5	3.8
PA99N82-4	442.5	348.1	111.5	145.4	91.3	11.2	70.7	12.4	2.9
CO97087-2RU	423.3	320.8	140.0	133.4	47.4	2.4	91.4	8.6	2.9
AO96305-3	394.3	318.4	150.7	125.8	41.8	0.0	73.6	2.2	3.1
A96814-65LB	432.3	316.0	172.2	90.6	53.2	0.0	112.4	4.0	2.8
A98345-1	432.8	307.2	124.0	132.8	50.5	17.1	79.5	29.0	2.7
Ranger Russet	404.3	295.0	126.3	90.6	78.1	3.8	72.1	33.4	3.0
CO98368-2RU	373.0	291.8	165.9	93.6	32.3	0.0	77.2	4.0	3.4
AO96365-2	424.0	286.3	180.8	80.2	25.2	2.1	125.8	9.9	2.7
CO99053-4RU	346.2	253.5	116.6	86.4	50.5	4.7	68.0	20.1	2.9
CO99053-3RU	383.2	251.9	78.0	97.8	76.1	16.8	60.3	54.3	3.5
CO99100-1RU	278.1	229.4	94.6	94.9	39.9	2.1	44.6	2.1	3.6
CO98067-7RU	297.2	217.6	84.1	94.3	39.2	2.2	73.1	4.3	2.6
PA99N2-1	309.5	215.5	100.9	94.0	20.5	0.0	94.0	0.0	2.4
A97066-42LB	335.0	214.0	119.1	72.1	22.8	0.0	86.6	34.4	2.5
PA00N14-2	298.4	205.7	133.1	59.8	12.8	0.0	89.4	3.3	3.2
AC99375-1RU	309.9	203.0	102.1	67.5	33.4	2.2	94.3	10.4	2.5
Russet Burbank	446.7	195.3	89.2	72.6	33.5	4.1	33.9	213.3	1.9
A0008-1TE	219.9	170.4	76.9	79.5	14.0	2.1	45.8	1.6	3.1
Average	368.4	264.5	123.4	97.1	44.0	3.9	75.9	24.0	2.9
L.S.D. (.05)	67.3	56.8	33.4	36.9	32.5	10.2	27.9	37.8	0.6

¹ 1=very poor to 5= excellent

Springlake
Table 1b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 19 entries in the Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Russet Norkotah	86.8	40.3	29.9	16.6	0.9	10.3	2.1	1.065	14.1	Long	Russet
PA99N82-4	78.4	25.7	32.8	19.9	2.4	16.3	3.0	1.075	15.8	Oblong	Russet
CO97087-2RU	75.5	33.2	31.2	11.1	0.6	21.8	2.1	1.077	16.2	Long	Russet
AO96305-3	81.0	38.7	31.7	10.5	0.0	18.4	0.6	1.076	16.1	Long	Russet
A96814-65LB	73.0	40.0	21.0	12.1	0.0	26.1	0.9	1.084	17.6	Long	Russet
A98345-1	71.1	28.7	30.8	11.6	4.1	18.4	6.4	1.058	12.9	Oblong	Russet
Ranger Russet	73.6	31.0	22.6	20.0	0.8	18.0	7.6	1.074	15.8	Long	Russet
CO98368-2RU	78.0	44.5	24.9	8.6	0.0	21.1	0.9	1.070	15.0	Long	Russet
AO96365-2	67.4	42.4	19.2	5.8	0.4	29.9	2.3	1.072	15.4	Oblong	Russet
CO99053-4RU	73.2	33.6	25.0	14.6	1.3	19.6	5.8	1.069	14.8	Oblong	Russet
CO99053-3RU	65.5	20.2	25.5	19.8	4.1	16.1	14.2	1.068	14.7	Long	Russet
CO99100-1RU	83.0	34.2	34.4	14.3	0.6	15.7	0.7	1.068	14.6	Oblong	Russet
CO98067-7RU	72.6	27.5	32.1	13.0	0.8	25.0	1.6	1.059	13.0	Oblong	Russet
PA99N2-1	69.6	32.6	30.4	6.5	0.0	30.4	0.0	1.071	15.1	Oblong	Russet
A97066-42LB	64.6	35.8	21.9	6.9	0.0	25.7	9.7	1.087	18.0	Oblong	Russet
PA00N14-2	69.6	45.5	19.8	4.4	0.0	29.3	1.1	1.078	16.5	Oblong	Russet
AC99375-1RU	65.4	32.5	21.9	11.0	0.6	30.4	3.7	1.076	16.0	Oblong	Russet
Russet Burbank	43.9	20.0	16.3	7.5	0.9	7.6	47.6	1.069	14.9	Long	Russet
A0008-1TE	78.0	36.9	36.1	5.0	0.7	20.9	0.5	1.077	16.2	Oblong	Russet
Average	72.1	33.9	26.7	11.5	1.0	21.1	5.8	1.072	15.4		
L.S.D. (.05)	9.5	8.4	8.5	7.9	2.5	6.4	8.5	0.010	2.2		

Springlake
Table 1c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 19 entries in the Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Russet Norkotah	6.6	5.7	2.4	96	98	1.7	3.7	1.8	3.6	96
PA99N82-4	4.9	7.9	2.8	85	96	2.2	4.0	2.9	4.0	98
CO97087-2RU	6.6	5.5	3.0	94	96	2.1	4.1	3.2	4.1	68
AO96305-3	6.0	5.5	2.4	92	98	2.2	3.8	2.3	3.7	89
A96814-65LB	6.8	5.3	2.0	97	98	1.8	4.1	4.3	4.2	29
A98345-1	6.1	5.7	2.2	99	99	2.0	4.2	4.2	4.2	28
Ranger Russet	5.5	6.0	1.7	94	95	1.5	3.8	3.7	3.6	64
CO98368-2RU	6.0	5.2	3.1	91	97	2.7	3.9	2.6	3.9	79
AO96365-2	7.2	4.8	1.5	100	100	1.7	4.0	4.4	3.8	23
CO99053-4RU	5.3	5.3	2.2	83	96	2.3	3.6	2.8	3.7	75
CO99053-3RU	4.9	5.7	2.7	94	100	1.6	3.7	4.3	3.6	19
CO99100-1RU	3.7	6.5	2.4	89	95	2.8	3.8	1.5	3.7	100
CO98067-7RU	4.3	5.8	2.9	98	98	1.9	3.8	1.8	3.9	94
PA99N2-1	5.6	5.0	2.6	79	92	2.0	4.0	4.1	4.0	39
A97066-42LB	5.3	5.2	1.5	86	95	1.7	3.8	4.0	3.6	38
PA00N14-2	5.2	4.8	3.0	96	98	1.6	3.8	1.5	3.7	100
AC99375-1RU	5.7	4.6	2.5	81	97	2.2	4.1	4.2	4.1	35
Russet Burbank	3.6	6.3	1.8	96	98	1.5	3.7	2.9	3.7	74
A0008-1TE	3.4	5.8	2.2	90	96	1.6	3.5	1.5	3.4	100
Average	5.4	5.6	2.4	92	97	2.0	3.9	3.0	3.8	65
L.S.D. (.05)	1.2	1.0	0.5	10	ns	0.6	0.3	0.6	0.3	20

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 1d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 19 entries in the Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Russet Norkotah	1.5	4.0	4.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PA99N82-4	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO97087-2RU	1.0	4.0	4.0	3.9	3.8	5.0	5.0	5.0	5.0	5.0	0	0	3	0
AO96305-3	1.0	4.7	3.5	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	5	0	0
A96814-65LB	1.0	4.0	3.8	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
A98345-1	1.0	3.7	3.5	3.7	3.8	5.0	5.0	5.0	5.0	5.0	0	0	5	0
Ranger Russet	1.0	4.5	4.5	3.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO98368-2RU	1.0	4.0	4.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AO96365-2	1.0	3.5	4.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	15	0
CO99053-4RU	1.0	4.0	4.0	4.3	3.6	5.0	5.0	5.0	5.0	5.0	0	0	3	0
CO99053-3RU	1.0	4.5	4.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
CO99100-1RU	1.0	3.7	3.6	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO98067-7RU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PA99N2-1	1.0	3.4	4.0	4.4	3.9	5.0	5.0	5.0	5.0	5.0	5	0	5	0
A97066-42LB	1.0	3.4	3.5	4.1	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PA00N14-2	1.0	4.1	3.8	4.1	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AC99375-1RU	1.0	3.5	4.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Burbank	1.0	4.5	4.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A0008-1TE	1.0	3.7	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.9	3.9	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	2	0
L.S.D. (.05)		0.2	0.04	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 1e. Notes and general rating for all reps of 19 entries in the Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
Russet Norkotah	bad rep, , Rhizoctonia, low yield, bad rep,	3.7, 4.2, 3.5, 3.8
PA99N82-4	, Rhizoctonia+, blocky++, drop++	3, 2.5, 3.5, 2.5
CO97087-2RU	nice flesh, , rough++, nice interior	2.5, 3, 3.2, 2.8
AO96305-3	, uneven net, drop for appearance, long skinny, nice flesh, rot,	3, 3.2, 3, 3
A96814-65LB	, course Russ, drop+, blocky, heat sprouts, ,	2.8, 2.8, 3, 2.5
A98345-1	, drop+, heat sprouts+, blocky, ,	2.7, 2.5, 3, 2.7
Ranger Russet	drop, , sticky stolon,	2.5, 3.3, 3, 3
CO98368-2RU	, , BOT, bad rep, pointed	3, 4, 4.5, 2
AO96365-2	, blocky, some pointed to stem end, drop+, , heavy set	2.5, 2.7, 2.7, 3
CO99053-4RU	Rhizoctonia, pointed, , skinny, light skin,	2.4, 2.8, 3.2, 3
CO99053-3RU	Rhizoctonia, too long, skinny drop, rot, repeat, BOT-	3.6, 3, 3.4, 3.9
CO99100-1RU	, nice flesh and shape, smooth, low yield, BOT-,	3.3, 3.7, 3.8, 3.4
CO98067-7RU	flat, , rot+,	3, 2.5, 2, 3
PA99N2-1	Rhizoctonia, heat sprouts, blocky, drop+, , rot on stem end	2.5, 2.7, 2.5, 2
A97066-42LB	heat sprouts, Rhizoctonia, drop+, blocky,	2.5, 2, 2.3, 3
PA00N14-2	, small, light net, nice flesh, keep,	3.2, 3.2, 3.4, 2.8
AC99375-1RU	blocky++, small, Rhizoctonia, heat sprouts, poor shape, drop++, very white flesh,	2.5, 2.4, 2.5, 2.5
Russet Burbank	, many culls, Rhizoctonia++, rough, poor shape, skinny	2, 1.5, 2, 2
A0008-1TE	, blocky, smooth, yield-, nice shape, keep, Rhizoctonia	3, 3.4, 2.5, 3.5

Springlake
Table 1f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 19 entries in the Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Russet Norkotah	Colorado	1.065	14.1	3.8	3	19/20		8%	10%
PA99N82-4	Oregon	1.075	15.8	2.9	1+	26/14	2 BC	13%	1%
CO97087-2RU	Colorado	1.077	16.2	2.9	1+	14/24	1 DK	3%	0%
AO96305-3	Oregon	1.076	16.1	3.1	2	18/18		11%	8%
A96814-65LB	Idaho	1.084	17.6	2.8	2	25/17	1 BC	5%	18%
A98345-1	Idaho	1.058	12.9	2.7	2+	7/30		0%	0%
Ranger Russet	Oregon	1.074	15.8	3.0	1	27/11		3%	10%
CO98368-2RU	Colorado	1.070	15.0	3.4	1+	16/22		8%	5%
AO96365-2	Oregon	1.072	15.4	2.7	2	5/33		21%	8%
CO99053-4RU	Colorado	1.069	14.8	2.9	3	2/34	5 DK	3%	0%
CO99053-3RU	Colorado	1.068	14.7	3.5	3	6/32	3 DK	8%	5%
CO99100-1RU	Colorado	1.068	14.6	3.6	2	28/11		3%	0%
CO98067-7RU	Colorado	1.059	13.0	2.6	3	6/27		3%	0%
PA99N2-1	Oregon	1.071	15.1	2.4	1+	11/21		6%	3%
A97066-42LB	Idaho	1.087	18.0	2.5	1+	34/6		3%	0%
PA00N14-2	Oregon	1.078	16.5	3.2	3	25/15		8%	5%
AC99375-1RU	Colorado	1.076	16.0	2.5	1+	19/19		11%	3%
Russet Burbank	Oregon	1.069	14.9	1.9	1+	13/28	2 DK, 1 HH	2%	10%
A0008-1TE	Idaho	1.077	16.2	3.1	2	24/14		18%	0%
Average		1.072	15.4	2.9				6%	5%
L.S.D. (.05)		0.010	2.2	0.6					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 1g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 19 entries in the Western Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
A0008-1TE	235.99	507.60	78.30	1.077
A96814-65LB	179.96	498.65	83.35	1.083
A97066-42LB	201.58	513.71	94.07	1.087
A98345-1	225.43	507.15	88.53	1.052
AC99375-1RU	297.67	505.66	90.87	1.075
AO96305-3	222.67	521.03	94.05	1.075
AO96365-2	165.09	495.39	82.40	1.071
CO97087-2RU	242.46	525.76	71.29	1.077
CO98067-7RU	330.39	609.66	104.33	1.062
CO98368-2RU	271.94	786.27	94.40	1.071
CO99053-3RU	316.90	748.18	107.54	1.070
CO99053-4RU	298.04	724.55	98.76	1.070
CO99100-1RU	289.42	497.69	78.28	1.069
PA00N14-2	288.44	548.40	92.81	1.078
PA99N2-1	233.20	517.75	80.27	1.072
PA99N82-4	223.88	541.74	94.89	1.072
Ranger Russet	416.00	562.65	119.05	1.074
Russet Burbank	277.94	536.54	89.51	1.068
Russet Norkotah	290.97	551.72	105.62	1.067
Average	263.58	563.16	92.02	1.072
L.S.D. (.05)	49.65	116.21	22.84	0.016

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 2a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Red LaSoda	439.9	390.3	80.9	210.2	99.2	4.0	45.6	0.0	3.2	3.2
BTX2332-1R	440.7	362.3	96.6	184.2	81.6	0.0	78.4	0.0	4.2	3.6
Dark Red Norland	438.7	348.8	68.1	210.2	70.5	0.0	89.9	0.0	3.0	2.9
ATTX98453-6R	366.5	307.9	81.6	197.5	28.8	0.0	58.5	0.0	3.8	3.7
NDTX4784-7R	361.6	298.7	111.3	124.5	62.9	0.0	62.9	0.0	3.5	3.5
COTX94218-1R	438.4	298.2	119.6	165.5	13.1	0.0	140.1	0.0	3.6	3.6
COTX94216-1R	305.3	217.8	95.4	109.5	12.9	0.0	85.7	1.7	3.3	3.3
Average	398.7	317.7	93.4	171.6	52.7	0.6	80.2	0.2	3.5	3.4
L.S.D. (.05)	38.2	27.9	ns	63.6	21.3	ns	20.7	ns	0.3	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 2b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Red LaSoda	88.8	18.2	48.0	22.6	0.9	10.4	0.0	1.062	13.6	Oblong	Red
BTX2332-1R	82.1	22.6	40.9	18.5	0.0	17.9	0.0	1.060	13.1	Round	Red
Dark Red Norland	79.6	15.5	47.9	16.3	0.0	20.4	0.0	1.056	12.6	Oblong	Red
ATTX98453-6R	84.0	23.0	53.0	8.0	0.0	16.0	0.0	1.069	14.9	Round	Red
NDTX4784-7R	82.7	30.7	34.5	17.5	0.0	17.3	0.0	1.063	13.8	Round	Red
COTX94218-1R	68.2	27.7	37.1	3.3	0.0	31.8	0.0	1.073	15.6	Round	Red
COTX94216-1R	71.8	32.5	34.9	4.4	0.0	27.7	0.5	1.071	15.1	Round	Red
Average	79.6	24.3	42.3	13.0	0.1	20.2	0.1	1.065	14.1		
L.S.D. (.05)	4.2	ns	ns	5.8	ns	4.2	ns	0.003	0.6		

Springlake
Table 2c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Red LaSoda	6.1	6.0	2.2	97	100	2.0	3.7	2.7	3.7	38
BTX2332-1R	6.9	5.3	2.9	98	100	1.9	4.0	2.7	4.0	30
Dark Red Norland	6.9	5.3	2.6	100	100	1.4	3.8	2.7	3.8	63
ATTX98453-6R	5.6	5.5	1.9	93	99	2.1	3.1	3.1	3.1	19
NDTX4784-7R	6.6	5.5	2.2	74	88	2.0	3.0	2.0	3.2	70
COTX94218-1R	9.9	3.8	2.8	88	97	1.7	3.8	4.7	4.0	0
COTX94216-1R	7.2	3.7	2.2	82	96	1.7	3.8	3.7	3.8	14
Average	7.0	5.0	2.4	90	97	1.8	3.6	3.1	3.7	33
L.S.D. (.05)	1.7	0.4	ns	14	ns	ns	0.6	0.5	0.7	15

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 2d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Red LaSoda	1.0	3.0	1.0	1.5	3.0	5.0	5.0	5.0	5.0	4.0	5	0	5	0
BTX2332-1R	1.0	1.3	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.3	0	0	13	0
Dark Red Norland	1.0	3.0	1.0	2.8	2.9	5.0	5.0	5.0	5.0	4.0	0	0	8	0
ATTX98453-6R	1.0	1.2	1.0	4.2	3.5	5.0	5.0	5.0	5.0	4.1	0	0	3	0
NDTX4784-7R	1.0	1.0	1.0	3.6	4.5	5.0	5.0	5.0	5.0	4.0	0	0	3	0
COTX94218-1R	1.0	1.3	1.0	4.0	3.9	5.0	5.0	5.0	5.0	4.0	0	0	0	0
COTX94216-1R	1.0	1.0	1.0	4.0	4.1	5.0	5.0	5.0	5.0	4.1	0	0	0	0
Average	1.0	1.7	1.0	3.4	3.6	5.0	5.0	5.0	5.0	4.1	1	0	4	0
L.S.D. (.05)	ns	0.3	ns	0.2	0.3	ns	ns	ns	ns	ns	3	ns	ns	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 2e.

Notes and general rating for all reps of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Red LaSoda	, , deep eyes,	, nice white flesh, poor internals,	3.2, 3.3, 3.2, 3.2	3.3, 3.3, 3, 3
BTX2332-1R	, , BOT,	yield, , heavy set, poor internals,	4.4, 4, 4.2, 4.2	3.8, 3.7, 3.5, 3.5
Dark Red Norland	, Light Skinned, ,	Rhizoctonia, sliver scurf, drop, ,	3, 3, 3, 3	3, 2.8, 3, 2.8
ATTX98453-6R	, , Nice,	nice flesh, keep, poor skin finish, silver scurf, Rhizoctonia, smooth skin, nice flesh	3.8, 4, 3.6, 3.6	3.8, 3.6, 3.8, 3.5
NDTX4784-7R	, low yield, ,	nice, better rep, Rhizoctonia++, road map, poor skin finish, drop, ,	3.8, 3.2, 3.8, 3.2	3.7, 3.2, 3.7, 3.2
COTX94218-1R	, , Nice shape, Late	, , yield,	3.7, 3.6, 3.6, 3.4	3.5, 3.5, 3.5, 3.7
COTX94216-1R	Second Growth, Nice shape, ,	zipper eyes, road map, poor skin finish, drop, silver scurf,	3.7, 3.6, 3, 3	3.3, 3.3, 3.3, 3.3

Springlake
Table 2f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Red LaSoda	Colorado	1.062	13.6	3.2	2+	8/22		20%	8%
BTX2332-1R	Colorado	1.060	13.1	3.6	1+	17/21	Keep	0%	0%
Dark Red Norland	Colorado	1.056	12.6	2.9	2+	6/12		0%	0%
ATTX98453-6R	Colorado	1.069	14.9	3.7	2	17/22	Keep	0%	0%
NDTX4784-7R	Colorado	1.063	13.8	3.5	1	14/16		13%	3%
COTX94218-1R	Colorado	1.073	15.6	3.6	1+	15/25	Keep	18%	0%
COTX94216-1R	Colorado	1.071	15.1	3.3	2+	9/20	13 BC	10%	0%
Average		1.065	14.1	3.4				9%	1%
L.S.D. (.05)		0.003	0.6	0.2					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 2g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATTX98453-6R	222.08	661.25	75.76	1.069
BTX2332-1R	166.42	524.11	74.54	1.060
COTX94216-1R	291.90	776.37	99.31	1.071
COTX94218-1R	277.34	628.72	79.01	1.073
Dark Red Norland	254.68	745.88	88.16	1.056
Red LaSoda	348.80	747.88	106.42	1.062
NDTX4784-7R	232.52	707.15	83.70	1.063
Average	256.25	684.48	86.70	1.065
L.S.D. (.05)	85.01	38.31	19.29	0.006

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 3a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
POR03PG80-2	444.8	405.9	159.7	170.1	76.1	0.0	38.9	0.0	3.6	3.1
A99326-1PY	452.9	373.8	123.5	146.8	103.5	25.6	53.5	0.0	3.4	3.0
AC99329-7PW/Y	492.5	369.7	159.0	142.7	68.0	0.0	122.8	0.0	3.5	2.9
POR01PG45-5	420.2	209.3	186.2	23.0	0.0	0.0	210.9	0.0	3.5	3.2
AC99330-1P/Y	388.6	186.5	154.4	32.2	0.0	0.0	202.1	0.0	3.6	3.3
Average	439.8	309.0	156.6	103.0	49.5	5.1	125.6	0.0	3.5	3.1
L.S.D. (.05)	47.8	37.0	ns	40.1	27.6	13.5	26.1	ns	ns	ns

¹ 1=very poor to 5= excellent

Springlake
Table 3b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
POR03PG80-2	91.3	36.5	38.0	16.9	0.0	8.7	0.0	1.066	14.3	Long	Medium Purple
A99326-1PY	82.8	27.3	32.4	23.2	5.4	11.8	0.0	1.066	14.3	Round	Purple
AC99329-7PW/Y	75.1	32.3	29.0	13.8	0.0	24.9	0.0	1.074	15.6	Round	Purple-White
POR01PG45-5	49.6	44.2	5.4	0.0	0.0	50.4	0.0	1.079	16.6	Oblong	Pale Purple
AC99330-1P/Y	47.8	39.2	8.6	0.0	0.0	52.2	0.0	1.068	14.7	Round	Purple
Average	69.3	35.9	22.7	10.8	1.1	29.6	0.0	1.071	15.1		
L.S.D. (.05)	6.1	ns	7.0	6.1	2.8	4.7	ns	0.005	0.9		

Springlake
Table 3c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
POR03PG80-2	6.4	5.8	2.1	98	99	1.4	3.7	4.8	3.5	5
A99326-1PY	6.0	6.4	2.3	100	100	2.1	4.5	3.7	4.4	30
AC99329-7PW/Y	9.2	4.7	2.9	87	95	1.6	4.2	4.1	4.2	10
POR01PG45-5	11.6	3.1	2.0	90	96	2.2	4.2	4.5	4.0	5
AC99330-1P/Y	13.4	2.5	4.0	98	100	2.5	4.1	4.5	3.9	1
Average	9.3	4.5	2.7	95	98	2.0	4.1	4.3	4.0	10
L.S.D. (.05)	2.3	0.8	0.9	9	4	0.6	0.4	ns	0.4	15

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 3d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
POR03PG80-2	2.5	4.0	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A99326-1PY	3.5	1.8	1.0	3.7	5.0	5.0	5.0	5.0	5.0	5.0	23	0	0	0
AC99329-7PW/Y	2.5	1.5	1.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	0	0	8	0
POR01PG45-5	3.1	3.5	1.0	4.5	5.0	5.0	5.0	5.0	5.0	4.4	30	3	0	0
AC99330-1P/Y	3.9	1.0	1.0	3.8	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	3
Average	3.1	2.4	1.0	3.9	5.0	5.0	5.0	5.0	5.0	4.9	11	1	2	1
L.S.D. (.05)	0.4	0.3	ns	0.1	ns	ns	ns	ns	ns	ns	19	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 3e. Notes and general rating for all reps of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
POR03PG80-2	, nice+, , oblong	, rough, 10 Z, silver scurf, poor skin finish	3.6, 3.6, 3.6, 3.6	3, 3.2, 3, 3.2
A99326-1PY	nice size & shape, , yield+, late	oversize+, lenticels, , silver scurf+,	3.5, 3.7, 3.7, 2.8	3, 3, 3, 3
AC99329-7PW/Y	, , nice purple color,	rough, deep eyes, , , purple white skin	3.6, 3.6, 3.4, 3.4	2.8, 2.8, 3, 3
POR01PG45-5	, , nice+,	hollow heart, , , rough, poor skin finish, drop+	3.4, 3.4, 3.5, 3.5	3.2, 3, 3.2, 3.3
AC99330-1P/Y	, heavy set, yield+, late	, , lenticels+, salad??. drop	3.5, 3.6, 3.6, 3.5	3.8, 3.7, 3, 2.8

Springlake
Table 3f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
POR03PG80-2	Oregon	1.066	14.3	3.1	3	2/38	7 Dark	0%	3%
A99326-1PY	Idaho	1.066	14.3	3.0	3	11/19		3%	0%
AC99329-7PW/Y	Colorado	1.074	15.6	2.9	2	11/28		3%	0%
POR01PG45-5	Oregon	1.079	16.6	3.2	2	17/30	6 BC	4%	0%
AC99330-1P/Y	Colorado	1.068	14.7	3.3	2	12/27		0%	0%
Average		1.071	15.1	3.1				2%	1%
L.S.D. (.05)		0.005	0.9	ns					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 3g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 5 entries in the Western Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
A99326-1PY	276.90	676.45	79.00	1.066
AC99329-7PW/Y	268.33	497.18	68.35	1.074
AC99330-1P/Y	273.77	632.73	76.42	1.068
POR01PG45-5	277.34	600.73	78.22	1.078
POR03PG80-2	254.82	721.30	85.83	1.066
Average	270.23	625.68	77.57	1.071
L.S.D. (.05)	56.73	56.54	10.20	0.005

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake Table 4a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 6 entries in the Western Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
A00286-3Y	437.7	306.5	175.2	115.5	15.9	0.0	131.1	0.0	2.1
CO99045-1W/Y	414.7	294.9	157.8	108.0	29.0	4.8	115.0	0.0	3.1
Yukon Gold	322.0	271.3	107.4	111.8	52.1	0.0	50.7	0.0	4.1
CO00412-5W/Y	337.6	213.0	163.2	49.8	0.0	0.0	124.7	0.0	2.6
POR02PG37-2	327.7	189.7	147.5	37.3	4.8	0.0	138.1	0.0	3.7
A00293-2Y	345.5	186.5	160.6	25.8	0.0	0.0	159.0	0.0	3.3
Average	364.2	243.6	152.0	74.7	17.0	0.8	119.8	0.0	3.2
L.S.D. (.05)	58.0	44.1	ns	58.1	9.4	ns	56.1	ns	0.6

¹ 1=very poor to 5= excellent

Springlake
Table 4b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Western Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
A00286-3Y	69.6	39.2	26.7	3.6	0.0	30.4	0.0	1.067	14.5	Round	Yellow with pink eyes
CO99045-1W/Y	71.6	38.7	25.5	7.3	1.0	27.4	0.0	1.076	16.0	Long	White
Yukon Gold	84.4	33.2	35.0	16.2	0.0	15.6	0.0	1.075	15.9	Round	White
CO00412-5W/Y	64.2	50.0	14.1	0.0	0.0	35.8	0.0	1.078	16.5	Oblong	White
POR02PG37-2	57.7	44.8	11.4	1.4	0.0	42.3	0.0	1.075	16.0	Round	Yellow with red eyes
A00293-2Y	53.9	46.6	7.3	0.0	0.0	46.1	0.0	1.072	15.3	Oblong	Yellow
Average	66.9	42.1	20.0	4.8	0.2	32.9	0.0	1.074	15.7		
L.S.D. (.05)	12.6	ns	15.4	2.7	ns	12.4	ns	ns	ns		

Springlake
Table 4c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Western Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
A00286-3Y	10.5	3.5	2.2	99	100	1.9	4.1	5.0	4.1	1
CO99045-1W/Y	7.9	4.4	3.2	100	100	2.3	4.2	4.9	4.3	3
Yukon Gold	5.1	5.3	1.3	95	98	1.5	3.5	1.3	3.4	98
CO00412-5W/Y	8.4	3.5	2.7	91	97	2.4	4.3	4.9	4.3	1
POR02PG37-2	7.2	3.9	4.2	99	99	2.2	3.6	1.4	3.6	84
A00293-2Y	9.1	3.1	3.0	98	100	1.7	4.2	4.9	4.2	0
Average	8.0	4.0	2.8	97	99	2.0	4.0	3.7	4.0	31
L.S.D. (.05)	2.1	0.8	0.4	ns	ns	0.5	0.4	0.4	0.4	12

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 4d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Western Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
A00286-3Y	2.8	1.8	1.0	3.8	1.0	5.0	5.0	5.0	5.0	5.0	0	0	3	3
CO99045-1W/Y	2.9	4.5	2.9	4.0	2.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	2.9	2.1	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	4
CO00412-5W/Y	3.0	3.7	2.6	4.0	3.8	5.0	5.0	5.0	5.0	5.0	10	0	0	0
POR02PG37-2	3.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A00293-2Y	3.4	2.6	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.0	2.7	1.6	4.0	1.8	5.0	5.0	5.0	5.0	5.0	2	0	0	1
L.S.D. (.05)	ns	0.2	0.2	0.0	0.1	ns	ns	ns	ns	ns	7	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 4e. Notes and general rating for all reps of 6 entries in the Western Regional White Skin Yellow Flesh
Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
A00286-3Y	second growth, nice internals, drop, heat sprouts+, red splash eyes	2.5, 2.5, 2.5, 1
CO99045-1W/Y	variable color, , small, heat sprouts, sticky stolon+, drop+	3, 3, 3.2, 3.2
Yukon Gold	, BOT, , small, rough, bad rep	4.5, 4.4, 4.5, 3
CO00412-5W/Y	poor internals, , small, russet skin, drop++	2.5, 3, 2.5, 2.5
POR02PG37-2	, red eyes, , nice	3.7, 3.7, 3.7, 3.7
A00293-2Y	, small, nice shape, heat sprouts, drop, pointed	3.2, 3.5, 3, 3.4

Springlake
Table 4f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Western Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
A00286-3Y	Idaho	1.067	14.5	2.1	2+	20/20		5%	0%
CO99045-1W/Y	Colorado	1.076	16.0	3.1	3	13/25		8%	30%
Yukon Gold	Colorado	1.075	15.9	4.1	2	33/7		18%	20%
CO00412-5W/Y	Colorado	1.078	16.5	2.6	2+	23/16	Nice	8%	48%
POR02PG37-2	Oregon	1.075	16.0	3.7	3	31/8		8%	8%
A00293-2Y	Idaho	1.072	15.3	3.3	3	11/28		21%	23%
Average		1.074	15.7	3.2				11%	21%
L.S.D. (.05)		ns	0.6	12.6					29

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 4g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 6 entries in the Western Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH (µgTE/gfw)	ABTS (µgTE/gfw)	TP (mgCGA Eq /100gfw)	Specific Gravity
A00286-3Y	241.48	662.76	82.55	1.067
A00293-2Y	185.17	628.29	80.71	1.071
CO00412-5W/Y	123.62	583.76	63.13	1.076
CO99045-1W/Y	136.15	656.48	80.02	1.075
POR02PG37-2	217.12	634.97	81.38	1.073
Yukon Gold	295.90	701.59	95.86	1.075
Average	199.91	644.64	80.61	1.073
L.S.D. (.05)	39.95	86.97	24.16	0.007

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 5a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Western Regional Red/PurpleFlesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
OR00068-11	439.7	225.6	77.3	136.6	11.8	8.6	205.5	0.0	3.7	3.4
Purple Majesty	443.9	223.1	84.1	113.9	25.1	0.0	220.8	0.0	3.5	3.5
POR03PG23-1	330.8	145.2	34.9	88.2	22.1	0.0	185.6	0.0	2.6	4.4
PA96RR1-193	335.1	112.0	82.7	21.4	7.8	0.0	223.1	0.0	3.8	3.2
Average	387.4	176.5	69.8	90.0	16.7	2.2	208.8	0.0	3.4	3.6
L.S.D. (.05)	58.3	61.5	ns	56.5	ns	ns	ns		0.2	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 5b.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Western Regional Red/PurpleFlesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
OR00068-11	50.3	17.2	30.6	2.4	2.0	47.8	0.0	1.084	17.6	Oblong	Purple
Purple Majesty	50.1	18.7	25.8	5.6	0.0	49.9	0.0	1.071	15.2	Oblong	Purple
POR03PG23-1	43.8	11.5	25.7	6.6	0.0	56.2	0.0	1.065	14.0	Oblong	Red with white swirl
PA96RR1-193	33.4	24.9	6.3	2.2	0.0	66.6	0.0	1.077	16.2	Round	Red
Average	44.4	18.1	22.1	4.2	0.5	55.1	0.0	1.074	15.7		
L.S.D. (.05)	11.6	ns	13.4	ns	ns	13.0		0.003	0.7		

Springlake
Table 5c.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Western Regional Red/PurpleFlesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
OR00068-11	9.9	3.7	3.3	84	100	1.8	4.2	3.9	4.1	23
Purple Majesty	9.8	3.8	3.5	91	100	2.6	4.3	3.1	4.2	34
POR03PG23-1	11.3	2.5	3.5	83	96	1.9	3.2	2.5	3.1	44
PA96RR1-193	9.6	2.9	3.5	96	100	2.0	3.8	2.6	3.7	50
Average	10.2	3.2	3.5	88	99	2.1	3.9	3.0	3.8	38
L.S.D. (.05)	ns	0.6	ns	ns	ns	ns	0.4	0.6	0.3	19

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 5d.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Western Regional Red/PurpleFlesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
OR00068-11	2.5	3.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Purple Majesty	3.8	3.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
POR03PG23-1	4.0	3.5	1.0	4.0	4.5	5.0	5.0	5.0	5.0	4.0	0	0	0	0
PA96RR1-193	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Average	2.8	3.0	1.0	4.0	4.6	5.0	5.0	5.0	5.0	4.1	0	0	0	0
L.S.D. (.05)	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 5e.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Western Regional Rec

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
OR00068-11	, , yield+,	, flesh all blue like, silver scurf, ,	3.7, 3.6, 3.6, 3.7	3.3, 3.3, 3.5, 3.5
Purple Majesty	, Road Map, Yield +, ,	road map-alligator skin, silver scurf, yield+, small, smooth, ,	3.5, 3.4, 3.5, 3.5	3.5, 3.5, 3.5, 3.5
POR03PG23-1	nice red color, , ,	Rhizoctonia, yellow and red skin, , ,	3.7, 3.5, 0, 3.2	4.5, 4.5, 4.5, 4
PA96RR1-193	nice shape, , ,	, light red flesh, silver scurf, , poor skin finish, heat sprouts	3.7, 3.9, 3.5, 3.9	3.2, 3.2, 3.2, 3.2

Springlake
Table 5f.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Western Regional Red/PurpleFlesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Ratio	Notes ³	Percent Defect	Percent Zebra Defect at Grading
OR00068-11	Oregon	1.084	17.6	3.4	3	24/4		4%	0%
Purple Majesty	Colorado	1.071	15.2	3.5	3+	36/3		8%	0%
POR03PG23-1	Oregon	1.065	14.0	4.4	3++	28/12	10 Dark	5%	0%
PA96RR1-193	Oregon	1.077	16.2	3.2	3	39/1	BOT	0%	0%
Average		1.074	15.7	3.6				4%	0%
L.S.D. (.05)		0.003	0.7	0.2					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB=pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 5g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 4 entries in the Western Regional Red/PurpleFlesh Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
OR00068-11	548.21	788.74	113.10	1.084
Purple Majesty	511.92	802.62	116.45	1.076
POR03PG23-1	789.40	777.89	126.51	1.065
PA96RR1-193	422.75	774.93	99.71	1.071
Average	568.07	786.05	113.94	1.074
L.S.D. (.05)	69.49	20.51	11.80	0.003

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake Table 5a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
Russet Norkotah	446.8	386.2	178.0	134.5	73.6	2.1	49.1	9.5	3.8
ATX9332-12RU	386.7	304.0	126.1	113.9	64.1	0.0	76.3	6.4	3.0
AOTX96265-2RU	307.0	244.1	67.8	90.9	85.4	24.2	36.0	2.8	3.7
AOTX95265-1RU	291.7	230.8	70.7	106.0	54.2	1.9	57.9	1.0	3.7
ATX97232-1RU	323.0	216.7	105.6	75.4	35.8	2.4	98.0	5.9	2.7
AC97306-1RU	314.6	206.0	114.5	64.3	27.2	2.1	92.0	14.5	2.6
Average	345.0	264.6	110.4	97.5	56.7	5.4	68.2	6.7	3.2
L.S.D. (.05)	83.2	71.3	41.5	25.1	ns	14.6	30.4	6.5	0.6

¹ 1=very poor to 5= excellent

Springlake
Table 5b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Russet Norkotah	87.1	40.4	30.0	16.7	0.4	10.4	2.1	1.065	14.1	Long	Russet
ATX9332-12RU	78.4	32.4	29.5	16.5	0.0	20.1	1.5	1.080	16.8	Long	Russet
AOTX96265-2RU	79.8	23.1	30.8	25.9	7.4	11.9	1.0	1.073	15.5	Long	Russet
AOTX95265-1RU	79.1	24.3	36.1	18.7	0.7	19.8	0.3	1.065	14.2	Long	Russet
ATX97232-1RU	66.0	32.7	23.1	10.2	0.6	31.2	2.2	1.071	15.2	Oblong	Russet
AC97306-1RU	65.5	36.1	20.5	8.9	0.8	29.1	4.7	1.089	18.3	Long	Russet
Average	76.0	31.5	28.3	16.1	1.7	20.4	2.0	1.074	15.7		
L.S.D. (.05)	8.7	11.8	8.3	ns	4.2	7.3	2.0	0.005	0.9		

Springlake
Table 5c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Russet Norkotah	6.5	5.7	2.4	96	98	1.7	3.7	1.8	3.6	96
ATX9332-12RU	5.6	5.8	2.5	96	97	1.9	3.9	3.7	3.9	54
AOTX96265-2RU	3.4	8.0	2.4	94	96	2.3	4.0	3.7	3.8	35
AOTX95265-1RU	4.2	5.9	3.0	97	97	1.8	3.8	2.3	3.8	89
ATX97232-1RU	5.2	5.1	3.3	96	98	2.4	3.9	2.8	3.9	76
AC97306-1RU	5.2	5.0	2.7	89	96	2.0	4.0	4.1	3.8	49
Average	5.0	5.9	2.7	95	97	2.0	3.9	3.0	3.8	67
L.S.D. (.05)	1.1	1.0	ns	ns	ns	0.4	ns	0.8	ns	26

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 5d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Russet Norkotah	1.5	4.0	4.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX9332-12RU	1.0	4.0	3.9	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
AOTX96265-2RU	1.0	3.8	4.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-1RU	1.0	4.2	4.5	3.9	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX97232-1RU	1.0	3.6	4.0	4.3	4.0	5.0	5.0	5.0	5.0	5.0	18	0	0	0
AC97306-1RU	1.0	4.0	4.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.1	3.9	4.1	4.0	4.1	5.0	5.0	5.0	5.0	5.0	3	0	0	0
L.S.D. (.05)	ns	0.2	0.2	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 5e. Notes and general rating for all reps of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
Russet Norkotah	bad rep+, , Rhizoctonia, low yield, ,	3.7, 4.2, 3.5, 3.8
ATX9332-12RU	stem end darkening, drop+, , poor skin finish,	2.5, 3, 3, 3.3
AOTX96265-2RU	advance to WR, , large tubers, BOT-, Rhizoctonia	3.5, 3.5, 4, 3.8
AOTX95265-1RU	, advance to WR, nice shape, rot, bad rep	3.2, 4.5, 3.5, 3.4
ATX97232-1RU	Rhizoctonia, blocky, nice flesh, high yield, smooth, bad rep, keep	3, 2.5, 3.4, 2
AC97306-1RU	, Rhizoctonia, drop+ , ,	2.5, 2.5, 2.5, 2.7

Springlake
Table 5f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Russet Norkotah	Colorado	1.065	14.1	3.8	3	19/20		8%	10%
ATX9332-12RU	Colorado	1.080	16.8	3.0	3	17/17	1 DK	0%	0%
AOTX96265-2RU	Colorado	1.073	15.5	3.7	1+	21/18		10%	20%
AOTX95265-1RU	Colorado	1.065	14.2	3.7	2	15/23		8%	18%
ATX97232-1RU	Colorado	1.071	15.2	2.7	1+	7/26		15%	0%
AC97306-1RU	Colorado	1.089	18.3	2.6	3	26/12		3%	3%
Average		1.074	15.7	3.2				7%	8%
L.S.D. (.05)		0.005	0.9	0.6					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 6g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 6 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH (µgTE/gfw)	ABTS (µgTE/gfw)	TP (mgCGA Eq /100gfw)	Specific Gravity
Russet Norkotah	290.97	551.72	105.62	1.067
AC97306-1RU	445.70	554.10	123.05	1.089
AOTX95265-1RU	235.20	718.46	93.53	1.067
AOTX96265-2RU	315.86	497.53	87.26	1.072
ATX9332-12RU	230.50	515.65	86.40	1.079
ATX97232-1RU	186.27	348.73	48.02	1.071
Average	284.08	531.03	90.65	1.074
L.S.D. (.05)	92.90	71.26	13.09	0.005

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 7a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Red LaSoda	439.9	390.3	80.9	210.2	99.2	4.0	45.6	0.0	3.2	3.1
Dark Red Norland	438.7	348.8	68.1	210.2	70.5	0.0	89.9	0.0	3.0	3.0
COTX00104-7R	390.3	338.1	38.5	151.0	148.7	8.8	33.9	9.5	3.7	3.6
ATTX01178-1R	348.5	288.3	45.6	160.4	82.3	0.0	60.2	0.0	3.6	3.5
ATTX98453-11BR	435.6	267.1	138.7	128.4	0.0	0.0	168.5	0.0	4.0	3.9
NDTX5003-2R	361.8	262.5	114.3	143.1	5.1	0.0	99.3	0.0	3.8	3.7
Average	402.5	315.9	81.0	167.2	67.6	2.1	82.9	1.6	3.5	3.4
L.S.D. (.05)	ns	86.3	56.2	60.6	31.0	ns	35.3	ns	0.3	0.1

¹ 1=very poor to 5= excellent

Springlake
Table 7b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Red LaSoda	88.8	18.2	48.0	22.6	0.9	10.4	0.0	1.062	13.6	Oblong	Red
Dark Red Norland	79.6	15.5	47.9	16.3	0.0	20.4	0.0	1.056	12.6	Oblong	Red
COTX00104-7R	85.8	10.2	38.2	37.4	2.5	8.9	2.8	1.057	12.7	Round	Red
ATTX01178-1R	83.1	14.1	44.5	24.5	0.0	16.9	0.0	1.069	14.8	Round	Red
ATTX98453-11BR	60.3	31.2	29.0	0.0	0.0	39.7	0.0	1.071	15.2	Round	Red
NDTX5003-2R	72.3	31.1	39.8	1.5	0.0	27.7	0.0	1.071	15.2	Round	Red
Average	78.3	20.0	41.2	17.0	0.6	20.7	0.5	1.065	14.0		
L.S.D. (.05)	10.4	12.2	10.2	5.4	1.7	9.4	ns	0.003	0.5		

Springlake
Table 7c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Red LaSoda	6.1	6.0	2.2	97	100	2.0	3.7	1.8	3.7	44
Dark Red Norland	6.9	5.3	2.6	100	100	1.4	3.8	1.3	3.8	56
COTX00104-7R	4.6	7.0	2.2	82	99	2.1	3.4	2.9	3.5	11
ATTX01178-1R	5.1	5.7	2.1	85	98	2.3	3.6	3.5	3.7	3
ATTX98453-11BR	9.9	3.7	2.4	95	98	2.0	3.4	2.4	3.5	28
NDTX5003-2R	7.6	4.1	2.2	86	96	2.4	3.7	2.6	3.7	54
Average	6.7	5.3	2.3	91	99	2.0	3.6	2.4	3.6	33
L.S.D. (.05)	1.2	0.2	ns	12	ns	0.4	ns	ns	ns	21

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake Table 7d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Red LaSoda	1.0	3.0	1.0	1.5	3.0	5.0	5.0	5.0	5.0	4.0	5	0	5	0
Dark Red Norland	1.0	3.0	1.0	2.8	3.0	5.0	5.0	5.0	5.0	4.0	0	0	8	0
COTX00104-7R	1.0	2.5	1.0	4.0	4.1	4.5	5.0	5.0	5.0	4.0	3	0	5	0
ATTX01178-1R	1.0	2.1	1.0	3.0	3.1	5.0	5.0	5.0	5.0	3.0	0	0	0	0
ATTX98453-11BR	1.0	1.5	1.0	4.6	4.0	5.0	5.0	5.0	5.0	3.9	0	0	0	0
NDTX5003-2R	1.0	1.0	1.0	4.0	4.4	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Average	1.0	2.2	1.0	3.3	3.6	4.9	5.0	5.0	5.0	3.8	1	0	3	0
L.S.D. (.05)	ns	0.3	ns	0.1	0	ns	ns	ns	ns	0	ns	ns	ns	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 7e. Notes and general rating for all reps of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Red LaSoda	deep eyes, , ,	poor internals, nice white flesh, ,	3.2, 3.3, 3.2, 3.2	3, 3.3, 3, 3
Dark Red Norland	Light Skinned, , ,	sliver scurf, drop, Rhizoctonia, ,	3, 3, 3, 3	2.8, 3, 3, 3
COTX00104-7R	Large Tubers, , , Growth Cracks	, , , lenticels	3.7, 3.8, 3.8, 3.6	3.5, 3.7, 3.7, 3.3
ATTX01178-1R	Nice Shape, , ,	Red LaSoda like, deep eyes, drop, , ,	3.9, 3.2, 3.2, 3.9	3.3, 3.5, 3.5, 3.5
ATTX98453-11BR	Nice shape & color, , , BOT	BOT, nice internals, , nice skin finish	3.7, 3.9, 3.9, 4.5	3.9, 3.9, 3.9, 3.8
NDTX5003-2R	nice, , ,	, Rhizoctonia+, BOT, nice flesh,	3.8, 3.8, 3.7, 3.8	3.7, 3.8, 3.6, 3.6

Springlake
Table 7f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Red LaSoda	Colorado	1.062	13.6	3.1	2+	8/22		20%	8%
Dark Red Norland	Colorado	1.056	12.6	3.0	2+	6/12		0%	0%
COTX00104-7R	Colorado	1.057	12.7	3.6	2	8/22		13%	0%
ATTX01178-1R	Colorado	1.069	14.8	3.5	2	6/25	2 BC/Vas	10%	10%
ATTX98453-11BR	Colorado	1.071	15.2	3.9	2	8/22		13%	8%
NDTX5003-2R	Colorado	1.071	15.2	3.7	1	29/12	Keep	17%	3%
Average		1.065	14.0	3.4				12%	5%
L.S.D. (.05)		0.003	0.5	0.1					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 7g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 6 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
Dark Red Norland	254.68	745.88	88.16	1.056
Red LaSoda	348.80	747.88	106.42	1.062
AC00271-1R	274.67	671.44	86.32	1.074
ATTX98453-11BR	255.64	446.42	60.15	1.071
COTX00104-7R	193.45	668.95	66.98	1.056
NDTX5003-2R	255.33	770.86	93.06	1.072
Average	263.76	675.24	83.51	1.065
L.S.D. (.05)	71.51	69.58	15.93	0.002

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 8a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
CO01399-10P/Y	513.7	412.3	214.1	171.5	26.7	0.0	101.4	0.0	3.3	3.2
ATTX98518-5PU/Y	348.2	307.1	114.3	122.9	69.8	0.0	41.1	0.0	3.5	3.5
ATTX98493-1R/Y	394.8	260.4	133.2	97.7	29.5	0.0	134.4	0.0	3.5	3.7
BTX2103-1R/Y	443.0	250.0	189.1	51.0	9.9	0.0	193.1	0.0	4.0	3.9
Average	424.9	307.4	162.7	110.8	34.0	0.0	117.5	0.0	3.6	3.6
L.S.D. (.05)	67.9	54.0	53.1	45.3	33.0	ns	39.1	ns	0.4	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 8b.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
CO01399-10P/Y	80.1	41.4	33.2	5.5	0.0	19.9	0.0	1.058	12.9	Round	Purple
ATTX98518-5PU/Y	88.1	33.0	35.5	19.6	0.0	11.9	0.0	1.064	14.0	Oblong	Purple
ATTX98493-1R/Y	66.2	34.1	24.7	7.4	0.0	33.8	0.0	1.067	14.5	Oblong	Red
BTX2103-1R/Y	56.4	42.6	11.6	2.3	0.0	43.6	0.0	1.069	14.9	Round	Red
Average	72.7	37.7	26.2	8.7	0.0	27.3	0.0	1.065	14.1		
L.S.D. (.05)	7.8	ns	9.0	6.9	ns	7.8	ns	0.008	1.4		

Springlake
Table 8c.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
CO01399-10P/Y	10.0	4.3	2.2	99	99	1.6	4.1	4.8	4.1	3
ATTX98518-5PU/Y	5.1	6.0	2.0	80	95	1.7	3.6	2.7	3.6	59
ATTX98493-1R/Y	8.0	4.2	2.2	90	98	2.8	3.8	3.4	3.7	33
BTX2103-1R/Y	11.4	3.3	3.5	92	97	2.6	4.4	4.1	4.4	14
Average	8.6	4.5	2.5	90	97	2.2	4.0	3.7	3.9	27
L.S.D. (.05)	1.7	0.6	0.6	10	ns	0.3	0.4	0.5	0.4	24

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Red Skin Yellow Flesh Trial grown near
 Table 8d. Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
CO01399-10P/Y	2.0	1.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	23	3
ATTX98518-5PU/Y	3.1	3.8	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98493-1R/Y	3.4	3.3	1.0	3.8	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
BTX2103-1R/Y	3.5	2.4	1.0	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.0	2.7	1.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	0	0	6	1
L.S.D. (.05)	0.4	0.2	ns	0.4	0.2	ns	ns	ns	ns	ns	ns	ns	ns	

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 8e. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional F

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
CO01399-10P/Y	, late++, ,	, poor internals, 10 Z, poor skin finish, drop,	3.5, 3.4, 3.1, 3.3	3.2, 3.3, 3.2, 3.2
ATTX98518-5PU/Y	large tubers, oblong, ,	pointed, roadmap, nice shape, smooth, BOT, ,	3.4, 3.2, 3.5, 3.7	3.2, 3.7, 3.5, 3.5
ATTX98493-1R/Y	, light skin++, nice, nice shape	, some pointed, ,	3.2, 3.7, 3.7, 3.5	3.7, 3.7, 3.7, 3.7
BTX2103-1R/Y	, nice yield, BOT, uniform	very heavy set, B's, , ,	4.4, 3.7, 4, 3.9	4, 4, 3.8, 3.8

Springlake
Table 8f.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
CO01399-10P/Y	Colorado	1.058	12.9	3.2	2	12/16		14%	3%
ATTX98518-5PU/Y	Colorado	1.064	14.0	3.5	3	25/15	1 BC	0%	0%
ATTX98493-1R/Y	Colorado	1.067	14.5	3.7	2+	11/25	16 BC/Vas	6%	0%
BTX2103-1R/Y	Colorado	1.069	14.9	3.9	3	2/38		5%	0%
Average		1.065	14.1	3.6				6%	1%
L.S.D. (.05)		0.008	1.4	0.2					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 8g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 4 entries in the Southwestern Regional Red Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATTX98493-1R/Y	229.01	666.94	76.00	1.068
ATTX98518-5PU/Y	253.96	606.48	85.28	1.064
BTX2103-1R/Y	320.85	742.06	90.47	1.068
CO01399-10P/Y	229.16	635.84	76.17	1.058
Average	258.24	662.83	81.98	1.065
L.S.D. (.05)	49.57	128.35	32.92	0.011

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 9a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 11 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
Sierra Gold	378.2	335.8	80.2	189.0	66.6	2.1	40.3	0.0	4.4
TXYG079	352.4	305.4	103.9	145.2	56.2	0.0	47.0	0.0	4.4
TXYG098	380.5	288.2	98.0	141.2	48.9	18.5	73.8	0.0	4.3
TXYG107	340.0	287.8	97.8	126.9	63.1	2.1	50.1	0.0	4.1
TXYG055	330.7	283.0	119.4	94.3	69.4	0.0	47.7	0.0	4.4
Yukon Gold	322.0	271.3	107.4	111.8	52.1	0.0	50.7	0.0	4.1
TXYG105	347.6	264.8	109.1	110.8	44.9	0.0	82.8	0.0	4.3
Sierra Gold-2	325.0	254.4	84.6	122.2	47.7	0.0	70.5	0.0	4.3
TXYG057	319.1	252.7	104.6	82.3	65.9	5.0	61.4	0.0	4.3
Sierra Gold-3	277.7	239.9	69.6	115.7	54.6	0.0	37.8	0.0	4.5
ATX9132-2Y	59.8	0.0	0.0	0.0	0.0	0.0	59.8	0.0	1.0
Average	312.1	253.0	88.6	112.7	51.8	2.5	56.5	0.0	4.0
L.S.D. (.05)	37.2	34.3	41.5	56.1	29.8	7.2	21.0	ns	0.4

¹ 1=very poor to 5= excellent

Springlake
Table 9b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 11 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Sierra Gold	88.6	21.5	49.8	17.3	0.5	10.9	0.0	1.079	16.7	Oblong	Russet
TXYG079	86.7	30.4	41.0	15.3	0.0	13.3	0.0	1.078	16.4	Round	White
TXYG098	75.5	25.7	36.7	13.0	4.8	19.7	0.0	1.078	16.4	Round	White
TXYG107	84.7	28.8	37.4	18.5	0.5	14.8	0.0	1.071	15.2	Round	White
TXYG055	85.2	36.3	28.2	20.8	0.0	14.8	0.0	1.075	15.9	Round	White
Yukon Gold	84.4	33.2	35.0	16.2	0.0	15.6	0.0	1.075	15.9	Round	White
TXYG105	76.2	31.5	31.8	12.9	0.0	23.8	0.0	1.075	15.8	Round	White
Sierra Gold-2	78.1	25.6	37.9	14.6	0.0	21.9	0.0	1.079	16.5	Oblong	Russet
TXYG057	79.4	32.6	25.9	20.9	1.4	19.2	0.0	1.073	15.5	Round	White
Sierra Gold-3	86.1	26.3	39.9	19.9	0.0	13.9	0.0	1.077	16.3	Oblong	Russet
ATX9132-2Y	0.0	0.0	0.0	0.0	0.0	100.0	0.0			Round	White
Average	75.0	26.5	33.0	15.4	0.7	24.4	0.0	1.076	16.1		
L.S.D. (.05)	4.8	12.5	15.9	8.1	1.9	5.0	ns	0.005	1.0		

Springlake
Table 9c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 11 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Sierra Gold	5.6	5.8	2.2	95	98	2.3	3.9	2.1	3.9	56
TXYG079	5.6	5.3	2.2	96	98	1.5	3.7	1.0	3.8	100
TXYG098	6.4	5.3	1.8	90	95	1.7	3.8	1.0	3.7	100
TXYG107	5.3	5.4	2.0	96	98	1.5	3.7	1.0	3.8	99
TXYG055	5.3	5.5	1.6	79	93	1.6	3.5	1.0	3.4	100
Yukon Gold	5.1	5.3	1.3	95	98	1.5	3.5	1.3	3.4	98
TXYG105	6.2	4.9	2.0	90	96	1.5	3.6	1.0	3.7	100
Sierra Gold-2	5.5	5.1	2.4	78	96	2.1	3.8	3.3	3.8	35
TXYG057	5.4	5.1	1.8	92	96	1.4	3.4	1.0	3.4	98
Sierra Gold-3	4.7	5.2	1.7	63	96	1.9	3.8	3.2	3.7	38
ATX9132-2Y	5.6	0.9	5.6	98	100	2.8	4.0	2.9	3.9	33
Average	5.5	4.9	2.2	88	97	1.8	3.7	1.7	3.7	78
L.S.D. (.05)	ns	0.6	0.5	11	ns	0.5	0.3	0.7	0.3	24

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 9d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 11 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Sierra Gold	2.8	2.7	3.8	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXYG079	3.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
TXYG098	2.6	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	15	0	0	0
TXYG107	2.9	2.7	1.0	3.9	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
TXYG055	2.9	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
Yukon Gold	2.9	2.1	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	4
TXYG105	3.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
Sierra Gold-2	2.5	3.3	3.8	4.0	3.5	4.5	5.0	5.0	5.0	5.0	0	0	0	0
TXYG057	3.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
Sierra Gold-3	2.9	2.6	3.5	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX9132-2Y	4.0	1.0	1.0	2.1	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.9	2.0	1.7	3.8	1.7	5.0	5.0	5.0	5.0	5.0	4	0	0	0
L.S.D. (.05)	0.3	0.2	ns	0.1	0.03	ns	ns	ns	ns	ns	ns	ns	ns	2

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 9e.

Notes and general rating for all reps of 11 entries in the Southwestern
Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-
2009.

Variety or Selection	Notes Grading	General Rating Grading
Sierra Gold	small, very nice, BOT, ,	4.1, 4.5, 4.5, 4.5
TXYG079	high yield, smooth, , rot	4.5, 4, 4.4, 4.5
TXYG098	, , very nice, large tubers	4.2, 4.2, 4.5, 4.4
TXYG107	Rhizoctonia, , nice+,	4.3, 4.2, 4, 4
TXYG055	, Rhizoctonia, small,	4.4, 4.4, 4.3, 4.4
Yukon Gold	, BOT, , small, rough, bad rep	4.5, 4.4, 4.5, 3
TXYG105	, , ,	4, 4.5, 4.4, 4.4
Sierra Gold-2	, Rhizoctonia, , growth cracks	4.4, 4.3, 4.3, 4
TXYG057	, large tubers, ,	4.4, 4.2, 4.4, 4.2
Sierra Gold-3	very nice, , ,	4.4, 4.4, 4.5, 4.5
ATX9132-2Y	drop++, deep eyes, ,	1, 1, 1, 1

Springlake
Table 9f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 11 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Sierra Gold	Nebraska	1.079	16.7	4.4	3	25/6		10%	0%
TXYG079	Colorado	1.078	16.4	4.4	3	22/19		15%	13%
TXYG098	Colorado	1.078	16.4	4.3	3	15/15		0%	38%
TXYG107	Colorado	1.071	15.2	4.1	3	29/2		6%	25%
TXYG055	Colorado	1.075	15.9	4.4	2	24/17		7%	30%
Yukon Gold	Colorado	1.075	15.9	4.1	2	33/7		18%	20%
TXYG105	Colorado	1.075	15.8	4.3	3	20/10		13%	28%
Sierra Gold-2	Nebraska	1.079	16.5	4.3	2	24/9		9%	5%
TXYG057	Colorado	1.073	15.5	4.3	3	19/21		28%	30%
Sierra Gold-3	Nebraska	1.077	16.3	4.5	1+	31/7	Nice	11%	0%
ATX9132-2Y	Colorado			1.0					0%
Average		1.076	16.1	4.0				12%	17%
L.S.D. (.05)		0.005	1.0	0.4					27%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 9g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 11 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
Yukon Gold	295.90	701.59	95.86	1.075
Sierra Gold	198.26	606.97	73.86	1.081
Sierra Gold-2	209.33	644.78	82.27	1.079
Sierra Gold-3	223.48	625.77	78.13	1.077
TXYG055	237.51	666.84	81.24	1.074
TXYG057	242.86	728.71	101.27	1.076
TXYG079	272.64	636.83	86.69	1.078
TXYG098	325.63	723.02	92.16	1.079
TXYG105	242.72	618.88	81.45	1.075
TXYG107	217.52	610.12	82.26	1.072
ATX9132-2Y	no data	no data	no data	no data
Average	246.58	656.35	85.52	1.077
L.S.D. (.05)	60.25	61.00	15.18	0.005

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 10a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 2 entries in the Southwest
Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
PORTX03PG25-2R/P	274.5	270.2	13.8	186.2	70.2	0.0	4.3	0.0	3.0	3.8
Purple Majesty	443.9	223.1	84.1	113.9	25.1	0.0	220.8	0.0	3.5	3.5
Average	359.2	246.6	49.0	150.0	47.7	0.0	112.6	0.0	3.2	3.7
L.S.D. (.05)	75.8	53.7	50.6	46.6	42.0		42.5		0.1	0.1

¹ 1=very poor to 5= excellent

Springlake
Table 10b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 2 entries in the Southwest Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
PORTX03PG25-2R/P	98.4	5.0	68.1	25.4	0.0	1.6	0.0	1.063	13.8	Long	Red
Purple Majesty	50.1	18.7	25.8	5.6	0.0	49.9	0.0	1.071	15.2	Oblong	Purple
Average	74.3	11.8	46.9	15.5	0.0	25.7	0.0	1.067	14.5		
L.S.D. (.05)	7.4	10.8	15.2	14.1		7.5		0.003	0.7		

Springlake
Table 10c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 2 entries in the Southwest Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
PORTX03PG25-2R/P	9.6	2.5	3.0	67	94	1.5	2.8	4.2	3.0	3
Purple Majesty	9.8	3.8	3.5	91	100	2.6	4.3	3.1	4.2	34
Average	9.7	3.1	3.2	79	97	2.1	3.5	3.7	3.6	18
L.S.D. (.05)	ns	1.0	ns	ns	3	ns	0.8	0.6	0.4	18

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 10d.

Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 2 entries in the Southwest Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
PORTX03PG25-2R/P	2.9	5.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Purple Majesty	3.8	3.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Average	3.3	4.3	1.0	4.0	4.5	5.0	5.0	5.0	5.0	4.3	0	0	0	0
L.S.D. (.05)	0.4	0.1	ns	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 10e.

Notes and general rating for all reps of 2 entries in the Southwest Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
PORTX03PG25-2R/P	Pointed, , ,	, , ,	3, 3, 3, 3	3.8, 3.8, 3.8, 3.8
Purple Majesty	, Road Map, Yield +, ,	road map-alligator skin, silver scurf, yield+, small, smooth, ,	3.5, 3.4, 3.5, 3.5	3.5, 3.5, 3.5, 3.5

Springlake
Table 10f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 2 entries in the Southwest Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Ratio	Notes ³	Percent Defect	Percent Zebra Defect at Grading
PORTX03PG25-2R/P Purple Majesty	Colorado	1.063	13.8	3.8	3	33/7	Keep	5%	0%
	Colorado	1.071	15.2	3.5	3+	36/3		8%	0%
Average		1.067	14.5	3.7				6%	0%
L.S.D. (.05)		0.003	0.7	0.1					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB=pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 10g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 2 entries in the Southwest Regional Purple Flesh Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
PORTX03PG25-2R/P	752.63	777.90	127.12	1.063
Purple Majesty	422.75	774.93	99.71	1.071
Average	587.69	776.41	113.41	1.067
L.S.D. (.05)	69.49	ns	11.80	0.003

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 11a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
AOTX98152-3RU	569.2	426.4	125.1	174.5	126.8	25.9	110.2	6.7	3.8
Russet Norkotah	446.8	386.2	178.0	134.5	73.6	2.1	49.1	9.5	3.8
TXA549-1RU	440.2	342.8	103.9	123.2	115.6	15.3	70.7	11.4	4.1
ATX91137-1RU	399.5	320.1	146.1	123.3	50.7	5.2	61.8	12.4	3.6
ATX9202-3RU	423.1	316.2	170.6	92.9	52.8	4.1	95.6	7.1	3.0
ATX99013-1RU	411.1	313.7	115.7	122.2	75.8	11.1	65.2	21.1	3.5
AOTX95265-2ARU	386.7	304.1	116.2	161.8	26.1	4.7	58.4	19.5	3.1
AOTX98202-1RU	395.4	287.6	118.7	102.6	66.4	9.3	88.7	9.7	3.4
AOTX96208-1RU	367.0	265.7	94.3	116.4	55.1	5.9	86.2	9.2	3.3
AOTX96216-2RU	400.3	262.7	38.7	74.7	149.3	98.9	20.5	18.2	3.7
ATX97147-4RU	382.7	253.8	69.6	119.6	64.5	14.7	59.5	54.8	2.7
AOTX95265-4RU	319.7	225.9	118.9	96.6	10.4	0.0	88.5	5.4	2.8
Average	411.8	308.8	116.3	120.2	72.3	16.4	71.2	15.4	3.4
L.S.D. (.05)	65.6	52.8	34.2	43.9	37.3	25.8	32.8	21.6	0.5

¹ 1=very poor to 5= excellent

Springlake
Table 11b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AOTX98152-3RU	74.8	22.3	30.7	21.8	4.2	19.9	1.2	1.073	15.5	Oblong	Russet
Russet Norkotah	87.1	40.4	30.0	16.7	0.4	10.4	2.1	1.065	14.1	Long	Russet
TXA549-1RU	77.9	23.6	28.1	26.2	3.4	16.1	2.5	1.072	15.3	Oblong	Russet
ATX91137-1RU	79.8	36.4	30.7	12.7	1.2	15.5	3.5	1.064	13.9	Oblong	Russet
ATX9202-3RU	74.9	40.2	22.3	12.5	1.0	22.4	1.7	1.067	14.5	Oblong	Russet
ATX99013-1RU	76.3	28.1	29.7	18.4	2.7	16.0	5.0	1.068	14.6	Long	Russet
AOTX95265-2ARU	78.8	29.8	42.0	6.9	1.2	15.1	5.0	1.069	14.8	Long	Russet
AOTX98202-1RU	72.9	30.5	25.5	17.0	2.2	22.6	2.4	1.073	15.4	Long	Russet
AOTX96208-1RU	72.0	25.8	31.8	14.4	1.5	23.7	2.7	1.065	14.1	Long	Russet
AOTX96216-2RU	65.8	9.9	18.5	37.4	24.2	5.1	4.8	1.076	16.0	Long	Russet
ATX97147-4RU	66.9	18.5	31.1	17.3	3.3	15.4	14.4	1.072	15.3	Long	Russet
AOTX95265-4RU	70.5	37.2	30.0	3.4	0.0	27.8	1.6	1.067	14.5	Oblong	Russet
Average	74.8	28.6	29.2	17.1	3.8	17.5	3.9	1.069	14.8		
L.S.D. (.05)	8.2	8.2	9.5	8.0	5.3	7.0	5.5	ns	ns		

Springlake
Table 11c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
AOTX98152-3RU	7.1	6.9	3.1	98	98	2.9	4.3	1.9	4.3	99
Russet Norkotah	6.5	5.7	2.4	96	98	1.7	3.7	1.8	3.6	96
TXA549-1RU	5.2	7.3	2.9	90	97	2.7	4.3	1.8	4.3	100
ATX91137-1RU	5.4	6.2	2.1	88	96	1.6	3.6	1.9	3.4	96
ATX9202-3RU	6.5	5.5	1.8	93	96	2.0	4.0	2.6	3.9	84
ATX99013-1RU	5.1	6.5	2.9	95	99	1.9	4.1	2.1	3.9	83
AOTX95265-2ARU	4.7	6.8	2.5	94	97	1.6	3.7	2.4	3.7	80
AOTX98202-1RU	5.6	5.8	2.2	96	99	1.7	3.8	2.1	3.8	98
AOTX96208-1RU	5.2	5.9	1.6	92	96	2.0	3.6	2.5	3.6	91
AOTX96216-2RU	3.8	10.4	1.8	83	94	1.8	3.9	2.8	4.0	88
ATX97147-4RU	4.5	6.7	2.2	85	95	2.1	3.8	2.8	3.7	83
AOTX95265-4RU	5.9	4.7	2.9	88	94	2.4	3.5	2.4	3.5	89
Average	5.5	6.5	2.4	92	97	2.0	3.9	2.2	3.8	90
L.S.D. (.05)	0.9	0.7	0.4	9	ns	0.5	0.2	ns	0.3	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 11d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
AOTX98152-3RU	1.0	3.6	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	1.5	4.0	4.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXA549-1RU	1.0	3.6	3.8	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	5	0
ATX91137-1RU	1.0	3.9	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
ATX9202-3RU	1.0	3.6	4.0	3.3	4.0	5.0	5.0	5.0	5.0	5.0	3	0	3	0
ATX99013-1RU	1.0	4.0	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-2ARU	1.0	4.0	4.5	3.3	4.4	5.0	5.0	5.0	5.0	5.0	0	0	3	0
AOTX98202-1RU	1.0	4.4	3.9	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96208-1RU	1.0	3.9	4.0	3.9	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-2RU	1.0	4.3	4.3	4.0	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX97147-4RU	1.0	4.5	4.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	5
AOTX95265-4RU	1.0	3.5	4.0	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.9	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	1	0
L.S.D. (.05)	ns	0.3	0.1	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 11e. Notes and general rating for all reps of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	Notes Grading	General Rating Grading
AOTX98152-3RU	, blocky+, Rhizoctonia+, large tubers+, keep, BOT	3.6, 3.3, 3.7, 4.5
Russet Norkotah	bad rep+, , Rhizoctonia, low yield,	3.7, 4.2, 3.5, 3.8
TXA549-1RU	, , BOT, blocky, Rhizoctonia, large tubers	4, 4, 4, 4.5
ATX91137-1RU	, smooth, blocky, BOT, ,	3.4, 3.5, 4, 3.6
ATX9202-3RU	blocky, poor shape, rough, drop+, deep eyes, high yield, nice flesh,	3, 2.5, 3.3, 3
ATX99013-1RU	, Rhizoctonia, nice flesh,, keep+, advance to SWR,	3.4, 3.4, 3.5, 3.5
AOTX95265-2ARU	rough+, deep eyes, drop, Rhizoctonia,	3, 2.6, 3.4, 3.5
AOTX98202-1RU	, pointed, drop, ,	2.7, 3.4, 4, 3.5
AOTX96208-1RU	drop, , nice shape,	2.6, 3.2, 3.6, 3.6
AOTX96216-2RU	bad rep, rough, very nice interior, large tubers, 378 like, BOT-, parent, Rhizoctonia	3, 4, 3.7, 4
ATX97147-4RU	rough, many culls, drop++, Rhizoctonia+, , too long	2, 2.7, 2.7, 3.4
AOTX95265-4RU	small, bad rep+, drop+, , good rep, drop this rep,	2.5, 2, 3.9, 2.6

Springlake
Table 11f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
AOTX98152-3RU	Colorado	1.073	15.5	3.8	1+	29/9		3%	10%
Russet Norkotah	Colorado	1.065	14.1	3.8	3	19/20		8%	10%
TXA549-1RU	Colorado	1.072	15.3	4.1	1	18/21		8%	8%
ATX91137-1RU	Colorado	1.064	13.9	3.6	1+	17/22		10%	10%
ATX9202-3RU	Colorado	1.067	14.5	3.0	1+	27/12		15%	5%
ATX99013-1RU	Colorado	1.068	14.6	3.5	2	21/19		13%	8%
AOTX95265-2ARU	Colorado	1.069	14.8	3.1	1+	9/28	1 DK	3%	5%
AOTX98202-1RU	Colorado	1.073	15.4	3.4	2+	22/17		3%	15%
AOTX96208-1RU	Colorado	1.065	14.1	3.3	1+	21/18		0%	3%
AOTX96216-2RU	Colorado	1.076	16.0	3.7	2	17/23	6 BC	10%	5%
ATX97147-4RU	Colorado	1.072	15.3	2.7	3	12/28	1 BC	0%	0%
AOTX95265-4RU	Colorado	1.067	14.5	2.8	2	17/24		5%	3%
Average		1.069	14.8	3.4				6%	7%
L.S.D. (.05)		ns	ns	0.5					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 11g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 12 entries in the Texas Advanced Russet Selection (Colorado source) Trial grown near Springlake, Texas-2009

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
Russet Norkotah	290.97	551.72	105.62	1.067
AOTX95265-2ARU	233.14	524.84	93.99	1.068
AOTX95265-4RU	208.76	435.47	58.04	1.068
AOTX96208-1RU	248.34	708.80	99.38	1.067
AOTX96216-2RU	499.17	567.27	120.14	1.065
AOTX98152-3RU	257.67	710.44	92.48	1.073
AOTX98202-1RU	130.35	523.25	81.13	1.074
ATX91137-1RU	287.65	560.18	107.58	1.064
ATX9202-3RU	297.28	784.66	107.70	1.068
ATX97147-4RU	278.27	620.20	80.56	1.073
ATX99013-1RU	259.41	856.99	110.77	1.069
TXA549-1RU	277.40	509.18	80.11	1.073
Average	272.37	612.75	94.79	1.069
L.S.D. (.05)	118.81	59.68	26.57	0.010

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 12a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 14 entries in the Texas Advanced Russet Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
Russet Norkotah296	491.3	423.9	176.3	183.1	64.5	8.1	52.8	6.5	4.1
AOTX95265-3Ru	423.7	360.6	138.7	145.2	76.6	0.0	59.7	3.4	3.7
Russet Norkotah278	421.3	344.2	125.3	152.5	66.4	24.2	44.6	8.3	4.0
TXNS410	351.5	290.4	83.9	94.4	112.1	0.0	58.9	2.2	3.3
AOTX02060-1Ru	325.2	266.5	119.7	99.8	47.1	0.0	50.0	8.7	3.4
ATX05142-2Ru	323.5	263.8	140.4	75.8	47.6	0.0	54.9	4.8	3.8
Stampede Russet	303.3	248.3	89.7	101.0	57.5	0.0	52.2	2.8	3.7
ATX99194-3Ru	284.6	232.3	102.4	67.0	62.9	0.0	49.6	2.6	3.0
AOTX98096-1Ru	263.6	217.0	90.3	69.8	56.9	8.3	31.5	6.9	3.7
ATX84378-6RU	301.5	214.0	47.1	90.1	76.9	53.2	23.9	10.3	3.8
COTX05002-2Ru	288.3	212.2	95.2	76.1	40.9	7.5	66.7	2.0	3.3
TXNS551	238.6	202.9	98.4	76.6	27.8	0.0	35.1	0.6	3.4
ATX03068-1Ru	205.5	177.9	77.4	87.5	12.9	0.0	24.6	3.0	2.5
Russet Norkotah	176.7	119.8	72.2	39.9	7.7	0.0	54.9	2.0	2.9
Average	314.2	255.3	104.1	97.1	54.1	7.2	47.1	4.6	3.5
L.S.D. (.05)	63.9	48.5	27.6	25.5	34.4	21.8	22.0	ns	0.4

¹ 1=very poor to 5= excellent

Springlake
Table 12b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 14 entries in the Texas Advanced Russet Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Russet Norkotah296	87.2	36.1	37.3	13.9	1.6	10.0	1.2	1.066	14.2	Long	Russet
AOTX95265-3Ru	85.1	32.8	34.3	18.1	0.0	14.1	0.8	1.054	12.1	Long	Russet
Russet Norkotah278	82.1	29.7	36.4	16.0	5.6	10.4	1.9	1.065	14.1	Long	Russet
TXNS410	82.6	23.9	26.9	31.9	0.0	16.8	0.6	1.059	13.1	Long	Russet
AOTX02060-1Ru	82.0	36.6	31.1	14.4	0.0	15.4	2.7	1.067	14.4	Oblong	Russet
ATX05142-2Ru	81.5	43.4	23.4	14.7	0.0	17.0	1.5	1.086	17.8	Oblong	Russet
Stampede Russet	82.2	30.1	33.5	18.6	0.0	16.9	0.9	1.052	11.8	Long	Russet
ATX99194-3Ru	80.5	36.1	24.5	19.9	0.0	18.6	0.9	1.059	13.1	Long	Russet
AOTX98096-1Ru	82.3	32.8	26.8	22.7	2.9	12.4	2.4	1.058	13.0	Long	Russet
ATX84378-6RU	71.2	15.8	30.3	25.2	16.2	8.1	4.5	1.056	12.4	Oblong	Russet
COTX05002-2Ru	74.0	32.7	26.9	14.4	2.5	22.9	0.6	1.063	13.7	Oblong	Russet
TXNS551	85.7	41.5	32.9	11.4	0.0	14.0	0.3	1.059	13.1	Long	Russet
ATX03068-1Ru	86.1	38.1	43.1	4.9	0.0	12.8	1.1	1.067	14.5	Oblong	Russet
Russet Norkotah	67.8	40.8	22.7	4.3	0.0	31.1	1.1	1.060	13.2	Long	Russet
Average	80.7	33.6	30.7	16.5	2.1	15.7	1.5	1.062	13.6		
L.S.D. (.05)	6.8	6.0	7.1	10.1	6.3	5.7	ns	0.006	1.1		

Springlake
Table 12c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 14 entries in the Texas Advanced Russet Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Russet Norkotah296	6.8	5.9	1.9	100	100	1.7	4.0	3.2	4.0	66
AOTX95265-3Ru	4.8	7.3	2.8	90	99	1.5	3.4	2.7	3.5	78
Russet Norkotah278	4.6	7.6	2.5	98	99	1.7	3.9	3.8	3.9	66
TXNS410	3.5	8.8	2.2	84	94	1.5	2.9	2.5	3.1	80
AOTX02060-1Ru	4.4	6.1	2.1	95	98	1.8	3.9	1.5	3.8	99
ATX05142-2Ru	5.5	5.0	2.2	92	96	2.3	4.0	2.0	3.9	95
Stampede Russet	4.4	5.9	2.7	88	96	1.6	3.7	2.5	3.8	88
ATX99194-3Ru	3.5	6.8	1.9	88	95	1.5	3.2	1.8	3.2	93
AOTX98096-1Ru	3.2	7.1	2.6	93	96	1.6	3.4	2.9	3.3	85
ATX84378-6RU	2.9	10.2	1.7	75	93	1.5	3.8	3.1	3.8	81
COTX05002-2Ru	4.1	6.5	1.9	88	94	1.9	3.5	2.6	3.6	86
TXNS551	3.2	6.4	2.3	88	95	1.6	3.3	2.0	3.4	89
ATX03068-1Ru	3.2	5.8	2.1	88	92	1.5	3.2	2.1	3.3	96
Russet Norkotah	2.5	5.7	3.1	95	100	1.8	3.1	1.5	3.2	99
Average	4.0	6.8	2.3	90	96	1.7	3.5	2.4	3.5	86
L.S.D. (.05)	0.7	1.0	0.6	11	ns	0.2	0.3	1.0	0.3	18

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 12d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 14 entries in the Texas Advanced Russet Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Russet Norkotah296	1.0	4.0	4.0	3.7	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-3Ru	1.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
Russet Norkotah278	1.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXNS410	1.0	4.0	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX02060-1Ru	1.0	3.6	4.0	3.4	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05142-2Ru	1.0	3.8	4.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Stampede Russet	1.0	4.0	4.3	4.4	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX99194-3Ru	1.0	3.9	4.0	4.1	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX98096-1Ru	1.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATX84378-6RU	1.0	3.7	4.0	4.0	4.0	3.0	5.0	5.0	5.0	5.0	3	0	0	0
COTX05002-2Ru	1.0	3.9	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXNS551	1.0	4.0	4.0	3.9	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03068-1Ru	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	1.0	4.0	4.0	3.9	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.9	4.0	4.0	4.0	4.9	5.0	5.0	5.0	5.0	1	0	0	0
L.S.D. (.05)	ns	0.1	ns	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

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Table 12e. Notes and general rating for all reps of 14 entries in the Texas Advanced Russet Selection
(Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
Russet Norkotah296	, , ,	4.5, 4, 3.8, 4
AOTX95265-3Ru	nice, BOT-, , ,	4, 4, 3.3, 3.5
Russet Norkotah278	, Rhizoctonia, ,	4.2, 4, 4, 3.7
TXNS410	, nice shape, ,	4, 3.5, 3, 2.5
AOTX02060-1Ru	blocky, drop+, deep eyes, keep, ,	3.3, 3.7, 3.6, 3
ATX05142-2Ru	smooth, Stampede like, , ,	3.8, 3.8, 3.8, 3.8
Stampede Russet	, smooth, nice shape and skin,	3.8, 3.6, 3.6, 3.7
ATX99194-3Ru	, poor skin finish, drop, ,	3.1, 3, 3, 3
AOTX98096-1Ru	BOT, nice shape+, low yield+,	4, 3.5, 3.5, 3.7
ATX84378-6RU	growth cracks, large tubers, nice white flesh, rough	4, 3.8, 3.8, 3.5
COTX05002-2Ru	, W/P Flower, Mix, Rouge P Flower, , drop+	3.6, 3, 3.3, 3.3
TXNS551	nice shape, low yield, , ,	3, 3.7, 3.5, 3.5
ATX03068-1Ru	blocky, , drop+,	3, 2.5, 2, 2.5
Russet Norkotah	nice shape, small, , ,	2.5, 3.7, 3, 2.5

Springlake
Table 12f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 14 entries in the Texas Advanced Russet Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Russet Norkotah296	Dalhart	1.066	14.2	4.1	3	7/16	1 DK	4%	0%
AOTX95265-3Ru	Dalhart	1.054	12.1	3.7	3	11/13		4%	5%
Russet Norkotah278	Dalhart	1.065	14.1	4.0	3	11/26		3%	8%
TXNS410	Dalhart	1.059	13.1	3.3	3	13/15		4%	3%
AOTX02060-1Ru	Dalhart	1.067	14.4	3.4	2	21/17		5%	10%
ATX05142-2Ru	Dalhart	1.086	17.8	3.8	3	1/9		40%	10%
Stampede Russet	Dalhart	1.052	11.8	3.7	2	20/20		8%	8%
ATX99194-3Ru	Dalhart	1.059	13.1	3.0	3	9/10		5%	10%
AOTX98096-1Ru	Dalhart	1.058	13.0	3.7	3	13/25	5 DK	8%	0%
ATX84378-6RU	Dalhart	1.056	12.4	3.8	3	7/30		19%	10%
COTX05002-2Ru	Dalhart	1.063	13.7	3.3	2+	10/29		8%	10%
TXNS551	Dalhart	1.059	13.1	3.4	3	11/9		5%	0%
ATX03068-1Ru	Springlake	1.067	14.5	2.5	3+	1/29	6 DK	0%	3%
Russet Norkotah	Dalhart	1.060	13.2	2.9	3	22/10		3%	5%
Average		1.062	13.6	3.5				8%	6%
L.S.D. (.05)		0.006	1.1	0.4					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 12g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 14 entries in the Texas Advanced Russet Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
AOTX02060-1Ru	269.77	700.12	87.69	1.069
AOTX95265-3Ru	344.15	788.83	126.77	1.057
AOTX98096-1Ru	309.75	737.05	121.25	1.058
ATX03068-1Ru	442.69	748.51	128.72	1.067
ATX05142-2Ru	267.41	648.93	94.06	1.086
ATX84378-6RU	340.30	737.58	115.93	1.057
ATX99194-3Ru	255.81	676.64	101.19	1.059
COTX05002-2Ru	290.66	752.34	97.85	1.065
Russet Norkotah	337.42	746.48	126.39	1.060
Russet Norkotah278	417.69	795.76	113.15	1.066
Russet Norkotah296	394.52	813.96	113.41	1.064
Stampede Russet	310.93	723.96	121.59	1.052
TXNS410	402.54	755.28	128.31	1.060
TXNS551	413.35	739.46	130.47	1.059
Average	342.64	740.35	114.77	1.063
L.S.D. (.05)	85.41	66.18	17.18	0.007

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 12a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
AOTX93483-1R	484.3	400.7	76.1	127.6	197.1	46.7	37.0	0.0	3.6	3.6
Red LaSoda	439.9	390.3	80.9	210.2	99.2	4.0	45.6	0.0	3.2	3.2
Dark Red Norland	438.7	348.8	68.1	210.2	70.5	0.0	89.9	0.0	3.0	2.9
AOTX91861-4R	305.8	274.7	38.3	124.5	112.0	0.0	31.1	0.0	3.6	3.6
NDTX7590-3R	345.8	272.7	56.2	152.3	64.1	0.0	60.8	12.3	3.7	3.1
NDTX5438-11R	301.5	219.6	106.0	92.0	21.7	0.0	81.8	0.0	3.7	3.7
NDTX4828-2R	218.5	175.3	73.3	80.9	21.1	0.0	43.2	0.0	3.1	3.2
Average	362.1	297.4	71.3	142.5	83.7	7.2	55.6	1.8	3.4	3.3
L.S.D. (.05)	46.5	31.2	32.9	32.6	23.8	21.2	16.4	ns	0.2	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 12b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AOTX93483-1R	83.3	15.9	26.6	40.8	9.0	7.7	0.0	1.066	14.2	Oblong	Red
Red LaSoda	88.8	18.2	48.0	22.6	0.9	10.4	0.0	1.062	13.6	Oblong	Red
Dark Red Norland	79.6	15.5	47.9	16.3	0.0	20.4	0.0	1.056	12.6	Oblong	Red
AOTX91861-4R	89.9	12.1	41.3	36.6	0.0	10.1	0.0	1.051	11.6	Oblong	Red
NDTX7590-3R	78.8	16.0	44.8	18.0	0.0	18.1	3.1	1.059	13.1	Oblong	Red
NDTX5438-11R	72.8	34.2	31.2	7.4	0.0	27.2	0.0	1.063	13.7	Round	Red
NDTX4828-2R	80.0	33.7	36.5	9.9	0.0	20.0	0.0	1.066	14.4	Round	Red
Average	81.9	20.8	39.5	21.7	1.4	16.2	0.4	1.060	13.3		
L.S.D. (.05)	6.8	8.8	10.9	5.9	3.9	4.9	ns	0.005	1.0		

Springlake
Table 12c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
AOTX93483-1R	6.3	6.7	1.9	86	98	1.8	3.7	4.0	3.7	25
Red LaSoda	6.1	6.0	2.2	97	100	2.0	3.7	2.7	3.7	38
Dark Red Norland	6.9	5.3	2.6	100	100	1.4	3.8	2.7	3.8	69
AOTX91861-4R	4.1	6.6	2.2	89	96	2.3	3.3	3.4	3.4	38
NDTX7590-3R	5.3	5.3	2.0	79	97	1.0	2.6	3.7	2.6	14
NDTX5438-11R	6.4	4.2	2.1	78	96	1.5	3.2	3.2	3.2	19
NDTX4828-2R	4.0	4.7	2.4	90	96	1.5	3.4	3.7	3.6	25
Average	5.6	5.5	2.2	88	98	1.6	3.4	3.3	3.4	32
L.S.D. (.05)	1.1	0.6	ns	15	ns	0.5	0.3	0.7	0.3	20

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 12d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.Springlake

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
AOTX93483-1R	1.0	3.5	1.0	4.0	4.4	5.0	5.0	5.0	5.0	3.3	0	0	8	0
Red LaSoda	1.0	3.0	1.0	1.5	3.0	5.0	5.0	5.0	5.0	4.0	5	0	5	0
Dark Red Norland	1.0	3.0	1.0	2.8	2.9	5.0	5.0	5.0	5.0	4.0	0	0	8	0
AOTX91861-4R	1.0	2.9	1.0	3.9	3.2	5.0	5.0	5.0	5.0	4.5	0	0	0	0
NDTX7590-3R	1.0	3.5	1.0	4.0	3.6	3.9	5.0	5.0	5.0	4.0	0	0	0	0
NDTX5438-11R	1.0	1.4	1.0	4.0	4.1	5.0	5.0	5.0	5.0	4.0	0	0	0	0
NDTX4828-2R	1.0	1.5	1.0	4.0	3.7	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Average	1.0	2.7	1.0	3.5	3.5	4.8	5.0	5.0	5.0	4.0	1	0	3	0
L.S.D. (.05)	ns	0.3	ns	0.1	0.2	0.4	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 12e. Notes and general rating for all reps of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
AOTX93483-1R	, , Large Tubers,	oversize, Rhizoctonia, nice flesh, light set, large tubers,	3.3, 3.6, 3.8, 3.8	3.8, 3.6, 3.4, 3.4
Red LaSoda	, , deep eyes,	, nice white flesh, poor internals,	3.2, 3.3, 3.2, 3.2	3.3, 3.3, 3, 3
Dark Red Norland	, Light Skinned, ,	Rhizoctonia, sliver scurf, drop, ,	3, 3, 3, 3	3, 2.8, 3, 2.8
AOTX91861-4R	, , Yield -,	Red LaSoda like, yield+, , , Advance to SW	3.9, 3.4, 3.6, 3.6	3.8, 3.5, 3.5, 3.5
NDTX7590-3R	, Growth Cracks, ,	, , , lenticels, drop	3.7, 3.7, 3.7, 3.7	3.2, 3.2, 3, 3
NDTX5438-11R	, nice, low yield, ,	Advance to SW, nice skin finish, silver scurf, nice flesh,	3.7, 3.6, 3.8, 3.8	3.7, 3.6, 3.7, 3.7
NDTX4828-2R	, , low yield,	, road map+, zipper eyes, drop++, Rhizoctonia+, low yields, silver scurf++,	3, 3.5, 3, 3	3.2, 3.2, 3.2, 3.2

Springlake
Table 12f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
AOTX93483-1R	Colorado	1.066	14.2	3.6	3	0/27	6 Dark	0%	3%
Red LaSoda	Colorado	1.062	13.6	3.2	2+	8/22		20%	8%
Dark Red Norland	Colorado	1.056	12.6	2.9	2+	6/12		0%	0%
AOTX91861-4R	Colorado	1.051	11.6	3.6	2	9/20		0%	0%
NDTX7590-3R	Colorado	1.059	13.1	3.1	2+	0/30	30 BC/Vas	0%	5%
NDTX5438-11R	Colorado	1.063	13.7	3.7	2	0/26		4%	0%
NDTX4828-2R	Colorado	1.066	14.4	3.2	2	8/22	22 BC	0%	0%
Average		1.060	13.3	3.3				3%	2%
L.S.D. (.05)		0.005	1.0	0.2					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 12g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 7 entries in the Texas Advanced Red Selections (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
Dark Red Norland	254.68	745.88	88.16	1.056
Red LaSoda	348.80	747.88	106.42	1.062
AOTX91861-4R	323.21	737.81	91.29	1.051
AOTX93483-1R	194.54	748.80	85.43	1.065
NDTX4828-2R	307.89	737.74	91.00	1.066
NDTX5438-11R	193.90	702.25	74.13	1.062
NDTX7590-3R	303.42	649.43	85.77	1.061
Average	275.20	724.26	88.88	1.060
L.S.D. (.05)	104.00	77.77	21.52	0.007

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 14a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Red LaSoda	450.5	397.7	131.9	145.2	120.6	0.0	52.8	0.0	3.3	3.7
ATX03516-2R	312.6	255.7	97.6	62.5	95.6	0.0	56.9	0.0	3.8	4.0
NDTX5438-11R	329.9	240.7	104.3	105.4	30.9	0.0	89.3	0.0	3.5	4.2
NDTX731-1R	285.0	232.3	101.6	103.0	27.7	0.0	52.7	0.0	3.9	3.5
NDTX4271-5R	282.3	232.1	106.2	103.8	22.0	0.0	50.3	0.0	4.3	4.0
NDTX050258-2R/Y	277.1	204.1	88.3	92.0	23.8	0.0	73.0	0.0	3.5	3.4
ATX03550-2R	181.9	147.2	41.5	89.1	16.5	0.0	34.7	0.0	3.5	3.4
COTX05211-4R	223.4	142.8	85.1	57.7	0.0	0.0	80.7	0.0	3.3	3.3
COTX05211-7R	316.2	115.4	81.5	33.9	0.0	0.0	200.9	0.0	3.1	3.2
NDTX4847-7R	155.1	114.7	65.9	45.8	3.0	0.0	40.3	0.0	3.2	3.5
NDTX059827-1R	216.2	111.1	85.5	25.5	0.0	0.0	105.1	0.0	3.1	3.3
COTX05211-5R	182.5	109.3	62.1	47.2	0.0	0.0	73.2	0.0	3.3	3.0
Average	267.7	191.9	87.6	75.9	28.4	0.0	75.8	0.0	3.5	3.5
L.S.D. (.05)	45.1	35.7	27.6	21.3	16.5		14.9		0.5	0.5

¹ 1=very poor to 5= excellent

Springlake
Table 14b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Red LaSoda	88.3	29.3	32.2	26.8	0.0	11.7	0.0	1.065	14.0	Round	Red
ATX03516-2R	81.7	31.0	19.9	30.8	0.0	18.3	0.0	1.058	12.8	Round	Red
NDTX5438-11R	72.8	30.9	32.2	9.7	0.0	27.2	0.0	1.062	13.6	Round	Red
NDTX731-1R	81.2	35.5	35.8	9.9	0.0	18.8	0.0	1.063	13.7	Round	Red
NDTX4271-5R	82.1	38.1	36.8	7.2	0.0	17.9	0.0	1.067	14.5	Round	Red
NDTX050258-2R/Y	73.6	31.9	33.2	8.6	0.0	26.4	0.0	1.068	14.6	Round	Red
ATX03550-2R	81.4	23.0	50.1	8.4	0.0	18.6	0.0	1.062	13.6	Round	Red
COTX05211-4R	64.0	38.3	25.6	0.0	0.0	36.0	0.0	1.068	14.6	Oblong	Red
COTX05211-7R	36.5	25.8	10.7	0.0	0.0	63.5	0.0	1.079	16.6	Round	Red
NDTX4847-7R	73.8	40.7	30.8	2.3	0.0	26.2	0.0	1.065	14.2	Round	Red
NDTX059827-1R	51.2	39.0	12.1	0.0	0.0	48.8	0.0	1.060	13.3	Round	Red
COTX05211-5R	59.9	33.6	26.3	0.0	0.0	40.1	0.0	1.060	13.3	Round	Red
Average	70.5	33.1	28.8	8.6	0.0	29.5	0.0	1.065	14.1		
L.S.D. (.05)	3.8	6.9	7.7	5.8		3.8		0.003	0.6		

Springlake
Table 14c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Red LaSoda	5.8	6.5	1.7	92	99	2.1	3.4	3.7	3.5	18
ATX03516-2R	5.1	5.3	2.0	92	96	1.5	3.6	2.5	3.7	43
NDTX5438-11R	9.1	4.4	1.4	66	79	1.5	3.2	4.2	3.3	8
NDTX731-1R	4.4	5.3	2.1	95	100	1.5	3.2	2.8	3.3	46
NDTX4271-5R	4.3	5.5	1.9	94	98	2.1	3.3	1.8	3.3	74
NDTX050258-2R/Y	5.5	4.2	1.9	90	100	1.5	4.0	4.6	4.2	5
ATX03550-2R	2.8	6.6	1.7	71	81	1.5	2.8	2.0	2.9	53
COTX05211-4R	4.5	4.5	2.1	58	92	1.8	3.6	3.8	3.4	15
COTX05211-7R	11.5	2.4	2.9	96	96	2.0	3.7	4.0	3.6	13
NDTX4847-7R	2.9	4.7	1.5	75	94	2.0	2.9	1.6	2.9	75
NDTX059827-1R	6.1	2.9	3.2	98	100	2.0	2.8	1.9	2.6	68
COTX05211-5R	6.2	3.0	1.8	50	82	2.0	3.1	3.7	3.2	19
Average	5.7	4.6	2.0	81	93	1.8	3.3	3.0	3.3	36
L.S.D. (.05)	2.4	0.6	0.4	13	13	0.3	0.5	0.8	0.8	24

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 14d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Red LaSoda	1.0	1.5	1.0	2.0	3.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
ATX03516-2R	1.0	1.5	1.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX5438-11R	1.0	1.0	1.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX731-1R	1.0	1.0	1.0	3.6	4.2	4.5	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4271-5R	1.0	1.3	1.0	3.9	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050258-2R/Y	1.0	1.5	1.0	2.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03550-2R	1.0	1.5	1.0	4.0	4.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05211-4R	1.0	3.0	1.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05211-7R	1.0	1.0	1.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4847-7R	1.0	1.0	1.0	3.6	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059827-1R	1.0	1.4	1.0	4.0	4.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05211-5R	1.0	2.1	1.0	4.0	4.5	3.5	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	1.5	1.0	3.6	4.1	4.8	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	ns	0.4	ns	0.1	0.1	0.6	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 14e. Notes and general rating for all reps of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Red LaSoda	, , ,	, 10 Z, Rhizoctonia,	3, 3.4, 3.4, 3.2	3.2, 3.2, 3.2, 5.2
ATX03516-2R	nice color & shape, nice, ,	10 Z, sticky stem, ,	3.7, 3.8, 3.7, 3.8	3.5, 4.5, 3.5, 4.5
NDTX5438-11R	, nice, ,	nice flesh, BOT+, , TC	3.1, 3.7, 3.6, 3.6	3.7, 4.4, 4.4, 4.4
NDTX731-1R	very nice, nice shape & color, , BOT	, , poor skin finish, drop 20 Z	3.9, 3.5, 3.9, 4.2	3.5, 3.5, 3.5, 3.5
NDTX4271-5R	very nice, BOT++, ,	, Nice flesh, BOT, , 40 Z	3.8, 4.5, 4.5, 4.5	3.5, 4, 4.2, 4.4
NDTX050258-2R/Y	yield+, light skin, , ,	rough, deep eyes, drop, , ,	3.5, 3.4, 3.5, 3.4	3.4, 3.4, 3.4, 3.4
ATX03550-2R	low yield, nice color+, , ,	, , ,	3.3, 3.6, 3.3, 3.6	3.3, 3.4, 3.3, 3.4
COTX05211-4R	low yield, nice shape, nice color, ,	drop?, silvers scurf, ,	3.1, 3.4, 3.1, 3.4	3.2, 3.4, 3.2, 3.4
COTX05211-7R	very low yield, small, ,	, b size, heavy set, ,	2.8, 3.3, 2.8, 3.3	3, 3.4, 3, 3.4
NDTX4847-7R	low yield+, , , nice	, , BOT,	3.1, 3, 3, 3.7	3.3, 3.3, 3.7, 3.7
NDTX059827-1R	drop, small, very nice, uniform shape	, , ,	1.5, 3.3, 3.8, 3.7	3, 3, 3.4, 3.8
COTX05211-5R	low yield, yield+, poor shape,	drop?, 50 Z, , , lenticels	3.2, 3.5, 3, 3.3	3, 3, 3, 3.1

Springlake
Table 14f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Red LaSoda	Barrett	1.065	14.0	3.7	1+	5/32		0%	3%
ATX03516-2R	Dalhart	1.058	12.8	4.0	2	5/15	11 BC/Vas	0%	3%
NDTX5438-11R	Dalhart	1.062	13.6	4.2	2	8/32	Keep	10%	0%
NDTX731-1R	Springlake	1.063	13.7	3.5	2	27/12		0%	3%
NDTX4271-5R	Dalhart	1.067	14.5	4.0	1+	16/21	Keep	8%	10%
NDTX050258-2R/Y	Dalhart	1.068	14.6	3.4	3	5/20		8%	0%
ATX03550-2R	Dalhart	1.062	13.6	3.4	2	13/5		0%	0%
COTX05211-4R	Dalhart	1.068	14.6	3.3	3	2/20		0%	0%
COTX05211-7R	Dalhart	1.079	16.6	3.2	2+	12/7		0%	0%
NDTX4847-7R	Springlake	1.065	14.2	3.5	2	22/15	Keep	5%	0%
NDTX059827-1R	Dalhart	1.060	13.3	3.3	1+	26/12	Keep	0%	0%
COTX05211-5R	Dalhart	1.060	13.3	3.0	3	0/37	37 Dark	0%	13%
Average		1.065	14.1	3.5				3%	3%
L.S.D. (.05)		0.003	0.6	0.5					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 14g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 12 entries in the Texas Advanced Red Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATX03516-2R	422.45	719.89	100.94	1.058
ATX03550-2R	259.13	701.19	83.05	1.062
COTX05211-4R	299.25	552.69	74.32	1.068
COTX05211-5R	304.34	553.82	71.72	1.060
COTX05211-7R	324.42	628.50	84.76	1.079
NDTX050258-2R/Y	260.34	507.01	68.34	1.068
NDTX059827-1R	288.75	756.95	83.76	1.060
NDTX4271-5R	292.69	682.52	89.77	1.066
NDTX4847-7R	289.17	709.81	79.10	1.065
NDTX5438-11R	261.55	745.45	83.63	1.061
NDTX731-1R	374.64	549.00	86.34	1.063
Red LaSoda	330.78	608.46	81.87	1.064
Average	308.96	642.94	82.30	1.065
L.S.D. (.05)	44.25	59.91	12.96	0.004

[†]The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and

Springlake Table 15a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
ATTX00289-5R/Y	468.6	349.5	193.8	149.6	6.1	0.0	119.2	0.0	3.2	3.5
ATX98448-6R/Y	457.6	344.3	169.9	155.6	18.8	0.0	113.2	0.0	3.2	3.6
ATTX98500-2P/Y	419.7	296.2	149.8	107.9	38.5	0.0	123.5	0.0	3.1	3.3
ATTX961014-1R/Y	402.6	273.3	188.1	85.3	0.0	0.0	129.3	0.0	3.9	3.8
Average	437.1	315.8	175.4	124.6	15.8	0.0	121.3	0.0	3.3	3.6
L.S.D. (.05)	43.3	40.9	ns	49.4	18.6		ns		0.3	0.3

¹ 1=very poor to 5= excellent

Springlake
Table 15b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX00289-5R/Y	74.3	41.1	31.7	1.4	0.0	25.7	0.0	1.064	13.9	Oblong	Red
ATX98448-6R/Y	75.2	37.5	33.6	4.1	0.0	24.8	0.0	1.064	13.9	Oblong	Red
ATTX98500-2P/Y	70.3	35.6	25.5	9.2	0.0	29.7	0.0	1.062	13.6	Round	Purple
ATTX961014-1R/Y	68.0	47.1	20.9	0.0	0.0	32.0	0.0	1.068	14.6	Round	Red
Average	72.0	40.3	27.9	3.7	0.0	28.0	0.0	1.064	14.0		
L.S.D. (.05)	5.4	ns	9.7	4.2		5.5		ns	ns		

Springlake
Table 15c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
ATTX00289-5R/Y	9.3	4.3	2.9	91	96	2.1	3.7	3.5	3.6	25
ATX98448-6R/Y	9.0	4.3	2.5	90	98	1.8	3.5	3.8	3.9	14
ATTX98500-2P/Y	9.5	3.7	2.2	100	100	2.0	4.5	4.9	4.5	1
ATTX961014-1R/Y	8.7	3.9	2.9	94	98	2.4	3.7	1.6	3.5	84
Average	9.1	4.1	2.7	94	98	2.1	3.8	3.4	3.9	31
L.S.D. (.05)	ns	0.4	ns	ns	ns	ns	0.4	0.7	ns	18

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 15d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX00289-5R/Y	2.0	3.3	1.0	4.0	2.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX98448-6R/Y	2.0	3.3	1.0	4.0	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98500-2P/Y	2.5	1.5	1.0	3.6	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX961014-1R/Y	2.6	2.5	1.0	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.3	2.6	1.0	3.9	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.2	0.4	ns	0.1	0.6	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 15e. Notes and general rating for all reps of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATX00289-5R/Y	, , , very light red++	, heat sprouts, nice shape & yield, light skin, smooth, Advance to SW	3.5, 3, 3, 3.1	3.5, 3.5, 3.4, 3.6
ATX98448-6R/Y	yield+, , light red skin++,	eye tubers, advance to SW, light skin,	3.5, 3.2, 3, 3	3.5, 3.5, 4, 3.5
ATX98500-2P/Y	late+, nice yield, , late	Heavy yield, , ,	3, 3.4, 3, 2.8	3.3, 3.3, 3.3, 3.3
ATX961014-1R/Y	, nice yield, smaller tubers, BOT-	, Rhizoctonia+, silver scurf, roadmap, heat sprouts	4, 3.8, 3.8, 3.9	4, 4, 3.5, 3.7

Springlake
Table 15f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATTX00289-5R/Y	Colorado	1.064	13.9	3.5	1+	12/28		8%	0%
ATX98448-6R/Y	Colorado	1.064	13.9	3.6	2	13/27	Keep	5%	0%
ATTX98500-2P/Y	Colorado	1.062	13.6	3.3	2	7/31	Keep	3%	0%
ATTX961014-1R/Y	Colorado	1.068	14.6	3.8	2	17/24	Keep	12%	0%
Average		1.064	14.0	3.6				7%	0%
L.S.D. (.05)		ns	ns	0.3					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 15g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 4 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATTX00289-5R/Y	228.86	467.04	56.51	1.065
ATTX961014-1R/Y	255.07	544.13	78.99	1.068
ATTX98500-2P/Y	185.59	618.42	68.57	1.061
ATX98448-6R/Y	205.22	446.05	55.56	1.064
Average	218.69	518.91	64.91	1.064
L.S.D. (.05)	50.15	51.47	9.49	0.003

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake Table 16a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
ATTX961014-1R/Y	402.7	259.9	146.3	90.3	23.3	0.0	142.8	0.0	4.0	4.1
COTX04267-1R/Y	345.5	178.0	158.6	19.4	0.0	0.0	167.5	0.0	3.3	3.6
ATX03515-1R/Y	272.3	164.6	106.5	58.1	0.0	0.0	107.7	0.0	3.0	4.2
COTX04193-2R/Y	304.4	150.3	118.3	32.0	0.0	0.0	154.1	0.0	3.7	4.2
COTX05037-5P/Y	314.6	146.0	82.3	63.7	0.0	0.0	168.6	0.0	3.1	2.4
COTX05261-1R/Y	289.3	141.7	127.7	14.0	0.0	0.0	147.6	0.0	3.5	3.2
ATX05178-2P	300.1	124.8	100.0	24.7	0.0	0.0	175.3	0.0	3.5	2.4
ATTX99325-1P	156.0	109.2	51.1	58.1	0.0	0.0	46.8	0.0	3.4	3.5
COTX04188-3R/Y	239.8	101.1	79.1	22.0	0.0	0.0	138.7	0.0	3.1	2.9
Average	291.6	152.8	107.8	42.5	2.6	0.0	138.8	0.0	3.4	3.4
L.S.D. (.05)	30.4	27.0	17.2	21.8	7.6		33.4		0.4	0.4

¹ 1=very poor to 5= excellent

Springlake
Table 16b. Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX961014-1R/Y	64.3	36.3	22.1	6.0	0.0	35.7	0.0	1.059	13.0	Oblong	Red
COTX04267-1R/Y	52.0	46.4	5.6	0.0	0.0	48.0	0.0	1.062	13.7	Round	Red
ATX03515-1R/Y	59.9	39.1	20.8	0.0	0.0	40.1	0.0	1.066	14.4	Round	Red
COTX04193-2R/Y	49.4	38.9	10.6	0.0	0.0	50.6	0.0	1.054	12.2	Round	Red
COTX05037-5P/Y	46.4	26.2	20.3	0.0	0.0	53.6	0.0	1.075	15.9	Round	Purple
COTX05261-1R/Y	48.9	44.1	4.8	0.0	0.0	51.1	0.0	1.062	13.6	Round	Red
ATX05178-2P	42.0	33.8	8.2	0.0	0.0	58.0	0.0	1.051	11.6	Oblong	Purple
ATTX99325-1P	69.5	32.8	36.7	0.0	0.0	30.5	0.0	1.055	12.3	Oblong	Purple
COTX04188-3R/Y	42.3	33.0	9.2	0.0	0.0	57.7	0.0	1.069	14.8	Round	Red
Average	52.7	36.7	15.4	0.7	0.0	47.3	0.0	1.062	13.5		
L.S.D. (.05)	7.1	5.4	6.1	1.9		7.1		0.008	1.4		

Springlake
Table 16c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
ATX961014-1R/Y	8.3	4.1	3.7	98	98	2.3	3.6	2.4	4.0	64
COTX04267-1R/Y	9.5	3.1	2.3	97	98	2.5	3.4	2.9	3.4	33
ATX03515-1R/Y	9.6	2.9	2.2	68	84	1.5	2.5	1.4	3.3	76
COTX04193-2R/Y	7.7	3.6	2.8	98	96	2.5	3.1	2.4	3.1	65
COTX05037-5P/Y	11.4	2.6	3.3	83	89	2.2	3.0	4.9	4.6	0
COTX05261-1R/Y	7.7	3.2	3.4	95	98	2.2	2.8	2.7	3.4	39
ATX05178-2P	11.4	2.4	2.3	86	92	1.6	3.0	4.1	3.3	9
ATX99325-1P	5.5	3.8	1.8	45	65	1.8	2.2	1.6	2.2	70
COTX04188-3R/Y	8.1	2.6	2.5	91	93	1.5	2.7	3.9	3.5	15
Average	8.8	3.1	2.7	84	90	2.0	2.9	2.9	3.4	41
L.S.D. (.05)	2.1	0.6	0.6	12	11	0.5	ns	1.0	0.5	33

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 16d. Flesh Selection color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX961014-1R/Y	2.5	3.5	1.0	4.0	3.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04267-1R/Y	3.5	1.8	1.0	3.8	3.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03515-1R/Y	3.0	1.5	1.0	4.0	3.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04193-2R/Y	4.0	2.0	1.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05037-5P/Y	3.0	1.0	1.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05261-1R/Y	3.1	1.0	1.0	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	8	0
ATX05178-2P	1.0	2.8	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX99325-1P	1.0	3.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04188-3R/Y	4.0	1.3	1.0	4.0	2.8	5.0	5.0	5.0	5.0	5.0	0	0	0	3
Average	2.8	2.0	1.0	3.9	3.9	5.0	5.0	5.0	5.0	5.0	0	0	1	0
L.S.D. (.05)	0.3	0.5	ns	ns	0.7	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 16e. Notes and general rating for all reps of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATTX961014-1R/Y	BOT, , ,	BOT, heat sprouts, ,	4.4, 3.7, 3.9, 3.9	4.5, 4, 4, 4
COTX04267-1R/Y	, small, light skin,	keep, , ,	3.8, 3.3, 3, 3	3.5, 3.7, 3.5, 3.7
ATX03515-1R/Y	low yield+, light skin, ,	smooth, BOT, , ,	2.8, 3, 3, 3	4.5, 3.9, 4.5, 3.9
COTX04193-2R/Y	, nice color, nice,	dark red skin, dark yellow flesh, BOT, ,	3.9, 3.4, 3.7, 3.7	4.2, 4, 4.3, 4.3
COTX05037-5P/Y	late++, nice color, , ,	drop+, , ,	3.2, 3, 3, 3	2.8, 2.8, 2, 2
COTX05261-1R/Y	nice+, yield+, , ,	, pear shape, pointed, drop++, rot, lenticels	4, 3.6, 3.4, 3	3.3, 3.3, 3.2, 3
ATX05178-2P	nice color+, , ,	, sticky stolon, drop++, , rough	3.4, 3.7, 3.5, 3.5	2.7, 2.7, 2, 2
ATTX99325-1P	nice color, low yield, , drop	, keep, pretty purple skin, small potatoes, heavy set, , silver scurf, drop++,	3.4, 3.3, 3.5, 3.5	3.5, 3.5, 3.5, 3.5
COTX04188-3R/Y	, low yield+, ,	sticky stolon,	3.4, 3, 2.5, 3.3	3, 3, 3, 2.7

Springlake
Table 16f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATX961014-1R/Y	Dalhart	1.059	13.0	4.1	2	11/25		33%	0%
COTX04267-1R/Y	Dalhart	1.062	13.7	3.6	3+	19/10	Keep 7 Dark	10%	0%
ATX03515-1R/Y	Dalhart	1.066	14.4	4.2	2	13/13	5BC	0%	0%
COTX04193-2R/Y	Dalhart	1.054	12.2	4.2	3+	13/15	Keep	7%	0%
COTX05037-5P/Y	Dalhart	1.075	15.9	2.4	3	4/22	Keep	35%	0%
COTX05261-1R/Y	Dalhart	1.062	13.6	3.2	3	15/24	Keep	31%	0%
ATX05178-2P	Dalhart	1.051	11.6	2.4	3	13/27	Keep	8%	0%
ATX99325-1P	Dalhart	1.055	12.3	3.5	3	0/29		0%	0%
COTX04188-3R/Y	Dalhart	1.069	14.8	2.9	3	10/27		5%	0%
Average		1.062	13.5	3.4				14%	0%
L.S.D. (.05)		0.008	1.4	0.4					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 16g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 9 entries in the Texas Advanced Red Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATTX961014-1R/Y	208.76	668.24	85.61	1.062
ATTX99325-1P	264.17	625.14	75.24	1.055
ATX03515-1R/Y	316.73	667.73	86.72	1.057
ATX05178-2P	285.73	540.69	68.63	1.053
COTX04188-3R/Y	171.91	664.08	87.22	1.070
COTX04193-2R/Y	247.56	672.45	92.91	1.054
COTX04267-1R/Y	216.65	625.96	75.89	1.063
COTX05037-5P/Y	189.62	614.16	79.90	1.075
COTX05261-1R/Y	362.23	690.18	111.77	1.061
Average	251.48	640.96	84.88	1.061
L.S.D. (.05)	43.77	62.87	16.79	0.012

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake Table 17a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce and culls/No.2 potatoes and general rating of 2 entries in the Texas Advanced White Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
ATX00289-6W/Y	363.7	293.4	174.5	95.0	24.0	0.0	70.3	0.0	2.0
Yukon Gold	322.0	271.3	107.4	111.8	52.1	0.0	50.7	0.0	4.1
Average	342.8	282.3	140.9	103.4	38.0	0.0	60.5	0.0	3.1
L.S.D. (.05)	ns	ns	ns	ns	4.1	ns	ns	ns	1.7

¹ 1=very poor to 5= excellent

Springlake
 Table 17b. Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 2 entries in the Texas Advanced White Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX00289-6W/Y	80.6	46.6	27.4	6.7	0.0	19.4	0.0	1.061	13.5	Round	White
Yukon Gold	84.4	33.2	35.0	16.2	0.0	15.6	0.0	1.075	15.9	Oblong	White
Average	82.5	39.9	31.2	11.4	0.0	17.5	0.0	1.068	14.7		
L.S.D. (.05)	ns	ns	ns	2.2		ns		0.006	1.1		

Springlake
Table 17c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 2 entries in the Texas Advanced White Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
ATTX00289-6W/Y	7.5	4.4	2.6	79	92	2.3	3.3	3.2	3.4	30
Yukon Gold	5.1	5.3	1.3	95	98	1.5	3.5	1.3	3.4	98
Average	6.3	4.8	2.0	87	95	1.9	3.4	2.2	3.4	64
L.S.D. (.05)	ns	0.3	0.9	ns	ns	0.7	ns	0.7	ns	25

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 17d. Flesh Selection color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 2 entries in the Texas Advanced White Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX00289-6W/Y	1.5	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
Yukon Gold	2.9	2.1	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	4
Average	2.2	2.1	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	1	2
L.S.D. (.05)	0.5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 17e. Notes and general rating for all reps of 2 entries in the Texas Advanced White Skin Yellow
Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
ATTX00289-6W/Y	very light flesh, drop+, poor skin color+, heat sprouts,	2, 2, 2, 2
Yukon Gold	small, rough, bad rep. BOT, ,	3, 4.4, 4.5, 4.5

Springlake
Table 17f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 2 entries in the Texas Advanced White Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATTX00289-6W/Y	Colorado	1.061	13.5	2.0	2	20/20		8%	3%
Yukon Gold	Colorado	1.075	15.9	4.1	2	33/7		18%	20%
Average		1.068	14.7	3.1				13%	11%
L.S.D. (.05)		0.006	1.1	1.7					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 17g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 2 entries in the Texas Advanced White Skin Yellow Flesh Selection (Colorado source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATTX00289-6W/Y	202.85	628.58	53.75	1.063
Yukon Gold	295.90	701.59	95.86	1.075
Average	249.37	665.09	74.80	1.069
L.S.D. (.05)	139.35	65.09	15.08	0.004

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methanol were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 18a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce and culls/No.2 potatoes and general rating of 13 entries in the Texas Advanced White Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
BTX1749-1W/Y	402.6	309.8	157.3	95.2	57.3	4.4	85.0	3.4	3.8
Yukon Gold	354.1	292.6	95.4	116.0	81.3	10.9	50.6	0.0	4.0
NDTX050169-2W/Y	518.7	282.3	159.5	92.0	30.9	0.0	236.4	0.0	3.4
TX1523-1Ru/Y	284.7	234.9	107.1	80.8	47.0	2.0	47.8	0.0	3.9
NDTX049265-2WRSP/Y	420.0	234.2	143.6	60.5	30.1	0.0	185.8	0.0	3.4
NDTX059759-3Pinto/Y-P	307.3	199.7	73.4	68.6	57.7	0.0	107.7	0.0	4.1
TX04237-6Y/Y	253.5	181.3	100.6	57.3	23.4	0.0	72.2	0.0	3.5
ATX05202-3W/Y	388.0	150.8	125.8	25.0	0.0	0.0	237.2	0.0	3.5
NDTX059759-3Pinto/Y	222.6	138.7	67.8	53.2	17.7	0.0	83.9	0.0	4.0
COTX04178-1Y/Y	318.2	79.5	79.5	0.0	0.0	0.0	238.8	0.0	3.6
ATX03496-3Y/Y	218.2	77.2	56.5	20.8	0.0	0.0	141.0	0.0	3.6
ATX03546-1W/Y	198.4	60.5	41.1	19.4	0.0	0.0	137.9	0.0	3.5
ATX03546-1W/Y-P	201.7	24.2	24.2	0.0	0.0	0.0	177.5	0.0	3.5
Average	314.5	174.3	94.7	53.0	26.6	1.3	138.6	0.3	3.7
L.S.D. (.05)	51.8	31.8	33.9	25.4	16.3	ns	50.6	ns	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 18b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 13 entries in the Texas Advanced White Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
BTX1749-1W/Y	77.0	39.0	23.6	14.3	1.1	21.0	0.8	1.069	14.7	Oblong	White
Yukon Gold	82.8	28.0	31.8	23.0	2.8	14.4	0.0	1.074	15.7	Oblong	White
NDTX050169-2W/Y	55.2	31.7	17.4	6.1	0.0	44.8	0.0	1.058	12.9	Oblong	White
TX1523-1Ru/Y	82.5	37.7	28.8	16.0	0.6	16.9	0.0	1.077	16.2	Oblong	Russet
NDTX049265-2WRSP/Y	55.9	34.5	14.4	7.1	0.0	44.1	0.0	1.062	13.6	Oblong	White Red Splsh
NDTX059759-3Pinto/Y-P	65.4	24.4	22.1	18.9	0.0	34.6	0.0	1.067	14.4	Oblong	Pinto
TX04237-6Y/Y	71.4	39.5	22.6	9.3	0.0	28.6	0.0	1.061	13.3	Oblong	Yellow
ATX05202-3W/Y	38.9	32.4	6.4	0.0	0.0	61.1	0.0	1.059	13.1	Round	White
NDTX059759-3Pinto/Y	62.3	30.4	23.9	8.0	0.0	37.7	0.0	1.068	14.6	Oblong	Pinto
COTX04178-1Y/Y	25.5	25.5	0.0	0.0	0.0	74.5	0.0	1.056	12.5	Oblong	Yellow
ATX03496-3Y/Y	35.6	26.2	9.4	0.0	0.0	64.4	0.0	1.054	12.2	Oblong	Yellow
ATX03546-1W/Y	30.5	20.7	9.8	0.0	0.0	69.5	0.0	1.048	11.1	Round	White
ATX03546-1W/Y-P	12.0	12.0	0.0	0.0	0.0	88.0	0.0	1.054	12.2	Round	White
Average	53.5	29.4	16.2	7.9	0.3	46.1	0.1	1.062	13.6		
L.S.D. (.05)	9.0	12.2	5.8	4.6	ns	8.8	ns	0.003	0.6		

Springlake
Table 18c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 113 entries in the Texas Advanced White Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
BTX1749-1W/Y	7.0	4.8	2.4	98	99	2.7	3.5	2.1	3.6	61
Yukon Gold	5.0	6.2	1.2	89	97	1.6	3.7	1.4	3.6	91
NDTX050169-2W/Y	13.6	3.4	2.0	79	95	2.0	4.4	4.4	4.4	10
TX1523-1Ru/Y	4.1	6.0	2.4	88	97	2.3	3.9	3.1	3.8	41
NDTX049265-2WRSP/Y	9.1	3.8	5.1	100	100	2.8	3.7	2.6	4.0	38
NDTX059759-3Pinto/Y-P	6.1	4.3	1.7	85	96	2.4	4.4	4.9	4.6	3
TX04237-6Y/Y	4.9	4.3	2.6	82	98	2.0	4.1	3.5	4.1	30
ATX05202-3W/Y	9.6	3.3	2.9	96	100	2.0	4.1	5.0	4.4	5
NDTX059759-3Pinto/Y	4.0	4.6	2.1	96	100	2.0	4.1	4.0	4.2	5
COTX04178-1Y/Y	10.8	2.5	3.8	97	97	1.5	3.8	3.2	3.8	36
ATX03496-3Y/Y	7.0	2.7	2.6	94	97	1.5	2.7	1.4	3.1	83
ATX03546-1W/Y	7.0	2.3	3.0	100	100	2.8	3.3	1.7	3.3	75
ATX03546-1W/Y-P	10.0	1.8	2.0	79	92	2.0	3.2	2.8	2.5	60
Average	7.6	3.9	2.6	91	97	2.1	3.8	3.1	3.8	41
L.S.D. (.05)	1.9	0.5	0.6	10	4	0.4	0.4	0.6	0.2	20

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 18d.

Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 13 entries in the Texas Advanced White Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
BTX1749-1W/Y	3.0	3.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	3	0	0
Yukon Gold	3.0	3.2	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	23	0	0	0
NDTX050169-2W/Y	1.5	3.1	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	8	0
TX1523-1Ru/Y	2.5	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX049265-2WRSP/Y	2.0	3.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX059759-3Pinto/Y-P	3.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX04237-6Y/Y	2.9	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
ATX05202-3W/Y	3.0	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059759-3Pinto/Y	3.0	3.3	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04178-1Y/Y	2.3	2.9	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03496-3Y/Y	2.5	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03546-1W/Y	3.5	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03546-1W/Y-P	3.5	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.7	2.9	1.2	4.0	1.7	5.0	5.0	5.0	5.0	5.0	3	0	1	0
L.S.D. (.05)	0.4	0.1	ns	ns	ns	ns	ns	ns	ns	ns	6	ns	4	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 18e.

Notes and general rating for all reps of 13 entries in the Texas Advanced White Skin
Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
BTX1749-1W/Y	, , ,	3.8, 3.8, 3.8, 3.8
Yukon Gold	, large tubers, ,	4, 4, 4, 3.8
NDTX050169-2W/Y	, very light flesh, , keep	3.3, 3.4, 3.4, 3.6
TX1523-1Ru/Y	heat sprouts, , BOT, some rot	4, 3.7, 4.5, 3.5
NDTX049265-2WRSP/Y	, keep, drop?, flat, some purple streaks, advance to	3.4, 3.3, 3.3, 3.4
NDTX059759-3Pinto/Y-P	SW/WR, did not oversize, ,	4.2, 4, 4.2, 4
TX04237-6Y/Y	flat, nice flesh, , ,	3.5, 3.5, 3.5, 3.5
ATX05202-3W/Y	drop, , ,	3.5, 3.5, 3.5, 3.5
NDTX059759-3Pinto/Y	purple streaks, rough, , ,	4, 4, 4, 4
COTX04178-1Y/Y	some pear shaped, , , drop?	3.7, 3.7, 3.5, 3.5
ATX03496-3Y/Y	small, pronounced lenticels, keep, , ,	3.8, 3.5, 3.5, 3.7
ATX03546-1W/Y	nice skin finish, , ,	3.5, 3.5, 3.5, 3.5
ATX03546-1W/Y-P	nice skin finish, salad, , ,	3.5, 3.5, 3.5, 3.5

Springlake
Table 18f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 13 entries in the Texas Advanced White Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
BTX1749-1W/Y	Dalhart	1.069	14.7	3.8	2+	22/17		0%	0%
Yukon Gold	Colorado	1.074	15.7	4.0	2	33/7		18%	45%
NDTX050169-2W/Y	Dalhart	1.058	12.9	3.4	1+	7/33	1 DK	8%	0%
TX1523-1Ru/Y	Dalhart	1.077	16.2	3.9	2	25/13		21%	0%
NDTX049265-2WRSP/Y	Dalhart	1.062	13.6	3.4	2	24/6		10%	10%
NDTX059759-3Pinto/Y-P	Dalhart	1.067	14.4	4.1	2	27/3		0%	0%
TX04237-6Y/Y	Dalhart	1.061	13.3	3.5	3	17/14	1 DK	6%	0%
ATX05202-3W/Y	Dalhart	1.059	13.1	3.5	2+	3/8		45%	40%
NDTX059759-3Pinto/Y	Dalhart	1.068	14.6	4.0				0%	2%
COTX04178-1Y/Y	Dalhart	1.056	12.5	3.6	3	9/29	2 DK	13%	13%
ATX03496-3Y/Y	Dalhart	1.054	12.2	3.6	2+	11/28	7 DK	8%	8%
ATX03546-1W/Y	Dalhart	1.048	11.1	3.5	3	0/9		22%	20%
ATX03546-1W/Y-P	Dalhart	1.054	12.2	3.5	3+	6/12	7 DK	28%	0%
Average		1.062	13.6	3.7				14%	11%
L.S.D. (.05)		0.003	0.6	0.2					14%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 18g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 13 entries in the Texas Advanced White Skin Yellow Flesh Selection (Dalhart source) Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATX03496-3Y/Y	221.18	762.71	94.38	1.054
ATX03546-1W/Y	216.73	612.05	75.12	1.048
ATX03546-1W/Y-P	301.75	767.83	101.28	1.054
ATX05202-3W/Y	250.20	546.52	61.79	1.059
BTX1749-1W/Y	169.04	607.81	66.49	1.069
COTX04178-1Y/Y	161.13	711.21	76.19	1.057
NDTX049265-2WRSP/Y	136.49	715.38	77.25	1.064
NDTX050169-2W/Y	113.52	682.52	75.32	1.058
NDTX059759-3Pinto/Y-P	300.65	676.29	78.95	1.067
TX04237-6Y/Y	216.39	729.33	82.17	1.061
TX1523-1Ru/Y	238.27	753.30	91.61	1.078
Yukon Gold	239.53	739.89	94.45	1.073
NDTX059759-3Pinto/Y	no data	no data	no data	no data
Average	213.74	692.07	81.25	1.062
L.S.D. (.05)	50.76	130.45	16.26	0.004

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 19a.

Total yield, total yield of U.S. No.1, under 4 ounce, culls/No.2 potatoes, percent by weight of less than 4 ounce, and general rating of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre			Under 4 oz.	Culls/ No.2	Percent by Weight Under 4 oz.	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz					
COTX05037-4Y/Y	229.5	35.3	28.0	7.3	194.2	0.0	86.9	3.0	4.4
COTX05249-3W/Y	317.8	134.7	89.5	45.2	183.1	0.0	57.6	3.9	3.2
COTX04050-1P/P	254.5	74.2	65.9	8.3	180.3	0.0	71.1	2.7	3.5
NDTX059886-1Y/Y	280.3	102.4	52.4	50.0	177.9	0.0	64.0	3.5	3.5
COTX04303-1R/Y	192.8	35.5	35.5	0.0	157.3	0.0	80.5	3.3	3.2
ATTX98444-16R/Y	194.8	39.1	39.1	0.0	155.7	0.0	80.6	3.5	4.3
NDTX4756-R/Y	253.3	99.6	89.3	10.3	153.7	0.0	60.5	3.3	3.5
ATX02263-1R/Y	186.1	54.5	50.2	4.2	131.7	0.0	74.6	3.4	3.5
Average	238.6	71.9	56.3	15.7	166.7	0.0	72.0	3.3	3.6
L.S.D. (.05)	58.1	28.6	24.8	13.1	ns		10.9	ns	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 19b.

Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
COTX05037-4Y/Y	13.1	10.8	2.3	0.0	0.0	86.9	0.0	1.062	13.6	Round	Yellow
COTX05249-3W/Y	42.4	28.2	14.2	0.0	0.0	57.6	0.0	1.058	12.8	Round	White
COTX04050-1P/P	28.9	25.8	3.1	0.0	0.0	71.1	0.0	1.067	14.4	Round	Purple
NDTX059886-1Y/Y	36.0	18.7	17.3	0.0	0.0	64.0	0.0	1.067	14.5	Oblong	Yellow
COTX04303-1R/Y	19.5	19.5	0.0	0.0	0.0	80.5	0.0	1.062	13.6	Round	Red
ATTX98444-16R/Y	19.4	19.4	0.0	0.0	0.0	80.6	0.0	1.074	15.7	Oblong	Red
NDTX4756-R/Y	39.5	35.3	4.1	0.0	0.0	60.5	0.0	1.057	12.8	Round	Red
ATX02263-1R/Y	25.4	23.2	2.2	0.0	0.0	74.6	0.0	1.074	15.6	Oblong	Red
Average	28.0	22.6	5.4	0.0	0.0	72.0	0.0	1.065	14.1		
L.S.D. (.05)	10.9	10.8	3.6			10.9		0.005	0.9		

Springlake
Table 19c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
COTX05037-4Y/Y	13.2	1.5	3.6	91	95	1.3	3.7	5.0	3.4	0
COTX05249-3W/Y	11.0	2.6	2.8	88	92	1.5	3.3	3.5	3.2	35
COTX04050-1P/P	9.8	2.3	3.7	83	94	1.9	3.8	4.3	3.8	14
NDTX059886-1Y/Y	9.2	2.5	4.1	96	98	2.4	3.5	4.2	3.4	18
COTX04303-1R/Y	6.6	2.5	4.2	96	96	1.4	3.2	4.5	3.1	5
ATTX98444-16R/Y	7.1	2.3	2.8	96	99	1.6	3.5	2.1	3.4	58
NDTX4756-R/Y	7.4	2.9	4.5	97	98	2.1	3.5	3.7	3.4	30
ATX02263-1R/Y	6.0	2.6	3.5	74	98	1.3	3.2	2.9	3.1	35
Average	8.8	2.4	3.6	90	96	1.7	3.4	3.8	3.3	24
L.S.D. (.05)	2.1	0.3	ns	ns	ns	0.4	0.3	0.6	0.3	17

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 19d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX05037-4Y/Y	3.8	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05249-3W/Y	2.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04050-1P/P	4.5	1.0	1.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059886-1Y/Y	2.5	3.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04303-1R/Y	3.3	1.0	1.0	4.0	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98444-16R/Y	3.4	3.5	1.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4756-R/Y	2.0	1.5	1.0	4.0	3.4	5.0	5.0	5.0	5.0	5.0	30	0	0	0
ATX02263-1R/Y	3.0	3.4	1.0	4.0	4.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.0	2.0	1.0	4.1	3.0	5.0	5.0	5.0	5.0	5.0	4	0	0	0
L.S.D. (.05)	0.4	0.1	ns	ns	0.2	ns	ns	ns	ns	ns	13	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 19e.

Notes and general rating for all reps of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
COTX05037-4Y/Y	, BOT, ,	, BOT, ,	4.5, 4.5, 3, 0	4, 4.5, 4.5, 4.5
COTX05249-3W/Y	nice, , ,	chip??, poor internals , , ,	3.9, 3.9, 3.9, 3.9	3.2, 3.2, 3.2, 3.2
COTX04050-1P/P	, , ,	, , ,	3.5, 3.5, 3.7, 0	3.5, 3.5, 3.5, 3.5
NDTX059886-1Y/Y	nice, low yield, ,	too large, 20 Z, ,	3.5, 3.5, 3.5, 3.5	3.5, 3.5, 3.5, 3.5
COTX04303-1R/Y	low yield, , ,	too large, many large tubers, hollow heart, poor skin finish,silver scurf, drop+, ,	3, 3.5, 3, 3.5	3.2, 3.2, 3.2, 3.2
ATTX98444-16R/Y	, Nice size & shape, ,	, silver scurf, BOT, nice skin finish	3.5, 3.7, 3.6, 3.3	4, 4.5, 4, 4.5
NDTX4756-R/Y	, , big,	, , silverscurf, drop, hollow heart++,	3.5, 3.6, 3, 3	3.3, 3.3, 3.5, 3.8
ATX02263-1R/Y	too big, , ,	, , ,	2.5, 3.6, 3.3, 4	3.5, 3.5, 3.5, 3.5

Springlake
Table 19f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
COTX05037-4Y/Y	Dalhart	1.062	13.6	4.4	2+	20/20	Keep	5%	13%
COTX05249-3W/Y	Dalhart	1.058	12.8	3.2	2	3/8	Keep	36%	13%
COTX04050-1P/P	Dalhart	1.067	14.4	3.5	3	31/9		8%	0%
NDTX059886-1Y/Y	Dalhart	1.067	14.5	3.5	3	13/7	Keep	25%	0%
COTX04303-1R/Y	Dalhart	1.062	13.6	3.2	2+	3/16		0%	0%
ATX98444-16R/Y	Dalhart	1.074	15.7	4.3	2	35/4	Keep	3%	3%
NDTX4756-R/Y	Dalhart	1.057	12.8	3.5	3	6/34	Keep	8%	0%
ATX02263-1R/Y	Dalhart	1.074	15.6	3.5	2, Nice	32/7	Keep	3%	0%
Average		1.065	14.1	3.6				11%	3%
L.S.D. (.05)		0.400	0.9	0.2					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 19g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 8 entries in the Texas Advanced Small Potato Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
ATTX98444-16R/Y	297.62	736.63	86.17	1.075
ATX02263-1R/Y	314.81	747.16	86.10	1.075
COTX04050-1P/P	568.25	753.83	114.96	1.067
COTX04303-1R/Y	225.51	716.93	75.98	1.062
COTX05037-4Y/Y	139.39	417.87	45.11	1.063
COTX05249-3W/Y	307.38	780.16	111.26	1.058
NDTX059886-1Y/Y	364.65	781.60	99.31	1.067
NDTX4756-R/Y	249.27	713.22	83.61	1.056
Average	308.36	705.93	87.81	1.065
L.S.D. (.05)	72.06	38.95	23.12	0.006

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 20a.

Total yield, total yield of U.S. No.1, over 6 inch, under 1 inch, culls/No.2 potatoes and general rating of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 6 in.	Under 1 in.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	1-2 in.	2-4 in.	4-6 in.					
COTX03187-1W	313.0	307.3	66.3	189.0	52.0	0.0	4.2	1.4	3.9	4.3
CO00405-1R	239.0	236.6	36.3	145.0	55.3	0.0	1.8	0.6	3.8	3.5
CO00415-1R	198.2	194.8	48.8	130.7	15.3	0.0	2.0	1.4	3.9	4.3
Banana	198.0	153.1	31.9	58.3	62.9	0.0	7.3	37.7	2.0	2.0
Purple Peruvian	146.3	134.4	18.8	85.0	30.7	0.0	11.8	0.0	2.0	2.0
PTTX05PG07-1W	62.9	59.1	22.8	36.3	0.0	0.0	3.8	0.0	2.3	3.6
Average	192.9	180.9	37.5	107.4	36.0	0.0	5.2	6.9	3.0	3.3
L.S.D. (.05)	19.9	21.7	28.7	30.8	23.6		5.0	5.9	0.5	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 20b.

Percent by weight of U.S. No. 1, over 6 inch, under 1 inch and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-4 in.	4-6 in.	Over 6 in.	Under 1 in.	Culls/ No. 2				
COTX03187-1W	98.2	21.2	60.4	16.6	0.0	1.3	0.4	1.087	18.0	Long	White
CO00405-1R	99.1	15.2	60.9	23.0	0.0	0.7	0.2	1.077	16.3	Long	Red
CO00415-1R	98.4	25.1	65.0	8.2	0.0	1.0	0.6	1.065	14.1	Long	Red
Banana	77.0	15.9	29.7	31.4	0.0	3.8	19.2	1.082	17.2	Long	White
Purple Peruvian	91.6	13.9	56.8	20.9	0.0	8.4	0.0	1.083	17.2	Long	Purple
PTTX05PG07-1W	93.4	38.5	54.9	0.0	0.0	6.6	0.0	1.067	14.4	Long	White
Average	92.9	21.6	54.6	16.7	0.0	3.6	3.4	1.077	16.2		
L.S.D. (.05)	4.4	12.6	13.5	9.3		3.1	2.9	0.004	0.6		

Springlake
Table 20c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
COTX03187-1W	9.2	2.8	3.8	100	100	1.3	3.5	4.3	3.4	8
CO00405-1R	7.3	2.8	3.8	98	98	2.7	3.7	1.8	3.7	70
CO00415-1R	7.1	2.4	2.5	72	97	1.9	3.5	2.4	3.5	56
Banana	9.0	1.7	3.0	82	95	2.0	4.0	4.7	3.8	3
Purple Peruvian	9.3	1.4	2.8	88	96	1.6	3.8	5.0	3.7	0
PTTX05PG07-1W	5.3	1.1	4.3	89	89	2.5	1.6	1.3	2.8	78
Average	7.9	2.0	3.4	88	96	2.0	3.3	3.2	3.5	36
L.S.D. (.05)	2.2	0.4	ns	ns	ns	0.4	0.9	1.2	0.7	19

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 20d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX03187-1W	1.0	5.0	1.0	4.4	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	5
CO00405-1R	1.0	5.0	1.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO00415-1R	1.0	5.0	1.0	3.9	3.6	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Banana	2.5	5.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Purple Peruvian	5.0	5.0	1.0	1.5	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PTTX05PG07-1W	1.0	4.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.9	4.9	1.0	3.8	2.6	5.0	5.0	5.0	5.0	5.0	0	0	0	1
L.S.D. (.05)	ns	ns	ns	0.2	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

⁶ 1 to 5=none

² 1=round to 5=long

⁷ 1 to 5=none

³ 1=none to 5=heavy

⁸ 1 to 5=none

⁴ 1=deep to 5=shallow

⁹ 1 to 5=none

⁵ 1=light to 5=dark

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 20e. Notes and general rating for all reps of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
COTX03187-1W	, Second Growth, smooth,	very white flesh, lenticels, , , can oversize	3.8, 3.9, 3.9, 3.9	4.5, 4.5, 4.2, 4
CO00405-1R	Second Growth, , , pointed	, , , pointed nice flesh, good skin finish, silver scurf, can	3.9, 3.7, 4, 3.4	3.3, 3.5, 3.5, 3.5
CO00415-1R	Second Growth, nice, , BOT	oversize, lenticels, curved, poor shape, heat sprouts,	3.9, 3.7, 3.9, 4	4.5, 4, 4.3, 4.3
Banana	Crooked, Rough, , Second Growth, Heavy Set	Rhizoctonia,	2, 2, 2, 2	2, 2, 2, 2
Purple Peruvian	Deep eyes, , ,	deep eyes, white and purple flesh, drop, , ,	2, 2, 2, 2	2, 2, 2, 2
PTTX05PG07-1W	low yield+, , ,	nice shape, low yield, ,	3, 3, 1.5, 1.5	3.8, 3.5, 3.6, 3.3

Springlake
Table 20f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
COTX03187-1W	Dalhart	1.087	18.0	4.3	2	3/35	Keep	0%	0%
CO00405-1R	Colorado	1.077	16.3	3.5	1+	36/13		10%	0%
CO00415-1R	Colorado	1.065	14.1	4.3	1+	21/8		0%	0%
Banana	Dalhart	1.082	17.2	2.0	2	26/18		0%	0%
Purple Peruvian	Dalhart	1.083	17.2	2.0	3+	0/36	36 Dark	0%	0%
PTTX05PG07-1W	Dalhart	1.067	14.4	3.6	1+	17/22	Keep	0%	0%
Average		1.077	16.2	3.3				2%	0%
L.S.D. (.05)		0.004	0.6	0.2					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 20g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 6 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
Banana	200.74	616.29	77.72	1.081
C000415-1R	260.31	504.54	64.65	1.066
CO00405-1R	267.89	583.04	72.92	1.078
COTX03187-1W	207.49	446.90	57.28	1.087
PTTX05PG07-1W	402.51	690.33	97.22	1.067
Purple Peruvian	789.06	690.16	140.00	1.081
Average	354.67	588.54	84.97	1.077
L.S.D. (.05)	23.12	52.52	7.50	0.003

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 21a.

Total yield, total yield of U.S. No.1, less than 1 inch, culls/No.2 potatoes and general rating of 5 entries in the Western Regional Chip Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 1 in.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	1-2 in.	2-3 in.	Over 3 in.			
Atlantic	469.1	468.3	36.3	282.3	149.6	0.8	0.0	3.9
CO00197-3W	466.1	462.5	56.5	334.5	71.5	3.6	0.0	4.0
Chipeta	437.2	436.7	9.4	230.7	196.6	0.5	0.0	3.6
CO00270-7W	364.6	363.2	22.4	269.6	71.2	1.4	0.0	3.9
CO00188-4W	358.8	358.2	35.3	316.4	6.5	0.6	0.0	3.3
Average	419.2	417.8	32.0	286.7	99.1	1.4	0.0	3.7
L.S.D. (.05)	43.1	42.8	16.5	40.9	27.4	2.6		0.4

¹ 1=very poor to 5= excellent

Springlake
Table 21b.

Percent by weight of U.S. No. 1, less than 1 inch, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 5 entries in the Western Regional Chip Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Under 1 in.	Culls/ No. 2	Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-3 in.	Over 3 in.						
Atlantic	99.8	7.8	60.3	31.7	0.2	0.0	1.080	16.7	Round	Buff
CO00197-3W	99.2	11.7	71.8	15.6	0.8	0.0	1.056	12.4	Oblong	White
Chipeta	99.9	2.1	52.8	45.0	0.1	0.0	1.070	14.9	Oblong	White
CO00270-7W	99.6	6.2	73.9	19.5	0.4	0.0	1.062	13.6	Round	White
CO00188-4W	99.8	9.8	88.3	1.7	0.2	0.0	1.068	14.6	Round	White
Average	99.7	7.5	69.5	22.7	0.3	0.0	1.067	14.5		
L.S.D. (.05)	0.8	4.5	7.9	6.9	0.8		0.010	1.8		

Springlake
Table 21c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 5 entries in the Western Regional Chip Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Atlantic	7.2	5.5	2.5	97	98	1.8	3.8	3.7	3.7	30
CO00197-3W	7.9	4.9	2.9	98	99	2.6	4.2	3.6	4.0	31
Chipeta	5.1	7.2	2.4	97	99	1.6	4.5	5.0	4.6	0
CO00270-7W	6.4	5.0	1.9	84	97	2.1	3.5	3.8	3.6	20
CO00188-4W	9.8	3.5	2.0	91	98	1.4	3.6	1.5	3.4	83
Average	7.3	5.2	2.3	93	98	1.9	3.9	3.5	3.8	33
L.S.D. (.05)	1.5	0.8	0.4	8	4	0.5	0.5	0.7	0.4	21

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 21d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Western Regional Chip Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Atlantic	1.0	1.9	2.5	4.0	2.5	5.0	5.0	5.0	5.0	5.0	15	0	0	28
CO00197-3W	1.0	3.0	1.0	3.9	1.0	5.0	5.0	5.0	5.0	5.0	5	0	13	5
Chipeta	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
CO00270-7W	1.0	2.4	1.0	3.7	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
CO00188-4W	1.0	2.3	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	2.6	1.3	3.9	1.3	5.0	5.0	5.0	5.0	5.0	5	0	3	7
L.S.D. (.05)	0.1	0.3	1.3	0.1	0.2	0.2	ns	ns	ns	ns	7	2	ns	8

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake

Table 21e. Notes and general rating for all reps of 5 entries in the Western Regional Chip Trial grown near Springlake.

Variety or Selection	Notes Grading	General Rating Grading
Atlantic	poor internals, buff, BOT, ,	3.5, 4.3, 3.8, 4
CO00197-3W	, , irregular shape, drop, flat	4, 4, 4, 3.8
Chipeta	rough, , oblong, stolon attachment, drop,	3.5, 4, 3.2, 3.5
CO00270-7W	Rhizoctonia, large, ,	3.3, 4, 4, 4.3
CO00188-4W	Rhizoctonia+, drop, Rhizoctonia, BOT-, small+, nice	3, 4, 3, 3

Springlake
Table 21f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 5 entries in the Western Regional Chip Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Atlantic	Check	1.080	16.7	3.9	1+	21/20	1 HH	12%	23%
CO00197-3W	Colorado	1.056	12.4	4.0	2	23/8		19%	0%
Chipeta	Check	1.070	14.9	3.6	1	32/8		5%	8%
CO00270-7W	Colorado	1.062	13.6	3.9	1	32/7	1 HH	5%	8%
CO00188-4W	Colorado	1.068	14.6	3.3	1	32/6		13%	0%
Average		1.067	14.5	3.7				11%	8%
L.S.D. (.05)		0.010	1.8	0.4					17%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 21g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 5 entries in the Western Regional Chip Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
Atlantic	162.20	510.27	58.56	1.080
Chipeta	207.92	640.90	90.50	1.067
CO00188-4W	258.29	722.66	99.60	1.066
CO00197-3W	165.49	668.84	78.18	1.072
CO00270-7W	73.74	578.90	73.94	1.064
Average	173.53	624.31	80.16	1.070
L.S.D. (.05)	56.35	109.45	19.10	0.007

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake
Table 22a.

Total yield, total yield of U.S. No.1, less than 1 inch, culls/No.2 potatoes and general rating of 10 entries in the
Snack Food Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 1 in.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	1-2 in.	2-3 in.	Over 3 in.			
Atlantic	469.1	468.3	36.3	282.3	149.6	0.8	0.0	3.9
NY138	446.9	445.3	32.0	344.7	68.6	1.6	0.0	3.8
Chipeta	437.2	436.7	9.4	230.7	196.6	0.5	0.0	3.6
CO96141-4W	399.6	398.7	24.8	283.7	90.1	0.9	0.0	3.9
AF2291-10	390.7	388.8	19.4	295.5	74.0	1.9	0.0	3.4
CO97065-7W	363.4	363.2	24.0	292.2	47.0	0.2	0.0	3.6
CO97043-14W	357.9	352.8	43.0	260.3	49.5	5.1	0.0	3.3
MSJ126-9Y	336.9	336.4	26.9	275.3	34.1	0.5	0.0	3.8
Kalkaska	338.8	334.5	81.5	224.8	28.2	4.3	0.0	3.3
NY139	318.7	317.1	21.1	213.2	82.9	1.6	0.0	3.8
Average	385.9	384.2	31.8	270.3	82.1	1.8	0.0	3.6
L.S.D. (.05)	43.1	42.8	16.5	40.9	27.4	2.6		0.4

¹ 1=very poor to 5= excellent

Springlake
Table 22b.

Percent by weight of U.S. No. 1, less than 1 inch, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 10 entries in the Snack Food Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Under 1 in.	Culls/ No. 2	Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-3 in.	Over 3 in.						
Atlantic	99.8	7.8	60.3	31.7	0.2	0.0	1.080	16.7	Round	Buff
NY138	99.6	7.3	77.0	15.4	0.4	0.0	1.073	15.5	Round	White
Chipeta	99.9	2.1	52.8	45.0	0.1	0.0	1.070	14.9	Oblong	White
CO96141-4W	99.8	6.4	71.3	22.1	0.2	0.0	1.068	14.7	Round	White
AF2291-10	99.5	4.8	76.0	18.7	0.5	0.0	1.077	16.3	Round	White
CO97065-7W	99.9	6.8	80.0	13.1	0.1	0.0	1.076	16.1	Round	White
CO97043-14W	98.5	12.3	72.3	13.8	1.5	0.0	1.070	15.0	Round	White
MSJ126-9Y	99.8	7.8	81.7	10.2	0.2	0.0	1.073	15.5	Round	White
Kalkaska	98.8	24.0	66.5	8.3	1.2	0.0	1.074	15.7	Round	White
NY139	99.5	6.5	67.5	25.4	0.5	0.0	1.073	15.5	Oblong	White
Average	99.5	8.6	70.6	20.4	0.5	0.0	1.073	15.6		
L.S.D. (.05)	0.8	4.5	7.9	6.9	0.8		0.010	1.8		

Springlake
Table 22c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 10 entries in the Snack Food Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Atlantic	7.2	5.5	2.5	97	98	1.8	3.8	3.7	3.7	30
NY138	7.4	5.0	1.6	100	100	1.5	3.5	4.2	3.4	9
Chipeta	5.1	7.2	2.4	97	99	1.6	4.5	5.0	4.6	0
CO96141-4W	6.7	5.0	2.6	99	99	2.1	3.7	2.8	3.6	56
AF2291-10	7.1	4.6	1.5	91	99	1.4	3.5	4.1	3.4	14
CO97065-7W	5.9	5.1	2.0	98	100	1.5	3.8	2.7	3.7	53
CO97043-14W	7.1	4.2	2.4	99	99	2.4	3.9	3.9	4.0	14
MSJ126-9Y	6.2	4.5	2.3	95	99	1.9	3.4	3.2	3.4	54
Kalkaska	8.0	3.5	1.9	94	99	1.9	4.1	3.9	4.1	15
NY139	5.3	5.4	2.1	86	93	1.7	3.0	4.8	3.8	4
Average	6.6	5.0	2.1	96	98	1.8	3.7	3.8	3.7	25
L.S.D. (.05)	1.5	0.8	0.4	8	4	0.5	0.5	0.7	0.4	21

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 22d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Snack Food Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Atlantic	1.0	1.9	2.5	4.0	2.5	5.0	5.0	5.0	5.0	5.0	15	0	0	28
NY138	1.0	2.6	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Chipeta	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
CO96141-4W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AF2291-10	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	8	0	8	8
CO97065-7W	1.0	2.0	3.5	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
CO97043-14W	1.0	1.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	8	0
MSJ126-9Y	2.8	2.0	2.4	4.0	2.8	5.0	5.0	5.0	5.0	5.0	3	0	0	10
Kalkaska	1.0	1.1	2.8	4.0	2.8	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NY139	1.0	2.8	1.0	4.0	1.0	4.6	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.2	2.0	1.7	4.0	1.5	5.0	5.0	5.0	5.0	5.0	3	0	2	5
L.S.D. (.05)	0.1	0.3	1.3	0.1	0.2	0.2	ns	ns	ns	ns	7	2	ns	8

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Variety or Selection	Notes Grading	General Rating Grading
Atlantic	poor internals, buff, BOT, ,	3.5, 4.3, 3.8, 4
NY138	, nice++, ,	4, 4, 4, 3.3
Chipeta	rough, , oblong, stolon attachment, drop,	3.5, 4, 3.2, 3.5
CO96141-4W	, , high yield, nice+	3.8, 4, 4, 3.9
AF2291-10	, sticky stolon, rough+, drop,	3.5, 3, 3.7, 3.5
CO97065-7W	, , bad rep,	3.8, 4, 2.8, 3.8
CO97043-14W	rough+, poor internals, , small+, Rhizoctonia, flat	3.2, 3.5, 3.3, 3.3
MSJ126-9Y	yellow flesh 3 , , Atlantic like skin, buff, nice flesh	3.9, 4, 3.5, 3.8
Kalkaska	, buff, Rhizoctonia+, , small, drop	3.5, 3.5, 3.8, 2.5
NY139	rough, small, yield +,	3.7, 4, 3.4, 4

Springlake
Table 22f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 10 entries in the Snack Food Trial grown near Springlake, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Atlantic	Check	1.080	16.7	3.9	1+	21/20	1 HH	12%	23%
NY138	New York	1.073	15.5	3.8	1	31/8	BOT+	0%	10%
Chipeta	Check	1.070	14.9	3.6	2	23/8		19%	8%
CO96141-4W	Colorado	1.068	14.7	3.9	1	26/13		0%	0%
AF2291-10	Main	1.077	16.3	3.4	1	24/15	1 BC	3%	5%
CO97065-7W	Colorado	1.076	16.1	3.6	1	24/16		40%	23%
CO97043-14W	Colorado	1.070	15.0	3.3	1	36/14		16%	13%
MSJ126-9Y	Michigan	1.073	15.5	3.8	1+	33/6		8%	5%
Kalkaska	Michigan	1.074	15.7	3.3	1	17/13		3%	8%
NY139	New York	1.073	15.5	3.8	1+	28/7		9%	15%
Average		1.073	15.6	3.6				11%	11%
L.S.D. (.05)		0.010	1.8	0.4					17%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Springlake
Table 22g.

Antioxidant Activity as Determined by the DPPH and ABTS Assays, Total Phenolic content determined by the Folin–Ciocalteu method, and specific gravity of 10 entries in the Snack Food Trial grown near Springlake, Texas-2009.

Variety or Selection	DPPH ($\mu\text{gTE/gfw}$)	ABTS ($\mu\text{gTE/gfw}$)	TP (mgCGA Eq /100gfw)	Specific Gravity
AF2291-10	168.14	615.53	70.88	1.079
Atlantic	162.20	510.27	58.56	1.080
Chipeta	207.92	640.90	90.50	1.067
CO96141-4W	170.47	524.12	54.41	1.069
CO97043-14W	172.02	596.29	63.83	1.071
CO97065-7W	295.73	620.90	78.29	1.076
Kalkaska	270.42	620.73	79.57	1.073
MSJ126-9Y	173.18	547.32	64.63	1.073
NY138	211.21	535.38	65.90	1.073
NY139	164.73	572.95	65.96	1.073
Average	199.60	578.44	69.25	1.073
L.S.D. (.05)	56.35	109.45	19.10	0.007

¹ The assay used at Texas A&M University was based on use of two types of free radicals [DPPH assay (Brand-Williams, et al. 1995, *Levensm. Wiss. Technol.* 28:25-30) and ABTS assay (Awika et al., 2003, *J. Agric. Food Chem.* 51: 6657-6662) to evaluate antioxidant activity, and the Folin–Ciocalteu method (Singleton et. al, *Methods Enzymol.* 1999, 299, 152–178) to determine total phenolic content. Antioxidants soluble in methonal were extracted and allowed to react with the stable radicals, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH)and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt (ABTS). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

Springlake Table 25a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 9 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
TXYG055(TX)	451.2	360.0	130.7	118.0	111.3	0.0	91.2	0.0	4.0
TXYG098(TX)	436.9	343.4	139.0	129.9	74.5	0.0	93.6	0.0	3.7
TXYG057(TX)	417.9	323.5	126.4	140.4	56.7	0.0	94.4	0.0	4.0
TXYG079(TX)	403.3	314.9	140.1	103.0	71.8	0.0	88.5	0.0	4.0
TXYG105(TX)	401.3	302.7	157.5	96.0	49.2	0.0	98.6	0.0	3.9
ZSC(TX)	400.5	297.9	128.5	108.5	60.9	0.0	102.6	0.0	4.0
TXYG107(TX)	365.4	279.1	95.5	109.2	74.5	0.0	86.3	0.0	4.0
Yukon Gold	322.0	271.3	107.4	111.8	52.1	0.0	50.7	0.0	4.1
Yukon Gold (Stad) (TX)	324.3	261.4	79.1	108.1	74.2	0.0	62.9	0.0	3.9
Average	391.4	306.0	122.7	113.9	69.5	0.0	85.4	0.0	3.9
L.S.D. (.05)	46.9	35.3	29.1	ns	24.9		24.2		ns

¹ 1=very poor to 5= excellent

Springlake
Table 25b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 9 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
TXYG055(TX)	79.8	28.9	26.3	24.6	0.0	20.2	0.0	1.079	16.6	Round	White
TXYG098(TX)	78.7	32.0	29.9	16.8	0.0	21.3	0.0	1.079	16.5	Round	White
TXYG057(TX)	77.3	31.0	32.8	13.6	0.0	22.7	0.0	1.080	16.8	Round	White
TXYG079(TX)	77.9	34.8	25.5	17.7	0.0	22.1	0.0	1.077	16.2	Round	White
TXYG105(TX)	75.5	39.6	23.8	12.1	0.0	24.5	0.0	1.077	16.3	Round	White
ZSC(TX)	74.5	31.9	27.3	15.3	0.0	25.5	0.0	1.078	16.4	Round	White
TXYG107(TX)	76.3	25.6	29.9	20.8	0.0	23.7	0.0	1.080	16.8	Round	White
Yukon Gold	84.4	33.2	35.0	16.2	0.0	15.6	0.0	1.075	15.9	Round	White
Yukon Gold (Stad) (TX)	80.8	24.3	32.9	23.6	0.0	19.2	0.0	1.078	16.5	Round	White
Average	78.4	31.2	29.2	17.9	0.0	21.6	0.0	1.078	16.4		
L.S.D. (.05)	4.9	8.3	ns	6.3		4.8		ns	ns		

Springlake
Table 25c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 9 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXYG055(TX)	5.8	6.5	1.8	92	99	1.5	3.8	1.5	3.8	86
TXYG098(TX)	5.9	6.3	1.7	96	98	1.6	3.9	1.5	3.8	86
TXYG057(TX)	6.1	5.7	1.6	98	99	1.5	3.7	1.3	3.7	94
TXYG079(TX)	5.6	6.3	1.5	88	96	1.5	3.8	1.7	3.8	81
TXYG105(TX)	6.5	5.3	1.8	80	96	1.6	3.7	1.3	3.6	91
ZSC(TX)	6.1	5.7	1.5	91	96	1.4	3.7	1.6	3.7	83
TXYG107(TX)	5.2	6.0	1.6	91	97	1.4	3.6	1.4	3.5	89
Yukon Gold	5.1	5.3	1.3	95	98	1.5	3.5	1.3	3.4	98
Yukon Gold (Stad) (TX)	4.3	6.9	1.9	94	95	1.4	3.7	1.4	3.7	88
Average	5.6	6.0	1.6	91	97	1.5	3.7	1.4	3.7	88
L.S.D. (.05)	1.0	0.7	0.5	8	ns	ns	0.2	ns	0.2	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 25d. Flesh color, tuber shape, percent hollow heart, percent internal brownspot, and percent fresh cut Zebra Chip of 9 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Percent Hollow Heart	Percent Internal Brownspot	Percent Zebra Defect at Grading
TXYG055(TX)	2.5	1.5	0	5	13
TXYG098(TX)	2.5	1.6	8	10	0
TXYG057(TX)	2.5	1.8	5	3	0
TXYG079(TX)	2.5	1.6	18	0	5
TXYG105(TX)	2.5	1.6	0	13	15
ZSC(TX)	2.5	1.5	5	8	0
TXYG107(TX)	2.5	1.5	3	5	5
Yukon Gold	2.9	2.1	0	4	20
Yukon Gold (Stad) (TX)	2.5	1.9	10	8	8
Average	2.5	1.7	5	6	7
L.S.D. (.05)	ns	0.5	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

Springlake
Table 25e.

Notes and general rating for all reps of 9 entries in the Yukon Gold Strain Trial grown near Springlake,
Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
TXYG055(TX)	, 10 ZC, 10 ZC, round, 30 ZC	4, 4, 4, 3.8
TXYG098(TX)	dumbbell, larger, , ,	3.5, 3.8, 3.8, 3.5
TXYG057(TX)	smaller, buff skin, , ,	4, 4, 4, 4
TXYG079(TX)	, smaller, hollow heart, , 20 ZC	4.2, 3.9, 3.8, 4
TXYG105(TX)	, 40 ZC, small, 10 ZC, small, 10 ZC	4, 3.8, 3.7, 4
ZSC(TX)	more round, rot, ,	4, 4, 3.8, 4
TXYG107(TX)	, 20 ZC, round, small, dumbbell	4, 4, 4, 3.8
Yukon Gold	, BOT, , small, rough, bad rep	4.5, 4.4, 4.5, 3
Yukon Gold (Stad) (TX)	, small, hollow heart, 30ZC,	4, 3.9, 3.8, 3.9

Springlake Table 24a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 8 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
TXYG107(G3)	467.3	364.3	158.4	125.8	80.1	0.0	103.0	0.0	4.1
TXYG079(G3)	446.6	337.2	139.6	142.0	55.7	0.0	109.4	0.0	4.0
TXYG055(G3)	396.3	322.5	134.7	112.9	74.8	0.0	73.8	0.0	4.1
TXYG057(G3)	404.7	315.1	151.9	101.6	61.6	0.0	89.5	0.0	3.7
TXYG105(G3)	421.5	301.7	156.5	101.2	44.0	0.0	119.8	0.0	3.9
TXYG098(G3)	371.1	294.2	158.9	79.6	55.7	0.0	76.9	0.0	4.0
Yukon Gold	322.0	271.3	107.4	111.8	52.1	0.0	50.7	0.0	4.1
ZSC(G3)	345.7	267.8	88.3	91.2	88.3	0.0	77.8	0.0	3.9
Average	396.9	309.3	137.0	108.3	64.0	0.0	87.6	0.0	4.0
L.S.D. (.05)	46.9	35.3	29.1	ns	24.9		24.2		ns

¹ 1=very poor to 5= excellent

Springlake
Table 24b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 8 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
TXYG107(G3)	78.1	34.6	26.8	16.6	0.0	21.9	0.0	1.079	16.5	Round	White
TXYG079(G3)	75.2	31.5	31.1	12.5	0.0	24.8	0.0	1.080	16.7	Round	White
TXYG055(G3)	81.4	34.6	28.5	18.3	0.0	18.6	0.0	1.081	17.0	Round	White
TXYG057(G3)	77.8	37.5	25.2	15.1	0.0	22.2	0.0	1.080	16.7	Oblong	White
TXYG105(G3)	71.6	37.4	23.7	10.4	0.0	28.4	0.0	1.082	17.2	Round	White
TXYG098(G3)	79.4	42.8	21.5	15.1	0.0	20.6	0.0	1.078	16.5	Round	White
Yukon Gold	84.4	33.2	35.0	16.2	0.0	15.6	0.0	1.075	15.9	Round	White
ZSC(G3)	77.6	25.6	26.3	25.6	0.0	22.4	0.0	1.080	16.8	Round	White
Average	78.2	34.7	27.3	16.2	0.0	21.8	0.0	1.079	16.7		
L.S.D. (.05)	4.9	8.3	ns	6.3		4.8		ns	ns		

Springlake
Table 24c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 8 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXYG107(G3)	6.4	6.2	2.3	97	98	1.7	4.0	1.2	3.9	94
TXYG079(G3)	6.8	5.6	2.6	98	98	1.7	3.9	1.3	3.9	85
TXYG055(G3)	5.4	6.1	2.0	99	99	1.6	3.8	1.3	3.7	96
TXYG057(G3)	6.0	5.6	2.0	100	100	1.6	3.7	1.4	3.7	88
TXYG105(G3)	6.7	5.3	2.3	98	99	1.6	3.7	1.2	3.7	91
TXYG098(G3)	6.1	5.2	2.1	97	97	1.6	3.7	1.0	3.7	96
Yukon Gold	5.1	5.3	1.3	95	98	1.5	3.5	1.3	3.4	98
ZSC(G3)	4.0	7.5	2.0	96	96	1.5	3.8	1.2	3.7	95
Average	5.8	5.8	2.1	97	98	1.6	3.8	1.2	3.7	93
L.S.D. (.05)	1.0	0.7	0.5	8	ns	ns	0.2	ns	0.2	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 24d. Flesh color, tuber shape, percent hollow heart, percent internal brownspot and percent fresh cut Zebra Chip of 8 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Percent Hollow Heart	Percent Internal Brownspot	Percent Zebra Defect at Grading
TXYG107(G3)	2.5	1.5	5	3	8
TXYG079(G3)	2.5	1.8	3	10	3
TXYG055(G3)	2.5	2.3	8	5	10
TXYG057(G3)	2.5	2.3	3	5	5
TXYG105(G3)	2.5	1.8	5	0	0
TXYG098(G3)	2.5	1.8	3	5	5
Yukon Gold	2.9	2.1	0	4	20
ZSC(G3)	2.5	2.1	5	0	0
Average	2.5	1.9	4	4	5
L.S.D. (.05)	ns	0.5	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

Springlake
Table 24e.

Notes and general rating for all reps of 8 entries in the Yukon Gold Strain Trial grown near Springlake,
Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
TXYG107(G3)	larger, more oblong, 10 ZC, more round, Rhizoctonia, 20 ZC	4.2, 4, 4, 4
TXYG079(G3)	smaller, , , 10 ZC	4, 4, 4, 4
TXYG055(G3)	larger tubers, 10 ZC, 10 ZC, 10 ZC, 10 ZC, smaller	4.4, 4, 4, 4
TXYG057(G3)	Rhizoctonia, 20 ZC, ,	3.8, 3.8, 3.6, 3.6
TXYG105(G3)	Rhizoctonia++, , ,	4, 3.9, 3.8, 4
TXYG098(G3)	, , , 20 ZC	4, 4, 4, 4
Yukon Gold	, BOT, , small, rough, bad rep	4.5, 4.4, 4.5, 3
ZSC(G3)	larger+, , , small	4.2, 4.2, 3.8, 3.5

2009 Dalhart Trials

Summary of growing conditions:

These trials were planted 10 miles southwest of Dalhart in a CSS Farms production field under local cultural methods (Table3) Temperature was higher than average for the second week in June. Precipitation was higher than normal during the third week in June, first, third, and fourth week in July (Figure 4).

Trials conducted:

- Western Regional Chip
- Snack Food
- Texas Advanced Chip
- 2008 Chip Selection
- Texas Advanced Russet
- 2008 Russet Selection
- Texas Advanced Red
- 2008 Red Selection
- Texas Advanced Red Skin Yellow Flesh
- 2008 Red Skin Yellow Flesh Selection
- Texas Advanced White Skin Yellow Flesh
- 2008 White Skin Yellow Flesh Selection
- Texas Advanced Small Potato
- 2008 Small Potato Selection
- Texas Advanced Fingerling/Colored Flesh
- 2008 Fingerling/Colored Flesh Selection
- Yukon Gold Strain
- Zebra Free Selection

WESTERN REGIONAL CHIP TRIAL

This trial consisted of five entries, including Atlantic and Chipeta as check varieties.

Table 3. Environmental and cultural inputs for the 2009 Dalhart Trials.

Location:

Dalhart, Texas

Soil Type

Dallum Fine Sandy Loam

Seed Source

Michigan, Main, New York, Wisconsin, Colorado, Oregon, Texas and Idaho

Date:

DAP

Planted

April 29, 2009

Vines Killed (Red and Specialty)

August 22, 2009

113

Vines Killed (Russet, Chip)

September 4, 2009

125

Harvested (Red and Specialty)

September 13, 2009

134

Harvested (Chip and Specialty)

September 28, 2009

149

Harvested (Russet)

October 12, 2009

163

Plot Information:

Size of Plots

18'

Spacing Between Hills

11"

Spacing Between Rows

28"

Hills Per Plot

20

Number of Rows Per Plot

2

Number of Reps

4

Method of Harvest:

Four-row digger, with hand pick up.

Fertilizer:

Application:

217-220-66 # per acre

Irrigation:

Center Pivot

Seed Treatment

Tops MZ Gaucho

Insecticide:

Beleaf 50 Sg, EPI-MEK 0.15 EC, Fulfill, Li 700, Movento, Platinum, Rimon 0.83ec

Herbicides Applied:

Medal, Sencor, Eptam, Matrix, Liberate, Intensity, Superb, Reglone, Dual

Fungicide Applied:

Bravo Weather Stik, Echo 720 Ag, Endura, Manzate Pro-Stick, Quadris, Revus Top, Scala SC

Environmental Factors:

Temperature was higher than average for the second week in June. Precipitation was higher than normal during the third week in June, first, third, and fourth week in July

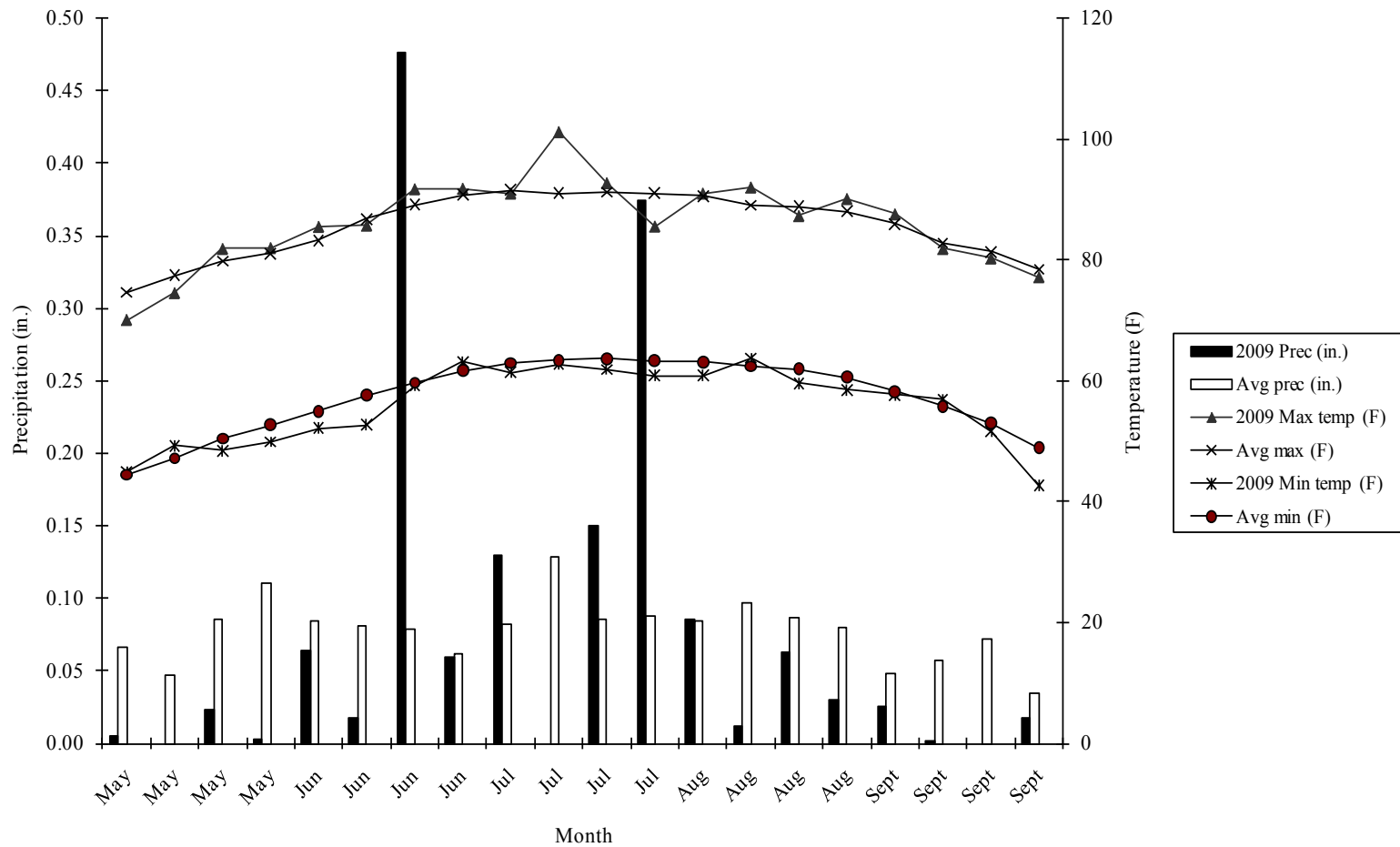


Figure 4. Weekly minimum/maximum temperatures and precipitation for the 2009-growing season near Dalhart, Texas compared to the average minimum/maximum temperatures and precipitation (1949-2009).

Results were as follows: (Dalhart Tables 1a, 1b, 1c, 1d, 1e, and 1f)

- Atlantic had the highest general rating. CO00188-4W had a best of trial designation for chip appearance (Tables 1a and 1f).
- Atlantic and CO00270-7W had the highest total yield and marketable yield (Table 1a).
- CO00270-7W and Atlantic had the highest yield of 1-3 inch tubers, while Chipeta had the highest yield of over 3-inch tubers (Table 1a).
- CO00197-3W had the highest yield of culls/No. 2 tubers (Table 1a).
- CO00197-3W had the lowest percentage (79%) of 1-3-inch tubers (Table 1b).
- Atlantic and CO00197-3W had the highest specific gravity (Table 1b).
- CO00197-3W had the highest average number of tubers per plant (Table 1c).
- CO00270-7W, Chipeta, and CO00197-3W were the latest maturing entries, while CO00188-4W was the earliest maturing (Table 1c).
- CO00270-7W had growth cracks. Atlantic had 15% hollow heart and 13% internal brownspot (Table 1d).
- CO00270-7W, Atlantic, Chipeta, and CO00188-4W had no Zebra Chip. CO00197-3W had 2% Zebra Chip (Tables 1f).
- Overall, CO00188-4W W produced the highest quality chips (Table 1f).

Comments on entries:

- CO00270-7W Round White, Rhizoctonia, ¹CR=1
- Atlantic Round White, buff+, oversize, CR=1+
- Chipeta Oblong White, oversize+, rough, CR=1
- CO00197-3W Oblong White, rough, pointed, Rhizoctonia++, nice flesh, drop CR=1
- CO00188-4W Round White, CR=1

¹CR=chip color rating 1=light to 3= dark

Summary:

The top performing entry based on all factors, including chip evaluations, was CO00188-4W.

SNACK FOOD ASSOCIATION CHIP TRIAL

The trial consisted of 10 entries, including the check varieties Atlantic and Chipeta.

Results were as follows: (Dalhart Tables 2a, 2b, 2c, 2d, 2e, and 2f)

- The outstanding entries for this trial, based on general ratings, and best of trial designations were Kalkaska and NY139. Atlantic also received a high general rating. NY138 received a best of trial designation for chip appearance (Table 2a, 2e and 2f).
- MSJ126-9Y and Atlantic had the highest total and marketable yield (Table 2a).
- MSJ126-9Y and Kalkaska had the highest yield of 1 to 3-inch tubers, while Atlantic had the highest yield of over 3-inch tubers (Table 2a).
- AF2291-10 had the highest yield of culls/No. 2 tubers (Table 2a).
- AF2291-10 had the lowest percentage of marketable yield and the highest percentage of culls/No. 2 tubers (Table 2b).
- NY139 had the highest specific gravity (Table 2b).
- Kalkaska had the highest average number of tubers per plant (Table 2c).
- Kalkaska, CO97043-14W, Chipeta, and AF2291-10 were the latest maturing entries, while CO97065-7W, NY138, and CO96141-4W were the earliest maturing (Table 2c).
- Atlantic had the highest percent hollow heart and internal brownspot (Table 2d).
- CO97065-7W and CO96141-4W had 10% and 3% Zebra Chip, while, the remainder of the entries had no Zebra Chip (Table 2f).

Comments on entries:

- MSJ126-9Y Round White, yellow flesh 3, buff, smooth, ¹CR=3.
- Atlantic Round White, oversize, buff, CR=1+.
- Kalkaska Round White, Rhizoctonia++, yield+, buff, nice, BOT, CR=1.
- NY139 Round White, parent, smooth, nice, oversize, BOT CR=1+.

- CO97065-7W Round White, deep eyes, rough, drop+, CR=1+.
- CO97043-14W Round White, oversize-, flat, Rhizoctonia, soft, bruise, poor shape, CR=1.
- NY138 Round White, smooth, CR=1.
- CO96141-4W Round White, CR=1.
- Chipeta Oblong White, oversize+, rough, CR=1.
- AF2291-10 Round White, many culls, rough+, Rhizoctonia+, oversize, drop+, CR=1.

¹CR=chip color rating 1=light to 3= dark

Summary:

Based on chip appearance and quality, NY138 was the outstanding entry. Kalkaska and NY139 also received best of trial designations for tuber appearance.

TEXAS ADVANCED CHIP TRIAL

The trial consisted of 30 entries, including the check varieties Atlantic and Chipeta. The seed was from Oregon, and Dalhart.

Results were as follows: (Dalhart Tables 3a, 3b, 3c, 3d, 3e, and 3f)

- The outstanding entry for this trial based on general rating and best of trial designation was ATX85404-8W. AOTX95295-1W, Atlantic, NDTX059997-3W, and AOTX95309-3W received a high general rating and a best of trial designation for chip appearance. NDTX059997-1W and ATTX98466-5R/W-R also received best of trial designations for chip appearance (Tables 3a, 3e and 3f).
- NDTX059897-1Y/Y and AOTX95295-1W had the highest total and marketable yield, while AOTX95295-1W and NDTX059632-1W had the highest yield of 1 to 3-inch tubers (Table 3a).
- NDTX059897-1Y/Y and TX1673-1W had the highest yield of over 3-inch tubers. TX05249-10W and COTX02377-1W had the highest yield of culls/No. 2 tubers (Table 3a).
- TX05249-10W had the lowest percentage of marketable yield and the highest percentage of culls/No. 2 tubers. Atlantic, NDTX059997-3W, TX1673-1W, Chipeta NDTX059997-1W, TX05249-12W, TX05246-3W, and TX05249-10W had greater than 50% of over 3-inch tubers (Table 3b).
- Atlantic, TX05249-11W, and TX05246-3W had the highest specific gravity (Table 3b).

- TX05254-2W had the highest average number of tubers per plant (Table 3c).
- AOTX95295-1W, ATX85404-8W, NDTX059997-3W, NDTX059632-1W, Chipeta, TX05249-12W, TX05249-5W, TX05249-14W, TX05246-3W, TX05249-3W, TX05249-10W, NDTX059979-1W, and NDTX059997-6W were the latest maturing entries, while COTX03270-1W, NDTX059997-8W, and ATTX98466-5R/W-R were the earliest maturing (Table 3c).
- NDTX059897-1Y/Y had the deepest eyes. Atlantic, NDTX059632-1W, and TX05249-14W had the highest percentage hollow heart. Atlantic, TX05249-14W and TX05249-3W had the highest percentage of internal brownspot (Table 3d).
- NDTX059897-1Y/Y, AOTX95295-1W, Atlantic, NDTX059997-3W, NDTX059632-1W, Chipeta, NDTX059997-1W, TX05249-12W, AOTX95309-3W, NDTX059997-2W, ATX03409-6W/Y, TX03196-1W, NDTX059828-2W, NDTX059997-4W, COTX03270-1W, TX05249-11W, TX05249-3W, TX05249-10W, and ATTX98466-5R/W-R had no Zebra Chip. All of the other entries had over 3% Zebra Chip (Table 3f).

Comments on entries:

- NDTX059897-1Y/Y Round Yellow, yellow flesh, oversize, rough++, deep eyes, yield+, buff, ¹CR=3.
- AOTX95295-1W Round White, nice, CR=1+.
- ATX85404-8W Round White, nice, BOT, CR=1+.
- Atlantic Round White, oversize, buff, CR=1.
- NDTX059997-3W Round White, nice smooth, CR=1.
- TX1673-1W Round White, rough+, oversize+, CR=2.
- NDTX059632-1W Round White, CR=1.
- Chipeta Oblong White, oversize+, rough, CR=2+.
- NDTX059997-1W Round White, very smooth, nice appearance, CR=1.
- TX05249-12W Oblong White, rough, CR=1+.
- AOTX95309-3W Round White, smooth, CR=1.
- COTX02377-1W Round White, growth cracks, drop, CR=1.
- NDTX059997-2W Round White, nice white CR=1.
- ATX03409-6W/Y Round White, mix smooth & buff, buff+, small, drop, CR=3.

- TX03196-1W Round White, small+, CR=1.
- TX05249-8W Round White, poor internal, buff, russet, CR=1+.
- TX05249-5W Round White, CR=1+.
- NDTX059828-2W Round White, pronounced eyes, small, low yield, CR=1.
- NDTX059997-4W Round White, rough, nice flesh, CR=1+.
- TX05254-2W Oblong White, CR=1+.
- NDTX059997-7W Round White, CR=1.
- TX05249-14W Oblong White, russet, pointed, drop+ CR=1+.
- COTX03270-1W Oblong White, greenheads, drop CR=1+.
- NDTX059997-8W Round White, CR=2+.
- TX05249-11W Round White, CR=1+.
- TX05246-3W Round White, low yield, light set, smooth, CR=1+.
- TX05249-3W Round White, drop, CR=3.
- TX05249-10W Round White, large, very nice flesh, size, parent, drop+ CR=1+.
- NDTX059979-1W Oblong White, buff, CR=1+.
- NDTX059997-6W Round White, smooth, nice flesh, CR=1.
- ATTX98466-5R/W-R Round White, red streak in flesh, smooth, CR=1.

¹CR=chip color rating 1=light to 3= dark

Summary:

Based on all factors, AOTX95295-1W, ATX85404-8W, NDTX059997-3W, and NDTX059632-1W were the outstanding entries in this trial.

2008 CHIP SELECTIONS TRIAL, DALHART

The trial consisted of 58 entries of which 34 were selected in the field for further chip evaluations. Of those, (ATTX03446-3W, ATTX03446-4W, ATTX03474-1W, ATTX03474-2W, ATTX03474-3W, ATTX03475-2W, ATTX03475-6W, ATTX03476-2W, ATX06173-2W, ATX06206-6W/Y, ATX06206-9W, COTX03303-1W, and TX06285-1W/Y 13) will be advanced in 2010 (Table4).

TEXAS ADVANCED RUSSET TRIAL, DALHART

The trial consisted of 33 entries, including the check varieties Russet Norkotah, Russet Norkotah278, Russet Norkotah296, and Stampede Russet.

Results were as follows: (Dalhart Tables 5a, 5b, 5c, 5d, 5e, and 5f)

- The outstanding entries for this trial, based on general rating and best of trial designations were TXA549-1Ru, AOTX98202-1Ru ATX91137-1Ru, and AOTX98152-3Ru, while ATX9202-3Ru also had a high general rating (Tables 5a and 5e).
- TXA549-1Ru and AOTX98202-1Ru had the highest total and marketable yield (Table 5a).
- ATX99013-1Ru, ATX97232-1Ru, AOTX96216-2Ru, and COTX05002-2Ru had the highest yield of over 18 oz. tubers, while , TXA549-1Ru, AOTX95265-4Ru, and Stampede Russet had the highest yield of less than 4 oz. tubers (Table 5a).
- ATX97232-1Ru and ATX97147-4Ru had the highest yield of culls/No.2 tubers (Table 5a).
- TXA549-1Ru and ATX99194-3Ru had the highest percentage of marketable yield, while ATX84378-6Ru, ATX97232-1Ru, AOTX96216-2Ru, and COTX05002-2Ru had the highest percentage of over 18 oz. tubers (Table 5b).
- ATX05142-2Ru and AOTX95265-4Ru had the highest percentage of less than 4 oz. tubers, while ATX97232-1Ru had the highest percentage of culls/No. 2 tubers (Table 5b).
- ATX9332-12Ru and ATX05114-1Ru had the highest specific gravity (Table 5b).
- Russet Norkotah, ATX99194-3Ru, ATX03068-1Ru, TXNS551, and TXNS410 were the earliest maturing. All of the other entries were late in maturity (Table 5c).
- AOTX95265-2ARu, AOTX96265-2Ru, ATX84378-6Ru, ATX97232-1Ru, ATX03068-1Ru, and AOTX96216-2Ru had high percentages of hollow heart. AOTX96265-2Ru had the highest percentage of vascular discoloration. TXA549-1Ru, AOTX98152-3Ru, ATX99194-3Ru, ATX03068-1Ru, and AOTX05096-4Ru had the highest percentages of internal brownspot (Table 5d).
- AOTX96216-2Ru and ATX05114-1Ru had high percentages of Zebra Chip. All of the rest of the entries showed less than 12% Zebra Chip with 20 of the entries having no Zebra Chip (Table 5f).

Comments on entries:

- TXA549-1Ru Oblong Russet, blocky+, Rhizoctonia+, yield+ , BOT
- AOTX98202-1Ru Long Russet, poor shape, drop?, BOT+
- AOTX96084-1Ru Long Russet, nice, some pointed, long, oversize, rot, drop
- ATX9202-3Ru Long Russet, send to ROB, Rhizoctonia, deep eyes, nice interior, BOT
- Russet Norkotah Long Russet, nice flesh, Rhizoctonia
- ATX91137-1Ru Long Russet, send to ROB, high yield, Rhizoctonia, nice shape, BOT
- AOTX02060-1Ru Long Russet, nice+, light set, nice flesh, growth cracks, keep, BOT
- AOTX95265-1Ru Long Russet, some pointed, nice internals, keep, Norkotah like
- ATX99013-1Ru Long Russet, curved, high yield, long, skinny, Rhizoctonia, nice flesh+, drop+
- AOTX95265-2ARu Long Russet, Rhizoctonia, hollow heart, drop
- AOTX98152-3Ru Oblong Russet, rot+, blocky++, Rhizoctonia+, poor internals, rough, drop++, BOT
- Russet Norkotah296 Long Russet, rot
- ATX9332-12Ru Oblong Russet, skin not very nice, nice interior, drop++
- Russet Norkotah278 Long Russet, thin, pointed
- ATX97147-4Ru Long Russet, high yield, growth cracks, Rhizoctonia++, shape-, nice interior, curved, drop+
- AOTX96208-1Ru Long Russet, pointed, 10% tuber moth, drop?, drop, BOT
- AOTX96265-2Ru Long Russet, large tubers, nice shape, Rhizoctonia, hollow heart, drop, BOT+
- AOTX95265-3Ru Long Russet, good shape
- ATX05114-1Ru Long Russet, skin too light, long pointed, nice flesh, light skin, drop+, drop? , keep
- AOTX03657-1Ru Oblong Russet, ugly, small, blocky, drop+
- ATX84378-6Ru Oblong Russet, light set , blocky, BOT

- ATX99194-3Ru Oblong Russet, blocky+ drop++, drop?
- AOTX98096-1Ru Long Russet, nice shape+, light set, nice shape, Rhizoctonia, drop+
- ATX97232-1Ru Long Russet, light russet, Rhizoctonia, drop
- ATX03068-1Ru Oblong Russet, light set, Rhizoctonia, blocky , drop++
- AOTX05096-4Ru Oblong Russet, good shape+, light set, small, yield-, drop
- ATX05142-2Ru Oblong Russet, pointed+, small, nice interior, drop, drop?
- AOTX95265-4Ru Long Russet, small, heavy set, blocky, poor skin finish, Rhizoctonia, drop+
- TXNS551 Oblong Russet, nice, yield-, nice flesh
- AOTX96216-2Ru Long Russet, large tubers+, nice shape+, blocky, Rhizoctonia, ATX84378-6Ru like, yield-, BOT
- Stampede Russet Oblong Russet, blocky, light net
- TXNS410 Oblong Russet, nice, yield-
- COTX05002-2Ru Long Russet, large tubers, rot+, oversize, low yield, drop++

Summary:

TXA549-1 was the outstanding entry in this trial.

2008 RUSSET SELECTIONS TRIAL, DALHART

The trial consisted of 40 entries of which 12 (AOTX06016-1Ru, AOTX06026-1Ru, AOTX06048-1Ru, AOTX06077-1Ru, AOTX06116-1Ru, COTX05095-1Ru, COTX05095-2Ru/Y, COTX06052-2Ru, COTX06221-1Ru, TX06330-1Ru, TX06330-3Ru, and TX06330-4Ru) will be advanced in 2010 (Table 6).

TEXAS ADVANCED RED SELECTION TRIAL, DALHART

This trial consisted of 35 entries and the check varieties Red LaSoda, Rio Rojo and Dark Red Norland

Results were as follows: (Dalhart Tables 7a, 7b, 7c, 7d, 7e and 7f)

- The outstanding entries based on general rating and best of trial designation were NDTX5438-11R, NDTX4784-7R, NDTX4847-7R, NDTX4271-5R, and BTX2332-1R. ATTX01178-1R, AOTX91861-4R, ATX03516-2R, ATTX98453-6R, ATTX98453-11BR, COTX05211-7R, NDTX050070-1R, Rio Rojo, NDTX4828-2R, NDTX050239-2R, COTX00104-7R, NDTX050241-4R/Y, and NDTX050169-1R also had high general ratings (Tables 7a, and 7e).
- NDTX5438-11R and Red LaSoda had the highest total yield. ATTX01178-1R and Red LaSoda had the highest marketable yield (Table 7a).
- Red LaSoda and AOTX91861-4R had the highest yield of over 18oz. tubers (Table 7a).
- NDTX050169-1R and NDTX050239-2R had the highest yield of less than 4 oz tubers (Table 7a).
- COTX05211-5R and Red LaSoda had the highest yield of culls/No.2 tubers (Table 7a).
- Rio Rojo and ATTX01178-1R had the highest percentage marketable yield (Table 7b).
- AOTX91861-4R had the highest percentage of over 18 oz. tubers. (Table 7b).
- NDTX050169-1R and NDTX050239-2R had the highest percentage of less than 4 oz. tubers (Table 7b).
- NDTX050241-3R, ATTX98453-11BR, and ATTX98453-6R had the highest specific gravities (Table 7b)
- ATTX98453-11BR had the highest average number of tubers per plant (Table 7c).
- ATTX01178-1R, Red LaSoda, NDTX5438-11R, AOTX91861-4R, AOTX93483-1R, BTX2332-1R, COTX05211-4R, NDTX050239-2R, NDTX050258-2R/Y, COTX00104-7R, COTX05211-5R, COTX94218-1R, NDTX050169-1R, and NDTX050168-2R were the latest maturing, while NDTX4784-7R, NDTX731-1R, NDTX4847-7R, NDTX7590-3R, ATX03516-2R, Dark Red Norland, ATTX98453-6R, NDTX4271-5R, ATTX98453-11BR, NDTX050156-3R, NDTX050241-4R/Y, NDTX059827-1R, and Rio Rojo were the earliest maturing (Table 7c).
- AOTX91861-4R, NDTX731-1R and Red LaSoda had the deepest eyes (Table 7d).
- ATTX01178-1R, ATTX98453-6R, COTX05211-4R, NDTX050054-3R, NDTX050169-1R, had very high percentages of Zebra Chip. All of the other entrants had less than 17% Zebra Chip with 14 of the entries having no Zebra Chip (Table 7f).

Comments on entries:

- ATTX01178-1R Round Red, nice, Rhizoctonia+
- Red LaSoda Oblong Red, yield+, deep eyes+

- NDTX5438-11R Round Red, heavy set, small, yield+, skin finish?, some pointed, mixed shape, silver scurf, Rhizoctonia++, BOT-
- NDTX4784-7R Round Red, low yield, Rhizoctonia+, nice shape, keep BOT-
- AOTX91861-4R Round Red, yield+, deep eyes, Rhizoctonia++, drop?
- NDTX731-1R Round Red, yield+, deep eyes, poor skin finish, drop+
- AOTX93483-1R Oblong Red, pointed, light set, pointed+, drop?+, drop+
- NDTX4847-7R Round Red, nice color, Roadmap, skin finish?, BOT-+
- NDTX7590-3R Oblong Red, large, light set, feathering, silver scurf, Rhizoctonia, large tubers, drop?
- ATX03516-2R Round Red, small, nice skin finish, smooth, keep
- Dark Red Norland Oblong Red, silver scurf+, pointed
- ATTX98453-6R Oblong Red, nice
- NDTX4271-5R Round Red, skin finish?, keep, BOT+++
- COTX94216-1R Round Red, yield+, silver scurf, Rhizoctonia+, heavy set, zipper, poor skin finish+, deep eyes, drop
- BTX2332-1R Round Red, yield+, oversize, Rhizoctonia+, BOT++
- COTX05211-4R Oblong Red, yield+, too long, lot of culls, pointed , drop++
- ATX03550-2R Oblong Red, large, light set, nice color, low yield, light set+, smooth skin, Viking like, nice flesh, drop?
- ATTX98453-11BR Oblong Red
- NDTX039190-1R Round Red, nice skin finish, nice flesh, drop?, drop+
- COTX05211-7R Round Red, nice color, heavy set, drop, keep
- NDTX050070-1R Round Red, heavy set, B size, small
- NDTX050054-3R Oblong Red, heat sprouts, small, heat sprouts
- Rio Rojo Oblong Red, can oversize, light set, BOT
- NDTX4828-2R Round Red, Rhizoctonia, roadmap, drop?, drop

- NDTX050239-2R Round Red, nice color, heavy set, small B size, smooth, , drop?, keep
- NDTX050156-3R Oblong Red, some pointed, pointed, nice flesh, drop?
- NDTX050258-2R/Y Oblong Red, poor shape, drop+, drop?
- COTX00104-7R Round Red, nice color, keep
- NDTX050241-4R/Y Round Red
- COTX05211-5R Oblong Red, growth cracks, pointed, poor shape, lot of culls, drop+++
- COTX94218-1R Long Red, white flesh, stick stolon, Rhizoctonia, drop?, drop+++
- NDTX059827-1R Round Red, B size, rot, small, drop?, drop+
- NDTX050169-1R Round Red, B size, heavy set, keep?
- NDTX050241-3R Round Red, growth cracks, drop++, drop?
- NDTX050168-2R Round Red, drop++

Summary:

Based on all factors, there were a number of outstanding entries for this trial included among them were NDTX5438-11R and ATTX98453-6R.

2008 RED SELECTIONS TRIAL, DALHART

The trial consisted of 55 entries of which COTX06169-3R and COTX06216-1R will be advanced in 2010 (Table 8).

TEXAS ADVANCED RED SKIN/YELLOW FLESH TRIAL

The Texas advanced red skin/yellow flesh trial consisted of 24 entries.

Results were as follows: (Dalhart Tables 9a, 9b, 9c, 9d, 9e, and 9f)

- The outstanding entries for this trial based on general rating and best of trial designations were ATTX961014-1R/Y, ATTX961014-1BR/Y, COTX04267-1R/Y, and NDTX050184-1R/Y (Table 9a, 9e).

- ATTX00289-5R/Y and ATTX961014-1BR/Y had the highest total and marketable yields (Table 9a)
- NDTX050184-1R/Y and NDTX050241-5R/Y had the highest yield of less than 4 oz. tubers, while ATTX98518-5Pu/Y and ATX98448-6R/Y had the highest yield of culls/No. 2 tubers (Table 9a).
- ATX03515-1R/Y and ATTX99325-1P had the highest percentage of marketable yield (Table 9b).
- NDTX050184-1R/Y, COTX04188-3R/Y, COTX05037-5P/Y, and ATX05178-2P had the highest percentage of less than 4 oz. tubers, while ATTX98500-2P/Y, NDTX050241-5R/Y, and ATTX98518-5Pu/Y had the highest percentage of culls/No. 2 tubers (Table 9b).
- COTX04188-3R/Y had the highest specific gravity (Table 9b).
- ATTX00289-5R/Y, ATX98448-6R/Y, COTX05261-2R/Y, NDTX060431-2R/Y, NDTX050184-1R/Y, ATX03546-2R/Y, ATTX98500-2P/Y, NDTX050241-5R/Y, ATX05175-3R/Y, ATTX98518-5Pu/Y, COTX04188-3R/Y, BTX2103-1R/Y, COTX05037-5P/Y, and ATTX98493-1R/Y were the latest maturing, while ATTX961014-1BR/Y, ATTX961014-1R/Y, NDTX050249-1R/Y, ATTX99325-1P, and ATX03545-1R were the earliest maturing (Table 9c).
- COTX04267-1R/Y and ATX03546-2R/Y had the darkest yellow flesh color of the entries (Table 9d).
- ATTX00289-5R/Y ATX98448-6R/Y, and ATTX99325-1P had the deepest eyes (Table 9d).
- ATTX99325-1P and ATTX98500-2P/Y had the poorest ratings for feathering (Table 9d).
- ATTX98500-2P/Y, ATTX961014-1R/Y, NDTX050243-4R/Y ATX03515-1R/Y ATTX98493-1R/Y had over 15% Zebra Chip. All of the other entries had less than 11% Zebra Chip with 11 entries having no Zebra Chip (Table 9f).

Comments on entries:

- ATTX00289-5R/Y Oblong Red, heavy set, yield+, poor color and shape++, high yield+, Rhizoctonia, rough, poor internals, drop++ ¹FC=2.0
- ATTX961014-1BR/Y Oblong Red, ZC?, vascular discoloration, keep, BOT FC=3.0
- ATTX961014-1R/Y Oblong Red, smooth, Rhizoctonia, BOT +++ FC=3.0
- ATX98448-6R/Y Oblong Red, poor color and shape+, deep eyes, rough, drop++, drop?+ FC=2.1
- COTX05261-2R/Y Oblong Red, nice, variable color, silver scurf, keep?, keep FC=2.5
- NDTX050249-1R/Y Round Red, white flesh, Rhizoctonia, move to red trial, keep FC=1.0
- COTX04267-1R/Y Round Red, very yellow, nice, yellow, drop?, BOT FC=3.9

- NDTX050243-4R/Y Round Red, white flesh, heavy set, silver scurf, drop++FC=1.0
- COTX05261-1R/Y Round Red, pointed+, drop++ FC=2.5
- NDTX060431-2R/Y Oblong Red, drop FC=2.3
- ATX03515-1R/Y Oblong Red, low yield, drop+ FC=2.5
- ATTX99325-1P Long Purple, poor shape, feathering, nice internals, drop?, keep?? FC=1.0
- NDTX050184-1R/Y Round Red, yield, nice, small, heavy set, small potato, BOT FC=1.8
- ATX03546-2R/Y Oblong Red, very yellow flesh, white and yellow flesh mix, mix, keep yellow, drop?, drop FC=4.0
- ATTX98500-2P/Y Oblong Purple, poor shape+, rough, drop+++ FC=2.4
- NDTX050241-5R/Y Round Red, very yellow, poor shape, low yield, many culls++, dumbbells, drop? drop+ FC=2.9
- ATX05175-3R/Y Round Red, poor shape+, very yellow flesh, small potato??, drop FC=3.3
- ATTX98518-5Pu/Y Oblong Purple, poor shape, rough, drop++ FC=3.0
- COTX04188-3R/Y Round Red, very yellow, poor shape, small potato, keep FC=3.9
- BTX2103-1R/Y Oblong Red, poor shape and skin, drop?, FC=2.0
- ATX03545-1R Round Red, silver scurf, drop+ FC=2.0
- COTX05037-5P/Y Round Red, small, drop FC=1.0
- ATX05178-2P Oblong Purple, poor shape, drop?, drop FC=1.0
- ATTX98493-1R/Y Oblong Red, low yield, drop FC=3.0

¹FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

Based on all factors the outstanding entries for this trial were ATTX961014-1BR/Y, ATTX961014-1R/Y, COTX04267-1R/Y, and NDTX050184-1R/Y.

2008 RED SKIN YELLOW FLESH SELECTIONS TRIAL, DALHART

The trial consisted of 47 entries of which 9 (ATTX02249-1R, ATTX03553-1P/Y, ATTX05191-3R/Y, ATX06282-1R/Y, COTX06235-2R/Y, COTX06240-2R/Y, COTX06245-3R/Y, NDTX060725-1P, and NDTX060868-4R/Y) will be advanced in 2010 (Table 10).

TEXAS ADVANCED WHITE SKIN YELLOW FLESH TRIAL

This trial consisted of 20 entries, with Yukon Gold and Sierra Gold as the checks.

Results were as follows: (Dalhart Tables 11a, 11b, 11c, 11d, 11e, and 11f)

- The outstanding entries for this trial, based on general rating and best of trial designations was Sierra Gold. NDTX059759-3Pinto/Y-P, Yukon Gold, NDTX059759-3Pinto/Y, NDTX050169-2W/Y, and NDTX050025-1W/Y also received high general ratings (Tables 11a and 11e).
- NDTX049265-2WRSP/Y and NDTX050169-2W/Y had the highest total yield, while NDTX049265-2WRSP/Y and NDTX059759-3Pinto/Y-P had the highest marketable yield (Table 11a).
- Yukon Gold, Sierra Gold, ATTX00289-6Y/Y, and Sierra Gold-3 had the highest yield of over 18oz. tubers (Table 11a).
- NDTX050169-2W/Y, COTX04178-1Y/Y, NDTX050025-1W/Y, and Prince Hairy had the highest yield of less than 4 oz. tubers, while ATTX98500-3P-W/Y and ATTX00289-6Y/Y had the highest yield of culls/No. 2 tubers (Table 11a).
- Sierra Gold and TX1523-1Ru/Y had the highest percentage of marketable yield (Table 11b).
- NDTX050169-2W/Y, ATX03496-3Y/Y, COTX04178-1Y/Y, NDTX050025-1W/Y, and Prince Hairy had the highest percentage of less than 4 oz. tubers, while ATTX98500-3P-W/Y and ATTX00289-6Y/Y had the highest percentage of culls/No. 2 tubers (Table 11b).
- BTX1749-1W/Y and NDTX050025-1W/Y had the highest specific gravities (Table 11b).
- NDTX050169-2W/Y and TX04237-6Y/Y had the highest average number of tubers per plant (Table 11c).
- NDTX059759-3Pinto/Y-P, NDTX059759-3Pinto/Y, NDTX050169-2W/Y, ATTX98500-3P-W/Y, TX04237-6Y/Y, Prince Hairy, and ATX03546-1W/Y were the latest maturing, while Yukon Gold, BTX1749-1W/Y, and ATX03496-3Y/Y were the earliest maturing (Table 11c).
- ATTX98500-3P-W/Y had the darkest yellow flesh (Table 11d).
- Yukon Gold and ATTX00289-6Y/Y had the highest percentage of hollow heart. Prince Hairy had 23% blackspot bruise (Table 11d).

- TX1523-1Ru/Y, Sierra Gold-2, and ATX03496-3Y/Y had the highest percentage of Zebra Chip. All of the other entries had less than 5% Zebra Chip with 12 of the entries having no Zebra Chip. NDTX049265-2WRSP/Y and ATTX98500-3P-W/Y received best of trial designations for chip evaluations (Table 11f).

Comments on entries:

- NDTX049265-2WRSP/Y Round Red Splash, yield++ ¹FC=3.0
- NDTX059759-3Pinto/Y-P Oblong Pinto, do not let oversize, Rhizoctonia, purple streaking at stem end FC=3.0
- Yukon Gold Round White, FC=3.1
- Sierra Gold Oblong Russet, heat sprouts+, Rhizoctonia, light set, BOT FC=3.0
- King Harry Round White, larger tubers than prince, nipple on apical end, FC=1.0
- TX1523-1Ru/Y Oblong Russet, heat sprouts, low yield+, Rhizoctonia FC=2.9
- NDTX059759-3Pinto/Y Oblong Pinto, mix of solid yellow and purple streak in the flesh, do not let oversize, keep FC=3.3
- BTX1749-1W/Y Round White, deep nose, Rhizoctonia, drop, keep for ZC FC=2.9
- NDTX050169-2W/Y Oblong White, heavy yield, not very yellow flesh, small potato?, good skin finish, drop? FC=1.5
- ATTX00289-6Y/Y Oblong Yellow, nice, growth cracks, Rhizoctonia+, red splotches, oversize, heat sprouts, pointed, drop FC=3.4
- Sierra Gold-2 Oblong Russet, heat sprouts, low yield, poor shape, Rhizoctonia++, FC=2.6
- BTX1544-2W/Y Oblong White, buff+ russet skin, ugly skin finish+, drop FC=3.0
- Sierra Gold-3 Oblong Russet, heat sprouts+, pointed, Rhizoctonia++, several off shapes FC=2.6
- ATTX98500-3P-W/Y Oblong Purple-White, Rhizoctonia, pointed+, drop?, drop FC=3.8
- TX04237-6Y/Y Round Yellow, smooth, low yield, good skin finish, drop++ FC=2.6
- ATX03496-3Y/Y Oblong Yellow, pointed, heavy set, small potato, heat sprouts, low yield, drop?, keep??. keep FC=3.3

- COTX04178-1Y/Y Round Yellow, heavy set, small potato?, nice skin, not very yellow flesh, FC=2.5
- NDTX050025-1W/Y Oblong White, heavy set+, small, smooth skin, small potato, good skin finish, drop, keep FC=2.0
- Prince Hairy Round White, yield, white flesh, heavy set+, smaller than king, rot on 3 reps FC=1.0
- ATX03546-1W/Y Round White, very yellow flesh, heat sprouts, small potato FC=3.1

¹FC=Flesh color intensity, 1=very light to 5=very dark

Summary:

The outstanding entries for this trial were Sierra Gold, NDTX059759-3Pinto/Y, and NDTX050169-2W/Y.

2008 WHITE SKIN YELLOW FLESH SELECTIONS TRIAL, DALHART

The trial consisted of 32 entries of which 6 (ATX05188-1Y/Y, ATX06354-1W/Y, NDTX050264-1W, NDTX060700C-1W, TX06308-1Y/Y, and TX06308-2Y/Y) will be advanced in 2010 (Table 12).

TEXAS ADVANCED SMALL POTATO TRIAL

This trial consisted of 13 entries.

Results were as follows: (Dalhart Tables 13a, 13b, 13c, 13d, 13e, and 13f)

- The entries receiving the highest general ratings and best of trial designations were COTX05249-3W/Y, ATX05202-3W/Y, NDTX059886-1Y/Y, and ATX02263-1R/Y. COTX04050-1P/P, ATX03546-1W/Y-P, NDTX050065-1R/Y, and ATTX98444-16R/Y also received high general ratings. COTX04050-1P/P received a best of trial designation for dark purple flesh (Tables 13a and 13e).
- COTX05249-3W/Y and ATX05202-3W/Y had the highest total yield. (Table 13a)
- COTX05249-3W/Y and ATX05202-3W/Y had the highest yield of less than 4 oz. tubers (Table 13a).
- COTX04050-1P/P and COTX05037-4Y/Y had the highest yield of culls/No. 2 tubers (Table 13a).

- COTX05249-3W/Y and ATX9132-2Y had the highest percentage of less than 4 oz. tubers (Table 13b).
- COTX05037-4Y/Y and ATX03546-1W/Y-P had the highest percentage of culls/No. 2 tubers (Table 13b).
- ATX05202-3W/Y and COTX05249-3W/Y had the highest average number of tubers per plant (Table 13c).
- NDTX4756-R/Y and ATTX98444-16R/Y were the earliest maturing entries. All the other entries had late or very late values for maturity (Table 13c).
- COTX04050-1P/P, ATTX98444-16R/Y, and COTX03025-1P/P had no Zebra Chip. COTX05037-4Y/Y and NDTX059886-1Y/Y had the highest percentage of Zebra Chip. NDTX059886-1Y/Y, ATTX98444-16R/Y, and COTX03025-1P/P received best of trial designations for chip appearance (Table 13f).

Comments on entries:

- COTX05249-3W/Y Round White, all small tubers, BOT
- ATX05202-3W/Y Round White, nice, heavy set, nice flesh, nice skin finish, BOT
- COTX04050-1P/P Oblong Purple, anthocyanin study, med buff skin, white center, keep, solid purple flesh, BOT+++
- NDTX059886-1Y/Y Oblong Yellow, some big tubers, nice, heavy set, parent, internal??. smooth, BOT+
- COTX05037-4Y/Y Round Yellow, some big tubers, poor shape, processing problems, chain tubers, Rhizoctonia, poor shape, Drop/++
- ATX03546-1W/Y-P Round White, some big tubers
- NDTX050065-1R/Y Round Red, white flesh, small, alligator hide
- ATX02263-1R/Y Oblong Red, some pointed, slight buff, some pointed , drop?, BOT- BOT
- ATTX98444-16R/Y Round Red, some big tubers, very nice
- COTX03025-1P/P Oblong Purple, bigger tubers, roadmap, too big, white streak in flesh, buff, alligator hide, drop?+
- NDTX4756-R/Y Round Red, some big tubers, small?, too large, buff, not very small, ugly skin
- COTX04303-1R/Y Oblong Red, large, yield-, low yield, poor shape

- ATX9132-2Y Round Yellow, many very small tubers, Rhizoctonia, Parent, rough, deep eyes, drop

Summary:

COTX05249-3W/Y, ATX05202-3W/Y, COTX04050-1P/P, NDTX059886-1Y/Y, and ATX02263-1R/Y are the most promising small potato entries.

2008 SMALL POTATO SELECTIONS TRIAL, DALHART

The trial consisted of five entries of which ATTX05175-1R/Y will be advanced in 2010 (Table 14).

TEXAS ADVANCED FINGERLING/COLORED FLESH TRIAL

The Texas Advanced Fingerling/Colored Flesh Selection Trial consisted of six entries, including the check varieties Banana and Purple Peruvian.

Results were as follows: (Dalhart Tables 15a, 15b, 15c, 15d, 15e, and 15f)

- The outstanding entries for this trial based on general ratings were COTX03187-1W, PTTX05PG07-1W, PORTX03PG25-2R/R, and Purple Peruvian (Tables 15a).
- COTX03187-1W and COTX05082-2P/P had the highest total yield. COTX03187-1W and PTTX05PG07-1W had the highest marketable yield (Table 15a)
- COTX03187-1W had the highest yield of over 6 inch tubers. COTX05082-2P/P had the highest yield of under one-inch tubers, while Banana and Purple Peruvian had the highest yield of culls/No. 2 tubers (Table 15a).
- COTX03187-1W and PTTX05PG07-1W had the highest percentage of marketable tubers. COTX05082-2P/P had the highest percentage of under 1 inch tubers. Banana had the highest percentage of culls/No. 2 tubers (Table 15b).
- COTX03187-1W had the highest specific gravity (Table 15b).
- PTTX05PG07-1W had the highest average number of tubers per plant (Table 15c).
- Banana, Purple Peruvian, COTX03187-1W, and PORTX03PG25-2R/R were the latest maturing, while PTTX05PG07-1W and COTX05082-2P/P were the earliest maturing entries (Table 15c).
- PTTX05PG07-1W, Banana, and COTX03187-1W had the highest percentage of Zebra Chip. COTX05082-2P/P PORTX03PG25-2R/R Purple Peruvian had no Zebra Chip (Table 15f).

Comments on entries:

- COTX03187-1W Long White, nice flesh, can oversize
- PTTX05PG07-1W Long White, Rhizoctonia
- COTX05082-2P/P Oblong Purple, very dark flesh, keep
- PORTX03PG25-2R/R Long Red
- Banana Long White, greenheads, Rhizoctonia
- Purple Peruvian Long Purple, purple with white flesh, deep eyes

Summary:

COTX03187-1W and PTTX05PG07-1W were the notable entries in this trial.

2008 FINGERLING SELECTIONS TRIAL, DALHART

The trial consisted of three entries of which ATTX02247-1R (fing) will be advanced in the 2010 season (Table 16).

YUKON GOLD STRAIN TRIAL G3 SEED

The Yukon Gold strain trial consisted of eight entries of G3 seed produced in Dalhart, including the check variety Yukon Gold.

Results from the trial were as follows: (Dalhart Tables 17a, 17b, 17c, 17d, and 17e)

- TXYG098(G3) and TXYG105(G3) had the highest total yield and highest marketable yield. ZSC(G3) and TXYG105(G3) had the highest yield of less than 4 oz. tubers. TXYG057(G3) and Yukon Gold had the highest yield of over 18 oz. and culls/No. 2 tubers (Table 17a).
- TXYG079(G3) had the highest percentage of marketable yield. ZSC(G3) TXYG105(G3) and TXYG055(G3) had the highest percentage of less than 4 oz. tubers. Yukon Gold had the highest percentage of over 18 oz. and culls/No. 2 tubers (Table 17b).
- TXYG105(G3) and TXYG055(G3) had the highest average tubers per plant (Table 17c).

- TXYG098(G3), TXYG057(G3) and Yukon Gold had high percentage of hollow heart. Yukon Gold had the highest percentage of internal brownspot (Table 17d).
- TXYG098(G3) had the highest percentage of Zebra Chip in the fresh cut evaluation. Very little Zebra Chip was observed in the fresh cut evaluations of the other entries.

Comments on entries:

- TXYG098(G3) Round White, mix white and yellow flesh
-
- TXYG105(G3) Round White, Rhizoctonia++
-
- TXYG055(G3) Round White
-
- TXYG079(G3) Round White
-
- TXYG107(G3) Round White
-
- TXYG057(G3) Oblong White
- Yukon Gold Round White
- ZSC(G3) Round White

Summary:

All of the Yukon Gold Strains yielded more than the standard Yukon Gold.

YUKON GOLD STRAIN TRIAL TX SEED

The Yukon Gold strain trial consisted of nine entries of TX seed produced in Dalhart, including the check variety Yukon Gold.

Results from the trial were as follows: (Dalhart Tables 18a, 18b, 18c, 18d, and 18e)

- TXYG057(TX) and TXYG098(TX) had the highest total, marketable and yield of less than 4 oz. tubers. ZSC(TX) and TXYG0555(TX) had the highest yield of over 18 oz. tubers. Yukon Gold had the highest yield of culls/No. 2 tubers (Table 18a).
- TXYG107(TX) had the highest percentage of marketable yield. TXYG057(TX) and TXYG098(TX) had the highest percentage of less than 4 oz. tubers. ZSC(TX) and TXYG055(TX) had the highest percentage of over 18 oz. tubers. Yukon Gold had the highest percentage of culls/No. 2 tubers (Table 18b).

- TXYG057(TX had the highest average tubers per plant (Table 18c).
- TXYG057(TX) and TXYG107(TX) had high percentage of hollow heart. TXYG55(TX) and Yukon Gold had the highest percentage of internal brownspot (Table 18d).
- None of the entries had more than 5% of fresh cut evaluation of Zebra Chip. TXYG057(TX), TXYG055(TX), and Yukon Gold had no Zebra Chip.

Comments on entries:

- TXYG057(TX) Round White
-
- TXYG098(TX) Round White
-
- ZSC(TX) Round White
-
- TXYG105(TX) Round White
-
- TXYG107(TX) Round White, mix white and yellow flesh
-
- TXYG055(TX) Round White
-
- TXYG079(TX) Round White
-
- Yukon Gold Round White
-
- Yukon Gold(TX) Round White

Summary:

All of the Yukon Gold Strains yielded more than the standard Yukon Gold.

ZEBRA FREE TRIAL

This trial consisted of 6 entries, with Russet Norkotah and Atlantic as the checks.

Results were as follows: (Dalhart Tables 19a, 19b, 19c, 19d, 19e, and 19f)

- The outstanding entries for this trial, based on general rating were Russet Norkotah and NY138 (Tables 19a).

- Atlantic and Russet Norkotah had the highest total yield and marketable yield (Table 19a).
- Russet Norkotah had the highest yield of over 18oz. tubers (Table 19a).
- Atlantic and NDTX059828-2W had the highest yield of less than 4 oz. tubers (Table 19a).
- NY138 had the highest percentage of marketable yield (Table 19b).
- NDTX059828-2W and BTX1749-1W/Y had the highest percentage of less than 4 oz. tubers (Table 19b).
- Atlantic, CO00197-3W, and BTX1749-1W/Y had the highest specific gravities (Table 19b).
- NDTX059828-2W had the highest average number of tubers per plant (Table 19c).
- Atlantic, CO00197-3W, and BTX1749-1W/Y were the latest maturing entries, while Russet Norkotah was the earliest maturing (Table 19c).
- Atlantic had the highest percentage of hollow heart and internal brownspot (Table 19d).
- Atlantic, NY138, and BTX1749-1W/Y had no Zebra Chip. Russet Norkotah had 29% and 18% in the 4-6 and 6-10 oz. tuber classes. CO00197-3W had over 27% Zebra Chip in all market classes. NDTX059828-2W had 7% and 4% Zebra Chip in the less than 4 and 4-6 oz. classes (Table 19f).

Comments on entries:

- Russet Norkotah Long Russet, nice flesh, Rhizoctonia
- Atlantic Round White, buff, oversize
- NY138 Round White, smooth
- CO00197-3W Oblong White, shape?, Rhizoctonia++, rough, pointed, nice flesh, drop+
- NDTX059828-2W Round White, small, pronounced eyes, small, low yield
- BTX1749-1W/Y Round White, deep nose, Rhizoctonia, drop, keep for ZC

Summary:

Based on all factors, the outstanding entry for this trial was NY138.

Dalhart
Table 1a. Total yield, total yield of U.S. No.1, under 1 inch, culls/No.2 potatoes and general rating of 5 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 1 in.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	1-2 in.	2-3 in.	Over 3 in.			
CO00270-7W	756.3	701.6	41.7	314.4	345.5	0.0	54.7	3.4
Atlantic	676.7	655.8	50.2	270.6	335.0	0.0	20.9	3.7
Chipeta	630.8	610.5	19.6	210.8	380.1	0.0	20.4	3.2
CO00197-3W	593.7	462.6	74.6	261.7	126.3	0.0	131.1	2.3
CO00188-4W	401.5	399.4	26.2	261.2	112.0	0.0	2.0	3.2
Average	611.8	566.0	42.5	263.7	259.8	0.0	45.8	3.2
L.S.D. (.05)	223.6	211.4	26.0	ns	163.7		62.9	0.4

¹ 1=very poor to 5= excellent

Dalhart
Table 1b.

Percent by weight of U.S. No. 1, under 1 inch, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 5 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Under 1 in.	Culls/ No. 2	Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-3 in.	Over 3 in.						
CO00270-7W	92.3	5.8	41.4	45.2	0.0	7.7	1.067	14.5	Round	White
Atlantic	96.7	7.5	39.6	49.6	0.0	3.3	1.078	16.5	Round	White
Chipeta	96.3	3.3	33.8	59.3	0.0	3.7	1.072	15.3	Oblong	White
CO00197-3W	78.9	13.7	45.8	19.4	0.0	21.1	1.077	16.3	Oblong	White
CO00188-4W	99.6	6.7	64.6	28.3	0.0	0.4	1.071	15.2	Round	White
Average	92.8	7.4	45.0	40.4	0.0	7.2	1.073	15.6		
L.S.D. (.05)	7.4	5.2	12.4	16.4		7.4	0.005	0.9		

Dalhart
Table 1c. Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 5 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
CO00270-7W	9.7	5.9	84	96	1.9	4.3	4.8	4.0	6
Atlantic	8.7	6.4	86	96	2.3	4.6	3.2	4.6	9
Chipeta	6.4	7.7	95	99	1.8	4.6	5.0	4.7	0
CO00197-3W	10.2	4.0	80	95	2.6	4.6	4.8	4.7	1
CO00188-4W	6.7	4.8	84	99	1.8	4.3	2.6	4.1	65
Average	8.3	5.8	86	97	2.1	4.5	4.1	4.4	16
L.S.D. (.05)	ns	1.6	ns	ns	ns	ns	1.5	0.4	9

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 1d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
CO00270-7W	1.0	1.5	1.0	4.0	1.0	4.3	5.0	5.0	5.0	5.0	0	0	0	0
Atlantic	1.0	2.1	2.4	4.0	2.7	5.0	5.0	5.0	5.0	5.0	15	0	3	13
Chipeta	1.0	3.3	1.0	2.6	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
CO00197-3W	1.0	3.3	1.3	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	5	0
CO00188-4W	1.0	2.0	1.4	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	2.4	1.4	3.7	1.3	4.9	5.0	5.0	5.0	5.0	4	0	2	3
L.S.D. (.05)	ns	0.3	0.4	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	7

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 1e. Notes and general rating for all reps of 5 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
CO00270-7W	Rhizoctonia, , ,	3.3, 3.6, 3.5, 3.3
Atlantic	, , Buff+, Oversize	3.7, 3.4, 4, 3.6
Chipeta	Oversize+, Rough, , , Drop, Rhizoctonia, , Rough, Pointed, Drop,	2.8, 3.5, 3, 3.5
CO00197-3W	Rhizoctonia++, nice flesh	2.5, 2, 2, 2.8
CO00188-4W	, , ,	3.2, 3.2, 3.2, 3.2

Dalhart
Table 1f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 5 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
CO00270-7W	Colorado	1.067	14.5	3.4	1	36/5	2% GH, 10% BSB	0%	0%
Atlantic	Oregon	1.078	16.5	3.7	1+	31/6	3% Vas, 14% BSB	0%	0%
Chipeta	Colorado	1.072	15.3	3.2	1	28/12	3% BC, 3% GH, 20% Vas, 5% BSB	0%	0%
CO00197-3W	Colorado	1.077	16.3	2.3	1	41/1		2%	0%
CO00188-4W	Colorado	1.071	15.2	3.2	1	39/0	BOT	0%	0%
Average		1.073	15.6	3.2				0%	0%
L.S.D. (.05)		0.005	0.9	0.4					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart Total yield, total yield of U.S. No.1, under 1 inch, culls/No.2 potatoes and general rating of 10 entries in the Snack
Table 2a. Food Association Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 1 in.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	1-2 in.	2-3 in.	Over 3 in.			
MSJ126-9Y	710.8	699.3	67.2	312.6	319.5	0.0	11.5	3.3
Kalkaska	641.5	641.5	125.0	393.3	123.2	0.0	0.0	3.8
NY139	640.2	640.2	43.8	273.9	322.5	0.0	0.0	4.4
Atlantic	637.7	616.8	50.2	233.4	333.2	0.0	20.9	3.7
CO97065-7W	624.2	608.7	60.8	266.5	281.3	0.0	15.5	3.2
CO97043-14W	630.3	604.1	62.1	254.6	287.4	0.0	26.2	3.5
NY138	594.7	591.4	34.4	309.8	247.2	0.0	3.3	3.4
CO96141-4W	579.7	579.7	61.9	290.5	227.3	0.0	0.0	3.5
Chipeta	574.3	553.9	19.6	210.0	324.3	0.0	20.4	3.2
AF2291-10	668.0	471.5	54.7	274.4	142.3	0.0	196.5	2.9
Average	630.1	600.7	58.0	281.9	260.8	0.0	29.4	3.5
L.S.D. (.05)	72.6	66.6	20.1	75.7	88.5		37.7	0.4

¹ 1=very poor to 5= excellent

Dalhart
Table 2b.

Percent by weight of U.S. No. 1, under 1 inch, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 10 entries in the Snack Food Association Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Under 1 in.	Culls/ No. 2	Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-3 in.	Over 3 in.						
MSJ126-9Y	98.5	9.5	44.0	45.1	0.0	1.5	1.076	16.0	Round	White
Kalkaska	100.0	19.5	61.4	19.0	0.0	0.0	1.078	16.5	Round	White
NY139	100.0	6.8	42.7	50.5	0.0	0.0	1.081	17.0	Round	White
Atlantic	96.6	7.9	36.9	51.8	0.0	3.4	1.078	16.5	Round	White
CO97065-7W	97.4	9.8	42.7	45.0	0.0	2.6	1.074	15.8	Round	White
CO97043-14W	95.9	10.0	41.0	44.9	0.0	4.1	1.056	12.4	Round	White
NY138	99.5	5.7	52.8	40.9	0.0	0.5	1.073	15.5	Round	White
CO96141-4W	100.0	10.7	50.0	39.2	0.0	0.0	1.071	15.2	Round	White
Chipeta	96.3	3.5	36.4	56.4	0.0	3.7	1.072	15.3	Oblong	White
AF2291-10	70.9	8.7	41.6	20.5	0.0	29.1	1.074	15.7	Round	White
Average	95.5	9.2	45.0	41.3	0.0	4.5	1.073	15.6		
L.S.D. (.05)	4.8	3.4	10.7	13.1		4.8	ns	ns		

Dalhart
Table 2c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 10 entries in the Snack Food Association ChipTrial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
MSJ126-9Y	10.7	5.3	91	98	2.4	3.6	3.2	3.7	13
Kalkaska	13.3	3.8	86	99	2.0	4.6	4.9	4.5	1
NY139	8.6	6.1	84	96	1.8	4.4	3.1	4.3	14
Atlantic	8.1	6.5	86	96	2.3	4.6	3.2	4.6	9
CO97065-7W	9.8	5.4	90	93	1.5	4.4	2.6	4.3	35
CO97043-14W	9.1	5.6	91	95	2.3	4.6	4.5	4.6	14
NY138	8.3	5.7	95	98	1.9	4.0	3.3	3.9	48
CO96141-4W	10.4	5.0	83	90	2.3	3.9	2.5	3.9	53
Chipeta	6.4	6.9	95	99	1.8	4.0	5.0	4.7	0
AF2291-10	8.0	5.2	96	100	1.6	4.1	4.6	4.2	9
Average	9.3	5.6	90	96	2.0	4.2	3.7	4.3	19
L.S.D. (.05)	1.7	0.7	ns	ns	ns	ns	ns	0.5	20

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 2d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Snack Food Association Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
MSJ126-9Y	3.0	1.5	2.5	3.8	3.0	5.0	5.0	5.0	5.0	5.0	0	5	8	0
Kaskaska	1.0	1.5	2.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	0	0	3	10
NY139	1.0	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Atlantic	1.0	2.1	2.4	4.0	2.7	5.0	5.0	5.0	5.0	5.0	15	0	3	13
CO97065-7W	1.0	1.5	1.5	3.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO97043-14W	1.0	2.0	1.0	3.7	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NY138	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO96141-4W	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Chipeta	1.0	3.3	1.0	2.6	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
AF2291-10	1.0	2.0	1.0	3.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
Average	1.2	1.9	1.4	3.7	1.5	5.0	5.0	5.0	5.0	5.0	2	1	2	2
L.S.D. (.05)	ns	0.2	0.2	0.2	0.1	ns	ns	ns	ns	ns	ns	ns	ns	6

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 2e. Notes and general rating for all reps of 10 entries in the Snack Food Association Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
MSJ126-9Y	Yellow flesh 3, , , Buff, Smooth	3.8, 3.5, 2.5, 3.5
Kalkaska	Rhizoctonia++, Yield+, Buff, Nice, BOT, ,	3.8, 3.8, 3.8, 3.8
NY139	Parent, , Smooth, Nice, BOT, Oversize	4.5, 4.3, 4.3, 4.3
Atlantic	Buff, Oversize, Buff, ,	4, 3.6, 3.7, 3.4
CO97065-7W	, deep eyes, rough, drop+, ,	3.7, 3, 3, 3
CO97043-14W	oversize-, flat, Rhizoctonia, Soft, Bruise, Poor Shape,	3.4, 3.4, 3.5, 3.6
NY138	, , Smooth,	3.4, 3.8, 3.4, 3
CO96141-4W	, , ,	3.4, 3.5, 3.7, 3.5
Chipeta	Oversize+, Rough, , ,	2.8, 3.5, 3.5, 3
AF2291-10	manny culls, rough+, Rhizoctonia+, oversize, , Drop+	3, 2.5, 3, 3

Dalhart
Table 2f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 10 entries in the Snack Food Association Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
MSJ126-9Y	Michigan	1.076	16.0	3.3	3	33/4	11% BSB	0%	8%
Kalkaska	Michigan	1.078	16.5	3.8	1	37/2	5% BSB	0%	0%
NY139	New York	1.081	17.0	4.4	1+	22/8	3% GH, Keep, 23% BSB	0%	0%
Atlantic	Oregon	1.078	16.5	3.7	1+	31/6	3% Vas, 14% BSB	0%	0%
CO97065-7W	Colorado	1.074	15.8	3.2	1+	31/10	15% BSB	10%	3%
CO97043-14W	Colorado	1.056	12.4	3.5	1	28/12	3% BC, 8% MB, 3% GH, 18% BSB	0%	0%
NY138	New York	1.073	15.5	3.4	1	41/1	BOT, Keep	2%	0%
CO96141-4W	Colorado	1.071	15.2	3.5	1	38/1	0.0	3%	0%
Chipeta	Colorado	1.072	15.3	3.2	1	28/12	3% BC, 3% GH, 20% Vas, 5% BSB	0%	0%
AF2291-10	Maine	1.074	15.7	2.9	1	30/10	15% Vas, 10% BSB	0%	10%
Average		1.073	15.6	3.5				1%	2%
L.S.D. (.05)		ns	ns	0.4					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart Total yield, total yield of U.S. No.1, under 1 inch, culls/No.2 potatoes and general rating of 31 entries in the
 Table 3a. Texas Advanced Selection Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 1 in.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	1-2 in.	2-3 in.	Over 3 in.			
NDTX059897-1Y/Y	839.8	808.3	64.4	348.5	395.3	0.0	31.6	3.3
AOTX95295-1W	811.1	791.7	96.2	375.5	320.0	0.0	19.3	3.8
ATX85404-8W	718.9	712.3	69.5	315.2	327.6	0.0	6.6	3.9
Atlantic	691.7	670.8	50.2	251.5	369.1	0.0	20.9	3.7
NDTX059997-3W	673.1	668.0	48.4	281.6	338.1	0.0	5.1	3.8
TX1673-1W	648.9	631.6	32.6	177.4	421.6	0.0	17.3	3.6
Chipeta	600.3	579.9	16.3	223.8	339.9	0.0	20.4	3.2
NDTX059632-1W	560.8	556.0	72.3	390.0	93.7	0.0	4.8	2.5
NDTX059997-1W	553.7	550.6	34.6	222.8	293.3	0.0	3.1	3.7
TX05249-12W	547.8	525.9	28.5	161.4	336.0	0.0	21.9	3.3
AOTX95309-3W	523.1	522.4	88.6	318.7	115.1	0.0	0.8	3.7
COTX02377-1W	520.6	455.2	44.8	230.9	179.5	0.0	65.4	2.6
NDTX059997-2W	440.7	440.7	37.7	190.2	212.8	0.0	0.0	3.5
ATX03409-6W/Y	429.5	429.5	98.5	251.3	79.7	0.0	0.0	3.0
TX03196-1W	417.5	416.2	66.2	341.1	8.9	0.0	1.3	2.9
TX05249-8W	418.3	416.0	59.3	163.9	192.7	0.0	2.3	3.4
TX05249-5W	411.9	409.9	40.7	217.7	151.5	0.0	2.0	3.3
NDTX059828-2W	408.6	408.6	89.4	250.2	69.0	0.0	0.0	2.8
NDTX059997-4W	426.4	401.2	46.8	252.5	101.8	0.0	25.2	2.8
TX05254-2W	403.2	396.4	75.6	243.1	77.6	0.0	6.9	2.5
NDTX059997-7W	393.6	391.0	51.9	183.8	155.3	0.0	2.5	3.4
TX05249-14W	398.9	381.3	73.3	227.3	80.7	0.0	17.6	2.7
COTX03270-1W	379.6	360.0	54.2	210.8	95.0	0.0	19.6	2.6
NDTX059997-8W	356.1	355.4	42.3	182.8	130.3	0.0	0.8	3.3
TX05249-11W	365.1	345.2	34.6	160.4	150.2	0.0	19.9	3.5
TX05246-3W	326.9	321.8	8.1	38.2	275.4	0.0	5.1	3.0
TX05249-3W	319.5	309.0	28.5	133.4	147.1	0.0	10.4	2.0
TX05249-10W	415.7	302.2	11.2	59.1	231.9	0.0	113.5	2.5
NDTX059979-1W	299.9	297.3	132.4	165.0	0.0	0.0	2.5	2.8
NDTX059997-6W	219.9	219.9	35.6	137.2	47.1	0.0	0.0	2.8
ATTX98466-5R/W-R	208.7	208.7	131.1	70.3	7.4	0.0	0.0	2.8
Average	517.6	505.0	56.7	246.9	201.4	0.0	12.6	3.2
L.S.D. (.05)	65.5	64.1	29.3	58.0	69.3		32.5	0.3

¹1=very poor to 5= excellent

Dalhart
Table 3b. Percent by weight of U.S. No. 1, under 1 inch, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 31 entries in the Texas Advanced Selection Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Under 1 in.	Culls/ No. 2	Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-3 in.	Over 3 in.						
NDTX059897-1Y/Y	96.3	7.6	41.3	47.4	0.0	3.7	1.067	14.4	Round	Yellow
AOTX95295-1W	97.6	11.9	46.0	39.7	0.0	2.4	1.073	15.5	Round	White
ATX85404-8W	99.1	9.5	44.0	45.5	0.0	0.9	1.073	15.5	Round	White
Atlantic	96.7	7.3	35.6	53.9	0.0	3.3	1.078	16.5	Round	White
NDTX059997-3W	99.3	7.2	41.8	50.3	0.0	0.7	1.068	14.7	Round	White
TX1673-1W	97.2	5.1	27.5	64.6	0.0	2.8	1.067	14.4	Round	White
Chipeta	96.7	2.7	37.3	56.7	0.0	3.3	1.072	15.3	Oblong	White
NDTX059632-1W	99.2	12.9	69.6	16.7	0.0	0.8	1.072	15.4	Round	White
NDTX059997-1W	99.4	6.3	40.4	52.8	0.0	0.6	1.070	14.9	Round	White
TX05249-12W	96.2	5.2	29.5	61.4	0.0	3.8	1.069	14.7	Oblong	White
AOTX95309-3W	99.8	17.1	60.8	22.0	0.0	0.2	1.073	15.6	Round	White
COTX02377-1W	88.0	8.6	44.7	34.6	0.0	12.0	1.068	14.6	Round	White
NDTX059997-2W	100.0	8.3	43.5	48.1	0.0	0.0	1.060	13.3	Round	White
ATX03409-6W/Y	100.0	23.5	58.7	17.8	0.0	0.0	1.081	16.9	Round	White
TX03196-1W	99.7	15.9	81.8	2.0	0.0	0.3	1.065	14.1	Round	White
TX05249-8W	99.5	14.3	39.7	45.6	0.0	0.5	1.076	16.1	Round	White
TX05249-5W	99.6	9.9	52.7	36.9	0.0	0.4	1.074	15.7	Round	White
NDTX059828-2W	100.0	22.9	60.9	16.1	0.0	0.0	1.057	12.7	Round	White
NDTX059997-4W	95.0	11.1	59.8	24.1	0.0	5.0	1.073	15.5	Round	White
TX05254-2W	98.4	19.2	60.0	19.2	0.0	1.6	1.068	14.6	Oblong	White
NDTX059997-7W	99.4	13.2	46.7	39.5	0.0	0.6	1.064	13.9	Round	White
TX05249-14W	95.9	18.2	57.6	20.0	0.0	4.1	1.077	16.2	Oblong	White
COTX03270-1W	95.0	14.3	55.7	24.9	0.0	5.0	1.069	14.8	Oblong	White
NDTX059997-8W	99.8	11.9	51.2	36.8	0.0	0.2	1.064	14.0	Round	White
TX05249-11W	94.7	9.7	43.8	41.3	0.0	5.3	1.079	16.5	Round	White
TX05246-3W	98.4	2.5	11.4	84.5	0.0	1.6	1.078	16.5	Round	White
TX05249-3W	97.3	9.1	43.3	44.8	0.0	2.7	1.068	14.6	Round	White
TX05249-10W	74.2	2.8	14.4	57.0	0.0	25.8	1.068	14.7	Round	White
NDTX059979-1W	99.2	43.7	55.5	0.0	0.0	0.8	1.076	16.0	Oblong	White
NDTX059997-6W	100.0	15.2	59.6	25.2	0.0	0.0	1.061	13.4	Round	White
ATTX98466-5R/W-R	100.0	59.0	36.4	4.6	0.0	0.0	1.061	13.5	Round	White
Average	97.7	11.8	49.2	36.7	0.0	2.3	1.070	15.0		
L.S.D. (.05)	6.0	7.5	11.7	12.4		6.0	0.004	0.8		

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Table 3c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 31 entries in the Texas Advanced Selection Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
NDTX059897-1Y/Y	10.6	6.1	99	100	2.3	4.8	3.9	4.8	35
AOTX95295-1W	12.9	5.0	96	99	2.0	4.6	4.3	4.6	14
ATX85404-8W	10.3	5.8	79	95	2.1	4.4	4.3	4.3	15
Atlantic	8.7	6.6	86	96	2.3	4.6	3.2	4.6	9
NDTX059997-3W	9.2	6.2	88	93	2.3	4.1	4.3	4.0	15
TX1673-1W	6.3	8.3	93	96	2.1	3.8	3.9	3.8	24
Chipeta	6.6	7.1	95	99	1.8	4.0	5.0	4.7	0
NDTX059632-1W	10.2	5.0	83	85	2.6	3.2	4.0	3.2	25
NDTX059997-1W	7.5	6.3	89	93	2.4	4.1	3.7	4.0	34
TX05249-12W	5.6	9.0	73	83	2.3	3.5	4.5	3.5	10
AOTX95309-3W	10.1	4.6	91	95	1.6	4.2	3.7	4.3	26
COTX02377-1W	7.7	5.3	90	93	2.0	3.9	2.6	3.8	35
NDTX059997-2W	6.5	5.5	94	98	2.2	3.3	3.5	3.2	27
ATX03409-6W/Y	10.3	3.4	95	96	1.8	4.0	3.5	4.0	44
TX03196-1W	6.9	5.0	89	95	2.5	2.7	3.9	3.2	21
TX05249-8W	7.3	5.0	81	90	2.3	3.4	3.7	3.6	37
TX05249-5W	10.7	5.0	54	70	2.2	3.7	4.3	3.7	10
NDTX059828-2W	10.6	3.6	75	86	2.0	3.2	3.5	3.3	38
NDTX059997-4W	8.2	4.4	85	90	2.5	3.7	4.5	3.6	10
TX05254-2W	13.4	3.6	53	73	2.4	3.0	2.9	3.2	38
NDTX059997-7W	7.0	4.6	88	95	2.4	3.6	3.8	3.6	23
TX05249-14W	8.3	4.0	84	94	2.0	3.7	5.0	3.7	0
COTX03270-1W	8.3	3.7	74	94	1.6	3.5	2.3	3.6	41
NDTX059997-8W	6.4	4.5	90	95	1.8	4.0	3.0	4.0	48
TX05249-11W	5.9	5.8	80	83	1.5	3.5	3.8	3.4	25
TX05246-3W	3.6	12.1	46	60	1.6	2.0	4.6	2.2	4
TX05249-3W	5.6	5.8	63	78	2.0	3.2	4.1	3.1	23
TX05249-10W	3.7	10.0	60	75	1.6	2.9	4.5	3.0	8
NDTX059979-1W	10.2	2.6	93	93	2.7	4.1	4.2	4.1	15
NDTX059997-6W	4.5	4.5	81	89	2.5	2.9	4.2	3.1	10
ATTX98466-5R/W-R	7.2	2.3	98	100	2.4	3.3	2.1	3.4	78
Average	8.6	5.3	84	91	2.1	3.8	3.8	3.8	24
L.S.D. (.05)	2.6	0.9	13	12	0.5	0.7	1.1	0.5	22

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 31 entries in the Texas Advanced Selection Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
NDTX059897-1Y/Y	3.0	1.5	2.0	2.5	2.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
AOTX95295-1W	1.0	2.1	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX85404-8W	1.0	1.8	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Atlantic	1.0	2.1	2.4	4.0	2.7	5.0	5.0	5.0	5.0	5.0	15	0	3	13
NDTX059997-3W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX1673-1W	1.0	2.7	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	3	0
Chipeta	1.0	3.3	1.0	2.6	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX059632-1W	1.0	1.5	2.0	3.8	1.5	5.0	5.0	5.0	5.0	5.0	10	0	0	10
NDTX059997-1W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX05249-12W	1.0	3.5	3.0	4.0	3.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95309-3W	1.0	2.0	1.0	3.9	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX02377-1W	1.0	1.5	1.6	3.8	1.2	4.3	5.0	5.0	5.0	5.0	3	0	0	0
NDTX059997-2W	1.0	1.5	1.0	3.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03409-6W/Y	1.0	1.5	2.5	3.5	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX03196-1W	1.0	1.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX05249-8W	1.0	2.8	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	7	7
TX05249-5W	1.0	2.0	3.0	3.5	3.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059828-2W	1.0	1.5	1.0	3.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059997-4W	1.0	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX05254-2W	1.0	3.3	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	3
NDTX059997-7W	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX05249-14W	1.0	3.5	2.9	4.0	3.6	5.0	5.0	5.0	5.0	5.0	10	0	3	13
COTX03270-1W	1.0	3.5	1.8	3.4	1.5	5.0	5.0	5.0	5.0	5.0	0	0	0	5
NDTX059997-8W	1.0	1.5	1.5	4.0	1.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX05249-11W	1.0	2.3	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX05246-3W	1.0	1.4	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	3	0
TX05249-3W	1.0	2.0	2.0	3.8	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	30
TX05249-10W	1.0	2.8	1.0	4.0	1.0	3.8	5.0	5.0	5.0	5.0	0	0	0	5
NDTX059979-1W	1.0	1.5	2.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059997-6W	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98466-5R/W-R	3.0	1.5	1.0	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.1	2.1	1.5	3.8	1.5	4.9	5.0	5.0	5.0	5.0	2	0	1	3
L.S.D. (.05)	ns	0.2	0.2	0.1	0.2	0.5	ns	ns	ns	ns	7	ns	3	10

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Dalhart Notes and general rating for all reps of 31 entries in the Texas Advanced Selection Chip Trial grown near
 Table 3e. Dalhart, Texas-2009.

Variety or Selection	Notes Grading	General Rating Grading
NDTX059897-1Y/Y	yellow flesh, oversize, Rough++, Deep eyes, Yield+, Buff, ,	3.3, 3.3, 3.3, 3.3
AOTX95295-1W	, , , Nice	3.8, 3.7, 3.8, 3.8
ATX85404-8W	BOT, Nice, ,	4.5, 3.8, 3.8, 3.5
Atlantic	Buff, , Oversize, Buff,	4, 3.7, 3.6, 3.4
NDTX059997-3W	, Nice smooth, ,	3.8, 3.7, 3.8, 3.7
TX1673-1W	Rough+, Oversize+, ,	3.8, 3.5, 3.5, 3.5
Chipeta	, , Oversize+, Rough,	3.5, 3.5, 2.8, 3
NDTX059632-1W	, , ,	2.5, 2.5, 2.5, 2.5
NDTX059997-1W	, Very Smooth, , Nice Appearance	3.7, 3.5, 3.7, 3.7
TX05249-12W	Rough, , ,	3.3, 3.3, 3.3, 3.3
AOTX95309-3W	Smooth, Smooth, ,	3.6, 4, 3.6, 3.5
COTX02377-1W	, , Growth Cracks, Drop,	2.5, 3, 2.5, 2.5
NDTX059997-2W	Nice white, Round, , ,	3.5, 3.7, 3.2, 3.4
ATX03409-6W/Y	mix smooth & buff, Buff+, small, Drop	3.2, 3.6, 2.5, 2.5
TX03196-1W	, Small+, ,	2.8, 3.3, 2.8, 2.8
TX05249-8W	Poor Internal, , Buff, Ru,	3.3, 3.5, 3.5, 3.4
TX05249-5W	, , ,	3.3, 3.3, 3.3, 3.3
NDTX059828-2W	, Pronounced Eyes, small, low yield	2.8, 2.8, 2.8, 2.8
NDTX059997-4W	rough, nice flesh, , ,	2.8, 2.8, 2.8, 2.8
TX05254-2W	, , ,	2.5, 3, 2, 2.5
NDTX059997-7W	, , ,	3.4, 3.4, 3.4, 3.4
TX05249-14W	, Drop+, Russ, Pointed, ,	2.5, 2.5, 3, 2.6
COTX03270-1W	drop, , Greenheads,	2.5, 2.5, 3, 2.5
NDTX059997-8W	, , ,	3, 3.5, 3, 3.5
TX05249-11W	, , ,	3.5, 3.5, 3.5, 3.5
TX05246-3W	Low Yield, Light Set, Smooth, , ,	3, 3, 2.8, 3
TX05249-3W	Drop, , ,	2, 2, 2, 2
TX05249-10W	, Drop+, Large, Very Nice Flesh, size, parent,	2.4, 2.6, 2.4, 2.6
NDTX059979-1W	, Buff, ,	2.8, 2.8, 2.8, 2.8
NDTX059997-6W	, smooth, nice flesh,	3, 2.5, 3, 2.8
ATTX98466-5R/W-R	, , Red Streak in Flesh, Smooth	2.5, 3, 3, 2.5

Dalhart
Table 3f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 31 entries in the Texas Advanced Selection Chip Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
NDTX059897-1Y/Y	Dalhart	1.067	14.4	3.3	3	17/15	1 HH, 1 BC, 1 GH, DROP, 13% Vas, 3% BSB	0%	0%
AOTX95295-1W	Dalhart	1.073	15.5	3.8	1+	31/6	3% Vas, 14% BSB	0%	0%
ATX85404-8W	Dalhart	1.073	15.5	3.9	1+	32/9	Keep, 12% BSB	10%	3%
Atlantic	Oregon	1.078	16.5	3.7	1	34/3	Keep, 8% BSB	0%	0%
NDTX059997-3W	Dalhart	1.068	14.7	3.8	1	20/0	BOT, Keep	0%	10%
TX1673-1W	Dalhart	1.067	14.4	3.6	2	24/15	Keep, 26% Vas, 10% BSB	3%	0%
Chipeta	Colorado	1.072	15.3	3.2	1	34/5	5% MB, Keep, Nice, 5% Vas, 3% BSB	0%	0%
NDTX059632-1W	Dalhart	1.072	15.4	2.5	2+	15/4	Keep, 10% Vas, 10% BSB	0%	0%
NDTX059997-1W	Dalhart	1.070	14.9	3.7	1+	26/9	1 MB, 1 BC, 1 GH, DROP, 2% BSB	0%	0%
TX05249-12W	Dalhart	1.069	14.7	3.3	1	17/3	5% GH, Keep, 15% BSB	0%	0%
AOTX95309-3W	Dalhart	1.073	15.6	3.7	1	28/12	3% BC, 3% GH, 20% Vas, 5% BSB	0%	0%
COTX02377-1W	Dalhart	1.068	14.6	2.6	1	31/8	Keep, 8% Vas, 10% BSB	3%	0%
NDTX059997-2W	Dalhart	1.060	13.3	3.5	1	27/3	3% GH, Keep, 3% Vas, 3% BSB	0%	0%
ATX03409-6W/Y	Dalhart	1.081	16.9	3.0	3	21/20	1 GH, DROP, 26% Vas, 20% BSB	0%	5%
TX03196-1W	Dalhart	1.065	14.1	2.9	1	36/4	Keep, 10% BSB	0%	0%
TX05249-8W	Dalhart	1.076	16.1	3.4	1+	25/6	6% MB, Keep, 9% BSB	3%	17%
TX05249-5W	Dalhart	1.074	15.7	3.3	1+	28/2	Keep, 3% BSB	3%	17%
NDTX059828-2W	Dalhart	1.057	12.7	2.8	1	29/10	Keep, 26% BSB	0%	0%
NDTX059997-4W	Dalhart	1.073	15.5	2.8	1+	12/2	14% MB, Keep-	0%	0%
TX05254-2W	Dalhart	1.068	14.6	2.5	1+	29/11	1 MB, 1 GH, DROP, 3% Vas, 10% BSB	13%	8%
NDTX059997-7W	Dalhart	1.064	13.9	3.4	1	18/2	Keep, 5% Vas	5%	5%
TX05249-14W	Dalhart	1.077	16.2	2.7	1+	30/4	6% MB, Keep, 3% BSB	3%	0%
COTX03270-1W	Dalhart	1.069	14.8	2.6	1+	31/8	3% MB, Keep, 3% Vas, 20% BSB	0%	10%
NDTX059997-8W	Dalhart	1.064	14.0	3.3	2+	17/3	DROP, 5% Vas,	10%	0%
TX05249-11W	Dalhart	1.079	16.5	3.5	1+	17/3	2 MB, DROP, 5% BSB	0%	0%
TX05246-3W	Dalhart	1.078	16.5	3.0	1+	31/7	Keep, 5% Vas, 11% BSB	3%	0%
TX05249-3W	Dalhart	1.068	14.6	2.0	3	6/15	11 MB, DROP, 19% BSB	0%	15%
TX05249-10W	Dalhart	1.068	14.7	2.5	1+	28/7	Keep, 6% Vas, 14% BSB	0%	0%
NDTX059979-1W	Dalhart	1.076	16.0	2.8	1+	22/2	Keep, 4% BSB	4%	10%
NDTX059997-6W	Dalhart	1.061	13.4	2.8	1	26/4	Keep, 10% Vas,	3%	0%
ATTX98466-5R/W-R	Dalhart	1.061	13.5	2.8	1	40/0	Keep, BOT	0%	0%
Average		1.070	15.0	3.1				2%	3%
L.S.D. (.05)		0.004	0.8	0.3					11%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 4

Tuber type, skin color, inventory weight, chip color, of 13 entries to be Advanced from the
2008 Chip Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Tuber Type	Skin Color	Inventory Weight	Chip Color ¹
ATTX03446-3W	Dalhart	08SEL	21.7	1+
ATTX03446-4W	Dalhart	08SEL	21.2	2
ATTX03474-1W	Dalhart	08SEL	31.5	1
ATTX03474-2W	Dalhart	08SEL	12.1	1
ATTX03474-3W	Dalhart	08SEL	31.9	1
ATTX03475-2W	Dalhart	08SEL	15.3	1+
ATTX03475-6W	Dalhart	08SEL	13.3	1
ATTX03476-2W	Dalhart	08SEL	29	1+
ATX06173-2W	Dalhart	08SEL	1.4	2
ATX06206-6W/Y	Dalhart	08SEL	10.9	3
ATX06206-9W	Dalhart	08SEL	6.6	2
COTX03303-1W	Dalhart	08SEL	25.9	2
TX06285-1W/Y	Dalhart	08SEL	14.9	3

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=light, 3+=very dark

Dalhart Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 33 entries in the Texas
 Table 5a. Advanced Selection Russet Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre			Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading	
		Total Yield	4-6 oz	6-10 oz						10-18 oz
TXA549-1Ru	810.2	683.0	98.3	261.7	323.1	26.3	91.1	9.7	3.7	3.7
AOTX98202-1Ru	823.3	622.7	53.5	199.6	369.6	111.0	62.1	27.5	3.5	4.2
AOTX96084-1Ru	774.7	557.3	75.6	170.1	311.6	133.4	52.7	31.3	3.8	3.6
ATX9202-3Ru	770.3	549.9	70.5	191.4	287.9	135.2	79.7	5.6	3.9	3.9
Russet Norkotah	712.5	537.4	95.0	168.8	273.7	66.4	84.3	24.4	3.7	3.6
ATX91137-1Ru	630.1	500.0	114.0	145.6	240.3	36.7	57.0	36.4	4.0	3.7
AOTX02060-1Ru	618.6	487.0	78.7	142.8	265.5	41.7	56.3	33.6	3.8	3.6
AOTX95265-1Ru	636.9	482.2	43.8	111.0	327.4	87.6	65.2	2.0	3.4	3.3
ATX99013-1Ru	689.6	474.3	88.3	124.5	261.4	140.5	65.2	9.7	3.4	3.4
AOTX95265-2ARu	663.7	466.1	88.1	121.9	256.1	106.7	70.8	20.1	3.6	3.4
AOTX98152-3Ru	613.0	465.1	102.3	119.9	242.9	41.5	74.8	31.6	3.8	3.3
Russet Norkotah296	636.2	446.5	56.3	133.7	256.6	87.6	62.9	39.2	3.3	3.4
ATX9332-12Ru	533.3	443.7	58.0	172.1	213.6	0.0	71.3	18.3	3.4	3.4
Russet Norkotah278	609.7	442.2	41.7	143.8	256.6	117.6	25.7	24.2	3.8	3.6
ATX97147-4Ru	596.5	440.7	82.5	115.1	243.1	37.9	59.8	58.0	3.2	3.2
AOTX96208-1Ru	558.5	439.9	96.7	167.8	175.4	28.8	89.9	0.0	3.4	3.6
AOTX96265-2Ru	513.2	376.5	56.3	128.6	191.7	103.1	33.6	0.0	3.7	3.3
AOTX95265-3Ru	474.8	359.7	61.6	113.0	185.1	61.4	50.4	3.3	3.5	3.4
ATX05114-1Ru	458.2	357.9	35.6	108.2	214.1	65.7	25.2	9.4	3.0	3.3
AOTX03657-1Ru	470.4	339.1	141.5	90.6	106.9	14.3	95.7	21.4	2.9	2.2
ATX84378-6Ru	533.1	335.3	46.1	66.2	223.0	131.4	36.7	29.8	3.9	3.7
ATX99194-3Ru	386.9	327.1	81.2	106.9	139.0	0.0	51.7	8.1	3.1	3.3
AOTX98096-1Ru	405.3	310.1	80.4	92.4	137.2	34.9	59.1	1.3	3.5	3.3
ATX97232-1Ru	573.3	306.5	68.2	99.8	138.5	143.6	54.0	69.2	3.2	3.2
ATX03068-1Ru	412.2	295.3	62.9	113.0	119.4	36.9	48.1	31.8	3.0	3.2
AOTX05096-4Ru	348.0	284.9	60.6	100.0	124.2	4.1	46.3	12.7	3.5	2.6
ATX05142-2Ru	362.3	279.3	77.1	108.2	93.9	4.1	77.1	1.8	3.2	3.0
AOTX95265-4Ru	394.1	278.0	109.0	115.6	53.5	0.0	116.1	0.0	3.2	2.9
TXNS551	321.0	261.2	81.0	95.2	85.0	0.0	51.9	7.9	3.2	3.5
AOTX96216-2Ru	508.1	253.8	36.1	67.0	150.7	202.6	20.6	31.1	4.0	3.5
Stampede Russet	416.5	234.2	40.7	119.1	74.3	72.3	91.6	18.3	3.4	3.5
TXNS410	283.6	222.5	46.6	83.8	92.2	23.7	33.9	3.6	3.5	3.5
COTX05002-2Ru	370.9	202.6	53.0	47.4	102.3	144.9	17.3	6.1	3.1	3.2
Average	596.2	441.8	75.1	136.3	230.4	71.6	60.9	21.8	3.5	3.4
L.S.D. (.05)	100.8	53.3	40.8	46.1	58.7	72.8	30.5	37.2	0.4	0.2

¹ 1=very poor to 5= excellent

Dalhart
Table 5b. Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 33 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
TXA549-1Ru	84.6	12.0	32.4	40.1	3.2	11.1	1.1	1.076	16.1	Oblong	Russet
AOTX98202-1Ru	75.6	6.5	24.2	45.0	13.5	7.5	3.3	1.073	15.6	Long	Russet
AOTX96084-1Ru	73.4	9.9	22.2	41.4	15.7	7.1	3.8	1.068	14.7	Long	Russet
ATX9202-3Ru	71.7	9.3	25.0	37.4	16.9	10.5	0.8	1.072	15.4	Long	Russet
Russet Norkotah	75.6	13.4	23.7	38.5	9.2	11.9	3.3	1.067	14.4	Long	Russet
ATX91137-1Ru	80.2	17.6	23.7	39.0	5.6	9.1	5.1	1.068	14.7	Long	Russet
AOTX02060-1Ru	78.9	12.4	23.4	43.1	7.1	8.9	5.1	1.071	15.3	Long	Russet
AOTX95265-1Ru	75.9	6.8	17.7	51.5	13.4	10.4	0.3	1.066	14.4	Long	Russet
ATX99013-1Ru	69.3	12.9	18.4	38.0	20.1	9.4	1.2	1.065	14.2	Long	Russet
AOTX95265-2ARu	70.4	13.5	18.4	38.5	15.5	11.0	3.1	1.068	14.7	Long	Russet
AOTX98152-3Ru	76.9	15.9	20.7	40.3	6.0	11.6	5.5	1.073	15.5	Oblong	Russet
Russet Norkotah296	70.5	9.1	21.1	40.3	13.4	10.0	6.1	1.064	14.0	Long	Russet
ATX9332-12Ru	83.4	10.9	32.1	40.5	0.0	13.3	3.2	1.082	17.1	Oblong	Russet
Russet Norkotah278	72.7	7.0	23.9	41.8	19.4	4.1	3.8	1.065	14.2	Long	Russet
ATX97147-4Ru	74.2	14.0	19.5	40.7	6.3	10.2	9.3	1.071	15.2	Long	Russet
AOTX96208-1Ru	79.3	16.6	30.7	32.0	5.4	15.3	0.0	1.062	13.6	Long	Russet
AOTX96265-2Ru	73.4	10.9	24.7	37.8	20.4	6.2	0.0	1.074	15.7	Long	Russet
AOTX95265-3Ru	78.4	12.9	26.2	39.3	10.1	11.0	0.5	1.065	14.1	Long	Russet
ATX05114-1Ru	78.4	7.7	23.5	47.1	14.2	5.4	2.0	1.080	16.8	Long	Russet
AOTX03657-1Ru	72.2	30.1	19.3	22.8	2.9	20.4	4.5	1.074	15.8	Oblong	Russet
ATX84378-6Ru	62.1	8.6	13.2	40.3	26.2	6.5	5.2	1.068	14.7	Oblong	Russet
ATX99194-3Ru	85.3	20.6	27.5	37.2	0.0	12.7	2.0	1.067	14.5	Oblong	Russet
AOTX98096-1Ru	76.6	19.0	23.3	34.4	8.6	14.4	0.3	1.065	14.1	Long	Russet
ATX97232-1Ru	53.5	11.9	17.4	24.2	25.0	9.4	12.1	1.069	14.8	Long	Russet
ATX03068-1Ru	74.7	17.2	27.3	30.1	6.0	12.1	7.2	1.067	14.5	Oblong	Russet
AOTX05096-4Ru	82.2	17.5	29.1	35.5	0.9	13.6	3.3	1.071	15.2	Oblong	Russet
ATX05142-2Ru	77.1	21.3	29.9	25.9	1.1	21.3	0.5	1.086	17.8	Oblong	Russet
AOTX95265-4Ru	70.4	26.3	29.7	14.4	0.0	29.6	0.0	1.064	13.8	Long	Russet
TXNS551	81.3	25.5	29.7	26.1	0.0	16.4	2.3	1.059	13.1	Oblong	Russet
AOTX96216-2Ru	50.1	7.1	13.3	29.8	40.1	4.2	5.6	1.069	14.8	Long	Russet
Stampede Russet	56.2	9.8	28.6	17.8	17.4	22.0	4.4	1.059	13.1	Oblong	Russet
TXNS410	77.2	18.5	27.5	31.3	8.4	13.4	0.9	1.059	13.1	Oblong	Russet
COTX05002-2Ru	59.8	15.7	13.9	30.2	33.8	5.1	1.3	1.069	14.8	Long	Russet
Average	74.7	13.1	23.2	38.4	11.4	10.4	3.6	1.070	15.0		
L.S.D. (.05)	10.8	7.7	8.5	11.1	10.9	5.8	5.8	0.005	0.9		

Dalhart
Table 5c. Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 33 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXA549-1Ru	6.8	9.7	91	98	1.8	4.5	4.7	4.7	3
AOTX98202-1Ru	8.2	10.6	75	80	2.5	4.0	4.3	4.1	18
AOTX96084-1Ru	6.9	10.5	89	93	1.9	4.2	4.5	4.2	9
ATX9202-3Ru	7.9	10.6	79	83	1.8	4.1	4.6	4.1	13
Russet Norkotah	9.8	8.3	80	81	1.6	3.6	3.3	3.5	54
ATX91137-1Ru	8.7	9.4	58	68	2.1	3.7	4.1	3.7	19
AOTX02060-1Ru	7.2	8.4	76	81	2.0	3.7	3.5	3.7	31
AOTX95265-1Ru	6.2	10.5	75	85	1.6	3.6	4.5	3.4	9
ATX99013-1Ru	7.3	9.9	80	88	1.8	3.9	4.4	3.9	11
AOTX95265-2ARu	6.9	9.8	64	84	2.1	4.2	4.5	4.1	10
AOTX98152-3Ru	6.8	9.3	70	80	2.4	3.9	5.0	3.9	0
Russet Norkotah296	6.3	9.1	88	91	1.9	4.1	4.5	4.1	9
ATX9332-12Ru	5.9	7.7	88	89	1.9	3.8	5.0	3.8	0
Russet Norkotah278	5.7	10.5	86	89	2.0	3.9	4.6	3.8	6
ATX97147-4Ru	5.9	8.9	80	89	2.1	4.1	5.0	4.0	0
AOTX96208-1Ru	6.1	7.8	96	96	1.9	4.0	4.0	4.0	20
AOTX96265-2Ru	6.1	10.8	61	78	2.1	4.1	5.0	4.2	0
AOTX95265-3Ru	4.8	8.9	93	95	1.5	3.3	3.9	3.3	26
ATX05114-1Ru	6.1	10.3	59	63	1.6	3.1	4.3	3.4	9
AOTX03657-1Ru	7.1	6.5	73	80	2.0	3.7	3.9	3.4	28
ATX84378-6Ru	5.0	12.4	78	81	1.9	3.9	3.9	3.9	20
ATX99194-3Ru	5.4	8.2	65	70	1.5	2.9	3.3	3.0	53
AOTX98096-1Ru	5.1	7.6	80	86	1.5	3.1	3.5	3.3	40
ATX97232-1Ru	9.0	9.6	50	55	2.5	2.8	5.0	3.4	0
ATX03068-1Ru	6.7	8.7	49	58	1.6	2.8	3.3	2.9	49
AOTX05096-4Ru	7.6	7.2	46	55	1.6	2.8	4.3	3.2	11
ATX05142-2Ru	7.2	6.0	61	66	1.9	3.6	4.5	3.6	6
AOTX95265-4Ru	6.5	7.5	61	78	2.6	3.4	3.7	3.4	33
TXNS551	3.9	6.7	94	95	1.5	2.9	3.1	3.1	52
AOTX96216-2Ru	6.2	14.1	66	63	1.5	3.7	4.7	3.7	6
Stampede Russet	10.2	7.4	45	45	1.5	3.1	3.5	3.3	35
TXNS410	3.1	8.0	88	94	1.5	2.9	3.2	3.0	54
COTX05002-2Ru	7.0	11.7	40	53	1.6	3.1	4.5	3.3	10
Average	6.7	9.4	75	82	1.9	3.7	4.3	3.7	17
L.S.D. (.05)	2.6	1.9	19	19	0.4	0.5	0.6	0.4	20

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

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Table 5d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 33 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
TXA549-1Ru	1.0	3.4	4.0	4.0	4.1	5.0	5.0	5.0	5.0	5.0	8	0	0	13
AOTX98202-1Ru	1.0	5.0	4.5	3.6	4.5	5.0	5.0	5.0	5.0	5.0	3	0	0	0
AOTX96084-1Ru	1.0	5.0	4.5	3.7	4.6	5.0	5.0	5.0	5.0	5.0	8	0	0	3
ATX9202-3Ru	1.0	5.0	4.1	2.5	4.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	1.0	5.0	4.5	3.7	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX91137-1Ru	1.0	4.7	4.5	4.0	4.3	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX02060-1Ru	1.0	5.0	4.5	4.0	4.4	4.6	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-1Ru	1.0	5.0	4.5	3.8	4.5	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATX99013-1Ru	1.0	5.0	4.7	3.7	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-2ARu	1.0	4.0	4.5	4.0	4.5	5.0	5.0	5.0	5.0	5.0	13	0	0	0
AOTX98152-3Ru	1.0	3.5	3.7	11.1	3.5	5.0	5.0	5.0	5.0	5.0	8	0	0	20
Russet Norkotah296	1.0	5.0	4.5	3.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX9332-12Ru	1.0	3.9	3.8	4.0	3.6	5.0	5.0	5.0	5.0	5.0	3	0	0	0
Russet Norkotah278	1.0	5.0	4.5	4.0	4.5	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATX97147-4Ru	1.0	4.7	3.9	3.7	4.0	3.9	5.0	5.0	5.0	5.0	3	0	0	0
AOTX96208-1Ru	1.0	5.0	4.5	3.8	4.2	5.0	5.0	5.0	5.0	5.0	0	0	3	0
AOTX96265-2Ru	1.0	4.9	4.5	3.5	4.5	5.0	5.0	5.0	5.0	5.0	28	0	20	0
AOTX95265-3Ru	1.0	4.5	4.5	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05114-1Ru	1.0	5.0	3.0	3.6	3.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
AOTX03657-1Ru	1.0	3.5	4.0	4.2	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX84378-6Ru	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	15	0	0	5
ATX99194-3Ru	1.0	3.5	3.5	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	33
AOTX98096-1Ru	1.0	4.6	4.5	3.8	4.5	5.0	5.0	5.0	5.0	5.0	0	0	3	3
ATX97232-1Ru	1.0	4.5	3.5	4.0	3.6	5.0	5.0	5.0	5.0	5.0	15	0	0	0
ATX03068-1Ru	1.0	3.7	4.3	4.0	4.5	5.0	5.0	5.0	5.0	5.0	10	0	0	18
AOTX05096-4Ru	1.0	3.5	4.0	4.0	4.1	4.6	5.0	5.0	5.0	5.0	3	0	0	55
ATX05142-2Ru	1.0	4.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
AOTX95265-4Ru	1.0	3.8	4.5	4.0	4.7	5.0	5.0	5.0	5.0	5.0	0	0	0	8
TXNS551	1.0	4.5	4.0	3.7	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-2Ru	1.0	3.7	4.5	3.9	3.8	5.0	5.0	5.0	5.0	5.0	35	0	0	0
Stampede Russet	1.0	3.7	4.0	4.2	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	3
TXNS410	1.0	4.5	4.0	3.7	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05002-2Ru	1.0	5.0	4.5	3.0	4.6	5.0	5.0	5.0	5.0	5.0	8	0	0	0
Average	1.0	4.4	4.2	4.0	4.2	4.9	5.0	5.0	5.0	5.0	5	0	1	5
L.S.D. (.05)	ns	0.1	0.1	ns	0.1	0.3	ns	ns	ns	ns	14	ns	6	15

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

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Table 5e. Notes and general rating for all reps of 33 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
TXA549-1Ru	blocky+, BOT, . .	Rhizoctonia+, blocky+, yield+, . .	4.3, 3.7, 3.4, 3.5	4, 3.7, 3.6, 3.6
AOTX98202-1Ru	. . poor shape, drop?	. . BOT+,	3.8, 3.8, 3.1, 3.1	4.3, 4.3, 4, 4
AOTX96084-1Ru	nice, . some pointed, long, oversize, rot, drop	. . .	4.3, 3.8, 3.7, 3.3	3.6, 3.6, 3.6, 3.6
ATX9202-3Ru	BOT, . . send to ROB	Rhizoctonia, deep eyes, nice interior, .	4.3, 3.6, 3.5, 4.3	4, 3.8, 3.7, 4
Russet Norkotah	. . .	nice flesh, Rhizoctonia, .	3.3, 3.8, 3.7, 4	3.7, 3.7, 3.5, 3.5
ATX91137-1Ru	. . send to ROB, high yield	BOT, Rhizoctonia, . nice shape	4.2, 3.2, 4.4, 4	4, 3.5, 3.8, 3.6
AOTX02060-1Ru	BOT, nice+, . light set	nice flesh, . growth cracks, keep	4, 3.8, 3.7, 3.8	3.5, 3.6, 3.6, 3.6
AOTX95265-1Ru	long, some pointed, .	nice internals, keep, . . Norkotah like	3.4, 3.3, 3.5, 3.36	3.3, 3.3, 3.3, 3.3
ATX99013-1Ru	curved, high yield, long, drop+, .	skinny, Rhizoctonia, nice flesh+, .	3.9, 3.2, 3.3, 3.2	3.2, 3.6, 3.2, 3.6
AOTX95265-2ARu	long, . .	. Rhizoctonia, hollow heart, drop.,	3.9, 3.3, 3.6, 3.7	3.2, 3.6, 3.2, 3.5
AOTX98152-3Ru	BOT, rot+, blocky+,	blocky++, Rhizoctonia+, poor internals, drop++, rough,	4.2, 3.3, 3.8, 3.8	3.2, 3.4, 3.3, 3.4
Russet Norkotah296	. . . rot	. . .	3.3, 3.3, 3.2, 3.4	3.6, 3.4, 3.2, 3.2
ATX9332-12Ru	drop+., . .	. . . skin not very nice, nice interior	3.6, 3.7, 3.3, 2.8	3.6, 3.5, 3.3, 3.3
Russet Norkotah278	thin, pointed, . .	. . .	3.6, 3.8, 4, 3.8	3.6, 3.6, 3.6, 3.6
ATX97147-4Ru	. high yield, drop,	growth cracks, drop+, . Rhizoctonia+, shape-, nice interior, curved	3.2, 3.5, 3, 3.2	3.1, 3.2, 3.2, 3.1
AOTX96208-1Ru	. pointed, drop?, drop	10% tuber moth, BOT, . .	3.8, 3.6, 3.3, 2.8	4, 3.4, 3.5, 3.4
AOTX96265-2Ru	. large tubers, nice shape, BOT+, . long, drop	. Rhizoctonia, hollow heart, .	3.4, 4.5, 3.5, 3.4	3.2, 3.3, 3.2, 3.3
AOTX95265-3Ru	long, . .	. good shape, .	3.7, 3.5, 3.5, 3.1	3.5, 3.4, 3.5, 3.3
ATX05114-1Ru	long, drop+, drop?, skin too light, drop,	long pointed, nice flesh, . keep, light skin	3, 3.2, 3.2, 2.5	3, 3.4, 3.4, 3.4
AOTX03657-1Ru	drop+, . .	ugly, . small, blocky, drop+,	3.2, 3.2, 2.6, 2.6	2.2, 2.2, 2.2, 2.2
ATX84378-6Ru	. . . light set	blocky, light set, BOT,	4.2, 4, 4, 3.5	3.8, 3.8, 3.8, 3.5
ATX99194-3Ru	. drop+., . drop?	. . blocky+,	3, 3.2, 3, 3.2	3.3, 3.3, 3.3, 3.3
AOTX98096-1Ru	. nice shape+, light set, . drop	. nice shape, . Rhizoctonia, drop	3.7, 3.5, 3.9, 3	3.2, 3.3, 3.3, 3.2
ATX97232-1Ru	drop, . .	light russet, Rhizoctonia, . .	3.2, 3.2, 3.2, 3.2	3.2, 3.2, 3.2, 3.2
ATX03068-1Ru	light set, drop+., .	. . Rhizoctonia, blocky, drop,	3.6, 3.2, 2.6, 2.5	3.5, 3.2, 3, 3.2
AOTX05096-4Ru	. . good shape+, light set, small	. yield-, drop, .	3.5, 3.8, 3.4, 3.2	2.6, 2.6, 2.5, 2.5
ATX05142-2Ru	pointed+, drop, drop?, .	. small, nice interior, .	3.2, 3, 3.3, 3.1	3, 3, 3, 3
AOTX95265-4Ru	small, heavy set, drop, blocky,	poor skin finish, drop, Rhizoctonia, . heavy net	3.3, 3.2, 3.2, 3.2	2.6, 3, 3, 3
TXNS551	. . .	nice, yield-, nice flesh, . .	3.2, 3.1, 3, 3.5	3.5, 3.5, 3.5, 3.5
AOTX96216-2Ru	large, . large tubers+, nice shpe+, BOT	blocky, Rhizoctonia, 378 like, . yield-	3.7, 3.7, 4.2, 4.2	3.5, 3.4, 3.4, 3.5
Stampede Russet	. . .	blocky, light net, . .	3.4, 3.4, 3.4, 3.4	3.5, 3.5, 3.5, 3.5
TXNS410	. nice, .	yield-, . .	3.2, 3.8, 3.3, 3.5	3.5, 3.5, 3.5, 3.5
COTX05002-2Ru	drop, large tubers, rot+, oversize, drop+,	. . . low yield	3, 3.7, 3.3, 2.5	3, 3.3, 3.3, 3

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Table 5f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 33 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
TXA549-1Ru	Colorado	1.076	16.1	3.7	1+	16/14	3% MB, 3% GH, 20% Vas, 6% BSB	10%	0%
AOTX98202-1Ru	Colorado	1.073	15.6	4.2	2	15/24	3% HH, 41% Vas, 18% BSB	0%	0%
AOTX96084-1Ru	Colorado	1.068	14.7	3.6	2+	22/7	21% Vas, 3% BSB	0%	0%
ATX9202-3Ru	Colorado	1.072	15.4	3.9	1	7/3	30% Vas	0%	0%
Russet Norkotah	Wisconsin	1.067	14.4	3.6	2	18/12	40% Vas	0%	0%
ATX91137-1Ru	Colorado	1.068	14.7	3.7	2	9/11	35% Vas, 15% BSB	5%	10%
AOTX02060-1Ru	Dalhart	1.071	15.3	3.6	1+	21/8	BOT-, 14% Vas, 14% BSB	0%	0%
AOTX95265-1Ru	Colorado	1.066	14.4	3.3	2+	14/16	40% Vas, 13% BSB	0%	0%
ATX99013-1Ru	Colorado	1.065	14.2	3.4	2	17/13	3% BC, 30% Vas	10%	3%
AOTX95265-2ARu	Colorado	1.068	14.7	3.4	1+	7/21	57% Vas, 11% BSB	7%	0%
AOTX98152-3Ru	Colorado	1.073	15.5	3.3	1+	25/7	BOT-, 12% Vas, 9% BSB	0%	0%
Russet Norkotah296	Barrett	1.064	14.0	3.4	2+	22/17	8% BC, 36% Vas, 3% BSB	3%	0%
ATX9332-12Ru	Colorado	1.082	17.1	3.4	1+	6/4	20% Vas, 20% BSB	0%	0%
Russet Norkotah278	Barrett	1.065	14.2	3.6	2	3/17	65% Vas, 5% BSB	10%	3%
ATX97147-4Ru	Colorado	1.071	15.2	3.2	2	9/21	50% BC, 20% Vas	0%	0%
AOTX96208-1Ru	Colorado	1.062	13.6	3.6	3	12/8	20% Vas, 20% BSB	0%	5%
AOTX96265-2Ru	Colorado	1.074	15.7	3.3	1+	21/10	29% Vas, 3% BSB	0%	0%
AOTX95265-3Ru	Dalhart	1.065	14.1	3.4	2+	25/15	3% HH, 23% Vas, 10% BSB	3%	0%
ATX05114-1Ru	Dalhart	1.080	16.8	3.3	3	4/26	11 pre z?, 27% Vas,	23%	0%
AOTX03657-1Ru	Dalhart	1.074	15.8	2.2	1+	17/3	5% MB, BOT, 5% Vas, 5% BSB	0%	0%
ATX84378-6Ru	Dalhart	1.068	14.7	3.7	1+	27/3	3% BSB	7%	0%
ATX99194-3Ru	Dalhart	1.067	14.5	3.3	1+	13/6	26% Vas, 5% BSB	0%	0%
AOTX98096-1Ru	Dalhart	1.065	14.1	3.3	2+	22/8	10% Vas, 17% BSB	0%	0%
ATX97232-1Ru	Colorado	1.069	14.8	3.2	2	11/9	25% Vas, 20% BSB	0%	0%
ATX03068-1Ru	Dalhart	1.067	14.5	3.2	2	17/22	5% BC 3% HH, 38% Vas, 10% BSB	0%	0%
AOTX05096-4Ru	Dalhart	1.071	15.2	2.6	1+	20/8	11% MB, 7% Vas	11%	25%
ATX05142-2Ru	Dalhart	1.086	17.8	3.0	1+	19/10	7%GH, 24% Vas, 3% BSB	0%	0%
AOTX95265-4Ru	Colorado	1.064	13.8	2.9	2	9/31	60% Vas, 15% BSB	0%	0%
TXNS551	Dalhart	1.059	13.1	3.5	2+	7/10	41% Vas, 6% BSB	12%	0%
AOTX96216-2Ru	Dalhart	1.069	14.8	3.5	1+	7/10	29% Vas	29%	10%
Stampede Russet	Dalhart	1.059	13.1	3.5	1+	5/5	30% Vas, 20% BSB	0%	0%
TXNS410	Dalhart	1.059	13.1	3.5	2+	12/8	35% Vas, 5% BSB	0%	0%
COTX05002-2Ru	Colorado	1.069	14.8	3.2	1	11/1	BOT Chip, 8% Vas,	0%	0%
Average		1.069	14.8	3.4				4%	2%
L.S.D. (.05)		0.005	0.9	0.2					9%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

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Table 6

Tuber type, skin color, general rating, inventory weight, of 12 entries to be
Advanced from the 2008 Russet Selection Trial grown near Dalhart, Texas-
2009.

Variety or Selection	Tuber Type	Skin Color	General Rating	Inventory Weight
AOTX06016-1Ru		Russet	3	14.1
AOTX06026-1Ru		Russet	3.2	21.8
AOTX06048-1Ru		Russet	3	12.4
AOTX06077-1Ru		Russet	3	3.1
AOTX06116-1Ru		Russet	3	12.6
COTX05095-1Ru		Russet	3.5	41.5
COTX05095-2Ru/Y		Russet	3	16
COTX06052-2Ru		Russet	3.2	21.8
COTX06221-1Ru		Russet	3.5	62.7
TX06330-1Ru		Russet	3	24.1
TX06330-3Ru		Russet	3	7.2
TX06330-4Ru		Russet	3	17.6

Dalhart Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 35 entries in the Texas Advanced Selection Red Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
ATX01178-1R	462.3	432.8	113.0	50.9	268.8	0.0	29.5	0.0	3.8	4.0
Red LaSoda	582.2	407.1	95.0	145.9	166.2	22.4	43.3	109.5	3.9	2.9
NDTX5438-11R	529.0	405.5	219.7	178.5	7.4	0.0	114.8	8.7	3.6	4.2
NDTX4784-7R	424.9	371.4	136.7	175.9	58.8	0.0	47.1	6.4	3.9	4.3
AOTX91861-4R	481.9	368.6	111.0	150.5	107.2	25.7	47.6	40.0	3.7	3.7
NDTX731-1R	454.7	366.6	103.6	184.6	78.4	11.5	46.8	29.8	3.8	3.5
AOTX93483-1R	417.5	364.0	56.0	177.7	130.3	5.6	27.0	20.9	3.4	3.1
NDTX4847-7R	473.0	363.5	158.3	173.1	32.1	2.8	100.8	5.9	3.8	4.1
NDTX7590-3R	364.3	322.3	34.6	126.3	161.4	4.6	22.4	15.0	3.3	3.0
ATX03516-2R	405.8	320.3	133.9	149.2	37.2	7.6	63.1	14.8	3.4	4.0
Dark Red Norland	382.4	303.7	110.7	134.2	58.8	6.4	47.9	24.4	3.6	3.6
ATX98453-6R	324.8	303.4	51.9	116.1	135.4	0.0	21.4	0.0	4.0	4.5
NDTX4271-5R	397.9	292.5	133.4	113.8	45.3	0.0	83.0	22.4	3.9	4.1
COTX94216-1R	393.1	289.2	158.9	110.5	19.9	0.0	86.3	17.6	3.6	3.4
BTX2332-1R	339.6	287.2	130.6	114.3	42.3	3.3	49.1	0.0	4.0	4.3
COTX05211-4R	398.7	281.0	112.0	94.2	74.8	0.0	56.0	61.6	3.1	2.8
ATX03550-2R	316.9	274.2	42.5	84.3	147.4	16.3	23.7	2.8	3.4	3.7
ATX98453-11BR	372.7	272.9	156.8	116.1	0.0	0.0	95.7	4.1	3.0	4.0
NDTX039190-1R	363.5	269.8	139.5	101.1	29.3	5.6	48.1	40.0	3.0	2.9
COTX05211-7R	384.1	265.5	145.1	109.0	11.5	0.0	111.2	7.4	3.5	3.8
NDTX050070-1R	356.4	251.0	158.9	78.4	13.7	0.0	96.7	8.7	3.4	3.8
NDTX050054-3R	351.3	245.4	179.2	66.2	0.0	0.0	96.7	9.2	3.3	2.8
Rio Rojo	266.8	240.8	68.5	123.2	49.1	0.0	23.2	2.8	4.0	3.7
NDTX4828-2R	273.2	211.8	103.4	93.7	14.8	0.0	42.5	18.8	3.5	3.7
NDTX050239-2R	340.9	194.7	151.0	43.8	0.0	0.0	132.4	13.7	3.4	4.2
NDTX050156-3R	228.6	193.7	81.7	95.5	16.5	0.0	28.8	6.1	3.7	2.9
NDTX050258-2R/Y	239.8	170.6	72.8	77.4	20.4	0.0	43.8	25.5	3.1	2.9
COTX00104-7R	202.6	161.9	71.3	74.3	16.3	0.0	21.4	19.3	3.4	4.0
NDTX050241-4R/Y	235.7	159.9	69.8	78.4	11.7	0.0	61.1	14.8	3.3	3.8
COTX05211-5R	313.9	159.6	60.1	74.1	25.5	0.0	40.7	113.5	2.8	2.3
COTX94218-1R	258.1	149.7	89.4	60.3	0.0	6.1	63.9	38.4	3.1	2.9
NDTX059827-1R	251.3	131.6	103.4	28.3	0.0	0.0	87.8	31.8	3.3	2.6
NDTX050169-1R	262.7	122.2	98.8	23.4	0.0	0.0	140.5	0.0	3.4	3.8
NDTX050241-3R	182.5	78.4	46.6	27.2	4.6	0.0	57.0	47.1	3.1	2.0
NDTX050168-2R	103.9	26.5	23.4	3.1	0.0	0.0	53.0	24.4	3.0	2.8
Average	394.3	308.2	120.2	120.4	67.6	4.5	62.3	19.4	3.6	3.7
L.S.D. (.05)	60.9	43.4	39.6	35.9	32.6	ns	24.7	33.3	0.3	0.3

¹ 1=very poor to 5= excellent

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Table 7b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 35 entries in the Texas Advanced Selection Red Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX01178-1R	93.6	24.4	11.0	58.1	0.0	6.4	0.0	1.066	14.2	Round	Red
Red LaSoda	71.4	18.5	25.8	27.2	3.4	7.9	17.3	1.060	13.2	Oblong	Red
NDTX5438-11R	76.8	41.4	34.0	1.4	0.0	21.4	1.8	1.058	12.9	Round	Red
NDTX4784-7R	87.5	32.3	41.4	13.7	0.0	11.0	1.6	1.055	12.3	Round	Red
AOTX91861-4R	77.2	23.0	30.9	23.3	5.0	9.7	8.1	1.060	13.2	Round	Red
NDTX731-1R	80.6	22.7	41.0	17.0	2.7	10.3	6.3	1.051	11.6	Round	Red
AOTX93483-1R	87.1	12.8	40.5	33.8	1.6	6.2	5.1	1.057	12.6	Oblong	Red
NDTX4847-7R	77.3	33.8	36.7	6.8	0.6	21.0	1.2	1.057	12.7	Round	Red
NDTX7590-3R	88.5	9.7	34.3	44.5	1.1	6.2	4.2	1.052	11.8	Oblong	Red
ATX03516-2R	78.8	33.1	36.7	9.0	1.8	15.7	3.7	1.050	11.4	Round	Red
Dark Red Norland	80.0	29.4	35.4	15.3	1.6	12.8	5.6	1.053	11.9	Oblong	Red
ATTX98453-6R	93.4	16.0	35.7	41.7	0.0	6.6	0.0	1.069	14.9	Oblong	Red
NDTX4271-5R	74.9	32.5	29.7	12.6	0.0	20.1	5.0	1.055	12.3	Round	Red
COTX94216-1R	73.4	40.3	27.8	5.3	0.0	22.2	4.4	1.061	13.5	Round	Red
BTX2332-1R	84.6	38.2	33.7	12.6	1.0	14.4	0.0	1.055	12.3	Round	Red
COTX05211-4R	70.3	27.3	24.6	18.4	0.0	14.0	15.7	1.059	13.0	Oblong	Red
ATX03550-2R	86.6	13.6	26.6	46.3	5.0	7.6	0.9	1.051	11.6	Oblong	Red
ATTX98453-11BR	73.2	42.1	31.1	0.0	0.0	25.7	1.1	1.069	14.9	Oblong	Red
NDTX039190-1R	74.0	38.4	27.6	8.0	1.6	13.3	11.1	1.052	11.7	Round	Red
COTX05211-7R	69.3	37.3	29.1	2.8	0.0	28.7	2.1	1.068	14.6	Round	Red
NDTX050070-1R	70.5	44.7	22.1	3.6	0.0	27.3	2.3	1.063	13.7	Round	Red
NDTX050054-3R	69.9	51.0	18.8	0.0	0.0	27.5	2.6	1.042	9.9	Oblong	Red
Rio Rojo	90.3	26.3	45.5	18.4	0.0	8.5	1.2	1.048	11.1	Oblong	Red
NDTX4828-2R	77.4	38.0	34.2	5.2	0.0	15.8	6.9	1.062	13.5	Round	Red
NDTX050239-2R	56.1	43.2	12.9	0.0	0.0	39.6	4.2	1.061	13.3	Round	Red
NDTX050156-3R	84.9	36.6	41.5	6.8	0.0	12.4	2.7	1.044	10.4	Oblong	Red
NDTX050258-2R/Y	72.3	30.7	33.6	8.0	0.0	19.2	8.4	1.066	14.2	Oblong	Red
COTX00104-7R	79.9	35.2	36.7	8.0	0.0	10.6	9.5	1.053	12.0	Round	Red
NDTX050241-4R/Y	66.8	29.2	33.0	4.6	0.0	26.8	6.4	1.062	13.5	Round	Red
COTX05211-5R	51.0	18.7	23.8	8.5	0.0	13.0	36.1	1.055	12.2	Oblong	Red
COTX94218-1R	58.7	34.6	24.1	0.0	2.4	24.7	14.2	1.055	12.4	Long	Red
NDTX059827-1R	53.8	42.7	11.1	0.0	0.0	35.1	11.0	1.054	12.2	Round	Red
NDTX050169-1R	46.5	37.6	8.9	0.0	0.0	53.5	0.0	1.041	9.8	Round	Red
NDTX050241-3R	44.2	27.7	14.2	2.2	0.0	28.9	26.9	1.070	14.9	Round	Red
NDTX050168-2R	25.5	22.5	2.9	0.0	0.0	51.0	23.5	1.049	11.2	Round	Red
Average	78.5	30.8	30.7	17.0	1.0	16.0	4.5	1.057	12.7		
L.S.D. (.05)	9.1	9.8	8.4	8.3	ns	6.0	8.3	0.004	0.8		

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Table 7c. Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 35 entries in the Texas Advanced Selection Red Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
ATX01178-1R	9.4	7.7	45	50	2.0	3.7	4.5	3.4	10
Red LaSoda	6.5	7.6	88	89	2.0	4.5	4.5	4.4	3
NDTX5438-11R	12.6	5.2	56	69	1.7	3.7	4.1	3.7	13
NDTX4784-7R	7.5	6.0	59	75	2.1	3.8	2.1	3.6	78
AOTX91861-4R	8.3	6.4	64	78	2.1	3.6	4.0	3.6	31
NDTX731-1R	5.8	6.5	91	90	1.5	3.3	1.6	3.2	78
AOTX93483-1R	12.5	7.1	38	54	2.2	3.4	4.5	3.3	9
NDTX4847-7R	7.3	5.8	91	94	1.9	3.8	2.6	3.6	69
NDTX7590-3R	15.4	8.0	33	38	1.7	2.7	2.0	3.2	73
ATX03516-2R	7.0	5.4	58	83	1.5	4.0	3.3	4.0	50
Dark Red Norland	8.5	6.0	54	61	1.8	3.1	3.0	3.1	44
ATX98453-6R	7.6	8.4	30	40	2.5	4.0	2.5	4.1	75
NDTX4271-5R	9.2	5.0	69	73	2.0	3.7	2.3	3.6	76
COTX94216-1R	10.5	4.4	53	70	1.5	3.7	3.5	3.4	43
BTX2332-1R	12.3	5.1	46	50	2.0	3.7	4.4	3.6	15
COTX05211-4R	11.6	4.8	43	50	2.0	3.3	4.0	3.3	20
ATX03550-2R	4.9	8.5	55	65	1.6	2.8	3.8	2.6	30
ATX98453-11BR	22.4	3.7	35	35	1.5	2.0	3.3	2.5	50
NDTX039190-1R	12.8	4.0	44	55	1.5	1.9	3.8	2.1	33
COTX05211-7R	9.5	3.7	84	86	1.9	3.4	3.9	3.4	33
NDTX050070-1R	9.1	3.6	63	85	1.9	3.6	3.8	3.5	13
NDTX050054-3R	8.7	3.3	83	93	2.2	3.1	3.0	3.2	43
Rio Rojo	14.9	5.2	33	36	1.5	2.4	2.0	2.8	78
NDTX4828-2R	7.5	4.7	54	64	1.4	3.2	3.1	2.8	54
NDTX050239-2R	11.7	3.0	64	74	1.8	3.7	4.5	3.7	10
NDTX050156-3R	7.0	5.0	44	55	1.7	2.1	2.4	1.9	75
NDTX050258-2R/Y	7.3	4.6	45	53	1.8	3.4	4.5	3.4	10
COTX00104-7R	9.8	5.0	20	30	1.5	1.5	4.7	1.6	0
NDTX050241-4R/Y	5.8	3.8	70	78	1.5	3.3	2.3	2.9	80
COTX05211-5R	6.4	4.7	56	61	1.9	3.3	4.2	3.3	10
COTX94218-1R	9.1	3.9	61	65	2.1	3.6	4.8	3.5	1
NDTX059827-1R	9.6	3.3	66	69	1.9	3.1	2.7	3.2	60
NDTX050169-1R	8.3	2.8	85	90	1.3	2.2	4.2	2.7	15
NDTX050241-3R	5.0	3.6	45	59	1.5	3.1	3.2	3.1	50
NDTX050168-2R	9.3	2.4	30	30	1.5	3.6	5.0	3.8	0
Average	10.1	5.6	57	66	1.8	3.3	3.4	3.3	41
L.S.D. (.05)	6.0	1.1	18	22	0.4	0.5	0.9	0.5	25

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 35 entries in the Texas Advanced Selection Red Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX01178-1R	1.0	2.0	1.0	3.7	4.0	5.0	5.0	5.0	5.0	3.0	0	0	0	0
Red LaSoda	1.0	3.0	1.0	1.5	3.5	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX5438-11R	1.0	1.8	1.0	4.2	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4784-7R	1.0	1.5	1.0	4.0	4.5	5.0	5.0	5.0	5.0	5.0	3	0	0	3
AOTX91861-4R	1.0	2.0	1.0	2.5	4.0	5.0	5.0	5.0	5.0	4.5	3	0	0	0
NDTX731-1R	1.0	2.5	1.0	2.5	3.5	5.0	5.0	5.0	5.0	5.0	0	0	3	0
AOTX93483-1R	1.0	3.5	1.0	3.3	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX4847-7R	1.0	1.6	1.0	4.0	4.1	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX7590-3R	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATX03516-2R	1.0	2.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	10	0
Dark Red Norland	1.0	2.3	1.0	3.9	3.5	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATTX98453-6R	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4271-5R	1.0	1.5	1.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	3
COTX94216-1R	1.0	1.5	1.0	3.8	4.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
BTX2332-1R	1.0	1.4	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
COTX05211-4R	1.0	3.5	1.0	3.7	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03550-2R	1.0	3.5	1.0	4.5	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98453-11BR	1.0	3.5	1.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX039190-1R	1.0	2.3	1.0	4.0	4.0	4.6	5.0	5.0	5.0	5.0	0	0	0	0
COTX05211-7R	1.0	2.4	1.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050070-1R	1.0	1.5	1.0	4.3	4.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050054-3R	1.0	3.3	1.0	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Rio Rojo	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
NDTX4828-2R	1.0	1.5	1.0	3.9	4.2	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX050239-2R	1.0	1.5	1.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050156-3R	1.0	3.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050258-2R/Y	1.0	2.5	1.0	3.7	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX00104-7R	1.0	2.0	1.0	4.0	4.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050241-4R/Y	1.0	3.5	1.0	3.8	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05211-5R	1.0	4.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX94218-1R	1.0	1.5	1.0	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059827-1R	1.0	2.3	1.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050169-1R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050241-3R	1.0	2.5	1.0	3.5	3.8	3.5	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050168-2R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	2.4	1.0	3.8	4.0	4.9	5.0	5.0	5.0	4.9	1	0	0	0
L.S.D. (.05)	ns	0.3	ns	0.2	0.1	0.2	ns	ns	ns	0.3	ns	ns	3	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

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Table 7e. Notes and general rating for all reps of 35 entries in the Texas Advanced Selection Red Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATTX01178-1R	nice, . . .	Rhizoctonia+, . . .	3.8, 3.8, 3.8, 3.8	4, 4, 4, 4
Red LaSoda	. . .	yield+, deep eyes, deep eyes, .	4, 4, 3.8, 3.9	2.5, 3, 3, 3
NDTX5438-11R	heavy set, small, . yield+,	yield+, BOT-, skin finish?, some pointed, mixed shape, silver scurf, Rhizoctonia++	3.3, 4, 3.6, 3.6	4.3, 4.3, 4, 4.2
NDTX4784-7R	. . . low yield	Rhizoctonia, Rhizoctonia+, BOT-, . Keep, nice shape	3.8, 3.8, 3.8, 4	4.3, 4.3, 4.2, 4.2
AOTX91861-4R	. . . yield+	. . Drop?, deep eyes, Rhizoctonia++	4, 3.3, 3.3, 4	4, 3.8, 3.5, 3.5
NDTX731-1R	. yield+, deep eyes.	poor skin finish, yield+, deep eyes, drop+,	3.4, 4.2, 3.8, 3.8	3.8, 3.4, 3.5, 3.4
AOTX93483-1R	pointed, . . drop?+	. . Light set, Drop+, Pointed+	3.7, 3.5, 3.4, 3	2.6, 2.8, 4, 2.8
NDTX4847-7R	. nice color, .	BOT-, BOT-, Roadmap, skin finish?	3.8, 4, 3.8, 3.5	4.2, 4.2, 4.2, 3.7
NDTX7590-3R	large, light set, . . drop?	feathering, light set, silver scurf, Rhizoctonia, large tubers	3.8, 3, 3.2, 3	2.8, 2.8, 3.2, 3.2
ATX03516-2R	. . small,	Nice Skin Finish, . smooth, keep,	3.2, 3.2, 3.5, 3.5	4, 4, 4, 4
Dark Red Norland	. . .	. silver scurf+, pointed, .	3.5, 3.6, 3.5, 3.8	3.5, 3.6, 3.5, 3.6
ATTX98453-6R	nice, . . .	. . .	4, 4, 4, 4	4.5, 4.5, 4.5, 4.5
NDTX4271-5R	. . keep, BOT+,	Skin finish?, BOT, BOT-, .	4.5, 3.9, 3.8, 3.4	4.2, 4.2, 4, 3.9
COTX94216-1R	. . .	Yield+, silver scurf, Rhizoctonia+, heavy set, . zipper, poor skin finish+, Drop, deep eyes	3.5, 3.7, 3.7, 3.5	3.8, 3.8, 3, 2.8
BTX2332-1R	BOT, . .	yield+, BOT, oversize, BOT-, Rhizoctonia+, .	4.2, 4, 4, 3.6	4.5, 4, 4.3, 4.3
COTX05211-4R	yield+, drop, . too long,	Lot of Culls, . Drop, Pointed,	3, 3, 3.2, 3.2	2.8, 2.8, 2.8, 2.8
ATX03550-2R	large, light set, nice color, . low yield, drop?	light set+, smooth skin, . Viking like, . nice flesh	3.4, 3.5, 3.4, 3.2	3.8, 3.6, 3.6, 3.6
ATTX98453-11BR	. . .	. . .	3, 3, 3, 3	4, 4, 4, 4
NDTX039190-1R	. drop?, . drop	nice skin finish, Drop, . nice flesh	3.3, 3.2, 3, 2.5	4, 2.5, 2.9, 2.2
COTX05211-7R	. . drop, nice color	. Heavy set, Keep, .	3.8, 3.5, 3, 3.7	4.2, 4, 3.2, 3.7
NDTX050070-1R	. . heavy set, B size,	. . small,	3.5, 3.5, 3.2, 3.2	3.8, 3.8, 3.8, 3.8
NDTX050054-3R	heat sprouts, . small,	Heat sprouts, . .	3.3, 3.3, 3.3, 3.3	3, 3, 2.5, 2.5
Rio Rojo	. BOT, . .	can oversize, light set, .	4, 4.5, 3.5, 4	4, 4, 2.8, 3.8
NDTX4828-2R	. . . drop?	. Drop, Rhizoctonia, roadmap	3.7, 3.5, 3.8, 3	3.9, 3.7, 3.7, 3.3
NDTX050239-2R	B size, . . drop?	Keep, nice color, heavy set, . small B size, smooth,	3.8, 3.4, 3.3, 3	4.4, 4.2, 3.8, 4.4
NDTX050156-3R	some pointed, . . drop?	pointed, . . nice flesh	4.5, 3.7, 3.3, 3.2	2.8, 2.8, 2.8, 3
NDTX050258-2R/Y	poor shape, drop, . drop?,	. . Drop,	3, 3, 3.2, 3.2	3, 3, 2.8, 2.8
COTX00104-7R	nice color, . .	Keep, . .	3.4, 3.4, 3.4, 3.4	4, 4, 4, 4
NDTX050241-4R/Y	. . .	. . .	3.3, 3.3, 3.3, 3.3	3.8, 3.8, 3.8, 3.8
COTX05211-5R	. . poor shape, growth cracks, drop+, pointed	Drop++, Poor shape, . . Lot of Culls	2.5, 3, 3, 2.5	2.5, 2.3, 2.3, 2
COTX94218-1R	. . drop?, drop	. white flesh, stick stolon, Drop+, Rhizoctonia	3.3, 3, 3.2, 3	3, 3, 3, 2.6
NDTX059827-1R	. B size, drop?, rot, drop,	. . Drop, small	3.2, 3.3, 3.2, 3.3	2.6, 2.6, 2.6, 2.6
NDTX050169-1R	B size, . .	Keep?, heavy set, . .	3.4, 3.4, 3.4, 3.4	3.8, 3.8, 3.8, 3.8
NDTX050241-3R	growth cracks, drop+, . drop?,	. . drop, growth cracks,	2.8, 3.1, 3.2, 3.2	2, 2, 2, 2
NDTX050168-2R	drop, . .	Drop, . .	3, 3, 3, 3	2.8, 2.8, 2.8, 2.8

Dalhart
Table 7f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 35 entries in the Texas Advanced Selection Red Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATTX01178-1R	Colorado	1.066	14.2	4.0	2+	2/7	11% Vas	33%	10%
Red LaSoda	Oregon	1.060	13.2	2.9	2+	12/28	18% Vas,	0%	0%
NDTX5438-11R	Colorado	1.058	12.9	4.2	2+	20/20	8% Dark	0%	0%
NDTX4784-7R	Colorado	1.055	12.3	4.3	2+	33/17	18% Dark, 6% Vas,	10%	3%
AOTX91861-4R	Colorado	1.060	13.2	3.7	1+	26/13	3% hh, 6 PreZ?	15%	0%
NDTX731-1R	Dalhart	1.051	11.6	3.5	2+	21/19	48% dark,	0%	0%
AOTX93483-1R	Colorado	1.057	12.6	3.1	1	5/30	3% HH, 9% Vas	3%	0%
NDTX4847-7R	Dalhart	1.057	12.7	4.1	2+	14/16	23% Dark, 3% Vas,	0%	0%
NDTX7590-3R	Colorado	1.052	11.8	3.0	2+	5/34	28% BC, 23% Vas	0%	0%
ATX03516-2R	Dalhart	1.050	11.4	4.0	2	13/7	5% BC, 15% Vas	0%	0%
Dark Red Norland	Colorado	1.053	11.9	3.6	1	22/18	3% BC, 5% Dark, 5% Vas	8%	10%
ATTX98453-6R	Colorado	1.069	14.9	4.5	1+	5/5		20%	20%
NDTX4271-5R	Dalhart	1.055	12.3	4.1	1+	27/14	5% BC, 10% Dark	7%	0%
COTX94216-1R	Colorado	1.061	13.5	3.4	1+	18/20	47% BC	5%	0%
BTX2332-1R	Colorado	1.055	12.3	4.3	2	21/20	10% Vas	0%	0%
COTX05211-4R	Dalhart	1.059	13.0	2.8	1+	8/12	5 PreZ?, 20% Vas	25%	0%
ATX03550-2R	Dalhart	1.051	11.6	3.7	1+	24/13	11% browning, 5% BC	0%	0%
ATTX98453-11BR	Colorado	1.069	14.9	4.0	2	3/7	10% Vas	0%	30%
NDTX039190-1R	Dalhart	1.052	11.7	2.9	2	5/25	50% BC, 7% Vas,	17%	0%
COTX05211-7R	Dalhart	1.068	14.6	3.8	1+	15/13	4% BC, 4% Dark, 14% Vas	0%	3%
NDTX050070-1R	Dalhart	1.063	13.7	3.8	2	15/6	24% Vas	0%	0%
NDTX050054-3R	Dalhart	1.042	9.9	2.8	2	1/20	14% Vas	38%	10%
Rio Rojo	Dalhart	1.048	11.1	3.7	2	20/21	7% browning, 10% Vas	10%	0%
NDTX4828-2R	Colorado	1.062	13.5	3.7	1+	25/15	20% BC, 3% Vas,	8%	3%
NDTX050239-2R	Dalhart	1.061	13.3	4.2	1+	21/9	7% Vas	0%	0%
NDTX050156-3R	Dalhart	1.044	10.4	2.9	3	0/19	5% Vas	5%	0%
NDTX050258-2R/Y	Dalhart	1.066	14.2	2.9	1+	12/7	5% Vas	0%	0%
COTX00104-7R	Colorado	1.053	12.0	4.0	1	3/7		0%	0%
NDTX050241-4R/Y	Dalhart	1.062	13.5	3.8	2	18/2	1 PreZ?, 5% Vas	5%	0%
COTX05211-5R	Dalhart	1.055	12.2	2.3	1+	18/32	12 pre Z, 4% Vas	8%	5%
COTX94218-1R	Dalhart	1.055	12.4	2.9	1+	19/23	2% Vas	0%	3%
NDTX059827-1R	Dalhart	1.054	12.2	2.6	2	25/17	Missed 2 Z, 17% Vas	5%	0%
NDTX050169-1R	Dalhart	1.041	9.8	3.8	1+	5/5	2 PreZ?	20%	0%
NDTX050241-3R	Dalhart	1.070	14.9	2.0	2	21/9	7% Vas	7%	0%
NDTX050168-2R	Dalhart	1.049	11.2	2.8	2+	0/10	50% dark, 10% Vas	10%	0%
Average		1.057	12.6	3.5				7%	3%
L.S.D. (.05)		0.004	0.8	0.3					6%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 8

Tuber type, skin color, inventory weight, of 2 entries to be
Advanced from the 2008 Red Selection Trial grown near Dalhart,
Texas-2009.

Variety or Selection	Tuber Type	Skin Color	Inventory Weight
COTX06169-3R		Red	
COTX06216-1R		Red	

Dalhart Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 24 entries in the Texas Advanced Selection Red Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
ATTX00289-5R/Y	739.3	578.4	184.1	215.1	179.2	0.0	80.2	80.7	3.2	3.0
ATTX961014-1BR/Y	571.8	423.1	205.7	180.2	37.2	0.0	109.5	39.2	4.1	4.3
ATTX961014-1R/Y	503.5	409.9	156.3	181.5	72.0	0.0	72.8	20.9	4.1	4.1
ATX98448-6R/Y	539.2	368.4	145.1	168.5	54.7	0.0	56.8	114.0	2.8	2.5
COTX05261-2R/Y	395.6	282.6	100.8	121.7	60.1	0.0	89.1	23.9	3.5	3.2
NDTX050249-1R/Y	339.6	267.6	130.3	100.8	36.4	0.0	64.2	7.9	3.3	3.4
COTX04267-1R/Y	394.6	262.5	141.5	111.8	9.2	0.0	91.6	40.5	3.4	3.5
NDTX050243-4R/Y	333.5	216.9	183.3	33.6	0.0	0.0	105.9	10.7	3.1	3.2
COTX05261-1R/Y	294.0	199.8	121.2	78.7	0.0	0.0	59.8	34.4	2.7	2.6
NDTX060431-2R/Y	258.1	188.9	56.0	96.7	36.1	0.0	35.6	33.6	3.3	3.3
ATX03515-1R/Y	223.3	188.1	89.4	52.2	46.6	0.0	29.3	5.9	2.8	3.1
ATTX99325-1P	210.0	173.6	75.1	88.6	9.9	0.0	28.3	8.1	3.3	3.1
NDTX050184-1R/Y	361.5	168.0	168.0	0.0	0.0	0.0	177.7	15.8	3.9	3.9
ATX03546-2R/Y	353.1	167.8	101.1	61.9	4.8	0.0	127.5	57.8	3.1	3.5
ATTX98500-2P/Y	310.8	165.2	96.0	69.2	0.0	0.0	49.1	96.5	2.8	2.5
NDTX050241-5R/Y	402.0	159.6	138.2	16.0	5.3	0.0	139.3	103.1	3.3	3.0
ATX05175-3R/Y	294.3	152.7	102.8	48.1	1.8	0.0	107.7	33.9	3.0	3.3
ATTX98518-5PU/Y	332.0	112.0	14.3	61.1	36.7	0.0	27.5	192.5	2.8	2.8
COTX04188-3R/Y	197.0	110.5	85.8	24.7	0.0	0.0	83.8	2.8	3.4	3.8
BTX2103-1R/Y	155.8	106.9	74.3	32.6	0.0	0.0	43.8	5.1	3.0	3.0
ATX03545-1R	143.1	88.1	69.2	18.8	0.0	0.0	46.8	8.1	2.9	3.2
COTX05037-5P/Y	199.6	65.2	41.7	23.4	0.0	0.0	105.9	28.5	3.3	3.0
ATX05178-2P	148.4	63.9	51.2	10.9	1.8	0.0	64.2	20.4	3.3	3.0
ATTX98493-1R/Y	62.6	39.7	26.5	13.2	0.0	0.0	12.2	10.7	2.9	3.0
Average	323.4	206.6	106.6	75.4	24.7	0.0	75.4	41.5	3.2	3.2
L.S.D. (.05)	66.8	40.0	27.1	41.2	28.3	ns	30.2	26.0	0.5	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 9b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 24 entries in the Texas Advanced Selection Red Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX00289-5R/Y	78.5	25.5	28.7	24.4	0.0	10.9	10.6	1.057	12.7	Oblong	Red
ATTX961014-1BR/Y	74.0	36.0	31.6	6.4	0.0	19.2	6.8	1.065	14.2	Oblong	Red
ATTX961014-1R/Y	81.3	31.2	35.7	14.3	0.0	14.7	4.1	1.065	14.2	Oblong	Red
ATX98448-6R/Y	68.8	27.4	31.0	10.4	0.0	10.5	20.7	1.051	11.6	Oblong	Red
COTX05261-2R/Y	72.5	27.2	29.3	15.9	0.0	20.7	6.8	1.054	12.1	Oblong	Red
NDTX050249-1R/Y	78.3	38.0	30.2	10.1	0.0	19.2	2.5	1.058	12.8	Round	Red
COTX04267-1R/Y	67.2	38.2	26.6	2.3	0.0	23.1	9.8	1.364	67.4	Round	Red
NDTX050243-4R/Y	65.2	55.1	10.1	0.0	0.0	31.7	3.1	1.053	11.9	Round	Red
COTX05261-1R/Y	67.7	40.9	26.8	0.0	0.0	20.4	11.9	1.055	12.4	Round	Red
NDTX060431-2R/Y	73.0	23.5	39.2	10.3	0.0	12.1	14.9	1.070	15.0	Oblong	Red
ATX03515-1R/Y	84.5	40.8	23.0	20.7	0.0	13.0	2.4	1.059	13.0	Oblong	Red
ATTX99325-1P	82.8	36.0	42.2	4.6	0.0	13.4	3.8	1.052	11.8	Long	Purple
NDTX050184-1R/Y	46.3	46.3	0.0	0.0	0.0	49.3	4.4	1.053	12.0	Round	Red
ATX03546-2R/Y	47.5	28.0	18.3	1.3	0.0	36.0	16.5	1.062	13.6	Oblong	Red
ATTX98500-2P/Y	52.7	30.9	21.8	0.0	0.0	15.7	31.6	1.048	11.1	Oblong	Purple
NDTX050241-5R/Y	39.5	34.6	3.6	1.3	0.0	35.2	25.3	1.059	13.1	Round	Red
ATX05175-3R/Y	52.6	35.5	16.3	0.8	0.0	35.9	11.5	1.065	14.2	Round	Red
ATTX98518-5PU/Y	33.7	4.3	18.4	11.0	0.0	8.3	58.0	1.055	12.3	Oblong	Purple
COTX04188-3R/Y	56.2	43.5	12.7	0.0	0.0	42.6	1.2	1.076	16.1	Round	Red
BTX2103-1R/Y	68.6	47.7	20.9	0.0	0.0	28.1	3.3	1.060	13.2	Oblong	Red
ATX03545-1R	62.0	47.5	14.5	0.0	0.0	31.9	6.1	1.054	12.1	Round	Red
COTX05037-5P/Y	32.7	20.9	11.7	0.0	0.0	53.1	14.2	1.061	13.4	Round	Red
ATX05178-2P	44.7	34.4	8.4	1.8	0.0	40.7	14.7	1.061	13.4	Oblong	Purple
ATTX98493-1R/Y	62.8	42.8	20.0	0.0	0.0	19.9	17.3	1.054	12.2	Oblong	Red
Average	62.2	34.9	21.7	5.7	0.0	25.2	12.6	1.071	15.2		
L.S.D. (.05)	8.2	8.9	10.4	6.0	ns	7.7	6.3	ns	ns		

Dalhart
Table 9c. Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 24 entries in the Texas Advanced Selection Red Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
ATTX00289-5R/Y	12.0	6.2	74	79	1.8	3.9	4.0	3.8	29
ATTX961014-1BR/Y	12.1	4.8	65	75	1.6	3.7	3.0	3.6	60
ATTX961014-1R/Y	9.4	5.2	73	81	1.6	4.1	3.1	4.1	55
ATX98448-6R/Y	11.5	5.7	51	61	1.7	3.6	4.3	3.6	13
COTX05261-2R/Y	7.9	4.4	80	90	2.3	3.8	4.1	3.7	18
NDTX050249-1R/Y	7.6	4.7	76	75	2.2	3.1	2.5	3.0	67
COTX04267-1R/Y	7.5	3.9	96	96	1.9	3.3	3.9	3.2	26
NDTX050243-4R/Y	8.5	3.2	95	95	1.4	3.5	3.7	3.7	38
COTX05261-1R/Y	12.3	3.3	64	60	1.9	2.5	3.7	2.8	37
NDTX060431-2R/Y	11.4	5.6	18	28	1.5	2.6	4.5	3.1	5
ATX03515-1R/Y	6.4	4.8	50	56	1.8	2.7	3.2	3.2	50
ATTX99325-1P	4.9	4.7	68	70	1.8	3.3	2.0	3.3	74
NDTX050184-1R/Y	12.6	3.0	70	75	1.7	3.2	5.0	2.9	0
ATX03546-2R/Y	10.2	3.1	75	76	1.7	3.0	4.3	3.1	18
ATTX98500-2P/Y	6.4	3.8	61	78	2.1	3.9	5.0	3.8	0
NDTX050241-5R/Y	12.6	2.9	60	76	2.0	3.8	4.5	3.8	15
ATX05175-3R/Y	9.9	3.4	61	64	1.4	3.1	4.1	3.1	23
ATTX98518-5PU/Y	4.3	8.4	35	45	2.0	3.0	4.5	2.5	10
COTX04188-3R/Y	7.5	2.9	69	71	1.5	3.2	4.2	3.1	21
BTX2103-1R/Y	4.7	3.4	50	75	2.0	2.8	4.5	2.9	50
ATX03545-1R	5.0	3.5	65	68	1.5	2.8	1.0	3.1	95
COTX05037-5P/Y	7.8	1.8	78	95	1.7	4.1	4.1	4.1	25
ATX05178-2P	8.2	2.5	53	56	1.8	2.9	3.4	2.9	43
ATTX98493-1R/Y	10.9	3.1	15	15	1.8	1.5	5.0	2.1	0
Average	8.8	4.1	63	69	1.8	3.2	3.8	3.3	32
L.S.D. (.05)	4.1	0.6	15	19	0.3	0.7	0.9	0.6	24

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart Table 9d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 24 entries in the Texas Advanced Selection Red Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX00289-5R/Y	2.0	3.5	1.0	2.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX961014-1BR/Y	3.0	3.0	1.0	4.1	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX961014-1R/Y	3.0	3.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX98448-6R/Y	2.1	3.8	1.0	2.0	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05261-2R/Y	2.5	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	10	0
NDTX050249-1R/Y	1.0	1.5	1.0	3.9	4.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04267-1R/Y	3.9	2.0	1.0	3.9	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050243-4R/Y	1.0	2.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05261-1R/Y	2.5	2.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	3	0
NDTX060431-2R/Y	2.3	3.0	1.0	4.0	3.6	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03515-1R/Y	2.5	3.0	1.0	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX99325-1P	1.0	4.0	1.0	2.5	5.0	5.0	5.0	5.0	5.0	3.5	0	0	0	0
NDTX050184-1R/Y	1.8	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03546-2R/Y	4.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98500-2P/Y	2.4	3.7	1.0	4.0	5.0	5.0	5.0	5.0	5.0	3.5	0	0	0	0
NDTX050241-5R/Y	2.9	1.5	1.0	3.8	4.1	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATX05175-3R/Y	3.3	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
ATTX98518-5PU/Y	3.0	3.7	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04188-3R/Y	3.9	2.0	1.0	3.8	3.7	5.0	5.0	5.0	5.0	4.5	3	0	0	0
BTX2103-1R/Y	2.0	3.8	1.0	2.0	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03545-1R	2.0	1.5	1.0	3.9	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05037-5P/Y	1.0	2.0	1.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05178-2P	1.0	3.4	1.0	4.0	4.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98493-1R/Y	3.0	3.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.4	2.8	1.0	3.7	4.0	5.0	5.0	5.0	5.0	4.9	0	0	1	0
L.S.D. (.05)	0.3	0.1	ns	0.5	0.1	ns	ns	ns	ns	0.5	ns	ns	4	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark
⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Dalhart

Table 9e. Notes and general rating for all reps of 24 entries in the Texas Advanced Selection Red Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATTX00289-5R/Y	. . heavy set, yield+, poor color and shape++, drop+.	, high yield+, Rhizoctonia, Drop, poor shape, rough, poor internals,	3, 3, 3.2, 3.4	3, 3, 3, 3
ATTX961014-1BR/Y	ZC?, vascular discoloration, , BOT,	. . Keep.	3.6, 3.6, 4.5, 4.5	4.3, 4.3, 4.3, 4.3
ATTX961014-1R/Y	BOT, BOT, .	smooth, , BOT, Rhizoctonia+	4.5, 4, 3.7, 4	4, 3.8, 4.5, 4
ATX98448-6R/Y	poor color and shape+, drop+, drop?+, .	deep eyes, , rough, drop+.	2.8, 3, 2.5, 3	2.5, 2.5, 2.5, 2.5
COTX05261-2R/Y	nice, , keep,	variable color, keep?, , silver scurf,	3.6, 3.6, 3.3, 3.3	3.6, 3.6, 2.8, 2.8
NDTX050249-1R/Y	white flesh, . .	, Rhizoctonia, , keep, move to red trial	3.2, 3.3, 3.3, 3.5	3.5, 3.4, 3.2, 3.5
COTX04267-1R/Y	very yellow, BOT, nice, yellow, drop?.	. . .	4, 3.8, 2.5, 3.4	3.5, 3.5, 3.3, 3.5
NDTX050243-4R/Y	white flesh, drop, , heavy set, white flesh,	silver scurf, , white flesh, drop+.	2.8, 2.8, 3.4, 3.4	3, 3, 3.4, 3.4
COTX05261-1R/Y	. . . drop	, pointed+, drop+.	3, 2.5, 2.7, 2.5	2, 2.5, 2.6, 3.3
NDTX060431-2R/Y	. . .	. . Drop.	3.2, 3.2, 3.3, 3.3	3.5, 3.5, 3, 3
ATX03515-1R/Y	. . . drop+	low yield, . .	2.5, 2.8, 3.2, 2.8	3, 3.1, 3.2, 3.2
ATTX99325-1P	. . . poor shape, drop?	feathering, keep??. , nice internals	3.4, 3.3, 3.7, 2.8	3, 3.5, 3, 3
NDTX050184-1R/Y	yield, , nice, small, heavy set, BOT,	small potato, . .	3.8, 3.8, 4, 4	3.8, 3.8, 4, 4
ATX03546-2R/Y	very yellow flesh, , drop, white and yellow flesh mix, drop?	mix, keep yellow, . .	3.3, 3.1, 3, 3	3.8, 3.5, 3, 3.6
ATTX98500-2P/Y	. . . poor shape+, drop+	, Drop+, Rough, .	2.5, 3.3, 2.5, 3	2.5, 2.5, 2.5, 2.5
NDTX050241-5R/Y	. . very yellow, poor shape, drop?, yellow, low yield	many culls+, dumbbells, . . drop+	3.3, 3.8, 3.3, 2.8	3, 3.3, 3, 2.7
ATX05175-3R/Y	poor shape+, drop, , very yellow flesh	. . small potato??.	2.8, 2.3, 3.5, 3.4	3.6, 3, 3.6, 3
ATTX98518-5PU/Y	poor shape, drop, . .	Rough, Drop, . .	2.8, 2.8, 2.8, 2.8	2.8, 2.8, 2.8, 2.8
COTX04188-3R/Y	very yellow, . . poor shape	keep, small potato, white flesh, .	3.8, 3.4, 3, 3.2	3.8, 3.6, 3.8, 3.8
BTX2103-1R/Y	poor shape and skin, drop?, . .	. . .	3, 3, 3, 3	3, 3, 3, 3
ATX03545-1R	drop+, . .	. . silver scurf,	2.8, 2.8, 3, 3	3.3, 3.3, 3, 3
COTX05037-5P/Y	drop, , small,	. . .	3, 3, 3.5, 3.5	3, 3, 3, 3
ATX05178-2P	. . drop, poor shape, drop?	. . .	3.8, 3, 3.2, 3	3, 3, 3, 3
ATTX98493-1R/Y	. . drop,	Low Yield, . .	2.5, 2.5, 3.2, 3.2	3, 3, 3, 3

Dalhart
Table 9f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 24 entries in the Texas Advanced Selection Red Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATTX00289-5R/Y	Dalhart	1.057	12.7	3.0	1	25/16	5% dark	0%	0%
ATTX961014-1BR/Y	Colorado	1.065	14.2	4.3	1+	19/1	BOT, 5% Vas,	0%	0%
ATTX961014-1R/Y	Colorado	1.065	14.2	4.1	2	27/12	3% Vas,	21%	3%
ATX98448-6R/Y	Colorado	1.051	11.6	2.5	2+	18/22	8% dark	3%	0%
COTX05261-2R/Y	Dalhart	1.054	12.1	3.2	2+	11/9	20% dark, 5% Vas,	0%	0%
NDTX050249-1R/Y	Dalhart	1.058	12.8	3.4	2	17/12	21% BC, 3 PreZ?	10%	0%
COTX04267-1R/Y	Dalhart	1.364	67.4	3.5	2	34/7	5% Vas	5%	0%
NDTX050243-4R/Y	Dalhart	1.053	11.9	3.2	2	9/11	0.0	15%	0%
COTX05261-1R/Y	Dalhart	1.055	12.4	2.6	3	6/23	41% dark, 14% mb	0%	0%
NDTX060431-2R/Y	Dalhart	1.070	15.0	3.3	1	13/6	5% BC	11%	0%
ATX03515-1R/Y	Dalhart	1.059	13.0	3.1	2	17/9	8% Vas,	15%	0%
ATTX99325-1P	Dalhart	1.052	11.8	3.1	1	25/16	15% dark, 2% Vas,	0%	0%
NDTX050184-1R/Y	Dalhart	1.053	12.0	3.9	2+	11/9	20% BC, 1 missed	5%	3%
ATX03546-2R/Y	Dalhart	1.062	13.6	3.5	2+	16/3	0.0	0%	0%
ATTX98500-2P/Y	Colorado	1.048	11.1	2.5	1+	21/19	3% Vas,	15%	0%
NDTX050241-5R/Y	Dalhart	1.059	13.1	3.0	2	28/12	18% Vas	3%	0%
ATX05175-3R/Y	Dalhart	1.065	14.2	3.3	2+	35/7	0.0	7%	3%
ATTX98518-5PU/Y	Colorado	1.055	12.3	2.8	1+	3/7	0.0	0%	0%
COTX04188-3R/Y	Dalhart	1.076	16.1	3.8	3	38/2	3% HH, BOT, 3% Vas,	0%	5%
BTX2103-1R/Y	Colorado	1.060	13.2	3.0	2+	7/3	0.0	0%	0%
ATX03545-1R	Dalhart	1.054	12.1	3.2	3	15/5	20% dark, 5% Vas,	0%	0%
COTX05037-5P/Y	Dalhart	1.061	13.4	3.0	2	14/6	20% Vas	0%	0%
ATX05178-2P	Dalhart	1.061	13.4	3.0	2	28/12	0.0	5%	0%
ATTX98493-1R/Y	Colorado	1.054	12.2	3.0	3	5/13	11% dark, 4 Pre Z?, 6% Vas,	22%	0%
Average		1.071	15.2	3.2				6%	1%
L.S.D. (.05)		ns	ns	0.3					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 10

Tuber type, skin color, general rating, and inventory weight of 8 entries to be Advanced from the
2008 Red Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Tuber Type	Skin Color	General Rating	Inventory Weight
ATTX02249-1R		Red	3.5	
ATTX03553-1P/Y		Purple	3.5	
ATTX05191-3R/Y		Red	3.6	
ATX06282-1R/Y		Red	3.5	
COTX06235-2R/Y		Red	3.7	
COTX06240-2R/Y		Red	3.7	
COTX06245-3R/Y		Red	3.7	
NDTX060725-1P		Purple	3.7	
NDTX060868-4R/Y		Red	3.5	

Dalhart
Table 11a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 20 entries in the Texas Advanced Selection White Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
NDTX049265-2WRSP/Y	520.3	398.7	155.5	132.1	111.0	0.0	79.2	42.5	3.5	3.6
NDTX059759-3Pinto/Y-P	465.4	373.7	116.6	159.4	97.8	6.6	56.0	29.0	3.8	4.3
Yukon Gold	453.9	371.7	91.4	116.1	164.2	35.6	29.0	17.6	4.0	3.9
Sierra Gold	406.0	354.1	111.2	152.5	90.4	14.5	34.9	2.5	4.0	4.1
King Harry	443.5	353.1	113.5	162.4	77.1	0.0	39.7	50.7	3.6	3.6
TX1523-1Ru/Y	379.3	333.2	134.7	119.1	79.4	0.0	38.9	7.1	4.0	3.6
NDTX059759-3Pinto/Y	365.3	295.8	133.4	129.1	33.3	0.0	52.2	17.3	3.8	4.2
BTX1749-1W/Y	361.7	295.6	132.4	106.7	56.5	0.0	50.9	15.3	3.7	3.6
NDTX050169-2W/Y	561.1	288.2	220.7	67.5	0.0	0.0	236.0	36.9	3.6	4.0
ATTX00289-6Y/Y	417.8	285.9	84.8	120.9	80.2	25.2	32.8	73.8	3.9	3.0
Sierra Gold-2	360.2	256.1	109.0	124.2	22.9	0.0	56.0	48.1	3.4	2.7
BTX1544-2W/Y	391.8	235.2	139.5	81.5	14.3	9.7	103.1	43.8	3.6	3.3
Sierra Gold-3	306.2	200.1	73.6	75.6	50.9	15.8	37.2	53.2	3.4	3.4
ATTX98500-3PW/Y	375.2	193.5	131.1	48.6	13.7	0.0	66.7	115.1	3.4	2.8
TX04237-6Y/Y	259.9	174.4	89.6	51.7	33.1	0.0	60.8	24.7	3.3	3.2
ATX03496-3Y/Y	296.3	145.4	103.4	42.0	0.0	0.0	121.4	29.5	3.2	3.5
COTX04178-1Y/Y	350.8	142.6	121.9	20.6	0.0	0.0	165.2	43.0	3.6	3.7
NDTX050025-1W/Y	347.5	129.3	117.1	6.4	5.9	0.0	207.2	10.9	3.5	4.0
Prince Hairy	356.1	125.8	104.1	21.6	0.0	0.0	175.7	54.7	3.3	3.2
ATX03546-1W/Y	274.2	110.5	78.9	31.6	0.0	0.0	122.7	41.0	3.8	3.5
Average	384.6	253.1	118.1	88.5	46.5	5.4	88.3	37.8	3.6	3.5
L.S.D. (.05)	64.9	44.5	37.7	34.6	44.3	16.5	41.7	32.2	0.3	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 11b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 20 entries in the Texas Advanced Selection White Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
NDTX049265-2WRSP/Y	76.3	30.2	24.9	21.1	0.0	15.3	8.3	1.069	14.8	Round	Red Splash
NDTX059759-3Pinto/Y-P	80.2	25.1	33.8	21.4	1.2	12.3	6.3	1.063	13.8	Oblong	Pinto
Yukon Gold	81.8	20.4	25.8	35.6	7.8	6.5	3.9	1.074	15.6	Round	White
Sierra Gold	86.8	28.2	37.5	21.2	3.5	9.2	0.5	1.068	14.6	Oblong	Russet
King Harry	79.7	25.3	37.0	17.4	0.0	8.8	11.4	1.073	15.6	Round	White
TX1523-1Ru/Y	87.9	35.7	31.7	20.6	0.0	10.1	1.9	1.069	14.8	Oblong	Russet
NDTX059759-3Pinto/Y	80.5	36.3	35.3	8.9	0.0	14.6	4.9	1.065	14.1	Oblong	Pinto
BTX1749-1W/Y	81.8	36.3	30.9	14.6	0.0	13.6	4.6	1.075	15.8	Round	White
NDTX050169-2W/Y	51.1	39.4	11.7	0.0	0.0	42.1	6.7	1.059	13.1	Oblong	White
ATTX00289-6Y/Y	68.7	20.4	28.4	19.9	5.6	7.7	18.0	1.059	13.1	Oblong	Yellow
Sierra Gold-2	71.7	30.3	35.0	6.4	0.0	15.6	12.7	1.068	14.6	Oblong	Russet
BTX1544-2W/Y	60.1	35.5	20.9	3.7	2.4	26.3	11.2	1.063	13.7	Oblong	White
Sierra Gold-3	65.1	22.8	25.6	16.7	5.7	12.2	17.0	1.069	14.8	Oblong	Russet
ATTX98500-3PW/Y	51.1	34.8	12.5	3.8	0.0	17.7	31.3	1.064	14.0	Oblong	Purple-White
TX04237-6Y/Y	66.5	35.7	20.5	10.3	0.0	23.7	9.8	1.062	13.6	Round	Yellow
ATX03496-3Y/Y	50.1	34.6	15.5	0.0	0.0	40.3	9.6	1.055	12.4	Oblong	Yellow
COTX04178-1Y/Y	40.4	34.9	5.6	0.0	0.0	47.5	12.1	1.058	12.9	Round	Yellow
NDTX050025-1W/Y	38.5	35.2	1.6	1.6	0.0	58.4	3.2	1.076	16.0	Oblong	White
Prince Hairy	35.3	29.4	5.9	0.0	0.0	49.2	15.5	1.048	11.2	Round	White
ATX03546-1W/Y	41.4	29.8	11.6	0.0	0.0	45.6	12.9	1.060	13.2	Round	White
Average	64.8	31.0	22.6	11.2	1.3	23.8	10.1	1.065	14.1		
L.S.D. (.05)	10.0	9.9	9.3	11.0	4.2	8.4	8.6	0.010	1.9		

Dalhart
Table 11c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 20 entries in the Texas Advanced Selection White Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
NDTX049265-2WRSP/Y	8.2	5.0	79	93	2.5	4.1	3.6	4.1	34
NDTX059759-3Pinto/Y-P	7.5	4.9	85	93	1.8	3.9	4.8	3.7	3
Yukon Gold	5.6	7.4	81	88	1.5	4.0	2.8	3.9	57
Sierra Gold	6.2	6.1	76	85	2.1	4.1	3.4	3.8	39
King Harry	8.8	6.1	78	69	1.9	4.0	3.5	4.0	40
TX1523-1Ru/Y	6.5	5.4	73	84	1.9	3.8	3.1	3.6	54
NDTX059759-3Pinto/Y	7.8	5.1	66	71	1.6	3.3	5.0	3.1	1
BTX1749-1W/Y	6.9	5.1	65	78	2.5	3.8	2.5	3.8	60
NDTX050169-2W/Y	15.7	2.9	81	93	2.3	4.3	4.6	4.3	18
ATTX00289-6Y/Y	6.0	6.3	60	76	2.0	4.0	3.6	4.0	40
Sierra Gold-2	9.7	5.0	45	63	1.6	3.3	3.5	3.4	38
BTX1544-2W/Y	7.5	4.0	96	96	1.8	3.9	2.8	3.8	49
Sierra Gold-3	5.3	5.5	41	71	1.9	3.2	3.9	3.4	13
ATTX98500-3PW/Y	6.6	3.9	66	85	1.5	4.1	4.4	4.1	8
TX04237-6Y/Y	12.0	3.9	38	41	1.5	2.9	4.5	3.2	6
ATX03496-3Y/Y	9.0	2.6	90	91	2.3	3.0	2.6	3.2	56
COTX04178-1Y/Y	9.6	2.9	84	93	1.6	4.0	3.8	3.9	31
NDTX050025-1W/Y	10.9	2.6	88	95	2.5	4.1	1.8	3.9	78
Prince Hairy	9.4	2.6	93	99	1.9	4.6	4.8	4.6	5
ATX03546-1W/Y	10.4	2.8	50	68	2.6	2.8	4.5	3.0	5
Average	8.5	4.5	72	81	1.9	3.7	3.7	3.7	32
L.S.D. (.05)	3.0	0.7	15	17	0.4	0.5	0.8	0.4	24

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 20 entries in the Texas Advanced Selection White Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.
Table 11d.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
NDTX049265-2WRSP/Y	3.0	2.5	1.0	3.7	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059759-3Pinto/Y-P	3.0	3.7	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	3.1	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	13	0	0	5
Sierra Gold	3.0	3.5	3.9	3.8	4.0	5.0	5.0	5.0	5.0	5.0	3	0	3	0
King Harry	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX1523-1Ru/Y	2.9	3.0	3.7	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	5	0
NDTX059759-3Pinto/Y	3.3	3.7	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
BTX1749-1W/Y	2.9	1.5	1.5	3.9	1.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050169-2W/Y	1.5	3.1	1.0	3.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX00289-6Y/Y	3.4	3.4	1.5	4.0	1.0	4.5	5.0	5.0	5.0	5.0	23	3	3	0
Sierra Gold-2	2.6	3.0	3.7	4.0	4.0	5.0	5.0	5.0	5.0	5.0	3	0	3	0
BTX1544-2W/Y	3.0	3.3	3.8	3.7	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Sierra Gold-3	2.6	3.4	3.8	4.0	3.7	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98500-3PW/Y	3.8	3.0	1.0	4.0	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX04237-6Y/Y	2.6	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03496-3Y/Y	3.3	3.7	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04178-1Y/Y	2.5	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050025-1W/Y	2.0	3.8	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Prince Hairy	1.0	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	23	0	0
ATX03546-1W/Y	3.1	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.7	2.8	1.7	3.9	2.2	5.0	5.0	5.0	5.0	5.0	2	1	1	0
L.S.D. (.05)	0.3	0.2	.	0.1	0.1	ns	ns	ns	ns	ns	10	9	ns	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark
⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
NDTX049265-2WRSP/Y	, , , yield	yield+, , ,	3.8, 3.4, 3.3, 3.5	3.7, 3.5, 3.5, 3.8
NDTX059759-3Pinto/Y-P	, , do not let oversize,	Rhizoctonia, , purple streaking at stem end,	3.8, 3.8, 3.8, 3.8	4.3, 4.3, 4.3, 4.3
Yukon Gold	, , ,	, , ,	4, 4, 4, 4	4, 3.8, 4, 3.8
Sierra Gold	BOT, heat sprouts+, ,	, , , Rhizoctonia, Light set	4.5, 4, 3.6, 3.8	4, 4.5, 4, 4
King Harry	, larger tubers than prince, ,	larger than Prince, , nipple on apical end,	3.8, 3.5, 3.6, 3.4	3.5, 4, 3.5, 3.5
TX1523-1Ru/Y	, , heat sprouts,	S, Low Yield+, Rhizoctonia, ,	4.5, 3.8, 3.8, 3.8	3.5, 3.3, 3.7, 3.7
NDTX059759-3Pinto/Y	, , ,	, mix of solid and purple streak in the flesh, some purple streaks in flesh, do not let oversize, keep	3.4, 4, 3.8, 4	4.2, 4, 4.4, 4
BTX1749-1W/Y	, , ,	, Deep nose, Drop, Keep for ZC, Rhizoctonia,	3.5, 3.8, 3.8, 3.5	3.5, 3.4, 3.8, 3.5
NDTX050169-2W/Y	heavy yield, not very yellow flesh, drop?, heavy set+, small potato?	heavy set, small potato, good skin finish, ,	3.7, 3.2, 3.8, 3.5	4, 4, 4, 4
ATTX00289-6Y/Y	, , , nice	Growth Cracks, Rhizoctonia+, drop, red splotches, Oversize, Heat sprouts, pointed	4, 4, 3.8, 3.8	3, 3, 3, 3
Sierra Gold-2	heat sprouts, , ,	, , Low Yield, poor shape, Rhizoctonia++,	3.4, 3.6, 3.7, 2.8	3.3, 3, 2, 2.5
BTX1544-2W/Y	, , ,	Buff+ russet skin, Drop, , ugly skin finish+,	3.8, 3.4, 3.3, 3.7	3.3, 3.3, 3.2, 3.2
Sierra Gold-3	, , heat sprouts+, pointed,	Rhizoctonia++, several off shapes, , , Heat Sprouts	3.8, 3.3, 3.4, 3.2	3.7, 3.7, 3, 3
ATTX98500-3PW/Y	, , drop?,	, , Rhizoctonia, Drop, Pointed+	3.4, 3.5, 3.2, 3.3	2.5, 2.5, 3, 3
TX04237-6Y/Y	, , ,	smooth, Low Yield, good skin finish, , Drop++	3.3, 3.7, 3.3, 2.8	3.6, 3, 3, 3
ATX03496-3Y/Y	pointed, , heavy set, small potato, keep, heat sprouts, drop?	, , , Low Yield, Heat Sprouts, keep??	3.2, 3.2, 3.5, 3	3.5, 3.5, 3.5, 3.5
COTX04178-1Y/Y	heavy set, heavy set, small potato?, nice skin, heavy set, not very yellow flesh	heavy set, , small potato,	3.6, 3.4, 4, 3.5	3.7, 3.7, 3.6, 3.6
NDTX050025-1W/Y	, heavy set+, small, , drop	smooth skin, small potato, keep, , , good skin finish	3.8, 3.8, 3.4, 2.8	4, 4, 4, 4
Prince Hairy	yield, , white flesh, heavy set+	Smaller than King, Heavy set, , Rot on 3 reps,	3.5, 3, 3.3, 3.4	3.4, 3.2, 3.2, 3
ATX03546-1W/Y	, , very yellow flesh,	Heat Sprouts, Small Potato, , ,	3.5, 3.5, 4, 4	3.8, 3.8, 3.2, 3.2

Dalhart
Table 11f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 20 entries in the Texas Advanced Selection White Skin Yellow Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
NDTX049265-2WRSP/Y	Dalhart	1.069	14.8	3.6	3	20/19	33% Vas, 10% BSB	5%	0%
NDTX059759-3Pinto/Y-P	Dalhart	1.063	13.8	4.3	2+	15/4	11% Vas, 11% BSB	0%	0%
Yukon Gold	Colorado	1.074	15.6	3.9	3	20/10	13% Vas, 17% BSB	3%	0%
Sierra Gold	Nebraska	1.068	14.6	4.1	2+	30/8	8% Vas, 13% BSB	0%	0%
King Harry	New York	1.073	15.6	3.6	2+	35/5	BOT Chips, 5% Vas, 8% BSB	0%	0%
TX1523-1Ru/Y	Dalhart	1.069	14.8	3.6	3	30/10	5% BSB	20%	0%
NDTX059759-3Pinto/Y	Dalhart	1.065	14.1	4.2	2+	37/4	10% BSB	0%	0%
BTX1749-1W/Y	Dalhart	1.075	15.8	3.6	3	22/18	10% Dark, 20% Vas, 10% BSB	0%	0%
NDTX050169-2W/Y	Dalhart	1.059	13.1	4.0	3	26/14	30% Vas, 3% BSB	3%	0%
ATTX00289-6Y/Y	Dalhart	1.059	13.1	3.0	2+	35/4	3% MB, BOT Chips, 5% Vas	3%	0%
Sierra Gold-2	Nebraska	1.068	14.6	2.7	2+	32/8	3% BSB	15%	0%
BTX1544-2W/Y	Springlake	1.063	13.7	3.3	3	27/12	18% Vas, 13% BSB	0%	8%
Sierra Gold-3	Nebraska	1.069	14.8	3.4	3	30/7	5% Vas, 14% BSB	0%	0%
ATTX98500-3PW/Y	Colorado	1.064	14.0	2.8	3	19/9	29% Vas, 4% BSB	0%	0%
TX04237-6Y/Y	Dalhart	1.062	13.6	3.2	3	29/1	17% Vas, 23% BSB	0%	5%
ATX03496-3Y/Y	Dalhart	1.055	12.4	3.5	3	14/13	33% Vas	15%	0%
COTX04178-1Y/Y	Dalhart	1.058	12.9	3.7	1+	34/5	Much better than Prince, 13% BSB	0%	3%
NDTX050025-1W/Y	Dalhart	1.076	16.0	4.0	2+	16/14	3% MB, 37% Vas, 7% BSB	0%	0%
Prince Hairy	New York	1.048	11.2	3.2	3	10/28	50% MB, 18% Vas, 8% BSB	0%	13%
ATX03546-1W/Y	Dalhart	1.060	13.2	3.5	3	24/15	3% Vas, 3% BSB	5%	0%
Average		1.065	14.1	3.5				3%	1%
L.S.D. (.05)		0.010	1.9	0.3					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 17a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, and culls/No.2 potatoes of 8 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2
		Total Yield	4-6 oz	6-10 oz	10-18 oz			
TXYG098(G3)	562.1	489.3	82.2	191.9	215.1	16.0	56.8	0.0
TXYG105(G3)	545.0	461.0	110.7	221.0	129.3	0.0	76.1	7.9
TXYG055(G3)	506.1	434.3	100.0	192.7	141.5	0.0	71.8	0.0
TXYG079(G3)	474.3	422.6	76.1	171.1	175.4	0.0	51.7	0.0
TXYG107(G3)	439.6	382.6	127.0	147.4	108.2	0.0	57.0	0.0
TXYG057(G3)	443.5	379.1	87.8	154.0	137.2	29.8	34.6	0.0
Yukon Gold	453.9	371.7	91.4	116.1	164.2	35.6	29.0	17.6
ZSC(G3)	462.8	362.8	94.7	131.4	136.7	13.2	79.7	7.1
Average	485.9	412.9	96.3	165.7	151.0	11.8	57.1	4.1
L.S.D. (.05)	70.2	48.6	39.5	63.3	59.2	ns	21.5	ns

¹ 1=very poor to 5= excellent

Dalhart
Table 17b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, of 8 entries
in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight		
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2
TXYG098(G3)	86.9	14.6	34.4	38.0	3.0	10.1	0.0
TXYG105(G3)	84.7	20.9	40.3	23.5	0.0	14.2	1.2
TXYG055(G3)	85.8	20.0	38.7	27.1	0.0	14.2	0.0
TXYG079(G3)	89.3	16.0	37.0	36.3	0.0	10.7	0.0
TXYG107(G3)	87.3	28.1	33.9	25.2	0.0	12.7	0.0
TXYG057(G3)	86.7	20.2	36.0	30.6	5.6	7.7	0.0
Yukon Gold	81.8	20.4	25.8	35.6	7.8	6.5	3.9
ZSC(G3)	79.2	20.1	28.9	30.2	2.5	17.1	1.2
Average	85.2	20.0	34.4	30.8	2.4	11.6	0.8
L.S.D. (.05)	ns	6.7	ns	ns	ns	3.6	ns

Dalhart
Table 17c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 8 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXYG098(G3)	6.4	7.3	89	96	1.5	4.2	3.1	4.3	63
TXYG105(G3)	7.4	6.0	88	95	1.5	4.2	3.0	4.2	70
TXYG055(G3)	6.9	6.1	90	95	1.5	4.4	3.0	4.3	63
TXYG079(G3)	5.9	6.5	94	98	1.5	4.1	3.3	4.2	74
TXYG107(G3)	6.3	6.3	84	89	1.5	3.8	3.2	3.9	68
TXYG057(G3)	5.7	7.3	75	88	1.5	4.0	2.7	4.1	78
Yukon Gold	5.6	7.4	81	88	1.5	4.0	2.8	3.9	57
ZSC(G3)	6.4	6.3	93	93	1.5	4.0	3.3	4.3	63
Average	6.3	6.6	87	93	1.5	4.1	3.0	4.1	67
L.S.D. (.05)	1.2	1.3	16	12	ns	ns	ns	0.5	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 17d.

Percent hollow heart, percent blackspot, percent internal
brownspot and percent Zebra Chip of 8 entries in the Yukon
Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent Hollow Heart	Percent Blackspot	Percent Internal Brownspot	Percent Zebra Defect
TXYG098(G3)	13	0	0	8
TXYG105(G3)	8	0	0	0
TXYG055(G3)	8	0	0	0
TXYG079(G3)	8	0	0	0
TXYG107(G3)	3	3	0	3
TXYG057(G3)	13	0	0	0
Yukon Gold	13	0	5	0
ZSC(G3)	10	0	0	3
Average	9	0	1	2
L.S.D. (.05)	ns	ns	ns	ns

Dalhart
 Table 17e. Notes for all reps of 8 entries in the Yukon Gold Strain
 Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Grading
TXYG098(G3)	Mix, Wh/Yel flesh, , ,
TXYG105(G3)	Rhiz, , ,
TXYG055(G3)	, , ,
TXYG079(G3)	, , ,
TXYG107(G3)	, , ,
TXYG057(G3)	, , ,
Yukon Gold	, , ,
ZSC(G3)	, , ,

Dalhart
Table 12

Tuber type, skin color, general rating, and inventory weight of 5 entries to be Advanced from the 2008 White Skin Yellow Flesh Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Tuber Type	Skin Color	General Rating	Inventory Weight
ATX05188-1Y/Y		Yellow	3.5	
ATX06354-1W/Y		White		15.9
NDTX050264-1W		White	3.5	
NDTX060700C-1W		White	3.5	
TX06308-1Y/Y		Yellow	3.5	
TX06308-2Y/Y		Yellow	3.5	

Dalhart
Table 13a.

Total yield, total yield of U.S. No.1, under 4 ounce, culls/No.2 potatoes, percent by weight of less than 4 ounce, and general rating of 13 entries in the Texas Advanced Selection Small Potato Trial grown nearDalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 4 oz.	Culls/ No.2	Percent by Weight Under 4 oz.	Grading General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
COTX05249-3W/Y	479.6	72.3	72.3	0.0	0.0	390.0	17.3	81.3	4.5	4.5
ATX05202-3W/Y	605.4	251.0	216.4	34.6	0.0	315.7	38.7	52.2	4.5	4.5
COTX04050-1P/P	514.0	216.9	148.7	56.5	11.7	253.0	44.0	49.2	4.4	4.3
NDTX059886-1Y/Y	406.6	148.7	122.2	16.8	9.7	239.3	18.6	59.1	4.0	4.4
COTX05037-4Y/Y	307.0	36.1	27.7	8.4	0.0	201.4	69.5	65.3	3.8	3.0
ATX03546-1W/Y-P	378.5	167.5	124.2	43.3	0.0	169.3	41.7	44.8	4.0	4.2
NDTX050065-1R/Y	208.2	40.7	38.7	2.0	0.0	156.8	10.7	77.2	3.5	4.0
ATX02263-1R/Y	268.8	106.4	93.9	12.5	0.0	155.0	7.4	57.9	4.1	4.3
ATX98444-16R/Y	230.4	86.3	62.9	23.4	0.0	141.5	2.5	61.6	4.1	4.1
COTX03025-1P/P	385.7	249.7	130.8	87.1	31.8	114.8	21.1	29.4	3.8	3.2
NDTX4756-R/Y	297.3	190.4	134.4	56.0	0.0	103.4	3.6	34.9	3.8	3.3
COTX04303-1R/Y	156.8	75.4	55.5	16.3	3.6	75.9	5.6	47.1	3.6	2.5
ATX9132-2Y	40.9	0.0	0.0	0.0	0.0	38.4	2.5	98.7	3.6	3.0
Average	329.2	126.3	94.4	27.5	4.4	181.1	21.8	58.4	4.0	3.8
L.S.D. (.05)	57.8	38.9	35.7	26.1	15.3	54.8	19.9	7.3	0.7	0.2

¹ 1=very poor to 5= excellent

Dalhart
Table 13b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, tuber type and skin type of 13 entries in the Texas Advanced Selection Small Potato Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2		
COTX05249-3W/Y	15.1	15.1	0.0	0.0	0.0	81.3	3.6	Round	White
ATX05202-3W/Y	41.4	35.7	5.7	0.0	0.0	52.2	6.4	Round	White
COTX04050-1P/P	42.2	28.7	11.2	2.4	0.0	49.2	8.6	Oblong	Purple
NDTX059886-1Y/Y	36.5	30.1	4.1	2.2	0.0	59.1	4.5	Oblong	Yellow
COTX05037-4Y/Y	11.8	9.3	2.4	0.0	0.0	65.3	22.9	Round	Yellow
ATX03546-1W/Y-P	44.2	32.2	12.0	0.0	0.0	44.8	11.0	Round	White
NDTX050065-1R/Y	18.3	17.4	0.8	0.0	0.0	77.2	4.5	Round	Red
ATX02263-1R/Y	39.2	34.3	4.9	0.0	0.0	57.9	2.9	Oblong	Red
ATX98444-16R/Y	37.6	26.9	10.7	0.0	0.0	61.6	0.8	Round	Red
COTX03025-1P/P	64.8	34.2	22.1	8.5	0.0	29.4	5.9	Oblong	Purple
NDTX4756-R/Y	63.9	44.9	18.9	0.0	0.0	34.9	1.2	Round	Red
COTX04303-1R/Y	49.0	35.6	10.9	2.5	0.0	47.1	4.0	Oblong	Red
ATX9132-2Y	0.0	0.0	0.0	0.0	0.0	94.8	5.2	Round	Yellow
Average	35.7	26.5	8.0	1.2	0.0	58.1	6.3		
L.S.D. (.05)	9.3	8.4	9.0	4.0	n s	11.9	7.3		

Dalhart
Table 13c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 13 entries in the Texas Advanced Selection Small Potato Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
COTX05249-3W/Y	20.7	2.1	85	85	1.5	3.8	4.5	3.8	10
ATX05202-3W/Y	17.2	2.6	98	100	2.2	3.9	5.0	4.3	0
COTX04050-1P/P	11.0	4.5	96	98	2.5	4.3	4.1	4.3	19
NDTX059886-1Y/Y	14.0	2.4	86	93	2.2	4.0	4.8	3.9	0
COTX05037-4Y/Y	13.2	1.8	79	84	1.5	4.1	5.0	4.0	3
ATX03546-1W/Y-P	12.0	2.9	66	80	2.5	3.1	3.9	3.1	25
NDTX050065-1R/Y	7.4	2.7	90	90	2.2	3.7	4.8	3.6	3
ATX02263-1R/Y	9.8	2.6	74	81	1.5	3.3	3.7	3.2	36
ATX98444-16R/Y	6.9	2.7	96	98	1.5	4.1	2.0	4.0	75
COTX03025-1P/P	8.2	3.8	89	95	2.6	4.2	4.0	4.2	26
NDTX4756-R/Y	7.6	3.4	85	89	2.1	3.6	3.1	3.6	48
COTX04303-1R/Y	9.8	3.0	43	43	1.5	2.4	5.0	2.4	0
ATX9132-2Y	9.4	0.5	99	100	2.6	3.7	5.0	3.6	0
Average	11.3	2.7	83	87	2.0	3.7	4.2	3.7	19
L.S.D. (.05)	5.0	1.3	12	10	0.3	0.6	0.6	0.6	18

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 13d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 13 entries in the Texas Advanced Selection Small Potato Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX05249-3W/Y	2.5	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05202-3W/Y	3.0	1.5	1.0	4.4	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04050-1P/P	4.4	3.8	2.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	1	0	0	0
NDTX059886-1Y/Y	2.5	3.4	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05037-4Y/Y	3.1	1.9	1.0	4.4	1.0	5.0	5.0	5.0	5.0	5.0	0	0	8	0
ATX03546-1W/Y-P	3.5	2.5	1.0	4.4	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050065-1R/Y	1.0	2.7	2.0	4.4	4.5	5.0	5.0	5.0	5.0	5.0	5	0	0	0
ATX02263-1R/Y	2.5	3.6	1.0	4.4	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98444-16R/Y	3.3	1.5	1.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX03025-1P/P	3.6	3.7	2.5	4.4	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4756-R/Y	2.6	1.5	2.5	3.8	3.7	5.0	5.0	5.0	5.0	5.0	0	0	3	0
COTX04303-1R/Y	3.5	3.6	1.0	4.0	4.4	5.0	5.0	5.0	5.0	5.0	5	0	0	0
ATX9132-2Y	4.1	1.5	1.0	2.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.0	2.5	1.4	4.1	2.8	5.0	5.0	5.0	5.0	5.0	1	0	1	0
L.S.D. (.05)	0.3	0.1	0.1	0.1	0.1	ns	nd	ns	ns	ns	3	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart

Table 13e. Notes and general rating for all reps of 13 entries in the Texas Advanced Selection Small Potato Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
COTX05249-3W/Y	all small tubers, , ,	BOT, , ,	4.5, 4.5, 4.5, 4.5	4.5, 4.5, 4.5, 4.5
ATX05202-3W/Y	nice, , BOT,	heavy set, nice flesh, , nice skin finish,	4.5, 4.5, 4.5, 4.5	4.5, 4.5, 4.5, 4.5
COTX04050-1P/P	, , BOT, anthocyanin study, BOT	, med buff skin, white center, keep, solid purple flesh, BOT,	4.3, 4.4, 4.5, 4.5	4, 4, 4.5, 4.5
NDTX059886-1Y/Y	some big tubers, , nice,	heavy set, parent, BOT+, internal??. , smooth	4.5, 4.4, 3, 4	4.5, 4.5, 4.5, 4
COTX05037-4Y/Y	some big tubers, , poor shape,	, , processing problems, chain tubers, Rhizoctonia, poor shape, Drop/++	4.5, 3.5, 3.5, 3.8	3, 3, 3, 3
ATX03546-1W/Y-P	some big tubers, , ,	, , ,	4.5, 3.2, 3.8, 4.5	4, 4.5, 4.2, 4
NDTX050065-1R/Y	white flesh, small, , ,	alligator hide, , ,	3.5, 3.5, 3.5, 3.5	4, 4, 4, 4
ATX02263-1R/Y	, some pointed, BOT, drop?	slight buff, BOT-, some pointed, ,	4.5, 4.4, 4.5, 3	4.4, 4.4, 4, 4.4
ATTX98444-16R/Y	, some big tubers, ,	, , very nice,	4.3, 4, 4, 4	4.3, 4, 4, 4
COTX03025-1P/P	, bigger tubers, , big tubers, drop?	roadmap, drop?, too big, white streak in flesh, buff, alligator hide,	3.8, 4, 4.3, 3	3, 3, 3.5, 3.3
NDTX4756-R/Y	some big tubers, small?, , too large	too big, , buff, not very small, ugly skin,	4, 3.8, 4, 3.5	3.5, 3.3, 3, 3.3
COTX04303-1R/Y	large, , yield-,	low yield, poor shape, , ,	3, 3, 4.2, 4.2	2.5, 2.5, 2.5, 2.5
ATX9132-2Y	many very small tubers, , ,	Rhizoctonia, Parent, rough, deep eyes, Drop	3.5, 3, 4, 4	3, 3, 3, 3

Dalhart
Table 13f.

Tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 13 entries in the Texas Advanced Selection Small Potato Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
COTX05249-3W/Y	Dalhart	4.5	2	5/5	30% Vas	20%	0%
ATX05202-3W/Y	Dalhart	4.5	1	12/8	25% BC	15%	10%
COTX04050-1P/P	Dalhart	4.3	3+	28/12	8% MB, 12% Vas	0%	0%
NDTX059886-1Y/Y	Dalhart	4.4	2	3/4	BOT, BOT - Chip	86%	5%
COTX05037-4Y/Y	Dalhart	3.0	3	29/9	8% Dark, 4z missed, 8% Vas	21%	0%
ATX03546-1W/Y-P	Dalhart	4.2	3	8/13	10% Vas	10%	0%
NDTX050065-1R/Y	Dalhart	4.0	1	11/9		5%	0%
ATX02263-1R/Y	Dalhart	4.3	1+	28/10		3%	5%
ATX98444-16R/Y	Dalhart	4.1	1+	36/2	BOT, BOT Chip	0%	0%
COTX03025-1P/P	Dalhart	3.2	3+	27/3	BOT, 7% Vas	0%	0%
NDTX4756-R/Y	Dalhart	3.3	3	28/12	13% Vas	13%	0%
COTX04303-1R/Y	Dalhart	2.5	2	12/8	30% BC	5%	0%
ATX9132-2Y	Colorado	3.0	3	8/31		5%	0%
Average		3.8	2			15%	2%
L.S.D. (.05)		0.2					

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 14

Tuber type, skin color, general rating, and inventory weight of 1 entry to be Advanced from the 2008 Small Potato Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Tuber Type	Skin Color	General Rating	Inventory Weight
ATTX05175-1R/Y		red	4	

Dalhart
Table 15a.

Total yield, total yield of U.S. No.1, over 6 inch, under 1 inch, culls/No.2 potatoes and general rating of 6 entries in the Texas Advanced Selection Fingerling/Colored Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 6 in.	Under 1 in.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	1-2 in.	2-4 in.	4-6 in.					
COTX03187-1W	385.2	347.7	30.8	186.6	130.3	16.0	4.3	17.1	3.4	4.0
PTTX05PG07-1W	225.3	221.7	9.9	194.0	17.8	0.0	0.0	3.6	4.0	4.5
COTX05082-2P/P	293.3	169.5	58.0	48.9	62.6	0.0	96.2	27.5	3.5	3.5
PORTX03PG25-2R/R	181.5	159.1	10.9	103.4	44.8	2.5	1.3	18.6	4.0	3.7
Banana	152.5	115.1	7.1	79.7	28.3	7.4	1.5	28.5	3.0	3.0
Purple Peruvian	123.0	82.0	9.4	63.4	9.2	5.3	4.8	30.8	3.0	4.0
Average	226.8	182.5	21.0	112.6	48.8	5.2	18.0	21.0	3.5	3.8
L.S.D. (.05)	49.3	47.2	13.3	32.3	25.4	ns	3.6	ns	0.1	0.1

¹ 1=very poor to 5= excellent

Dalhart
Table 15b.

Percent by weight of U.S. No. 1, over 6 inch, under 1 inch, and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Texas Advanced Selection Fingerling/Colored Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	1-2 in.	2-4 in.	4-6 in.	Over 6 in.	Under 1 in.	Culls/ No. 2				
COTX03187-1W	91.0	8.1	49.0	33.8	3.8	1.2	4.1	1.086	17.8	Long	White
PTTX05PG07-1W	98.5	4.5	86.1	7.8	0.0	0.0	1.5	1.068	14.7	Long	White
COTX05082-2P/P	57.6	19.5	16.8	21.3	0.0	33.5	8.9	1.057	12.8	Oblong	Purple
PORTX03PG25-2R/R	88.2	6.2	58.7	23.3	1.4	0.7	9.7	1.056	12.5	Long	Red
Banana	76.0	4.7	52.7	18.6	4.2	1.1	18.7	1.070	15.0	Long	White
Purple Peruvian	78.4	9.7	61.6	7.1	2.4	4.6	14.6	1.074	15.7	Long	Purple
Average	81.6	8.8	54.2	18.6	1.9	6.9	9.6	1.068	14.7		
L.S.D. (.05)	19.3	4.7	16.2	7.9	ns	4.7	ns	0.005	0.9		

Dalhart
Table 15c. Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Texas Advanced Selection Fingerling/Colored Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
COTX03187-1W	9.6	3.3	80	93	1.8	3.9	4.3	3.8	11
PTTX05PG07-1W	10.1	2.0	78	90	2.7	3.3	3.0	3.4	46
COTX05082-2P/P	8.3	3.5	70	75	2.0	3.3	3.7	3.5	40
PORTX03PG25-2R/R	8.5	2.1	65	75	1.6	2.5	4.1	2.6	13
Banana	6.6	1.7	76	88	2.7	3.8	5.0	4.0	1
Purple Peruvian	6.3	1.7	90	100	1.9	4.3	5.0	4.2	0
Average	8.2	2.4	76	87	2.1	3.5	4.2	3.6	19
L.S.D. (.05)	ns	0.9	ns	8	0.6	0.6	0.7	0.5	16

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart Table 15d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Texas Advanced Selection Fingerling/Colored Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX03187-1W	1.0	5.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PTTX05PG07-1W	1.0	5.0	1.0	4.3	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05082-2P/P	5.0	3.5	1.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG25-2R/R	2.5	5.0	1.0	4.4	4.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Banana	2.5	5.0	1.0	4.4	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Purple Peruvian	3.6	5.0	1.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.6	4.8	1.0	3.9	2.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.3	0.1	ns	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark

⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Dalhart

Table 15e. Notes and general rating for all reps of 6 entries in the Texas Advanced Selection Fingerling/Colored Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
COTX03187-1W	, , ,	, nice flesh, , can oversize	3.5, 3.3, 3.3, 3.5	4, 4, 4, 4
PTTX05PG07-1W	, , ,	, Rhizoctonia, ,	4, 4, 4, 4	4.5, 4.5, 4.5, 4.5
COTX05082-2P/P	keep, very dark flesh, keep, ,	, , ,	3.5, 3.5, 3.5, 3.5	3.5, 3.5, 3.5, 3.5
PORTX03PG25-2R/R	, , ,	, , ,	4, 4, 4, 4	3.5, 3.7, 3.8, 3.7
Banana	, , ,	, greenheads, Rhizoctonia,	3, 3, 3, 3	3, 3, 3, 3
Purple Peruvian	, , ,	, , purple with white flesh, deep eyes	3, 3, 3, 3	4, 4, 4, 4

Dalhart
Table 15f. Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Texas Advanced Selection Fingerling/Colored Flesh Trial grown near Dalhart, Texas-2009.

Variety or Selection	Source	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
COTX03187-1W	Dalhart	1.086	17.8	4.0	1	10/30		5%	0%
PTTX05PG07-1W	Dalhart	1.068	14.7	4.5	2+	27/11		16%	3%
COTX05082-2P/P	Dalhart	1.057	12.8	3.5	3+	19/2		0%	0%
PORTX03PG25-2R/R	Colorado	1.056	12.5	3.7	3	34/6	15% Dark	0%	0%
Banana	Dalhart	1.070	15.0	3.0	1+	28/10	3% HH, 3% Vas,	8%	0%
Purple Peruvian	Dalhart	1.074	15.7	4.0	3+	24/13		0%	0%
Average		1.068	14.7	3.8				5%	0%
L.S.D. (.05)		0.005	0.9	0.1					ns

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Dalhart
Table 16

Tuber type, skin color, general rating, and inventory weight of 1 entry to be Advanced from the
2008 Fingerling Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Tuber Type	Skin Color	General Rating	Inventory Weight
ATTX02247-1R(fing)		Red	3.8	

Dalhart
Table 17a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, and culls/No.2 potatoes of 8 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2
		Total Yield	4-6 oz	6-10 oz	10-18 oz			
TXYG098(G3)	562.1	489.3	82.2	191.9	215.1	16.0	56.8	0.0
TXYG105(G3)	545.0	461.0	110.7	221.0	129.3	0.0	76.1	7.9
TXYG055(G3)	506.1	434.3	100.0	192.7	141.5	0.0	71.8	0.0
TXYG079(G3)	474.3	422.6	76.1	171.1	175.4	0.0	51.7	0.0
TXYG107(G3)	439.6	382.6	127.0	147.4	108.2	0.0	57.0	0.0
TXYG057(G3)	443.5	379.1	87.8	154.0	137.2	29.8	34.6	0.0
Yukon Gold	453.9	371.7	91.4	116.1	164.2	35.6	29.0	17.6
ZSC(G3)	462.8	362.8	94.7	131.4	136.7	13.2	79.7	7.1
Average	485.9	412.9	96.3	165.7	151.0	11.8	57.1	4.1
L.S.D. (.05)	70.2	48.6	39.5	63.3	59.2	ns	21.5	ns

¹ 1=very poor to 5= excellent

Dalhart
Table 17b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, of 8 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight		
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2
TXYG098(G3)	86.9	14.6	34.4	38.0	3.0	10.1	0.0
TXYG105(G3)	84.7	20.9	40.3	23.5	0.0	14.2	1.2
TXYG055(G3)	85.8	20.0	38.7	27.1	0.0	14.2	0.0
TXYG079(G3)	89.3	16.0	37.0	36.3	0.0	10.7	0.0
TXYG107(G3)	87.3	28.1	33.9	25.2	0.0	12.7	0.0
TXYG057(G3)	86.7	20.2	36.0	30.6	5.6	7.7	0.0
Yukon Gold	81.8	20.4	25.8	35.6	7.8	6.5	3.9
ZSC(G3)	79.2	20.1	28.9	30.2	2.5	17.1	1.2
Average	85.2	20.0	34.4	30.8	2.4	11.6	0.8
L.S.D. (.05)	ns	6.7	ns	ns	ns	3.6	ns

Dalhart
Table 17c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 8 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXYG098(G3)	6.4	7.3	89	96	1.5	4.2	3.1	4.3	63
TXYG105(G3)	7.4	6.0	88	95	1.5	4.2	3.0	4.2	70
TXYG055(G3)	6.9	6.1	90	95	1.5	4.4	3.0	4.3	63
TXYG079(G3)	5.9	6.5	94	98	1.5	4.1	3.3	4.2	74
TXYG107(G3)	6.3	6.3	84	89	1.5	3.8	3.2	3.9	68
TXYG057(G3)	5.7	7.3	75	88	1.5	4.0	2.7	4.1	78
Yukon Gold	5.6	7.4	81	88	1.5	4.0	2.8	3.9	57
ZSC(G3)	6.4	6.3	93	93	1.5	4.0	3.3	4.3	63
Average	6.3	6.6	87	93	1.5	4.1	3.0	4.1	67
L.S.D. (.05)	1.2	1.3	16	12	ns	ns	ns	0.5	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 17d.

Percent hollow heart, percent blackspot, percent internal
brownspot and percent Zebra Chip of 8 entries in the Yukon
Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent Hollow Heart	Percent Blackspot	Percent Internal Brownspot	Percent Zebra Defect
TXYG098(G3)	13	0	0	8
TXYG105(G3)	8	0	0	0
TXYG055(G3)	8	0	0	0
TXYG079(G3)	8	0	0	0
TXYG107(G3)	3	3	0	3
TXYG057(G3)	13	0	0	0
Yukon Gold	13	0	5	0
ZSC(G3)	10	0	0	3
Average	9	0	1	2
L.S.D. (.05)	ns	ns	ns	ns

Dalhart
Table 17e.

Notes for all reps of 8 entries in the Yukon Gold Strain
Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Grading
TXYG098(G3)	Mix, Wh/Yel flesh, , ,
TXYG105(G3)	Rhiz, , ,
TXYG055(G3)	, , ,
TXYG079(G3)	, , ,
TXYG107(G3)	, , ,
TXYG057(G3)	, , ,
Yukon Gold	, , ,
ZSC(G3)	, , ,

Dalhart
Table 18a.

Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, and culls/No.2 potatoes of 9 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2
		Total Yield	4-6 oz	6-10 oz	10-18 oz			
TXYG057(TX)	598.2	493.9	99.3	253.0	141.5	24.9	71.3	8.1
TXYG098(TX)	541.0	465.4	127.5	172.1	165.7	17.8	57.8	0.0
ZSC(TX)	540.2	447.8	76.9	167.8	203.1	46.6	38.7	7.1
TXYG105(TX)	490.6	419.8	97.0	168.5	154.3	20.4	42.0	8.4
TXYG107(TX)	473.8	410.9	59.8	168.3	182.8	27.0	28.8	7.1
TXYG055(TX)	473.2	397.9	81.2	177.4	139.3	44.6	30.8	0.0
TXYG079(TX)	450.3	384.1	69.8	146.1	168.3	30.8	28.3	7.1
Yukon Gold	453.9	371.7	91.4	116.1	164.2	35.6	29.0	17.6
Yukon Gold (Stad) (TX)	401.5	343.9	67.2	147.4	129.3	18.3	32.3	6.9
Average	491.4	415.0	85.6	168.5	160.9	29.6	39.9	6.9
L.S.D. (.05)	70.2	48.6	39.5	63.3	59.2	ns	21.5	ns

[†] 1=very poor to 5= excellent

Dalhart
Table 18b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, of 9 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight		
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2
TXYG057(TX)	82.5	16.7	42.6	23.1	4.1	12.1	1.3
TXYG098(TX)	85.9	23.2	32.2	30.5	3.4	10.7	0.0
ZSC(TX)	83.5	13.8	31.4	38.3	8.2	7.0	1.3
TXYG105(TX)	85.4	19.7	34.4	31.2	4.1	8.8	1.7
TXYG107(TX)	86.7	13.0	35.0	38.7	5.7	6.2	1.4
TXYG055(TX)	85.1	17.3	38.1	29.7	8.6	6.3	0.0
TXYG079(TX)	86.2	15.8	33.3	37.1	6.1	6.2	1.6
Yukon Gold	81.8	20.4	25.8	35.6	7.8	6.5	3.9
Yukon Gold (Stad) (TX)	86.3	16.7	37.3	32.3	4.3	7.9	1.5
Average	84.8	17.4	34.5	33.0	5.8	8.0	1.4
L.S.D. (.05)	ns	6.7	ns	ns	ns	3.6	ns

Dalhart
Table 18c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 9 entries in the Yukon Gold Strain Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXYG057(TX)	7.2	6.9	94	98	1.5	4.5	3.2	4.5	73
TXYG098(TX)	6.6	7.1	80	94	1.5	4.5	2.8	4.5	73
ZSC(TX)	6.6	8.1	75	84	1.5	4.0	3.3	4.0	58
TXYG105(TX)	5.9	8.1	64	83	1.5	3.9	2.7	3.9	78
TXYG107(TX)	5.8	7.4	76	89	1.5	3.8	2.8	4.0	76
TXYG055(TX)	5.4	8.1	80	89	1.5	3.8	3.1	4.1	63
TXYG079(TX)	5.8	8.7	65	75	1.5	3.6	3.4	3.7	60
Yukon Gold	5.6	7.4	81	88	1.5	4.0	2.8	3.9	57
Yukon Gold (Stad) (TX)	5.4	7.5	69	80	1.5	3.6	2.9	3.8	66
Average	6.0	7.7	76	86	1.5	4.0	3.0	4.0	67
L.S.D. (.05)	1.2	1.3	16	12	ns	ns	ns	0.5	ns

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Dalhart
Table 18d. Percent hollow heart, percent internal brownspot and percent Zebra Chip of 9 entries in the Yukon Gold Strain Selection Trial grown near

Variety or Selection	Percent Hollow Heart	Percent Internal Brownspot	Percent Zebra Defect
TXYG057(TX)	20	0	0
TXYG098(TX)	8	0	5
ZSC(TX)	13	0	5
TXYG105(TX)	10	3	3
TXYG107(TX)	18	0	5
TXYG055(TX)	10	5	0
TXYG079(TX)	5	0	3
Yukon Gold	13	5	0
Yukon Gold (Stad) (TX)	8	0	3
Average	11	1	3
L.S.D. (.05)	ns	ns	ns

Dalhart
Table 18e.

Notes for all reps of 9 entries in the Yukon Gold Strain
Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Grading
TXYG057(TX)	, , ,
TXYG098(TX)	, , ,
ZSC(TX)	, , ,
TXYG105(TX)	, , ,
TXYG107(TX)	, Mix, Wh/Yel flesh, ,
TXYG055(TX)	, , ,
TXYG079(TX)	, , ,
Yukon Gold	, , ,
Yukon Gold (Stad) (TX)	, , ,

Dalhart Table 19a. Total yield, total yield of U.S. No.1, over 18 ounce, under 4 ounce, culls/No.2 potatoes and general rating of 6 entries in the Zebra Free Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
Russet Norkotah	543.8	402.2	69.2	203.7	129.3	102.8	38.7	0.0	4.1
Atlantic	530.5	378.8	143.6	157.8	77.4	15.3	136.5	0.0	3.8
NY138	433.8	334.0	89.6	133.4	111.0	0.0	99.8	0.0	4.1
CO00197-3W	370.7	282.1	109.0	126.3	46.8	0.0	88.6	0.0	3.7
NDTX059828-2W	434.8	188.4	188.4	0.0	0.0	0.0	246.4	0.0	3.5
BTX1749-1W/Y	237.3	113.0	66.2	46.8	0.0	0.0	124.2	0.0	3.7
Average	425.1	283.1	111.0	111.3	60.8	19.7	122.4	0.0	3.8
L.S.D. (.05)									

¹ 1=very poor to 5= excellent

Dalhart
Table 19b.

Percent by weight of U.S. No. 1, over 18 ounce, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Zebra Free Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Russet Norkotah	74.0	12.7	37.5	23.8	18.9	7.1	0.0	1.067	14.4	Long	Russet
Atlantic	71.4	27.1	29.8	14.6	2.9	25.7	0.0	1.078	16.5	Round	White
NY138	77.0	20.7	30.8	25.6	0.0	23.0	0.0	1.073	15.5	Round	White
CO00197-3W	76.1	29.4	34.1	12.6	0.0	23.9	0.0	1.077	16.3	Oblong	White
NDTX059828-2W	43.3	43.3	0.0	0.0	0.0	56.7	0.0	1.057	12.7	Round	White
BTX1749-1W/Y	47.6	27.9	19.7	0.0	0.0	52.4	0.0	1.075	15.8	Round	White
Average L.S.D. (.05)	64.9	26.8	25.3	12.8	3.6	31.5	0.0	1.071	15.2		

Dalhart
Table 19c. Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Zebra Free Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
					Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Russet Norkotah	5.9	8.2	94	98	1.3	3.8	2.1	3.6	59
Atlantic	10.0	5.2	55	81	1.7	3.8	3.7	3.7	19
NY138	6.4	6.1	68	88	1.4	3.1	3.1	3.2	50
CO00197-3W	9.0	4.4	35	76	2.5	3.6	4.3	3.7	11
NDTX059828-2W	13.5	3.1	78	83	1.7	3.0	3.5	3.3	35
BTX1749-1W/Y	9.4	3.7	49	65	1.9	3.4	4.0	3.6	13
Average L.S.D. (.05)	9.0	5.1	63	82	1.7	3.4	3.4	3.5	31

¹ 1= upright, 2= semiprostrate, 3= prostrate

² 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

³ 1= very early, 2= early, 3= medium, 4=late, 5= very late

⁴ 1=very small, 2=small, 3=medium, 4=large, 5=very large

Springlake
Table 1d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Zebra Free Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Russet Norkotah	1.0	5.0	4.5	3.7	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Atlantic	1.0	2.1	2.4	4.0	2.7	5.0	5.0	5.0	5.0	5.0	15	0	3	13
NY138	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO00197-3W	1.0	3.3	1.3	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	5	0
NDTX059828-2W	1.0	1.5	1.0	3.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
BTX1749-1W/Y	2.9	1.5	1.5	3.9	1.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.3	2.5	1.9	3.9	1.9	5.0	5.0	5.0	5.0	5.0	3	0	1	2

¹ 1=light to 5=dark
² 1=round to 5=long
³ 1=none to 5=heavy
⁴ 1=deep to 5=shallow
⁵ 1=light to 5=dark
⁶ 1 to 5=none
⁷ 1 to 5=none
⁸ 1 to 5=none
⁹ 1 to 5=none
¹⁰ 1 to 5=none
¹¹ Stem end vascular discoloration severely evaluated

Dalhart

Table 19e. Notes and general rating for all reps of 6 entries in the Zebra Free Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Russet Norkotah	, , ,	nice flesh, Rhizoctonia, ,	4, 4.5, 4, 4	3.7, 3.7, 3.5, 3.5
Atlantic	, , ,	Buff, Oversize, Buff, ,	4, 3.5, 4, 3.5	4, 3.6, 3.7, 3.4
NY138	, , ,	, , Smooth, Drop, Rhizoctonia, , Rough, Pointed, Drop,	4.5, 4, 4, 4	3.4, 3.8, 3.4, 3
CO00197-3W	, shape?, ,	Rhizoctonia++, nice flesh	3.5, 4, 3.5, 3.7	2.5, 2, 2, 2.8
NDTX059828-2W	small, , ,	, Pronounced Eyes, small, low yield	4, 3.5, 3.2, 3.3	2.8, 2.8, 2.8, 2.8
BTX1749-1W/Y	, , ,	, Deep nose, Drop, Keep for ZC, Rhizoctonia,	3.8, 3.5, 4, 3.5	3.5, 3.4, 3.8, 3.5

Dalhart
Table 19f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra
Chip at chipping of each market class of 6 entries in the Zebra Free Selection Trial grown near Dalhart, Texas-2009.

Variety or Selection	Class	Gravity	% Solids	Tuber General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect
Russet Norkotah	< 4 oz.	1.067	14.4	3.6	2	19/10		0%
	4-6 oz.				2	10/4		29%
	6-10 oz.				2	37/20		18%
	> 10 oz.				0	/		0%
Atlantic	< 4 oz.	1.078	16.5	3.7	1	64/9	9 mb	0%
	4-6 oz.				1	30/12	8 mb	0%
	6-10 oz.				1	20/12	12 mb	0%
	> 10 oz.				1	4/8	8 mb	0%
NY138	< 4 oz.	1.073	15.5	3.4	1+	37/5		0%
	4-6 oz.				1+	21/0	BOT	0%
	6-10 oz.				1+	25/4		0%
	> 10 oz.				1+	16/0	BOT	0%
CO00197-3W	< 4 oz.	1.077	16.3	2.3	1	36/19	1 Z MISSED	27%
	4-6 oz.				1	24/11	2 Z MISSED	31%
	6-10 oz.				1	22/9	1 Z MISSED	29%
	> 10 oz.				1	3/4		57%
NDTX059828-2W	< 4 oz.	1.057	12.7	2.8	1+	111/45	6gh,3mb	7%
	4-6 oz.				1	44/13	1bc,2 dark	4%
	6-10 oz.				0	/		0%
	> 10 oz.				0	/		0%
BTX1749-1W/Y	< 4 oz.	1.075	15.8	3.6	2	70/4	1 dark	0%
	4-6 oz.				2	14/4		0%
	6-10 oz.				2	7/2	1 bc	0%
	> 10 oz.				2	3/2		0%
Average		1.071	15.2	3.2				8%

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365°F corn oil.

¹1=poor, 5=excellent

²1=light, 3+=very dark

³BOT=Best Of Trial, Vas=vascular heat necrosis, Dark=high sugars, BSB=blackspot bruise, HH=hollow heart, IBS=internal brownspot, SE=sugar ends, PB= pressure bruise, GH=greenheads, Z=zebra

Appendix A. General notes on potato varieties or selections – 2009.

A0008-1TE - Oblong Russet. Parentage (Blazer Russet x A95109-1). Cross was made and selected in Aberdeen. Medium-early maturity. Small vine size. White flower color.

Uses: Dual.

Strengths: blocky, smooth, nice shape, keep

Weaknesses: yield- Rhizoctonia

Cutting Notes: nice shape, small

A00286-3Y - Oblong White/Yellow. Parentage (NDA5507-3Y x A89655-5DY). Cross was made and selected in Aberdeen. Medium-late maturity. Medium large vine size. Medium red-purple flower color.

Uses: Specialty.

Strengths: nice internals, red splash eyes

Weaknesses: second growth heat sprouts, drop,

Cutting Notes: pink eyes, small, rough

A00293-2Y - Oval Yellow//Yellow. Parentage (Agria x TXA1655-1DY). Cross was made and selected in Aberdeen. Medium early maturity. Medium vine size. White flower color.

Uses: Specialty.

Strengths: nice shape

Weaknesses: small, heat sprouts, pointed, drop

Cutting Notes: small, poor shape

A96814-65LB - Oblong Russet. Parentage (AWN86514-2 x A91194-3). Cross was made and selected in Aberdeen. Late maturity. Large vine size. White flower color.

Uses: Process.

Strengths: blocky

Weaknesses: coarse Russ heat sprouts, drop+

Cutting Notes: nice shape, small

A97066-42LB - Oblong Light Russet. Parentage (AWN86514-2 x A86102-6). Cross was made and selected in Aberdeen. Medium maturity. Medium large vine size. White flower color

Uses: Dual.

Strengths: blocky

Weaknesses: heat sprouts, Rhizoctonia, drop+

Cutting Notes: knobs, blocky

A98345-1 - Long Russet. Parentage (Ranger R x Premier). Cross was made and selected in Aberdeen. Medium maturity. Medium vine size. White flower color.

Uses: Dual.

Strengths: blocky

Weaknesses: heat sprouts+, drop+

Cutting Notes: some pear shaped, light skin

A99326-1PY - Oblong Purple/Yellow. Parentage (Agria x COA94019-5R). Cross was made and selected in Aberdeen. Medium-early maturity. Medium-small vine size. Medium purple flower color.

Uses: Fresh.

Strengths: nice size and shape, yield+

Weaknesses: late, oversize+, lenticels, silver scurf+
Cutting Notes: nice shape and flesh

AC00271-1R - Oblong-Long Red. Parentage (Colorado Rose x NDO2686-6R). Cross was made in Aberdeen and selected in Colorado.

Uses: Fresh.
Strengths:
Weaknesses:
Cutting Notes: too oblong to long

AC97306-1RU - Oblong Russet. Parentage (A92201-1 x A8495-1). Cross was made in Aberdeen and selected in Colorado.

Uses: fresh.
Strengths:
Weaknesses: Rhizoctonia, drop+
Cutting Notes: very nice

AC99329-7PW/Y - Round Purple-White/Yellow. Parentage (Inca Gold x A91846-5R). Cross was made in Aberdeen, and selected in Colorado. Medium maturity. Large-very large vine. Purple flower color.

Uses: Specialty
Strengths: nice purple color, purple white skin
Weaknesses: rough, deep eyes
Cutting Notes: pinto

AC99330-1P/Y - Round Purple/Yellow. Parentage (Inca Gold x A89655-5DY). Cross was made in Aberdeen, and selected in Colorado. Early maturity. Large vine. Blue flower color.

Uses: Specialty.
Strengths: heavy set, yield+
Weaknesses: late, lenticels+, salad?+, drop
Cutting Notes: nice shape and flesh

AC99375-1RU - Oblong Russet. Parentage (AWN86514-2 x A89384-10). Cross was made in Aberdeen, and selected in Colorado. Medium maturity. Large vine. White flower color.

Uses: Duel.
Strengths: blocky++, very white flesh
Weaknesses: small, Rhizoctonia, heat sprouts, poor shape, drop++,
Cutting Notes: purple streaks in flesh

AF2291-10 - Oblong White. Parentage (SA8211-6 x EB8109-1). Cross was made and selected in Maine at the Aroostook Farm. Medium-late maturity.

Uses: Chip
Strength
Weaknesses: many culls, rough+, Rhizoctonia+, oversize, drop+
Cutting Notes: nice flesh, deep eyes, rough

AO96305-3 - Long Russet. Parentage (A91018-6 x A89152-4). Cross was made in Aberdeen, and selected in Oregon. Medium maturity. Medium vine. Red-purple flower color.

Uses: Duel.
Strengths: nice flesh
Weaknesses: uneven net, drop for appearance, long skinny, rot

Cutting Notes: nice shape, small

AO96365-2 - Long Russet. Parentage (A91141-1 x Ranger). Cross was made in Aberdeen, and selected in Oregon. Medium maturity. Medium vine. Red-purple flower color.

Uses: Duel.

Strengths: heavy set

Weaknesses: blocky, some pointed to stem end, drop+

Cutting Notes: nice

AOTX02060-1Ru - Oblong Russet. Parentage (A97201-4 x A93157-6LS). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: blocky nice+, nice flesh, keep+, BOT

Weaknesses: deep eyes light set, growth cracks drop+

Cutting Notes: rough, blocky, small

AOTX03657-1Ru - Oblong Russet. Parentage (A97039-23 x COA96054-3). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes: small, skinny

AOTX05096-4Ru - Oblong Russet. Parentage (A00082-6 x A97214-4). Cross was made in Aberdeen, tuberling p produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes: shriveled, flat, skinny, poor internals

AOTX06016-1Ru - Oblong Russet. Parentage (A99031-1TE x A98104-4). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

AOTX06026-1Ru- Oblong Russet. Parentage (A99034-2E x AONDTX95249-1Russ). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

AOTX06048-1Ru - Oblong Russet. Parentage (Blazer Russet x A00082-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes

AOTX06077-1Ru - Oblong Russet. Parentage (A96013-2 x A00614-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

AOTX06116-1Ru - Oblong Russet. Parentage (A99134-1 x AONDTX95249-1Russ). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

AOTX91861-4R - Oblong Red. Parentage (Red LaSoda X ND2224-5R). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: yield+ Red LaSoda like, yield+, Advance to SW

Weaknesses: deep eyes, Rhizoctonia++, drop?

Cutting Notes: nice, large tubers, nice flesh

AOTX93483-1R - Oblong Red. Parentage (NDO2686-6R X AD82705-1R). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: nice flesh

Weaknesses: large tubers light set oversize, Rhizoctonia pointed, drop?+, drop+

Cutting Notes: nice shape, feathering, nice flesh and shape

AOTX95265-1Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Large vine size.

Uses: Fresh.

Strengths: long, nice internals, Norkotah like nice shape, Advance to WR, keep

Weaknesses: rot, some pointed

Cutting Notes: nice shape, small

AOTX95265-2ARu - Long Russet. Parentage (A89216-9 X A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: long

Weaknesses: Rhizoctonia, rough+, deep eyes, hollow heart, drop

Cutting Notes: nice shape and size

AOTX95265-3Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium maturity. Medium vine size.

Uses: Fresh.

Strengths: long, good shape, nice, BOT-

Weaknesses:

Cutting Notes: small, blocky

AOTX95265-4Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-late maturity. Medium-large vine size. White flower color.

Uses: Fresh.

Strengths: heavy set, blocky

Weaknesses: poor skin finish, Rhizoctonia, heavy net small, +, drop++

Cutting Notes: skinny, curved, rough, small

AOTX95295-1W - Round White. Parentage (A89804-7 x Ranger Russet). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Chip.

Strengths: nice

Weaknesses:

Cutting Notes: rough, nice flesh, long sprouts, rough, greening

AOTX95309-3W - Round White. Parentage (A9055-8LS x A89163-3LS). Cross was made in Aberdeen, produced in Oregon, and selected in Texas. Late maturity. Large vine size.

Uses: Chip.

Strengths: smooth

Weaknesses rough, flat, drop

Cutting Notes: nice shape, small, long sprouts

AOTX96084-1Ru - Oblong Russet. Parentage (A8792-1 X A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas...

Uses: Fresh.

Strengths: nice, long

Weaknesses: some pointed, oversize, rot, drop

Cutting Notes: small, skinny

AOTX96208-1Ru - Long Russet. Parentage (A9057-7 x A91194-3). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Large vine size.

Uses: Fresh.

Strengths: nice shape, BOT

Weaknesses: 10% tuber moth pointed, drop?, drop+

Cutting Notes: very small, skinny

AOTX96216-2Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: nice shape+, large, large tubers very nice interior, ATX84378-6Ru like, parent BOT-

Weaknesses: rough Rhizoctonia

Cutting Notes: BOT, blocky, flat

AOTX96265-2Ru - Oblong Russet. Parentage (A90621-4 X A84180-8). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: long nice shape, advance to WR, BOT-, BOT+

Weaknesses: large tubers Rhizoctonia, hollow heart drop

Cutting Notes: nice, nice shape and flesh, small

AOTX98096-1Ru - Oblong Russet. Parentage (Shepody x A92158-3). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: nice shape+, BOT

Weaknesses: light set, low yield+, Rhizoctonia, drop

Cutting Notes: very small

AOTX98152-3Ru - Oblong Russet. Parentage (A88338-1 X A9201-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium early maturity. Medium vine size.

Lavender flower color.

Uses: Fresh.

Strengths: blocky+, keep, BOT++

Weaknesses: rot+ Rhizoctonia+, large tubers rough, poor internals, drop++

Cutting Notes: small, nice shape, nice white flesh

AOTX98202-1Ru - Oblong Russet. Parentage (A9201-6 X A9014-2). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: BOT+

Weaknesses: poor shape, pointed, drop?

Cutting Notes: small, skinny

ATC00293-1W/Y - Oblong White/Yellow. Parentage (Agria x TXA1655-1DY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Colorado. Medium maturity. Large vine size.

Purple flower color.

Uses: Fresh.

Strengths:

Weaknesses:

Cutting Notes: nice large tubers

Atlantic - Round White. Parentage (Wauseon x B5141-6). Cross was-made in Beltsville, Maryland, and selected in Maine. Released in 1976 by USDA-ARS, Florida, Virginia, New Jersey and Maine Agricultural Experiment Stations. Medium maturity. Medium vine size. Pale lavender flower color.

Uses: Chip.

Strengths: High yield, high specific gravity, low sugar buildup in storage, chips well directly from field short term storage at 50o, uniform tuber size and shape, tolerant to scab and Verticillium wilt, resistant to pink eye and highly resistant to race A of golden nematode, PVX and tuber net necrosis.

Weaknesses: Very susceptible to internal heat necrosis, particularly in sandy soils in warm, dry seasons, susceptible to hollow heart, shatter bruise, Rhizoctonia and storage rots, buff skin

Oversize

Cutting Notes: buff skin, nice flesh

ATTX00289-5R/Y - Round Red/Yellow. Parentage (NDA5507-3 X TXA1655-1DY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: nice shape and yield heavy set, smooth, Advance to SW

Weaknesses: rough, poor internals, very light red++ heat sprouts light skin poor color and shape++, Rhizoctonia, drop++

Cutting Notes: light red skin, nice shape

ATTX00289-6Y/Y - Round Yellow/Yellow. Parentage (NDA5507-3 X TXA1655-1DY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: nice

Weaknesses: growth cracks, Rhizoctonia+, red splotches, oversize, heat sprouts, pointed very light flesh, poor skin color+, heat sprouts, drop++

Cutting Notes: very light red skin and yellow flesh, nice flesh

ATTX01178-1R - Round Red. Parentage (ND5084-3R x Winema). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: nice shape

Weaknesses: Rhizoctonia+, Red LaSoda like, deep eyes, drop

Cutting Notes: very nice shape, feathering

ATTX02247-1R (fing) - Long Red. Parentage (A096863-8 X ND5256-7R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX02249-1R - Oblong Red/Yellow. Parentage (A92653-6R X Granola). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03446-3W - Oblong White. Parentage (A96920-17 x MSI152A). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03446-4W - Oblong White. Parentage (A96920-17 x MSI152A). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03474-1W - Round White. Parentage (NDTX493O-5W X C0A96141-4). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03474-2W - Oblong White. Parentage (NDTX493O-5W X C0A96141-4). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03474-3W - Oblong White. Parentage (NDTX493O-5W X C0A96141-4). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03475-2W - Oblong White. Parentage (NDTX493O-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03475-6W - Round-Oblong White. Parentage (NDTX493O-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03476-2W - Oblong White. Parentage (NDTX493O-5W X Chipeta). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX03553-1P/Y -Round Purple/Yellow. Parentage (Inca Gold X A096747-2RJY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX05175-1R/Y - Oblong Red/Yellow. Parentage (A99331-2RY X C0A99261-IRY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATTX05191-3R/Y - Oblong Red/Yellow. Parentage (Luna323 X Modoc). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.
Strengths: keep
Weaknesses:
Cutting Notes:

ATTX961014-1BR/Y - Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early maturity. Medium vine size. Purple flower color.

Uses: Specialty.
Strengths: keep, BOT,
Weaknesses: ZC?, vascular discoloration
Cutting Notes: not as much purple streaks as -1R/Y

ATTX961014-1R/Y - Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early maturity. Medium vine size. Purple flower color.

Uses: Specialty.
Strengths: nice yield smooth, BOT-, BOT+++
Weaknesses: smaller tubers Rhizoctonia+, silver scurf, roadmap, heat sprouts
Cutting Notes: nice shape and skin, purple streaks in flesh, light flesh

ATTX98444-16R/Y - Oblong Red/Yellow. Parentage (A83360-9R X T48YF). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.
Strengths: very nice, nice skin finish, nice size and shape BOT
Weaknesses: silver scurf some big tubers
Cutting Notes: very nice, some larger tubers

ATTX98453-11BR - Round Red. Parentage (A93490-1R X A91846-5R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.
Strengths: Nice shape & color, nice internals, nice skin finish, BOT+
Weaknesses:
Cutting Notes: feathering, nice, small

ATTX98453-6R - Round Red. Parentage (A93490-1R x A91846-5R). Cross was made in Aberdeen, tuberling produced in Texas and selected in Texas. Late maturity. Medium-large vine size.

Uses: Fresh.
Strengths: nice, smooth skin, nice flesh, keep
Weaknesses: poor skin finish, silver scurf, Rhizoctonia
Cutting Notes: nice flesh, BOT

ATTX98466-5R/W-R - Round White. Parentage (ND2051-1Ru x A7961-1). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Chip.
Strengths: Red Streak in Flesh, Smooth
Weaknesses:
Cutting Notes: red ring in flesh

ATX98493-1R/Y - Round Red/Yellow. Parentage (94A2-3Y X BO811-13RY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: nice, nice shape

Weakness: low yield, light skin, some pointed, ++drop

Cutting Notes: very yellow flesh, nice

ATX98500-2P/Y - Oblong-Purple/Yellow. Parentage (P94A2-4Y X Granola). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Late maturity. Large vine size. Purple flower color

Uses: Specialty.

Strengths: nice yield, Heavy yield

Weaknesses: poor shape+, late+, rough, drop++

Cutting Notes: BOT-, nice flesh, shape and skin

ATX98500-3P-W/Y - Oblong-Pinto/Yellow. Parentage (P94A2-4Y X Granola). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Late maturity. Large vine size. Purple flower color

Uses: Specialty.

Strengths:

Weaknesses: pointed+, Rhizoctonia drop?, drop

Cutting Notes: curved

ATX98518-5Pu/Y - Round Purple/Yellow. Parentage (Agria X A83350-9R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: oblong nice shape, smooth, BOT

Weaknesses: large tubers pointed, roadmap poor shape, rough, drop++

Cutting Notes: faded skin color, nice flesh, light flesh, purple streaks

ATX99325-1P - Oblong Purple/White. Parentage (AGRIA X W1100R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths: nice internals, nice color keep??, keep, pretty purple skin

Weaknesses: low yield poor shape feathering drop?, drop

Cutting Notes: shriveled, nice skin

ATX02263-1R/Y - Oblong Red/Yellow. Parentage (Inca Gold x A92653-6R). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: slight buff BOT-, BOT,

Weaknesses: some pointed, too big, drop?

Cutting Notes: nice skin, light flesh

ATX03068-1Ru - Oblong Russet. Parentage (A95109-1 x Silverton Russet). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: blocky

Weaknesses: light set, Rhizoctonia, drop+++

Cutting Notes: small, oblong to round

ATX03409-6W/Y - Oblong White-Buff. Parentage (Summit Russet x A96013-2). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: buff skin, nice shape

Weaknesses: small, mix smooth and buff, Buff+, drop

Cutting Notes: nice shape, buff, small, white flesh

ATX03496-3Y/Y - Oblong Yellow/Yellow. Parentage (NDTX4271-5R x AO93487-2R). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: heavy set, small potato, keep??, keep+

Weaknesses: pointed heat sprouts, pronounced lenticels, low yield drop?

Cutting Notes: small, nice flesh

ATX03515-1R/Y - Oblong Red/Yellow. Parentage (A961014-12RY x NDC5281-2). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice flesh smooth, BOT

Weaknesses: low yield+, light skin, drop+

Cutting Notes: nice flesh, rough, light flesh, shriveled

ATX03516-2R - Oblong Red. Parentage (A961014-12RY x NDTX4271-5R). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice color & shape, nice, nice skin finish, smooth, keep

Weaknesses: sticky stem, small

Cutting Notes: very large tubers, nice flesh and skin, shape-

ATX03545-1R - Oblong Red/Yellow. Parentage (A97521-3R x AO96747-2R/Y). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses: silver scurf, drop+

Cutting Notes: nice flesh and shape

ATX03546-1W/Y - Oblong White/Yellow. Parentage (ATA98472-2Y x A97523-1RY). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice skin finish, small potato very yellow flesh

Weaknesses: heat sprouts

Cutting Notes: odd skin color, small

ATX03546-1W/Y-P - Oblong White/Yellow. Parentage (ATA98472-2Y x A97523-1RY). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice skin finish, salad

Weaknesses: some big tubers

Cutting Notes: yellow flesh with purple streaks

ATX03546-2R/Y - Oblong White/Yellow. Parentage (ATA98472-2Y x A97523-1RY). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: very yellow flesh, keep yellow flesh

Weaknesses: white and yellow flesh mix drop, drop?

Cutting Notes: very firm, stored very well, BOT-

ATX03550-2R - Oblong Red. Parentage (NDTX4271-5R x AO96747-2R/Y). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice color, smooth skin, Viking like, nice flesh

Weaknesses: large, light set++, low yield, drop?

Cutting Notes: very large tubers, poor shape

ATX05114-1Ru - Oblong Russet. Parentage (TC1675-1RU x A97229-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: long, nice flesh, keep

Weaknesses: skin too light, long pointed, drop?, drop+

Cutting Notes: very large, light russet skin

ATX05142-2Ru - Oblong Russet. Parentage (Rio Grande R. x A97214-4). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice interior, smooth, Stampede Russet like

Weaknesses: pointed+, small, drop, drop?

Cutting Notes: nice, hollow heart, large tubers

ATX05175-3R/Y - Oblong Red. Parentage (A99331-2RY x VC1075-1R). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: very yellow flesh, small potato??

Weaknesses: poor shape+, drop

Cutting Notes: very dark flesh, nice skin color, BOT

ATX05178-2P - Oblong Purple/White. Parentage (A99331-2RY x Durango Red). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice color+

Weaknesses: poor shape, sticky stolon, rough, drop+++

Cutting Notes: smooth skin, white flesh

ATX05188-1Y/Y - Oblong Yellow/Yellow. Parentage (Durango Red x Modoc). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATX05202-3W/Y - Oblong White/Yellow. Parentage (A00286-3Y x A99433-5Y). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice, heavy set, nice flesh, nice skin finish, BOT

Weaknesses: drop

Cutting Notes: small potatoes

ATX06173-2W - Oblong White. Parentage (A00068-5 x Premier Russet). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATX06206-6W/Y - Oblong White/Yellow. Parentage (A99007-12 x AOA95154-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATX06206-9W - Oblong White. Parentage (A99007-12 x AOA95154-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATX06282-1R/Y - Oblong Red/Yellow. Parentage (COA99261-1RY x US 147-96 R/Y). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATX06354-1W/Y - Oblong White/Yellow. Parentage (COA99261-1RY x US 147-96 R/Y). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

ATX84378-6Ru - Oblong-Long Russet. Parentage (A79141-9 x ND329-1). Cross was made in Aberdeen, and selected in Texas.

Uses: Fresh.

Strengths: blocky, large tubers, nice white flesh, BOT

Weaknesses: light set growth cracks, rough

Cutting Notes: rough, hollow heart, small

ATX85404-8W - Round White. Parentage (Gemchip x ND860-2). Cross was made in Aberdeen and selected in Texas. Medium-late maturity. Medium-large vine size. White flower color.

Uses: Chip.

Strengths: Nice, BOT

Weaknesses:

Cutting Notes: very long sprouts, greening, nice flesh, rough

ATX91137-1Ru - Oblong Russet. Parentage (A81473-2 x A8343-12) Cross was made in Aberdeen, and selected in Texas.

Uses: Fresh.

Strengths: nice shape, send to ROB, smooth, blocky, high yield, BOT+

Weaknesses: Rhizoctonia

Cutting Notes: rough, growth cracks, small, blocky

ATX9132-2Y - Round Yellow/Yellow. Parentage (??). Cross was made in Aberdeen and selected in Texas.

Uses:

Strengths: parent

Weaknesses: rough, Rhizoctonia, many very small tubers, deep eyes, drop++

Cutting Notes: very small, poor shape, nice flesh, deep eyes, rough, deep yellow, drop

ATX9202-3Ru - Oblong Russet. Parentage (A8343-12 x A8495-1) Cross was made in Aberdeen, and selected in Texas.

Uses: Fresh.

Strengths: blocky high yield, nice interior, nice flesh, send to ROB, BOT

Weaknesses: Rhizoctonia, poor shape, rough, deep eyes, drop+

Cutting Notes: blocky, small, purple streaks in flesh

ATX9332-12Ru - Oblong Russet. Parentage (A8850-1 x A88288-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh

Strengths: nice interior

Weaknesses: poor skin finish, stem end darkening, skin not very nice, drop+++

Cutting Notes: skinny, light skin, poor skin finish, blocky, nice, hollow heart

ATX97147-4Ru - Long Russet. Parentage (A79180-10 x A88236-6). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: high yield nice interior

Weaknesses: curved, too long rough, many culls, Rhizoctonia++, shape-growth cracks, drop+++

Cutting Notes: rough, nice

ATX97232-1Ru - Oblong Russet. Parentage (A90609-6 x COO83008-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: blocky, nice flesh, high yield, smooth, keep

Weaknesses: light russet, Rhizoctonia drop

Cutting Notes: small, nice

ATX98448-6R/Y - Round Red/Yellow. Parentage (A92657-1R X A89655-5DY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: yield+, Advance to SW

Weaknesses: eye tubers, light red skin++, deep eyes, rough poor color and shape+, drop++, drop?+

Cutting Notes: light red skin, nice shape and flesh, very light flesh, large tubers

ATX99013-1Ru - Long Russet. Parentage (A8893-1 x A91186-2). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: nice flesh, Advance to SWR, keep+

Weaknesses: curved, Rhizoctonia skinny drop+

Cutting Notes: nice shape, some curved, skinny

ATX99194-3Ru - Oblong Russet. Parentage (A94137-1 x GemStar Russet). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: blocky+

Weaknesses poor skin finish, drop++, drop?

Cutting Notes: blocky, light russet, large tubers

Banana - Long White. Parentage (Grown in British Columbia for over 90 years. Research indicates that the variety might have been introduced to early settlers and natives by Russian fur traders. The exact origin, parental lines or breeding techniques used in its development are not known.)

Uses: Specialty.

Strengths: Heavy Set

Weaknesses: greenheads, Rhizoctonia, crooked, rough, second growth lenticels, curved, poor shape, heat sprouts

Cutting Notes: poor shape, skinny, curved, smooth, light yellow flesh

BTX1544-2W/Y - Oblong White/Yellow. Parentage (BO811-13 x Yukon Gold). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Medium vine size.

Uses: Specialty.

Strengths: Buff+ russet skin

Weaknesses: ugly skin finish+, drop

Cutting Notes: some dumbbell, rough

BTX1749-1W/Y - Oblong White/Yellow. Parentage (K7-6 x BO925-4). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size.

Uses: Specialty.

Strengths: keep for ZC

Weaknesses: deep nose, Rhizoctonia, drop

Cutting Notes: nice, ok

BTX2103-1R/Y - Oblong Red/Yellow. Parentage (BO811-13 x ARS-W82-21285-1). Cross was made in Beltsville, Maryland and selected in Texas.

Uses: Specialty.

Strengths: very heavy set, B's uniform, nice yield, BOT

Weaknesses: poor shape and skin, drop?

Cutting Notes: nice skin and flesh, small

BTX2332-1R - Round Red. Parentage (B1523-4 x Super Red Norland). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.

Strengths: yield+, heavy set BOT+++

Weaknesses: Rhizoctonia+, oversize poor internals

Cutting Notes: lot of purple streaks in flesh, nice shape and color

Chipeta - Oblong White. Parentage (WNC612-13 x Wischip). Cross was made in Aberdeen and selected in Colorado. Released by USDA-ARS, Aberdeen, and Colorado Agricultural Experiment Stations. Late maturity. Large vine size. Red-Reddish purple corollas and large yellow anthers.

Uses: Chip and French fries.

Strengths: High yield potential, high specific gravity and low sugar accumulation in storage will occasionally chip out of 40o storage, resistant to most internal and external defects including second growth, growth cracks, hollow heart, heat necrosis and blackspot bruises. Also resistant to leaf roll- induced net necrosis, Verticillium wilt, and both foliar and tuber phases of early blight BOT-++.

Weaknesses: Irregular shape, may oversize, buff skin, variable tuber size, skin feathering, some russet patches, green heads, susceptible to Rhizoctonia, common scab, and Fusarium dry rot, late maturity, deep eyes

Cutting Notes: very nice

CO00188-4W - Oblong White. Parentage (A90490-1W x BC0894-2W). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: Chip.

Strengths:

Weaknesses:

Cutting Notes: very oblong, nice shape

CO00197-3W - Oblong White. Parentage (A91790-13W x NDTX4930-5W). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: Chip.

Strengths: nice flesh

Weaknesses: shape?, Rhizoctonia++, , rough, pointed, drop

Cutting Notes: very oblong, nice shape and flesh

CO00270-7W - Oblong White. Parentage (BC0894-2W x A91790-13W). Cross was made and selected in Colorado. Early-medium maturity. Medium vine size. Purple flower color.

Uses: Fresh.

Strengths:

Weaknesses: Rhizoctonia

Cutting Notes: large tubers, very white flesh, smooth, nice

CO00277-2R - Round Red. Parentage (CO89097-2R x CO94065-2R). Cross was made and selected in Colorado. Very early maturity. Medium vine size. Red-purple flower color.

Uses: Fresh.

Strengths:

Weaknesses:

Cutting Notes: hollow heart, nice shape

CO00291-5R - Round Red. Parentage (CO94019-1R x NDC5281-2R). Cross was made and selected in Colorado. Medium maturity. Large vine size. Red-purple flower color.

Uses: Fresh.

Strengths:

Weaknesses:

Cutting Notes: nice round shape, dark skin color

CO00379-2R/Y - Oblong Red/Yellow. Parentage (VC0967-2R/Y x NDC6174-1R). Cross was made and selected in Colorado. Early-medium maturity. Small-medium vine size. Purple flower color.

Uses: Specialty.

Strengths:

Weaknesses:

Cutting Notes: nice flesh, skinny and pointed

CO00405-1R - Long Red. Parentage (Banana x NDC6174-1R). Cross was made and selected in Colorado. Very early maturity. Small vine size. Purple flower color.

Uses: Specialty.

Strengths:

Weaknesses: second growth, pointed+

Cutting Notes: large for a fingerling

CO00412-5W/Y - Oblong White/Yellow. Parentage (German Butterball x TX1523-1RU/Y). Cross was made and selected in Colorado. Medium maturity. Large vine size. Purple flower color.

Uses: Specialty.

Strengths:

Weaknesses: poor internals, small, russet skin, drop++

Cutting Notes: nice shape and flesh

CO00415-1R - Long Red. Parentage (Kipfel x NDC5281-2R). Cross was made and selected in Colorado. Very early maturity. Medium vine size. Purple flower color.

Uses: Specialty.

Strengths: nice flesh, good skin finish, nice, BOT

Weaknesses: silver scurf, can oversize, second growth

Cutting Notes: large for a fingerling

CO01399-10P/Y - Round Purple/Yellow. Parentage (VC1015-5P/Y x Colorado Rose). Cross was made and selected in Colorado. Medium maturity. Large vine size. Purple flower color.

Uses: Specialty.

Strengths:

Weaknesses: poor internals, late++ poor skin finish, drop

Cutting Notes: large tubers, nice shape and skin, light yellow flesh

CO96141-4W - Round White. Parentage (BC0894-2 x AC87340-2). Cross was made and selected in Colorado. Medium-early maturity. Medium-small vine size. White flower color.

Uses: Chip.

Strengths:

Weaknesses:

Cutting Notes: flat, very oblong, nice

CO97043-14W - Round White. Parentage (AC91817-5 x AC87340-2). Cross was made in and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: Chip.

Strengths:

Weaknesses: oversize-, flat, Rhizoctonia, soft, bruise, poor shape

Cutting Notes: nice shape and flesh, uniform

CO97065-7W - Round White. Parentage (AC92513-3 x Chipeta). Cross was made in and selected in Colorado. Medium maturity. Medium vine size. Red-purple flower color.

Uses: Chip.

Strengths:

Weaknesses: deep eyes, rough, drop+

Cutting Notes: very nice shape, uniform, some bigger

CO97087-2RU - Oblong Russet. Parentage (CO87009-4 x W1005). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: Fresh.

Strengths: nice flesh

Weaknesses: rough++

Cutting Notes: blocky, rough, very white flesh

CO98067-7RU - Long Russet. Parentage (Silverton Russet x TC1675-1). Cross was made and selected in Colorado. Early-medium maturity. Medium vine size. White flower color

Uses: Dual.

Strengths:

Weaknesses: flat, rot+

Cutting Notes: blocky, small, purple streaks in flesh

CO98368-2RU - Long Russet. Parentage (Russet Nugget x Bannock Russet). Cross was made and selected in Colorado. Medium-early maturity. Medium vine size. Purple flower color.

Uses: Dual.

Strengths: BOT

Weaknesses: pointed

Cutting Notes: small, skinny

CO99045-1W/Y - Long White/Yellow. Parentage (Rio Grande Russet x German Butterball). Cross was made and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: Specialty.

Strengths:

Weaknesses: variable color, small, heat sprouts, sticky stolon+, drop+

Cutting Notes: flat, blocky

CO99053-3RU - Long Russet. Parentage (AC91014-2 x Silverton Russet). Cross was made and selected in Colorado. Late maturity. Large vine size. White flower color

Uses: Dual.

Strengths: repeat, BOT-

Weaknesses: Rhizoctonia, too long, skinny, rot, drop

Cutting Notes: rough, skinny

CO99053-4RU - Long Russet. Parentage (AC91014-2 x Silverton Russet). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: Fresh.

Strengths:

Weaknesses: Rhizoctonia, pointed, skinny, light skin

Cutting Notes: nice

CO99076-6R - Round Red. Parentage (AC91848-1 x Rio Colorado). Cross was made and selected in Colorado.

Uses: Fresh.

Strengths:

Weaknesses:

Cutting Notes: nice dark skin color

CO99100-1RU - Oblong Russet. Parentage (AC93047-1 x Silverton Russet). Cross was made and selected in Colorado. Early maturity. Small-medium vine size. White flower color.

Uses: Dual.

Strengths: nice flesh and shape, smooth, BOT-

Weaknesses: low yield

Cutting Notes: BOT, very nice

CO99256-2R - Oblong Red. Parentage (Rio Colorado x Colorado Rose). Cross was made and selected in Colorado.

Uses: Fresh.

Strengths:

Weaknesses:

Cutting Notes: feathering, oblong, some purple streaks in flesh

CO99338-3RU/Y - Round Russet/Yellow. Parentage (Russet Nugget x Crispin). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: Specialty.

Strengths:

Weaknesses:

Cutting Notes: very light russet skin

COTX00104-7R - Oblong Red. Parentage (ND3574-5R x C086218-2). Cross was made in Colorado and selected in Texas. Medium-early maturity. Medium vine size.

Uses: Fresh.

Strengths: large tubers, nice color, keep

Weaknesses: growth cracks, lenticels

Cutting Notes: nice shape and color, small

COTX02377-1W - Round White-Buff. Parentage (Dakota Pearl x Chipeta). Cross was made in Colorado and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses: growth cracks, drop

Cutting Notes: nice shape and flesh, buff

COTX03025-1P/P - Oblong Purple/Purple. Parentage (CO94165-3P/P x PA97B36-3). Cross was made in Colorado and selected in Texas.

Uses: Specialty

Strengths:

Weaknesses: big tubers, roadmap, too big, white streak in flesh, buff, alligator hide, drop? ++

Cutting Notes: dark flesh

COTX03187-1W - Long White. Parentage (AC89536-5RU x A9304-3). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: nice flesh, smooth very white flesh

Weaknesses: second growth, can oversize lenticels

Cutting Notes: some skin problems, large for a fingerling, variable shape, and nice flesh

COTX03270-1W - Oblong White-Buff. Parentage (CO95007-1RU x AC96052-1RU). Cross was made in Colorado and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses: greenheads, some pear shape, poor internals, 10%PRV, pointed, small drop+++

Cutting Notes: small, nice flesh

COTX03303-1W - Oblong White. Parentage (CO96083-7RU X Silverton Russet). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX04050-1P/P - Oblong Purple/Purple. Parentage (CO97215-2P/P x CO97306-2P/P). Cross was made in Colorado and selected in Texas

Uses: Specialty.

Strengths: Anthocyanin studies, solid purple flesh, keep BOT++

Weaknesses: med buff skin, white center

Cutting Notes: very dark flesh, some larger tubers, smooth

COTX04178-1Y/Y - Oblong Yellow/Yellow. Parentage (ATC98444-1R/Y x CO99076-1R). Cross was made in Colorado and selected in Texas

Uses: Specialty.

Strengths: heavy set++ nice skin small potato

Weaknesses: not very yellow flesh, some pear shaped, drop?

Cutting Notes: small, very nice

COTX04188-3R/Y - Oblong Red/Yellow. Parentage (ATC98515-1R/Y x ATC98444-1R/Y). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses: mix white and yellow flesh, low yield+ silver scurf, drop++, sticky stolon

Cutting Notes: nice shape, flesh, and skin

COTX04193-2R/Y - Oblong Red/Yellow. Parentage (ATC98515-1R/Y x ND3574-5R). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: nice color, nice, dark red skin, dark yellow flesh, BOT

Weaknesses:

Cutting Notes: small, nice

COTX04267-1R/Y - Oblong Red/Yellow. Parentage (CO98012-5R x CO97232-2R/Y). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: small, light skin, very yellow, nice, yellow keep, BOT

Weaknesses: drop?

Cutting Notes: small, nice flesh

COTX04303-1R/Y - Round Red/Yellow. Parentage (CO99083-2R/Y x ATC98444-1R/Y) Cross was made in Colorado and selected in Texas

Uses: Specialty.

Strengths:

Weaknesses: many large tubers, large, yield-, low yield, poor shape, hollow heart, poor skin finish, silver scurf, drop+

Cutting Notes:

COTX05002-2Ru - Oblong Russet. Parentage (A95409-1 x CO96109-7RU). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses: low yield, W/P flower mix, rouge purple flower, large tubers, rot+, oversize, drop+++

Cutting Notes: very large tubers, rough, curved

COTX05037-4Y/Y - Oblong Yellow/Yellow. Parentage (AC99330-1P/Y x CO97227-2P/PW). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: BOT+

Weaknesses: some big tubers, poor shape, processing problems, chain tubers, Rhizoctonia, poor shape, drop++

Cutting Notes: light flesh, rough

COTX05037-5P/Y - Oblong Purple/Yellow. Parentage (AC99330-1P/Y x CO97227-2P/PW). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: nice color

Weaknesses: drop, small late++, drop+

Cutting Notes: small, nice flesh, rough

COTX05082-2P/P - Oblong Purple/Purple. Parentage (CO97227-2P/P x WMSG147-3). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: keep, very dark flesh

Weaknesses:

Cutting Notes: rough deep eyes, very dark flesh, keep for flesh

COTX05095-1Ru - Long Russet. Parentage (CO99045-1W/Y X AO96164-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.
Strengths: keep
Weaknesses:
Cutting Notes:

COTX05095-2Ru/Y - Oblong Russet/Yellow. Parentage (CO99045-1W/Y X AO96164-1). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.
Strengths: keep
Weaknesses:
Cutting Notes:

COTX05211-4R - Oblong Red. Parentage (CO98012-5R x CO00278-4R). Cross was made in Colorado and selected in Texas.

Uses: Fresh.
Strengths: nice shape, nice color, yield+
Weaknesses: silvers scurf, low yield, too long, lot of culls, pointed, drop?, drop
Cutting Notes: feathering, flesh not very white, poor internals, dark skin

COTX05211-5R - Oblong Red. Parentage (CO98012-5R x CO00278-4R). Cross was made in Colorado and selected in Texas.

Uses: Specialty.
Strengths: yield+
Weaknesses: low yield, poor shape, lenticels, growth cracks, pointed, poor shape, lot of culls drop+++
Cutting Notes: poor flesh not very white, light yellow flesh, shriveled

COTX05211-7R - Oblong Red. Parentage (CO98012-5R x CO00278-4R). Cross was made in Colorado and selected in Texas.

Uses: Fresh.
Strengths: nice color, b size, heavy set, keep
Weaknesses: very low yield, small drop
Cutting Notes: flesh not very white, light yellow flesh

COTX05249-3W/Y - Oblong White-Red/Yellow. Parentage (CO00320-1R x ATC98509-1R/Y). Cross was made in Colorado and selected in Texas.

Uses: Specialty.
Strengths: nice, all small tubers BOT
Weaknesses: chip??, poor internals
Cutting Notes: nice flesh

COTX05261-1R/Y - Oblong Red/Yellow. Parentage (CO00379-2R/Y x CO00278-4R). Cross was made in Colorado and selected in Texas.

Uses: Specialty.
Strengths: nice+ yield+
Weaknesses: variable color rot, lenticels pointed+, pear shape, pointed drop+

Cutting Notes: nice dark flesh, smooth, nice flesh, shape, and skin

COTX05261-2R/Y - Oblong Red/Yellow. Parentage (CO00379-2R/Y x CO00278-4R). Cross was made in Colorado and selected in Texas

Uses: Specialty.

Strengths: nice, keep

Weaknesses: silver scurf, variable color rot, lenticels pointed+, pear shape, pointed drop+

Cutting Notes:

COTX06052-2Ru - Oblong Russet. Parentage (CO95086-8RU X CO99100-1RU). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX06169-3R - Round Red. Parentage (AC00274-2R X CO01377-1R). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX06216-1R - Round Red. Parentage (CO99256-2R X CO01210-5R). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX06221-1Ru - Long Russet. Parentage (CO00208-1RU X CO98067-7RU). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX06235-2R/Y - Oblong Red/Yellow. Parentage (CO01288-2R X CO01399-11R/Y). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX06240-2R/Y - Oblong Red/Yellow. Parentage (CO01377-1R X CO01399-11R/Y). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX06245-3R/Y - Oblong Red/Yellow. Parentage (CO01399-11R/Y X A83350-9R). Cross was made in Colorado and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

COTX94216-1R - Round Red. Parentage (Purple Peruvian x Chipeta). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths: nice shape, yield+, heavy set

Weaknesses: zipper eyes, road map, poor skin finish, silver scurf, Rhizoctonia+, second growth, deep eyes, drop++

Cutting Notes: nice white flesh, nice shape

COTX94218-1R - Round Red. Parentage (Red Ruby x Red Gold). Cross was made in Colorado and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.

Strengths: yield, white flesh, nice shape

Weaknesses: late, Rhizoctonia stick stolon, drop+++

Cutting Notes: very nice, nice white flesh, nice shape

Dark Red Norland - Oblong Red. Parentage (Redkote x ND626). Cross was made and selected in North Dakota. Dark Red Norland is a clonal selection made by Stan Barrett of Texas and propagated by Gene Shaver, Nebraska. Early maturity. Medium vine size. Purple flower color.

Uses: Fresh.

Strengths: Early maturity, dark red tubers, high resistance to PVA and moderate resistance to common scab, PVY and PLRV.

Weaknesses: Tuber color will fade if allowed to fully mature, tubers exhibit variable tuber color and size, enlarged lenticels, will heat sprout and hollow heart, susceptible to PVS and early and late blights, rough, deep eyes, faded red skin, russetting silver scurf+, pointed Rhizoctonia

Cutting Notes: scab, shape-

Kalkaska - Round White. Parentage (B1254-1 X S440). Clone was developed by Michigan State University and the Michigan Agricultural Experiment Station. Later maturity. Large vine size.

Uses: Chip.

Strengths: Buff, BOT

Weaknesses:

Cutting Notes: nice shape, some brown center

King Harry - Round White Parentage () Cross was made and selected at Cornell University.

Uses: Fresh.

Strengths: larger tubers than prince

Weaknesses: nipple on apical end

Cutting Notes:

MSJ126-9Y - Round White. Parentage (). Clone was developed by Michigan State University and the Michigan Agricultural Experiment Station.

Uses: Chip.

Strengths: light yellow flesh (3), nice shape, buff, smooth
Weaknesses:
Cutting Notes: light yellow flesh, nice shape

NDTX039190-1R - Oblong Red. Parentage (ND 8089-2R x ND 4659-5R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh
Strengths: nice skin finish
Weaknesses: drop?, drop++
Cutting Notes: small

NDTX049265-2WRSP/Y - Oblong White Red Splash/Yellow. Parentage (ATND 99331-2 Pinto x Dakota Rose). Cross was made in North Dakota and selected in Texas.

Uses: Chip.
Strengths: yield+, keep
Weaknesses: drop?
Cutting Notes: rough, pear-shape

NDTX050025-1W/Y - Oblong White/Yellow. Parentage (ND 8083b-1pY x ATND 98459-1RY). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: heavy set+ smooth skin, small potato, good skin finish, keep
Weaknesses: drop
Cutting Notes: small

NDTX050054-3R - Oblong Red. Parentage (ND 8314-1R x ND 028601-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths:
Weaknesses: small heat sprouts
Cutting Notes: very light yellow flesh

NDTX050065-1R/Y - Round Red/Yellow. Parentage (ND 8375b-6R x ND 4756-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths:
Weaknesses: white flesh, small, alligator hide
Cutting Notes: very light yellow flesh

NDTX050070-1R - Oblong Red. Parentage (ND 8375b-6R x ND 8347CB-12R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: heavy set, B size, small
Weaknesses:
Cutting Notes: very light yellow flesh

NDTX050156-3R - Oblong Red. Parentage (ND 8531B-1R x ND 8553c-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: nice flesh

Weaknesses: some pointed, drop?
Cutting Notes: very light yellow flesh

NDTX050168-2R - Oblong Red. Parentage (ND 8553c-1R x ND 028822-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths:
Weaknesses: drop+
Cutting Notes: rot, light yellow flesh, poor shape, drop

NDTX050169-1R - Round Red. Parentage (ND 8555-8R x R 89063-83). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: heavy set, B size, keep?
Weaknesses:
Cutting Notes: small

NDTX050169-2W/Y - Oblong White/Yellow. Parentage (ND 8555-8R x R 89063-84). Cross was made in North Dakota and selected in Texas.

Uses: Specialty.
Strengths: good skin finish, heavy yield small potato?, keep
Weaknesses: very light flesh, drop?
Cutting Notes: odd skin color, light flesh, small, nice

NDTX050184-1R/Y - Oblong Red/Yellow. Parentage (ND 028577-6RY x ND 8555-8R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: yield nice, small, heavy set, small potato, BOT
Weaknesses:
Cutting Notes: shriveled, light flesh

NDTX050239-2R - Oblong Red. Parentage (ND 028685-1R x ND 8512C-17R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: smooth B size nice color, heavy set keep
Weaknesses: drop?
Cutting Notes: very dark skin, light yellow flesh

NDTX050241-3R - Round Red. Parentage (ND 028685-1R x ND 8083b-1pY). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths:
Weaknesses: growth cracks, drop?, drop++
Cutting Notes: nice dark skin, light yellow flesh

NDTX050241-4R - Oblong Red. Parentage (ND 028685-1R x ND 8083b-1pY). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths:
Weaknesses:

Cutting Notes: nice dark skin, light yellow flesh

NDTX050241-5R/Y - Round Red/Yellow. Parentage (ND 028685-1R x ND 8083b-1pY). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: very yellow

Weaknesses: poor shape, low yield many culls++, dumbbells drop?, drop++

Cutting Notes: some road map, nice shape and flesh

NDTX050243-4R/Y - Round Red/Yellow. Parentage (ND 028685-1R x ND 028674-9R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: heavy set

Weaknesses: silver scurf, white flesh, drop+

Cutting Notes: very light flesh

NDTX050249-1R - Round Red. Parentage (ND 028685-4RY x ND 7132-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: move to red trial, white flesh, keep

Weaknesses: Rhizoctonia

Cutting Notes: very light flesh

NDTX050258-2R/Y - Oblong Red. Parentage (ND 028770B-4R x ATND 98459-1RY). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: yield+

Weaknesses: light skin, poor shape, rough, deep eyes drop++

Cutting Notes: shriveled, flesh not very white, very light yellow flesh

NDTX050264-1W - Round White. Parentage (ND 028770B-4R x ND 028678-1RY). Cross was made in North Dakota and selected in Texas.

Uses: Specialty.

Strengths: keep

Weaknesses:

Cutting Notes:

NDTX059632-1W - Oblong White. Parentage (Dakota Pearl x ND 7377Cb-1). Cross was made in North Dakota and selected in Texas.

Uses: Chip

Strengths:

Weaknesses: small, rot, poor shape, drop

Cutting Notes: small

NDTX059759-3Pinto /Y-P - Oblong Pinto/Yellow. Parentage (ATND 99331-2 Pinto x ND 7834-2P). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: purple streak in flesh red/pinto, Keep

Weaknesses: rough mix of solid and purple streak in the flesh do not let oversize

Cutting Notes: pinto, purple streaks in flesh

NDTX059759-3Pinto/Y - Oblong Pinto/Yellow. Parentage (ATND 99331-2 Pinto x ND 7834-2P). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: purple streaking at stem end advance to SW/WR

Weaknesses: flat do not let oversize Rhizoctonia

Cutting Notes: pinto, no streaks in flesh, yellow flesh

NDTX059827-1R - Round Red. Parentage (ND 4659-5R x ND 8512C-17R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: very nice, uniform shape, small, B size

Weaknesses: rot, drop?, drop++

Cutting Notes: rough, nice white flesh, nice shape

NDTX059828-2W - Round White. Parentage (ND 4659-5R x ND 8524B-1R). Cross was made in North Dakota and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses: small, low yield, pronounced eyes, pink skin+, growth cracks, salad, Rhizoctonia, rot, drop

Cutting Notes: nice, heavy set, small tubers

NDTX059886-1Y/Y - Oblong Yellow/Yellow. Parentage (ND 7192-1 x ND 8178-1Y). Cross was made in North Dakota and selected in Texas.

Uses: Specialty.

Strengths: smooth heavy set nice parent, BOT+

Weaknesses: internal??. some big tubers low yield too large

Cutting Notes: nice shape, light flesh

NDTX059897-1Y/Y - Round White-Buff. Parentage (ND 7291b-2Y x Stirling). Cross was made in North Dakota and selected in Texas.

Uses: Chip.

Strengths: yellow flesh yield+, buff

Weaknesses: oversize, rough++, deep eyes

Cutting Notes: buff, yellow flesh, nice shape, greening

NDTX059979-1W - Round Buff. Parentage (ND 7519-1 x Dakota Diamond). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths:

Weaknesses:

Cutting Notes: buff

NDTX059997-1W - Round White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths: very smooth, nice appearance

Weaknesses:

Cutting Notes: smooth

NDTX059997-2W - Oblong White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths: nice white, round

Weaknesses:

Cutting Notes: smooth, nice flesh and shape

NDTX059997-3W - Round White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths: nice smooth

Weaknesses:

Cutting Notes: shape-

NDTX059997-4W - Round White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths: nice flesh

Weaknesses: rough

Cutting Notes: nice shape

NDTX059997-6W - Round White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths: smooth, nice flesh

Weaknesses:

Cutting Notes: smooth, nice shape

NDTX059997-7W - Oblong White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths:

Weaknesses:

Cutting Notes: smooth

NDTX059997-8W - Round White. Parentage (ND 7799c-1 x ND 860-2). Cross was made in North Dakota and selected in Texas

Uses: Chip.

Strengths: keep

Weaknesses:

Cutting Notes: ok

NDTX060431-2R/Y - Oblong Red/Yellow. Parentage (R 89063-84 x ND 039087BV-3R). Cross was made in North Dakota and selected in Texas

Uses: Fresh.

Strengths:

Weaknesses: drop

Cutting Notes: very light flesh, drop, flat

NDTX060700C-1W - Oblong White. Parentage (NDTX 7560C-4 x NDTX 7192-1). Cross was made in North Dakota and selected in Texas

Uses: Fresh.
Strengths: keep
Weaknesses:
Cutting Notes:

NDTX060725-1P - Round Purple. Parentage(ND 7834-2P X ND 7192-1). Cross was made in North Dakota and selected in Texas

Uses: Fresh.
Strengths: keep
Weaknesses:
Cutting Notes:

NDTX060868-4R/Y - Oblong Red/Yellow. Parentage(ND 028587-1RY X ND 039051B-1R). Cross was made in North Dakota and selected in Texas

Uses: Fresh.
Strengths: keep
Weaknesses:
Cutting Notes:

NDTX4271-5R - Round Red. Parentage (NDTX9-1068-1R x ND2050-1R). Cross was made in North Dakota and selected in Texas. Early to medium maturity. Medium vine size.

Uses: Fresh.
Strengths: nice flesh very nice keep, BOT-, BOT+
Weaknesses: Skin finish?
Cutting Notes: very nice, BOT

NDTX4756-1R/Y - Oblong-Red/Yellow. Parentage (ND3451-14R X ND1618-13R). Cross was made in North Dakota and selected in Texas.

Uses: Specialty.
Strengths:
Weaknesses: small?, too large, buff, not very small, ugly skin, hollow heart++ silver scurf, drop
Cutting Notes: nice flesh, some larger tubers

NDTX4784-7R - Round Red. Parentage (ND3574-5R x ND2050-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths: nice shape, keep BOT-
Weaknesses: low yield Rhizoctonia+++, road map, poor skin finish, drop
Cutting Notes: nice shape, flesh, and color

NDTX4828-2R - Round Red. Parentage (ND3877-2R x ND1871-3R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.
Strengths:
Weaknesses: silver scurf++, low yield, road map+, zipper eyes Rhizoctonia, roadmap drop? , drop
Cutting Notes: nice, small

NDTX4847-7R - Oblong Red. Parentage (ND3900IR-3R x Fontenot). Cross was made in North Dakota and selected in Texas. Medium-early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: nice color, BOT-+, BOT

Weaknesses: low yield Roadmap, skin finish?

Cutting Notes: nice, very white flesh

NDTX5003-2R - Round Red. Parentage (ND3504-3R x ND2050-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: nice, nice flesh, BOT

Weaknesses: Rhizoctonia+

Cutting Notes: pressure bruise

NDTX5438-11BR - Round Red. Parentage (ND4339-10R x ND4269-9R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses:

Cutting Notes:

NDTX5438-11R - Round Red. Parentage (ND4339-10R x ND4269-9R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: yield heavy set nice skin finish nice, nice flesh, Advance to SW TC BOT-BOT+

Weaknesses: skin finish?, low yield silver scurf some pointed, mixed shape, silver scurf,

Rhizoctonia++

Cutting Notes: some road map, nice shape

NDTX731-1R - Round Red. Parentage (ND169-10R x ND9476-5). Cross was made in North Dakota and selected in Texas. Early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: very nice, nice shape & color, BOT yield+

Weaknesses: deep eyes, poor skin finish drop+

Cutting Notes: nice, rough

NDTX7590-3R - Round-Oblong Red. Parentage (ND5151-5R X ND5002-3R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses: feathering, light set, silver scurf, Rhizoctonia, large tubers growth cracks lenticels, large, light set drop

Cutting Notes: poor shape, large, nice flesh

NY138 - Oblong White. Parentage (?). Cross made and selected at Cornell University.

Uses: Chip.

Strengths: smooth

Weaknesses:

Cutting Notes: very nice shape and flesh, smooth

NY139 - Round White. Parentage (??). Cross made and selected at Cornell University. Medium-late maturity

Uses: Chip
Strengths: Parent, Smooth, Nice, BOT,
Weaknesses: Oversize
Cutting Notes: very white flesh, flat, rough

OR00068-11 - Round Purple/Purple. Parentage (All Blue x PA97B29-4). Cross was made and selected in Oregon. Medium-early maturity. Medium-large vine size. Red-purple flower color

Uses: Specialty.
Strengths: yield+ flesh all blue like
Weaknesses: silver scurf
Cutting Notes: nice shape

PA00N14-2 - Long Russet. Parentage (PA95A14-22 x (Bulk Russ + Gem)). Cross was made and selected in Prosser, Washington. Medium maturity. White flower color.

Uses: Dual.
Strengths: nice flesh, keep
Weaknesses: small, light net
Cutting Notes: very white flesh

PA96RR1-193 - Round Red/Red. Parentage (Fontenot x 3261-5R). Cross was made and selected in Prosser, Washington.

Uses: Specialty.
Strengths: nice shape, light red flesh
Weaknesses: silver scurf, poor skin finish, heat sprouts
Cutting Notes: nice shape, light red flesh

PA99N2-1 - Oblong Russet. Parentage (AO84275-3G6582-3). Cross was made and selected in Prosser, Washington. Medium maturity. Medium vine size. White flower color.

Uses: Dual.
Strengths:
Weaknesses: round, small Rhizoctonia, heat sprouts, blocky, rot on stem end, drop+
Cutting Notes: rough, growth cracks

PA99N82-4 -Oblong Russet. Parentage (PA95B4-149 x Russ bulk). Cross was made and selected in Prosser, Washington.

Uses: Specialty.
Strengths:
Weaknesses: Rhizoctonia+, blocky++, drop++
Cutting Notes: too round, growth cracks

POR01PG45-5 - Oblong Red/Yellow. Parentage (Serrana x Red flesh bulk pollen). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium-late maturity. Medium-large vine size. Blue flower

Uses: Specialty.
Strengths: nice+
Weaknesses: hollow heart, rough, poor skin finish, drop+
Cutting Notes: very light flesh, poor shape, very yellow flesh

POR02PG37-2 - Oval Yellow-Red Eyes/Yellow. Parentage (PA99P35-1 x Rose Gold). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium early maturity. Medium small vine size. Red purple flower color.

Uses: Specialty

Strengths: red eyes, nice

Weaknesses:

Cutting Notes:

POR03PG23-1 - Oblong Red/Red. Parentage (PA97B35-1 x PA99P11-2). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium maturity. Medium vine size. Red purple flower color.

Uses: Specialty

Strengths: yellow and red skin nice red color

Weaknesses: Rhizoctonia

Cutting Notes: pinto, with red and white flesh

POR03PG80-2 - Oblong Red/Yellow. Parentage (Satina x PA99P35-1). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium-early maturity. Medium-vine size. Red purple flower

Uses: Specialty.

Strengths: nice+

Weaknesses: rough silver scurf, poor skin finish

Cutting Notes: very light yellow flesh

PORTX03PG25-2R/R - Round Red/Red. Parentage (PA97B35-1 x PA99P7-2). Cross was made in Prosser, Washington, tuberling grown in Oregon and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses: pointed

Cutting Notes: nice red-purple flesh, some pointed

Prince Hairy - Round White. Parentage (Hudson x PI 310925) Cross was made and selected at Cornell University.

Uses: Fresh.

Strengths: yield white flesh, heavy set+

Weaknesses: smaller than king rot on 3 reps

Cutting Notes:

PTTX05PG07-1W - Long White. Parentage (POR01PG22-1 x OR00067-7). Cross was made in Prosser, Washington, tuberling produced in Texas and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses Rhizoctonia low yield+,

Cutting Notes: BOT, very nice fingerling shape, nice smooth

Purple Majesty - Oblong Purple/Purple. Parentage (ND2008-2 x All Blue). Cross made and selected in Colorado. Late maturity. Large vine size. Blue flower color

Uses: Specialty.

Strengths: yield+, small, smooth

Weaknesses: road map alligator skin silver scurf

Cutting Notes: nice shape

Purple Peruvian - Long Purple/Purple. Parentage (??).

Uses: Specialty

Strengths: purple with white flesh

Weaknesses: deep eyes drop

Cutting Notes: deep eyes, rough, nice flesh, some white in the flesh

Ranger Russet - Long Russet. Parentage (Butte x A6595-3). Cross was made and selected in Aberdeen. Released in 1991 by USDA-ARS, and the Colorado, Aberdeen, Oregon and Washington Agricultural Experiment Stations. Medium-late maturity. Large vine size. White flower color.

Uses: Dual purpose.

Strengths: Dual purpose, medium to high specific gravity, good fry color from 45o storage, resistance to internal defects including hollow heart, brown center, net necrosis and sugar ends, high yield of large tubers, resistance to early dying.

Weaknesses: Susceptibility to scab, tendency for deep eyes, susceptibility to stress induced malformities, mediocre performance in Texas, feathering sticky stolon drop

Cutting Notes: shape-

Red LaSoda - Oblong Red. Parentage (Triumph x Katahdin). Cross was made and selected in Louisiana. Red LaSoda is a clonal selection from LaSoda made by Louisiana. Medium maturity. Medium-large vine size. Purple flower color.

Uses: Fresh.

Strengths: High yields, wide adaptability nice white flesh.

Weaknesses: Deep eyes, light color, occasional hollow heart, occasional growth cracks, Susceptible to PVX, PVY, PVS, PVM, PLRV, early and late blights, scab, corky ring spot, bacterial wilt, and Rhizoctonia, tubers can over-size and have poor skin set.

Cutting Notes: scab, deep eyes

Rio Rojo (Protected – PVP). - Round-oval Red. Parentage (ND1562-4R x NDTX9-1098-11R). Evaluated as NDTX4304-1R. Cross was made in North Dakota and selected in Texas. Early to medium maturity. Medium vine size. Dormancy is similar to Red LaSoda but longer than Dark Red Norland.

Uses: Fresh.

Strengths: BOT

Weaknesses: can oversize, light set

Cutting Notes: some road map, nice flesh

Russet Burbank - Long Russet. Luther Burbank reported the origin of Russet Burbank in 1914 as a chimeric selection from the variety Burbank by Lou Sweet. Lou Sweet was a potato grower in the western slope area of Colorado and was President of the Potato Association of America in 1920. Late maturity. Large vine size. White flower color.

Uses: Dual.

Strengths: Tolerant to scab, good long term storage.

Weaknesses: Susceptible to Fusarium and Verticillium wilts, PLRV, PVY and net necrosis, Jelly-end and sugar-end develop in tubers when plants are subjected to stress, stress results in knobs, pointed ends, and dumbbells many culls, Rhizoctonia++, rough, poor shape, skinny

Cutting Notes: small, hollow heart

Russet Norkotah - Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Released in 1987 by the North Dakota Agricultural Experiment Station. Early-medium maturity. Medium vine size. Corolla is white and anthers are yellow-orange.

Uses: Fresh.

Strengths: Uniform tuber shape, excellent appearance, and resistance to hollow heart, shallow eyes, high percentage of #1 tubers, tolerance to common scab and silver scurf nice flesh.

Weaknesses: Weak vine, susceptibility to early dying, most viruses especially PVY, and late blight, and very susceptible to Verticillium wilt and early blight Rhizoctonia, low yield.

Cutting Notes: nice shape

Russet Norkotah278 (Protected – PVP) - Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS 278 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium-large vine size. White flower color.

Uses: Fresh.

Strengths: Good yield, uniform tuber shape, excellent appearance, resistance to hollow heart, some increased resistance to early dying, and environmental stresses, lower N requirement, more vigorous, and higher yielding than Russet Norkotah, heavy net, BOT.

Weaknesses: Five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah Rhizoctonia thin, pointed

Cutting Notes: nice shape and skin

Russet Norkotah296 (Protected – PVP) - Oblong-Long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS 296 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium vine size. White flower color.

Uses: Fresh.

Strengths: Nice, BOT.

Weaknesses: Five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah, rot.

Cutting Notes: blocky, nice shape and skin

Sierra Gold(TX1523-1Ru/Y) (Protected – PVP) - Round-oblong Russet/Yellow. Parentage (Krantz x Delta Gold). Cross was made and selected in Texas. Early maturity. Medium vine size.

Uses: Specialty.

Strengths: very nice BOT+

Weaknesses: heat sprouts+, Rhizoctonia, light set

Cutting Notes: small, BOT

Sierra Gold-2(TX1523-1Ru/Y) (Protected – PVP) - Round-oblong Russet/Yellow. Parentage (Krantz x Delta Gold). Cross was made and selected in Texas. Strain selection 2. Early maturity. Medium vine size.

Uses: Specialty.

Strengths:

Weaknesses: Rhizoctonia, growth cracks

Cutting Notes: light russet skin, rough pear-shape

Sierra Gold-3(TX1523-1Ru/Y) (Protected – PVP) - Round-oblong Russet/Yellow. Parentage (Krantz x Delta Gold). Cross was made and selected in Texas. Strain selection 3. Early maturity. Medium vine size.

Uses: Specialty.

Strengths:

Weaknesses: heat sprouts+, pointed, Rhizoctonia++, several off shapes

Cutting Notes: light russet skin, blocky

Stampede Russet - Oblong-Long Russet. Parentage (BR7091-1 x Lemhi Russet), cross made in Texas, selected in Idaho and tested extensively in Alberta, Canada. Released in 1999 by Agriculture and Agri-Food Canada and the Texas Agricultural Experiment Station. Early maturity. Medium vine size.

Lavender flower color.

Uses: Fresh.

Strengths: blocky, light net smooth, nice shape and skin

Weaknesses:

Cutting Notes: skinny, nice, blocky

TX03196-1W - Round White. Parentage (NDTX4748-7R x Adora). Cross was made and selected in Texas.

Uses: Chip.

Strengths: salad?

Weaknesses: small+ drop

Cutting Notes: greening, nice flesh and shape, small

TX04237-6Y/Y - Oblong Yellow/Yellow. Parentage (Russet Nugget x A92030-5). Cross was made and selected in Texas.

Uses: Specialty.

Strengths: smooth nice flesh

Weaknesses: flat good skin finish low yield drop++

Cutting Notes: poor shape, very nice

TX05246-3W - Oblong White. Parentage (A9305-10 x A91790-13). Cross was made and selected in Texas.

Uses: Chip.

Strengths: smooth,

Weaknesses: low yield, light set

Cutting Notes: nice

TX05249-10W - Round White. Parentage (Gem Russet x A91790-13). Cross was made and selected in Texas.

Uses: Chip.

Strengths: very nice flesh, size, parent

Weaknesses: large can oversize drop+

Cutting Notes: variable, deep eyes, buff, rough

TX05249-11W - Round White. Parentage (Gem Russet x A91790-13). Cross was made and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses: small, drop

Cutting Notes: severe greening, rough

TX05249-12W - Round White. Parentage (Gem Russet x A91790-13). Cross was made and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses: rough drop,
Cutting Notes: rough, deep eyes, buff

TX05249-14W - Round White. Parentage (Gem Russet x A91790-13). Cross was made in North Dakota and selected in Texas

Uses: Chip.
Strengths:
Weaknesses: russet, pointed drop+
Cutting Notes:

TX05249-3W - Round White. Parentage (Gem Russet x A91790-13). Cross was made in North Dakota and selected in Texas

Uses: Chip.
Strengths:
Weaknesses: drop
Cutting Notes: nice flesh

TX05249-5W - Round White. Parentage (Gem Russet x A91790-13). Cross was made in North Dakota and selected in Texas

Uses: Chip.
Strengths:
Weaknesses:
Cutting Notes: hollow heart

TX05249-8W - Round White. Parentage (Gem Russet x A91790-13). Cross was made and selected in Texas.

Uses: Chip.
Strengths:
Weaknesses: poor internal, buff to russet
Cutting Notes: deep eyes, buff, rough

TX05254-2W - Round White. Parentage (COA96741-2C x A91790-13). Cross was made and selected in Texas.

Uses: Chip.
Strengths:
Weaknesses: small
Cutting Notes: nice flesh small

TX06285-1W/Y - Oblong White/Yellow. Parentage (A00645-1 X ATX85404-8WF). Cross was made in North Dakota and selected in Texas

Uses: Chip.
Strengths: keep
Weaknesses:
Cutting Notes:

TX06308-1Y/Y - Round Yellow/Yellow. Parentage (POR01PG20-12 X Rio Rojo). Cross was made in North Dakota and selected in Texas

Uses: Specialty.
Strengths: keep
Weaknesses:

Cutting Notes:

TX06308-2Y/Y - Oblong/Yellow/Yellow. Parentage (POR01PG20-12 X Rio Rojo). Cross was made in North Dakota and selected in Texas

Uses: Specialty.

Strengths: keep

Weaknesses:

Cutting Notes:

TX06330-1Ru - Oblong Russet. Parentage (PORTX03PG25-2R/R X ATX85404-8W). Cross was made in North Dakota and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

TX06330-3Ru - Oblong Russet. Parentage (PORTX03PG25-2R/R X ATX85404-8W). Cross was made in North Dakota and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

TX06330-4Ru - Oblong Russet. Parentage (PORTX03PG25-2R/R X ATX85404-8W). Cross was made in North Dakota and selected in Texas

Uses: Fresh.

Strengths: keep

Weaknesses:

Cutting Notes:

TX1673-1W - Oblong White. Parentage (Russet Nugget x CS 7802L-2). Cross was made in Texas and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses: rough+, oversize+

Cutting Notes: nice flesh, buff, poor shape, long sprouts, rough

TXA549-1Ru - Oval Russet. Parentage (ND9687-3Ru x ND9852-1Ru). Cross was made in Texas, selected in Aberdeen and tested extensively in Alberta, Canada. Medium-late maturity. Medium-large vine size. Purple flower color with white tips.

Uses: Dual.

Strengths: yield+, blocky keep, BOT-++,

Weaknesses: Rhizoctonia, large tubers

Cutting Notes: nice shape, blocky

TXNS410 -. Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS410 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium-large vine size. White flower color.

Uses: Fresh

Strengths: nice shape

Weaknesses: yield-
Cutting Notes: small

TXNS551 - Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS551 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium-large vine size. White flower color.

Uses: Fresh
Strengths: nice flesh nice
Weaknesses: low yield, yield-
Cutting Notes: small

TXYG055 - Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG055 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: Specialty
Strengths:
Weaknesses:
Cutting Notes: nice

TXYG057 - Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG057 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: Specialty
Strengths:
Weaknesses:
Cutting Notes: large tubers

TXYG079 - Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG079 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: Specialty
Strengths:
Weaknesses:
Cutting Notes: nice shape

TXYG098 - Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG098 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: Specialty
Strengths:
Weaknesses:
Cutting Notes: BOT

TXYG105 - Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry

of Agriculture & Food, Guelph, Ontario. TXYG105 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: Specialty
Strengths:
Weaknesses:
Cutting Notes: small

TXYG107 - Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG107 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: Specialty
Strengths:
Weaknesses:
Cutting Notes: BOT-, nice

Yukon Gold - Oblong White/Yellow. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. Medium-early maturity. Medium-large vine size. Violet flower color.

Uses: Specialty.
Strengths: Attractive yellow flesh tubers with red eyes, good yield, resistant to mild mosaic, moderately resistant to PLRV.
Weaknesses: Can exhibit some feathering, Susceptible to PVY and common scab, hollow heart and internal heat necrosis can be a problem, Plant establishment is irregular, particularly from basal end seed pieces.
Cutting Notes: BOT, very nice

Appendix B. Parentage of potato varieties or selections-2009.

Variety or Selection	Parentage
Ackersegen	Hindenburg x Allerfruheste
Adora	Pimura x Alcmaria
Agria	Quarta x Semlo
All Blue	Unknown
Alpha	Paul Kruger x Preferent
Ambra	Duke of York x Reneta Lub B 53
Asterix	Cardinal x SVP VE 70-9
Atlantic	Wauseon x Lenape
Avalanche	DHS40-1034 9 x Maris Piper
Aziza	Smeenge 69-17 x Smeenge74-5
Banana	
Binje	Munstersen x Fransen
Caesar	Monalisa x Rop B 1176
Carola	
Carrera	
Century	A6789-7 x A6680-5
Chipeta	WNC612-13 x Wischip
Climax	Bintje x Record
Courage	
Dakota Jewel	ND2223-8R x ND649-4R
Dark Red Norland	Redkote x ND626
Day-9	
Delikat	
Desiree	Urgenta x Depesche
Diamante	TDV54-30-8 x SVP55-89
Dore	Duke of York x BiermaA7
Eerstelling	Early Primrose x King Kidney
Eigenheimer	Blaue Riesen x Fransen
Estima	
Fabula	
Florissant	Premiere x VK 69-491
Fortuna	
Foxton	Irene x Maris Piper
German Butter Ball	
Golden Sunburst	
Granola	3333/60 x 267 04

Variety or Selection**Parentage**

Green Mountain	Dunmore x Excelsior
Hertha	Dijkhuis61-133 x Konst62-374
Ilong	
Innovator	Shepody x RZ 84-2580
Irish Crispin	Amigo x DH70-699 3a
Ivory Crisp	ND292-1 x A77268-4
Keuka Gold	Steuben x Norwis
Kalkaska	B1254-1 X S440
King Harry	
Klondyke Rose	
Krasaua	Visnovske Rohlic x B53
La Rouge	LaSoda x Progress
Latona	Jaerla x Nicola
Magic Molly	Open pollinated seed ball from Red Beauty
Maris Piper	
Mazama	ND1196-2R x Redsen
Molli	
Mondial	Spunta x Ve 66-295
Morning Gold	Olinda x Y 68-4-103
NorDonna	ND206-1R x ND821-6R
Norgold-M	ND2475-8 x A119-1
NorValley	NorChip x ND860-2
Oscar	Desiree x VK 64 491
Ottar	Dore x DsxAS-737
Penta	Bellona x Estima
Pimpernel	
Platina	
Premiere	
Primica Inta	
Prince Hairy	Hudson x PI 310925
Purple Majesty	ND2008-2 x All Blue
Purple Peruvian	
Ranger Russet	Butte x A6595-3
Red Gold	G68211 x G6521-4RY
Red LaSoda	Triumph x Katahdin
Rio Rojo	ND1562-4R x NDTX9-1098-11R
Rose Gold	Abnaki x G6521-4RY
Russet Burbank	Mutant from Burbank
Russet Legend	Century Russet x WNC672-2
Russet Norkotah	ND9526-4RU x ND9687-5Ru
Russet Norkotah278	ND9526-4RU x ND9687-5Ru

Variety or Selection

Russet Norkotah296
 Russet Norkotah-S3
 Rutt
 Saginaw Gold
 Sangre
 Sangre-10
 Sante
 Satina
 Shepody
 Stampede Russet
 Strobrawa
 Super Red
 Sierra Gold™
 Sierra Gold-2
 Sierra Gold-3
 Ukama
 Urgenta
 Valisa
 Viking
 Vivaldi
 Vokal
 Winema
 Yellow Finn
 Yukon Gold

Numbered Clones

A0008-1TE
 A00286-3Y
 A00293-2Y
 A96814-65LB
 A97066-42LB
 A98345-1
 A99326-1PY
 AC00271-1R
 AC97306-1RU
 AC99329-7PW/Y
 AC99330-1P/Y
 AC99375-1RU
 AF2291-10
 AO96305-3
 AO96365-2
 AOTX02060-1Ru
 AOTX03657-1Ru

Parentage

ND9526-4RU x ND9687-5Ru
 ND9526-4RU x ND9687-5Ru
 Laila x Alcmaria
 MS321-38 x Michibonne
 Viking x A6356-9
 Viking x A6356-9
 SVPY66-13-636 x AM66-42
 Puntila x 99 73
 Bakeking x F58050
 BR7091-1 x Lemhi Russet
 MPI55 957/54 x Mira
 Krantz x Delta Gold
 Krantz x Delta Gold
 Krantz x Delta Gold
 Marijke x Sirtema
 Furore x Katahdin
 Redskin x Nordak
 TZ 77-148 x Monalisa
 Primura x Rheinhort
 Redsen x ND1196-2R
 W5279-4 x NorGleam
 Blazer Russet x A95109-1
 NDA5507-3Y x A89655-5DY
 Agria x TXA1655-1DY
 AWN86514-2 x A91194-3
 AWN86514-2 x A86102-6
 Ranger R x Premier
 Agria x COA94019-5R
 Inca Gold x A91846-5R
 Inca Gold x A89655-5DY
 AWN86514-2 x A89384-10
 SA8211-6 x EB8109-1
 A91018-6 x A89152-4
 A91141-1 x Ranger
 A97201-4 x A93157-6LS
 A97039-23 x COA96054-3

Variety or Selection

AOTX05096-4Ru
 AOTX06016-1Ru
 AOTX06026-1Ru
 AOTX06048-1Ru
 AOTX06077-1Ru
 AOTX06116-1Ru
 AOTX91861-4R
 AOTX93483-1R
 AOTX95265-1Ru
 AOTX95265-2ARu
 AOTX95265-3Ru
 AOTX95265-4Ru
 AOTX95295-1W
 AOTX95309-3W
 AOTX96084-1Ru
 AOTX96208-1Ru
 AOTX96216-2Ru
 AOTX96265-2Ru
 AOTX98096-1Ru
 AOTX98152-3Ru
 AOTX98202-1Ru
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 ATTX00289-5R/Y
 ATTX00289-6Y/Y
 ATTX01178-1R
 ATTX02247-1R
 ATTX02249-1R
 ATTX03446-3W
 ATTX03446-4W
 ATTX03474-1W
 ATTX03474-2W
 ATTX03474-3W
 ATTX03475-2W
 ATTX03475-6W
 ATTX03476-2W
 ATTX03553-1P/Y
 ATTX05175-1R/Y
 ATTX05191-3R/Y
 ATTX961014-1BR/Y
 ATTX961014-1R/Y
 ATTX98444-16R/Y
 ATTX98453-11BR

Parentage

A00082-6 x A97214-4
 A99031-1TE x A98104-4
 A99034-2E x AONDTX95249-1Russ
 Blazer Russet x A00082-6
 A96013-2 x A00614-6
 A99134-1 x AONDTX95249-1Russ
 Red LaSoda X ND2224-5R
 NDO2686-6R X AD82705-1R
 A89216-9 x A86102-6
 A89216-9 X A86102-6
 A89216-9 x A86102-6
 A89216-9 x A86102-6
 A89804-7 x Ranger Russet
 A9055-8LS x A89163-3LS
 A8792-1 X A86102-6
 A9057-7 x A91194-3
 A89216-9 x A86102-6
 A90621-4 X A84180-8
 Shepody x A92158-3
 A88338-1 X A9201-6
 A9201-6 X A9014-2
 Agria x TXA1655-1DY
 NDA5507-3 X TXA1655-1DY
 NDA5507-3 X TXA1655-1DY
 ND5084-3R x Winema
 A096863-8 X ND5256-7R
 A92653-6R X Granola
 A96920-17 x MSI152A
 A96920-17 x MSI152A
 NDTX493O-5W X C0A96141-4
 NDTX493O-5W X C0A96141-4
 NDTX493O-5W X C0A96141-4
 NDTX493O-5W X NYII2
 NDTX493O-5W X NYII2
 NDTX493O-5W X Chipeta
 Inca Gold X A096747-2RJY
 A99331-2RY X C0A99261-IRY
 Luna323 X Modoc
 A90601-2RDY X MAZAMA
 A90601-2RDY X MAZAMA
 A83360-9R X T48YF
 A93490-1R X A91846-5R

Variety or Selection

ATTX98453-6R
 ATTX98466-5R/W-R
 ATTX98493-1R/Y
 ATTX98500-2P/Y
 ATTX98500-3P-W/Y
 ATTX98518-5Pu/Y
 ATTX99325-1P
 ATX02263-1R/Y
 ATX03068-1Ru
 ATX03409-6W/Y
 ATX03496-3Y/Y
 ATX03515-1R/Y
 ATX03516-2R
 ATX03545-1R
 ATX03546-1W/Y
 ATX03546-1W/Y-P
 ATX03546-2R/Y
 ATX03550-2R
 ATX05114-1Ru
 ATX05142-2Ru
 ATX05175-3R/Y
 ATX05178-2P
 ATX05188-1Y/Y
 ATX05202-3W/Y
 ATX06173-2W
 ATX06206-6W/Y
 ATX06206-9W
 ATX06282-1R/Y
 ATX06354-1W/Y
 ATX84378-6Ru
 ATX85404-8W
 ATX91137-1Ru
 ATX9132-2Y
 ATX9202-3Ru
 ATX9332-12Ru
 ATX97147-4Ru
 ATX97232-1Ru
 ATX98448-6R/Y
 ATX99013-1Ru
 ATX99194-3Ru
 BTX1544-2W/Y
 BTX1749-1W/Y

Parentage

A93490-1R x A91846-5R
 ND2051-1Ru x A7961-1
 94A2-3Y X BO811-13RY
 P94A2-4Y X Granola
 P94A2-4Y X Granola
 Agria X A83350-9R
 AGRIA X W1100R
 Inca Gold x A92653-6R
 A95109-1 x Silverton Russet
 Summit Russet x A96013-2
 NDTX4271-5R x AO93487-2R
 A961014-12RY x NDC5281-2
 A961014-12RY x NDTX4271-5R
 A97521-3R x AO96747-2R/Y
 ATA98472-2Y x A97523-1RY
 ATA98472-2Y x A97523-1RY
 ATA98472-2Y x A97523-1RY
 NDTX4271-5R x AO96747-2R/Y
 TC1675-1RU x A97229-1
 Rio Grande R. x A97214-4
 A99331-2RY x VC1075-1R
 A99331-2RY x Durango Red
 Durango Red x Modoc
 A00286-3Y x A99433-5Y
 A00068-5 x Premier Russet
 A99007-12 x AOA95154-1
 A99007-12 x AOA95154-1
 COA99261-1RY x US 147-96 R/Y
 COA99261-1RY x US 147-96 R/Y
 A79141-9 x ND329-1
 Gemchip x ND860-2
 A81473-2 x A8343-12

 A8343-12 x A8495-1
 A8850-1 x A88288-1
 A79180-10 x A88236-6
 A90609-6 x COO83008-1
 A92657-1R X A89655-5DY
 A8893-1 x A91186-2
 A94137-1 x GemStar Russet
 BO811-13 x Yukon Gold
 K7-6 x BO925-4

Variety or Selection**Parentage**

BTX2103-1R/Y	BO811-13 x ARS-W82-21285-1
BTX2332-1R	B1523-4 x Super Red Norland
CO00188-4W	A90490-1W x BC0894-2W
CO00197-3W	A91790-13W x NDTX4930-5W
CO00270-7W	BC0894-2W x A91790-13W
CO00277-2R	CO89097-2R x CO94065-2R
CO00291-5R	CO94019-1R x NDC5281-2R
CO00379-2R/Y	VC0967-2R/Y x NDC6174-1R
CO00405-1R	Banana x NDC6174-1R
CO00412-5W/Y	German Butterball x TX1523-1RU/Y
CO00415-1R	Kipfel x NDC5281-2R
CO01399-10P/Y	VC1015-5P/Y x Colorado Rose
CO96141-4W	BC0894-2 x AC87340-2
CO97043-14W	AC91817-5 x AC87340-2
CO97065-7W	AC92513-3 x Chipeta
CO97087-2RU	CO87009-4 x W1005
CO98067-7RU	Silverton Russet x TC1675-1
CO98368-2RU	Russet Nugget x Bannock Russet
CO99045-1W/Y	Rio Grande Russet x German Butterball
CO99053-3RU	AC91014-2 x Silverton Russet
CO99053-4RU	AC91014-2 x Silverton Russet
CO99076-6R	
CO99100-1RU	AC93047-1 x Silverton Russet
CO99256-2R	
CO99338-3RU/Y	Russet Nugget x Crispin
COTX00104-7R	ND3574-5R x C086218-2
COTX02377-1W	Dakota Pearl x Chipeta
COTX03025-1P/P	CO94165-3P/P x PA97B36-3
COTX03187-1W	AC89536-5RU x A9304-3
COTX03270-1W	CO95007-1RU x AC96052-1RU
COTX03303-1W	CO96083-7RU X Silverton Russet
COTX04050-1P/P	CO97215-2P/P x CO97306-2P/P
COTX04178-1Y/Y	ATC98444-1R/Y x CO99076-1R
COTX04188-3R/Y	ATC98515-1R/Y x ATC98444-1R/Y
COTX04193-2R/Y	ATC98515-1R/Y x ND3574-5R
COTX04267-1R/Y	CO98012-5R x CO97232-2R/Y
COTX04303-1R/Y	CO99083-2R/Y x ATC98444-1R/Y
COTX05002-2Ru	A95409-1 x CO96109-7RU
COTX05037-4Y/Y	AC99330-1P/Y x CO97227-2P/PW
COTX05037-5P/Y	AC99330-1P/Y x CO97227-2P/PW
COTX05082-2P/P	CO97227-2P/P x WMSG147-3
COTX05095-1Ru	CO99045-1W/Y X AO96164-1

Variety or Selection**Parentage**

COTX05095-2Ru/Y	CO99045-1W/Y X AO96164-1
COTX05211-4R	CO98012-5R x CO00278-4R
COTX05211-5R	CO98012-5R x CO00278-4R
COTX05211-7R	CO98012-5R x CO00278-4R
COTX05249-3W/Y	CO00320-1R x ATC98509-1R/Y
COTX05261-1R/Y	CO00379-2R/Y x CO00278-4R
COTX05261-2R/Y	CO00379-2R/Y x CO00278-4R
COTX06052-2Ru	CO95086-8RU X CO99100-1RU
COTX06169-3R	AC00274-2R X CO01377-1R
COTX06216-1R	CO99256-2R X CO01210-5R
COTX06221-1Ru	CO00208-1RU X CO98067-7RU
COTX06235-2R/Y	CO01288-2R X CO01399-11R/Y
COTX06240-2R/Y	CO01377-1R X CO01399-11R/Y
COTX06245-3R/Y	CO01399-11R/Y X A83350-9R
COTX94216-1R	Purple Peruvian x Chipeta
COTX94218-1R	Red Ruby x Red Gold
MSJ126-9Y	
NDTX039190-1R	ND 8089-2R x ND 4659-5R
NDTX049265-2WRSP/Y	ATND 99331-2 Pinto x Dakota Rose
NDTX050025-1W/Y	ND 8083b-1pY x ATND 98459-1RY
NDTX050054-3R	ND 8314-1R x ND 028601-1R
NDTX050065-1R/Y	ND 8375b-6R x ND 4756-1R
NDTX050070-1R	ND 8375b-6R x ND 8347CB-12R
NDTX050156-3R	ND 8531B-1R x ND 8553c-1R
NDTX050168-2R	ND 8553c-1R x ND 028822-1R
NDTX050169-1R	ND 8555-8R x R 89063-83
NDTX050169-2W/Y	ND 8555-8R x R 89063-84
NDTX050184-1R/Y	ND 028577-6RY x ND 8555-8R
NDTX050239-2R	ND 028685-1R x ND 8512C-17R
NDTX050241-3R	ND 028685-1R x ND 8083b-1pY
NDTX050241-4R	ND 028685-1R x ND 8083b-1pY
NDTX050241-5R/Y	ND 028685-1R x ND 8083b-1pY
NDTX050243-4R/Y	ND 028685-1R x ND 028674-9R
NDTX050249-1R	ND 028685-4RY x ND 7132-1R
NDTX050258-2R/Y	ND 028770B-4R x ATND 98459-1RY
NDTX050264-1W	ND 028770B-4R x ND 028678-1RY
NDTX059632-1W	Dakota Pearl x ND 7377Cb-1
NDTX059759-3Pinto/Y-P	ATND 99331-2 Pinto x ND 7834-2P
NDTX059759-3Pinto/Y	ATND 99331-2 Pinto x ND 7834-2P
NDTX059827-1R	ND 4659-5R x ND 8512C-17R
NDTX059828-2W	ND 4659-5R x ND 8524B-1R
NDTX059886-1Y/Y	ND 7192-1 x ND 8178-1Y

Variety or Selection

NDTX059897-1Y/Y
 NDTX059979-1W
 NDTX059997-1W
 NDTX059997-2W
 NDTX059997-3W
 NDTX059997-4W
 NDTX059997-6W
 NDTX059997-7W
 NDTX059997-8W
 NDTX060431-2R/Y
 NDTX060700C-1W
 NDTX060725-1P
 NDTX060868-4R/Y
 NDTX4271-5R
 NDTX4756-1R/Y
 NDTX4784-7R
 NDTX4828-2R
 NDTX4847-7R
 NDTX5003-2R
 NDTX5438-11BR
 NDTX5438-11R
 NDTX731-1R
 NDTX7590-3R
 NY138
 NY139
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 PA00N14-2
 PA96RR1-193
 PA99N2-1
 PA99N82-4
 POR01PG45-5
 POR02PG37-2
 POR03PG23-1
 POR03PG80-2
 PORTX03PG25-2R/R
 PTTX05PG07-1W
 TX03196-1W
 TX04237-6Y/Y
 TX05246-3W
 TX05249-10W
 TX05249-11W
 TX05249-12W

Parentage

ND 7291b-2Y x Stirling
 ND 7519-1 x Dakota Diamond
 ND 7799c-1 x ND 860-2
 ND 7799c-1 x ND 860-2
 ND 7799c-1 x ND 860-2
 ND 7799c-1 x ND 860-2
 ND 7799c-1 x ND 860-2
 ND 7799c-1 x ND 860-2
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 NDTX 7560C-4 x NDTX 7192-1
 ND 7834-2P X ND 7192-1
 ND 028587-1RY X ND 039051B-1R
 NDTX9-1068-1R x ND2050-1R
 ND3451-14R X ND1618-13R
 ND3574-5R x ND2050-1R
 ND3877-2R x ND1871-3R
 ND3900IR-3R x Fontenot
 ND3504-3R x ND2050-1R
 ND4339-10R x ND4269-9R
 ND4339-10R x ND4269-9R
 ND169-10R x ND9476-5
 ND5151-5R X ND5002-3R

 All Blue x PA97B29-4
 PA95A14-22 x
 Fontenot x 3261-5R
 AO84275-3G6582-3
 PA95B4-149 x Russ bulk
 Serrana x Red flesh bulk pollen
 PA99P35-1 x Rose Gold
 PA97B35-1 x PA99P11-2
 Satina x PA99P35-1
 PA97B35-1 x PA99P7-2
 POR01PG22-1 x OR00067-7
 NDTX4748-7R x Adora
 Russet Nugget x A92030-5
 A9305-10 x A91790-13
 Gem Russet x A91790-13
 Gem Russet x A91790-13
 Gem Russet x A91790-13

Variety or Selection

TX05249-14W

TX05249-3W

TX05249-5W

TX05249-8W

TX05254-2W

TX06285-1W/Y

TX06308-1Y/Y

TX06308-2Y/Y

TX06330-1Ru

TX06330-3Ru

TX06330-4Ru

TX1673-1W

TXA549-1Ru

TXNS410

TXNS551

TXYG055

TXYG057

TXYG079

TXYG098

TXYG105

TXYG107

Yukon Gold

Parentage

Gem Russet x A91790-13

Gem Russet x A91790-13

Gem Russet x A91790-13

Gem Russet x A91790-13

COA96741-2C x A91790-13

A00645-1 X ATX85404-8W

POR01PG20-12 X Rio Rojo

POR01PG20-12 X Rio Rojo

PORTX03PG25-2R/R X ATX85404-8W

PORTX03PG25-2R/R X ATX85404-8W

PORTX03PG25-2R/R X ATX85404-8W

Russet Nugget x CS 7802L-2

ND9687-3Ru x ND9852-1Ru

ND9526-4Ru x ND9687-5Ru

ND9526-4Ru x ND9687-5Ru

W5279-4 x Norgleam

W5279-4 x Norgleam

W5279-4 x Norgleam

W5279-4 x Norgleam

W5279-4 x Norgleam

W5279-4 x Norgleam

W5279-4 x Norgleam

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