Texas Potato Breeding Report 2005

The Texas Agricultural Experiment Station
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Texas A&M University

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College Station and Lubbock

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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 Aberdeen, 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 Beltsville, Maryland (Maine)

MN = cross made and selected in Minnesota

MNTX = cross made in Minnesota and selected in Texas

MS "letter" = cross made and selected in Michigan with 'letter' indicating year of selection with 1988(A) as year 1 of the program

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

PA = cross made and selected in Prosser

POR = cross made in Prosser 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

TXND = cross made in Texas and selected in North Dakota

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

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

VC = cross made in Lethbridge, Alberta and selected in Colorado

Variety strain "numbers" = selections (strains) out of various varieties made by Gene Shaver in Nebraska

Variety strain "letters" = selections (strains) out of various varieties made by Warren Trank in Nebraska

Mission Statement

The mission of the Texas Potato Breeding and Variety Development Program of the Texas Agricultural Experiment Station 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 Variety Development Program in 1973, 1,712,294 seedlings have been grown for selection in Texas, from which 7,847 original selections have been made. Eleven improved varieties have been developed/co-developed and/or released from this program. Virtually all of the russet potatoes grown in Texas in 2005 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. In 2004 the average summer crop yield in Texas was reported to be 440 Cwt/A, the highest in the nation among 12 states with summer crop production. In addition, the farm gate value of the crop has grown from less than $20 million to about $70 million with an annual economic impact to the state in 2004 estimated to exceed $150 million. Of the new varieties developed/released in the US in the last 10 years, those released by the Texas program collectively ranked first or second in total seed acreage entered into certification in 2005.

Introduction

Program Summary

The Texas Potato Breeding and Variety Development Program used two locations in the 2005 growing season (Table 1). The first planting was near Springlake, Texas on 22 to 24 March 2005 and harvested on 12, 27 July, and 1, 3 August. This location included eleven replicated trials and first generation seedlings for selection. The second planting was near Dalhart, Texas on 21 May and harvested throughout October and early November. Eight replicated trials, a seed increase nursery, and first year seedlings for selection were planted at this site. The Texas program entered five selections (AOTX95265-2ARu, AOTX95265-4Ru, AOTX98137-1Ru, MWTX2609-4Ru, and TXDH-99-1Ru) in the Southwestern Regional Trials conducted in Texas, Colorado, and 2 sites in California. The Texas Program also had three entries in the Western Regional Russet Trial (MWTX2609-2Ru, TXA549-1Ru, and ATX91137-1Ru) and one in the Western Regional Red/Specialty Trial (BTX1544-2W/Y). These trials were conducted at multiple locations in 6 western states. Plant Variety Protection (PVP) is pending for TX1523-1Ru/Y (Sierra Gold™) and Stampede Russet. The major program expansion and emphasis in 2005 continued to involve virus testing, clean-up, and minituber multiplication of a large backlog of selected clones. Field day was held on 29 June at Springlake and was well attended.

Seedling program

In 2005 83,350 first year seedlings, resulting from 677 different parental combination or families (crosses), were grown for selection on the Barrett Farm (36,941) near Springlake and on the CSS Farm (46,409) near Dalhart. Two hundred sixty eight original selections were made from this material (Figure 1).

The 2005 first year seedling tubers from Texas (5,361) were grown during the fall of 2004 at College Station, primarily from true seed crosses made in Lubbock, Texas. The remaining seedling tubers were provided by Rich Novy, Idaho (9,327), Al Mosley, Oregon (24,336), David Holm, Colorado (22,047), Andy Hamernik, Madison, Wisconsin (3,278), and Susie Thompson, North Dakota (16,029). Dave Holm, Colorado also provided 2,972 mini tubers from advanced Texas selection for seed increase. The Texas program provided 4,242 second – fourth size seedling tubers to Colorado, while 3,143, 1,497, 2,465, and 1,013 were sent to North Dakota, Minnesota, Idaho, and to Chuck Brown in Washington (sent to Alaska for original selection) respectively.

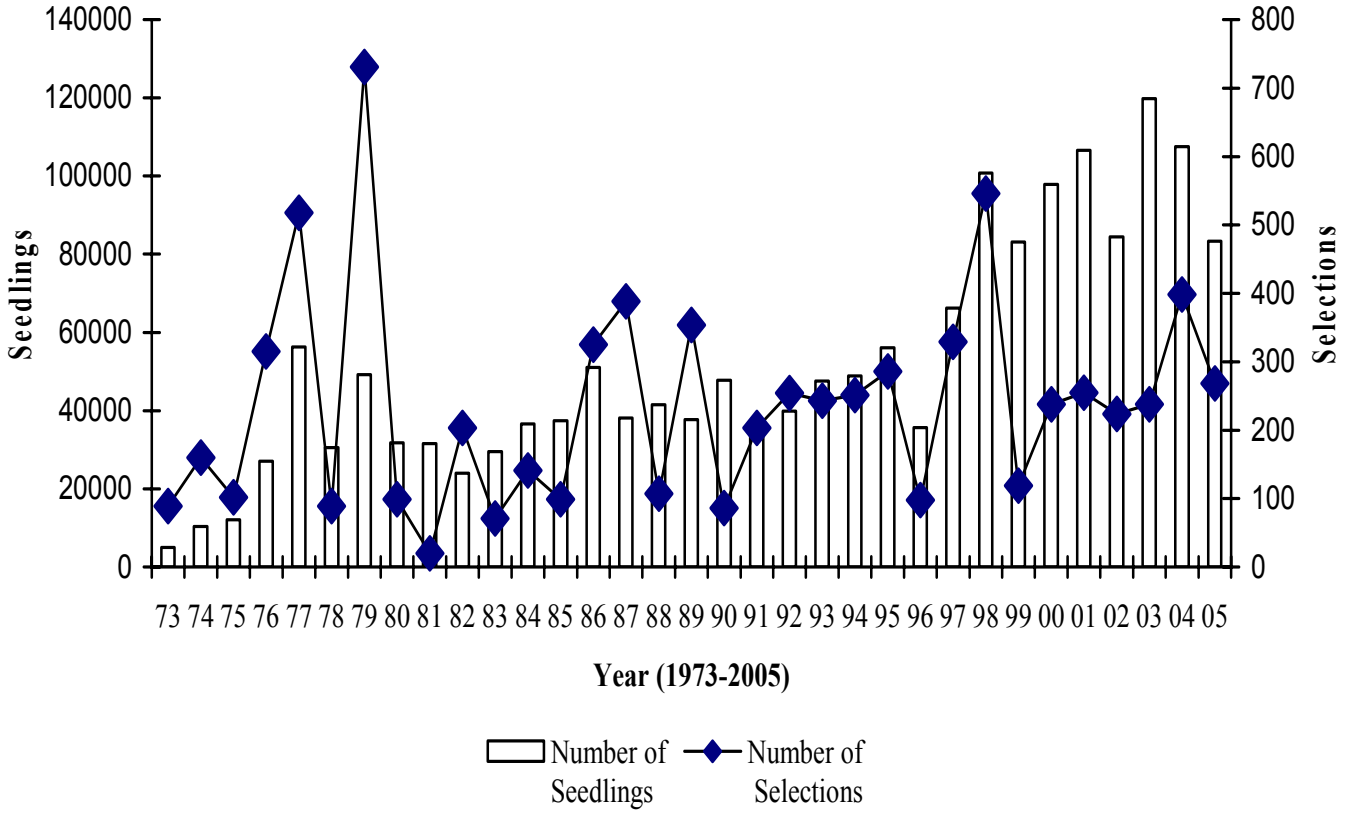

Figure. 1. Number of first year seedling tubers grown for original selection and number of selections made since the inception of the Texas Potato Variety Development Program.

Table 1. Trial locations, name of trial, number of entries, and number of plots evaluated in 2005.

Springlake		
Trial	# of Entries	# of Plots
Field Day Red	85	170
Western Regional Red/Specialty	20	160
Southwest Regional Red	3	24
Texas Advanced Selections Red	11	88
Field Day Russets	100	200
Western Regional Russets	20	160
Southwest Regional Russets	11	88
Pre-Southwest Russets	16	128
Advanced Selection Russet	17	136
Texas Advanced Selection Russets	15	114
Southwest Regional Specialty	6	48
Texas Advanced Selection Specialty	24	192
Texas Advanced Selection Chip	20	120
Total	**348**	**1628**

Dalhart		
Trial	# of Entries	# of Plots
Texas Advanced Specialty Selections	59	464
04 Specialty Selection	48	102
Western Regional Chipping	14	112
Texas Advanced Chipping Selections	29	296
04 Chip Selection	63	140
Texas Advanced Red Selections	36	266
04 Red Selection	101	216
Texas Advanced Specialty Selections	30	112
Advanced Russet Trial	18	144
Pre Southwest Russet	12	80
Texas Advanced Russet Selections	88	128
04 Russet Selection	85	170
Total	**583**	**2230**
Total Entries and Plots	**931**	**3858**

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 348 advanced selections and varieties were tested in replicated and nonreplicated trials near Springlake, while 583 entries were evaluated near Dalhart (Table 1). A large seed increase nursery was grown at the San Luis Valley Research Center, Center, Colorado, by Dr. David Holm.

Since 1973, 23,286 entries have been evaluated (Figure 2). Findings from the Texas Potato Breeding and Variety Development Program trials have resulted in the release of several improved varieties which have contributed significantly to the competitiveness, sustainability, and profitability of the Texas potato industry.

Results from the various trials are presented in the 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, and F provide a more in-depth insight regarding variety characteristics. An Addendum is presented for each trial which describes cultural information associated with each trial. 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.

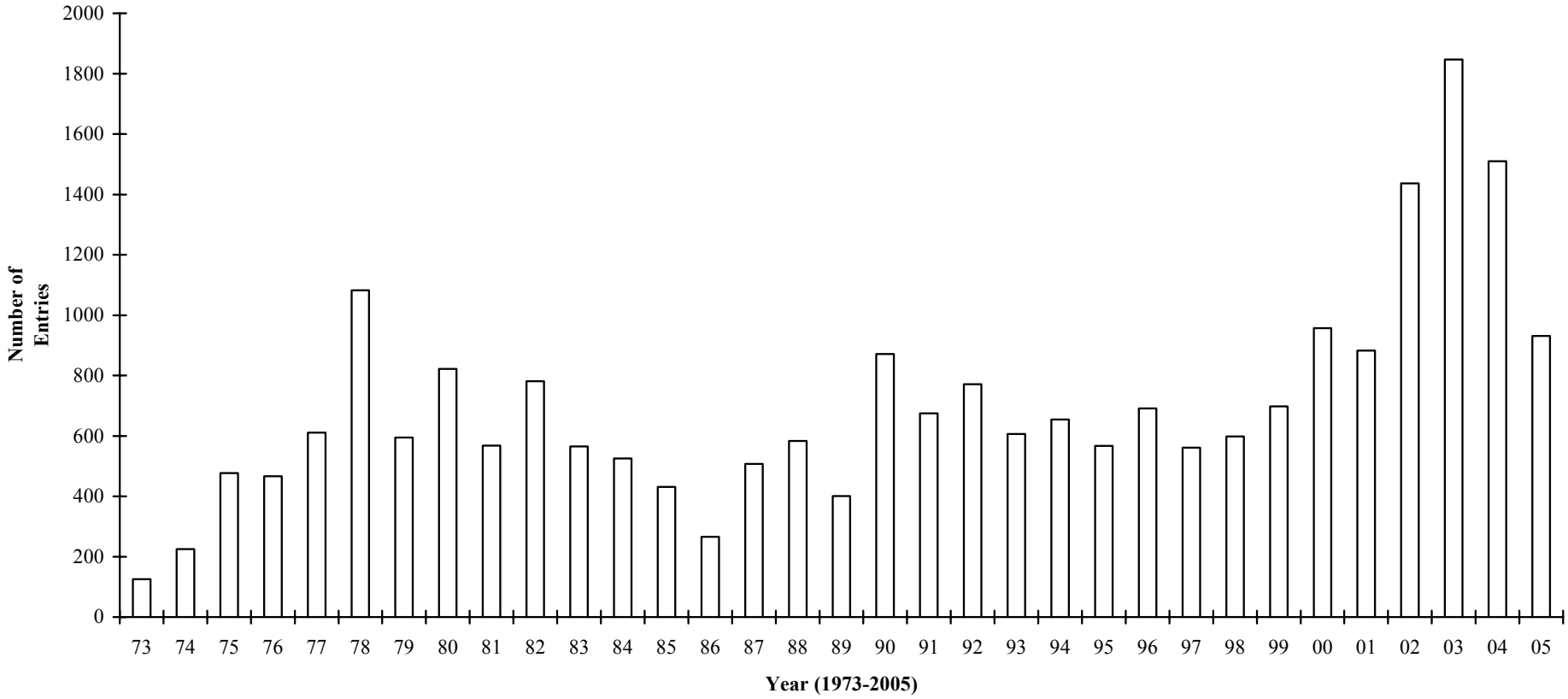

Figure 2. Number of varieties and advanced selections tested for their adaptability to Texas environmental conditions each since the inception of the Texas Potato Variety Development Program in 1973.

Springlake Trials, 2005

Summary of growing conditions:

The trials were planted near Springlake between 22 and 23 March 2005, with harvest on 12, 27 July and 1 and 3 August. These trials were subjected to higher than normal precipitation in the third and fourth weeks of May, the first week in July, and the second and third weeks of August.Temperatures were lower than normal for the last week of April and the first week of May.

Trials conducted:

- Western regional cooperative russet
- Western regional cooperative red/specialty
- Southwestern regional cooperative russet
- Southwestern regional cooperative red
- Southwestern regional cooperative specialty
- Pre-Southwestern regional cooperative russet
- Advanced russet selection
- Texas advanced russet selection
- Texas advanced red selection
- Texas advanced specialty selection
- Texas advanced chip selection

WESTERN REGIONAL COOPERATIVE RUSSET TRIAL

The three 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 2005 russet trial consisted of 22 entries, including the 4 check varieties Ranger Russet, Russet Norkotah, Russet Burbank, and Shepody.

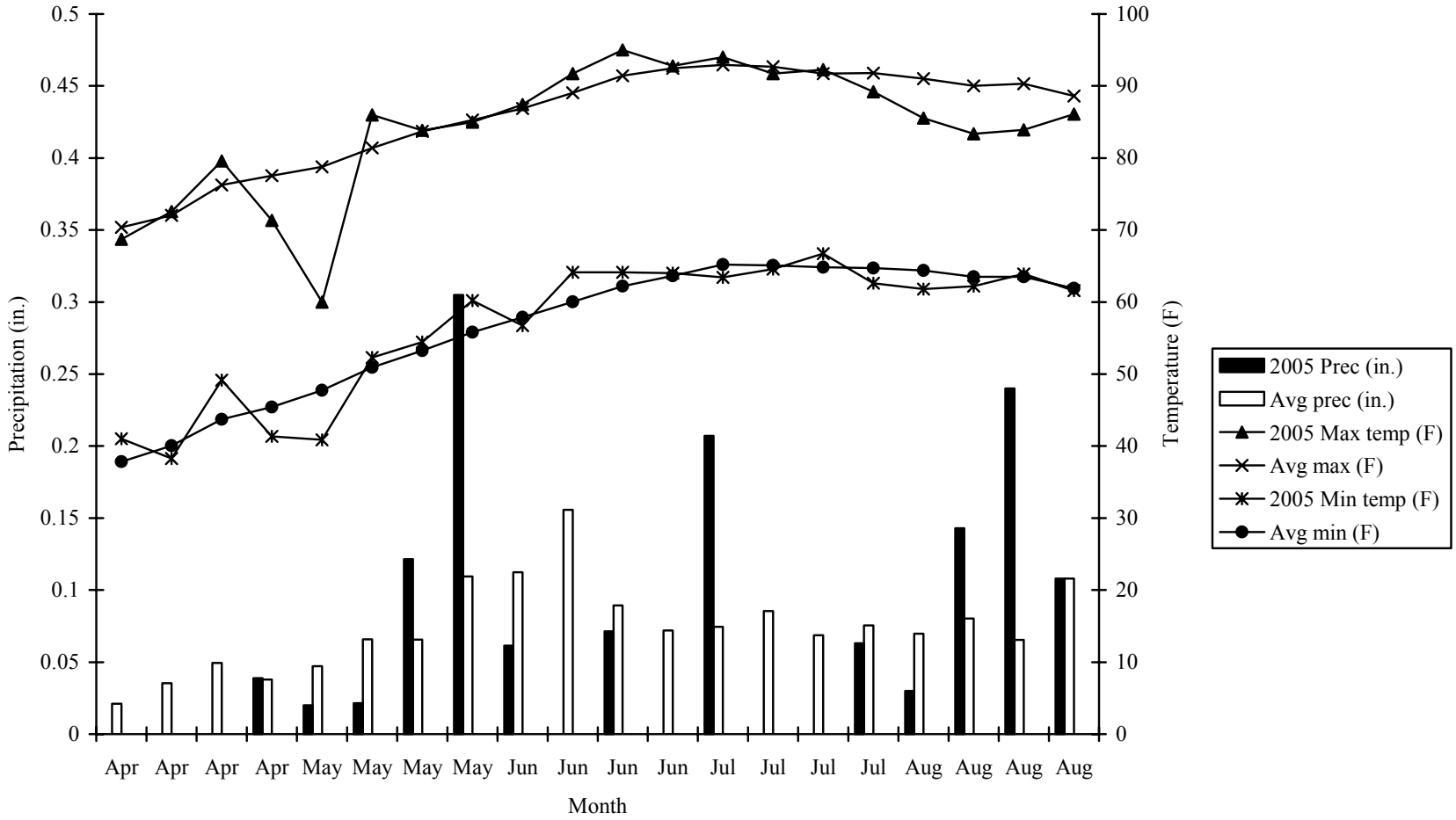

Figure 4. Weekly minimum/maximum temperatures and precipitation for the 2005 trials near Springlake, Texas during the growing season compared to average minimum/maximum temperatures and precipitation (1954-2005).

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

- The outstanding entries for this trial based on general rating and best of trial (BOT) designations were ATX91137-1Ru, Russet Norkotah, A93157-6LS, and A93030-5 (Table 1e). Russet Norkotah, ATX91137-1Ru, TXA549-1Ru, and A93157-6LS received high general ratings (Table 1a and Table 1e).

- MWTX2609-2Ru, A96095-3, TXA549-1Ru, and ATX91137-1Ru had the highest total yields (Table 1a)

- ATX91137-1Ru, A96095-2, and TXA549-1Ru had the highest total marketable yield and the highest yield of 10-18 oz. tubers (Table 1a).

- The clones with the highest yield of less than 4-6 oz. tubers were ATX91137-1Ru, PA97B3-2, and Russet Norkotah., while, MWTX2604-2Ru, A95409-1, and ATX91137-1Ru had the highest yield of 6-10 oz. tubers (Table 1a).

- ATX91137-1Ru and A92030-5 had the highest (84%) and second highest (79%) percent of marketable yield (Table 1b).

- PA97B3-2 and TXA549-1Ru had the highest yield of less than 4 oz. tuber. Russet Burbank and MWTX2609-2Ru had the highest yield and the second highest yield of cull/No. 2 tubers, which comprised 57% and 30% of their total yield, respectively (Table 1a and Table 1b).

- The highest specific gravity was recorded for A93157-6LS, AO96160-3, and A92030-5 (Table 1b).

- MWTX2609-2Ru, PA97B2-3, and A92294-6 had the highest average number of tubers per plant, while AOA95155-7 and A92030-5 had the lowest average number. The highest average tuber weight was recorded for A96095-3 and A92030-5 (Table 1c).

- MWTX2609-2Ru and A95109-1 were the latest maturing clones, while PA97B3-2 and CO95086-8RU was the earliest maturing (Table 1c).

- A92294-6 and Shepody had the lightest russet skin (Table 1d).

- A96095-3 and Ranger Russet had the highest percentage of vascular discoloration (Table 1d).

- Highest general ratings at grading were received by ATX91137-1Ru (3.7), A92030-5 (3.6), A95109-1 (3.5), TAX549-1Ru (3.4), and A93157-6LS (3.3) (Table 1d).

<u>Comments on entries:</u>

- A92030-5 Oblong Russet, knobs, pointed to stem end, fat tubers, BOT, BOT-.

- A92294-6 Long White, rough, feathering, crooked tubers, drop.

- A93157-6LS Oblong Russet, nice shape, small, BOT-.

- A95109-1 Oblong Russet ,light net color, feathering, nice.

- A95409-1 Long Russet, feathering, rough, large tubers, drop.

- A96095-3 Long Russet, curved tubers, thin, too long, pointed to stem end, drop.
- A96104-2 Oblong Russet, late, small, poor shape, Rhizoctonia, drop?, drop.
- AO96160-3 Oblong Russet, late, rough, heat sprouts, drop.
- AO96164-1 Long Russet, pointed to stem end, pointed to bud end, poor shape, drop.
- AOA95154-1 Oblong Russet, heat sprouts, late, nice, drop.
- AOA95155-7 Oblong Russet, heat sprouts, very late, feathering, poor shape, small, drop.
- ATX91137-1Ru Oblong Russet, blocky, nice, keep, attractive, BOT for all reps.
- CO94035-15RU Oblong Russet, late, Rhizoctonia, poor shape, pointed, ugly net, heat spouts, crooked, drop.
- CO95086-8RU Oblong Russet, drop.
- CO95172-3RU Oblong Russet, small, late, Rhizoctonia, pointed, small, feathering, drop.
- MWTX2609-2Ru Long Russet, heat sprouts, pointed to stem end, stem nipples, feathering, drop.
- PA97B3-2 Oblong Russet, rough, ugly net, drop.
- Ranger Russet Long Russet, late, 10% heat necrosis, heat sprouts, rough, drop.
- Russet Burbank Long Russet, small thin rough tubers, raised eyes, rough, drop.
- Russet Norkotah Oblong Russet, nice, drop for one rep, BOT-.
- Shepody Long White, heat sprouts, drop.
- TXA549-1Ru Oblong Russet, blocky, keep, fat tubers, nice.

Summary:

Overall, the outstanding entries based on general rating and marketable yield were ATX91137-1Ru and TXA549-1Ru. Other entries deserving mention include Russet Norkotah, A92030-5, A93157-6LS, and A95109-1.

WESTERN REGIONAL COOPERATIVE RED/SPECIALTY TRIAL

This trial consisted of 21 entries, including the check varieties Red LaSoda, Dark Red Norland, All Blue, and Yukon Gold.

Results for the **red skinned white flesh clones** were as follows: (Springlake Tables 2a, 2b, 2c, 2d, and 2e)

- The outstanding entries based on general rating were Dark Red Norland, A96741-2R, and VC1075-1R (Table 2a).
- VC1075-1R and Dark Red Norland had the highest total yield, while Red LaSoda and Dark Red Norland had the highest marketable yield (Table 2a).
- Red LaSoda had the highest yield of greater than 6 oz. tubers, while Dark Red Norland had the highest yield of 4-6 oz. tubers (Table 2a).
- A96741-1R and VC1075-1R had the highest yield of less than 4oz. tubers (Table 2a).
- Red LaSoda and Dark Red Norland had the highest percentage of marketable yield. Dark Red Norland had the highest percentage of 4-6 oz. tubers, while Red LaSoda had the highest percentage of greater than 6 oz. tubers. A96741-1R, VC1075-1R, and A96741-2R had the highest percentage of less than 4 oz. tubers (Table 2b).
- All of the entries had similar values for specific gravity (Table 2b).
- A96741-1R, A96741-2R, and VC1075-1R had the highest average number of tubers per plant, while Red LaSoda and Dark Red Norland had the lowest (Table 2c).
- Red LaSoda and Dark Red Norland had the highest average tuber weight, while A96741-1R, A96741-2R, and VC1075-1R had the lowest (Table 2c).
- The earliest maturing entry was Dark Red Norland, while VC1075-1R and A96741-1R were the latest (Table 2c).
- Red LaSoda and Dark Red Norland had oblong tubers, while those of A96741-1R, A96741-2R, and VC1075-1R tended to be round (Table 2d).
- Red LaSoda had the deepest eyes (Table 2d).
- VC1075-1R and A96741-2R had the darkest red skin color, while Dark Red Norland and Red LaSoda had the lightest (Table 2d).
- All of the entries had little or no internal defects (Table 2d).

Summary:

In general, none of the entries outperformed the check varieties although A96741-2R shows promise.

Results for the **red skinned yellow flesh** clones were as follows: (Springlake Tables 2a, 2b, 2c, 2d, and 2e)

- Both entries received similar general ratings (Table 2a).
- VC0967-2R/Y produced the highest total yield, while VC0967-2R/Y and VC1015-7R/Y had similar yield of marketable tubers (Table 2a).
- VC0967-2R/Y had the highest yield of less than 4 oz. tubers (Table 2a).
- VC1015-7R/Y had the highest percentage of marketable and over 6 oz. tubers. VC0967-2R/Y had the higher percentage of less than 4 oz. tubers (Table 2b).
- VC0967-2R/Y had the higher specific gravity (Table 2b).
- VC0967-2R/Y had the higher average number of tubers per plant (Table 2c).
- VC1015-7R/Y and VC0967-2R/Y had similar values for average tuber weight and had similar values for maturity (Table 2c).
- VC1015-7R/Y had a much darker yellow flesh color (Table 2d).
- VC0967-2R/Y and VC1015-7R/Y had very few internal defects (Table 2d).

Summary:

Neither entry was judged to be outstanding however VC1015-7R/Y exhibited a darker yellow flesh color.

Results for the **red skinned red flesh clones** were as follows: (Springlake Tables 2a, 2b, 2c, 2d, and 2e)

- CO94183-1R/R had the highest general rating (Table 2a).
- PA99920-2 produced the highest total and marketable yield (Table 2a).
- PA99920-2 had the highest yield of less than 4 oz. and 6-10 oz. tubers (Table 2a).
- None of the entries had more than 52% marketable yield (Table 2b).
- POR01PG20-12 had the highest specific gravity (Table 2b).
- All of the entries had similar values for average number of tubers per plant and average tuber weight (Table 2c).
- All of the entries had similar values for maturity, although CO94183-1R/R had the highest percentage of dead vines at harvest, while POR01PG20-12 had the lowest percentage (Table 2c).
- All of the entries had similar values for flesh color (Table 2d).

Summary:

Of the red skinned red flesh clones, CO94183-1R/R showed the most promise.

Results for the **purple skinned purple flesh clones** were as follows: (Springlake Tables 2a, 2b, 2c, 2d, and 2e)

- CO94165-3P/P had a slightly higher general rating than All Blue (Table 2a).
- CO94165-3P/P produced higher yields in all categories than All Blue (Table 2a).
- Both entries had similar values for specific gravity (Table 2b).
- CO94165-3P/P had the highest average number of tubers per plant, while both entries had similar values for average tuber weight (Table 2c).
- CO94165-3P/P was earlier maturing than All Blue (Table 2c).
- CO94165-3P/P darker flesh color than All Blue (Table 2d).

Summary:

CO94165-3P/P deserves further testing.

Results for the **white skinned yellow flesh clones** were as follows: (Springlake Tables 2a, 2b, 2c, 2d, and 2e)

- The outstanding entries based on general rating were Yukon Gold, VC1123-2W/Y, and NY126 (Table 2a).
- NY126, Yukon Gold and BTX1544-2W/Y produced the highest total yield and marketable tubers (Table 2a).
- NDA5507-3YF, VC1002-3W/Y, and NY126 had the highest yield of less than 4 oz. tubers, while Yukon Gold and BTX1544-2W/Y had the highest yield of greater than 10 oz. tubers (Table 2a).
- NY126, Yukon Gold and BTX1544-2W/Y had the highest percentage of marketable yield. VC1002-3W/Y, VC1009-1W/Y, and NDA5507-3YF had the highest percentage of less than 4 oz. tubers. Yukon Gold and BTX1544-2W/Y had the highest percentage of greater than 6oz tubers (Table 2b).
- VC1002-3W/Y and NY126 had the highest specific gravity (Table 2b).
- VC1002-3W/Y and CO94157-2W/Y had the highest average number of tubers per plant, while A95074-6 and VC1009-1W/Y had the lowest (Table 2c).
- Yukon Gold, NY126 and BTX1544-2W/Y had the highest average tuber weight, while VC1002-3W/Y and CO94157-2W/Y had the lowest (Table 2c).
- The earliest maturing clones were Yukon Gold and BTX1544-2W/Y, while A95074-6 and VC1123-2W/Y were the latest (Table 2c).

- A95074-6 and CO94157-2W/Y were the longest tubers, while NY126 and NDA5507-3YF was the roundest (Table 2d).

- All of the entries had no significant levels of internal defects (Table 2d).

- VC1009-1W/Y and VC1123-2W/Yhad the deepest yellow flesh color, while NY126 and A95074-6 had the lightest yellow flesh color (Table 2d).

Summary:

Several of these entries deserve further evaluation.

Comments on entries:

Red/White Flesh

- Dark Red Norland — Oblong Red, road map, poor shape.
- Red LaSoda — Oblong Red, deep eyes, poor yield, 10% heat necrosis, no road map.
- A96741-1R — Oblong Red, flesh not very white, heat sprouts, poor shape, silver scurf, feathering, nice.
- A96741-2R — Oblong Red, growth cracks, late, nice, a little rough.
- VC1075-1R — Round Red, flat, eye brows, nice, road map, drop.

Red/Yellow Flesh

- VC0967-2R/Y — Oblong Red, Y-1.7, heat sprouts, flat, pointed, drop.
- VC1015-7R/Y — Oblong Red, Y-3.2, road map, buff, nice flesh.

Red/Red Flesh

- CO94183-1R/R — Oblong Red, poor yield, road map, silver scurf, nice.
- PA99P20-2 — Oblong Red, poor shape, pointed, curved tubers, silver scurf, drop.
- POR01PG20-12 — Oblong-Long Red, very late, heat sprouts, knobs, poor shape, feathering, drop.

Purple/Purple Flesh

- All Blue — Oblong-Long Purple, small, drop.
- CO94165-3P/P — Oblong Purple, poor shape, road map, rough.

Yellow Flesh

- Yukon Gold — Oblong White, Y-1.7, nice.
- A95074-6 — Oblong-Long White, Y-1.7, need to size, feathering, small tubers, drop.

- BTX1544-2W/Y Oblong White Y-1.7, growth cracks, poor yield, rot, shape?, pointed to apical end.
- CO94157-2W/Y Oblong-Long White, Y-1, heat sprouts, smooth, variable flesh color, small tubers, road map, drop.
- NDA5507-3YF Oblong White, Y-2.7, red splash eyes, nice shape, feathering, smooth, pointed to stem end, buff.
- NY126 Round-Oblong White, Y-3, smooth.
- VC1002-3W/Y Oblong-Long White, Y-3, poor yield, small boilers, heat sprouts, variable shape round to long, ugly skin, road map, drop.
- VC1009-1W/Y Oblong White, Y-2.7, heat sprouts, poor yield, smooth, nice small tubers, drop.
- VC1123-2W/Y Oblong White, Y-3, heat sprouts, flat, sunburn, late, ugly skin.

[1]Y=-Flesh color intensity, 1=very light to 5=very dark purple or dark yellow

SOUTHWESTERN REGIONAL COOPERATIVE TRIALS

This is the eighth year for the Southwestern Regional Cooperative Trials, which in 2005 included Russet, Chipping (conducted at Dalhart), and Specialty Trials. The Southwestern Regional Potato Research Consortium 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 COOPERATIVE RUSSET TRIAL

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

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

- The outstanding entries based on general rating and Best of Trial (BOT) designations were AOTX95265-2ARu, AOTX95265-4Ru, and Russet Norkotah (Table 3a, 3e).
- TXDH-99-1Ru and MWTX2609-4Ru had the highest total and marketable yield. TXDH-99-1Ru and AOTX95265-2ARu had the highest yield of over 10 oz. tubers. TXDH-99-1Ru and MWTX2609-4Ru also had the highest yield of less than 4 oz. and cull/No. 2 tubers (Table 3a).

- Russet Norkotah, AOTX98137-1Ru, and AOTX95265-2ARu had the highest percentage of marketable yield, while AOTX95265-2ARu, Russet Norkotah, and AOTX95265-4Ru had the highest percentage of over 10 oz tubers. TXDH-99-1Ru and MWTX2609-4Ru had both the highest yield and the highest percentage of cull/No. 2 tubers (Table 3a 3b).

- All of the entries had similar values for specific gravity (Table 3b).

- TXDH-99-1Ru and MWTX2609-4Ru had the highest average number of tubers per plant, while AC96052-1RU had the lowest tubers per plant. TXDH-99-1Ru and Russet Norkotah had the highest average tuber weight, while CO97137-1W had lowest tuber weight (Table 3c).

- TXDH-99-1Ru and MWTX2609-4Ru were the latest maturing entries, while Russet Norkotah, AOTX98137-1Ru were the earliest maturing entries (Table 3c).

- AOTX95265-4Ru, AOTX95265-2ARu, and Russet Norkotah received the highest general rating at grading (Table 3E).

- MWTX2609-4Ru and TXDH-99-1Ru had a light russet skin, while CO97137-1W had a white skin (Table 3d).

- CO97137-1W had the highest percentage of slight vascular discoloration (Table 3d).

Comments on entries:

- TXDH-99-1Ru — Oblong White, some pointed to stem end, feathering, mix, 10% heat necrosis, eye knobs, nice internals, heat sprouts, drop.

- MWTX2609-4Ru — Long Russet, knobs feathering, eye knobs, century like, nice, pointed to stem end, poor shape, drop?.

- AOTX95265-2ARu — Oblong Russet, pointed to stem end, 40% heat necrosis, nice, Rhizoctonia, BOT.

- AOTX95265-4Ru — Long Russet, very nice, Rhizoctonia, rough, crooked tubers BOT for all reps.

- AOTX98137-1Ru — Oblong Russet, very nice, some pointed to stem end, drop?.

- Russet Norkotah — Oblong Russet, nice, some tuber moth, BOT.

- CO97137-1W — Oblong White, skinny, slight stem end discoloration, pointed to stem end, drop.

- AC96052-1RU — Oblong Russet, late, small, 20% heat necrosis, nice shape, drop.

Summary:

Clearly the outstanding entry was AOTX95265-4Ru. AOTX95265-2ARu also deserves mention and both of these entries should be considered for entry into the Western Regional Trial.

SOUTHWESTERN REGIONAL COOPERATIVE RED TRIAL

The Southwestern Regional Cooperative Red Trial consisted of 3 entries, including the check varieties Red LaSoda and Dark Red Norland .

Results from the trial were as follows: (Springlake Tables 4a, 4b, 4c, 4d, and 4e)

- CO97078-5R received a best of trial notation, while Dark Red Norland received the highest general rating (Table 4a, 4e).
- All three entries had similar values for total yield, while Red LaSoda had the highest marketable yield and over 6 oz. tubers. CO97097-5R had the highest yield of less than 4 oz. tubers (Table 4a).
- Red LaSoda had the highest percentage of marketable and over 6 oz. tubers, while CO97097-5R had the highest percentage of less than 4 oz. tubers (Table 4b).
- All entries had similar values for specific gravity (Table 4b).
- CO97097-5R had the highest average number of tubers per plant. All the entries were early maturing (Table 4c).
- CO97097-5R tubers were more round than the check varieties (Table 4d).

Comments on entries:

- Dark Red Norland Oblong Red, road map, poor shape.
- Red LaSoda Oblong Red, deep eyes, poor yield, 10% heat necrosis, no road map.
- CO97078-5R Oblong Red, nice red color, late, feathering, nice, nice interior, BOT.

Summary:

CO97078-5R performed very well and deserves further evaluation.

SOUTHWESTERN REGIONAL COOPERATIVE SPECIALTY TRIAL

The Southwestern Regional Cooperative Specialty Trial consisted of 6 entries, including the check variety Yukon Gold .

Results from the trial were as follows: (Springlake Tables 5a, 5b, 5c, 5d, and 5e)

- Yukon Gold was the outstanding entry based on best of trial notations and general rating (Table 5a).
- CO97233-3R/Y and CO97232-2R/Y had the highest total yield, while Yukon Gold, CO97233-3R/Y, and CO97232-2R/Y had the highest yield of marketable tubers. CO97232-2R/Y had a highest yield of 4-6 oz. tubers while Yukon Gold had the highest yield of over 6 oz. tubers. CO97232-2R/Y and CO97226-2R/R had the highest yield of less than 4 oz. tubers (Table 5a).
- Yukon Gold had the highest percentage of marketable tubers, while CO97226-2R/R had the highest percentage of less than 4 oz. tubers. Yukon Gold had the highest specific gravity (Table 5b).
- CO97226-2R/R had the highest average number of tubers per plant, while Yukon Gold had the highest average tuber weight (Table 5c).
- CO97232-1R/Y was the earliest maturing, while AC97521-1R/Y was the latest (Table 5c).
- CO97226-2R/R had a red flesh and a very red skin color (Table 5d).
- Yukon Gold and all of the red yellow flesh clones had similar yellow flesh ratings (Table 5d).

Comments on entries:

- CO97233-3R/Y — Oblong Red, feathering, poor shape, pointed, drop, nice internal, severe road map, green sprout.
- CO97232-2R/Y — Oblong Red, ugly net, road map, poor shape, pointed to stem end, nice shape, buff, nice internal.
- CO97226-2R/R — Round Red, road map, nice internal, nice shape, dark yellow flesh, BOT-, drop?, many small tuber, drop, feathering.
- Yukon Gold — Oblong White, BOT, feathering.
- CO97232-1R/Y — Oblong Red, nice color, road map, poor shape, poor flesh color, feathering, pointed to stem end.
- AC97521-1R/Y — Oblong Red, poor shape, dark yellow flesh, pointed to stem end, buff skin on stem end, rough, drop ++, feathering.

Summary:

None of the entries out performed the check variety Yukon Gold.

OUTSTANDING PRE-SOUTHWESTERN TRIAL ENTRIES

Overall Summary - Springlake and Dalhart: The Pre-Southwestern Russet Trials at Springlake and Dalhart included 10 entries, with Russet Norkotah as the check variety. Based on both trials, all 10 entries will be re-evaluated in the 2006 season.

PRE-SOUTHWESTERN REGIONAL COOPERATIVE RUSSET TRIAL

This russet trial consisted of 10 entries including the check variety Russet Norkotah. All seed was produced in Dalhart 2004.

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

- AOTX96208-1Ru and AOTX95265-4Ru were the outstanding entries based on general rating and best of trial (BOT) designations. AOTX95295-1Ru, AOTX95265-1Ru, and Russet Norkotah also received BOT designations (Table 6a and Table 6e).
- AOTX95269-1Ru and AOTX96208-1Ru had the highest total yield. AOTX96208-1Ru and AOTX95265-4Ru had the highest yield of marketable tubers, while AOTX95269-1Ru and AOTX96208-1Ru had the highest yield of 6-10 oz. tubers. AOTX95265-3Ru and AOTX95295-1Ru had the highest yield of over 10 oz. tubers (Table 6a).
- AOTX95265-4Ru and AOTX96216-1Ru had the highest yield of 4-6 oz. tubers, while Russet Norkotah and AOTX95295-3Ru had the highest yield of less than 4 oz. tubers (Table 6a).
- AOTX95269-1Ru had the highest yield of culls/no. 2 tubers (Table 6a).
- AOTX96208-1Ru, AOTX95265-3Ru, and AOTX95265-4Ru had the highest percentage of marketable yield (Table 6b).
- AOTX98137-1Ru and AOTX95295-3Ru had the highest percentage of 4-6 oz. tubers, while AOTX95265-1Ru and AOTX96208-1Ru had the highest percentage of 6-10 oz tubers (Table 6b).
- AOTX96265-3Ru and AOTX95295-1Ru had the highest percentage of 10-18 oz. tubers, while AOTX95295-3Ru and Russet Norkotah had the highest percentage of less than 4 oz. tubers. AOTX95269-1Ru had the highest percentage of culls/No.2 tubers (Table 6b).
- All of the clones had similar values for specific gravity (Table 6b).

- AOTX95269-1Ru had the highest average number of tubers per plant, while AOTX98137-1Ru had the lowest. AOTX96208-1Ru and AOTX95265-1Ru had the highest average tuber weight, while AOTX95295-3Ru had the lowest (Table 6c).

- AOTX96216-1Ru, AOTX95269-1Ru, and AOTX96208-1Ru were latest in maturity, while Russet Norkotah and AOTX95295-3Ru was the earliest (Table 6c).

- AOTX95265-3Ru, Russet Norkotah, AOTX95265-1Ru, and AOTX95265-4Ru received the highest general ratings at grading.

Comments on entries:

- AOTX95269-1Ru Oblong Russet, late, curved tubers, pointed, rough, small, GR[2]=3.1.
- AOTX96208-1Ru Oblong Russet, yield+, BOT, large tubers, Rhizoctonia, drop, GR=3.2.
- AOTX95265-4Ru Oblong Russet, some rot, feathering, BOT-, rough, GR=3.4.
- AOTX95295-1Ru Oblong Russet, rot, rough, uneven net, BOT++, pointed to bud end, GR=3.3.
- AOTX95265-1Ru Oblong Russet, rot+, Rhizoctonia, uniform, small tubers, some curved, BOT, GR=3.4.
- AOTX96216-1Ru Oblong Russet, some curved, pointed, feathering, large tubers, GR=3.1.
- Russet Norkotah Oblong Russet, strange net, 20% heat necrosis, BOT, pointed to apical end, GR=3.3.
- AOTX95265-3Ru Oblong Russet, very nice, BOT, ugly net on stem end, GR=3.5.
- AOTX95295-3Ru Oblong Russet, poor net, GR=3.1.
- AOTX98137-1Ru Oblong Russet, uniform, smooth, small, GR=3.1.

[2]GR= Average general rating at grading.

Summary:

Entries which appeared to stand out included: AOTX96208-1Ru, AOTX95295-1Ru, AOTX95265-3Ru, and AOTX95265-4Ru.

ADVANCED RUSSET SELECTION TRIAL

This russet trial consisted of 17 entries including the check variety Russet Norkotah.

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

- ATX91137-1Ru, TXA549-1Ru, and Stampede Russet were the outstanding entries based on general rating and best of trial designations. ATX84378-1Ru and Russet Norkotah also received high general ratings (Table 7a and Table e).

- MWTX2609-4Ru, MWTX2609-2Ru, TXDH-99-1Ru, and ATX91137-1Ru had total yield of greater than 400 cwt/a. TXA549-1Ru and ATX91137-1Ru had the highest yield of marketable tubers, while ATX91137-1Ru and ATX9332-8Ru had the highest yield of 6-10 oz. tubers. ATX84706-2Ru had the highest yield of over 10 oz. tubers (Table 7a).

- TXA549-1Ru had the highest yield of 4-6 oz. tubers, while TXDH-99-1Ru and ATX91137-1Ru had the highest yield of less than 4 oz. tubers (Table 7a).

- MWTX2609-4Ru, MWTX2609-2Ru, TXDH-99-1Ru had the highest yield of culls/no. 2 tubers (Table 7a).

- ATX84706-2Ru, TXA549-1Ru, and Stampede Russet had marketable yield of greater than 80 percent, however ATX84706-2Ru had 26.1 percent of it yield in the over 18 oz. tuber category (Table 7b).

- TXA549-1Ru, AOTX98137-1Ru, and Stampede Russet had the highest percentage of 4-6 oz. tubers, while ATX9332-8Ru and ATX91137-1Ru had the highest percentage of 6-10 oz tubers (Table 7b).

- ATX84706-2Ru and ATX84378-1Ru had the highest percentage of greater than 10 oz. tubers, while AOTX95265-2ARu and ATX9202-1Ru had the highest percentage of less than 4 oz. tubers. MWTX2609-4Ru, MWTX2609-2Ru, TXDH-99-1Ru, TXNS223, TXNS278, and TXNS296 had over 30 percent culls/No.2 tubers (Table 7b).

- ATX9332-8Ru and TXA549-1Ru had the highest specific gravity (Table 7b).

- MWTX2609-4Ru, MWTX2609-2Ru, TXDH-99-1Ru had the highest average number of tubers per plant, while ATX84378-1Ru had the lowest. ATX84706-2Ru and ATX84378-1Ru had the highest average tuber weight, while AOTX95265-2ARu had the lowest (Table 7c).

- MWTX2609-4Ru, MWTX2609-2Ru, TXDH-99-1Ru, TXNS278, ATX9202-1Ru, TX223, and TXNS296 were the latest in maturity, while Russet Norkotah and AOTX98137-1Ru were the earliest in maturity (Table 7c).

- MWTX2609-4Ru, MWTX2609-2Ru, and TXDH-99-1Ru had the lightest net.(Table 7d)

- ATX91137-1Ru and Stampede Russet received the highest general rating at grading (Table 7d).

Comments on entries:

- MWTX2609-4Ru Long Russet, drop++, feathering, pointed to stem end, cone shaped, GR [2]=2.5.

- MWTX2609-2Ru Long Russet, heat sprouts, bad sprouting, drop, feathering, GR=2.7.

- TXDH-99-1Ru Long Russet, drop+++, apical nipples, feathering, poor shape, GR=2.4.
- ATX91137-1Ru Oblong Russet, BOT++, very nice, net not as good as Nork, GR= 4.2.
- TXA549-1Ru Oblong Russet, BOT, blocky, uniform, feathering, GR=3.5.
- TXNS278 Long Russet, poor shape, feathering, Rhizoctonia, rough, GR=3.2.
- Stampede Russet Oblong Russet, BOT+, nice shape, very smooth, growth cracks, GR=4.4.
- AOTX98137-1Ru Long Russet, nice, drop, GR=3.3.
- ATX9332-8Ru Oblong Russet, ugly net, 10% heat necrosis, smooth, drop, GR=3.2.
- ATX9202-1Ru Oblong Russet, GR=3.1.
- TXNS223 Long Russet, poor shape, pointed to stem end, curved tubers, rough, GR= 3.1.
- ATX84706-2Ru Oblong Russet, hollow heart resistant, parent, GR=3.3.
- Russet Norkotah Long Russet, apical nipples, some curved, GR=3.2.
- TXNS296 Long Russet, drop, variable shape, GR=2.9.
- AOTX95265-4Ru Oblong Russet, drop+, nice interior, feathering, GR=3.2.
- AOTX95265-2ARu Oblong Russet, feathering, nice, blocky?, rough, GR=3.0.
- ATX84378-1Ru Long Russet, GR=3.4.

[2]GR= Average general rating at grading.

Summary:

Clearly the outstanding entries were ATX91137-1Ru, TXA549-1Ru, and Stampede Russet. TXNS278, Russet Norkotah, TXNS223, and ATX84378-1Ru also deserve mention.

OUTSTANDING TEXAS ADVANCED RUSSET SELECTIONS, 2005

Overall Summary - Springlake and Dalhart: The Texas Advanced Russet Selection Trials at Springlake included 14 entries, of these, 9 were also planted at Dalhart. Russet Norkotah was the check variety for both locations. Based on both trials, 9 entries will be re-evaluated in the 2006 season.

TEXAS ADVANCED RUSSET SELECTION TRIAL

The trial consisted of 13 entries, including the check variety Russet Norkotah. All seed was grown in Dalhart.

Results were as follows: (Springlake Tables 8a, 8b, 8c, 8d, and 8e)

- The outstanding entries for this trial based on general rating and best of trial designations were AOTX96216-2Ru, AOTX96084-1Ru, ATX97195-1Ru, and ATX99049-1Ru (Table 8a).

- COTX00212-1Ru, AOTX96216-2Ru, and AOTX96084-1Ru had the highest total and marketable yields. COTX00212-1Ru had the highest yield of 4-6 oz. tubers (Table 8a).

- AOTX96084-1Ru had the highest yield of 6-10 oz. tubers, while AOTX96212-2Ru had the highest yield of over 10 oz. tubers (Table 8a).

- AOTX98183-2Ru and AOTX98202-1Ru had the highest yield of less than 4 oz. tubers, while AOTX98096-1Ru, COTX01440-1Ru, and ATX99049-1Ru had the highest yield of cull/No. 2 tubers (Table 8a).

- COTX00212-1Ru, AOTX96084-1Ru, and AOTX96212-3Ru had the highest percentage of marketable yield (Table 8b).

- COTX00212-1Ru had the highest percentage of 4-6 oz. tubers, while AOTX96084-1Ru, COTX00212-1Ru, and AOTX96212-3Ru had the highest percentage of 6-10 oz. tubers (Table 8b).

- AOTX96216-2Ru had the highest percentage of over 10 oz. tubers, while AOTX98202-1Ru and AOTX98183-2Ru had the highest percentage of less than 4 oz. tubers. AOTX98096-1Ru, ATX99049-1Ru, and COTX01440-1Ru had the highest percentage of culls/No.2 tubers (Table 8b).

- AOTX98183-2Ru and COTX00212-1Ru had the highest specific gravity (Table 8b).

- COTX00212-1Ru and AOTX98183-2Ru had the highest average number of tubers per plant, while AOTX96212-3Ru had the lowest. AOTX96216-2Ru, ATX99049-1Ru, and AOTX96212-3Ru had the highest average tuber weight, while AOTX98183-2Ru had the lowest (Table 8c).

- AOTX96216-3Ru and AOTX96212-2Ru had the lowest percentage of dead vines at harvest, while Russet Norkotah and COTX01440-1Ru had the highest (Table 8c).

- AOTX98183-2Ru had a slightly higher percentage of internal defects that the other entries (Table 8d).

- AOTX96084-1Ru, ATX97195-1Ru, ATX99049-1Ru, and ATX99092-1Ru had the highest general rating at grading.

Comments on entries:

- COTX00212-1Ru Long Russet, poor net, ugly net, rough, drop++, feathering, poor shape, GR[2]=2.7.
- AOTX96216-2Ru Long Russet, late, BOT-, poor rep, nice shape, GR=3.4.
- AOTX96084-1Ru Oblong Russet, nice, BOT+, small, heat sprouts, Blackspot bruise??, drop, 10% heat necrosis, GR=4.1.
- ATX97195-1Ru Oblong Russet, apical nipples, blocky, 10% heat necrosis, BOT, GR=3.4.
- ATX99049-1Ru Long Russet, BOT+, rough, drop, pointed to apical end, GR=3.4.
- AOTX96075-1Ru Oblong Russet, drop+, heat sprouts, small, Blackspot bruise??, some pointed to apical end, Rhizoctonia, 10% heat necrosis, GR=3.2.
- Russet Norkotah Oblong Russet, rot, Rhizoctonia, small, GR=3.2.
- COTX01440-1Ru Oblong Russet, smooth, ugly net, heat sprouts, drop++, GR=2.9.
- AOTX98183-2Ru Oblong Russet, uneven net, not as nice, drop+, blocky, light fine net, rough, mix?, GR=2.9.
- AOTX98096-1Ru Oblong Russet, drop++, GR=3.2.
- AOTX98202-1Ru Oblong Russet, drop++, BOT-, GR=3.1.
- ATX99092-1Ru Oblong Russet, drop, pointed to apical end, mix?, blocky, short tubers are OK, GR=3.5.
- AOTX96216-3Ru Long Russet, late, rough, some pointed to apical end, GR=3.3.

[2]GR= Average general rating at grading.

Summary:

Based on all factors, the outstanding entries in this trial were ATX99049-1Ru, AOTX96216-2RU, AOTX96084-1Ru, and ATX97195-1Ru.

OUTSTANDING TEXAS ADVANCED RED SELECTIONS, 2005

Overall Summary - Springlake and Dalhart: The Texas Advanced Red Selection Trials at Springlake had 11 entries and 17 entries at Dalhart. Red LaSoda was the check variety for both locations. Based on both trials, the following 17 entries will be re-evaluated in the 2006 season.

TEXAS ADVANCED RED SELECTION TRIAL

This trial consisted of 11 entries. With the exception of Red LaSoda, NDTX4271-1R, and NDTX4304-1R all seed came from Dalhart.

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

- The outstanding entries based on general rating and best of trial designations were NDTX731-1R, NDTX4304-1R, and BTX2332-1R. ATTX98452-9R and NDTX4828-2R also received high general ratings (Table 9a).
- NDTX4304-1R, NDTX731-1R, and ATTX98452-9R had the highest total yield, while NDTX4304-1R, NDTX731-1R and Red LaSoda had the highest marketable yield (Table 9a).
- BTX2332-1R and NDTX4304-1R had the highest yield of 4-6 oz. tubers, while NDTX731-1R had the highest yield of 6-10 oz. and10-18 oz. (Table 9a).
- NDTX4304-1R and COTX94218-1R had the highest yield of less than 4 oz tubers (Table 9a).
- NDTX731-1R and Red LaSoda had the highest percentage of marketable yield, while BTX2332-1R and COTX00104-6R had the highest percentage of 4-6 oz. tubers (Table 9b).
- NDTX731-1R and Red LaSoda had the highest percentage of over 6 oz. tubers. (Table 9b).
- COTX94218-1R had the highest percentage of less than 4 oz. tubers (Table 9b).
- COTX00104-6R, NDTX4828-2R, NDTX4271-5R, and Red LaSoda had the highest specific gravity (Table 9b).
- NDTX4304-1R and COTX94218-1R had the highest average number of tuber per plant, while COTX00104-6R had the lowest. NDTX731-1R and Red LaSoda had the highest average tuber weight, while NDTX4847-7R had the lowest (Table 9c).
- NDTX4304-1R, Red LaSoda, NDTX4271-5R, and COTX00104-6R were the latest maturing, while ATTX98452-9R, NDTX4847-7R, and NDTX4828-2R were the earliest maturing (Table 9c).
- Red LaSoda and COTX94218-1R had the lightest red skin color (Table 9d).

<u>Comments on entries:</u>

- NDTX4304-1R Oblong Red, heat sprouts, growth cracks, BOT.
- NDTX731-1R Oblong Red, BOT+, rough, Rhizoctonia, susceptible to hollow heart.
- ATTX98452-9R Oblong Red, yield+, heat sprouts, BOT, nice smooth, nice interior, keep, road map, Rhizoctonia.
- Red LaSoda Oblong Red, heat sprouts.
- BTX2332-1R Oblong Red, nice shape, nice, keep, Rhizoctonia, BOT.
- NDTX4271-5R Oblong Red, yield+, heat sprouts, color+, very nice, buff skin, Rhizoctonia, BOT, nice interior.
- NDTX4847-7R Oblong Red, growth cracks, Rhizoctonia.
- NDTX4828-2R Oblong Red, yield+.
- COTX94218-1R Oblong Red, small, road map, drop?
- ATTX98453-6R Oblong Red, keep, smooth.
- COTX00104-6R Oblong Red, Rhizoctonia, road map.

Summary:

Outstanding entries included NDTX4304-1R, NDTX731-1R, ATTX98452-9R, BTX2332-1R, NDTX4828-2R, NDTX4271-5R, and ATTX98453-6R.

OUTSTANDING TEXAS ADVANCED SPECIALTY SELECTIONS, 2005

The Texas Advanced Specialty Selection Trials at Springlake included 24 entries and 41 at Dalhart. Based on both trials, 41 entries will be re-evaluated in the 2006 season.

TEXAS ADVANCED SPECIALTY SELECTION TRIAL

This trial consisted of 24 entries and the check variety Yukon Gold. With the exception of Yukon Gold, TX1523-1Ru/Y, Golden Sunburst, BTX1544-2W/Y, RZD95-6643, Courage, ATTX98465-1R/Y, and RZD94-2262 all seed came from Dalhart.

Results were as follows: (Springlake Tables 10a, 10b, 10c, 10d, and 10e)

- The entries receiving the highest general ratings and best of trial designations were TX1523-1Ru/Y, BTX1544-2W/Y, and Yukon Gold, while NDTX4756-1R/Y, ATTX98514-1R/Y, and BTX1749-1W/Yreceived only best of trial designations (Table 10a and Table 10e).

- TX1523-1Ru/Y, Golden Sunburst, and BTX1544-2W/Y had the highest total yield, while TX1523-1Ru/Y, BTX1544-2W/Y, and Yukon Gold had the highest marketable yield (Table 10a)

- TX1523-1Ru/Y, RZD95-6643, and BTX1544-2W/Y had the highest yield of 4-6 oz. tubers, while TX1523-1Ru/Y, BTX1544-2W/Y, and Yukon Gold had the highest yield of 6-10 oz. tubers (Table 10a).

- BTX1544-2W/Y and Yukon Gold had the highest yield of 10-18 oz. tubers (Table 10a).

- ATTX98465-1R/Y, Courage, and Golden Sunburst had the highest yield of less than 4 oz. tubers, while ATTX98518-11Pu/Y had the highest yield of culls/No.2 tubers (Table 10a).

- Yukon Gold and ATTX88654-2Pu/Y had the highest percentage of marketable yield. ATTX88654-2Pu/Y and ATX88481-1Pu had the highest percentage of 4-6 oz. tubers (Table 10b).

- ATTX98497-1R-Y/Y and ATTX98465-1R/Y had the highest percentage of 6-10 oz. tubers, while Yukon Gold had the highest percentage of 10-18 oz. tubers (Table 10b).

- ATTX98497-1R-Y/Y and ATTX98465-1R/Y had the highest percentage of less than 4 oz. tubers, while ATTX98518-11Pu/Y had the highest percentage yield of culls/no.2 tubers (Table 10b).

- The highest specific gravities were recorded for COTX99045-2Ru/Y, NDTX4756-1R/Y, Courage, and Golden Sunburst (Table 10b).

- Golden Sunburst, Courage, and ATTX98465-1R/Y had the highest average tubers per plant, while ATX88481-1Pu had the lowest. Yukon Gold and BTX1544-2W/Y had the highest average tuber weight, while ATTX99321-1R/Y had the lowest (Table 10c).

- Golden Sunburst, RZD95-6643, and ATTX98514-3R/Y were the latest maturing clones, while ATTX88654-2Pu/Y was the earliest (Table 10c).

- ATTX98465-1R/Y, Golden Sunburst, and ATTX98497-1R-Y/Y had the darkest yellow flesh ratings. ATTX98465-8R/Y had deep eyes (Table 10d).

Comments on entries:

- TX1523-1Ru/Y — Oblong Russet, nice, BOT++++, [1]FC-2.6.

- Golden Sunburst — Oblong White, nice, pointed to stem end, chain tubers, heat sprouts, feathering, dumb bell, drop+, rough, FC-3.8.

- BTX1544-2W/Y — Oblong White, BOT+++, nice, FC-2.8.

- RZD95-6643 — Oblong White, nice, deep nose, drop, feathering, white flesh, smooth, poor shape, poor internals, nice white internal, FC-1.0.

- Courage — Oblong Red, poor shape, flat, nice flesh, buff, road map, stem end nipples, FC-3.5.
- ATTX98465-1R/Y — Round Red, poor net, eye sprouts, silver scurf, road map, FC-4.4.
- Yukon Gold — Oblong White, BOT+++, feathering, FC-3.0.
- RZD94-2262 — Oblong White, poor shape, second growth, drop+, long stolons, late, stem end nipples, smooth, stolon attachments, rough, road map, heat sprouts, FC-2.1.
- ATTX98444-3R/Y — Oblong Red, variable size, drop, heat sprouts, chain tubers, LaSoda like shape, rough, nice, FC-3.1.
- ATTX98510-3R/Y — Oblong Red, poor shape, heat sprouts, rough, small, drop, FC-3.0.
- NDTX4756-1R/Y — Oblong Red, keep, BOT++, poor flesh, zippered, nice, small tubers, nice shape, candidate, road map, FC-2.1.
- ATTX98516-1W/Y — Oblong White, small, close set, keep, nice flesh, boiler, chain tubers, drop+++, poor shape, heat sprouts, variable flesh color, 10% heat necrosis, FC-3.4.
- ATTX98514-1R/Y — Oblong Red, poor flesh, BOT-, feathering, nice, heat sprouts, drop?, FC-2.6.
- BTX1749-1W/Y — Oblong White, flat, drop?, nice skin, keep, nice, BOT-++, ugly skin, FC-2.8.
- ATTX98518-11Pu/Y — Oblong Purple, silver scurf, rough, heat sprouts, small, FC-3.3.
- ATTX98497-1R-Y/Y — Oblong Red, Yellow, drop++?, dark yellow flesh, boiler, road map, red splash, heat sprouts, small tubers, FC-3.8.
- TX1674-1W/Y — Oblong White, pointed, pointed nipples, drop++, poor shape, flat, pointed to stem end, second growth, stem end nipples, FC-2.1.
- ATTX98509-3R/Y — Oblong Red, poor net, buff, flat, nice smooth, FC-3.0.
- COTX99045-2Ru/Y — Long Russet, keep, drop, drop++?, nice, FC-2.1.
- ATTX98500-3W/P calico — Oblong P calico, second growth, late, heat sprouts, pointed, road map, FC-3.0.
- ATTX99321-1R/Y — Round Red, yellow flesh boiler, drop?, poor shape, heat sprouts, nice shape, small, keep, FC-3.0.
- ATTX88654-2Pu/Y — Oblong Purple, alligator hide, drop, road map, growth cracks, faded purple skin, pointed to stem end, keep, poor skin color, silver scurf, nice shape, FC-2.9.
- ATTX98514-3R/Y — Oblong Red, drop+?, heat sprouts, late, nice, FC-3.5.
- ATX88481-1Pu — Oblong Purple, drop+++, heat sprouts, nice, FC- 1.0.

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

Summary:

The following entries will be re-evaluated in 2006: ATTX98516-1W/Y, ATTX98514-1R/Y, TX1674-1W/Y, ATTX98509-3R/Y, ATTX98321-1R/Y, ATTX98444-3R/Y, and ATTX98510-3R/Y. Based on all factors the outstanding entries for this trial were TX1523-1Ru/Y, BTX1544-2W/Y, BTX1749-1W/Y, and NDTX4756-1R/Y.

OUTSTANDING TEXAS ADVANCED CHIPPING SELECTION TRIAL ENTRIES, 2005

The Texas chipping trials at Springlake and Dalhart included 42 entries, with Atlantic as the check variety. Based on data from both locations, 13 entries will be advanced to the 2006 Chip Trials. The outstanding entries were: AOTX95309-3W, ATTX98466-5R/W-Y/R, AOTX95309-1W, PATX99P10-1Pu/R, and AOTX95309-2W.

TEXAS ADVANCED CHIPPING SELECTION

The Texas advanced chipping selection trial consisted of 20 entries, including the check variety Atlantic. Except for Atlantic all seed was from Dalhart.

Results were as follows: (Springlake Tables11a, 11b, 11c, 11d, 11e, and 11f)

- The outstanding entries for this trial based on general rating and best of trial designations was NDTX4930-5W, while ATTX8823-2W also received a best of trial designation (Table 11a)
- Atlantic, PORTX03PG22-1R/PY, and AOTX95309-1W had the highest total yield, while Atlantic, PORTX03PG22-1R/PY, and NDTX4930-2W had the highest marketable yield (Table 11a)
- Atlantic and AOTX95309-1W had the highest yield of 4-6 oz. tubers, while Atlantic and ATTX8823-2W had the highest yield of 6-10 oz. tubers (Table 11a).
- PORTX03PG22-1R/PY and NDTX4930-5W had the highest yield of 10-18 oz. tubers, while Atlantic and AOTX95309-2W had the highest yield of less than 4 oz. tubers (Table 11a).
- ATTX8823-2W and NDTX4930-5W had the highest percentage of marketable yield, while PATX99P10-1Pu/R and TX1673-2W had the highest percentage of 4-6 oz. tubers (Table 11b).
- ATTX8823-2W had the highest percent of 6-10 oz. tubers, while NDTX4930-5W and PORTX03PG22-1R/PY had the highest percent of 10-18 oz. tubers (Table 11b).

- NDTX6754C-1W, AOTX95309-2W, and AOTX95309-3W had the highest percentage of less than 4 oz. tubers (Table 11b).

- High specific gravities were recorded for MWTX4241-1W, PATX99P10-1Pu/R, AOTX96580-1W, and Atlantic (Table 11b).

- AOTX95309-1W had the highest average tubers per plant, while ATTX8823-2W had the lowest. NDTX4930-5W and ATTX8823-2W had the highest average tuber weight, while NDC6754-1W and TX1673-2W had the lowest (Table 11c).

- ATTX98497-1R-Y/Y, ATTX98466-5R/W-R, and PATX99P10-1Pu/R had the highest percentage of dead vines, while MWTX4241-1W and AOTX96580-1W had the lowest (Table 11c).

- Best of trial notations, based on chip evaluations, were given to AOTX95309-2W, ATTX98466-5R/W-R, COTX99238-2W, NDTX6773-1W, and PORTX03PG22-1R/PY (Table 11d).

Comments on entries:

- Atlantic Oblong White, nice, feathering, 10% heat necrosis.

- PORTX03PG22-1R/PY Oblong Red, road map, nice red flesh, drop++, smooth shape, red flesh color from eyes, yield +, small, stem end nipples.

- AOTX95309-1W Round White, heat sprouts, nice internal, candidate.

- NDTX4930-5W Oblong White, BOT, large tubers, candidate, rough.

- AOTX95309-2W Round White, heat sprouts, variable size, small, candidate, feathering, rough, 10% heat necrosis.

- PORTX03PG87-1R/YR Round Red, very light red on yellow flesh, rough, lenticels.

- NDTX028728-3W Round White, feathering.

- TX1673-2W Oblong White, poor shape, feathering, flat.

- ATX85404-8W Oblong White, heat necrosis, nice.

- NDTX6773-1W Round White, small, rough, drop?,

- ATTX98497-1 R-Y/Y Red Red, road map, red streak flesh, drop, silver scurf.

- COTX94016-2W Round White, feathering, rough.

- PATX99P10-1Pu/R Oblong Purple, road map, silver scurf, nice?, red color in flesh from eyes, smooth.

- MWTX4241-1W Round White, late, rough, eye sprouts, drop++, feathering.
- AOTX95309-3W Round White, heat sprouts, rough, green head, drop++, feathering.
- AOTX96580-1W Round White, rough, feathering, 10% heat necrosis, flat, drop?.
- ATTX98466-5 R/W-R Red Red, lenticels, red streak in vascular, keep, smooth.
- ATTX8823-2W Round White, nice, BOT++, candidate, nice, 10% stem attachment.
- NDTX6754C-1W Round White, mix?, skin 1 to 3.5 russet , small, poor internal, drop+?, buff.
- NDTX7571-5AW Round White, buff skin.

Summary:

The outstanding entries in this trial were AOTX95309-1W, NDTX4930-5W, AOTX95309-2W, and ATTX8823-2W.

Springlake Table 1a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 22 entries in the Western Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
MWTX2609-2Ru	432.5	232.6	62.0	118.1	52.6	0.0	69.2	130.7	2.7
A96095-3	341.7	237.6	76.3	89.6	71.8	25.9	40.6	37.5	2.7
TXA549-1Ru	337.1	234.7	79.5	77.5	77.7	3.0	93.1	6.2	3.3
ATX91137-1Ru	332.4	280.5	89.9	112.7	77.8	0.0	51.9	0.0	3.3
A95409-1	312.6	230.1	44.7	116.4	68.9	6.2	58.6	17.8	3.0
PA97B3-2	311.3	206.1	89.6	104.4	12.1	0.0	105.1	0.0	3.1
A92294-6	307.1	147.6	76.1	60.9	10.6	0.0	73.8	85.8	2.0
Russet Norkotah	300.9	226.4	81.6	109.7	35.0	0.0	69.6	4.8	3.4
Russet Burbank	276.2	71.0	39.4	20.8	10.8	0.0	45.7	159.6	2.1
Ranger Russet	263.3	150.6	64.1	53.7	32.7	0.0	62.0	50.7	2.8
AO96164-1	256.6	167.7	65.4	75.7	26.6	0.0	53.3	35.6	2.8
A93157-6LS	239.4	150.2	70.6	48.0	31.6	0.0	83.5	5.8	3.2
CO94035-15RU	238.6	151.8	62.9	73.0	15.9	0.0	72.6	14.2	2.6
Shepody	227.2	111.7	45.7	36.3	29.7	0.0	65.4	50.1	2.2
A96104-2	224.8	89.2	57.8	24.6	6.9	0.0	74.0	61.6	1.9
CO95172-3RU	207.9	95.1	71.6	23.5	0.0	0.0	87.8	24.9	1.9
CO95086-8RU	204.7	122.4	65.0	49.8	7.6	0.0	82.3	0.0	2.9
A95109-1	203.4	141.8	66.7	42.5	32.5	4.8	56.7	0.0	3.0
A92030-5	193.7	154.7	37.4	72.6	44.7	0.0	39.0	0.0	3.0
AO96160-3	181.2	98.7	51.0	38.3	9.5	0.0	79.5	3.0	2.6
AOA95154-1	174.3	104.4	48.1	47.7	8.6	0.0	69.9	0.0	2.7
AOA95155-7	78.0	38.9	36.0	2.9	0.0	0.0	39.1	0.0	2.2
Average	256.6	156.5	62.8	63.6	30.2	1.8	66.9	31.3	2.7
L.S.D. (.05)	37.5	28.5	18.8	28.0	14.3	7.3	13.0	25.7	0.7

[1] 1=very poor to 5= excellent

Springlake Table 1b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 22 entries in the Western Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
MWTX2609-2Ru	53.8	14.3	27.3	12.2	0.0	16.0	30.2	1.066	Long	Russet
A96095-3	69.7	22.3	26.5	20.9	7.4	12.0	10.9	1.064	Long	Russet
TXA549-1Ru	69.5	23.9	22.6	23.0	0.8	27.7	1.9	1.072	Oblong	Russet
ATX91137-1Ru	84.3	26.9	33.9	23.5	0.0	15.7	0.0	1.062	Oblong	Russet
A95409-1	73.7	14.4	36.6	22.7	2.1	18.7	5.5	1.068	Long	Russet
PA97B3-2	66.3	29.0	33.3	4.0	0.0	33.7	0.0	1.071	Oblong	Russet
A92294-6	49.0	26.2	19.8	2.9	0.0	25.0	26.1	1.072	Long	White
Russet Norkotah	75.4	27.1	36.6	11.7	0.0	23.1	1.5	1.062	Oblong	Russet
Russet Burbank	26.0	14.5	7.5	4.0	0.0	16.6	57.4	1.066	Long	Russet
Ranger Russet	57.6	24.6	20.4	12.6	0.0	23.3	19.1	1.070	Long	Russet
AO96164-1	65.5	25.6	29.3	10.6	0.0	20.9	13.7	1.070	Long	Russet
A93157-6LS	62.7	29.5	20.1	13.2	0.0	34.9	2.4	1.078	Oblong	Russet
CO94035-15RU	63.5	26.3	30.8	6.4	0.0	30.4	6.1	1.064	Oblong	Russet
Shepody	49.3	20.1	16.1	13.1	0.0	28.7	22.0	1.070	Long	White
A96104-2	38.9	25.7	10.3	2.9	0.0	33.3	27.8	1.059	Oblong	Russet
CO95172-3RU	45.7	34.6	11.1	0.0	0.0	42.1	12.2	1.070	Oblong	Russet
CO95086-8RU	59.6	31.7	24.1	3.7	0.0	40.4	0.0	1.068	Oblong	Russet
A95109-1	69.8	32.5	21.4	15.8	2.5	27.8	0.0	1.064	Oblong	Russet
A92030-5	79.6	19.4	37.1	23.1	0.0	20.4	0.0	1.075	Oblong	Russet
AO96160-3	54.5	27.2	21.9	5.3	0.0	44.1	1.5	1.078	Oblong	Russet
AOA95154-1	59.3	27.5	27.0	4.9	0.0	40.7	0.0	1.071	Oblong	Russet
AOA95155-7	49.2	46.0	3.2	0.0	0.0	50.8	0.0	1.065	Oblong	Russet
Average	60.1	25.9	23.5	10.8	0.6	28.5	10.8	1.068		
L.S.D. (.05)	7.8	7.8	9.0	5.1	2.0	6.2	7.0	0.006		

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 22 entries in the Western Regional Russet Trial grown near Springlake, Texas-2005.

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]	
MWTX2609-2Ru	5.9	6.1	1.5	96	100	1.6	4.6	4.6	4.6	6
A96095-3	3.9	7.2	1.4	96	100	1.8	4.2	4.4	4.4	25
TXA549-1Ru	5.1	5.5	1.4	88	100	1.9	4.0	4.4	4.2	15
ATX91137-1Ru	4.6	6.1	1.2	85	98	1.5	4.4	4.5	4.4	36
A95409-1	4.3	6.0	1.3	96	100	2.0	4.1	4.0	4.2	10
PA97B3-2	5.8	4.4	1.3	95	100	2.3	3.7	3.5	3.7	40
A92294-6	5.8	4.4	1.4	99	100	1.5	4.4	4.5	4.4	20
Russet Norkotah	4.4	5.9	1.3	88	96	1.9	4.1	4.0	4.2	69
Russet Burbank	5.1	4.6	1.2	92	100	1.5	4.3	4.4	4.5	15
Ranger Russet	4.0	5.5	1.3	99	100	1.5	3.6	4.3	4.3	19
AO96164-1	3.9	5.5	1.2	96	100	1.4	4.2	4.4	4.2	44
A93157-6LS	4.2	4.9	1.4	91	98	1.9	4.3	4.1	4.4	19
CO94035-15RU	4.4	4.5	1.2	93	100	1.6	4.6	4.4	4.6	3
Shepody	4.2	4.7	1.3	85	95	1.8	4.0	4.1	4.0	33
A96104-2	4.8	3.9	1.3	93	100	1.9	3.9	4.0	4.1	35
CO95172-3RU	4.9	3.5	1.4	88	100	1.8	4.2	4.2	4.3	6
CO95086-8RU	3.4	5.0	1.2	95	100	1.8	3.9	3.9	4.1	56
A95109-1	3.2	5.3	1.3	95	100	1.5	4.6	4.6	4.6	40
A92030-5	2.6	6.2	1.2	93	99	1.8	4.1	4.1	4.1	58
AO96160-3	3.9	3.8	1.3	96	100	1.6	4.2	4.4	4.3	28
AOA95154-1	3.5	4.3	1.4	84	96	1.6	4.1	4.2	4.3	20
AOA95155-7	1.9	3.5	1.3	86	98	1.5	4.3	4.4	4.4	10
Average	4.3	5.0	1.3	92	99	1.7	4.2	4.2	4.3	28
L.S.D. (.05)	0.7	0.5	0.1	9	ns	0.3	0.5	0.3	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 1d. General rating at grading, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 22 entries in the Western Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	General Rating[1]	Tuber Shape[2]	Degree of Russeting[3]	Eye Depth[4]	Skin Color[5]	Growth Cracks[6]	Shatter Bruise[7]	Scab[8]	Knobs[9]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
MWTX2609-2Ru	2.5	4.5	3.1	4.1	3.4	5.0	5.0	5.0	4.9	0	0	3	0
A96095-3	2.6	4.9	3.1	3.6	3.4	5.0	5.0	5.0	5.0	0	0	18	0
TXA549-1Ru	3.4	3.4	3.5	4.0	3.7	5.0	5.0	5.0	5.0	0	0	5	0
ATX91137-1Ru	3.7	3.6	3.9	4.0	3.9	5.0	5.0	5.0	4.9	0	0	0	0
A95409-1	2.9	4.4	2.9	3.4	3.8	5.0	5.0	5.0	5.0	0	0	0	0
PA97B3-2	2.5	3.8	3.4	3.6	3.9	5.0	5.0	4.8	5.0	0	0	5	0
A92294-6	2.3	4.4	2.3	4.0	2.3	5.0	5.0	5.0	5.0	0	0	8	0
Russet Norkotah	3.1	4.0	4.4	3.5	4.3	5.0	5.0	5.0	5.0	0	0	3	3
Russet Burbank	2.4	3.6	3.6	3.5	3.4	5.0	5.0	5.0	4.8	0	0	5	0
Ranger Russet	2.7	4.0	3.4	3.4	3.9	5.0	5.0	5.0	4.8	0	0	13	0
AO96164-1	2.9	4.1	3.9	4.1	3.8	5.0	5.0	5.0	5.0	0	0	0	0
A93157-6LS	3.3	3.9	3.9	3.8	4.0	5.0	5.0	5.0	5.0	0	0	0	0
CO94035-15RU	2.6	4.0	3.6	4.3	3.9	5.0	5.0	5.0	4.8	0	0	0	0
Shepody	2.6	3.8	1.8	4.0	1.5	5.0	5.0	5.0	5.0	0	0	8	0
A96104-2	2.5	3.9	3.6	3.8	4.1	5.0	5.0	5.0	4.9	0	0	3	0
CO95172-3RU	2.7	3.8	3.6	3.8	3.7	5.0	5.0	5.0	5.0	3	0	0	0
CO95086-8RU	3.0	3.8	4.0	3.6	4.0	5.0	5.0	5.0	5.0	0	0	3	0
A95109-1	3.5	3.8	3.8	4.1	3.7	5.0	5.0	5.0	5.0	0	0	0	0
A92030-5	3.6	4.3	3.9	3.9	4.2	5.0	5.0	5.0	5.0	0	0	0	0
AO96160-3	2.9	3.6	4.0	4.1	4.2	5.0	5.0	5.0	5.0	0	0	3	0
AOA95154-1	2.9	3.5	3.9	4.3	4.0	5.0	5.0	5.0	4.6	0	0	0	0
AOA95155-7	2.9	3.5	3.5	4.0	3.4	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.9	3.9	3.5	3.9	3.7	5.0	5.0	5.0	4.9	0.1	0.0	3.3	0.1

[1] 1=very poor to 5= excellent
[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] Stem end vascular discoloration severely evaluated

Springlake

Table 1e. Notes and general rating for all reps of 22 entries in the Western Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Notes Field	General Rating Field	Notes Grading	General Rating Grading
MWTX2609-2Ru	heat sprouts, drop, drop, heat sprouts, drop,	2.7, 2.7, 2.7, 2.7	pointed to stem end, drop, drop, heat sprouts, stem nipples, drop, feathering, heat sprouts, pointed	2.7, 2.7, 2.7, 2
A96095-3	drop, drop, curved tubers, thin, drop	2.7, 2.5, 3, 2.7	too long, drop, drop, pointed to stem end, too long	2.7, 2, 2.7, 3
TXA549-1Ru	blocky, blocky, , blocky	3.2, 3.2, 3, 3.7	keep, blocky, fat tubers, blocky, fat tubers, nice	3.5, 3.2, 3, 3.7
ATX91137-1Ru	BOT	3.7, 3.2, 3.2, 3.2	BOT, blocky, BOT-, nice, nice, keep, attractive	4.2, 3.2, 3.5, 3.7
A95409-1	drop	3, 2.7, 3.2, 3	feathering, feathering, rough, large tubers, drop	3, 2.7, 2.7, 3
PA97B3-2	drop, drop?	3.2, 3.7, 2.7, 2.7	rough, drop, ugly net, ugly net, drop	2, 2.7, 2.7, 2.7
A92294-6	drop, drop, drop	0.2, 2.5, 2.7, 2.5	rough, drop, feathering, crooked tubers, drop	2, 2.5, 2, 2.7
Russet Norkotah	BOT-	3.7, 3.2, 3.7, 3	nice, drop,	3.2, 3.7, 2.7, 2.7
Russet Burbank	drop, drop, drop, late, small thin ugly tubers, drop	2, 2, 2, 2.5	drop, raised eyes, rough, drop	2, 2, 2.7, 2.7
Ranger Russet	late, drop,	2.7, 3, 2.7, 2.7	10% heat necrosis, heat sprouts, rough, drop,	3, 2.7, 2, 3
AO96164-1	drop, drop?	2.7, 2.7, 2.7, 3	pointed to stem end, drop?, pointed to stem end, drop?, pointed to bud end, poor shape, drop, pointed to bud end, drop	2.7, 3, 2.7, 3
A93157-6LS		3.2, 3.2, 3, 3.2	nice shape, BOT-, small, nice shape,	3.2, 3.7, 3, 3.2
CO94035-15RU	late, drop, drop,	2.7, 2.5, 2.5, 2.7	Rizoc, poor shape, pointed, ugly net, Rizoc, drop, heat spouts, drop, ugly net, crooked, drop	2.5, 2.7, 2.5, 2.7
Shepody	drop, heat sprouts, drop	2.7, 2, 2, 2	heat sprouts, drop, heat sprouts, drop	2, 2.5, 2.7, 3
A96104-2	late, drop, small, drop, drop	2.7, 0.2, 2.7, 2	poor shape, drop, Rizoc, drop?	2.5, 2, 2.5, 3
CO95172-3RU	small, drop, late, drop, drop	0.3, 2.5, 2, 2.7	Rizoc, pointed, small, feathering, drop	2.7, 2.7, 2.7, 2.7
CO95086-8RU	drop, drop	3.2, 3, 2.7, 2.7	drop	3.2, 3.2, 2.7, 3
A95109-1		3, 3, 3, 3	light net color, feathering, nice,	3.2, 3.2, 3.7, 3.7
A92030-5	knobs, BOT-	2.7, 3.2, 3, 3.2	pointed to stem end, fat tubers, BOT	3, 3.7, 3.2, 4.5
AO96160-3	late, drop	3, 3, 2.5, 2	rough, heat sprouts, drop, drop	2.5, 3.2, 2.7, 3
AOA95154-1	heat sprouts, late, drop, heat sprouts, drop, heat sprouts, late, drop, nice	2.7, 3, 2, 3.2	heat sprouts, heat sprouts, heat sprouts, nice	3, 3, 2.5, 3.2
AOA95155-7	heat sprouts, late, drop, drop, very late, heat sprouts, drop, late, drop	2.7, 2, 2, 2	heat sprouts, feathering, poor shape, drop, small	3, 3, 2.7, 2.7

Springlake Table 1f. Antioxidant Activity as Determined by DPPH Assay[1] of 16 entries in the Western Regional Russet Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Russet Burbank	100.85	98.54
Russet Norkotah	185.09	180.8
Shepody	226.46	221.3
A92030-5	229.24	224
A92294-6	183.24	179
A95109-1	220.07	215
A96095-3	226.34	221.1
AO96160-3	244.17	238.6
AO96164-1	138.15	135
AOA95154-1	50.232	49.08
AOA95155-7	83.73	81.81
CO94035-15RU	443.05	432.9
CO95172-3RU	138.78	135.6
MWTX2609-2Ru	153.4	149.9
PA97B3-2	98.651	96.39
TXA549-1Ru	81.798	79.92
Average	175.2	171.2

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 1a, 1b, 1c, 1d, 1e, and 1f
Western Regional Russet Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado, Oregon, Texas and Idaho

Date:		DAP
Planted	March 22, 2005	
Vines Killed	July 25, 2005	123
Harvested	August 1, 2005	129

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:
These trials were subjected to higher than normal precipitation in the third and fourth weeks of May, the first week in July, and the second and third weeks of August.Temperatures were lower than normal for the last week of April and the first week of May.

Springlake Table 2a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 21 entries in the Western Regional Red/Specialty Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
Red/White Flesh									
VC1075-1R	235.5	83.3	52.6	28.4	2.4	0.0	151.3	0.9	3.4
Dark Red Norland	231.2	129.6	72.6	51.4	5.5	0.0	100.1	1.6	3.7
Red LaSoda	222.9	149.4	48.2	72.8	28.4	2.1	71.4	0.0	3.3
A96741-1R	222.3	88.3	46.3	32.3	9.7	0.0	134.0	0.0	3.0
A96741-2R	218.3	87.6	55.3	32.3	0.0	0.0	130.7	0.0	3.5
Average	226.0	107.7	55.0	43.4	9.2	0.4	117.5	0.5	3.4
LSD	ns	34.8	ns	28.8	ns	ns	31.2	ns	ns
Red/Yellow Flesh									
VC0967-2R/Y	131.3	51.0	37.7	12.1	1.2	0.0	80.2	0.0	2.9
VC1015-7R/Y	89.2	51.3	26.7	22.3	2.2	0.0	37.9	0.0	2.7
Average	110.2	51.2	32.2	17.2	1.7	0.0	59.1	0.0	2.8
LSD	ns	ns	7.4	ns	ns	ns	ns	ns	ns
Red/Red Flesh									
PA99P20-2	211.3	108.3	60.1	48.2	0.0	0.0	103.1	0.0	2.1
POR01PG20-12	147.7	59.3	44.6	14.7	0.0	0.0	88.4	0.0	2.2
CO94183-1R/R	158.0	71.0	54.6	8.0	8.3	0.0	87.0	0.0	2.9
Average	172.3	79.5	53.1	23.6	2.8	0.0	92.8	0.0	2.4
LSD	32.0	39.0	ns	19.1	ns	ns	ns	ns	0.6
Purple/Purple Flesh									
CO94165-3P/P	198.9	96.8	67.8	29.1	0.0	0.0	102.0	0.0	3.0
All Blue	139.0	48.8	35.1	13.7	0.0	0.0	90.3	0.0	2.7
Average	168.9	72.8	51.4	21.4	0.0	0.0	96.1	0.0	2.9
LSD	55.9	ns	ns	ns	ns	ns	ns	ns	ns
Yellow Flesh									
NY126	260.9	160.4	71.9	75.6	12.8	0.0	100.5	0.0	3.3
BTX 1544-2W/Y	212.2	139.9	52.9	42.9	44.1	0.0	71.6	0.7	3.1
Yukon Gold	199.9	136.1	73.8	38.9	23.3	0.0	63.8	0.0	3.4
VC1123-2W/Y	180.8	101.4	50.5	51.0	0.0	0.0	79.3	0.0	3.4
NDA5507-3YF	160.6	50.7	42.7	8.0	0.0	0.0	110.0	0.0	3.1
VC1002-3W/Y	150.8	46.0	33.5	12.5	0.0	0.0	104.8	0.0	2.3
CO94157-2W/Y	148.7	53.6	34.6	19.0	0.0	0.0	95.1	0.0	2.6
VC1009-1W/Y	124.3	38.9	15.6	23.3	0.0	0.0	85.4	0.0	2.2
A95074-6	98.7	43.9	26.7	17.1	0.0	0.0	54.9	0.0	2.2
Average	170.8	85.6	44.7	32.0	8.9	0.0	85.0	0.1	2.8
LSD	47.0	45.0	18.1	28.6	25.8	ns	23.3	ns	0.7
Average	167.0	80.8	46.3	29.9	6.1	0.1	89.9	0.1	2.8

[1] 1=very poor to 5= excellent

Springlake Table 2b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 21 entries in the Western Regional Red/Specialty Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	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/White Flesh										
VC1075-1R	34.7	22.3	11.6	0.9	0.0	64.8	0.4	1.061	Round	Red
Dark Red Norland	56.2	31.7	22.5	2.1	0.0	43.0	0.7	1.064	Oblong	Red
Red LaSoda	67.3	21.6	33.1	12.7	0.9	31.8	0.0	1.061	Oblong	Red
A96741-1R	39.4	21.1	14.2	4.1	0.0	60.6	0.0	1.063	Oblong	Red
A96741-2R	40.0	25.5	14.5	0.0	0.0	60.0	0.0	1.060	Oblong	Red
Average	47.5	24.4	19.1	4.0	0.2	52.1	0.2	1.062		
LSD	13.3	ns	12.6	ns	ns	13.4	ns	ns		
Red/Yellow Flesh										
VC0967-2R/Y	38.8	28.7	9.2	0.9	0.0	61.2	0.0	1.064	Oblong	Red
VC1015-7R/Y	62.2	33.0	26.6	2.6	0.0	37.8	0.0	1.054	Oblong	Red
Average	50.5	30.9	17.9	1.7	0.0	49.5	0.0	1.059		
LSD	ns	ns	ns	ns	ns	ns	ns	ns		
Red/Red Flesh										
PA99P20-2	51.6	28.6	23.0	0.0	0.0	48.4	0.0	1.070	Oblong	Red
POR01PG20-12	42.9	31.2	11.7	0.0	0.0	57.1	0.0	1.074	Oblong-Long	Red
CO94183-1R/R	45.3	36.2	4.5	4.5	0.0	54.7	0.0	1.065	Oblong	Red
Average	46.6	32.0	13.1	1.5	0.0	53.4	0.0	1.070		
LSD	ns	ns	ns	ns	ns	ns	ns	ns		
Purple/Purple Flesh										
CO94165-3P/P	48.8	34.3	14.5	0.0	0.0	51.2	0.0	1.072	Oblong	Purple
All Blue	34.6	24.5	10.1	0.0	0.0	65.4	0.0	1.073	Oblong-Long	Purple
Average	41.7	29.4	12.3	0.0	0.0	58.3	0.0	1.073		
LSD	ns	ns	ns	ns	ns	ns	ns	ns		
Yellow Flesh										
NY126	60.4	28.7	27.7	3.9	0.0	39.6	0.0	1.074	Round-Oblong	White
BTX 1544-2W/Y	66.0	25.5	20.9	19.5	0.0	33.7	0.4	1.067	Oblong	White
Yukon Gold	66.4	38.0	19.1	9.3	0.0	33.6	0.0	1.071	Oblong	White
VC1123-2W/Y	55.1	27.4	27.7	0.0	0.0	44.9	0.0	1.072	Oblong	White
NDA5507-3YF	31.8	26.3	5.5	0.0	0.0	68.2	0.0	1.068	Oblong	White
VC1002-3W/Y	31.2	22.2	9.1	0.0	0.0	68.8	0.0	1.078	Oblong-Long	White
CO94157-2W/Y	35.7	23.5	12.2	0.0	0.0	64.3	0.0	1.073	Oblong-Long	White
VC1009-1W/Y	31.3	12.5	18.8	0.0	0.0	68.7	0.0	1.069	Oblong	White
A95074-6	43.4	27.7	15.7	0.0	0.0	56.6	0.0	1.072	Oblong-Long	White
Average	46.8	25.8	17.4	3.6	0.0	53.1	0.0	1.072		
LSD	11.9	8.9	12.6	9.3	ns	12.0	ns	0.005		
Average	45.5	27.5	16.4	2.7	0.0	51.6	0.1	1.067		

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 21 entries in the Western Regional Red/Specialty Trial grown near Springlake, Texas-2005.

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/White Flesh										
VC1075-1R	7.3	2.7	1.5	96	100	1.8	3.9	3.6	3.9	34
Dark Red Norland	4.9	4.2	1.3	81	95	2.1	3.2	2.8	3.2	61
Red LaSoda	4.6	4.2	1.3	87	96	2.4	3.6	3.1	3.5	54
A96741-1R	7.4	2.6	1.4	88	96	1.6	3.7	3.4	3.6	34
A96741-2R	6.8	2.8	1.5	86	100	2.1	3.7	3.1	3.5	35
Average	6.2	3.3	1.4	87	98	2.0	3.6	3.2	3.5	44
LSD	1.5	0.7	ns	ns	ns	ns	ns	ns	ns	21
Red/Yellow Flesh										
VC0967-2R/Y	3.4	3.4	1.4	85	94	2.1	3.6	2.9	3.9	30
VC1015-7R/Y	2.1	3.8	1.4	82	98	1.6	3.8	2.9	3.8	40
Average	2.7	3.6	1.4	83	96	1.9	3.7	2.9	3.8	35
LSD	ns	ns	ns	ns	ns	ns	ns	ns	ns	9
Red/Red Flesh										
PA99P20-2	5.4	3.3	1.5	82	98	1.8	4.1	4.2	4.1	15
POR01PG20-12	4.6	2.8	1.3	94	100	1.5	4.4	4.5	4.3	3
CO94183-1R/R	4.1	3.3	1.2	75	98	2.5	3.7	4.1	3.6	31
Average	4.7	3.1	1.3	84	99	1.9	4.1	4.3	4.0	16
LSD	ns	ns	ns	ns	ns	0.2	ns	ns	0.5	ns
Purple/Purple Flesh										
CO94165-3P/P	6.4	2.6	1.4	90	98	2.4	3.2	2.9	3.3	61
All Blue	5.1	2.4	1.4	100	100	2.0	4.3	4.4	4.3	9
Average	5.8	2.5	1.4	95	99	2.2	3.8	3.7	3.8	35
LSD	ns	ns	ns	ns	ns	ns	0.6	0.7	ns	21.0
Yellow Flesh										
NY126	5.1	4.4	1.3	89	95	1.9	4.3	4.5	4.2	20
BTX 1544-2W/Y	4.5	4.2	1.3	73	93	2.0	3.5	2.9	3.4	48
Yukon Gold	4.0	4.5	1.3	81	92	1.8	3.4	3.5	3.2	43
VC1123-2W/Y	4.2	3.6	1.4	87	100	1.4	4.7	4.7	4.8	3
NDA5507-3YF	5.1	2.7	1.3	84	98	1.5	4.1	4.2	4.2	29
VC1002-3W/Y	5.6	2.3	1.3	87	100	1.5	4.4	4.5	4.5	16
CO94157-2W/Y	5.3	2.6	1.5	59	90	1.8	3.8	3.9	3.9	19
VC1009-1W/Y	3.8	2.7	1.4	88	100	1.5	4.4	4.4	4.6	9
A95074-6	3.1	2.8	1.3	81	96	1.5	4.7	4.7	4.9	3
Average	4.5	3.3	1.3	81	96	1.6	4.1	4.1	4.2	21
LSD	ns	0.4	ns	ns	7	0.4	0.5	0.4	0.4	12
Average	4.8	3.1	1.4	85	97	1.8	3.8	3.6	3.8	28

[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, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of 21 entries in the Western Regional Red/Specialty Trial grown near Springlake, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
Red/White Flesh													
VC1075-1R	1.0	2.5	1.5	3.1	4.3	5.0	5.0	5.0	5.0	0	0	0	0
Dark Red Norland	1.0	3.4	1.5	2.8	3.5	5.0	5.0	5.0	5.0	0	0	3	0
Red LaSoda	1.0	3.4	1.4	2.1	3.5	5.0	5.0	5.0	5.0	3	0	0	0
A96741-1R	1.5	2.8	1.5	3.3	3.8	5.0	5.0	5.0	5.0	0	0	0	0
A96741-2R	1.0	2.4	1.5	3.3	4.3	5.0	5.0	5.0	5.0	3	0	0	0
Average													
Red/Yellow Flesh													
VC0967-2R/Y	2.6	3.4	1.5	3.9	3.3	5.0	5.0	5.0	5.0	0	0	3	0
VC1015-7R/Y	3.8	3.1	1.4	3.3	2.9	5.0	5.0	5.0	5.0	0	0	0	0
Average													
Red/Red Flesh													
PA99P20-2	3.1	4.0	1.5	3.5	4.5	5.0	5.0	5.0	5.0	0	0	0	0
POR01PG20-12	3.0	4.0	1.5	3.4	4.3	5.0	5.0	5.0	4.9	0	0	0	0
CO94183-1R/R	3.0	3.4	1.4	4.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average													
Purple/Purple Flesh													
CO94165-3P/P	4.5	4.5	1.5	3.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
All Blue	3.5	4.0	1.5	3.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
Average													
Yellow Flesh													
NY126	2.1	3.0	2.0	3.8	2.3	5.0	5.0	5.0	5.0	0	0	0	0
BTX 1544-2W/Y	3.1	3.5	2.3	3.4	2.3	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	3.0	3.5	1.4	4.0	1.6	5.0	5.0	5.0	5.0	8	0	0	5
VC1123-2W/Y	3.3	3.4	2.3	3.9	1.8	5.0	5.0	5.0	5.0	0	0	3	0
NDA5507-3YF	2.6	2.9	1.5	3.9	1.5	5.0	5.0	5.0	5.0	0	0	0	0
VC1002-3W/Y	2.9	3.4	3.3	3.6	3.6	5.0	5.0	5.0	5.0	0	0	0	0
CO94157-2W/Y	2.6	3.8	2.5	4.3	2.3	5.0	5.0	5.0	5.0	0	0	0	0
VC1009-1W/Y	3.4	3.1	1.8	3.9	1.9	5.0	5.0	5.0	5.0	0	0	0	0
A95074-6	2.3	4.0	3.9	4.0	3.8	5.0	5.0	5.0	5.0	0	0	0	0
Average													
Average	2.6	3.4	1.8	3.5	3.3	5.0	5.0	5.0	5.0	1	0	0	0

[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] Stem end vascular discoloration severely evaluated

Springlake

Table 2e. Notes and general rating for all reps of 21 entries in the Western Regional Red/Specialty Trial grown near Springlake, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
Red/White Flesh			
VC1075-1R		road map, poor shape	3.2, 4, 3.7, 4
Dark Red Norland	deep eyes, poor yield	10% heat necrosis, , no road map,	3.2, 4, 1.7, 4.2
Red LaSoda		flesh not very white, heat sprouts, poor shape, silver scurf, , feathering, nice	3, 3.2, 2.7, 3.2
A96741-1R	Growth Cracks, late	nice, a little rough, nice	3.2, 3.7, 3.2, 3.7
A96741-2R	flat, eye brows, nice	road map, road map, drop	3, 3.7, 3.2, 3.7
Red/Yellow Flesh			
VC0967-2R/Y	y-1.7, heat sprouts	flat, pointed, drop	2.7, 3, 3, 2.7
VC1015-7R/Y	y-3.2	road map, buff, nice flesh, road map	3.2, 1.7, 2.2, 3.7
Red/Red Flesh			
PA99P20-2	poor yield	road map, silver scurf, nice, road map, road map, nice, road map	3.2, 3.2, 3, 2.2
POR01PG20-12	no yield, drop, poor shape, drop, poor shape, drop, poor shape	poor shape, pointed, poor shape, poor shape, curved tubers, silver scurf, drop, pointed curved tubers	2, 2.2, 2, 2.2
CO94183-1R/R	very late, very late, heat sprouts, drop	knobs, poor shape, drop, feathering	2.7, 2, 1.7, 2.2
Purple/Purple Flesh			
CO94165-3P/P	small	drop, drop	3, 2.7, 2.2, 3
All Blue	poor shape	poor shape, road map, poor shape, rough, , rough	3.2, 3.2, 2.7, 3
Yellow Flesh			
NY126	y-1.7	nice	2.7, 3.7, 4, 3.2
BTX 1544-2W/Y	y-1.7, drop	need to size, feathering, small tubers	2.7, 1.7, 2, 2.2
Yukon Gold	y-1.7, growth cracks, poor yield, rot	shape?, nice, growth cracks, pointed to apical end	3.2, 3.7, 2.7, 2.7
VC1123-2W/Y	y-1, heat sprouts, drop	smooth, variable flesh color, drop, small tubers, road map	2.2, 3, 2.2, 3
NDA5507-3YF	y-2.7	red splash eyes, nice shape, feathering, smooth, nice, pointed to stem end, buff	3, 3.2, 3, 3.2
VC1002-3W/Y	y-3	smooth	3, 3.2, 2.7, 4.2
CO94157-2W/Y	y-3, drop, poor yield, small boilers, heat sprouts, heat sprouts	variable shape round to long, ugly skin, , road map	1.7, 2.7, 2, 2.7
VC1009-1W/Y	y-2.7, heat sprouts, poor yield, heat sprouts, drop	smooth, nice small tubers	2.7, 2.2, 2, 1.7
A95074-6	y-3,heat sprouts, flat, sunburn, sunburn, flat, late	ugly skin, road map, ugly skin, road map	3, 3, 3.7, 3.7

Springlake

Table 2f. Antioxidant Activity as Determined by the DPPH Assay[1] of 16 entries in the Western Regional Red/Specialty Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Red/White Flesh		
A96741-1R	139.1	135.9
A96741-2R	135.8	132.7
VC1075-1R	73.1	71.4
Red/Yellow Flesh		
VC0967-2R/Y	169.6	165.7
VC1015-7R/Y	271.1	264.9
Red/Red Flesh		
PA99P20-2	304.0	297.0
Purple/Purple Flesh		
All Blue	283.4	276.9
CO94165-3P/P	556.2	543.5
Yellow Flesh		
Yukon Gold	122.0	119.2
A95074-5	107.2	104.7
BTX 1544-2W/Y	96.4	94.2
NDA5507-3YF	75.8	74.1
NY125	207.0	202.2
VC1002-3W/Y	120.5	117.7
VC1009-1W/Y	160.5	156.8
VC1123-2W/Y	128.6	125.6
Average	184.4	180.2

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 2a, 2b, 2c, 2d, 2e, and 2f
Western Regional Cooperative Red/ Specialty Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado, Oregon, Texas and Idaho

Date:		DAP
Planted	March 22, 2005	
Vines Killed	July 9, 2005	107
Harvested	July 11, 2005	109

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
130-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:
These trials were subjected to higher than normal precipitation in the third and fourth weeks of May, the first week in July, and the second and third weeks of August.Temperatures were lower than normal for the last week of April and the first week of May

Springlake Table 3a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 8 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
TXDH-99-1Ru	481.1	219.6	82.3	80.6	56.7	15.2	89.9	156.3	2.9
MWTX2609-4Ru	452.7	236.9	108.9	102.4	25.6	0.0	86.8	129.0	3.1
AOTX95265-2ARu	327.5	189.5	78.9	65.0	45.7	9.0	65.7	63.3	3.2
AOTX95265-4Ru	230.7	130.9	56.9	46.0	28.0	0.0	53.1	46.7	3.3
AOTX98137-1Ru	230.6	152.2	73.1	64.3	14.8	0.0	61.1	17.3	3.1
Russet Norkotah	216.3	144.2	64.7	47.9	31.6	2.1	57.2	12.8	3.2
CO97137-1W	203.0	114.5	76.4	35.6	2.4	0.0	74.0	14.5	2.9
AC96052-1RU	112.6	62.8	38.4	18.7	5.7	0.0	45.7	4.2	2.5
Average	281.8	156.3	72.4	57.6	26.3	3.3	66.7	55.5	3.0
L.S.D. (.05)	26.3	27.5	21.2	16.6	19.2	3.2	15.2	32.1	0.4

[1] 1=very poor to 5= excellent

Springlake Table 3b. 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 Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

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	Specific Gravity	Tuber Type	Skin Type
TXDH-99-1Ru	45.8	17.1	16.9	11.8	3.1	18.9	32.2	1.055	Oblong	White
MWTX2609-4Ru	52.6	24.3	22.7	5.6	0.0	19.2	28.2	1.059	Long	Russet
AOTX95265-2ARu	57.7	23.9	19.9	13.9	2.8	20.0	19.5	1.060	Oblong	Russet
AOTX95265-4Ru	56.6	24.6	20.0	12.1	0.0	23.1	20.3	1.059	Long	Russet
AOTX98137-1Ru	66.4	31.8	28.0	6.6	0.0	26.6	7.0	1.056	Oblong	Russet
Russet Norkotah	66.1	31.0	21.4	13.7	0.9	26.6	6.4	1.056	Oblong	Russet
CO97137-1W	56.1	38.0	17.1	1.1	0.0	36.7	7.2	1.058	Oblong	White
AC96052-1RU	56.0	34.3	16.6	5.1	0.0	40.4	3.6	1.058	Oblong	Russet
Average	57.2	28.1	20.3	8.7	0.9	26.4	15.6	1.058		
L.S.D. (.05)	10.2	10.7	6.5	8.4	1.0	8.8	8.7	ns		

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 8 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

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]	
TXDH-99-1Ru	7.5	5.3	1.4	93	100	1.5	4.7	4.7	4.7	11
MWTX2609-4Ru	7.8	4.8	1.4	94	100	1.6	4.7	4.7	4.7	5
AOTX95265-2ARu	5.3	5.1	1.4	92	100	1.8	4.5	4.5	4.5	25
AOTX95265-4Ru	3.7	5.2	1.3	88	100	1.5	4.5	4.5	4.5	43
AOTX98137-1Ru	3.9	4.9	1.2	92	100	2.0	4.1	3.9	4.2	54
Russet Norkotah	3.4	5.2	1.2	88	100	1.8	3.9	3.8	4.1	60
CO97137-1W	4.4	3.9	1.3	94	98	1.9	3.8	3.8	3.8	56
AC96052-1RU	2.4	4.4	1.6	72	91	1.5	4.5	4.6	4.5	3
Average	4.8	4.9	1.3	89	99	1.7	4.3	4.3	4.4	32
L.S.D. (.05)	0.5	0.6	0.2	ns	ns	0.3	0.2	0.2	0.2	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 3d. General rating at grading, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 8 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	General Rating[1]	Tuber Shape[2]	Degree of Russeting[3]	Eye Depth[4]	Skin Color[5]	Growth Cracks[6]	Shatter Bruise[7]	Scab[8]	Knobs[9]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
TXDH-99-1Ru	3.1	4.1	3.9	4.0	3.0	5.0	5.0	5.0	4.9	0	0	3	0
MWTX2609-4Ru	3.1	4.4	4.0	3.1	3.0	4.9	5.0	5.0	4.5	0	0	0	0
AOTX95265-2ARu	3.7	4.0	4.4	3.5	4.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-4Ru	3.8	4.0	4.4	3.6	4.4	5.0	5.0	5.0	5.0	0	0	0	0
AOTX98137-1Ru	3.4	4.1	4.3	3.5	4.2	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	3.6	4.4	3.6	3.6	4.3	5.0	5.0	5.0	5.0	0	0	0	0
CO97137-1W	2.9	4.1	4.0	4.0	1.6	5.0	5.0	5.0	4.8	0	0	18	0
AC96052-1RU	3.0	3.9	4.1	3.9	4.3	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.3	4.1	4.1	3.7	3.6	5.0	5.0	5.0	4.9	0	0	3	0

[1] 1=very poor to 5= excellent
[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] Stem end vascular discoloration severely evaluated

Springlake

Table 3e. Notes and general rating for all reps of 8 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Notes Field	General Rating Field	Notes Grading	General Rating Grading
TXDH-99-1Ru		3.2, 2.7, 2.7, 3	some pointed to stem end, feathering, feathering, mix, 10% heat necrosis, eye knobs, feathering, nice internals, heat sprouts, pointed to stem end, drop	3, 3, 3, 3.2
MWTX2609-4Ru	knobs	3, 3.2, 3, 3	feathering, pointed to stem end, eye knobs, drop?, century like, nice, pointed to stem end, pointed to stem end, feathering, poor shape	3, 3.2, 3, 3
AOTX95265-2ARu		3, 3.2, 2.7, 3.7	pointed to stem end, 10% heat necrosis, BOT, Rhizoctonia, nice, 30% heat necrosis, Rhizoctonia	3, 3.2, 4.5, 4
AOTX95265-4Ru	BOT-, BOT	3.2, 3.2, 3.7, 3.2	very nice, Rhizoctonia, BOT, BOT, BOT, Rhizoctonia, rough, crooked tubers	4, 4, 4, 3
AOTX98137-1Ru		3, 3.2, 3.2, 3	very nice, nice, some pointed to stem end, pointed to stem end, drop?	4, 3.7, 3, 3
Russet Norkotah		3.2, 3.2, 3.2, 3.2	nice, some tuber moth, BOT, nice, nice	3.5, 4, 3.5, 3.2
CO97137-1W		3, 3, 2.7, 3	skinny, skinny, slight stem end discoloration, drop, pointed to stem end, drop	3, 3, 3, 2.7
AC96052-1RU	late, drop, , drop	3, 2, 3, 2	drop?, small,20% heat necrosis, drop, small, nice shape	3, 2.7, 3.2, 3

Springlake Table 2f. Antioxidant Activity as Determined by DPPH Assay1 of 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq	AscoEq
Russet Norkotah	185.09	180.84
AC96052-1RU	37.481	36.6211
AOTX95265-2ARU	98.026	95.7783
AOTX95265-4RU	278.59	272.204
AOTX98137-1RU	185.37	181.116
MWTX2609-4RU	173.7	169.718
TXDH-99-1RU	43.663	42.6617
Average	143.1	139.8

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2]µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3]µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 3a, 3b, 3c, 3d, 3e, and 3f.
Southwestern Regional Russet Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado

Date:		DAP
Planted	March 22, 2005	
Vines Killed	July 25, 2005	123
Harvested	August 1, 2005	129

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Table 4a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 3 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
Dark Red Norland	231.2	129.6	72.6	51.4	5.5	0.0	100.1	1.6	3.7
Red LaSoda	222.9	149.4	48.2	72.8	28.4	2.1	71.4	0.0	3.3
CO97078-5R	219.3	104.2	56.5	47.7	0.0	0.0	115.1	0.0	3.2
Average	224.5	127.7	59.1	57.3	11.3	0.7	95.5	0.5	3.4
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	29.1	ns	ns

[1] 1=very poor to 5= excellent

Springlake Table 4b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 3 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2005..

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
Dark Red Norland	56.2	31.7	22.5	2.1	0.0	43.0	0.7	1.064	Oblong	Red
Red LaSoda	67.3	21.6	33.1	12.7	0.9	31.8	0.0	1.061	Oblong	Red
CO97078-5R	47.2	25.5	21.7	0.0	0.0	52.8	0.0	1.064	Oblong	Red
Average	56.9	26.3	25.7	4.9	0.3	42.6	0.2	1.063		
L.S.D. (.05)	ns	ns	ns	ns	ns	14.9	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 3 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2005..

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]	
Dark Red Norland	4.9	4.2	1.3	81	95	2.1	3.2	2.8	3.2	61
Red LaSoda	4.6	4.2	1.3	87	96	2.4	3.6	3.1	3.5	54
CO97078-5R	6.1	3.1	1.3	79	95	2.3	3.2	3.0	3.3	65
Average	5.2	3.8	1.3	82	95	2.3	3.3	2.9	3.3	60
L.S.D. (.05)	0.6	0.3	ns	ns	ns	ns	ns	ns	ns	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 4d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of 3 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
Dark Red Norland	1.0	3.4	1.5	2.8	3.5	5.0	5.0	5.0	5.0	0	0	3	0
Red LaSoda	1.0	3.4	1.4	2.1	3.5	5.0	5.0	5.0	5.0	3	0	0	0
CO97078-5R	1.0	2.3	1.5	4.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.0	1.5	3.0	4.0	5.0	5.0	5.0	5.0	1	0	1	0

[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] Stem end vascular discoloration severely evaluated

Springlake

Table 4e. Notes and general rating for all reps of 3 entries in the Southwestern Regional Red Trial grown

Variety or Selection	Notes Field	Notes Grading	General Rating
Dark Red Norland		road map, poor shape	3.2, 4, 3.7, 4
Red LaSoda	deep eyes, poor yield	10% heat necrosis, , no road map	3.2, 4, 1.7, 4.2
CO97078-5R	nice red color, late	feathering, nice, BOT, nice interior	3.7, 3.7, 2.2, 3.2

Springlake Table 4f. Antioxidant Activity as Determined by the DPPH Assay[1] of 1 entry in the Southwestern Regional Red Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
CO97078-5R	202.5	197.9

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 4a, 4b, 4c, 4d, 4e, and 4f
Southwestern Regional Red Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado

Date:		DAP
Planted	March 22, 2005	
Vines Killed	July 9, 2005	107
Harvested	July 11, 2005	109

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
130-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Table 5a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 6 entries in the Southwestern Regional Specialty Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
CO97233-3R/Y	277.9	164.6	61.2	72.3	31.1	0.0	110.7	2.6	2.9
CO97232-2R/Y	274.8	160.9	101.0	44.3	15.7	0.0	113.9	0.0	3.0
CO97226-2R/R	254.3	56.9	49.6	7.4	0.0	0.0	197.4	0.0	3.0
Yukon Gold	249.0	194.3	59.5	74.6	60.1	0.0	54.7	0.0	3.9
CO97232-1R/Y	216.2	126.6	59.1	61.2	6.2	0.0	89.6	0.0	3.1
AC97521-1R/Y	200.6	91.8	52.3	31.1	8.3	0.0	108.8	0.0	2.9
Average	245.5	132.5	63.8	48.5	20.2	0.0	112.5	0.4	3.1
L.S.D. (.05)	42.3	53.4	ns	37.0	27.4		48.5	ns	0.3

[1] 1=very poor to 5= excellent

Springlake
Table 5b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Southwestern Regional Specialty Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
CO97233-3R/Y	58.8	20.6	26.0	12.2	0.0	40.3	0.9	1.061	Oblong	Red
CO97232-2R/Y	58.6	36.9	16.3	5.4	0.0	41.4	0.0	1.054	Oblong	Red
CO97226-2R/R	23.4	20.2	3.2	0.0	0.0	76.6	0.0	1.066	Round	Red
Yukon Gold	76.8	24.4	28.8	23.6	0.0	23.2	0.0	1.071	Oblong	White
CO97232-1R/Y	58.5	27.9	27.8	2.8	0.0	41.5	0.0	1.058	Oblong	Red
AC97521-1R/Y	45.4	26.0	15.4	4.0	0.0	54.6	0.0	1.062	Oblong	Red
Average	53.6	26.0	19.6	8.0	0.0	46.3	0.2	1.062		
L.S.D. (.05)	16.4	ns	13.2	9.8		16.3	ns	0.009		

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 Specialty Trial grown near Springlake, Texas-2005.

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]	
CO97233-3R/Y	6.8	3.9	1.5	72	89	1.9	4.4	4.4	4.4	6
CO97232-2R/Y	7.6	3.7	1.7	71	80	2.1	3.8	4.0	3.7	56
CO97226-2R/R	9.0	2.4	1.5	97	100	2.0	4.5	4.6	4.5	15
Yukon Gold	3.9	5.5	1.1	71	84	1.5	4.4	4.4	4.3	64
CO97232-1R/Y	5.2	3.5	1.3	92	98	2.1	3.6	3.8	3.7	90
AC97521-1R/Y	4.8	3.7	1.5	90	100	1.5	4.7	4.7	4.9	10
Average	6.2	3.8	1.4	82	92	1.9	4.2	4.3	4.2	40
L.S.D. (.05)	1.8	1.1	0.2	8	9	0.3	0.3	0.3	0.3	14

[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, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of6 entries in the Southwestern Regional Specialty Trial grown near Springlake, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
CO97233-3R/Y	3.0	4.1	1.5	4.1	4.8	5.0	5.0	5.0	5.0	0	0	0	0
CO97232-2R/Y	3.1	3.4	1.6	4.0	3.3	5.0	5.0	5.0	5.0	0	0	5	0
CO97226-2R/R	3.5	1.5	1.6	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	3.0	3.5	1.5	4.0	2.0	5.0	5.0	5.0	5.0	5	0	0	5
CO97232-1R/Y	2.8	4.1	1.5	4.0	3.5	5.0	5.0	5.0	5.0	0	0	0	0
AC97521-1R/Y	2.8	3.9	1.5	3.8	3.5	5.0	5.0	5.0	5.0	5	0	3	0
Average	3.0	3.4	1.5	3.9	3.7	5.0	5.0	5.0	5.0	2	0	1	1

[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] Stem end vascular discoloration severely evaluated

Springlake

Table 5e. Notes and general ratings of all reps for 6 entries in the Southwestern Regional Specialty Trial grown near Springlake, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
CO97233-3R/Y	road map	feathering, road map, poor shape, pointed, drop, feathering, road map, nice internal, drop, sever road map, sever road map, green sprout, poor shape, drop	3, 3, 2.7, 2.7
CO97232-2R/Y	ugly net, road map, poor shape, road map, poor shape, nice shape, road map	road map, pointed to stem end, nice shape, buff, nice internal, buff skin, road map, buff, nice shape	3, 2.7, 3.2, 3.2
CO97226-2R/R	road map, nice internal, nice shape, road map, dark yellow flesh, dark yellow, BOT-	road map, drop?, road map, drop?, many small tuber, road map, drop, feathering	3.2, 2.7, 3.2, 3
Yukon Gold	BOT	feathering, , BOT, BOT	3.7, 4, 4, 4
CO97232-1R/Y	nice color, road map, poor shape, poor flesh color, poor shape	feathering, pointed to stem end, feathering, feathering, pointed to stem end, feathering, pointed to stem end	3.2, 3.2, 2.7, 3.2
AC97521-1R/Y	poor shape, , dark yellow flesh, poor shape	pointed to stem end, buff skin on stem end, rough, pointed to stem end, drop ++, feathering, road map, drop	3, 3.2, 2.7, 2.7

Springlake Table 5f. Antioxidant Activity as Determined by the DPPH Assay[1] of 6 entries in the Southwestern Regional Specialty Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Yukon Gold	122.0	119.2
AC97521-1R/Y	65.8	64.3
CO97226-2R/R	312.1	305.0
CO97232-1R/Y	175.3	171.3
CO97232-2R/Y	115.2	112.6
CO97233-3R/Y	294.3	287.6
Average	180.8	176.7

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 5a, 5b, 5c, 5d, 5e, and 5f
Southwestern Regional Specialty Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado

Date:		DAP
Planted	March 23, 2005	
Vines Killed	July 20, 2005	117
Harvested	July 27, 2005	124

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:
These trials were subjected to higher than normal precipitation in the third and fourth weeks of May, the first week in July, and the second and third weeks of August.Temperatures were lower than normal for the last week of April and the first week of May

Springlake Table 6a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 10 entries in the Presouthwestern Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
AOTX95269-1Ru	321.2	183.6	60.5	88.4	34.7	0.0	52.5	85.1	3.0
AOTX96208-1Ru	273.8	211.6	54.6	96.6	60.4	1.3	35.2	25.6	3.5
AOTX95265-4Ru	255.6	196.3	70.2	75.3	50.8	0.0	48.8	10.5	3.3
AOTX95295-1Ru	244.5	183.7	54.3	66.7	62.7	3.8	46.3	10.8	3.1
AOTX95265-1Ru	244.3	175.1	30.7	87.2	57.3	3.2	38.7	27.2	3.2
AOTX96216-1Ru	239.4	168.9	64.8	53.3	50.8	0.0	39.5	30.9	3.1
Russet Norkotah	226.5	156.3	52.5	56.0	47.9	0.0	59.7	10.5	2.4
AOTX95265-3Ru	216.9	168.7	48.8	53.7	66.2	0.0	42.4	5.9	3.2
AOTX95295-3Ru	179.4	123.5	56.1	43.0	24.4	0.0	54.5	1.4	2.9
AOTX98137-1Ru	159.7	114.1	56.3	41.2	16.7	0.0	36.9	8.6	2.9
Average	236.1	168.2	54.9	66.1	47.2	0.8	45.5	21.7	3.0
L.S.D. (.05)	36.4	34.8	ns	22.4	29.0	ns	ns	31.1	ns

[1] 1=very poor to 5= excellent

Springlake Table 6b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 10 entries in the Presouthwestern Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
AOTX95269-1Ru	57.6	19.0	27.6	11.1	0.0	16.5	25.9	1.063	Oblong	Russet
AOTX96208-1Ru	77.8	20.2	35.3	22.3	0.4	12.8	9.0	1.059	Oblong	Russet
AOTX95265-4Ru	77.2	27.7	30.3	19.2	0.0	19.0	3.8	1.059	Oblong	Russet
AOTX95295-1Ru	74.5	22.4	27.5	24.6	1.4	19.1	5.1	1.059	Oblong	Russet
AOTX95265-1Ru	71.2	12.6	35.5	23.1	1.4	16.7	10.8	1.062	Oblong	Russet
AOTX96216-1Ru	70.9	27.1	22.4	21.4	0.0	16.5	12.7	1.062	Oblong	Russet
Russet Norkotah	69.1	23.0	24.9	21.2	0.0	26.8	4.1	1.062	Oblong	Russet
AOTX95265-3Ru	77.9	22.2	24.5	31.2	0.0	19.5	2.6	1.056	Oblong	Russet
AOTX95295-3Ru	68.7	31.5	23.8	13.4	0.0	30.5	0.8	1.060	Oblong	Russet
AOTX98137-1Ru	71.9	35.9	25.6	10.4	0.0	22.6	5.5	1.060	Oblong	Russet
Average	71.7	24.2	27.7	19.8	0.3	20.0	8.0	1.060		
L.S.D. (.05)	ns	10.4	ns	12.4	ns	8.5	10.3	ns		

Springlake
Table 6c.

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 Presouthwestern Regional Russet Trial grown near Springlake, Texas-2005.

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]	
AOTX95269-1Ru	5.0	5.4	1.6	83	98	1.5	4.4	4.4	4.5	13
AOTX96208-1Ru	3.7	6.2	1.4	93	100	1.5	4.4	4.4	4.4	31
AOTX95265-4Ru	4.0	5.4	1.5	94	98	1.5	4.3	4.3	4.3	38
AOTX95295-1Ru	4.0	5.1	1.4	92	100	1.6	4.4	4.3	4.3	35
AOTX95265-1Ru	3.3	6.1	1.3	89	100	1.6	3.9	3.8	3.7	36
AOTX96216-1Ru	3.9	5.2	1.5	89	100	1.5	4.5	4.5	4.4	20
Russet Norkotah	3.6	5.2	1.4	89	100	1.6	3.6	3.5	3.6	58
AOTX95265-3Ru	3.2	5.6	1.4	93	100	1.5	4.3	4.2	4.3	29
AOTX95295-3Ru	3.4	4.5	1.4	92	98	1.5	3.6	3.5	3.4	63
AOTX98137-1Ru	2.9	4.7	1.4	83	96	1.5	3.6	3.7	3.6	63
Average	3.7	5.4	1.4	89	99	1.5	4.1	4.0	4.1	38
L.S.D. (.05)	0.6	0.9	ns	ns	ns	ns	ns	0.3	0.4	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

Springlake
Table 6d. General rating at grading, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Presouthwestern Regional Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	General Rating[1]	Tuber Shape[2]	Degree of Russeting[3]	Eye Depth[4]	Skin Color[5]	Growth Cracks[6]	Shatter Bruise[7]	Scab[8]	Knobs[9]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
AOTX95269-1Ru	3.1	3.9	4.1	3.6	4.2	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96208-1Ru	3.2	4.1	3.9	3.9	4.3	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-4Ru	3.4	3.9	3.9	3.6	4.2	5.0	5.0	5.0	5.0	0	0	5	0
AOTX95295-1Ru	3.3	4.1	4.1	3.5	4.4	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-1Ru	3.4	4.3	4.0	3.5	4.4	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-1Ru	3.1	4.3	4.0	3.5	4.4	5.0	5.0	5.0	5.0	0	0	5	0
Russet Norkotah	3.3	3.6	3.8	3.5	4.3	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-3Ru	3.5	4.3	4.1	3.6	4.5	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95295-3Ru	3.1	3.6	3.9	3.8	4.2	5.0	5.0	5.0	5.0	0	0	0	0
AOTX98137-1Ru	3.1	3.8	4.0	3.6	4.1	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.2	4.0	4.0	3.6	4.3	5.0	5.0	5.0	5.0	0	0	1	0

[1] 1=very poor to 5= excellent
[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] Stem end vascular discoloration severely evaluated

Springlake Notes and general rating for all reps of 10 entries in the Presouthwestern Regional Russet Trial grown near Springlake, Texas-2005.
Table 6e.

Variety or Selection	Notes Field	General Rating Field	Notes Grading	General Rating Grading
AOTX95269-1Ru	late, curved tubers, pointed	3.2, 3, 3.2, 2.7	rough, small, some curved	3, 2.7, 3, 3.5
AOTX96208-1Ru	Yield+, BOT	4, 3.2, 3.7, 3	large tubers, Rhizoctonia, , drop	3.2, 3.2, 3.2, 3
AOTX95265-4Ru		3.2, 3.7, 3.2, 3	some rot, feathering, rough, BOT-, rough	3.5, 3, 4, 3
AOTX95295-1Ru	rot, BOT	3, 3.2, 3.2, 3	rough, uneven net, BOT+, pointed to bud end	2.7, 2.7, 4.5, 3.2
AOTX95265-1Ru		3, 3.2, 3.2, 3.2	rot+, Rhizoctonia, uniform, small tubers, some curved, BOT	2.7, 3.2, 3, 4.5
AOTX96216-1Ru		2.7, 3.2, 3.7, 2.7	some curved, pointed, feathering, large tubers,	3, 3.2, 3.2, 3
Russet Norkotah		, 3.2, 3.2, 3	strange net, 20% heat necrosis, BOT, pointed to apical end	3, 3, 4, 3.2
AOTX95265-3Ru		3.7, 3, 3, 3	very nice, BOT, ugly net on stem end	4, 3, 3.7, 3.2
AOTX95295-3Ru		3, 2.7, 3, 3	poor net	3.5, 2.7, 3.2, 3
AOTX98137-1Ru		3, 2.7, 2.7, 3	uniform, smooth, small, smooth	3, 3.5, 3, 3

Springlake

Table 6f. Antioxidant Activity as Determined by the DPPH Assay[1] of 6 entries in the Pre-Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Russet Norkotah	185.1	180.8
AOTX95265-3Ru	156.2	152.6
AOTX95269-1Ru	84.5	82.6
AOTX95295-3Ru	179.0	174.9
AOTX96208-1Ru	171.8	167.9
AOTX96216-1Ru	137.7	134.6
Average	152.4	148.9

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 6a, 6b, 6c, 6d, 6e, and 6f
Presouthwestern Regional Russet Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	March 23, 2005	
Vines Killed	July 25, 2005	122
Harvested	August 3, 2005	130

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Table 7a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 17 entries in the Advanced Russet Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
MWTX2609-4Ru	468.9	150.9	48.4	63.5	39.0	0.0	49.5	268.5	2.8
MWTX2609-2Ru	445.9	232.4	48.4	123.1	60.9	0.0	59.3	154.1	2.9
TXDH-99-1Ru	423.4	168.1	60.5	86.3	21.3	0.0	71.3	184.0	2.7
ATX91137-1Ru	414.5	321.5	81.0	166.8	73.7	0.0	69.4	23.7	3.5
TXA549-1Ru	389.5	323.1	104.4	97.9	107.6	13.2	66.4	0.0	3.6
TXNS278	354.0	205.0	65.4	100.6	39.0	0.0	29.3	119.7	3.3
Stampede Russet	350.2	284.1	83.1	126.7	69.0	5.2	54.5	11.7	3.6
AOTX98137-1Ru	347.0	265.5	92.4	124.3	48.8	0.0	45.6	35.9	3.0
ATX9332-8Ru	347.0	256.2	66.6	148.9	40.8	0.0	46.8	44.0	3.0
ATX9202-1Ru	336.9	201.3	71.4	88.4	41.6	0.0	66.2	69.4	2.9
TXNS223	334.4	184.5	58.4	82.6	40.1	3.5	36.0	113.8	3.2
ATX84706-2Ru	331.7	299.4	15.7	62.9	134.4	86.3	24.6	7.7	3.2
Russet Norkotah	326.0	215.5	67.0	77.1	71.4	0.0	52.9	57.7	3.5
TXNS296	324.4	183.7	58.6	84.5	37.1	3.5	36.6	104.1	2.9
AOTX95265-4Ru	315.9	192.5	68.2	69.0	55.3	0.0	52.1	71.4	2.8
AOTX95265-2ARu	271.6	142.0	58.6	56.8	26.6	0.0	65.0	64.6	2.9
ATX84378-1Ru	260.7	216.9	23.8	54.7	95.0	43.4	19.8	24.0	3.6
Average	355.4	226.0	63.1	94.9	58.9	9.1	49.7	79.7	3.1
L.S.D. (.05)	29.7	33.5	18.1	29.4	30.9	7.6	21.5	33.2	0.4

[1] 1=very poor to 5= excellent

Springlake Table 7b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 17 entries in the Advanced Russet Selection Trial grown near Springlake, Texas-2005.

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	Specific Gravity	Tuber Type	Skin Type
MWTX2609-4Ru	32.2	10.3	13.6	8.4	0.0	10.4	57.3	1.059	Long	Russet
MWTX2609-2Ru	51.9	10.9	27.5	13.5	0.0	13.4	34.7	1.064	Long	Russet
TXDH-99-1Ru	39.7	14.4	20.2	5.1	0.0	16.9	43.4	1.059	Long	Russet
ATX91137-1Ru	77.8	19.4	40.3	18.1	0.0	16.7	5.5	1.066	Oblong	Russet
TXA549-1Ru	83.1	26.7	25.4	27.6	3.4	16.9	0.0	1.069	Oblong	Russet
TXNS278	58.1	18.5	28.6	11.0	0.0	8.2	33.7	1.066	Long	Russet
Stampede Russet	81.4	24.3	36.1	19.6	1.4	15.4	3.2	1.055	Oblong	Russet
AOTX98137-1Ru	76.5	26.6	35.8	14.1	0.0	13.1	10.4	1.057	Long	Russet
ATX9332-8Ru	73.9	19.1	42.6	12.2	0.0	13.4	12.7	1.071	Oblong	Russet
ATX9202-1Ru	59.6	21.2	26.1	12.3	0.0	19.6	20.8	1.067	Oblong	Russet
TXNS223	54.9	17.6	24.6	11.7	1.0	11.1	34.0	1.061	Long	Russet
ATX84706-2Ru	90.3	4.7	18.9	40.6	26.1	7.4	2.3	1.062	Oblong	Russet
Russet Norkotah	66.1	20.6	23.6	21.9	0.0	16.2	17.7	1.063	Long	Russet
TXNS296	56.7	18.1	26.0	11.5	1.1	11.1	32.1	1.062	Long	Russet
AOTX95265-4Ru	60.8	21.5	21.7	17.5	0.0	16.6	22.7	1.061	Oblong	Russet
AOTX95265-2ARu	52.2	21.6	20.8	9.8	0.0	23.8	24.0	1.063	Oblong	Russet
ATX84378-1Ru	83.7	9.1	21.9	36.2	16.4	7.5	8.8	1.061	Long	Russet
Average	64.6	17.9	26.7	17.1	2.9	14.0	21.4	1.063		
L.S.D. (.05)	9.2	5.0	8.1	9.3	2.4	6.0	10.2	0.007		

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 17 entries in the Advanced Russet Selection Trial grown near Springlake, Texas-2005.

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]	
MWTX2609-4Ru	6.7	6.0	1.5	96	100	1.5	4.7	4.7	4.7	3
MWTX2609-2Ru	6.2	5.9	1.5	95	100	1.5	4.7	4.7	4.7	13
TXDH-99-1Ru	6.5	5.4	1.6	91	100	1.5	4.6	4.6	4.6	11
ATX91137-1Ru	5.6	6.2	1.3	94	100	1.5	4.7	4.7	4.7	43
TXA549-1Ru	5.3	5.8	1.5	91	108	1.6	4.5	4.4	4.5	3
TXNS278	4.6	6.4	1.4	98	100	1.5	4.6	4.7	4.7	21
Stampede Russet	4.8	6.1	1.4	93	98	1.5	4.6	4.4	4.3	65
AOTX98137-1Ru	5.6	5.1	1.3	95	100	1.3	4.3	3.9	4.3	48
ATX9332-8Ru	5.1	5.7	1.3	92	100	1.5	4.5	4.6	4.5	0
ATX9202-1Ru	6.2	4.7	1.3	57	97	1.5	4.7	4.7	4.7	5
TXNS223	4.8	5.8	1.3	94	100	1.5	4.7	4.7	4.7	5
ATX84706-2Ru	3.6	9.4	1.5	52	83	1.9	4.1	4.4	4.4	10
Russet Norkotah	4.6	5.9	1.3	95	100	1.5	4.0	3.9	4.0	74
TXNS296	4.4	6.1	1.4	96	100	1.6	4.5	4.5	4.4	13
AOTX95265-4Ru	5.3	5.2	1.5	70	96	1.5	4.4	4.4	4.4	18
AOTX95265-2ARu	5.1	4.5	1.5	83	100	1.5	4.4	4.4	4.4	14
ATX84378-1Ru	2.5	8.6	1.2	85	100	1.5	4.7	4.7	4.9	19
Average	5.1	6.0	1.4	87	99	1.5	4.5	4.5	4.5	21
L.S.D. (.05)	1.5	0.9	0.3	13	ns	0.2	0.2	0.2	0.2	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 7d.

General rating at grading, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 17 entries in the Advanced Russet Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	General Rating[1]	Tuber Shape[2]	Degree of Russeting[3]	Eye Depth[4]	Skin Color[5]	Growth Cracks[6]	Shatter Bruise[7]	Scab[8]	Knobs[9]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
MWTX2609-4Ru	2.5	4.4	3.0	4.0	3.1	5.0	5.0	5.0	5.0	0	0	3	0
MWTX2609-2Ru	2.7	4.0	2.9	3.9	2.6	5.0	5.0	5.0	5.0	0	0	3	0
TXDH-99-1Ru	2.4	4.1	3.0	4.1	3.1	5.0	5.0	5.0	5.0	0	0	5	0
ATX91137-1Ru	4.2	3.6	3.9	3.9	4.1	5.0	5.0	5.0	5.0	0	0	3	0
TXA549-1Ru	3.5	3.5	3.2	4.0	3.5	5.0	5.0	5.0	5.0	0	0	0	0
TXNS278	3.2	4.1	4.3	3.4	4.4	5.0	5.0	5.0	5.0	0	0	8	0
Stampede Russet	4.4	3.7	3.8	4.4	3.9	5.0	5.0	5.0	5.0	0	0	0	0
AOTX98137-1Ru	3.3	4.3	4.1	3.5	4.4	5.0	5.0	5.0	5.0	0	0	5	0
ATX9332-8Ru	3.2	3.6	3.7	3.8	4.1	5.0	5.0	5.0	5.0	0	0	0	0
ATX9202-1Ru	3.1	3.6	4.0	3.5	4.1	5.0	5.0	5.0	5.0	0	0	0	0
TXNS223	3.1	4.3	4.3	3.5	4.4	5.0	5.0	5.0	5.0	3	0	5	0
ATX84706-2Ru	3.3	3.5	3.0	3.8	3.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	3.2	4.0	4.0	3.6	4.4	5.0	5.0	5.0	5.0	0	0	0	0
TXNS296	2.9	4.1	4.1	3.6	4.4	5.0	5.0	5.0	5.0	0	0	3	0
AOTX95265-4Ru	3.2	3.9	4.3	3.8	4.4	5.0	5.0	5.0	5.0	0	0	3	0
AOTX95265-2ARu	3.0	3.9	4.0	3.8	4.3	5.0	5.0	5.0	5.0	0	0	0	0
ATX84378-1Ru	3.4	4.1	4.4	4.0	4.5	5.0	5.0	5.0	5.0	3	0	0	0
Average	3.2	3.9	3.7	3.8	3.9	5.0	5.0	5.0	5.0	0	0	2	0

[1] 1=very poor to 5= excellent
[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] Stem end vascular discoloration severely evaluated

Springlake

Table 7e. Notes and general rating for all reps of 17 entries in the Advanced Russet Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Notes Field	General Rating Field	Notes Grading	General Rating Grading
MWTX2609-4Ru	,drop, drop	3, 2.7, 2.7, 2.7	feathering, drop, pointed to stem end, cone shaped, drop, drop, feathering	2.7, 2.7, 2, 2.7
MWTX2609-2Ru	heat sprouts, bad sprouting, drop	3.2, 3, 2.7, 2.7	feathering, heat sprouts	2.5, 3, 2.7, 2.7
TXDH-99-1Ru	drop, drop, drop	2.7, 2.7, 2.7, 2.7	apical nipples, drop, feathering,, poor shape, drop	2, 2.5, 2.5, 2.5
ATX91137-1Ru	BOT+, BOT	3.7, 3.2, 4, 3.2	BOT, very nice, BOT, very nice, BOT, net not as good as Nork	4, 4, 5, 3.7
TXA549-1Ru	BOT	3.2, 3.7, 3.7, 3.7	blocky, uniform, feathering,	4, 3.7, 3.2, 3.2
TXNS278	poor shape	3.7, 3.2, 3.7, 2.7	feathering, Rhizoctonia, rough	3.5, 3, 3.2, 3
Stampede Russet	BOT, nice, shape, very smooth	3.7, 3.2, 3.7, 3.7	BOT, growth cracks, very smooth, boiler	5, 5, 3.7, 4
AOTX98137-1Ru	nice, drop	3, 3.2, 3.2, 2.7	nice	3.2, 3.7, 3.2, 3.2
ATX9332-8Ru		3.2, 3, 2.7, 3	ugly net, 10% heat necrosis, smooth, smooth, ugly net,10% heat necrosis, drop	3, 3.2, 3, 3.5
ATX9202-1Ru		3, 2.7, 2.7, 3		3.2, 2.7, 3.2, 3.2
TXNS223	poor shape	3.2, 3, 3.7, 2.7	pointed to stem end, , curved tubers, rough	3, 3, 3, 3.5
ATX84706-2Ru		3.2, 3.2, 3.2, 3.2	hollow heart resistant, parent	3.2, 3.5, 3.2, 3.2
Russet Norkotah		3.2, 3.7, 3.2, 3.7	apical nipples, some curved	3, 3.2, 3.5, 3
TXNS296	drop	3.2, 2.7, 3, 2.7	variable shape	3, 2.7, 3, 3
AOTX95265-4Ru	drop, drop	3.2, 2.7, 2.7, 2.7	nice interior, feathering	3, 4, 2.7, 3
AOTX95265-2ARu		3.2, 3, 2.7, 2.7	feathering, nice , blocky?, rough	3.7, 2.7, 2.7, 3
ATX84378-1Ru		4, 4, 3.2, 3.2		3.2, 3.7, 3.2, 3.5

Springlake
Table 7f.

Antioxidant Activity as Determined by the DPPH Assay[1] of 6 entries in the Pre-Southwestern Regional Russet Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Russet Norkotah	185.1	180.8
StampedeRusset	503.3	491.8
AOTX95265-2ARU	98.0	95.8
AOTX95265-4RU	278.6	272.2
AOTX98137-1RU	185.4	181.1
ATX84378-1Ru	183.9	179.6
ATX84706-2Ru	183.9	179.7
ATX9202-1Ru	205.1	200.4
ATX9332-8Ru	27.9	27.2
MWTX2609-2Ru	153.4	149.9
MWTX2609-4RU	173.7	169.7
TXA549-1Ru	81.8	79.9
TXDH-99-1Ru	43.7	42.7
TXNS223	143.2	139.9
TXNS278	102.9	100.5
TXNS296	203.0	198.4
Average	147.5	144.1

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 7a, 7b, 7c, 7d, 7e, and 7f
Advanced Russet Selection Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado and Texas

Date:		DAP
Planted	March 23, 2005	
Vines Killed	July 25, 2005	122
Harvested	August 3, 2005	130

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Table 8a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 13 entries in the Texas Advanced Russet Selection Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
COTX00212-1Ru	333.5	258.0	102.5	118.8	36.7	0.0	49.8	25.6	3.0
AOTX96216-2Ru	326.4	224.3	54.5	62.1	107.7	0.0	45.2	56.9	3.2
AOTX96084-1Ru	317.2	247.5	50.6	144.5	52.5	0.0	53.5	16.1	3.2
ATX97195-1Ru	294.3	207.7	50.0	96.8	60.8	0.0	46.3	40.4	3.2
ATX99049-1Ru	259.6	168.6	37.3	85.5	45.7	0.0	25.8	65.2	3.3
AOTX96075-1Ru	253.0	173.9	51.2	85.5	37.1	0.0	38.7	40.4	3.0
Russet Norkotah	247.1	156.5	64.8	56.2	35.5	0.0	48.6	42.0	3.1
COTX01440-1Ru	245.7	120.6	63.8	30.3	26.6	0.0	57.7	67.4	3.0
AOTX98183-2Ru	244.1	146.5	58.9	53.7	33.9	16.5	73.4	7.7	2.9
AOTX98096-1Ru	236.2	136.9	42.5	75.3	19.1	0.0	30.4	68.9	3.0
AOTX98202-1Ru	231.3	148.2	33.9	67.8	46.5	0.0	71.6	11.6	2.9
ATX99092-1Ru	223.8	149.6	60.5	53.5	35.5	0.0	49.8	24.5	3.0
AOTX96216-3Ru	222.7	165.8	43.6	81.3	40.9	0.0	31.9	25.0	3.1
Average	264.2	177.2	54.9	77.8	44.5	1.3	47.9	37.8	3.0
L.S.D. (.05)	39.5	40.2	18.5	30.7	21.0	5.3	16.2	32.3	ns

[1] 1=very poor to 5= excellent

Springlake Table 8b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 13 entries in the Texas Advanced Russet Selection Russet Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
COTX00212-1Ru	77.8	31.0	36.1	10.7	0.0	14.8	7.3	1.065	Long	Russet
AOTX96216-2Ru	68.3	16.7	18.9	32.7	0.0	13.8	17.9	1.060	Long	Russet
AOTX96084-1Ru	77.8	15.8	45.3	16.6	0.0	16.8	5.4	1.062	Oblong	Russet
ATX97195-1Ru	70.7	17.0	33.3	20.4	0.0	15.7	13.6	1.060	Oblong	Russet
ATX99049-1Ru	64.3	14.2	32.1	18.0	0.0	10.0	25.7	1.060	Long	Russet
AOTX96075-1Ru	68.6	20.2	33.9	14.4	0.0	15.5	15.9	1.061	Oblong	Russet
Russet Norkotah	63.5	26.4	22.7	14.4	0.0	19.6	16.8	1.062	Oblong	Russet
COTX01440-1Ru	49.6	27.4	12.2	10.0	0.0	24.7	25.7	1.064	Oblong	Russet
AOTX98183-2Ru	60.1	24.2	22.1	13.8	6.7	30.1	3.2	1.065	Oblong	Russet
AOTX98096-1Ru	58.4	17.7	32.0	8.6	0.0	13.2	28.5	1.057	Oblong	Russet
AOTX98202-1Ru	64.6	14.6	29.6	20.4	0.0	30.8	4.7	1.065	Oblong	Russet
ATX99092-1Ru	67.1	27.4	23.9	15.9	0.0	22.7	10.2	1.062	Oblong	Russet
AOTX96216-3Ru	73.9	19.5	36.1	18.3	0.0	14.2	11.9	1.060	Long	Russet
Average	66.5	20.9	29.1	16.5	0.5	18.6	14.4	1.062		
L.S.D. (.05)	10.8	7.6	10.4	6.9	2.1	6.5	11.3	0.003		

Springlake Table 8c. 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 13 entries in the Texas

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]	
COTX00212-1Ru	5.8	4.8	1.3	85	100	1.5	4.3	4.3	4.2	31
AOTX96216-2Ru	4.7	5.8	1.3	76	100	1.5	4.5	4.3	4.5	8
AOTX96084-1Ru	5.2	5.0	1.3	88	100	1.5	4.3	4.2	4.3	16
ATX97195-1Ru	4.4	5.5	1.3	88	100	1.5	4.1	4.1	4.3	24
ATX99049-1Ru	3.9	5.6	1.4	66	100	1.5	4.3	4.1	4.3	20
AOTX96075-1Ru	4.2	5.2	1.4	71	96	1.5	4.1	4.1	4.1	20
Russet Norkotah	4.3	4.8	1.4	89	100	1.5	3.9	3.9	4.0	69
COTX01440-1Ru	4.8	4.6	1.4	80	94	2.0	4.1	3.9	3.9	53
AOTX98183-2Ru	5.7	4.3	1.5	66	83	1.8	4.2	4.2	4.2	29
AOTX98096-1Ru	4.1	5.0	1.3	83	96	1.5	4.3	4.3	4.2	13
AOTX98202-1Ru	4.6	4.4	1.3	82	96	1.9	3.9	3.9	3.9	15
ATX99092-1Ru	3.9	4.8	1.5	82	98	1.5	4.0	3.9	4.2	29
AOTX96216-3Ru	3.6	5.6	1.5	77	94	1.5	4.3	4.1	4.2	3
Average	4.5	5.0	1.4	79	97	1.6	4.2	4.1	4.2	25
L.S.D. (.05)	0.9	0.7	ns	ns	6	0.1	0.3	ns	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 8d. General rating at grading, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 13 entries in the T

Variety or Selection	General Rating[1]	Tuber Shape[2]	Degree of Russeting[3]	Eye Depth[4]	Skin Color[5]	Growth Cracks[6]	Shatter Bruise[7]	Scab[8]	Knobs[9]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
COTX00212-1Ru	2.7	4.3	3.1	3.9	3.2	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-2Ru	3.4	4.0	4.1	3.8	4.2	5.0	5.0	5.0	5.0	0	0	3	0
AOTX96084-1Ru	4.1	3.9	4.0	3.6	4.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX97195-1Ru	3.4	3.7	4.1	3.8	4.3	5.0	5.0	5.0	5.0	0	0	0	0
ATX99049-1Ru	3.4	4.0	3.9	3.8	4.2	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96075-1Ru	3.2	3.8	4.1	3.8	4.2	5.0	5.0	4.9	5.0	0	0	0	0
Russet Norkotah	3.2	3.5	3.9	3.8	4.2	5.0	5.0	5.0	5.0	0	0	0	0
COTX01440-1Ru	2.9	3.5	3.6	4.0	3.6	5.0	5.0	5.0	5.0	3	0	3	0
AOTX98183-2Ru	2.9	3.6	3.6	3.6	3.7	5.0	5.0	5.0	4.8	0	0	15	0
AOTX98096-1Ru	3.2	3.7	4.0	3.5	4.0	5.0	5.0	5.0	4.8	0	0	3	0
AOTX98202-1Ru	3.1	3.8	3.4	3.6	3.6	5.0	5.0	5.0	5.0	0	0	5	0
ATX99092-1Ru	3.5	3.8	3.9	4.0	4.2	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-3Ru	3.3	4.4	3.9	3.6	4.2	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.2	3.8	3.8	3.7	4.0	5.0	5.0	5.0	5.0	0	0	2	0

[1] 1=very poor to 5= excellent
[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] Stem end vascular discoloration severely evaluated

Springlake

Table 8e. Notes and general rating for all reps of 13 entries in the Texas Advanced Russet Selection Russet Trial grown near Springlake,

Variety or Selection	Notes Field	General Rating Field	Notes Grading	General Rating Grading
COTX00212-1Ru	poor net	3.2, 3, 2.7, 3	ugly net, ugly net, rough, drop, feathering, drop, poor shape, drop	3, 3, 2, 2.7
AOTX96216-2Ru	late	3, 3, 3.7, 3	BOT-, poor rep, , nice shape	3.7, 2.5, 3.5, 3.7
AOTX96084-1Ru		3.2, 3.2, 3, 3.2	nice, BOT+, small, heat sprouts, Blackspot bruise??, drop, 10% heat necrosis	4, 4.5, 4, 3.7
ATX97195-1Ru		3.2, 3.2, 3.2, 3	apical nipples, , blocky, 10% heat necrosis, BOT	3.2, 3.7, 3, 3.7
ATX99049-1Ru	BOT	3, 3, 4, 3.2	rough, drop, pointed to apical end, BOT	3.2, 3, 4.2, 3
AOTX96075-1Ru	drop, heat sprouts	2.7, 2.7, 3.2, 3.2	small, heat sprouts, Blackspot bruise??, drop, some pointed to apical end, Rhizoctonia, 10% heat necrosis	3, 3.75, 3, 3.2
Russet Norkotah	rot	3.2, 3.2, 3, 3	Rhizoctonia, small	3.75, 3, 3, 3
COTX01440-1Ru	smooth	3, 3.2, 2.7, 3	ugly net, heat sprouts, drop?, ugly net, ugly net, drop	2.7, 2.7, 3, 3
AOTX98183-2Ru		2.7, 3, 2.7, 3	uneven net, not as nice, drop, blocky, light fine net, rough, drop, mix?	3, 3.2, 2.7, 2.7
AOTX98096-1Ru	drop	2.7, 3, 3.2, 3.2	drop	3, 3, 3.5, 3.2
AOTX98202-1Ru	drop	3, 3, 2.7, 3	drop, BOT-	3.2, 2.7, 3.7, 2.7
ATX99092-1Ru	drop	3, 3, 3, 3	pointed to apical end, mix?, blocky, short tuber are OK, blocky	3.5, 3.5, 3.5, 3.5
AOTX96216-3Ru	late	3, 3, 3.2, 3	rough, some pointed to apical end, some pointed	3, 3.2, 3.7, 3.2

Springlake
Table 8f.

Antioxidant Activity as Determined by the DPPH Assay[1] of 11 entries in the Texas Advanced Russet Selection Russet Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Russet Norkotah	185.1	180.8
AOTX96075-1Ru	116.0	113.3
AOTX96084-1Ru	141.6	138.4
AOTX98096-1Ru	314.4	307.2
AOTX98183-2Ru	77.6	75.9
AOTX98202-1Ru	52.7	51.5
ATX97195-1Ru	156.0	152.4
ATX99049-1Ru	308.6	301.5
ATX99092-1Ru	322.6	315.2
COTX00212-1Ru	66.0	64.5
COTX01440-1Ru	191.1	186.7
Average	175.6	171.6

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 8a, 8b, 8c, 8d, 8e, and 8f
Texas Advanced Russet Selection Russet Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	March 23, 2005	
Vines Killed	July 25, 2005	122
Harvested	August 3, 2005	130

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Table 9a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 11 entries in the Texas Advanced Red Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
NDTX4304-1R	306.3	163.4	96.4	48.4	18.6	0.0	142.8	0.0	4.1
NDTX731-1R	277.1	208.3	69.7	102.7	35.9	0.0	68.8	0.0	4.1
ATTX98452-9R	272.9	155.6	79.9	65.6	10.1	0.0	117.3	0.0	3.8
Red LaSoda	265.9	192.9	89.6	81.1	22.2	0.0	73.0	0.0	3.2
BTX2332-1R	252.9	146.3	104.4	42.0	0.0	0.0	104.9	1.6	3.9
NDTX4271-5R	211.0	100.1	61.7	33.9	4.4	0.0	111.0	0.0	3.6
NDTX4847-7R	179.7	89.3	61.6	27.7	0.0	0.0	90.4	0.0	3.2
NDTX4828-2R	176.5	89.0	42.4	38.7	7.9	0.0	87.6	0.0	3.8
COTX94218-1R	170.7	28.1	28.1	0.0	0.0	0.0	142.6	0.0	3.0
ATTX98453-6R	142.6	90.8	49.0	35.9	5.9	0.0	51.8	0.0	3.6
COTX00104-6R	131.9	81.1	56.5	15.7	8.9	0.0	50.8	0.0	3.2
Average	217.0	122.3	67.2	44.7	10.3	0.0	94.6	0.1	3.6
L.S.D. (.05)	34.2	29.2	25.6	26.1	12.2		29.1	ns	0.6

[1] 1=very poor to 5= excellent

Springlake Table 9b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 11 entries in the Texas Advanced Red Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
NDTX4304-1R	53.4	31.5	15.8	6.1	0.0	46.6	0.0	1.061	Oblong	Red
NDTX731-1R	75.1	25.1	36.8	13.2	0.0	24.9	0.0	1.062	Oblong	Red
ATTX98452-9R	57.1	29.3	24.1	3.7	0.0	42.9	0.0	1.063	Oblong	Red
Red LaSoda	72.5	33.4	31.1	8.0	0.0	27.5	0.0	1.068	Oblong	Red
BTX2332-1R	57.7	40.8	16.9	0.0	0.0	41.7	0.6	1.063	Oblong	Red
NDTX4271-5R	47.6	29.6	16.1	1.9	0.0	52.4	0.0	1.068	Oblong	Red
NDTX4847-7R	49.6	33.9	15.7	0.0	0.0	50.4	0.0	1.065	Oblong	Red
NDTX4828-2R	51.1	25.9	21.0	4.1	0.0	48.9	0.0	1.069	Oblong	Red
COTX94218-1R	16.9	16.9	0.0	0.0	0.0	83.1	0.0	1.064	Oblong	Red
ATTX98453-6R	63.0	35.5	23.2	4.4	0.0	37.0	0.0	1.063	Oblong	Red
COTX00104-6R	61.2	45.9	9.2	6.1	0.0	38.8	0.0	1.069	Oblong	Red
Average	55.0	31.6	19.1	4.3	0.0	44.9	0.1	1.065		
L.S.D. (.05)	12.0	15.3	13.5	6.2		12.0	ns	0.003		

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 Texas Advanced Red Selection Trial grown near Springlake, Texas-2005.

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]	
NDTX4304-1R	6.9	3.7	1.5	83	100	1.8	4.2	4.1	4.3	34
NDTX731-1R	4.8	4.8	1.3	97	100	2.0	3.2	3.3	3.4	48
ATTX98452-9R	6.2	3.8	1.4	84	96	2.1	3.0	2.9	3.3	56
Red LaSoda	5.0	4.5	1.4	96	100	1.8	4.3	4.1	4.4	35
BTX2332-1R	5.7	3.9	1.4	94	96	2.3	2.6	2.6	3.0	43
NDTX4271-5R	5.3	3.3	1.5	90	100	1.6	4.4	4.1	4.6	53
NDTX4847-7R	4.8	3.1	1.4	92	100	1.6	3.4	2.9	3.4	50
NDTX4828-2R	4.2	3.6	1.3	94	100	2.3	3.4	2.9	3.5	33
COTX94218-1R	6.3	2.4	1.6	85	98	1.9	3.7	3.5	3.8	28
ATTX98453-6R	3.8	3.3	1.4	78	96	2.0	2.9	3.0	3.2	39
COTX00104-6R	3.1	3.6	1.3	85	97	1.8	3.3	4.0	3.2	36
Average	5.1	3.6	1.4	89	98	1.9	3.5	3.4	3.6	41
L.S.D. (.05)	1.2	0.5	ns	ns	ns	ns	0.7	0.5	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

Springlake Table 9d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of 11 entries in the Texas Advanced Red Selection Trial grown near Springlake, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
NDTX4304-1R	1.0	3.0	1.5	4.0	4.5	4.5	5.0	5.0	5.0	0	0	0	0
NDTX731-1R	1.0	2.5	1.5	3.5	4.5	5.0	5.0	5.0	5.0	5	0	0	0
ATTX98452-9R	1.0	2.5	1.9	3.8	4.0	5.0	5.0	5.0	5.0	0	0	0	0
Red LaSoda	1.0	3.5	1.5	2.0	2.5	5.0	5.0	5.0	5.0	0	0	0	0
BTX2332-1R	1.0	2.5	1.5	4.5	3.7	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4271-5R	1.0	2.5	1.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4847-7R	1.0	2.0	1.5	4.0	4.0	4.0	5.0	5.0	5.0	0	0	0	0
NDTX4828-2R	1.0	3.0	1.5	3.5	4.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX94218-1R	1.0	2.5	2.5	3.5	3.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98453-6R	1.0	3.5	1.5	4.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
COTX00104-6R	1.0	3.2	2.0	4.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	2.8	1.7	3.7	4.0	4.9	5.0	5.0	5.0	0.5	0.0	0.0	0.0

[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] Stem end vascular discoloration severely evaluated

Springlake

Table 9e. Notes and general rating of all reps for 11 entries in the Texas Advanced Red Selection Trial grown near Springlake, Texas-20

Variety or Selection	Notes Field	Notes Grading	General Rating
NDTX4304-1R	heat sprouts, growth cracks	growth crack, BOT	4.2, 4, 4.2, 4
NDTX731-1R	BOT, BOT	rough, Rhizoctonia, suseptable to hollow heart	4.2, 4, 4, 4.2
ATTX98452-9R	yield+, heat sprouts, BOT	nice smooth, nice interior, keep, road map, Rhizoctonia	4, 3.7, 4.2, 3.2
Red LaSoda	,heat sprouts,		3.2, 4, 2.7, 3
BTX2332-1R	nice shape	nice, keep, Rhizoctonia, BOT	4, 3.7, 4, 3.7
NDTX4271-5R	yield+, heat sprouts, color+	very nice, buff skin, Rhizoctonia, BOT, nice interior	4.2, 2.7, 3.7, 3.7
NDTX4847-7R	Growth Cracks	growth crack, Rhizoctonia	2.7, 3.2, 3.2, 3.7
NDTX4828-2R	yield+		3.7, 4.2, 3.2, 4
COTX94218-1R	small,	road map, small drop?	3.2, 3, 3, 2.7
ATTX98453-6R		keep, smooth	3.7, 4, 3, 3.7
COTX00104-6R		Rhizoctonia, road map	3.7, 3.7, 2.7, 2.7

Springlake
Table 9f.

Antioxidant Activity as Determined by the DPPH Assay[1] of 8 entries in the Texas Advanced Red Selection Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
ATTX98452-9R	112.9	110.3
ATTX98453-6R	248.1	242.4
BTX2332-1R	92.6	90.4
COTX00104-6R	118.4	115.6
COTX94218-1R	73.1	71.4
NDTX4271-5R	127.1	124.2
NDTX4847-7R	101.2	98.9
NDTX731-1R	106.3	103.9
Average	122.5	119.7

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 9a, 9b, 9c, 9d, 9e, and 9f
Texas Advanced Red Selection Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	March 22, 2005	
Vines Killed	July 9, 2005	107
Harvested	July 12, 2005	110

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
130-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Table 10a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 24 entries in the Texas Advanced Specialty Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
TX1523-1Ru/Y	332.9	201.3	121.9	79.5	0.0	0.0	131.5	0.0	3.6
Golden Sunburst	286.5	113.5	78.5	35.0	0.0	0.0	165.4	7.5	3.2
BTX1544-2W/Y	283.5	196.7	97.8	74.2	24.6	0.0	86.8	0.0	3.6
RZD95-6643	272.0	152.3	111.1	41.2	0.0	0.0	119.7	0.0	2.2
Courage	265.1	84.3	58.1	26.2	0.0	0.0	180.8	0.0	2.2
ATTX98465-1R/Y	261.8	32.1	32.1	0.0	0.0	0.0	229.7	0.0	3.1
Yukon Gold	249.0	194.3	59.5	74.6	60.1	0.0	54.7	0.0	3.9
RZD94-2262	230.8	160.2	88.8	56.9	14.5	0.0	70.6	0.0	2.7
ATTX98444-3R/Y	223.7	85.7	59.3	22.2	4.2	0.0	138.0	0.0	2.9
ATTX98510-3R/Y	213.5	69.8	49.2	20.6	0.0	0.0	143.6	0.0	2.8
NDTX4756-1R/Y	205.2	74.0	45.2	20.4	8.3	0.0	131.3	0.0	2.3
ATTX98516-1W/Y	200.3	50.4	41.4	5.2	3.8	0.0	149.9	0.0	2.9
ATTX98514-1R/Y	195.9	62.7	36.7	26.0	0.0	0.0	133.2	0.0	2.4
BTX1749-1W/Y	182.4	110.0	94.2	15.9	0.0	0.0	72.4	0.0	3.0
ATTX98518-11Pu/Y	177.5	33.9	33.9	0.0	0.0	0.0	112.2	31.5	2.2
ATTX98497-1R-Y/Y	176.9	22.4	22.4	0.0	0.0	0.0	154.5	0.0	3.0
TX1674-1W/Y	173.5	86.6	59.7	14.0	12.9	0.0	86.9	0.0	2.9
ATTX98509-3R/Y	154.9	43.6	43.6	0.0	0.0	0.0	111.4	0.0	2.9
COTX99045-2Ru/Y	146.9	54.5	41.6	12.9	0.0	0.0	92.4	0.0	2.8
ATTX98500-3Wpuspl	141.2	54.9	49.2	5.6	0.0	0.0	86.3	0.0	3.0
ATTX99321-1R/Y	128.2	22.5	20.9	1.6	0.0	0.0	105.7	0.0	2.8
ATTX88654-2Pu/Y	116.7	86.1	73.7	12.4	0.0	0.0	30.7	0.0	3.0
ATTX98514-3R/Y	99.3	45.6	34.7	10.9	0.0	0.0	53.7	0.0	2.8
ATX88481-1Pu	66.2	38.7	38.7	0.0	0.0	0.0	27.4	0.0	2.9
Average	199.3	86.5	58.0	23.1	5.4	0.0	111.2	1.6	2.9
L.S.D. (.05)	37.5	40.8	26.1	22.2	15.2		33.1	7.9	0.9

[1] 1=very poor to 5= excellent

Springlake Table 10b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 24 entries in the Texas Advanced Specialty Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
TX1523-1Ru/Y	59.8	36.0	23.7	0.0	0.0	40.2	0.0	1.068	Oblong	Russet
Golden Sunburst	39.3	27.0	12.4	0.0	0.0	58.2	2.4	1.073	Oblong	White
BTX1544-2W/Y	68.7	34.7	25.8	8.2	0.0	31.3	0.0	1.066	Oblong	White
RZD95-6643	55.2	40.4	14.8	0.0	0.0	44.8	0.0	1.057	Oblong	White
Courage	32.6	22.4	10.2	0.0	0.0	67.4	0.0	1.073	Oblong	Red
ATTX98465-1R/Y	12.1	12.1	0.0	0.0	0.0	87.9	0.0	1.056	Round	Red
Yukon Gold	76.8	24.4	28.8	23.6	0.0	23.2	0.0	1.071	Oblong	White
RZD94-2262	69.6	38.5	24.4	6.7	0.0	30.4	0.0	1.062	Oblong	White
ATTX98444-3R/Y	38.0	26.8	9.5	1.6	0.0	62.0	0.0	1.059	Oblong	Red
ATTX98510-3R/Y	32.3	22.7	9.6	0.0	0.0	67.7	0.0	1.057	Oblong	Red
NDTX4756-1R/Y	36.5	22.2	10.0	4.3	0.0	63.5	0.0	1.075	Oblong	Red
ATTX98516-1W/Y	23.0	19.3	2.1	1.5	0.0	77.0	0.0	1.066	Oblong	White
ATTX98514-1R/Y	31.9	19.1	12.8	0.0	0.0	68.1	0.0	1.058	Oblong	Red
BTX1749-1W/Y	61.1	52.3	8.8	0.0	0.0	38.9	0.0	1.071	Oblong	White
ATTX98518-11Pu/Y	18.5	18.5	0.0	0.0	0.0	65.8	15.6	1.057	Oblong	Purple
ATTX98497-1R-Y/Y	11.7	11.7	0.0	0.0	0.0	88.3	0.0	1.061	Oblong	Red-Yellow
TX1674-1W/Y	49.0	34.5	7.4	7.0	0.0	51.0	0.0	1.070	Oblong	White
ATTX98509-3R/Y	29.6	29.6	0.0	0.0	0.0	70.4	0.0	1.060	Oblong	Red
COTX99045-2Ru/Y	37.1	28.2	8.9	0.0	0.0	62.9	0.0	1.080	Long	Russet
ATTX98500-3Wpuspl	39.0	34.9	4.1	0.0	0.0	61.0	0.0	1.061	Oblong	Puslash
ATTX99321-1R/Y	17.3	16.0	1.3	0.0	0.0	82.7	0.0	1.056	Round	Red
ATTX88654-2Pu/Y	72.9	62.3	10.6	0.0	0.0	27.1	0.0	1.046	Oblong	Purple
ATTX98514-3R/Y	43.3	33.6	9.7	0.0	0.0	56.7	0.0	1.059	Oblong	Red
ATX88481-1Pu	60.8	60.8	0.0	0.0	0.0	39.2	0.0	1.054	Oblong	Purple
Average	42.3	30.3	9.8	2.2	0.0	56.9	0.8	1.063		
L.S.D. (.05)	15.3	11.6	8.3	5.2		16.0	3.4	0.010		

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 24 entries in the Texas

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]	
TX1523-1Ru/Y	6.9	4.0	1.3	96	100	1.5	4.4	4.4	4.4	36
Golden Sunburst	7.5	3.2	1.5	90	98	1.5	4.7	4.7	4.8	0
BTX1544-2W/Y	5.4	4.4	1.2	89	100	1.6	4.2	4.2	4.3	55
RZD95-6643	6.5	3.6	1.4	79	96	1.5	4.8	4.7	4.8	13
Courage	7.1	3.1	1.2	83	100	1.5	4.5	4.5	4.6	44
ATTX98465-1R/Y	8.9	2.5	1.4	99	100	1.9	4.2	4.2	4.3	50
Yukon Gold	3.9	5.5	1.1	66	77	1.5	4.4	4.4	4.3	64
RZD94-2262	4.7	4.2	1.3	78	96	1.5	4.6	4.6	4.7	5
ATTX98444-3R/Y	6.8	2.9	1.3	77	95	1.6	4.1	4.2	4.2	15
ATTX98510-3R/Y	5.8	3.1	1.3	88	98	1.9	4.1	4.1	4.2	38
NDTX4756-1R/Y	5.5	3.2	1.4	88	96	2.0	3.6	3.6	3.7	49
ATTX98516-1W/Y	6.3	2.9	1.3	88	100	1.5	4.6	4.6	4.5	4
ATTX98514-1R/Y	6.0	2.7	1.4	90	100	2.1	3.9	3.9	4.0	25
BTX1749-1W/Y	4.1	3.8	1.2	90	97	2.1	3.1	3.1	3.1	65
ATTX98518-11Pu/Y	5.5	2.6	1.3	96	99	2.0	3.5	3.5	3.6	24
ATTX98497-1R-Y/Y	5.6	2.6	1.4	96	100	2.0	3.8	3.7	12.9	43
TX1674-1W/Y	5.0	3.3	1.4	69	79	2.0	3.9	3.9	4.1	30
ATTX98509-3R/Y	5.9	2.3	1.5	85	96	2.0	4.3	4.3	4.4	25
COTX99045-2Ru/Y	3.8	3.2	1.4	95	100	2.1	3.7	3.9	3.7	19
ATTX98500-3Wpuspl	4.7	2.6	1.4	80	100	1.5	4.7	4.7	4.7	40
ATTX99321-1R/Y	5.3	2.1	1.3	85	95	2.0	2.8	2.8	2.7	68
ATTX88654-2Pu/Y	3.1	3.4	1.2	79	92	1.8	2.4	2.3	2.3	68
ATTX98514-3R/Y	3.5	2.4	1.4	96	100	1.5	4.7	4.7	4.5	5
ATX88481-1Pu	2.0	3.4	1.3	71	83	2.0	3.6	3.6	3.6	75
Average	5.4	3.2	1.3	85	96	1.8	4.0	4.0	4.4	36
L.S.D. (.05)	1.5	0.7	ns	11	ns	0.2	0.5	0.5	ns	27

[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 Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, ,percent blackspot, percent vascular
Table 10d. discoloration, percent internal brownspot of 24 entries in the Texas Advanc

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
TX1523-1Ru/Y	2.6	3.3	3.5	3.8	4.0	5.0	5.0	5.0	5.0	0	0	0	0
Golden Sunburst	3.8	3.5	1.5	3.4	1.5	5.0	5.0	5.0	5.0	0	0	0	0
BTX1544-2W/Y	2.8	3.4	2.6	3.8	3.0	5.0	5.0	5.0	5.0	0	0	0	0
RZD95-6643	1.0	3.0	1.3	3.6	1.5	5.0	5.0	5.0	5.0	0	0	0	20
Courage	3.5	3.5	1.9	3.1	2.9	5.0	5.0	5.0	5.0	0	0	0	3
ATTX98465-1R/Y	4.4	1.5	1.5	2.0	4.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	3.0	3.5	1.5	4.0	2.0	5.0	5.0	5.0	5.0	5	0	0	5
RZD94-2262	2.1	3.0	1.4	4.3	1.5	5.0	5.0	5.0	5.0	3	0	0	0
ATTX98444-3R/Y	3.1	3.3	1.5	3.6	3.4	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98510-3R/Y	3.0	3.1	3.1	3.3	3.4	5.0	5.0	5.0	5.0	0	0	8	0
NDTX4756-1R/Y	2.1	2.6	1.5	3.3	3.3	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98516-1W/Y	3.4	3.5	3.5	3.8	2.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98514-1R/Y	2.6	2.5	2.5	2.9	3.3	5.0	5.0	5.0	5.0	0	0	8	0
BTX1749-1W/Y	2.8	2.6	2.1	3.9	2.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98518-11Pu/Y	3.3	3.0	1.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98497-1R-Y/Y	3.8	2.5	1.5	3.6	2.5	5.0	5.0	5.0	5.0	0	0	5	0
TX1674-1W/Y	2.1	3.1	2.4	3.5	2.3	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98509-3R/Y	3.0	2.5	2.5	3.8	3.5	5.0	5.0	5.0	5.0	0	0	0	0
COTX99045-2Ru/Y	2.1	4.4	4.0	4.0	4.0	5.0	5.0	5.0	5.0	0	0	5	0
ATTX98500-3Wpuspl	3.0	3.6	1.5	3.6	2.9	5.0	5.0	5.0	5.0	0	0	0	0
ATTX99321-1R/Y	3.0	2.3	1.5	3.8	2.6	5.0	5.0	5.0	5.0	0	0	0	0
ATTX88654-2Pu/Y	2.9	3.9	1.6	4.4	5.0	5.0	5.0	5.0	5.0	0	0	3	0
ATTX98514-3R/Y	3.5	2.5	2.5	3.0	3.5	5.0	5.0	5.0	5.0	0	0	0	0
ATX88481-1Pu	1.0	3.5	1.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.8	3.1	2.1	3.6	3.1	5.0	5.0	5.0	5.0	0	0	1	1

[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] Stem end vascular discoloration severely evaluated

Springlake

Table 10e. Notes and general rating of all reps for 24 entries in the Texas Advanced Specialty Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
TX1523-1Ru/Y	nice, BOT, BOT	BOT, BOT, BOT, BOT	4, 4, 3.2, 3.2
Golden Sunburst	nice	pointed to stem end, chain tubers, heat sprouts, feathering, dumb bell, heat sprouts, drop, feathering, drop, heat sprouts, rough	3.2, 3.2, 3, 3.2
BTX1544-2W/Y	BOT-	nice, BOT, nice, BOT, BOT	4, 3.2, 3.2, 4
RZD95-6643	nice, deep nose, drop	feathering, whit flesh, smooth, feathering, poor shape, poor internals, feathering, nice white internal	3.2, 3, 2.7,
Courage	poor shape, flat, nice flesh, buff	buff, road map, poor shape, buff, poor shape, stem end nipples, poor shape	3, 2.7, 3,
ATTX98465-1R/Y	poor net	eye sprouts, silver scurf, eye sprouts/tubers, road map	3, 3.2, 3, 3.2
Yukon Gold	BOT	feathering, , BOT, BOT	3.7, 4, 4, 4
RZD94-2262	poor shape, second growth, second growth, drop, long stolons, late, drop	stem end nipples, smooth, stem end nipples, stolon attachments, stem end nipples, rough, drop, road map, poor shape, heat sprouts	2.7, 2.7, 2.7, 2.7
ATTX98444-3R/Y	variable size, drop, heat sprouts	chain tubers, LaSoda like shape, heat sprouts, rough, heat sprouts, nice	2.7, 3, 2.7, 3
ATTX98510-3R/Y	poor shape, heat sprouts	, rough, heat sprouts, heat sprouts, small, drop, heat sprouts	3, 2.7, 2.7, 2.7
NDTX4756-1R/Y	keep, BOT-, poor flesh, poor flesh	zippered, nice, small tubers, nice shape, BOT, candidate, nice shape, BOT, road map	3.2, 3, 3,
ATTX98516-1W/Y	small, close set, keep, nice flesh, boiler, chain tubers, drop?	poor shape, heat sprouts, drop, variable flesh color, 10% heat necrosis, drop, drop, heat sprouts, poor shape	2.7, 3, 3, 2.7
ATTX98514-1R/Y	poor flesh, BOT-	feathering, nice, nice, heat sprouts, drop?	3, 2.7, 4,
BTX1749-1W/Y	flat, drop?, nice skin, keep	nice, nice, BOT-, BOT-, ugly skin	3, 3, 3, 3
ATTX98518-11Pu/Y		silver scurf, rough, silver scurf, heat sprouts, silver scurf, heat sprouts, small	3, 3, 2.7,
ATTX98497-1R-Y/Y	drop?, dark yellow flesh, boiler, road map, drop	red splash, heat sprouts, red splash, heat sprouts, small tubers, drop	3, 3, 3, 3
TX1674-1W/Y	pointed, pointed nipples, drop	poor shape, pointed. Flat, drop, pointed to stem end, flat, drop, , second growth, stem end nipples, poor shape, drop	3, 3, 2.7, 2.7
ATTX98509-3R/Y	poor net, buff, flat, poor net, buff, flat	nice smooth, nice smooth	2.7, 3, 2.7, 3
COTX99045-2Ru/Y	keep, drop, drop?	drop?, nice	3, 2.7, 2.7, 2.7
ATTX98500-3Wpuspl	second growth, late	heat sprouts, pointed, road map, road map	2.7, 3.2, 3, 3
ATTX99321-1R/Y	yellow flesh boiler, drop?, poor shape, heat sprouts	heat sprouts, nice shape, small, keep, heat sprouts	3.2, 2.7, 2.7, 2.7
ATTX88654-2Pu/Y	alligator, drop, road map, growth cracks	road map, faded purple skin, road map, pointed to stem end, keep, road map, pointed, poor skin color, growth crack, silver scurf, nice shape	2.7, 3.2, 3, 3.2
ATTX98514-3R/Y	drop?, heat sprouts, late, drop	heat sprouts, nice, heat sprouts, drop	2.7, 2.7, 2.7, 3.2
ATX88481-1Pu	drop, drop	heat sprouts, nice, heat sprouts, drop	3, 2.7, 2.7, 2.7

Springlake
Table 10f.

Antioxidant Activity as Determined by the DPPH Assay[1] of 18 entries in the Texas Advanced Specialty Selection Trial grown near Springlake, Texas-2005.

Clone/Cultivar	TroloxEq2	AscoEq3
Yukon Gold	122.0	119.2
Courage	76.0	74.3
GoldenSunburst	60.6	59.2
ATTX88654-2Pu/Y	223.9	218.7
ATTX98444-3R/Y	146.5	143.1
ATTX98465-1R/Y	87.9	85.9
ATTX98497-1R-Y/Y	163.3	159.5
ATTX98500-3WpuSpl	188.9	184.6
ATTX98509-3R/Y	88.8	86.8
ATTX98510-3R/Y	78.4	76.6
ATTX98514-1R/Y	68.4	66.8
ATTX98514-3R/Y	23.5	23.0
ATTX98518-11Pu/Y	272.2	266.0
ATTX99321-1R/Y	83.4	81.5
COTX99045-2Ru/Y	188.6	184.2
NDTX4756-R/Y	101.3	99.0
TX1523-1Ru/Y	120.4	117.7
TX1674-1W/Y	252.4	246.6
Average	130.4	127.4

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Addendum to Tables Springlake 10a, 10b, 10c, 10d, 10e, 10e, and 10f
Texas Advanced Specialty Selection Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado, Texas and Canada

Date:		DAP
Planted	March 23, 2005	
Vines Killed	July 20, 2005	117
Harvested	July 27, 2005	124

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

Springlake Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 20 entries in the Texas Advanced Chipping
Table 11a. Selection Trial grown near Springlake, Texas-2005

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]
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
Atlantic	376.5	230.8	130.3	79.9	20.6	0.0	145.7	0.0	3.5
PORTX03PG22-1R/PY	311.5	201.8	82.3	40.4	79.1	0.0	109.8	0.0	3.1
AOTX95309-1W	308.7	186.4	115.0	67.8	3.6	0.0	122.3	0.0	3.0
NDTX4930-5W	280.4	219.5	74.2	60.9	84.3	0.0	60.9	0.0	3.6
AOTX95309-2W	262.8	120.5	81.0	29.6	10.0	0.0	142.3	0.0	3.1
PORTX03PG87-1R/YR	246.1	123.1	88.4	30.7	4.0	0.0	123.1	0.0	3.7
NDTX028728-3W	236.5	159.8	78.5	45.7	35.5	0.0	76.7	0.0	3.1
TX1673-2W	234.4	123.5	104.9	6.1	12.5	0.0	111.0	0.0	3.0
ATX85404-8W	221.1	134.0	84.7	46.0	3.2	0.0	87.2	0.0	3.0
NDTX6773-1W	220.7	139.2	94.0	16.5	28.6	0.0	81.5	0.0	3.1
ATTX98497-1 R-Y/Y	211.8	122.3	80.7	41.6	0.0	0.0	89.6	0.0	3.1
COTX94016-2W	207.8	138.8	59.7	56.9	22.2	0.0	69.0	0.0	2.8
PATX99P10-1Pu/R	205.0	103.3	103.3	0.0	0.0	0.0	101.7	0.0	3.0
MWTX4241-1W	203.0	120.2	31.5	51.6	37.1	0.0	82.7	0.0	2.8
AOTX95309-3W	194.8	91.5	58.9	32.5	0.0	0.0	103.3	0.0	2.7
AOTX96580-1W	187.5	112.4	58.4	54.1	0.0	0.0	75.1	0.0	2.9
ATTX98466-5 R/W-R	170.7	97.6	68.6	29.1	0.0	0.0	73.0	0.0	3.0
ATTX8823-2W	169.9	135.6	55.3	68.2	12.1	0.0	34.3	0.0	3.0
NDTX6754C-1W	161.4	66.7	51.6	15.1	0.0	0.0	94.7	0.0	2.8
NDTX7571-5AW	156.6	86.3	65.9	20.4	0.0	0.0	70.2	0.0	2.9
Average	228.4	135.7	78.4	39.7	17.6	0.0	92.7	0.0	3.1
L.S.D. (.04)	60.5	41.5	26.2	28.3	22.5		42.1		1.5

[1] 1=very poor to 5= excellent

Springlake Table 11b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 20 entries in the Texas Advanced Chipping Selection Trial grown near Springlake, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
Atlantic	61.4	34.8	21.6	4.9	0.0	38.6	0.0	1.074	Oblong	White
PORTX03PG22-1R/PY	65.6	26.7	13.1	25.7	0.0	34.4	0.0	1.057	Oblong	Red
AOTX95309-1W	61.8	39.9	20.9	1.0	0.0	38.2	0.0	1.068	Round	White
NDTX4930-5W	77.3	27.7	20.4	29.2	0.0	22.7	0.0	1.067	Oblong	White
AOTX95309-2W	46.3	31.0	11.4	3.9	0.0	53.7	0.0	1.070	Round	White
PORTX03PG87-1R/YR	49.7	35.5	12.7	1.5	0.0	50.3	0.0	1.071	Round	Red
NDTX028728-3W	67.9	33.5	19.5	14.8	0.0	32.1	0.0	1.064	Round	White
TX1673-2W	52.7	44.8	2.4	5.4	0.0	47.3	0.0	1.045	Oblong	White
ATX85404-8W	60.7	38.3	21.1	1.4	0.0	39.3	0.0	1.067	Oblong	White
NDTX6773-1W	62.5	43.5	7.1	11.9	0.0	37.5	0.0	1.066	Round	White
ATTX98497-1 R-Y/Y	57.5	39.2	18.3	0.0	0.0	42.5	0.0	1.069	Red	Red
COTX94016-2W	67.3	28.6	27.0	11.7	0.0	32.7	0.0	1.065	Round	White
PATX99P10-1Pu/R	50.4	50.4	0.0	0.0	0.0	49.6	0.0	1.076	Oblong	Purple
MWTX4241-1W	59.6	14.7	26.3	18.6	0.0	40.4	0.0	1.079	Round	White
AOTX95309-3W	47.5	31.1	16.5	0.0	0.0	52.5	0.0	1.064	Round	White
AOTX96580-1W	59.0	30.9	28.2	0.0	0.0	41.0	0.0	1.075	Round	White
ATTX98466-5 R/W-R	56.6	40.6	15.9	0.0	0.0	43.4	0.0	1.066	Red	Red
ATTX8823-2W	79.8	32.4	40.0	7.4	0.0	20.2	0.0	1.068	Round	White
NDTX6754C-1W	42.0	31.7	10.3	0.0	0.0	58.0	0.0	1.071	Round	White
NDTX7571-5AW	57.8	43.0	14.7	0.0	0.0	42.2	0.0	1.070	Round	White
Average	59.2	34.9	17.4	6.9	0.0	40.8	0.0	1.067		
L.S.D. (.05)	13.5	13.6	11.8	8.2		13.6		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 20 entries in the Texas Advanced Chipping Selection Trial grown near Springlake, Texas-2005.

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	7.5	4.1	1.3	85	89	1.5	4.6	4.6	4.6	25
PORTX03PG22-1R/PY	7.1	3.9	1.2	73	86	1.8	3.8	4.0	3.8	58
AOTX95309-1W	10.8	3.5	1.6	64	72	1.7	3.7	4.4	3.9	12
NDTX4930-5W	4.8	4.9	1.1	80	89	1.7	4.7	4.7	4.7	13
AOTX95309-2W	6.5	3.3	1.2	81	89	1.5	4.6	4.5	4.6	12
PORTX03PG87-1R/YR	6.8	3.0	1.2	75	89	1.5	4.7	4.7	4.7	22
NDTX028728-3W	5.1	4.3	1.2	67	81	2.2	3.5	3.4	3.5	18
TX1673-2W	6.9	2.9	1.2	72	86	1.8	3.9	4.0	4.1	10
ATX85404-8W	5.3	3.5	1.1	84	89	1.5	4.7	4.7	4.7	13
NDTX6773-1W	5.1	3.7	1.3	75	86	2.0	3.9	4.0	3.9	15
ATTX98497-1 R-Y/Y	5.8	3.4	1.3	65	79	2.0	3.7	4.2	3.6	78
COTX94016-2W	5.4	4.5	1.5	47	67	1.5	3.0	4.2	3.1	27
PATX99P10-1Pu/R	5.0	3.4	1.1	73	88	2.3	3.7	4.1	3.8	72
MWTX4241-1W	5.6	4.0	1.5	69	74	1.5	3.8	4.6	3.9	3
AOTX95309-3W	4.9	3.6	1.4	64	84	1.5	4.6	4.6	4.5	10
AOTX96580-1W	5.0	3.4	1.2	73	84	1.7	4.4	4.1	4.4	3
ATTX98466-5 R/W-R	4.7	3.4	1.3	63	79	2.0	3.2	3.0	3.1	78
ATTX8823-2W	3.1	4.9	1.3	60	81	1.7	3.8	4.2	3.8	20
NDTX6754C-1W	4.8	2.9	1.3	57	86	1.7	4.3	4.4	4.3	12
NDTX7571-5AW	4.4	3.1	1.2	74	86	1.5	4.4	4.3	4.5	28
Average	6.3	3.7	1.3	71	83	1.7	4.1	4.3	4.1	22
L.S.D. (.05)	3.1	1.0	ns	ns	ns	0.3	0.8	0.5	0.6	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

Springlake Table 11d. Tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of 20 entries in the Texas Advanced Chipping Selection Trial grown near Springlake, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
Atlantic	1.0	2.3	2.8	3.5	2.5	5.0	5.0	5.0	5.0	3	0	0	3
PORTX03PG22-1R/PY	3.3	1.8	1.5	4.5	4.5	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95309-1W	1.0	3.2	1.7	4.0	1.5	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4930-5W	1.0	3.5	1.8	3.5	2.0	5.0	5.0	5.0	5.0	0	0	4	0
AOTX95309-2W	1.0	2.8	1.3	3.7	1.5	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG87-1R/YR	2.0	2.7	2.0	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX028728-3W	1.0	2.0	1.5	3.3	1.8	5.0	5.0	5.0	5.0	0	0	3	0
TX1673-2W	1.0	3.5	1.8	4.2	1.8	5.0	5.0	5.0	5.0	0	0	7	0
ATX85404-8W	1.0	2.0	1.5	3.5	2.2	5.0	5.0	5.0	5.0	0	0	0	0
NDTX6773-1W	1.0	1.5	2.0	3.2	1.5	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98497-1 R-Y/Y	3.0	3.7	1.5	4.2	4.8	5.0	5.0	5.0	5.0	0	0	0	0
COTX94016-2W	1.0	2.3	2.3	2.8	1.7	5.0	5.0	5.0	5.0	0	0	0	0
PATX99P10-1Pu/R	3.0	3.5	2.2	4.2	5.0	5.0	5.0	5.0	5.0	0	0	0	0
MWTX4241-1W	1.0	3.2	2.0	2.0	2.2	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95309-3W	1.0	2.8	1.3	3.5	1.5	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96580-1W	1.0	2.7	2.0	2.7	2.0	5.0	5.0	5.0	5.0	0	0	10	0
ATTX98466-5 R/W-R	2.0	3.3	1.0	4.0	4.3	5.0	5.0	5.0	5.0	0	0	0	0
ATTX8823-2W	1.0	1.7	2.0	3.8	1.7	5.0	5.0	5.0	5.0	0	0	0	0
NDTX6754C-1W	1.0	1.8	2.8	4.0	2.5	5.0	5.0	5.0	5.0	0	0	13	0
NDTX7571-5AW	1.0	2.5	3.0	3.7	3.0	5.0	5.0	5.0	5.0	7	0	0	0
Average	1.4	2.6	1.8	3.6	2.5	5.0	5.0	5.0	5.0	0	0	2	0

[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] Stem end vascular discoloration severely evaluated

Springlake
Table 11e.

Notes and general rating for all reps of 20 entries in the Texas Advanced Chipping Selection Trial grown near Springlake, Texas-2005

Variety or Selection	Notes Field	Notes Grading	General Rating
Atlantic		nice, feathering,, 10% heat necrosis, feathering	4, 3.2, 3.2
PORTX03PG22-1R/PY		road map, nice red flesh, drop, road map, smooth shape, red flesh color from eyes, drop, yield +, road map, small, stem end nipples	3, 3.2, 3
AOTX95309-1W		heat sprouts, nice internal, candidate, heat sprouts	3.2, 3, 2.7
NDTX4930-5W	BOT	large tubers, candidate, large tubers, rough	3.7, 3, 4
AOTX95309-2W	heat sprouts, variable size	heat sprouts, small, candidate, feathering, rough, 10% heat necrosis	3, 3, 3.2
PORTX03PG87-1R/YR		very light red on yellow flesh, rough, rough, lenticels	3, 4, 4
NDTX028728-3W		feathering	3, 3.2, 3
TX1673-2W		poor shape, feathering, flat	3, 3, 3
ATX85404-8W		heat necrosis, nice	2.7, 3.2, 3.2
NDTX6773-1W		small, rough, drop?	3, 3.2, 3.2
ATTX98497-1 R-Y/Y		road map, red streak flesh, drop, Road map, silver scurf, road map	3.2, 3, 3
COTX94016-2W		feathering, rough, rough, feathering	3, 2.7, 2.7
PATX99P10-1Pu/R		road map, silver scurf, nice?, road map, silver scurf, nice? red color in flesh from eyes, road map, smooth	3, 2.7, 3.2
MWTX4241-1W	late	rough, eye sprouts, drop, rough, eye sprouts, drop, feathering	3, 2.7, 2.7
AOTX95309-3W	heat sprouts	rough, green head, drop, heat sprouts, feathering, drop, rough	2.7, 2.7, 2.7
AOTX96580-1W		rough, feathering, 10% heat necrosis, rough, flat, rough, drop?	3, 2.7, 3
ATTX98466-5 R/W-R		lenticels, red streak in vascular, keep, lenticels,, smooth	3, 3, 3
ATTX8823-2W		nice, BOT, candidate, BOT-, nice, 10% stem attachment, BOT	3.7, 2.7, 2.7
NDTX6754C-1W		mix?, skin 1 to 3.5 russet , small, poor internal, drop?, buff, buff, drop?	2.7, 3, 2.7
NDTX7571-5AW		buff skin, buff skin, buff skin	2.7, 3, 3

Springlake
Table 11f.

Antioxidant Activity as Determined by the DPPH Assay[1] of 20 entries in the Texas Advanced Chipping Selection Trial grown near Springlake, Texas-2005

Clone/Cultivar	TroloxEq[2]	AscoEq[3]
Atlantic	107.3	104.9
AOTX95309-1W	67.9	66.4
AOTX95309-2W	47.2	46.1
AOTX95309-3W	29.8	29.1
AOTX96580-1W	73.8	72.1
ATTX8823-2W	200.9	196.3
ATTX98466-5R/W-R	160.0	156.3
ATX85404-8W	146.9	143.5
COTX94016-2W	124.0	121.1
MWTX4241-1W	100.4	98.1
NDTX028728-3W	76.7	75.0
NDTX4930-5W	51.5	50.4
NDTX6754C-1W	27.9	27.2
NDTX6773-1W	353.7	345.6
PATX99P10-1Pu/R	184.9	180.7
PORTX03PG22-1R/PY	119.5	116.8
PORTX03PG87-1R/YR	244.0	238.4
TX1673-2W	48.2	47.1
Average	120.3	117.5

[1] The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methonal were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

[2] µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: y=891.69x.

[3] µg Ascorbic acid equivalents/gfw - Absorbance was converted to ascorbic acid equivalents based on a standard curve using the following equation: y=871.24x.

Springlake
Table 11f.

Chip evaluations for 42 entries in the Field Day Trial grown near Springlake, Texas-2005

Variety or Selection	Source	Specific Gravity	Tuber Defects	Chip Color	Chip Defects[1]
A91814-5	Idaho	1.073		1+	40%Vas
AC97097-14W	Colorado	1.074		1	10%Scab
AOTX95309-1W	Dalhart	1.067		1	25%Vas, 20%Scab
AOTX95309-2W	Dalhart	1.069		1	50%Vas, BOT
AOTX95309-3W	Dalhart	1.067		2	60%Vas
AOTX96580-1W	Dalhart	1.059		3+	100%Vas
Atlantic	Oregon	1.082	3 tubers	3	100% BC, 100% Vas
ATTX8823-2W	Dalhart	1.062	3 tubers	3-	100%Vas
ATTX98466-5 R/W-R	Dalhart	1.067		2	BOT Red, Very nice
ATTX98497-1 R-Y/Y	Dalhart	1.069	R/R	3+	Nice red color
ATX85404-8W	Colorado	1.071		2	20%SE, 70%Vas
Chipeta	Oregon	1.052		2+	75%BC
CO94183-1R/R	Oregon	1.060	R/R	3++	Nice BOT R/R
CO95051-7W	Colorado	1.074		2	20%BS, Nice
CO96141-4W	Colorado	1.072		1+	
CO97043-14W	Colorado	1.079	3 tubers	2+	90%Vas
CO97065-7W	Colorado	1.079		2-	30%Vas, Nice
CO97226-2R/R	Colorado	1.066	R/R	3++	Nice
COA96141-2C	Idaho	1.060		3	30%Scab, 100%Vas
COA96142-3C	Idaho	1.064		2	100%BC, 30%Vas
COTX00197-1W	Dalhart	1.074		2	100%Vas
COTX00206-1W	Dalhart	1.075	3 tubers	1+	25%VAS
COTX00254-2W	Dalhart	1.075		1+	100%Vas
COTX01294-1W	Dalhart	1.070		2+	100%Vas
COTX94016-2W	Dalhart	1.065		3	100%Vas
COTX99238-2W	Dalhart	1.073		1	10%HH, BOT
COTX99314-1W	Dalhart	1.062		2	50%Vas, 30%SE
Ivory Crisp	Oregon	1.072		2	20%Vas
MWTX4241-1W	Dalhart	1.066		2	65%Vas
NDTX028728-3W	Dalhart	1.042	3 tubers	3+	100%BC, 90%Vas
NDTX4930-5W	Colorado	1.066		3	75%Zebra
NDTX6754C-1W	Dalhart	1.062		1+	25%Vas
NDTX6773-1W	Dalhart	1.070		1	BOT++
NDTX7571-5AW	Dalhart	1.081		1	20%Vas, BOT
PA99P20-2	Oregon	1.063	R/R	3++	25%BC, 35%Vas
PATX99P10-1Pu/R	Dalhart	1.064	R/R	3++	Nice
POR01PG20-12	Oregon	1.060	R/R	3++	25%Zebra
PORTX03PG22-1R/PY	Dalhart	1.049	R/R	3+++	35%Zebra, BOT tubers
PORTX03PG87-1 R/R-Y	Dalhart	1.064	R/R-Y	3	Cooked the color out
PORTX03PG87-1R/YR	Dalhart	1.061		3+	100%Vas
TX1673-2W	Dalhart	1.063		3++	100%Vas, 33%Zebra
VC1009- 1W/Y		1.065			40%BC, 100%Vas

Harvested June 28, 2005
Chipped July 7 in CS
350F, Canola Oil, 1min 45sec, .05" thick slices

Addendum to Tables Springlake 11a, 11b, 11c, 11d,11e, 11f, and 11g
Texas Advanced Chipping Selection Trial

Location:
Springlake, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	March 23, 2005	
Vines Killed	July 20, 2005	117
Harvested	July 27, 2005	124

Plot Information:

Size of Plots	10' 5"
Spacing Between Hills	9"
Spacing Between Rows	36"
Hills Per Plot	14
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Two-row drag digger, with hand pick up

Fertilizer:
Application:
230-25-25 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Dimethoate
Baythroid

Fungicides Applied:
Bravo Quadris

Herbicides Applied:
Dual, Sencor, Matrix, Roundup

Environmental Factors:

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

2005 Dalhart Trials

Summary of growing conditions:

These trials were planted 30 miles south of Dalhart. Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August (Figure 5).

Trials conducted:

- Western Regional Chipping
- Southwestern Regional Chipping
- Pre-Southwestern Regional Russets
- Advanced Russet Selection
- Texas Advanced Chipping Selection
- 2004 Chipping Selection Trial
- Texas Advanced Russet Selection
- 2004 Russet Selection Trial
- Texas Advanced Red Selection
- 2004 Red Selection Trial
- Texas Advanced Specialty Selection
- 2004 Specialty Selection Trial
- 2005 Nursery

WESTERN REGIONAL CHIPPING TRIAL

This trial consisted of 9 entries, including Atlantic and Chipeta as check varieties.

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

- CO96141-4W had the highest yield in all categories. COA96142-3C had the highest yield of over 18 oz. tubers (Table 1a).
- CO96141-4W and COA96141-2C had the highest marketable yield (Table 1a)

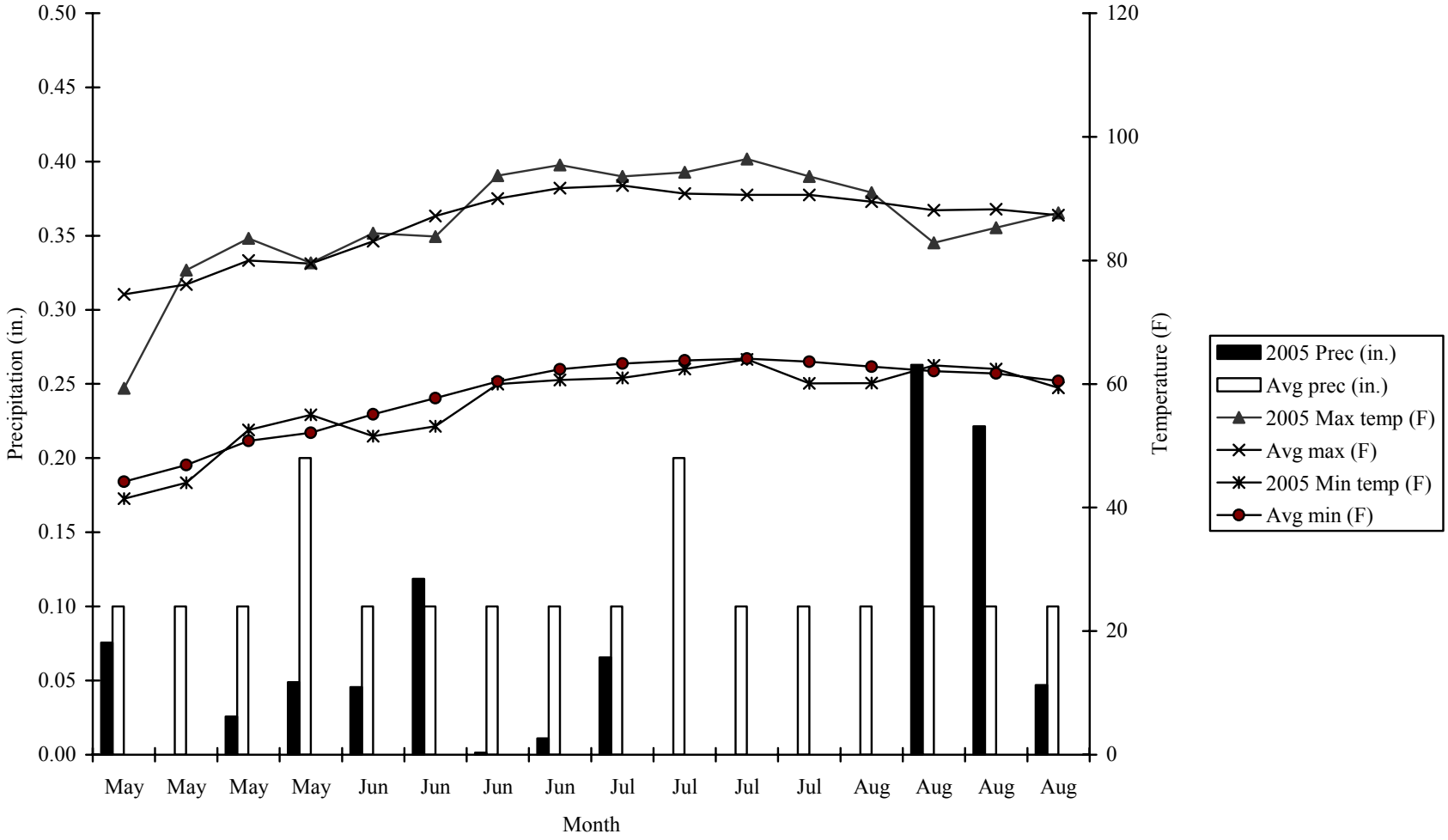

Figure 5. Weekly minimum/maximum temperatures and precipitation for the 2005-growing season at Dalhart, Texas compared to the average minimum/maximum temperatures and precipitation (1963-2005).

- Chipeta had the highest yield of less than 4 oz. tubers, while A91814-5 had the highest yield of culls/No. 2 tubers (Table 1a).

- Atlantic and COA96141-2C had the highest percentage of marketable yield, while Chipeta and Ivory Crisp had the highest percentage of 4-6 oz. tubers (Table 1b).

- COA96141-2C and CO95051-7W had the highest percentage of 6-10 oz. tubers, while Ivory Crisp had the highest percentage of 10-18 oz. tubers. A91814-5 and CO95051-7W had the highest percentage of less than 4 oz. tubers (Table 1b).

- High specific gravities were recorded for Atlantic and A91814-5 (Table 1b).

- A91814-5 and COA96141-2C had the most average tubers per plant, while COA96142-3C and CO96141-4W had the greatest average tuber weight (Table 1c).

- Chipeta and B0766-3T were the latest maturing entries, while CO96141-4W was the earliest (Table 1c).

- A high percentage of hollow heart was noted for COA96142-3C and Atlantic (Table 1d).

Comments on entries:

- CO96141-4W Oblong White
- COA96141-2C Round White, good
- COA96142-3C Round White, 3[1] Rhizoctonia, lunker, oversize.
- B0766-3T Oblong White
- Atlantic Round Buff
- Chipeta Round White, 40%u
- Ivory Crisp Oblong White
- A91814-5 Oblong White
- CO95051-7W Round White

[1]Rhizoctonia rating 1=severe, 5=none

Summary:

The top performing entries based on all factors excluding the chipping results were CO96141-4W and COA96141-2C.

SOUTHWESTERN REGIONAL CHIPPING TRIAL

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

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

- AC97097-14W and CO97065-7W had the highest marketable yield, while AC97097-14W and Chipeta had the highest yield of less than 4 oz. tubers. (Table 2a).
- All of the entries had acceptable percentages of total marketable tubers, while Chipeta had the highest percentage of less than 4oz. tubers (Table 2b).
- Atlantic had the highest specific gravity (Table 2b).
- AC97097-14W had the highest average tubers per plant and the lowest average tuber weight, while Atlantic had the higher average tuber weights (Table 2c).
- Chipeta was the latest maturing, while CO97065-7W was the earliest (Table 2c).
- AC97097-14W was longer than the other entries (Table 2d).
- Atlantic and AC97097-14W had the highest percentage of hollow heart (Table 2d).

Comments on entries:

- AC97097-14W Oblong White, good, nice.
- CO97065-7W Round White, feathering.
- Atlantic Round Buff
- Chipeta Round White, 40%u.
- CO97043-14W Round White, deep nose, nice, very good.

Summary:

The performance of the entries AC97097-14W and CO97065-7W were better than the check varieties.

PRE-SOUTHWESTERN REGIONAL RUSSET TRIAL

This trial consisted of 10 entries, including the check variety Russet Norkotah.

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

- The outstanding entries for this trial based on general rating and best of trial designations were AOTX95265-3Ru, AOTX98137-1Ru, AOTX95265-4Ru, Russet Norkotah, and AOTX95265-1Ru. AOTX96216-1Ru also received of best of trial designation (Table 3a).

- AOTX95265-3Ru and AOTX95265-4Ru had the highest total yield, while AOTX98137-1Ru, AOTX95269-1Ru, and Russet Norkotah had the highest yield of marketable tubers (Table 3a).

- AOTX98137-1Ru and Russet Norkotah had the highest yield of 4-6 oz. tubers, while Russet Norkotah and AOTX95295-3Ru had the highest yield of 6-10 oz. tubers. AOTX98137-1Ru, AOTX95269-1Ru, and AOTX95265-1Ru had the highest yield of 10-18 oz. tubers, while AOTX95265-3Ru and AOTX95265-4Ru had the highest yield of over 18 oz. tubers (Table 3a).

- Russet Norkotah and AOTX95295-3Ru had the highest percentage total yield, while AOTX95295-3Ru and Russet Norkotah had the highest percentage of 6-10oz. tubers. AOTX95265-1Ru and AOTX98137-1Ru had the highest percentage of 10-18 oz. tubers, while AOTX95265-3Ru, AOTX95265-4Ru, and AOTX96208-1Ru had the highest percentage of over 18 oz. tubers. Two of these entries, AOTX95265-4Ru and AOTX96208-1Ru, had over 55% of their yield in the over 18oz category. All of the entries had over 26% of their total yield in the over 18oz category (Table 3b).

- All of the entries had satisfactory specific gravity, with AOTX95265-3Ru having the highest (Table 3b)

- AOTX95295-3Ru had the highest average number of tubers per plant, while AOTX95265-3Ru had the highest average tuber weight (Table 3c).

- AOTX95269-2Ru and AOTX96208-1Ru were the latest maturing entries, while AOTX98137-1Ru, Russet Norkotah, and AOTX95295-3Ru were the earliest maturing entries (Table 3c).

- AOTX95265-3Ru, AOTX96208-1Ru, AOTX95269-1Ru, and AOTX95265-1Ru had high percentages of hollow heart (Table 3d).

Comments on entries:

- AOTX95265-3Ru — Long Russet, longer than Norkotah, BOT+++, too long?, ok, 40%u, 20%u, nice,✓✓

- AOTX95265-4Ru — Long Russet, longest clone BOT+++, nice, 40%u, 80%u, nice, ✓✓✓✓✓✓

- AOTX96208-1Ru — Oblong Russet, variable size, knobs, drop?+++, very long, some curved and pointed, 20%u, ✓✓✓✓✓✓✓

- AOTX98137-1Ru — Oblong Russet, ok, but drop?, keep, ok, small short tubers, 20%u, nice, BOT for interior, yield+, BOT.

- AOTX95269-1Ru — Long Russet, pointed, curved, drop, keep, ok, shape?, 60%u, 20%u, ✓✓✓✓✓✓✓✓✓

- Russet Norkotah — Oblong-Long Russet, BOT++-, small, 3Rhizoc, 20%u, nice, BOT for interior, nice interior.

- AOTX95265-1Ru Oblong-Long Russet, longer than Nork, BOT++, some curved and pointed, 40%u, 40%u, 20%u, ✓✓✓✓

- AOTX95295-3Ru Oblong Russet , smaller, drop?, poor rep, smaller than 265-3, good shape, few tubers, nice shape, 20%u, ✓

- AOTX95295-1Ru Long Russet, pointed, curved, drop?++, pointed to apical end, longer than Nork, ok, 20%u, 2rhizoc, 1rhizoc, 3rhizoc.

- AOTX96216-1Ru Oblong Russet, nice, keep, BOT-, curved, drop, so so, drop?, 4Rhizoc, 20%u, ugly, rough, poor shape, 4Rhizoc, 40%u, nice shape, ✓✓✓✓✓

Summary:

Based on overall performance AOTX95265-3Ru is ranked highest. AOTX95265-4Ru, AOTX98137-1Ru, Russet Norkotah, and AOTX95265-1Ru also performed well. AOTX96208-1Ru, AOTX95295-1Ru, and AOTX96216-1Ru performed at a lower level.

ADVANCED SELECTION RUSSET TRIAL

This trial consisted of 18 entries, including the check variety Russet Norkotah. All seed, except Russet Norkotah, was from Colorado.

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

- The outstanding entries for this trial based on general rating and best of trial designations were TXA549-1Ru, AOTX98137-1Ru, Russet Norkotah, ATX91137-1Ru, and ATX9332-8Ru. AOTX95265-4Ru, TXNS296, AOTX95265-2ARu, and TXNS278 also had a high general rating, while ATX84378-1Ru and TXNS223 received best of trial designations (Table 4a and Table 4e).

- TXA549-1Ru, AOTX98137-1Ru, and MWTX2609-4Ru had the highest total yield, while AOTX98137-1Ru, Russet Norkotah, TXDH-99-1Ru, and Stampede Russet and had the highest total marketable yield. While AOTX98137-1Ru and Stampede Russet had the highest yield of 4-6 oz. tubers (Table 4a).

- Stampede Russet and AOTX98137-1Ru had the highest yield of 6-10, while ATX9202-1Ru, TXDH-99-1Ru, and Russet Norkotah had the highest yield of 10-18 oz. tubers. ATX84706-2Ru and TX549-1Ru had the highest yield of over 18 oz. tubers (Table 4a).

- ATX84378-1Ru, MWTX2609-2Ru, and MWTX2609-4Ru had the highest yield of culls/No. 2 tubers (Table 4a).

- ATX9202-1Ru and Stampede Russet had the highest percent total marketable yield while Stampede and ATX9332-8Ru had the highest percentage of 6-10oz. tubers. ATX9202-1Ru, TXDH-99-1Ru, and Russet Norkotah had the highest percentage of 10-18 oz. tubers, while ATX84706-2Ru, TXNS296, and

ATX84378-1Ru had the highest percentage of over 18 oz. tubers. Sixteen of the entries had over 20% of their yield in the over 18 oz category - ATX84706-2Ru had over 57% of its total yield in the over 18 oz category (Table 4b).

- Stampede Russet had the highest percentage of less than 4 oz. tubers. ATX84378-1Ru had the highest percentage of culls/No. 2 tubers (Table 4b).

- All of the entries had satisfactory specific gravity, with ATX9332-8Ru had the highest (Table 4b)

- Stampede Russet and AOTX98137-1Ru had the highest average number of tubers per plant, while ATX84378-1Ru had the lowest average number of tubers per plant. ATX84706-2Ru and ATX84378-1Ru had the highest average tuber weight, while Stampede Russet had the lowest (Table 4c).

- MWTX2609-2Ru, MWTX2609-4Ru, TXDH-99-1Ru, AOTX95265-4Ru, and ATX9332-8Ru were the latest maturing entries, while Russet Norkotah was the earliest (Table 4c).

- ATX84706-2Ru, TXA549-1Ru, Stampede Russet, and ATX84378-6Ru had the shortest tubers. MWTX2609-2Ru, MWTX2609-4Ru, TXA549-1Ru, and ATX84706-2Ru had the lightest russet skin color (Table 4d).

- ATX84706-2Ru, AOTX95265-4Ru, TXNS296, and ATX992230-1Ru had the highest percentages of hollow heart, while AOTX95265-4Ru and TXNS278 had the highest percentages of vascular discoloration (Table 4d).

Comments on entries:

- TXA549-1Ru — Oblong Russet, blocky, drop++++, blocky, 10%u, 20%u, 3rhizoc, BOT for internal, 20%u, thick tubers, ✓✓✓✓

- AOTX98137-1Ru — Long Russet, small, BOT-, curved, different, drop?, nice, so so, 10%u, nice shape, very nice interior, 30%u, BOT for shape, ✓

- MWTX2609-4Ru — Long Russet, pointed, rough, high yield, long, light net, poor shape, 10%u, BOT- for interior, 10%u, nice interior.

- ATX84706-2Ru — Long Russet, oversize, lunker, blocky, 40%u, rough, 3Rhizoc.

- MWTX2609-2Ru — Long Russet, not as long as -4, poor shape, drop+++, rough, better rep, 10%u, 10%u, feathering.

- Russet Norkotah — Long Russet, smaller, BOT-++, so so 3rhizoc, 10%u, BOT for interior, BOT++, 3rhizoc, 10%u, 4rhizoc, heavy net, ✓✓

- TXDH-99-1Ru — Long Russet, rough, pointed, not bad, drop+++, 10%u, 10%u, 2.5rhizoc, 10%u, 3rhizoc, 30%u.

- AOTX95265-4Ru — Long Russet, pointed, curved, BOT, nice, 10%u, 4Rhizoc.

- Stampede Russet — Oblong Russet, blocky, some curved, small, poor yield, 10%u, BOT for internal, 20%u, BOT+, 2.5rhizoc, nice shape and internal, ✓✓✓✓✓✓✶
- ATX91137-1Ru — Oblong Russet, short, blocky, BOT-, nice, 4Rhizoc, 10%u, BOT++, 3.5Rhizoc, 20%u, nice internal, 20%u, ✓✓✓✓✓✓✓✓✓✶✶✶✶✶
- TXNS296 — Long Russet, some curved, pointed, OK, pointed to stem end, 3.5rhizoc, 40%u, 2.5rhizoc, 3.5rhizoc, 20%z, 20%z.
- AOTX95265-2ARu — Long Russet, some curved, OK, nice, so so, nice, 3 Rhizoctonia, 50%u, 3 Rhizoctonia, 40%u, 3 Rhizoctonia, 10%u, 3 Rhizoctonia, pointed, heavy net, 10%u.
- ATX9202-1Ru — Long Russet, drop+++, knobs++, so so, 10%u, 10%u, nice, 50%u .
- ATX84378-1Ru — Long Russet growth cracks, rough, drop, knobs, large fat tubers BOT, BOT for flesh, , 2.5 Rhizoctonia, 10%u.
- TXNS278 — Long Russet , yield, nice, variable size, 10%u, 50%u, BOT for appearance, nice, some curved, nice shape, ✓
- TXNS223 — Long Russet, BOT, curved, so so, nice, thin tubers, ok, 20%u, 2 Rhizoctonia, 10%u, 4 Rhizoctonia, 20%u, 4 Rhizoctonia, 30%u, ✓✓
- ATX9332-8Ru — Oblong Russet, nice, so so, OK, drop, 20%u, rot, BOT, 3 Rhizoctonia, alligator hide 4 Rhizoctonia, 30% u, 3 Rhizoctonia, 20% u, nice.
- ATX992230-1Ru — Long Russet, small, drop++, poor shape, drop?, OK, poor net, hollow heart on bud end, 10%u, nice shape, 20%u.

Summary:

The outstanding entries for this trial were TXA549-1Ru, AOTX98137-1Ru, AOTX95264-1Ru, ATX91137-1Ru, Stampede Russet and Russet Norkotah. ATX9332-8Ru, ATX992230-1Ru, ATX9202-1Ru, and TXDH-99-1Ru will be discarded.

TEXAS ADVANCED SELECTION CHIPPING TRIAL

The trial consisted of 43 entries, including the check variety Atlantic. The seed sources for this trial were North Dakota, Colorado and Dalhart.

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

- The outstanding entry for this trial based on best of trial designations was TX1673-2W (Table 5a).

- TX1673-2W and AOTX95309-3W had the highest total yield and total marketable yield. AOTX96580-1W and ATTX98471-4R/Yhad the highest yield of 4-6 oz. tubers, while ATX85404-8W and NDTX028594-1W had the highest yield of 6-10 oz. tubers (Table 5a).

- TX1673-2W and PATX99P10-1Pu/R had the highest yield of 10-18 oz. tubers, while NDTX4930-5W had the highest yield of over 18 oz. tubers. PORTX03PG22-1R/PY had the highest yield of less than 4 oz. tubers (Table 5a).

- COTX01294-1W and NDTX4930-5W had the highest yield of culls/No.2 tubers (Table 5a).

- ATX85404-8W and TX1673-2W had the highest percentage of total marketable yield. NDTX6754C-1W and AOTX96580-1W had the highest percentage of 4-6 oz. tubers, while COTX00197-1W and ATX85404-8W had the highest percentage of 6-10 oz. (Table 5b).

- TX1673-2W and PATX99P10-1Pu/R had the highest percentage of 10-18 oz. tubers, while NDTX4930-5W had the highest percentage of over 18 oz. tubers. PORTX03PG22-1R/PY and ND8362C-2 had the highest percentage of less than 4 oz. tubers (Table 5b).

- COTX01294-1W had the highest percentage of culls/No.2 tubers (Table 5b).

- ATTX98471-4R/Y and ATTX98466-5R/W-R had the highest specific gravity (Table 5b).

- PORTX03PG22-1R/PY had the highest average tubers per plant, while NDTX4930-5W and TX1673-2W had the highest average tuber weight (Table 5c).

- ND8362C-2 was the latest maturing entries, while ATTX98466-5R/W-R was the earliest (Table 5c).

- ATTX99314-1W had very deep eyes (Table 5d).

- Atlantic, ATTX99314-1W, and ND8362C-2 had the highest percent hollow heart. NDTX028728-3W had the highest percent of internal defects (Table 5d).

- (Table 5f).

Comments on entries:

- TX1673-2W Oblong White, nice interior, BOT, outstanding internal, pointed.
- AOTX95309-3W Round White
- NDTX4930-5W Oblong White, oversize+, nice internal, yield+.
- NDTX028594-1W Round White, nice, 3Rhizoctonia, nice, 3Rhizoctonia.
- ATX85404-8W Oblong White, 3Rhizoctonia, oversize, nice internal, 1Rhizoctonia.
- NDTX028594-4W Round White

- PORTX03PG22-1R/PY Long Red, small tubers, buff skin, road map+.
- COTX01294-1W Round White, drop+++.
- AOTX96580-1W Round White, hollow heart, 1R, 4R,
- ATTX98471-4R/Y-spec Round Red, move to spec?? Or stay in chips, heat sprouts, yellow flesh.
- PORTX03PG87-1R/YR Oblong Red, red yellow flesh, red 2.5, yellow 3, rough, heat sprouts, drop.
- AOTX95309-1W Oblong White
- PATX99P10-1Pu/R Long Purple, hollow heart, road map+.
- ATTX8823-2W Round White, rough.
- Atlantic Round White, hollow heart+, zebra+, 3R, oversize.
- AOTX95309-2W Oblong White, rough, 20% zebra.
- COTX00254-2W Round White
- NDTX6773-1W Round White, 60% zebra.
- ND8362C-2 Round White, nice shape.
- NDTX7571-4AW Round White, hollow heart, mix?.
- COTX99238-2W Round White, nice shape.
- ATTX99314-1W Round White, scab, Rhizoctonia, scab, Rhizoctonia.
- NDTX6754C-1W Round White, hollow heart, deep nose, nice+.
- NDTX028728-3W Round White, hollow heart, deep nose, nice+.
- COTX00197-1W Round White
- ATTX98466-5 R/W-R Round White
- NDTX7571-3AW Round White, hollow heart.
- NDTX7571-5AW Round White, 4R.

Summary:

TRIAL OF THE 2004 CHIPPING SELECTIONS, DALHART

The trial consisted of 74 entries of which 23 were selected in the field for further chip evaluations. Of these, nine (COTX01339-4W, COTX01339-5W, COTX02332-1W, COTX02377-1W, COTX02377-2W, TX02080-1P, TX0280-2P, TX02098-2W COTX02203-5Ru) (Table 6) will be advanced in 2006.

TEXAS ADVANCED RUSSET SELECTION TRIAL, DALHART

The trial consisted of 15 entries, including the check variety Russet Norkotah. With the exception of Russet Norkotah, all seed was Texas grown.

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

- The outstanding entries for this trial based on general rating and best of trial designation were AOTX96075-1Ru and AOTX96216-3Ru while, TXNS410 also had high general ratings (Table 6a).
- TXNS410, Russet Norkotah, and AOTX96075-1Ru had the highest total yield. Russet Norkotah and AOTX96075-1Ru had the highest marketable yield, while Russet Norkotah and TXNS551had the highest yield of 4-6 oz. tubers (Table 6a).
- Russet Norkotah and AOTX96075-1Ru had the highest yield of 6-10 oz. and 10-18 oz. tubers (Table 6a).
- TXNS410 had the highest yield of over 18 oz. tubers, while Russet Norkotah had the highest yield of less than 4 oz. tubers (Table 6a).
- AOTX98096-1Ru and AOTX96084-1Ru had the highest yield of culls/No.2 tubers (Table 6a).
- Russet Norkotah and AOTX96075-1Ru had the highest percentages of marketable yield, while Russet Norkotah had the highest percentage of 4-6 oz. and 6-10 oz. tubers (Table 6b).
- AOTX96075-1Ru and AOTX96216-3Ru had the highest percentage of 10-18 oz. tubers, while TXNS410 and AOTX98096-1Ru had the highest percentage of over 18 oz. tubers. Russet Norkotah had the highest percentage of less than 4 oz. tubers (Table 6b).
- ATX97195-1Ru, AOTX98096-1Ru, and TXNS410 had the highest specific gravity (Table 6b).
- AOTX96216-3Ru and Russet Norkotah had the highest average number of tubers per plant, while ATX97195-1Ru had the lowest. TXNS410, ATX97195-1Ru, and AOTX98096-1Ru had the highest average tuber weight, while Russet Norkotah and AOTX96075-1Ru had the lowest (Table 6c).
- AOTX96216-3Ru and TXNS410 were the latest maturing, while Russet Norkotah was the earliest (Table 6c).
- All of the entries had over 30% hollow heart with TXNS410 having 60% (Table 6d).

<u>Comments on entries:</u>

- TXNS410 Long Russet, nice+, keep, nice.
- Russet Norkotah Long Russet, nice++, 20%u.
- AOTX96075-1Ru Long Russet, nice++, longer than Norkotah, BOT+*, rough, 20%u, curved, 20%u, very large tubers, yield+, 20%u.
- AOTX96084-1Ru Long Russet, keep, 20%u, 60%u, nice shape, nice.
- TXNS551 Long Russet, keep, nice.
- AOTX96216-2Ru Long Russet, keep, 3Rhizoctonia, rough, 3 Rhizoctonia, 20%u, 1 Rhizoctonia, 40%u, poor shape, 2 Rhizoctonia, 40%u, drop.
- ATX97195-1Ru Oblong Russet, keep, 20%u, yield+, curved, 20%u, 20%u.
- AOTX98096-1Ru Long Russet, drop, keep, nice, 20%u.
- AOTX96216-3Ru Long Russet, keep, one good rep, 20%u, BOT, nice shape.

Summary:

Based on all factors, the outstanding entries in this trial were AOTX96075-1Ru, AOTX96216-3Ru, TXNS410, and Russet Norkotah.

TRIAL OF THE 2004 RUSSET SELECTIONS, DALHART

The trial consisted of 89 entries of which nine (AOTX02019-1Ru, AOTX02064-2Ru, AOTX02136-1Ru, AOTX02167-1Ru, AOTX02197-1Ru, AOTX02206-5Ru, COTX02056-1Ru, COTX02203-3Ru, and COTX02203-5Ru) (Table 8) will be advanced in 2006.

TEXAS ADVANCED RED SELECTION TRIAL, DALHART

This trial consisted of 17 entries. With the exception of the check variety Red LaSoda and ND4756-1R, all seed came from Dalhart.

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

- The outstanding entries based on general rating and best of trial designation was BTX2332-1R, while ATTX01180-1R, ATTX01180-4R, ATX00144-2R, and NDTX4304-1R also had high general ratings (Table 9a).

- NDTX4828-2R and NDTX731-1R had the highest total yield, while NDTX731-1R, BTX2332-1R, and NDTX4828-2R had the highest marketable yield (Table 9a).

- ATX00144-2R had the highest yield of 4-6 oz. tubers, while NDTX731-1R and ND4756-1R had the highest yield of 6-10 oz. tubers. NDTX4828-2R and ATTX98453-6R had the highest yield of 10-18 oz tubers, while NDTX4828-2R and ATX01188-1R had the highest yield of over 18 oz. tubers (Table 9a).

- COTX94218-1R and COTX00411-4R had the highest yield of less than 4 oz tubers, while ND4756-1R and ATTX01188-1R had the highest yield of culls/No. 2 tubers (Table 9a).

- BTX2332-1R, ATTX01180-1R, and ATTX01180-4R had the highest percentage marketable yield, while ATX00144-2R had the highest percentage of 4-6 oz. tubers (Table 9b).

- NDTX731-1R, NDTX4304-1R, and COTX00290-3R had the highest percentage of 6-10 oz. tubers, while ATTX01175-1R and ATTX98453-6R had the highest percentage of 10-18 oz. tubers. (Table 9b).

- NDTX4828-2R and ATX01188-1R had the highest percentage of over 18 oz. tubers, while COTX94218-1R and COTX00411-4R the highest percentage of less than 4 oz. tubers (Table 9b).

- ATX00144-2R and COTX00411-4R had the highest specific gravities (Table 9b)

- NDTX731-1R, NDTX4304-1R, and COTX94218-1R had the highest average number of tuber per plant, while ATX01188-1R and NDTX4828-2R had the highest average tuber weight (Table 9c).

- ATX01188-1R was the latest maturing, while ATX00144-2R and ATTX01180-1R was the earliest maturing (Table 9c).

- NDTX4828-2R, NDTX731-1R, and Red LaSoda had the deepest eyes. NDTX4828-2R and ATX01188-1R had high percentages of hollow heart. (Table 9d).

Comments on entries:

- NDTX4828-2R — Oblong Red, Red 3[1], deep eyes, rough, lenticels, silver scurf, Red 3.2, drop, early, rough, 20% u, silver scurf, 3Rhizoctonia, nice interior.

- NDTX731-1R — Round Red, Red 3.5, early, eyes somewhat deep, does not oversize, 20% u, good skin set, 3.5 Rhizoctonia, 2 Rhizoctonia, ugly nose, 1 Rhizoctonia, drop, 20% u.

- ATX01188-1R — Oblong Red, Red 4, keep, 40% u, mix, nice color, nice shape, good skin set, Red 4.5, BOT.

- BTX2332-1R — Round Red, Red 3, early, smooth, keep, BOT+-, road map, nice shape, Red 3.5, feathering, 20% u.

- ND4756-1R — Oblong Red, Red 4, nice flesh, nice, color variable from 3.5-4.5, good skin set, silver scurf++, 3 Rhizoctonia, 20% u

- NDTX4847-7R — Round Red, Red 4, smooth, green sprouts, 20% u, nice shape, some feathering, Red 4, BOT-, silver scurf+, nice, 40% u.

- ATTX98453-6R Oblong Red, Red 3.2, keep, 60% u, nice+, nice shape, Red 3.5, heat sprouts, 20% u, 60% u.
- ATTX01180-1R Round Red, Red 3.5, nice flesh, nice shape, 60% u, feathering, Red 3.5, large tubers are rough, 40% u.
- ATTX01180-4R Round Red, Red 3.5, Vascular Discoloration, feathering, nice shape, Red 3.5, silver scurf, 20% u,40% u.
- ATX00144-2R Round Red, Red 3.5, keep, buff skin, nice shape, small tubers, Red 3.7, road map ++, 20% u, drop?, 3 Rhizoctonia.
- COTX00411-4R Oblong Red, Red 4.5, keep, Red 4.5, keep, silver scurf+, deep nose+, drop+++?.
- COTX94218-1R Round Red, Red 3.2, smooth, keep, 20% u, nice shape, small tubers, skin color faded, Red 3.0, 20% u, 40% u, nice.
- COTX00290-3R Round Red, Red 3.2, keep, Red 3.2, poor shape, good skin set, Red 3.7.
- NDTX4304-1R Oblong Red, Red 4, BOT, feathering, 20% u, nice shape, Red 4, BOT-, deep nose, nice interior.
- Red LaSoda Oblong Red, Red 3.5, 20% u, Red 3.2, 4 Rhizoctonia, silver scurf, rough, 20% u.
- ATTX01175-1R Oblong Red, Red 4.5, Vascular Discoloration, feathering, nice color, good shape, Red 4.2, BOT-, 40 % u.

[1]Red – Skin color 5=dark, 1=light

Summary:

Based on all factors, the outstanding entries for this trial were BTX2332-1R, NDTX4304-1R, NDTX4847-7R, ATTX98453-6R, COTX94218-1R, and ATX01188-1R. Others deserving mention include ATTX01180-1R, ATTX01180-4R and ATX00144-2R.

TRIAL OF THE 2004 RED SELECTIONS, DALHART

The trial consisted of 110 entries of which 12 (ATX01180-1R, COTX02038-1R, COTX02041-1R, COTX02172-1R, COTX02175-6RA, COTX02175-6RB, COTX02266-1R, COTX02266-2R, COTX02293-4R, COTX02294-4R, COTX02380-3RA, and COTX02380-3RB) (Table 10) will be advanced in 2006.

TEXAS ADVANCED SPECIALTY SELECTION

The Texas advanced specialty selection trial consisted of 41 entries, including the check variety Yukon Gold. The seed was from Colorado, Canada, North Dakota and Dalhart.

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

- The outstanding entries for this trial based on general rating and best of trial designations were TX1674-1W/Y, PORTX03PG19-1Pu/YR, PORTX03PG25-2R/P, and NDTX7571-1WRE/Y, while ATTX98510-1R/Y, NDTX4756-1R/Y, COTX01403-1R/Y, ATTX99325-1P, UNTX383-3WRE/Y, ATTX961014-1AR/Y, ATTX98444-9R/Y, and ATTX98462-16R/Y only received best of trial designations. TX1523-1Ru/Y received the highest general rating (Table 11a).

- RZD95-6643, RZD94-2262, ATTX98510-1R/Y, and ND8083b-1pY had the highest total yield, while RZD95-6643, TX1674-1W/Y, RZD94-2262, and ATTX98500-3W/P calico had the highest marketable yield (Table 11a)

- ATTX98514-1R/Y and PORTX03PG19-1Pu/YR had the highest yield of 4-6 oz. tubers, while RZD95-6643 and RZD94-2262 had the highest yield of 6-10 oz. tubers (Table 11a).

- TX1674-1W/Y and TX1523-1Ru/Y had the highest yield of 10-18 oz. tubers, while RZD95-6643 and ATTX98462-3R/Y had the highest yield of greater than 18 oz. tubers (Table 11a).

- ND8083b-1pYand ATTX98468-3R/Y had the highest yield of less than 4 oz. tubers, while Courage and Klondike Rose had the highest yield of culls/No. 2 tubers (Table 11a).

- COTX01397-7R/Y, COTX01403-4R/Y, and NDTX7571-1W-RE/Y had the highest percentage of marketable yield, while COTX01397-7R/Y and PORTX03PG19-1Pu/YR had the highest percentage of 4-6 oz. tubers (Table 11b).

- RZD94-2262 and ATTX98500-3W/P calico had the highest percentage of 6-10 oz. tubers, while TX1674-1W/Y and COTX01403-4R/Y had the highest percentage of 10-18 oz. tubers (Table 11b).

- ATTX98444-16R/Y and ATTX98468-3R/Y had the highest percentage of less than 4 oz. tubers, while Courage and Klondike Rose had the highest percentage of culls/No. 2 tubers (Table 11b).

- High specific gravities were recorded for ND8083b-1pY and PORTX03PG19-1Pu/YR (Table 11b).

- PORTX03PG59-1PINTO/Y and BTX1749-1W/Y had the highest average number of tubers per plant, while NDTX028742-4P/P and ATTX99325-1P had the highest average tuber weight (Table 11c).

- RZD94-2262, Courage, and Golden Sunburst were the latest maturing clones, while ATTX99325-1P and ATTX98 462-9R/Y was the earliest maturing (Table 11c).

- ATTX98493-2P/P, Golden Sunburst, UNTX383-3WRE/Y, PORTX03PG25-2R/Y, ATTX98491-4YRsplash, NDTX7571-1WRE/Y, and Klondike Rose had the deepest flesh color (Table 11d).

- Yukon Gold, NDTX028742-4P/P, and RZD94-2262 had the highest percentage of hollow heart (Table 11d).

<u>Comments on entries:</u>

- RZD95-6643 — Oblong White, growth cracks, deep nose at both ends, rough, feathering, yield+.
- RZD94-2262 — Oblong White, heat sprouts, y-2, drop, nipple ends+.
- ATTX98510-1R/Y — Oblong Red, yield+, r-3.5, y-3, keep, BOT-, road map, silver scurf+, keep
- ND8083b-1pY — Round-Oblong Red, red yellow flesh, r-2.7, y-2.5, 3 Rhizoctonia, many small tubers, 3 Rhizoctonia, boiler, drop.
- ATTX98500-3W/P calico — Oblong Purple/splash, flat, y-4, keep, flat, some pointed to stem end.
- TX1674-1W/Y — Oblong White, flat, y-3, BOT+, yield+, 40%u, flat, candidate.
- ATTX98514-1R/Y — Round Red, r-3.2, y-3, keep, silver scurf.
- Courage — Oblong Red, rough, scale, unattractive buff skin, green vine, heat spouts, deep nose, r-3, y-2, drop.
- BTX1544-2W/Y — Oblong White, y-3, rough++, variable shape, nice.
- TX1523-1Ru/Y — Oblong Russet, yield+, can oversize, y-3, 3 Rhizoctonia, 4 Rhizoctonia.
- NDTX4756-1R/Y — Oblong Red, r-3.2, y-3, keep, BOT-, oversize, BOT, yield+, nice.
- ATTX98493-2P/P — Oblong-Long Purple, nice dark flesh, p-4.5, BOT, rough, eye brows
- ATTX88654-3W/RE/Y — Oblong Red/eye, y-3.5, keep, smooth, nice++, 20% u, 20% u.
- COTX01403-4R/Y — Oblong Red, r-3.2, y-3, keep, BOT+-, keep, road map, silver scurf.
- ATX99331-1Pu/Y — Round-Oblong Purple, nice shape, y-4, keep+, road map.
- ND7834-2P — Oblong-Long Purple, smooth, p-2.5, nice shape, internal like all blue, chip?.
- PORTX03PG19-1Pu/YR — Oblong Red, smooth, r-4, y-4, yellow/red flesh, keep, BOT, road map+, buff, BOT- for interior, keep, 4 Rhizoctonia.
- COTX00328-1Pu/Ypu — Oblong Purple, chip, rough, purple vascular ring, keep, road map.
- BTX1749-1W/Y — Oblong White, nice, y-3, keep.
- ATTX99325-1P — Oblong Purple, eye brows, heat sprouts, market??, BOT, nice shape and size, drop, feathering+, silver scurf+, drop?.
- ATTX98468-3R/Y — Round Red, r-4, y-3.5, keep, BOT-, road map+, silver scurf+.

- Golden Sunburst — Round White, poor shape, pointed to stem end, poor internal, y-4, nice flesh.
- UNTX383-3WRE/Y — Round White/Red Eye, y-4, keep, BOT-.
- PORTX03PG25-2R/P — Long Red, r-4.5(skin), r-5(flesh), fingerling, keep, BOT+++.
- NDTX8555-2R/P — Oblong-Long Red r-4.5(skin), r-2(flesh), chip, keep, road map, heat sprouts.
- ATTX98462-3R/Y — Oblong Red, r-4, y-2, keep, large tubers, heat sprouts+, nice size, keep, road map+.
- ATTX98468-5R/Y — Oblong Red, r-3.5, y-3.5, keep?,rough+, Keep+, feathering++, heat sprouts, nice flesh.
- Yukon Gold — Oblong White, can oversize, variable size, y-3, nice skin.
- ATTX961014-1R/Y — Oblong Red, Spec/High AntiOx, r-3, y-2.5, keep, road map, nice+.
- ATTX98491-4YRsplash/Y — Oblong Red/Splash ,Spec/High AntiOx, y-4, keep, red splash, deep nose, nice interior,10% u.
- NDTX7571-1WRE/Y — Oblong White/Redeye, y-4, keep, BOT++, y-4, keep++, 60% u.
- NDTX028742-1P/P — Oblong Purple, keep, chip.
- ATTX961014-1AR/Y — Oblong Red, y-3, keep++, drop, lenticels, road map+, BOT-, 4 Rhizoctonia, nice internal, 4 Rhizoctonia, silver scurf+, heat sprouts.
- PATX99P10-1R/R — Oblong Red, keep, chip, road map.
- PORTX03PG59-1PINTO/Y — Oblong Purple, drop++++.
- KLONDYKE ROSE — Long Red, heat sprouts, pointed to stem end, y-3.5.
- PORTX03PG34-4R/P — Long Red, r-4(skin), r-2.5(flesh), fingerling, keep, not attractive exterior.
- ATTX98444-16R/Y — Oblong Red, small, r-3.5, y-3.5, keep, BOT- , pointed to stem end, silver scurf, road map.
- ATTX98462-9R/Y — Oblong Red, r-4, y-4, keep, BOT-, heat sprouts, buff.
- COTX01397-7R/Y — Oblong Red, r-3, y-3, keep, chip.
- NDTX028742-4P/P — Oblong Red, chip.

Summary:

Based on all factors the outstanding entries for this trial were ATTX98510-1R/Y and NDTX4756-1R/Y. Others deserving mention include ATTX98493-2P/P, TX1523-1Ru/Y, COTX01403-4R/Y, PORTX03PG19-1P/Y-R, ATTX98468-3R/Y, PORTX03PG25-R/P, ATTX961014-1R/Y, NDTX7571-1W-Re/Y, ATTX98444-16R/Y, and ATTX98462-9R/Y.

TRIAL OF THE 2004 SPEIALTY SELECTIONS, DALHART

The trial consisted of 51 entries of which 7 (AOTX98273-1W, COTX02305-3R, TX02124-2W, NDTX038997-1R/R, TX02106-1R/R, TX02106-2R/R, and NDTX028976-1R/Y) (Table 12) will be advanced in 2006.

2005 NURSERY, DALHART

The Dalhart nursery was used primarily to evaluate and increase the 2004 russet, red, specialty, and chip selections from Springlake and Dalhart and to produce seed from disease-free mini tubers of 20 promising advanced selections.

Dalhart Table 1a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes of 9 entries in the Western Regional Chipping Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre						
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2
CO96141-4W	670.2	284.4	97.7	186.7	283.8	67.8	34.2	0.0
COA96141-2C	430.0	236.5	59.7	176.7	162.4	0.0	31.1	0.0
COA96142-3C	394.5	95.2	36.1	59.1	181.1	89.6	28.6	0.0
B0766-3T	375.2	123.2	34.2	89.0	168.0	43.6	26.8	13.7
Atlantic	342.7	164.3	56.0	108.3	153.5	0.0	24.9	0.0
Chipeta	281.9	133.2	63.5	69.7	74.7	0.0	74.1	0.0
Ivory Crisp	281.5	75.3	55.4	19.9	150.6	38.2	17.4	0.0
A91814-5	126.9	14.9	14.9	0.0	32.4	0.0	59.7	19.9
CO95051-7W	120.1	65.3	20.5	44.8	10.6	0.0	38.0	6.2
Average	335.9	132.5	48.7	83.8	135.2	26.6	37.2	4.4
L.S.D. (.04)	56.2	43.1	19.1	31.4	54.7	47.1	17.5	9.0

[1] 1=very poor to 5= excellent

Dalhart
Table 1b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 9 entries in the Western Regional Chipping Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1			Percent By Weight				Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
CO96141-4W	42.8	14.8	28.0	42.3	9.6	5.3	0.0	1.066	Oblong	White
COA96141-2C	54.8	13.9	41.0	37.6	0.0	7.5	0.0	1.058	Round	White
COA96142-3C	24.6	9.1	15.4	45.3	22.9	7.2	0.0	1.068	Round	White
B0766-3T	34.8	9.8	25.0	43.6	10.6	7.7	3.3	1.064	Oblong	White
Atlantic	47.9	16.3	31.6	44.8	0.0	7.3	0.0	1.072	Round	Buff
Chipeta	47.3	22.7	24.6	26.6	0.0	26.2	0.0	1.057	Round	White
Ivory Crisp	27.2	20.1	7.2	53.9	12.6	6.3	0.0	1.066	Oblong	White
A91814-5	11.8	11.8	0.0	25.5	0.0	47.1	15.7	1.073	Oblong	White
CO95051-7W	53.9	16.9	37.0	9.1	0.0	31.7	5.4	1.063	Round	White
Average	38.3	15.0	23.3	36.5	6.2	16.2	2.7	1.065		
L.S.D. (.05)	10.0	7.3	11.0	11.8	9.8	4.4	3.8	0.004		

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 9 entries in the Western Regional Chipping Trial grown near Dalhart, Texas-2005.

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]	
CO96141-4W	7.9	9.0	67	90	1.7	4.2	3.5	2.7	10
COA96141-2C	9.1	6.7	33	67	2.2	4.0	4.5	4.4	5
COA96142-3C	4.3	9.6	57	88	1.7	4.3	4.4	2.8	5
B0766-3T	4.4	8.1	71	98	1.5	4.6	4.7	4.7	0
Atlantic	4.5	8.0	57	88	1.5	4.6	4.2	4.1	10
Chipeta	5.0	5.2	64	100	1.5	4.6	4.7	3.1	0
Ivory Crisp	5.1	7.5	38	69	1.7	4.2	4.5	3.0	3
A91814-5	9.4	4.3	29	45	1.7	3.2	4.5	2.9	0
CO95051-7W	4.1	4.4	36	62	2.2	3.5	4.5	3.0	0
Average	5.3	6.7	50	79	1.7	4.1	4.5	3.4	3
L.S.D. (.05)	ns	1.5	29	23	0.3	0.7	0.6	ns	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 1d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Western Regional Chipping Trial grown near Dalhart, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
CO96141-4W	1.0	3.3	1.3	3.7	1.3	5.0	5.0	5.0	5.0	7	0	0	0
COA96141-2C	1.0	1.8	1.3	4.1	1.0	5.0	5.0	5.0	5.0	7	0	0	0
COA96142-3C	1.0	2.5	1.5	4.0	1.0	5.0	5.0	5.0	5.0	67	0	0	0
B0766-3T	1.0	3.3	2.3	4.5	2.0	5.0	5.0	5.0	5.0	13	0	0	0
Atlantic	1.0	1.8	2.5	3.8	2.0	5.0	5.0	5.0	5.0	47	0	0	0
Chipeta	1.0	1.8	1.0	4.2	1.0	5.0	5.0	5.0	5.0	0	0	0	0
Ivory Crisp	1.0	3.5	1.5	4.4	1.0	5.0	5.0	5.0	5.0	7	0	0	0
A91814-5	1.0	3.7	2.0	4.2	2.0	5.0	5.0	5.0	5.0	0	0	0	0
CO95051-7W	1.0	1.5	1.0	3.7	1.5	5.0	5.0	5.0	5.0	0	0	0	0
Average		2.6	1.6	4.1	1.4	5.0	5.0	5.0	5.0	16	0	0	0

[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] Stem end vascular discoloration severely evaluated

Dalhart
Table 1e.

Notes of 9 entries in the Western Regional Chipping Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Grading
CO96141-4W	
COA96141-2C	good
COA96142-3C	3R, 3R, lunker, oversize
B0766-3T	
Atlantic	
Chipeta	40% unknown
Ivory Crisp	
A91814-5	
CO95051-7W	

Addendum to Tables Springlake 1a, 1b, 1c, 1d, and 1e
Western Regional Cooperative Chipping Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado, Oregon, Texas and Idaho

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 24, 2005	153

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt, Inergy, Spintor, Actara, Dynamic

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:
Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart Table 2a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes of 5 entries in the Southwestern Regional Chipping Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre						
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2
AC97097-14W	474.6	236.9	82.6	154.3	162.2	0.0	75.5	0.0
CO97065-7W	437.7	193.7	74.3	119.5	158.1	11.6	72.6	1.7
Atlantic	342.7	164.3	56.0	108.3	153.5	0.0	24.9	0.0
Chipeta	281.9	133.2	63.5	69.7	74.7	0.0	74.1	0.0
CO97043-14W	226.5	72.6	49.0	23.6	104.1	10.4	31.1	8.3
Average	352.7	160.1	65.1	95.1	130.5	4.4	55.6	2.0
L.S.D. (.04)	147.4	129.7	ns	56.6	ns	ns	ns	ns

[1] 1=very poor to 5= excellent

Dalhart
Table 2b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 5 entries in the Southwestern Regional Chipping Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
AC97097-14W	50.1	17.4	32.6	33.7	0.0	16.2	0.0	1.066	Oblong	White
CO97065-7W	42.8	16.4	26.4	38.3	2.4	16.1	0.3	1.067	Round	White
Atlantic	47.9	16.3	31.6	44.8	0.0	7.3	0.0	1.072	Round	Buff
Chipeta	47.3	22.7	24.6	26.6	0.0	26.2	0.0	1.057	Round	White
CO97043-14W	36.4	17.7	18.8	45.6	2.6	12.0	3.4	1.065	Round	White
Average	44.9	18.1	26.8	37.8	1.0	15.6	0.7	1.065		
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	ns	0.007		

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 5 entries in the Southwestern Regional Chipping Trial grown near Dalhart, Texas-2005.

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]	
AC97097-14W	10.3	6.2	86	138	1.5	4.2	4.2	4.2	7
CO97065-7W	6.1	7.1	110	190	2.0	4.1	3.7	2.5	13
Atlantic	4.5	8.0	57	88	1.5	4.6	4.2	4.1	10
Chipeta	5.0	5.2	64	100	1.5	4.6	4.7	3.1	0
CO97043-14W	4.0	6.5	110	167	1.8	4.2	4.1	4.1	10
Average	4.5	6.5	77	118	1.6	4.5	4.3	3.8	7
L.S.D. (.05)	2.5	1.5	31	17	ns	ns	ns	ns	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 2d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, ,percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Southwestern Regional Chipping Trial grown near Dalhart, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
AC97097-14W	1.0	3.0	1.8	4.4	1.3	5.0	5.0	5.0	5.0	20	0	7	0
CO97065-7W	1.0	2.2	1.5	4.0	1.5	5.0	5.0	5.0	5.0	7	0	0	0
Atlantic	1.0	1.8	2.5	3.8	2.0	5.0	5.0	5.0	5.0	47	0	0	0
Chipeta	1.0	1.8	1.0	4.2	1.0	5.0	5.0	5.0	5.0	0	0	0	0
CO97043-14W	1.0	1.5	1.0	4.1	1.2	5.0	5.0	5.0	5.0	0	0	0	0
Average		2.1	1.6	4.1	1.4	5.0	5.0	5.0	5.0	15	0	1	0

[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] Stem end vascular discoloration severely evaluated

Dalhart Table 2e.	Notes of 5 entries in the Southwestern Regional Chipping Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Grading
AC97097-14W	Good, nice
CO97065-7W	feathering
Atlantic	
Chipeta	40% unknown
CO97043-14W	deep nose, nice, very good

Addendum to Tables Dalhart 2a, 2b, 2c, 2d, and 2e
Southwestern Regional Chipping Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 24, 2005	153

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt, Inergy, Spintor, Actara, Dynamic

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart
Table 3a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 10 entries in the Pre-Southwestern Regional Russet Trial grown near Dalhat, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
AOTX95265-3Ru	810.9	351.4	45.7	107.4	198.2	446.5	13.1	0.0	3.9
AOTX95265-4Ru	699.4	343.2	34.4	134.1	174.7	333.0	16.0	7.3	4.3
AOTX96208-1Ru	695.5	259.2	18.2	76.2	164.8	414.5	18.9	2.9	3.3
AOTX98137-1Ru	659.9	450.8	62.4	137.2	251.2	175.7	32.7	0.7	3.9
AOTX95269-1Ru	659.2	407.0	57.1	126.3	223.6	219.3	28.6	4.4	3.6
Russet Norkotah	614.2	438.5	58.8	167.0	212.7	160.4	15.2	0.0	3.8
AOTX95265-1Ru	578.4	371.7	29.5	116.2	226.0	165.5	10.2	31.0	4.0
AOTX95295-3Ru	550.3	378.2	54.5	151.0	172.8	148.8	23.2	0.0	3.6
AOTX95295-1Ru	528.2	258.8	30.9	100.6	127.4	250.8	14.2	4.4	3.4
AOTX96216-1Ru	482.1	283.9	39.2	74.8	169.9	158.3	16.0	24.0	3.5
Average	627.8	354.3	43.1	119.1	192.1	247.3	18.8	7.5	3.7
L.S.D. (.05)	48.6	74.7	17.3	59.1	67.9	70.9	ns	12.8	ns

[1] 1=very poor to 5= excellent

Dalhart
Table 3b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 10 entries in the Pre-Southwestern Regional Russet Trial grown near Dalhat, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
AOTX95265-3Ru	43.4	5.7	13.3	24.4	55.0	1.6	0.0	1.062	Long	Russet
AOTX95265-4Ru	49.2	4.9	19.9	24.4	47.6	2.3	1.0	1.061	Long	Russet
AOTX96208-1Ru	37.2	2.6	11.0	23.6	59.6	2.7	0.4	1.061	Oblong	Russet
AOTX98137-1Ru	68.2	9.5	20.7	38.0	26.7	4.9	0.1	1.058	Oblong	Russet
AOTX95269-1Ru	61.6	8.7	19.2	33.6	33.3	4.4	0.7	1.058	Long	Russet
Russet Norkotah	71.0	9.4	26.8	34.7	26.6	2.4	0.0	1.058	Oblong-Long	Russet
AOTX95265-1Ru	64.3	5.1	20.1	39.2	28.7	1.7	5.2	1.057	Oblong-Long	Russet
AOTX95295-3Ru	68.4	9.9	27.1	31.4	27.4	4.2	0.0	1.061	Oblong	Russet
AOTX95295-1Ru	49.9	6.1	19.1	24.7	46.4	2.9	0.8	1.059	Long	Russet
AOTX96216-1Ru	59.0	8.1	15.5	35.4	32.6	3.4	5.1	1.060	Oblong	Russet
Average	57.2	7.0	19.3	30.9	38.4	3.1	1.3	1.060		
L.S.D. (.05)	10.7	2.9	8.6	9.7	11.5	ns	2.2	ns		

Dalhart
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 10 entries in the Pre-Southwestern Regional Russet Trial grown near Dalhat, Texas-2005.

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]	
AOTX95265-3Ru	5.8	14.0	73	92	1.5	4.2	4.5	4.7	8
AOTX95265-4Ru	5.7	13.7	56	83	1.5	4.2	4.0	4.2	13
AOTX96208-1Ru	5.6	13.4	56	88	1.5	4.2	4.7	4.5	8
AOTX98137-1Ru	6.5	10.7	69	88	1.8	3.9	3.4	3.8	44
AOTX95269-1Ru	6.5	10.7	63	90	1.5	4.4	4.7	4.7	5
Russet Norkotah	6.3	10.9	65	88	1.6	4.1	3.6	3.8	25
AOTX95265-1Ru	4.8	12.7	60	90	1.5	4.4	4.1	4.4	13
AOTX95295-3Ru	8.6	9.9	54	73	1.8	3.7	3.6	3.7	26
AOTX95295-1Ru	4.5	11.9	60	94	1.5	4.1	4.5	4.7	5
AOTX96216-1Ru	5.9	10.9	50	75	1.5	3.8	4.5	4.5	5
Average	6.0	11.9	61	86	1.6	4.1	4.2	4.3	15
L.S.D. (.05)	ns	2.0	ns	ns	ns	ns	0.3	0.4	13

[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 3d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Pre-Southwestern Regional Russet Trial grown near Dalhat, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
AOTX95265-3Ru	1.0	4.7	4.7	4.3	4.7	5.0	5.0	5.0	5.0	40	0	5	0
AOTX95265-4Ru	1.0	4.6	4.7	4.4	4.7	5.0	5.0	5.0	5.0	35	0	0	0
AOTX96208-1Ru	1.0	4.7	4.7	4.3	4.7	5.0	5.0	5.0	4.9	40	0	5	0
AOTX98137-1Ru	1.0	4.7	4.7	4.2	4.7	5.0	5.0	5.0	5.0	15	0	0	0
AOTX95269-1Ru	1.0	4.7	4.7	4.0	4.7	5.0	5.0	5.0	5.0	50	0	10	0
Russet Norkotah	1.0	4.7	4.7	4.1	4.7	5.0	5.0	5.0	5.0	10	0	0	0
AOTX95265-1Ru	1.0	4.7	4.7	4.0	4.7	5.0	5.0	5.0	5.0	55	0	0	0
AOTX95295-3Ru	1.0	4.5	4.6	4.1	4.6	5.0	5.0	5.0	5.0	15	0	0	0
AOTX95295-1Ru	1.0	4.7	4.7	4.1	4.7	4.8	5.0	5.0	5.0	30	0	5	0
AOTX96216-1Ru	1.0	4.7	4.7	3.9	4.7	5.0	5.0	5.0	5.0	20	0	5	0
Average	1.0	4.7	4.7	4.1	4.7	5.0	5.0	5.0	5.0	31	0	3	0

[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] Stem end vascular discoloration severely evaluated

Dalhart

Table 3e. Notes and general rating for all reps of 10 entries in the Pre-Southwestern Regional Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Field		Notes Grading	General Rating
AOTX95265-3Ru	longer than nork, BOT, BOT, too long?, BOT-, longer than nork, ok	✓✓	40%uknown, 20%uknown, nice	4.5, 4, 3.5, 3.5
AOTX95265-4Ru	longest clone BOT, BOT, nice, BOT	✓✓✓✓✓ ✓	40%uknown, 80%uknown, nice	4, 5, 3.5, 4.5
AOTX96208-1Ru	variable size, knobs, drop?, drop?, drop?, very long, some curved and pointed	✓✓✓✓✓ ✓✓	some curved, 20%uknown, drop?	3, 3, 3, 4
AOTX98137-1Ru	ok, but drop?, keep, ok, small short tubers		20%uknown, nice, BOT for interior, yield+, BOT	4, 3.5, 4, 4
AOTX95269-1Ru	pointed, curved, drop, curved, keep, pointed, ok	✓✓✓✓✓ ✓✓✓	shape?, 60%uknown, 20%uknown	3.2, 3.5, 3.5, 4
Russet Norkotah	BOT-, , small, BOT-		3 Rhizoctonia, 20%uknown, nice, BOT for interior, nice interior	3.5, 3.5, 4, 4
AOTX95265-1Ru	longer than nork, BOT, , some curved and pointed, longer than nork, BOT	✓✓✓✓	40%uknown, some curved, 40%uknown, 20%uknown	4.5, 4, 3.5, 4
AOTX95295-3Ru	smaller, drop?, poor rep, smaller than 265-3, good shape, few tubers	✓	nice shape, 20%uknown	3.2, 3.5, 4, 3.5
AOTX95295-1Ru	pointed, curved, drop?, pointed, drop?, pointed to apical end, longer than nork, ok		20%uknown, 2Rhizoctonia,, 1Rhizoctonia,, pointed, drop?, 3Rhizoctonia,	3.2, 3.5, 3, 4
AOTX96216-1Ru	nice, keep, BOT-, curved, drop, so so, drop?	✓✓✓✓✓	4Rhizoctonia,, 20%uknown, ugly, rough, curved, poor shape, 4Rhizoctonia,, , 40%uknown, nice shape	4, 2.7, 3.7, 3.5

Addendum to Tables Springlake 3a, 3b, 3c, 3d, and 3e
Pre-Southwestern Regional Russet

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 31, 2005	160

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt,

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart Table 4a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 18 entries in the Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
TXA549-1Ru	820.4	471.9	71.1	153.9	246.8	311.5	19.6	17.4	3.9
AOTX98137-1Ru	810.6	512.2	108.9	191.3	212.0	197.5	51.2	49.7	3.9
MWTX2609-4Ru	809.5	458.5	62.8	169.2	226.5	217.1	17.4	116.5	3.4
ATX84706-2Ru	768.6	224.6	31.5	91.5	101.6	443.3	12.6	88.1	3.4
MWTX2609-2Ru	755.5	407.5	66.8	145.2	195.5	210.5	12.1	125.4	3.2
Russet Norkotah	739.1	494.2	78.9	137.5	277.8	215.4	17.4	12.1	4.1
TXDH-99-1Ru	734.7	484.0	57.1	149.1	277.8	155.4	6.3	89.1	2.9
AOTX95265-4Ru	707.1	434.1	77.9	135.5	220.7	221.7	20.8	30.5	4.0
Stampede Russet	689.0	485.7	104.5	215.6	165.5	73.3	84.2	45.7	3.6
ATX91137-1Ru	687.3	449.6	97.8	173.3	178.6	128.7	21.8	87.1	4.0
TXNS296	676.1	314.1	20.8	102.6	190.7	310.7	5.3	46.0	4.0
AOTX95265-2ARu	668.6	431.2	79.5	131.8	220.0	152.1	42.8	42.5	3.9
ATX9202-1Ru	638.9	462.5	69.7	110.4	282.4	66.8	24.0	85.7	2.9
ATX84378-1Ru	626.5	212.7	7.3	70.4	135.0	238.1	3.6	172.1	3.4
TXNS278	599.7	374.3	81.3	159.7	133.2	151.0	25.8	48.6	4.0
TXNS223	596.4	369.9	40.7	128.1	201.1	152.8	13.8	59.9	3.7
ATX9332-8Ru	580.3	332.0	21.8	164.6	145.7	196.0	12.6	39.7	4.0
ATX992230-1Ru	533.9	342.7	94.9	91.0	156.8	148.1	13.1	30.0	3.2
Average	691.2	403.4	65.2	140.0	198.2	199.4	22.5	65.9	3.6
L.S.D. (.05)	104.3	84.4	40.3	60.0	65.2	103.2	23.3	49.1	0.6

[1] 1=very poor to 5= excellent

Dalhart
Table 4b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 18 entries in the Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	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	57.7	8.7	18.8	30.2	37.8	2.4	2.1	1.058	Oblong	Russet
AOTX98137-1Ru	63.5	13.6	23.8	26.1	23.9	6.3	6.3	1.061	Long	Russet
MWTX2609-4Ru	56.5	7.9	20.7	27.9	26.7	2.2	14.6	1.061	Long	Russet
ATX84706-2Ru	29.2	4.1	11.8	13.2	57.8	1.6	11.4	1.060	Long	Russet
MWTX2609-2Ru	54.0	8.8	19.3	25.9	27.7	1.6	16.7	1.063	Long	Russet
Russet Norkotah	67.2	10.8	18.6	37.7	28.7	2.5	1.7	1.061	Long	Russet
TXDH-99-1Ru	65.9	7.7	20.4	37.8	21.0	0.8	12.2	1.064	Long	Russet
AOTX95265-4Ru	61.9	11.4	19.4	31.1	31.0	3.0	4.1	1.057	Long	Russet
Stampede Russet	70.7	15.4	31.3	24.1	10.3	12.6	6.4	1.059	Long	Russet
ATX91137-1Ru	64.9	14.3	25.2	25.4	19.4	3.1	12.6	1.062	Oblong	Russet
TXNS296	47.0	3.0	15.4	28.6	45.4	0.8	6.8	1.058	Long	Russet
AOTX95265-2ARu	65.5	13.4	21.2	30.9	21.5	8.1	4.8	1.061	Long	Russet
ATX9202-1Ru	72.5	10.9	17.4	44.3	10.4	3.7	13.4	1.059	Long	Russet
ATX84378-1Ru	34.1	1.2	11.4	21.6	38.0	0.6	27.3	1.060	Long	Russet
TXNS278	62.7	13.9	26.7	22.0	25.7	4.1	7.6	1.058	Long	Russet
TXNS223	61.9	6.8	21.5	33.6	25.4	2.3	10.4	1.054	Long	Russet
ATX9332-8Ru	57.1	3.8	28.2	25.1	33.8	2.3	6.8	1.077	Oblong	Russet
ATX992230-1Ru	65.0	18.3	17.6	29.1	27.1	2.5	5.4	1.059	Long	Russet
Average	58.7	9.7	20.5	28.6	28.4	3.4	9.5	1.061		
L.S.D. (.05)	11.6	7.0	9.1	7.4	12.8	3.9	6.8	0.005		

Dalhart
Table 4c. 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 18 entries in the Advanced Selection Russet Trial grown nea

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	6.7	11.3	96	100	1.5	4.5	4.5	4.5	3
AOTX98137-1Ru	8.0	9.4	96	100	1.6	4.3	3.9	4.1	19
MWTX2609-4Ru	6.4	11.7	96	100	1.5	4.7	4.7	4.7	0
ATX84706-2Ru	4.6	16.0	81	96	1.6	4.2	4.4	4.4	3
MWTX2609-2Ru	5.9	12.4	81	98	1.5	4.8	4.7	4.7	0
Russet Norkotah	6.2	11.2	83	98	1.8	3.9	3.2	3.6	59
TXDH-99-1Ru	6.2	11.7	58	96	1.5	4.7	4.7	4.7	0
AOTX95265-4Ru	6.0	11.1	88	100	1.5	4.7	4.7	4.7	0
Stampede Russet	8.4	7.8	83	98	1.6	4.2	4.1	4.2	14
ATX91137-1Ru	6.8	9.4	92	100	1.6	4.2	4.2	4.3	10
TXNS296	4.8	13.1	79	98	1.5	4.7	4.6	4.6	3
AOTX95265-2ARu	6.3	9.7	94	100	1.5	4.7	4.6	4.7	3
ATX9202-1Ru	5.7	10.8	71	96	1.5	4.7	4.3	4.4	3
ATX84378-1Ru	3.6	15.9	90	100	1.5	4.7	4.6	4.5	3
TXNS278	5.6	10.7	79	96	1.5	4.5	4.5	4.7	3
TXNS223	5.1	10.7	88	100	1.5	4.7	4.6	4.7	3
ATX9332-8Ru	3.8	14.5	79	100	1.5	4.5	4.7	4.7	0
ATX992230-1Ru	5.2	9.6	79	100	1.5	4.4	4.0	4.0	10
Average	5.8	11.5	84	99	1.5	4.5	4.4	4.4	7
L.S.D. (.05)	1.2	2.5	19	ns	ns	0.2	0.3	0.3	10

[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 4d. Flesh color, tuber shape, degree of Selection Russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 18 entries in the Advan

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
TXA549-1Ru	1.0	3.4	3.9	4.4	3.6	5.0	5.0	5.0	5.0	35	0	0	0
AOTX98137-1Ru	1.0	4.5	4.5	3.8	4.5	5.0	5.0	5.0	5.0	33	0	10	0
MWTX2609-4Ru	1.0	4.9	3.4	4.0	3.3	5.0	5.0	5.0	5.0	8	0	0	0
ATX84706-2Ru	1.0	3.5	3.6	4.2	3.6	5.0	5.0	5.0	5.0	63	0	0	0
MWTX2609-2Ru	1.0	4.7	3.5	4.3	3.5	5.0	5.0	5.0	5.0	3	0	5	0
Russet Norkotah	1.0	4.7	4.7	4.0	4.7	5.0	5.0	5.0	5.0	33	0	0	0
TXDH-99-1Ru	1.0	4.7	3.2	3.8	3.2	5.0	5.0	5.0	5.0	8	0	0	0
AOTX95265-4Ru	1.0	4.6	4.7	3.8	4.6	5.0	5.0	5.0	5.0	60	0	23	0
Stampede Russet	1.0	3.8	3.8	4.2	3.8	5.0	5.0	5.0	5.0	5	0	3	0
ATX91137-1Ru	1.0	4.1	4.3	4.4	4.4	5.0	5.0	5.0	5.0	0	0	0	0
TXNS296	1.0	4.7	4.5	3.9	4.6	5.0	5.0	5.0	5.0	43	0	5	0
AOTX95265-2ARu	1.0	4.7	4.6	3.9	4.6	5.0	5.0	5.0	5.0	15	0	3	0
ATX9202-1Ru	1.0	4.4	4.6	3.9	4.6	4.8	5.0	5.0	4.6	28	0	10	0
ATX84378-1Ru	1.0	3.7	4.2	4.7	3.9	3.8	5.0	5.0	4.5	28	0	3	5
TXNS278	1.0	4.7	4.7	4.2	4.6	5.0	5.0	5.0	5.0	33	0	23	0
TXNS223	1.0	4.8	4.7	4.0	4.7	5.0	5.0	5.0	5.0	35	0	8	0
ATX9332-8Ru	1.0	4.1	4.3	4.3	4.3	5.0	5.0	5.0	5.0	15	0	8	0
ATX992230-1Ru	1.0	4.5	4.7	4.4	4.6	5.0	5.0	5.0	5.0	53	0	8	3
Average	1.0	4.4	4.2	4.1	4.2	4.9	5.0	5.0	5.0	27	0	6	0

[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] Stem end vascular discoloration severely evaluated

Dalhart

Table 4e. Notes and general rating for all reps of 18 entries in the Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Field		Notes Grading	General Rating
TXA549-1Ru	blocky, drop, blocky, drop, blocky, blocky	✓✓✓✓	10%unknown, 20%unknown, 3Rhizoctonia, BOT for internal, 20%unknown, blocky, thick tubers	4, 3.5, 4, 4
AOTX98137-1Ru	small, BOT-, curved, different, drop?, nice, so so	✓	10%unknown, nice shape, very nice interior, 30%unknown, BOT for shape	3.5, 3.5, 4.5, 4
MWTX2609-4Ru	pointed, rough, high yield, long light net, poor shape, yield		pointed, 10%unknown, BOT- for interior, 10%unknown, nice interior	3, 3.5, 3.5, 3.5
ATX84706-2Ru	oversize, lunker, oversize, lunker, oversize, lunker, blocky, lunker		40%unknown, rough, 3Rhizoctonia	4, 3, 3.5, 3.2
MWTX2609-2Ru	not as long as -4, poor shape, drop, rough, better rep, drop		10%uknown, 10%unknown, rough, feathering, drop	3, 3, 4, 2.7
Russet Norkotah	Smaller, BOT-, BOT-, so so	✓✓	3Rhizoctonia, 10%unknown, BOT for interior, BOT, 3Rhizoctonia, 10%unknown, 4Rhizoctonia, heavy net, BOT	4, 4, 4.5, 4
TXDH-99-1Ru	rough, pointed, not bad, drop, pointed, drop		10%unknown, pointed, drop, 10%unknown, 2.5riz, 10%unknown, 3Rhizoctonia, rough, 30%unknown, drop	3, 3, 2.7, 3
AOTX95265-4Ru	pointed, curved, some curved, curved		BOT, nice, 10%uknown, , 4Rhizoctonia	4, 4, 4, 4
Stampede Russet	blocky, some curved, small, blocky, poor yield, blocky, smaller	✓✓✓✓✓ ✓✶	10%unknownBOT for internal, 2.5Rhizoctonia, BOT+, 2.5Rhizoctonia, nice shape and internal, small tubers	4, 3.5, 3.5, 3.5
ATX91137-1Ru	short, blocky, BOT-, blocky, blocky, nice, blocky	✓✓✓✓✶ ✶✶✶✶	4Riz, 10%unknown, BOT, 3.5Rhizoctonia, nice, 20%unknown, nice internal, 20%unknown, BOT	4.5, 4, 4, 3.5
TXNS296	some curved, pointed, OK, pointed to stem end		3.5rRhizoctonia, 40%unknown, 2.5Rhizoctonia, 3.5Rhizoctonia, 20%z, 20%z	4, 4, 4, 4
AOTX95265-2ARu	some curved, OK, curved, nice, so so		nice, 3Rhizoctonia, 50%unknown, 3Rhizoctonia, 40%unknown, 3rhizcoc, 10u,3Rhizoctonia, pointed, heavy net,	4.5, 3.5, 4.5, 3.2
ATX9202-1Ru	drop, knobs, knobs, drop, drop, so so, drop		10%unknown, 10%unknown, nice, 50%unknown	3, 3, 2.7, 3
ATX84378-1Ru	growth cracks, rough, drop, rough, growth cracks, knobs, rough, large fat tubers		BOT, BOT for flesh, , 2.5Rhizoctonia, 10U	3, 3.5, 3, 4
TXNS278	yield, nice, variable size	✓	10%unknown, 50%unknown, BOT for appearance, nice, some curved, nice shape	5, 4, 3.5, 3.5
TXNS223	BOT, curves, so so, nice, thin tubers, ok	✓✓	20%unknown, 2Rhizoctonia, 10%unknown, curved, 4Rhizoctonia, 20%unknown, 4Rhizoctonia, 30%unknown	5, 3, 3.5, 3.2
ATX9332-8Ru	nice, so so, OK, drop		20%unknown, rot, BOT, 3Rhizoctonia, alligator hide, 4Rhizoctonia, 30%unknown, 3Rhizoctonia, 20%unknown,	4.5, 4.5, 3.5, 3.5
ATX992230-1Ru	small, drop, poor shape, drop?, OK, poor shape, drop		poor net, , hollow heart on bud end, 10%unknown, nice shape, 20%unknown	3.5, 3, 3.5, 2.7

Addendum to Tables Springlake 4a, 4b, 4c, 4d, and 4e
Advanced Selection Russet Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Colorado and Texas

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 31, 2005	160

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt,

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart Table 5a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes of 28 entries in the Texas Advanced Chipping Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre						
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2
TX1673-2W	717.3	640.8	52.3	153.9	434.6	54.7	21.8	0.0
AOTX95309-3W	643.2	550.3	131.4	169.9	249.0	9.1	82.0	1.8
NDTX4930-5W	598.9	475.0	72.2	89.2	245.8	132.3	13.7	45.6
NDTX028594-1W	567.6	463.8	84.9	203.4	175.4	18.9	84.9	0.0
ATX85404-8W	542.6	497.3	60.4	227.1	138.8	24.9	85.9	5.6
NDTX028594-4W	528.0	451.8	99.5	171.8	180.5	0.0	76.2	0.0
PORTX03PG22-1R/PY	526.6	205.2	118.6	34.4	52.3	0.0	319.9	1.5
COTX01294-1W	519.8	300.6	74.1	151.0	75.5	17.4	139.4	62.4
AOTX96580-1W	499.9	401.5	143.7	143.0	114.7	0.0	95.8	2.5
ATTX98471-4R/Y-spec	490.8	385.9	134.3	186.2	65.3	0.0	104.9	0.0
PORTX03PG87-1R/YR	487.9	353.8	105.0	73.6	175.2	0.0	110.8	23.2
AOTX95309-1W	486.1	384.8	106.0	149.2	129.6	4.7	94.4	2.2
PATX99P10-1Pu/R	471.2	397.1	59.5	70.4	267.2	0.0	74.1	0.0
ATTX8823-2W	458.3	401.2	114.7	140.4	146.2	5.8	51.3	0.0
Atlantic	455.2	365.2	36.3	82.0	246.8	72.6	17.4	0.0
AOTX95309-2W	455.0	337.3	111.8	128.7	96.8	0.0	117.6	0.0
COTX00254-2W	397.8	269.3	63.2	64.6	141.6	82.8	34.8	10.9
NDTX6773-1W	388.5	315.4	108.4	73.4	133.6	0.0	73.1	0.0
ND8362C-2	387.0	271.5	87.8	145.2	38.5	0.0	115.4	0.0
NDTX7571-4AW	377.6	307.8	55.7	81.3	170.9	0.0	67.3	2.5
COTX99238-2W	370.6	247.9	96.9	106.4	44.6	0.0	107.8	14.9
ATTX99314-1W	358.6	252.6	77.0	95.8	79.9	0.0	106.0	0.0
NDTX6754C-1W	352.1	285.7	103.1	114.3	68.2	13.8	52.6	0.0
NDTX028728-3W	331.5	257.0	57.6	87.6	111.8	43.1	31.5	0.0
COTX00197-1W	300.6	212.0	65.3	146.7	0.0	0.0	88.6	0.0
ATTX98466-5 R/W-R	272.0	239.6	65.3	99.7	74.5	0.0	32.4	0.0
NDTX7571-3AW	267.5	219.6	66.8	90.0	62.8	0.0	47.9	0.0
NDTX7571-5AW	258.1	215.6	59.9	75.5	80.2	0.0	42.5	0.0
Average	468.5	374.9	88.8	123.6	143.3	19.2	86.7	6.9
L.S.D. (.05)	53.3	58.5	32.4	45.1	49.6	40.5	34.1	16.2

[1] 1=very poor to 5= excellent

Dalhart Table 5b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 28 entries in the Texas Advanced Chipping Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1					Percent By Weight		Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
TX1673-2W	89.1	7.4	21.0	60.7	8.0	2.9	0.0	1.063	Oblong	White
AOTX95309-3W	85.6	20.4	26.3	38.9	1.4	12.7	0.3	1.068	Round	White
NDTX4930-5W	79.4	12.1	14.9	41.0	22.0	2.3	7.7	1.061	Oblong	White
NDTX028594-1W	81.8	15.0	35.8	31.0	3.2	15.0	0.0	1.049	Round	White
ATX85404-8W	91.6	11.1	41.9	25.6	4.6	15.8	1.0	1.066	Oblong	White
NDTX028594-4W	85.5	18.8	32.5	34.1	0.0	14.5	0.0	1.058	Round	White
PORTX03PG22-1R/PY	39.2	22.2	6.7	10.2	0.0	60.6	0.3	1.056	Long	Red
COTX01294-1W	57.8	14.2	29.1	14.5	3.4	26.8	12.0	1.071	Round	White
AOTX96580-1W	80.0	28.7	29.2	22.1	0.0	19.5	0.5	1.067	Round	White
ATTX98471-4R/Y-spec	78.6	27.3	38.0	13.3	0.0	21.4	0.0	1.075	Round	Red
PORTX03PG87-1R/YR	72.4	21.6	15.0	35.8	0.0	23.2	4.5	1.062	Oblong	Red
AOTX95309-1W	79.0	21.8	30.0	27.1	1.1	19.5	0.5	1.059	Oblong	White
PATX99P10-1Pu/R	84.3	12.7	14.8	56.8	0.0	15.7	0.0	1.064	Long	Purple
ATTX8823-2W	87.6	25.0	30.7	31.9	1.2	11.2	0.0	1.070	Round	White
Atlantic	80.5	8.1	18.0	54.4	15.6	3.9	0.0	1.066	Round	White
AOTX95309-2W	74.2	24.4	28.9	20.8	0.0	25.8	0.0	1.063	Oblong	White
COTX00254-2W	69.5	16.9	18.0	34.5	17.6	9.0	3.9	1.061	Round	White
NDTX6773-1W	81.2	28.0	18.9	34.3	0.0	18.8	0.0	1.064	Round	White
ND8362C-2	70.2	22.9	37.4	9.9	0.0	29.8	0.0	1.068	Round	White
NDTX7571-4AW	81.2	14.9	21.6	44.7	0.0	18.1	0.7	1.072	Round	White
COTX99238-2W	66.8	26.4	28.7	11.7	0.0	29.2	4.1	1.059	Round	White
ATTX99314-1W	70.2	21.2	26.6	22.3	0.0	29.8	0.0	1.065	Round	White
NDTX6754C-1W	81.5	29.5	32.3	19.7	3.6	15.0	0.0	1.065	Round	White
NDTX028728-3W	77.6	17.4	26.6	33.5	13.0	9.4	0.0	1.056	Round	White
COTX00197-1W	70.5	21.7	48.8	0.0	0.0	29.5	0.0	1.066	Round	White
ATTX98466-5 R/W-R	88.2	23.8	36.5	27.9	0.0	11.8	0.0	1.073	Round	White
NDTX7571-3AW	82.4	24.3	32.9	25.1	0.0	17.6	0.0	1.069	Round	White
NDTX7571-5AW	83.823	23.3	29.3	31.2	0.0	16.2	0.0	1.067	Round	White
Average	79.4	19.6	26.9	29.2	3.8	19.2	1.4	1.064		
L.S.D. (.05)	7.3	7.9	10.5	12.2	7.1	8.0	3.6	0.005		

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 28 entries in the Texas Advanced Chipping Selection Trial grown near Dalhart, Texas-2005.

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]	
TX1673-2W	6.6	10.2	83	100	2.5	4.0	3.7	4.0	15
AOTX95309-3W	9.6	6.7	63	92	1.5	4.5	3.9	4.5	14
NDTX4930-5W	5.3	10.9	88	100	1.6	4.5	3.8	3.1	15
NDTX028594-1W	8.7	6.6	75	92	1.5	4.5	4.5	4.7	0
ATX85404-8W	8.5	6.6	55	91	1.5	4.7	4.1	4.3	11
NDTX028594-4W	7.9	6.2	54	100	2.0	4.2	4.7	4.7	0
PORTX03PG22-1R/PY	16.1	3.0	71	100	1.5	4.5	2.7	3.7	40
COTX01294-1W	10.0	5.2	92	92	1.5	4.2	4.2	4.0	10
AOTX96580-1W	11.8	5.3	38	75	2.0	4.0	4.0	4.2	15
ATTX98471-4R/Y-spec	9.2	5.2	75	96	2.5	3.5	2.5	3.5	75
PORTX03PG87-1R/YR	9.1	6.0	52	88	1.5	4.7	4.5	4.7	0
AOTX95309-1W	9.0	5.5	60	92	1.5	4.6	4.1	4.5	8
PATX99P10-1Pu/R	7.7	7.0	56	83	2.5	3.7	3.0	3.5	30
ATTX8823-2W	6.8	6.5	73	96	1.5	4.5	4.7	4.5	0
Atlantic	7.6	9.8	33	65	1.5	4.5	4.0	4.0	10
AOTX95309-2W	9.4	4.8	71	94	1.5	4.5	4.0	4.2	10
COTX00254-2W	4.8	7.5	88	100	1.5	4.7	4.0	3.7	10
NDTX6773-1W	6.4	5.8	81	98	1.5	4.2	4.0	4.2	10
ND8362C-2	7.8	4.6	98	100	1.5	4.7	5.0	5.0	0
NDTX7571-4AW	6.1	6.7	71	88	2.5	3.7	3.0	3.2	40
COTX99238-2W	7.6	4.9	77	94	2.5	3.7	3.2	3.3	38
ATTX99314-1W	7.6	5.0	46	88	1.5	4.2	4.7	4.7	0
NDTX6754C-1W	6.5	6.0	77	85	1.5	4.4	4.1	4.1	8
NDTX028728-3W	4.1	7.5	81	100	2.0	4.0	3.0	3.2	40
COTX00197-1W	9.1	4.5	50	67	1.5	3.7	4.7	4.2	0
ATTX98466-5 R/W-R	5.6	5.9	48	79	2.5	3.5	2.5	3.0	75
NDTX7571-3AW	6.2	6.1	58	75	1.8	4.0	3.6	4.0	10
NDTX7571-5AW	5.1	5.8	58	83	1.8	4.0	3.9	3.8	13
Average	7.9	6.3	67	90	1.8	4.2	3.9	4.0	18
L.S.D. (.05)	2.0	1.2	21	16	0.1	0.2	0.5	0.6	10

[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 5d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 28 entries in the Texas Advanced Chipping Selection Trial grown near Dalhart, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
TX1673-2W	1.0	3.7	1.0	4.5	1.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95309-3W	1.0	3.4	1.5	3.6	1.5	5.0	5.0	5.0	5.0	10	0	0	0
NDTX4930-5W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	10	0	0	0
NDTX028594-1W	1.0	1.5	1.5	4.2	1.5	5.0	5.0	5.0	5.0	20	0	0	0
ATX85404-8W	1.0	3.6	2.0	4.0	1.5	5.0	5.0	5.0	5.0	0	0	0	0
NDTX028594-4W	1.0	1.5	1.5	4.0	1.5	5.0	5.0	5.0	5.0	0	0	10	0
PORTX03PG22-1R/PY	2.9	4.0	1.0	4.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
COTX01294-1W	1.0	3.0	1.5	3.5	1.5	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96580-1W	1.0	2.9	1.5	3.0	1.5	5.0	5.0	5.0	5.0	10	0	0	0
ATTX98471-4R/Y-spec	3.3	1.5	1.0	2.8	4.5	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG87-1R/YR	2.1	3.5	1.0	3.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95309-1W	1.0	3.3	1.4	3.7	1.4	5.0	5.0	5.0	5.0	10	0	0	0
PATX99P10-1Pu/R	2.4	4.0	1.0	4.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
ATTX8823-2W	1.0	1.5	2.0	2.9	2.0	5.0	5.0	5.0	5.0	20	0	0	0
Atlantic	1.0	2.6	2.5	4.0	2.0	5.0	5.0	5.0	5.0	60	0	0	0
AOTX95309-2W	1.0	3.6	1.6	3.3	1.6	5.0	5.0	5.0	5.0	5	0	0	0
COTX00254-2W	1.0	3.5	1.1	3.7	1.1	5.0	5.0	5.0	5.0	10	0	0	0
NDTX6773-1W	1.0	1.5	1.5	4.0	1.5	5.0	5.0	5.0	5.0	10	0	0	0
ND8362C-2	1.0	1.5	2.0	4.5	1.8	5.0	5.0	5.0	5.0	30	0	0	0
NDTX7571-4AW	1.0	1.9	2.5	4.0	1.8	5.0	5.0	5.0	5.0	5	0	0	0
COTX99238-2W	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX99314-1W	1.0	1.5	2.7	2.0	3.0	5.0	5.0	5.0	5.0	40	0	0	0
NDTX6754C-1W	1.0	1.5	1.8	4.1	1.8	5.0	5.0	5.0	5.0	10	0	10	0
NDTX028728-3W	1.0	1.5	1.5	3.5	1.5	5.0	5.0	5.0	5.0	10	0	25	0
COTX00197-1W	1.0	3.0	1.5	3.5	1.5	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98466-5 R/W-R	1.8	2.9	1.3	3.4	3.4	5.0	5.0	5.0	5.0	0	0	0	0
NDTX7571-3AW	1.0	2.0	3.0	4.0	2.5	5.0	5.0	5.0	5.0	10	0	0	25
NDTX7571-5AW	1.0	1.5	2.3	4.0	1.8	5.0	5.0	5.0	5.0	10	0	5	5
Average	1.3	2.5	1.6	3.7	2.1	5.0	5.0	5.0	5.0	10	0	2	1

[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] Stem end vascular discoloration severely evaluated

Dalhart
Table 5e. Notes and general rating for all reps of 28 entries in the Texas Advanced Chipping Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Grading
TX1673-2W	nice interior, BOT, oustanding internal, pointed
AOTX95309-3W	
NDTX4930-5W	oversize+, nice internal, yield+
NDTX028594-1W	nice, 3Rhizoctonia, nice, 3Rhizoctonia
ATX85404-8W	3R, oversise, nice internal, 1Rhizoctonia
NDTX028594-4W	
PORTX03PG22-1R/PY	small tubers, buff skin, road map+
COTX01294-1W	drop, drop, drop, drop
AOTX96580-1W	hollow heart, 1R, 4R
ATTX98471-4R/Y-spec	move to spec?? Or stay in chips, heat sprouts, yellow flesh
PORTX03PG87-1R/YR	red yellow flesh, red 2.5, yellow 3, rough, heat sprouts, drop
AOTX95309-1W	
PATX99P10-1Pu/R	hollow heart, road map+
ATTX8823-2W	rough
Atlantic	hollow heart+, zebra+, 3Rhizoctonia, oversize
AOTX95309-2W	rough, 20% zebra
COTX00254-2W	
NDTX6773-1W	60% zebra
ND8362C-2	nice shape
NDTX7571-4AW	hollow heart, mix?
COTX99238-2W	, nice shape
ATTX99314-1W	scab, Rhizoctonia, , scab, Rhizoctonia
NDTX6754C-1W	hollow heart, deep nose, nice, nice
NDTX028728-3W	hollow heart, deep nose, nice, nice
COTX00197-1W	
ATTX98466-5 R/W-R	
NDTX7571-3AW	hollow heart
NDTX7571-5AW	4Rhizoctonia

Dalhart

Table 5F Chipping evluation for 13 Texas advanced chipping selection to be advanced in 2006

Variety or Selection	Grouping	Chip Color	Defects/Diseases	Notes	Specific Gravity
AOTX95309-1W	1	1	1 HH	BOT +	1.061
AOTX95309-2W	3	1	4 Z; 1 F	BOT	1.071
AOTX95309-3W	2	2	2 VB; 5 BSB	none	1.047
Atlantic	5	1	13 Z; 11 HH; 1 F		1.063
ATTX8823-2W	2	1+	3 GH; 1 HH; 6 Vas; 7 F	none	1.061
ATTX98466-5 R/W-R	1	2	1 BC	BOT; very nice red	1.050
COTX00197-1W	1	1 +	8 BSB; 5 Vas	BOT	1.070
COTX99238-2W	2	2	4 F; 1 M; 3 Z; 5 Vas	BOT	
NDTX028712-1W	2	1+	1 HH; 3 Z; 1 F	BOT	1.065
NDTX6773-1W	2	2	1 Z; 1 HH; 8 Vas; 2 BSB	none	1.064
NDTX7571-3AW	2	1	2 HH; 4 F	none	1.058
NDTX7571-4AW	2	2	2 BSB; 3 HH; 3 Vas; 5 F	none	1.057
NDTX7571-5AW	2	2	1 HH; 17 F	none	1.056
PATX99P10-1Pu/R	2			red flesh	1.059

Addendum to Tables Springlake 5a, 5b, 5c, 5d, 5e, and 5f
Texas Advanced Chipping Selection Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 24, 2005	153

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt,

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart
Table 6

Chip Color, Defects, Notes, Remnant Weight, and Specific Gravity of 9 Entries to be Advanced from the 2004 Chip Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	# of Seed Pieces	Grouping	Defects/Diseases	Notes	Total Wt
COTX01339-4W	4	3	6 Z	BOT	24.4
COTX01339-5W	4	2	4 F	BOT	6.9
COTX02332-1W	4	3	4 Z; 2 GH	none	26.9
COTX02377-1W	4	2	2 Mech	BOT	23.7
COTX02377-2W	4	1	none	BOT	22.2
TX02080-1P	4	3	2 F	nice; purple inside	21.2
TX02080-2P	6	2	none	purple chip	14.1
TX02098-2W	6	2	2 GH; 6 Vas	none	16.3
COTX02203-5RU		3	3 HH	nice	0.0

Dalhart Table 7a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 9 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
TXNS410	809.5	253.4	11.6	106.0	135.8	553.2	2.9	0.0	4.0
Russet Norkotah	711.5	499.5	71.9	151.0	276.6	163.4	41.4	7.3	4.0
AOTX96075-1Ru	697.7	449.0	31.9	111.8	305.3	226.1	12.3	10.2	4.3
AOTX96084-1Ru	635.3	341.2	29.8	66.8	244.7	257.7	2.9	33.4	3.5
TXNS551	616.4	294.8	40.7	94.4	159.7	291.9	8.7	21.1	3.2
AOTX96216-2Ru	595.8	323.8	26.1	94.4	203.3	255.1	4.8	12.1	3.2
ATX97195-1Ru	594.6	264.3	10.9	39.9	213.4	315.1	5.1	10.2	3.2
AOTX98096-1Ru	582.3	224.3	6.5	10.2	207.6	310.0	7.3	40.7	3.0
AOTX96216-3Ru	462.7	230.4	11.1	35.3	183.9	213.9	6.3	12.1	4.0
Average	634.0	320.1	26.7	78.9	214.5	287.4	10.2	16.3	3.6
L.S.D. (.05)	67.7	74.0	11.3	30.7	38.7	82.9	9.4	15.4	0.3

[1] 1=very poor to 5= excellent

Dalhart
Table 7b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 9 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
TXNS410	31.0	1.4	13.1	16.5	68.6	0.4	0.0	1.067	Long	Russet
Russet Norkotah	70.2	10.1	21.2	38.9	23.0	5.8	1.0	1.062	Long	Russet
AOTX96075-1Ru	65.0	4.8	16.0	44.3	31.7	1.9	1.4	1.059	Long	Russet
AOTX96084-1Ru	53.9	4.7	10.6	38.6	40.4	0.5	5.2	1.056	Long	Russet
TXNS551	48.4	6.6	15.5	26.3	46.4	1.4	3.8	1.065	Long	Russet
AOTX96216-2Ru	54.4	4.4	15.7	34.3	42.7	0.8	2.0	1.057	Long	Russet
ATX97195-1Ru	44.6	1.8	6.7	36.1	53.0	0.8	1.6	1.067	Oblong	Russet
AOTX98096-1Ru	38.5	1.1	1.7	35.7	53.2	1.2	7.0	1.067	Long	Russet
AOTX96216-3Ru	49.7	2.4	7.5	39.8	46.2	1.4	2.6	1.065	Long	Russet
Average	50.6	4.1	12.0	34.5	45.0	1.6	2.8	1.063		
L.S.D. (.05)	3.1	1.9	5.1	7.0	10.2	1.6	2.7	0.003		

Dalhart
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 9 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

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]	
TXNS410	5.8	17.6	48	79	1.5	4.2	4.2	4.5	10
Russet Norkotah	7.1	10.1	71	92	1.5	4.0	3.5	3.7	25
AOTX96075-1Ru	4.9	13.2	88	100	1.5	4.2	3.7	4.0	35
AOTX96084-1Ru	5.6	15.8	50	71	1.5	3.7	3.7	4.0	20
TXNS551	5.1	14.0	63	83	1.5	4.5	3.7	3.5	20
AOTX96216-2Ru	5.0	13.6	54	83	1.5	4.2	4.5	4.5	0
ATX97195-1Ru	3.6	16.7	65	92	1.5	4.7	3.7	4.5	15
AOTX98096-1Ru	5.4	16.7	38	63	1.5	4.0	4.0	4.0	15
AOTX96216-3Ru	7.1	15.3	42	56	1.5	3.7	4.2	4.0	0
Average	5.5	14.8	57	80	1.5	4.1	3.9	4.1	16
L.S.D. (.05)	3.1	1.5	29	22	0.4	0.2	0.3	0.3	3

[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 7d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
TXNS410	1.0	4.7	4.7	3.7	4.5	5.0	5.0	5.0	5.0	60	0	0	0
Russet Norkotah	1.0	4.6	4.7	3.6	4.7	5.0	5.0	5.0	5.0	30	0	5	0
AOTX96075-1Ru	1.0	4.7	4.7	3.9	4.7	5.0	5.0	5.0	5.0	30	0	0	0
AOTX96084-1Ru	1.0	4.7	4.7	3.9	4.7	5.0	5.0	5.0	5.0	45	0	0	0
TXNS551	1.0	4.7	4.7	3.5	4.7	5.0	5.0	5.0	5.0	40	0	0	0
AOTX96216-2Ru	1.0	4.7	4.7	3.6	4.7	5.0	5.0	5.0	5.0	45	0	0	0
ATX97195-1Ru	1.0	4.6	4.7	3.8	4.7	5.0	5.0	5.0	5.0	40	0	0	0
AOTX98096-1Ru	1.0	4.5	4.7	3.5	4.7	5.0	5.0	5.0	5.0	35	0	0	0
AOTX96216-3Ru	1.0	4.7	4.7	3.7	4.7	5.0	5.0	5.0	5.0	30	0	0	0
Average	1.0	4.7	4.7	3.7	4.7	5.0	5.0	5.0	5.0	39	0	1	0

[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] Stem end vascular discoloration severely evaluated

Dalhart

Table 7e. Notes and general rating for all reps of 9 entries in the Texas Advanced Selection Russet Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
TXNS410	nice, keep	nice	4, 4, 4, 4
Russet Norkotah	nice	nice, 20%unknown	4, 3.5, 4, 4.5
AOTX96075-1Ru	nice, longer than Norkoah, BOT*	rough, 20%unknown, nice, curved, 20%unknown, very large tubers, yield+, 20%unknown, BOT	4.5, 4, 4.5, 4
AOTX96084-1Ru	keep	20%unknown, 60%unknown, nice shape, nice	3.5, 3, 3.5, 4
TXNS551	keep	nice	3.2, 3.2, 3.2, 3.2
AOTX96216-2Ru	keep	3Rhizoctonia, rough, 3Rhizoctonia, 20%unknown, 1Rhizoctonia, 40%unknown, poor shape, 2Rhizoctonia,	3.2, 2.7, 3.2, 3.7
ATX97195-1Ru	keep	20%unknown, yield+, curved, 20%unknown, 20%unknown	3.2, 2.7, 3.2, 3.7
AOTX98096-1Ru	drop, keep	nice, 20%unknown	3, 2.5, 3, 3.5
AOTX96216-3Ru	keep, one good rep	20%unknowni, BOT, nice shape	4, 3.5, 4, 4.5

Addendum to Tables Dalhart 7a, 7b, 7c, 7d, and 7e
Texas Advanced Selection Russet Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 31, 2005	160

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt,

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart
Table 8

General Rating, Tuber Type, Skin Color, Notes, Remnant Weight, and Specific Gravity of 9 Entries to be Advanced from the 2004 Russet Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Source	# of Seed Pieces	Gen Rating	Tuber Type	Skin Color	Notes Field	Rem Wt.	Spec Gravity
AOTX02019-1Ru	144	4	3.2	Oblong	Russet	Keep	10.5	1.073
AOTX02064-2Ru	118	4	3.7	Oblong	Russet	Keep, hollow heart	20.2	1.071
AOTX02136-1Ru	119	6	3	Oblong	Russet	Keep	18.7	1.058
AOTX02167-1Ru	10	4	3	Long	White	Keep, fingerling	8.4	1.049
AOTX02197-1Ru	28	4	3.2	Oblong	Russet	Keep	8.4	1.059
AOTX02206-5Ru	142	5	3.7	Long	Russet	Keep, hollow heart	13.4	1.064
COTX02056-1Ru	311	5	3	Long	Russet	Keep, internal brownspot	16.8	1.049
COTX02203-3Ru	198	5	3	Oblong	Russet	Keep, hollow heart	18.2	1.054
COTX02203-5Ru	208	2	3	Oblong	White	Keep, Chip		

Dalhart Table 9a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 17 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
NDTX4828-2R	749.6	506.3	30.0	167.5	308.8	163.6	66.3	13.4	3.0
NDTX731-1R	707.9	616.4	82.0	351.4	183.0	0.0	76.2	15.2	3.2
ATX01188-1R	636.5	479.2	62.0	174.2	243.0	104.1	28.6	24.7	3.0
BTX2332-1R	585.6	532.9	82.8	200.9	249.3	0.0	52.8	0.0	3.7
ND4756-1R	570.8	488.8	91.0	229.1	168.8	0.0	56.1	25.8	3.2
NDTX4847-7R	537.6	480.1	87.1	175.7	217.3	0.0	55.7	1.8	3.2
ATTX98453-6R	528.5	469.0	69.7	141.6	257.7	37.8	21.8	0.0	3.2
ATTX01180-1R	500.9	452.7	53.7	200.4	198.6	21.1	27.2	0.0	3.7
ATTX01180-4R	486.8	443.2	119.1	184.4	139.8	0.0	43.6	0.0	3.7
ATX00144-2R	471.9	405.1	143.7	186.3	75.0	0.0	66.8	0.0	3.7
COTX00411-4R	437.1	317.3	118.3	185.1	13.8	0.0	119.8	0.0	3.0
COTX94218-1R	427.4	283.1	117.1	144.2	21.8	0.0	144.2	0.0	3.0
COTX00290-3R	392.0	284.6	90.8	167.0	26.9	0.0	105.3	2.2	3.2
NDTX4304-1R	365.5	312.2	44.3	161.9	106.0	37.8	11.6	4.0	4.0
Red LaSoda	286.5	240.5	60.5	77.4	102.6	8.7	37.3	0.0	3.2
ATTX01175-1R	240.3	205.5	30.5	32.7	142.3	0.0	34.8	0.0	3.0
Average	495.3	407.3	80.2	173.7	153.4	23.3	59.3	5.4	3.3
L.S.D. (.05)	67.2	72.1	34.2	68.4	70.7	28.3	33.7	17.3	1.1

[1] 1=very poor to 5= excellent

Dalhart
Table 9b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of17 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
NDTX4828-2R	67.7	4.0	22.4	41.3	21.8	8.8	1.8	1.058	Oblong	Red
NDTX731-1R	86.8	11.9	49.5	25.4	0.0	11.0	2.1	1.052	Round	Red
ATX01188-1R	75.1	9.8	27.2	38.2	16.4	4.5	4.0	1.051	Oblong	Red
BTX2332-1R	90.9	14.3	34.5	42.1	0.0	9.1	0.0	1.052	Round	Red
ND4756-1R	85.7	15.9	40.0	29.9	0.0	9.7	4.6	1.062	Oblong	Red
NDTX4847-7R	89.4	16.1	32.9	40.3	0.0	10.3	0.3	1.046	Round	Red
ATTX98453-6R	88.5	13.0	26.5	49.0	7.5	4.0	0.0	1.063	Oblong	Red
ATTX01180-1R	90.4	11.1	40.5	38.8	3.6	6.0	0.0	1.058	Round	Red
ATTX01180-4R	90.3	24.7	37.8	27.8	0.0	9.7	0.0	1.052	Round	Red
ATX00144-2R	85.9	30.4	39.7	15.8	0.0	14.1	0.0	1.068	Round	Red
COTX00411-4R	72.7	27.1	42.4	3.2	0.0	27.3	0.0	1.068	Oblong	Red
COTX94218-1R	66.3	27.7	33.8	4.8	0.0	33.7	0.0	1.061	Round	Red
COTX00290-3R	73.1	24.5	42.5	6.0	0.0	26.5	0.5	1.065	Round	Red
NDTX4304-1R	84.6	12.2	42.9	29.5	11.4	3.0	1.0	1.054	Oblong	Red
Red LaSoda	83.7	22.0	26.0	35.7	3.0	13.2	0.0	1.057	Oblong	Red
ATTX01175-1R	85.5	12.7	13.5	59.3	0.0	14.5	0.0	1.059	Oblong	Red
Average	82.3	17.3	34.5	30.4	4.0	12.8	0.9	1.058		
L.S.D. (.05)	7.0	8.2	13.0	12.6	6.1	6.7	2.3	0.004		

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 17 entries in the Texas Advanced Red Selection Trial grown

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]	
NDTX4828-2R	7.6	9.3	77	98	1.5	4.0	4.0	4.0	15
NDTX731-1R	10.8	6.7	83	92	2.0	4.5	3.2	4.0	65
ATX01188-1R	7.1	9.3	58	92	2.0	4.5	4.5	4.7	0
BTX2332-1R	7.4	8.2	75	92	2.0	4.7	3.5	4.0	20
ND4756-1R	8.5	6.2	100	100	2.5	4.2	3.2	4.2	50
NDTX4847-7R	7.5	7.0	73	96	1.5	4.5	3.2	4.0	50
ATTX98453-6R	7.7	8.8	50	77	2.0	3.7	3.5	3.7	30
ATTX01180-1R	7.9	9.0	44	69	2.0	4.0	2.7	3.7	40
ATTX01180-4R	8.8	6.1	58	85	1.5	4.0	4.0	4.5	10
ATX00144-2R	7.7	5.8	81	98	2.5	4.2	2.7	4.0	50
COTX00411-4R	9.8	4.4	79	96	2.0	4.2	3.2	4.0	50
COTX94218-1R	10.1	4.2	96	100	1.5	4.5	4.0	3.7	0
COTX00290-3R	7.1	5.3	75	96	1.5	4.0	4.2	4.0	10
NDTX4304-1R	10.2	8.3	29	46	1.5	4.2	3.7	4.0	25
Red LaSoda	4.3	6.5	75	94	1.5	4.7	4.0	4.0	10
ATTX01175-1R	4.1	6.5	58	83	2.0	3.0	3.7	3.0	0
Average	7.9	7.0	70	88	1.8	4.2	3.6	4.0	27
L.S.D. (.05)	2.8	1.4	14	15	0.5	0.8	0.2	0.8	2

[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 9d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of17 entries in the Texas Advanced R

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
NDTX4828-2R	1.0	3.5	1.0	2.0	3.0	5.0	5.0	5.0	5.0	15	0	10	0
NDTX731-1R	1.0	1.5	1.0	2.0	3.5	5.0	5.0	5.0	5.0	0	0	10	0
ATX01188-1R	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	15	0	5	0
BTX2332-1R	1.0	3.0	1.0	4.0	3.4	5.0	5.0	5.0	5.0	0	0	0	0
ND4756-1R	1.0	2.5	1.0	4.4	4.0	5.0	5.0	5.0	5.0	5	0	0	0
NDTX4847-7R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	0	0	5	0
ATTX98453-6R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	10	0	0	0
ATTX01180-1R	1.0	1.6	1.0	4.0	3.2	5.0	5.0	5.0	5.0	5	0	5	0
ATTX01180-4R	1.0	1.6	1.0	4.0	3.3	5.0	5.0	5.0	5.0	10	0	10	0
ATX00144-2R	1.0	1.6	1.0	3.9	3.4	5.0	5.0	5.0	5.0	10	0	0	0
COTX00411-4R	1.0	2.0	1.0	4.0	3.5	5.0	5.0	5.0	5.0	0	0	0	0
COTX94218-1R	1.0	1.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	0	0	0	0
COTX00290-3R	1.0	2.0	1.0	3.5	4.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4304-1R	1.0	2.4	1.0	4.0	4.0	4.9	5.0	5.0	5.0	0	0	0	0
Red LaSoda	1.0	3.5	1.0	2.0	3.0	5.0	5.0	5.0	5.0	10	0	10	0
ATTX01175-1R	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	0	0	5	0
Average	1.0	2.3	1.0	3.6	3.6	5.0	5.0	5.0	5.0	5	0	4	0

[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] Stem end vascular discoloration severely evaluated

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Table 9e. Notes and general rating for all reps of 17 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
NDTX4828-2R	Red 3, deep eyes, rough	deep eyes, lenticels, silver scurf, Red 3.2, drop, early, rough, 20%unknown, silver scurf, 3R, nice interior	3, 3, 3, 3
NDTX731-1R	Red 3.5, early, eyes somewhat deep, does not oversize	20% unknown, deep eyes, good skin set, 3.5 Rhizoctonia, 2R, ugly nose, 1R, drop, 20% unknown	3.2, 3.2, 3.2, 3.2
ATX01188-1R	Red 4, keep	40% unknown, mix nice color, nice shape, good skin set, Red 4.5, BOT	3, 3, 3, 3
BTX2332-1R	Red 3, early, smooth, keep, BOT-	road map, BOT-nice shape, road map, Red 3.5, feathering, 20% unknown	3.7, 3.7, 3.7, 3.7
ND4756-1R	Red 4, nice flesh	nice color variable from 3.5-4.5, silver scurf, good skin set, silver scurf++, 3Rhizoctonia, 20% unknown	3.2, 3.2, 3.2, 3.2
NDTX4847-7R	Red 4, smooth, green sprouts	20% unknown, nice shape, some feathering, Red 4, BOT-, silver scurf+, nice, 40% unknown	3.2, 3.2, 3.2, 3.2
ATTX98453-6R	Red 3.2, keep	60% unknown, nice, nice shape, Red 3.5, heat sprouts, nice, 20% unknown, , 60% unknown	3.2, 3.2, 3.2, 3.2
ATTX01180-1R	Red 3.5, nice flesh, nice shape	60% unknown, feathering, nice shape, Red 3.5, large tubers are rough, 40% unknown, nice shape, feathering ++	3.7, 3.7, 3.7, 3.7
ATTX01180-4R	Red 3.5, vascular discoloration	feathering, nice shape, Red 3.5, silver scurf, 20% unknown, 40% unknown	3.7, 3.7, 3.7, 3.7
ATX00144-2R	Red 3.5, keep	buff skin nice shape, small tubers, Red 3.7, road map ++, 20% unknown, drop?, 3Rhizoctonia,	3.7, 3.7, 3.7, 3.7
COTX00411-4R	Red 4.5, keep, Red 4.5, keep	silver scurf+, deep nose+, drop?, drop?, silver scurf+, deep nose+, drop?, drop?	3, 3, 3, 3
COTX94218-1R	Red 3.2, smooth, keep	20% unknown, nice shape, small tubers, skin color faded, Red 3.0, 20% unknown, 40% unknown, nice	3, 3, 3, 3
COTX00290-3R	Red 3.2, keep, Red 3.2, keep,	poor shape, good skin set, Red 3.7	3.2, 3.2, 3.2, 3.2
NDTX4304-1R	Red 4, BOT	feathering, 20% unknown, nice shape, some feathering, Red 4, BOT-, deep nose, nice interior	4, 4, 4, 4
Red LaSoda	Red 3.5	20% unknown Red 3.2, 4Rhizoctonia, silver scurf, rough, 20% unknown,	3.2, 3.2, 3.2, 3.2
ATTX01175-1R	Red 4.5, vascular discoloration	feathering, nice color, good shape, Red 4.2, BOT-, 40 %unknown,	3, 3, 3, 3

Addendum to Tables Dalhart 9a, 9b, 9c, 9d, and 9e
Texas Advanced Red Selection Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 31, 2005	160

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt,

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart
Table 10

General Rating, Tuber Type, Skin Color, Notes, Remnant Weight, and Specific Gravity of Entries to be Advanced from the 2004 Red Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Source	Pieces	Gen Rating	Type	ColoRed	Notes Field	Rem. Wt.	Specific Gravity
ATX01180-1R	46	4	4	Oblong	Red 3.2	keep	18	1.051
ATX01180-1R	46	4	3	Oblong	Red 4.0	keep	15.8	1.045
COTX02038-1R	291	4	3	Oblong	Red 3.2	keep	7.5	1.046
COTX02041-1R	312	4	3	Oblong	Red 3.2	feathering, keep	26.9	1.063
COTX02172-1R	215	4	3.2	Oblong	Red 3.2	feathering, keep, BOT	33.5	1.055
COTX02175-6RA	253	4	3	Oblong	Red 3.5	keep	8.2	1.064
COTX02175-6RB	253	4	3	Oblong	Red 3.5	keep	3	1.069
COTX02266-1R	237	4	3	Oblong	Red 3.0	keep	22.1	1.053
COTX02266-2R	249	4	4	Oblong	Red 4.0	BOT, keep	23.7	1.046
COTX02293-4R	385	4	3.2	Oblong	Red 3.5	keep, nice	22.9	1.056
COTX02294-4R	382	6	3.2	Oblong	Red 4.0	feathering, keep	16.8	1.056
COTX02380-3RA	326	4	3.2	Oblong	Red 3.2	keep	16.2	1.057
COTX02380-3RB	326	4	3	Oblong	Red 5.0	keep	5.9	1.057

Dalhart Table 11a. Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
RZD95-6643	826.2	668.6	168.4	324.5	175.7	28.3	107.4	21.8	2.7
RZD94-2262	670.3	529.5	147.0	316.4	66.1	0.0	94.4	46.5	2.7
ATTX98510-1R/Y	617.3	496.6	201.0	148.6	147.0	7.7	112.9	0.0	3.2
ND8083b-1pY	603.3	346.3	168.4	119.1	58.8	0.0	246.1	10.9	3.2
ATTX98500-3Wpuspl	593.6	515.9	151.0	273.9	91.0	0.0	59.5	18.2	3.0
TX1674-1W/Y	590.0	540.1	79.4	160.7	300.1	18.9	31.0	0.0	4.0
ATTX98514-1R/Y	565.6	383.8	262.8	76.5	44.5	0.0	176.7	5.1	3.0
Courage	541.6	235.2	134.3	77.0	24.0	0.0	99.5	206.9	3.0
BTX1544-2W/Y	539.8	479.9	95.8	202.6	181.5	5.4	50.8	3.6	3.2
TX1523-1Ru/Y	532.2	479.2	114.7	127.3	237.2	18.4	31.0	3.6	4.5
NDTX4756-1R/Y	489.8	402.7	119.1	140.4	143.3	7.7	79.4	0.0	3.2
ATTX98493-2P/P	465.1	368.3	170.9	116.6	80.8	0.0	81.8	15.0	3.2
ATTX88654-3W/RE/Y	451.3	394.5	130.2	188.3	76.0	0.0	54.7	2.2	3.2
COTX01403-4R/Y	450.8	425.4	85.7	133.6	206.2	0.0	25.4	0.0	3.2
ATX99331-1Pu/Y	442.9	377.5	156.1	138.7	82.8	4.7	53.7	6.9	3.2
ND7834-2P	440.0	390.2	47.9	152.5	189.8	14.5	29.0	6.2	3.0
PORTX03PG19-1Pu/YR	438.8	337.7	215.7	88.4	33.6	0.0	101.2	0.0	4.0
COTX00328-1Pu/Ypu	434.5	384.8	94.4	148.1	142.3	5.1	27.6	17.1	3.0
BTX1749-1W/Y	417.5	352.8	102.4	124.9	125.6	0.0	47.2	17.4	3.2
ATTX99325-1P	408.0	349.9	49.4	176.4	124.1	0.0	37.8	20.3	3.7
ATTX98468-3R/Y	396.4	151.5	75.0	28.1	48.4	0.0	223.1	21.8	3.2
Golden Sunburst	390.9	248.9	83.9	60.5	104.5	12.3	82.0	47.8	3.0
UNTX383-3WRE/Y	384.0	326.4	95.3	142.3	88.7	0.0	55.7	1.9	3.0
PORTX03PG25-2R/P	383.8	348.5	72.6	157.3	118.6	0.0	35.3	0.0	4.0
NDTX8555-2R/P	354.3	323.3	100.2	138.4	84.7	0.0	31.0	0.0	3.2
Average	378.0	296.3	95.5	107.1	93.7	4.5	62.0	15.3	3.2
L.S.D. (.05)	54.6	48.7	22.7	30.6	28.8	10.5	27.8	16.6	0.2

[1] 1=very poor to 5= excellent

Dalhart Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 41 entries in the Texas Advanced Specialty
Table 11a. Cont. Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre							
		Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating[1]
ATTX98462-3R/Y	283.9	223.6	51.5	67.5	104.5	19.6	37.8	2.9	3.2
ATTX98468-5R/Y	283.3	219.3	53.2	63.9	102.1	6.8	46.0	11.3	3.0
Yukon Gold	282.4	243.2	59.5	84.9	98.7	19.2	16.3	3.6	3.2
ATTX961014-1R/Y	250.2	224.6	55.7	76.5	92.4	0.0	25.7	0.0	3.0
ATTX98491-4YRsplash/	236.7	189.5	76.2	60.3	53.0	0.0	33.4	13.8	3.0
NDTX7571-1WRE/Y	225.1	210.5	63.9	81.3	65.3	0.0	14.5	0.0	4.0
NDTX028742-1P/P	223.1	183.9	77.9	30.5	75.5	0.0	17.4	21.8	3.0
ATTX961014-1AR/Y	222.6	164.1	32.4	40.2	91.5	0.0	39.7	18.9	3.2
PATX99P10-1R/R	197.5	172.8	55.2	29.0	88.6	0.0	24.7	0.0	3.0
PORTX03PG59-1PINTC	183.0	122.0	37.8	31.9	52.3	0.0	61.0	0.0	3.0
KLONDYKE ROSE	146.7	69.7	62.4	7.3	0.0	0.0	23.2	53.7	2.7
PORTX03PG34-4R/P	145.2	42.8	42.8	0.0	0.0	0.0	102.4	0.0	3.0
ATTX98444-16R/Y	125.7	59.3	31.0	13.1	15.2	0.0	59.5	6.9	2.7
ATTX98462-9R/Y	109.6	50.8	31.2	19.6	0.0	0.0	51.5	7.3	3.2
COTX01397-7R/Y	69.7	69.7	47.9	8.7	13.1	0.0	0.0	0.0	3.2
NDTX028742-4P/P	87.1	43.6	14.5	14.5	14.5	14.5	14.5	14.5	3.2
Average	378.0	300.7	95.5	107.1	93.7	4.5	62.0	15.3	3.2
L.S.D. (.05)	54.6	48.7	22.7	30.6	28.8	10.5	27.8	16.6	0.2

[1] 1=very poor to 5= excellent

Dalhart
Table 11b. Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
RZD95-6643	80.8	20.3	39.4	21.1	3.3	13.2	2.7	1.053	Oblong	White
RZD94-2262	79.0	22.1	47.0	9.9	0.0	14.1	7.0	1.053	Oblong	White
ATTX98510-1R/Y	80.5	32.5	24.0	23.9	1.2	18.3	0.0	1.057	Oblong	Red
ND8083b-1pY	58.0	28.3	19.7	10.0	0.0	40.1	1.9	1.077	Round-Oblong	Red
ATTX98500-3Wpuspl	87.2	25.2	46.4	15.6	0.0	9.9	2.9	1.057	Oblong	Purple/splash
TX1674-1W/Y	91.8	13.6	27.4	50.7	3.0	5.2	0.0	1.069	Oblong	White
ATTX98514-1R/Y	67.9	46.6	13.5	7.7	0.0	31.3	0.9	1.063	Round	Red
Courage	43.5	24.6	14.3	4.6	0.0	18.2	38.3	1.060	Oblong	Red
BTX1544-2W/Y	89.0	17.8	37.5	33.7	1.0	9.4	0.7	1.060	Oblong	White
TX1523-1Ru/Y	90.0	21.7	23.9	44.4	3.5	5.8	0.7	1.067	Oblong	Ru
NDTX4756-1R/Y	82.3	24.2	28.7	29.5	1.6	16.0	0.0	1.050	Oblong	Red
ATTX98493-2P/P	79.3	36.8	25.1	17.4	0.0	17.5	3.3	1.056	Oblong-Long	Purple
ATTX88654-3W/RE/Y	87.3	29.2	41.5	16.6	0.0	12.2	0.5	1.063	Oblong	Red/eye
COTX01403-4R/Y	94.4	19.0	29.6	45.7	0.0	5.6	0.0	1.049	Oblong	Red
ATX99331-1Pu/Y	85.4	35.3	31.2	18.9	1.0	12.1	1.5	1.061	Round-Oblong	Purple
ND7834-2P	88.3	11.0	34.2	43.1	3.5	6.8	1.4	1.064	Oblong-Long	Purple
PORTX03PG19-1Pu/YR	77.0	49.1	20.4	7.6	0.0	23.0	0.0	1.076	Oblong	Red
COTX00328-1Pu/Ypu	88.6	21.8	34.0	32.8	1.2	6.3	3.9	1.052	Oblong	Purple
BTX1749-1W/Y	84.1	25.1	28.8	30.3	0.0	11.7	4.2	1.068	Oblong	White
ATTX99325-1P	85.7	12.0	42.7	30.9	0.0	9.1	5.2	1.055	Oblong	Purple
ATTX98468-3R/Y	37.9	19.0	7.0	12.0	0.0	56.5	5.6	1.057	Round	Red
Golden Sunburst	63.7	21.4	15.5	26.8	3.1	20.9	12.3	1.062	Round	Red
UNTX383-3WRE/Y	85.4	24.9	37.1	23.3	0.0	14.1	0.5	1.069	Round	Red
PORTX03PG25-2R/P	90.9	18.8	41.1	30.9	0.0	9.1	0.0	1.052	Long	Red
NDTX8555-2R/P	91.3	28.3	38.9	24.1	0.0	8.7	0.0	1.055	Oblong	White
Average	76.3	26.3	25.5	24.5	1.3	17.8	4.6	1.059		
L.S.D. (.05)	5.9	6.7	6.8	5.9	2.5	4.8	4.0	0.005		

Dalhart Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 41 entries in the Texas Advanced Specialty Selection
Table 11b. Cont. Trial grown near Dalhart, Texas-2005.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2			
ATTX98462-3R/Y	78.7	18.2	23.9	36.6	6.7	13.6	1.1	1.055	Oblong	Red
ATTX98468-5R/Y	77.2	18.8	22.4	36.0	2.7	15.9	4.1	1.053	Oblong	Red
Yukon Gold	86.6	22.5	29.6	34.5	6.0	6.1	1.3	1.069	Oblong	White
ATTX961014-1R/Y	89.8	22.5	30.7	36.6	0.0	10.2	0.0	1.059	Oblong	Red
ATTX98491-4YRsplash/Y	80.3	32.1	25.6	22.6	0.0	14.0	5.6	1.062	Oblong	Red/Splash
NDTX7571-1WRE/Y	93.5	28.4	36.1	29.0	0.0	6.5	0.0	1.060	Oblong	White/Red eye
NDTX028742-1P/P	82.8	35.2	13.7	33.8	0.0	7.7	9.5	1.041	Oblong	Purple
ATTX961014-1AR/Y	73.6	14.1	19.2	40.3	0.0	16.8	9.6	1.046	Oblong	Red
PATX99P10-1R/R	87.5	27.9	14.7	44.9	0.0	12.5	0.0	1.056	Oblong	Red
PORTX03PG59-1PINTO/Y	66.7	20.6	17.5	28.6	0.0	33.3	0.0	NA	Oblong	Purple
KLONDYKE ROSE	47.5	42.6	5.0	0.0	0.0	15.8	36.6	1.052	Long	Red
PORTX03PG34-4R/P	29.3	29.3	0.0	0.0	0.0	70.7	0.0	1.063	Long	Red
ATTX98444-16R/Y	47.8	23.8	10.8	13.2	0.0	47.0	5.3	1.050	Oblong	Red
ATTX98462-9R/Y	46.3	28.2	18.2	0.0	0.0	47.0	6.6	1.057	Oblong	Red
COTX01397-7R/Y	100.0	68.8	12.5	18.8	0.0	0.0	0.0	NA	Oblong	Red
NDTX028742-4P/P	50.0	16.7	16.7	16.7	16.7	16.7	16.7	NA	Oblong	Red
Average	77.6	26.3	25.5	24.5	1.3	17.8	4.6	1.055		
L.S.D. (.05)	5.9	6.7	6.8	5.9	2.5	4.8	4.0	0.005		

Dalhart
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 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

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]	
RZD95-6643	17.6	6.7	0.0	79	79	2.0	4.2	4.2	4.0	10
RZD94-2262	12.4	5.6	0.0	92	92	1.5	4.5	5.0	4.7	0
ATTX98510-1R/Y	13.4	5.4	0.0	81	81	2.0	4.0	3.0	3.2	35
ND8083b-1pY	20.8	3.5	0.0	83	83	2.5	3.7	3.7	3.5	15
ATTX98500-3Wpuspl	11.5	5.3	0.0	90	90	1.5	4.7	4.5	4.2	10
TX1674-1W/Y	11.6	8.4	0.0	67	67	2.0	3.7	3.7	4.0	15
ATTX98514-1R/Y	14.1	4.0	0.0	92	92	1.5	4.2	3.2	3.5	35
Courage	11.3	4.9	0.0	92	92	2.0	4.5	4.5	4.5	5
BTX1544-2W/Y	9.3	6.7	0.0	81	81	2.0	4.0	3.7	3.7	30
TX1523-1Ru/Y	6.5	7.5	0.0	100	100	2.0	4.0	3.7	4.2	35
NDTX4756-1R/Y	10.9	5.6	0.0	77	77	2.0	3.7	2.7	3.5	40
ATTX98493-2P/P	12.2	4.9	0.0	73	73	2.0	4.5	4.2	4.5	15
ATTX88654-3W/RE/Y	8.4	5.4	0.0	79	92	2.0	4.0	4.0	4.0	10
COTX01403-4R/Y	6.2	7.8	0.0	88	88	1.5	3.7	1.7	2.0	85
ATX99331-1Pu/Y	11.4	5.4	0.0	71	71	1.5	4.5	4.0	4.0	10
ND7834-2P	7.2	5.8	0.0	98	98	2.5	4.2	3.7	3.5	15
PORTX03PG19-1Pu/YR	15.2	4.4	0.0	60	60	1.5	4.5	2.7	3.5	40
COTX00328-1Pu/Ypu	11.8	7.1	0.0	50	50	1.5	4.5	4.2	4.5	15
BTX1749-1W/Y	22.7	7.1	0.0	29	29	2.0	2.7	3.5	3.0	30
ATTX99325-1P	5.6	9.5	0.0	77	77	2.5	3.0	1.0	2.0	100
ATTX98468-3R/Y	11.6	3.1	0.0	100	100	1.5	3.5	4.0	3.7	15
Golden Sunburst	7.0	5.7	0.0	92	92	1.5	4.5	4.5	4.5	0
UNTX383-3WRE/Y	11.9	5.1	0.0	60	60	2.5	3.5	2.7	3.5	40
PORTX03PG25-2R/P	12.8	3.2	0.0	88	88	2.0	3.5	4.2	3.7	0
NDTX8555-2R/P	5.5	6.8	0.0	88	88	2.0	3.7	3.0	3.0	50
Average	9.7	6.1	0.0	69	70	2.0	3.7	3.4	3.5	27
L.S.D. (.05)	5.8	0.9		18	17	0.5	0.2	0.5	0.2	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
Table 11c. Cont.

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 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

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]	
ATTX98462-3R/Y	9.8	6.9	0.0	42	42	2.5	3.5	3.0	3.2	35
ATTX98468-5R/Y	9.2	6.0	0.0	48	48	2.5	3.7	4.0	3.5	0
Yukon Gold	3.2	8.3	0.0	100	100	1.0	4.5	2.5	4.0	75
ATTX961014-1R/Y	6.4	6.6	0.0	46	58	2.0	2.7	3.2	3.0	20
ATTX98491-4YRsplash/Y	5.4	6.3	0.0	67	67	2.5	3.0	3.0	3.0	20
NDTX7571-1WRE/Y	5.7	7.3	0.0	50	50	2.5	3.0	2.7	3.0	25
NDTX028742-1P/P	7.9	6.1	0.0	46	46	2.5	3.2	4.2	3.5	0
ATTX961014-1AR/Y	7.3	6.0	0.0	48	48	2.5	3.2	2.5	3.0	50
PATX99P10-1R/R	5.3	6.8	0.0	50	50	2.0	2.0	2.0	2.0	75
PORTX03PG59-1PINTO/Y	8.0	6.3	0.0	33	33	1.5	3.0	3.5	3.2	25
KLONDYKE ROSE	15.7	3.9	0.0	25	25	2.0	1.5	3.7	3.0	10
PORTX03PG34-4R/P	7.9	1.9	0.0	90	90	2.5	4.0	3.7	4.0	20
ATTX98444-16R/Y	8.2	3.6	0.0	42	42	1.5	3.5	3.7	3.5	10
ATTX98462-9R/Y	4.2	3.9	0.0	63	63	3.0	3.7	1.5	2.0	85
COTX01397-7R/Y	1.3	7.7	0.0	67	67	2.5	3.7	4.2	3.7	0
NDTX028742-4P/P	1.5	16.0	0.0	33	33	2.5	3.7	4.2	3.7	0
Average	16.4	6.1	0.0	69	60	2.0	3.7	3.4	4.4	27
L.S.D. (.05)	5.8	0.9		18	17	0.5	0.2	0.5	0.2	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 Table 11d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
RZD95-6643	1.0	3.8	1.5	3.5	1.5	5.0	5.0	5.0	4.6	0	0	0	0
RZD94-2262	2.5	3.6	1.5	3.9	1.5	5.0	5.0	5.0	5.0	20	0	0	0
ATTX98510-1R/Y	2.5	2.9	1.0	3.3	3.5	5.0	5.0	5.0	5.0	0	0	0	0
ND8083b-1pY	2.0	3.5	1.0	4.0	2.0	5.0	5.0	5.0	5.0	10	0	0	0
ATTX98500-3Wpuspl	3.3	3.4	1.8	4.1	1.5	5.0	5.0	5.0	5.0	0	0	15	0
TX1674-1W/Y	3.0	3.8	2.8	4.5	2.4	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98514-1R/Y	3.5	3.5	1.0	3.0	3.5	5.0	5.0	5.0	5.0	5	0	0	0
Courage	2.5	3.1	1.5	3.3	3.5	5.0	5.0	5.0	5.0	0	0	0	0
BTX1544-2W/Y	3.0	3.5	1.9	3.0	2.0	5.0	5.0	5.0	4.8	5	0	0	0
TX1523-1Ru/Y	3.5	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX4756-1R/Y	3.1	2.1	1.0	3.5	3.5	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98493-2P/P	4.3	3.8	1.0	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX88654-3W/RE/Y	3.5	3.5	3.5	4.3	3.3	5.0	5.0	5.0	5.0	0	0	0	0
COTX01403-4R/Y	3.5	4.0	1.0	4.5	3.0	5.0	5.0	5.0	5.0	0	0	0	20
ATX99331-1Pu/Y	3.0	3.0	1.0	3.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
ND7834-2P	3.1	3.3	1.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG19-1Pu/YR	3.5	3.0	1.0	3.4	3.5	5.0	5.0	5.0	5.0	0	0	0	0
COTX00328-1Pu/Ypu	3.5	4.0	1.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
BTX1749-1W/Y	3.0	3.5	2.5	3.5	2.5	5.0	5.0	5.0	5.0	0	0	0	0
ATTX99325-1P	1.0	4.0	1.0	4.0	4.5	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98468-3R/Y	3.0	3.5	1.5	4.0	4.0	5.0	5.0	5.0	5.0	0	0	0	0
Golden Sunburst	3.8	3.5	1.5	3.8	1.5	5.0	5.0	5.0	5.0	15	0	0	0
UNTX383-3WRE/Y	4.0	1.9	1.1	3.1	1.0	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG25-2R/P	4.8	4.3	1.0	4.3	4.5	5.0	5.0	5.0	5.0	0	0	0	0
NDTX8555-2R/P	2.5	3.5	2.0	4.3	3.5	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.1	3.5	1.4	3.8	3.3	5.0	5.0	5.0	5.0	3	0	1	1

[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] Stem end vascular discoloration severely evaluated

Dalhart Table 11d. Cont. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobbiness, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

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]	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration[10]	Percent Internal Brownspot
ATTX98462-3R/Y	3.1	3.7	1.5	4.0	4.3	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98468-5R/Y	3.0	3.4	1.4	4.0	3.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	3.0	3.5	1.5	3.7	1.5	5.0	5.0	5.0	5.0	35	0	0	5
ATTX961014-1R/Y	2.8	3.5	1.0	4.3	4.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98491-4YRsplash/Y	4.0	3.5	1.0	3.5	1.5	5.0	5.0	5.0	5.0	0	10	20	0
NDTX7571-1WRE/Y	4.0	3.5	1.0	3.5	2.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX028742-1P/P	3.0	3.5	1.0	3.5	5.0	4.5	5.0	5.0	5.0	10	0	0	0
ATTX961014-1AR/Y	3.0	3.5	1.0	3.9	4.5	5.0	5.0	5.0	5.0	0	0	10	0
PATX99P10-1R/R	3.5	4.0	1.0	4.0	4.5	4.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG59-1PINTO/	2.5	3.0	1.0	3.5	1.5	5.0	5.0	5.0	5.0	0	0	0	0
KLONDYKE ROSE	4.0	3.5	1.0	4.0	3.0	5.0	5.0	5.0	5.0	0	0	0	0
PORTX03PG34-4R/P	3.8	4.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98444-16R/Y	3.4	3.6	1.5	3.6	4.2	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98462-9R/Y	3.5	3.5	1.5	4.0	4.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX01397-7R/Y	3.0	4.0	1.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX028742-4P/P	3.0	4.2	1.0	4.0	5.0	5.0	5.0	5.0	5.0	20	0	0	0
Average	3.1	3.5	1.4	3.8	3.3	5.0	5.0	5.0	5.0	3	0	1	1

[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] Stem end vascular discoloration severely evaluated

Dalhart

Table 11e. Notes and general rating for all reps of 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
RZD95-6643	growth cracks, deep nose at both ends	rough, feathering, yield+	2.7, 2.7, 2.7, 2.7
RZD94-2262	heat sprouts, y-2, drop	nipple ends+	2.7, 2.7, 2.7, 2.7
ATTX98510-1R/Y	yield+, r-3.5, y-3, keep, BOT-	road map, silver scurf+, keep	3.2, 3.2, 3.2, 3.2
ND8083b-1pY	red yellow flesh, r-2.7, y-2.5	3Rhizoctonia, many small tubers, 3riz, boiler, drop	3.2, 3.2, 3.2, 3.2
ATTX98500-3Wpuspl	flat, y-4, keep	flat, some pointed to stem end	3, 3, 3, 3
TX1674-1W/Y	flat, y-3, BOT	yield+, 40%unknown, , flat, candidate, BOT	4, 4, 4, 4
ATTX98514-1R/Y	r-3.2, y-3, keep	silver scurf	3, 3, 3, 3
Courage	rough, scale, unattractive buff skin, green vine, heat sprouts, deep nose, r-3, y-2, drop		3, 3, 3, 3
BTX1544-2W/Y	y-3, rough	rough++, variable shape, nice	3.2, 3.2, 3.2, 3.2
TX1523-1Ru/Y	yield+, can oversize, y-3	3Rhizoctonia, 4Rhizoctonia	4.5, 4.5, 4.5, 4.5
NDTX4756-1R/Y	r-3.2, y-3, keep, BOT-	oversize, BOT, yield+, nice	3.2, 3.2, 3.2, 3.2
ATTX98493-2P/P	nice dark flesh,p-4.5, BOT	rough, eyebrows	3.2, 3.2, 3.2, 3.2
ATTX88654-3W/RE/Y	y-3.5, keep	smooth, nice, 20% unknown, smooth, nice, 20% unknown	3.2, 3.2, 3.2, 3.2
COTX01403-4R/Y	r-3.2, y-3, keep, BOT-, r-3.2, y-3, keep, BOT-	road map, silver scurf, road map, silver scurf	3.2, 3.2, 3.2, 3.2
ATX99331-1Pu/Y	nice shape, y-4, keep	road map, keep	3.2, 3.2, 3.2, 3.2
ND7834-2P	smooth, p-2.5, nice shape	internal like all blue, chip?	3, 3, 3, 3
PORTX03PG19-1Pu/Y	smooth, r-4, y-4, yellow/red flesh, keep, BOT	road map+, buff, BOT- for interior. keep, 4Rhizoctonia	4, 4, 4, 4
COTX00328-1Pu/Ypu	chip, rough, purple vascular ring, keep	chip, purple vascular ring,, road map	3, 3, 3, 3
BTX1749-1W/Y	nice, y-3, keep		3.2, 3.2, 3.2, 3.2
ATTX99325-1P	eye brows, heat sprouts, market??, BOT	nice shape and size, drop, feathering+, silver scurf+, drop?	3.7, 3.7, 3.7, 3.7
ATTX98468-3R/Y	r-4, y-3.5, keep, BOT-	road map+, silver scurf+, road map+, silver scurf+	3.2, 3.2, 3.2, 3.2
Golden Sunburst	poor shape, pointed to stem end, poor internal, y-4	nice flesh, pointed to stem end	3, 3, 3, 3
UNTX383-3WRE/Y	y-4, keep	BOT-	3.2, 3.2, 3, 3
PORTX03PG25-2R/P	r-4.5(skin), r-5(flesh), fingerling, keep, BOT	fingerling, BOT, fingerling, BOT	4, 4, 4, 4
NDTX8555-2R/P	r-4.5(skin), r-2(flesh), chip, keep	chip, road map, heat sprouts, chip, road map, heat sprouts	3.2, 3.2, 3.2, 3.2

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Table 11e. Cont. Notes and general rating for all reps of 41 entries in the Texas Advanced Specialty Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Notes Field	Notes Grading	General Rating
ATTX98462-3R/Y	r-4, y-2, keep	large tubers, heat sprouts+, nice size, keep, road map+	3.2, 3.2, 3.2, 3.2
ATTX98468-5R/Y	r-3.5, y-3.5, keep?	rough+, keep+, feathering++, heat sprouts, nice flesh,	3, 3, 3, 3
Yukon Gold	can oversize,, variable size,y-3	nice skin	3.2, 3.2, 3.2, 3.2
ATTX961014-1R/Y	Spec/High AntiOx, r-3, y-2.5, keep	road map, nice, road map, nice	3, 3, 3, 3
ATTX98491-4YRsplas	Spec/High AntiOx, y-4, keep, , Spec/High AntiOx	red splash, deep nose, nice interior,10% unknown, , red splash, deep nose, nice interior,10% unknown	3, 3, 3, 3
NDTX7571-1WRE/Y	y-4, keep, BOT, y-4, keep, BOT, y-4, keep, BOT, y-4, keep, BOT	60% unknown, 60% unknown, 60% unknown, 60% unknown	4, 4, 4, 4
NDTX028742-1P/P	keep	chip, chip,	3, 3, 3, 3
ATTX961014-1AR/Y	y-3, keep	drop, keep, lenticels, road map+, BOT-, 4Rhizoctonia, nice internal, keep, 4Rhizoctonia, silver scurf+, heat sprouts	3.2, 3.2, 3.2, 3.2
PATX99P10-1R/R	keep, keep, keep, keep	chip, road map, chip, road map, chip, road map, chip, road map	3, 3, 3, 3
PORTX03PG59-1PINT	drop, drop, drop, drop		3, 3, 3, 3
KLONDYKE ROSE	heat sprouts, pointed to stem end,y-3.5	pointed	2.7, 2.7, 2.7, 2.7
PORTX03PG34-4R/P	r-4(skin), r-2.5(flesh), fingerling, keep	not attractive exterior, , fingerling,	3, 3, 3, 3
ATTX98444-16R/Y	small, r-3.5, y-3.5, keep, BOT-	keep, pointed to stem end, silver scurf, road map	2.7, 2.7, 2.7, 2.7
ATTX98462-9R/Y	r-4, y-4, keep, BOT-	heat sprouts, buff, , heat sprouts, buff	3.2, 3.2, 3.2, 3.2
COTX01397-7R/Y	r-3, y-3, keep, r-3, y-3, keep, r-3, y-3, keep, r-3, y 3, keep	chip, chip, chip, chip	3.2, 3.2, 3.2, 3.2
NDTX028742-4P/P		chip, chip, chip, chip	3.2, 3.2, 3.2, 3.2

Addendum to Tables Springlake 11a, 11b, 11c, 11d, and 11e
Texas Advanced Specialty Selection Trial

Location:
Dalhart, Texas

Soil Type
Tivoli Fine Sand

Seed Source
Texas

Date:		DAP
Planted	May 21, 2005	
Vines Killed	September 14, 2005	113
Harvested	October 24, 2005	153

Plot Information:

Size of Plots	7'
Spacing Between Hills	12"
Spacing Between Rows	30"
Hills Per Plot	7
Number of Plot Per Rep	2
Number of Reps	4

Method of Harvest:
Four-row windrow digger, with hand pick up

Fertilizer:

Application:
300-0-0-0-43 # per acre

Irrigation:
Center Pivot

Seed Treatment:
Tops MZ Gaucho

Insecticide:
Mustang Max, Baythroid, Dimethoate, Asana, Leverage, Avaunt,

Fungicides Applied:
Tanos, Echo, Endura, Scala

Herbicides Applied:
Spartan 4F, Dual, Arrow, Matrix, Reglone

Environmental Factors:

Daily high and low temperatures were normal throughout the growing season. Precipitation was lower than normal for May, the first, third, and forth weeks of June, July and the first week of August

Dalhart
Table 12

General rating, tuber type, skin color, and notes, of 7 entries to be advanced from the 2004 Specialty Selection Trial grown near Dalhart, Texas-2005.

Variety or Selection	Source	# of Seed Pieces	Skin Color	Notes Field
AOTX98273-1W	100	3	White	smooth, nice, keep
COTX02305-3R	346	3	Red	r-4.5, short, small, nice, keep
TX02124-2W	224	2	White	keep
NDTX038997-1R/R	90	5	Red	chip, r-5,
TX02106-1R/R	212	4	Red	r-4.5(flesh), keep, BOT-
TX02106-2R/R	213	4	Red	keep
NDTX028976-1R/Y	87	4	Red	smooth, y-2, keep

Appendix A. General notes on potato varieties or selections – 2005.

A91814-5 - Oblong White. Parentage (NDA2031-2 x Ivory Crisp). Cross made and selected in Aberdeen. Medium-early maturity. Small vine size. Red-purple flower.

Uses: Dehydration or French Fries.
Strengths: Light russet net, looks like Century
Weaknesses: Drop, flat, rough, sprouts, nice, internal browning, dry rot.

A92030-5- Oblong Russet. Parentage (A8603-20 x A83043-12). Cross made and selected in Aberdeen. Medium maturity. Medium-small vine size. White flower color.

Uses: Dual.
Strengths: Good yield, BOT, fat tubers,
Weaknesses: Large tubers had poor shape, pointed to stem end, air cracks and very light russet skin, knobs.

A92294-6 - Long White/Russet. Parentage (A86332-7 x Summit Russet). Cross made and selected in Aberdeen. Medium maturity. Medium-large vine size. White flower color.

Uses: Process.
Strengths:
Weaknesses: Drop, sugar ends, pronounced lenticels, red at apical end, powdery scab, air cracks, not especially nice, rough, feathering, crooked tubers.

A93157-6LS – Oblong Russet. Parentage (A87149-4 x A88108-7). Cross made and selected in Aberdeen. Medium-late maturity. Medium vine size. White flower color.

Uses: Dual.
Strengths: Not bad nice shape, small, BOT.
Weaknesses: Rhizoctonia, fat tubers, sugar ends, pointed to bud end, growth cracks, blocky.

A95074-6 – Long White. Parentage (Agria x Summit Russet). Cross made and selected in Aberdeen. Medium-late maturity. Large vine size. White flower color.

Uses: Dual.
Strengths: Yield, nice yellow flesh color.
Weaknesses: Drop, variable size, feathering, enlarged lenticels rough, not that nice, rough, need to size, feathering, small tubers.

A95109-1 – Long Russet. Parentage (A8893-1 x Summit Russet). Cross made and selected in Aberdeen. Medium-early maturity. Medium-small vine size. White flower color.

Uses: Dual.
Strengths: BOT, nice
Weaknesses: Raised eyes on large tubers, nice, sugar ends, parent, pressure cracks, light net color, feathering.

A95409-1 – Long Russet. Parentage (A88236-4 x A89512-3). Cross made in and selected in Aberdeen. Medium-late maturity. Medium vine size. Red-purple flower color.

Uses: Dual purpose.
Strengths: Large tubers.

Weaknesses: Powdery scab, feathering, rough drop.

A96095-3 – Long Russet. Parentage (A89384-10 x A89512-3). Cross made in and selected in Aberdeen. Medium-late maturity. Medium-large vine size. Red-purple flower color.

Uses: Dual purpose.

Strengths:

Weaknesses: Powdery scab, some black interior, curved tubers, thin, too long, pointed to stem end, drop.

A96104-2 – Long Russet. Parentage (A89384-10 x A91194-4). Cross made in and selected in Aberdeen. Medium-maturity. Medium vine size. White flower color.

Uses: Dual purpose.

Strengths:

Weaknesses: Powdery scab, late, small, poor shape, Rhizoctonia, drop.

A96741-1R –Round Red. Parentage (IdaRose x Mazama). Cross made and selected in Aberdeen. Medium maturity. Medium-small vine size. Red-purple flower color.

Uses: Fresh.

Strengths: Nice, heavy set.

Weaknesses: Drop, small tubers, heat sprouts, feathering, nipple knobs, greenheads, stem end rot, silver scurf, flesh not very white, heat sprouts, poor shape.

A96741-2R –Round Red. Parentage (IdaRose x Mazama). Cross made and selected in Aberdeen. Late maturity. Large vine size. Red-purple flower color.

Uses: Fresh.

Strengths: BOT, nice color, nice

Weaknesses: Small tubers, flat, poor shape, heat sprouts, feathering, stem attachment, rough, Rhizoctonia stem end blackening, growth cracks a little rough, late, some rot.

AC96052-1RU – Oblong Russet. Parentage (A81386-1 x A9014-2). Cross made in Aberdeen and selected in Colorado. Medium maturity. Large vines. Purple flower color.

Uses: Fresh.

Strengths: Nice, BOT, nice shape.

Weaknesses**:** , small, heat necrosis, drop, late,

AC97097-14W – Oblong White. Parentage (Brodick x A91746-8). Cross made in Aberdeen and selected in Colorado. Medium maturity. Medium size vines. Purple flower color.

Uses: Chip.

Strengths: Nice interior, good, nice.

Weaknesses:

AC97521-1R/Y – Oblong Red/Yellow. Parentage (SJP/T48YF x A91846-5R). Cross made in Aberdeen, and selected in Colorado. Medium maturity. Large vine. Red-purple flower color

Uses: Specialty.

Strengths: Nice shape, dark yellow flesh.

Weaknesses**:** Flat, poor shape, pointed to stem end, buff skin on stem end, rough, drop ++, feathering.

All Blue – Oblong Purple. Parentage (Unknown). Medium-late maturity. Medium- large vine size. Blue flower color.

Uses: Fresh/Specialty.

Strengths

Weaknesses: Rough shape, small tubers, road map, stem attachments center pith and cortex is white, purple flesh color more intense at eyes, drop.

AO96160-3 - Oblong Russet. Parentage (A89384-10 x A89512-3). Cross made in Aberdeen and selected in Corvallis, Oregon. Medium-late maturity. Medium-large vine size. Red-purple flower color.

Uses: Dual.
Strengths: Nice interior, not bad.
Weaknesses: OK but drop, late, rough, heat sprouts.

AO96164-1 – Long Russet. Parentage (A89384-10 x A91194-4). Cross made in Aberdeen and selected in Corvallis, Oregon. Medium maturity. Medium vine size. White flower color.

Uses: Dual purpose.
Strengths:
Weaknesses: Cracks, pointed to stem end, pointed to bud end, poor shape, drop.

AOA95154-1 – Long Russet. Parentage (Bannock x A89152-4). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon, and selected in Aberdeen. Medium-early maturity. Medium-large vine size. Medium-purple flower color.

Uses: Dual purpose.
Strengths: Nice
Weaknesses**:** Small heat sprouts, late, drop.

AOA95155-7 – Long Russet. Parentage (Bannock x A89163-3LS). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon, and selected in Aberdeen. Medium-late maturity. Small vine size. Red-purple flower color.

Uses: Dual purpose.
Strengths:
Weaknesses**:** Pointed to apical end, growth cracks, heat sprouts, very late, feathering, poor shape, small, drop.

AOTX95265-1Ru - Oblong Russet. Parentage (A89216-9 x A86102-6). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Early maturity. Large vine size.

Uses: Fresh.
Strengths: Nice net, very nice appearance, BOT++, nice interior, uniform longer than Norkotah.
Weaknesses: Blocky, rough, tuber moth, Rhizoctonia, some curved and pointed, some shriveling, small tubers.

AOTX95265-2ARu – Long Russet. Parentage (A89216-9 X A86102-6). Cross made in Aberdeen, tuberling produced in Corvallis, Oregon and selected in Texas.

Uses: Fresh.
Strengths: OK, nice heavy net, BOT.
Weaknesses: Deeper eyes, pointed to apical end, pointed to stem end, some curved, feathering blocky, rough heat necrosis.

AOTX95265-3Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium maturity. Medium vine size.

Uses: Fresh.
Strengths: BOT, very nice, good internal, some large tubers.
Weaknesses: Rhizoctonia, rough, blocky, heat sprouts, small tubers, variable size tubers, sprouts, some shriveling, ugly net on stem end.

AOTX95265-4Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross made in Aberdeen, tuberling produced in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: Nice, good internal, hollow heart resistant, longest clone, BOT for all reps.

Weaknesses: Rhizoctonia, nipple knobs, some crooked, bruising, some greening, a little rough, skinny, pointed feathering.

AOTX95269-1Ru - Long Russet. Parentage (A89296-3 x A89804-7). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, yield, Will store, nice, large tubers.

Weaknesses: Rough, blocky, pointed, drop?, ugly, some shape problems, stem end bruise, some shriveling, curved tubers, pointed, rough, small.

AOTX95295-1Ru - Long Russet. Parentage (A89804-7 x Ranger Russet). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: Very nice, good internal, BOT++.

Weaknesses: Drop?, heat sprouts, Rhizoctonia, skinny tubers, some shrinking, sugar end pointed, curved, drop?++, pointed to apical end rot, rough, uneven net pointed to bud end.

AOTX95295-3Ru - Long Russet. Parentage (A89804-7 x Ranger Russet). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Early maturity. Medium vine size.

Uses: Fresh.

Strengths: BOT+++, good shape and internal, some very large tubers, longer than Norkotah.

Weaknesses: Some rot, blocky, Rhizoctonia, not as nice as other selections, hollow heart, smaller, drop? poor net too long?.

AOTX95309-1W - Oblong White. Parentage (A9055-8LS x A89163-3LS). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium maturity. Large vine size.

Uses: Chip.

Strengths: Yield, nice internal, candidate.

Weaknesses: Heat sprouts.

AOTX95309-2W - Long White. Parentage (A9055-8LS x A89163-3LS). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Late maturity. Large vine size.

Uses: Chip.

Strengths: Nice shape, nice interior, candidate,

Weaknesses: Rough, heat sprouts, variable size, heat necrosis, small.

AOTX95309-3W - Oblong White. Parentage (A9055-8LS x A89163-3LS. Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Late maturity. Large vine size.

Uses: Chip.

Strengths: Nice shape, nice interior.

Weaknesses: Drop, Rhizoctonia, sprouts, heat sprouts, rough, green head, drop++, feathering.

AOTX96075-1Ru - Long Russet. Parentage (A84118-3 x A89384-10). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, nice shape and internal, good yield, nice++, longer than Nork BOT+* yield+.

Weaknesses: Variable size, drop, little rough, some dry rot, shape not as nice curved drop+, heat sprouts, small, Blackspot bruise??, some pointed to apical end, Rhizoctonia, heat necrosis.

AOTX96084-1Ru - Oblong Russet Parentage (A8792-1 x A86102-6). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, OK, nice shape and internal, keep.

Weaknesses: Little short, rough, rot, blocky, lenticels, drop? Rhizoctonia, small, heat sprouts, Blackspot bruise??, drop, heat necrosis.

AOTX96208-1Ru - Long Russet. Parentage (A9057-7 x A91194-3). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Early maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, nice, good internal, large tubers, yield+.

Weaknesses: Heat sprouts, pointed, poor shape, crooked, rough, blocky, variable size, knobs, drop?+++, very long, some curved and pointed, Rhizoctonia.

AOTX96216-1Ru - Long Russet. Parentage (A9082-2 x A86102-6). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, nice shape and internal, nice, keep, large tubers.

Weaknesses: Heat sprouts, little rough, small secondary tubers at eye, heat necrosis, curved, drop, so so, pointed, feathering ugly, poor shape, Rhizoctonia.

AOTX96216-2Ru - Long Russet. Parentage (A89216-9 x A86102-6). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, nice, nice internal, keep nice shape.

Weaknesses: Drop, heat sprouts, rot, Rhizoctonia, some rot, rough, poor shape, late.

AOTX96216-3Ru - Oblong Russet. Parentage (A89216-9 x A86102-6). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: BOT, very nice smooth keep, nice shape.

Weaknesses: Rot, rough, poor shape, knobs, clunker, late, rough, some pointed to apical end.

AOTX96580-1W - Oblong White. Parentage (A8836-5 x COO83008-1). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium maturity. Large vine size.

Uses: Chip.

Strengths: Nice interior.

Weaknesses: Drop, variable size, rough, shape? sprouting, hollow heart, rough, feathering, heat necrosis, flat.

AOTX98096-1Ru - Oblong Russet. Parentage (Shepody x A92158-3). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: BOT, yield, nice shape and internal, very long, keep, nice.

Weaknesses: Drop++?, some rot blocky, poor shape, small tubers, rough.

AOTX98137-1Ru - Oblong Russet. Parentage (A8670-7 x A9310-1). Cross made in Aberdeen, tuberling grown in Corvallis, Oregon and selected in Texas. Early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: BOT+, very nice, nice shape and internal, BOT for shape, keep uniform, smooth.

Weaknesses: Drop?, smaller, rot, blocky, heat necrosis, shrinkage, different, small, short, some pointed to stem end.

AOTX98183-2Ru – Long Russet. Parentage (A90621-11LS x A9230-5). Cross made in Aberdeen, tuberling produced in Corvallis, Oregon and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses: Mixed size, uneven net, not as nice, drop+, blocky, light fine net, rough.

Atlantic - Round White. Parentage (Wauseon x B5141-6). Cross-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.

ATTX01175-1R - Oblong Red Parentage (MN17922 x Mazama). Cross made in Aberdeen, tuberling grown and selected in Texas.

Uses: Fresh

Strengths: nice color, good shape BOT-.

Weaknesses: Vascular discoloration, feathering.

ATTX01180-1R - Round Red Parentage (ND5084-3R x A92657-1R). Cross made in Aberdeen, tuberling grown and selected in Texas.

Uses: Fresh

Strengths: nice flesh, nice shape

Weaknesses: large tubers are rough

ATTX01180-4R - Round Red Parentage (ND5084-3R x A92657-1R). Cross made in Aberdeen, tuberling grown and selected in Texas

Uses: Fresh

Strengths: nice shape.

Weaknesses: Vascular discoloration, feathering silver scurf.

ATTX8823-2W - Round White. Parentage (ND2051-1Ru x A7961-1). cross made in Aberdeen, tuberling produced in College Station, and selected in Texas Medium maturity. Large vine size.

Uses: Chip.

Strengths: Nice, BOT++, candidate, nice.

Weaknesses: Oversize, shape? a little rough, stem attachment.

ATTX88654-2Pu/Y - Oblong Purple. Parentage (PI343201 x Gurney's Purple 1). Cross made in Aberdeen, tuberling grown and selected in Texas. Early maturity. Medium vine size.

Uses: Fresh/Specialty.

Strengths: BOT, nice internals, smooth, flesh color-3.5, keep, nice shape.
Weaknesses: Drop, heat sprouts, growth cracks, poor russeting, poor skin, alligator hide, road map, faded purple skin, pointed to stem end, silver scurf.

ATTX88654-3W/RE/Y - Oblong Red/eye Parentage (PI343201 x Gurney's Purple 1). Cross made in Aberdeen, tuberling grown and selected in Texas. Early maturity. Medium vine size.
Uses: Fresh/Specialty.
Strengths: keep, smooth, nice++,
Weaknesses:.

ATTX961014-1R/Y– Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.
Uses: Specialty.
Strengths: keep++ BOT, nice internal Spec/High AntiOx keep.
Weaknesses: drop, lenticels, road map+, silver scurf+, heat sprouts.

ATTX98444-16R/Y - Oblong Red Parentage (A83360-9R X T48YF). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.
Uses: Specialty.
Strengths: keep, BOT-.
Weaknesses**:** pointed to stem end, silver scurf, road map.

ATTX98444-3R/Y - Oblong Red/Yellow. Parentage (A83360-9R X T48YF). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.
Uses: Specialty.
Strengths: Nice
Weaknesses: Variable size, drop, heat sprouts, chain tubers, LaSoda like shape, rough

ATTX98452-9R - Oblong Red. Parentage (A93456-6R x A92657-1R). Cross made in Aberdeen, tuberling grown and selected in Texas. Late maturity. Large vine size.
Uses: Fresh.
Strengths: Nice, large tubers, yield+, BOT, nice smooth, nice interior, keep
Weaknesses: Some oversize, stem end rot, Rhizoctonia, heat sprouts, road map, Rhizoctonia.

ATTX98453-6R - Round Red. Parentage (A93490-1R x A91846-5R). Cross made in Aberdeen, tuberling grown and selected in Texas. Late maturity. Medium-large vine size.
Uses: Fresh.
Strengths: BOT, nice white interior, smooth skin, nice, keep nice shape.
Weaknesses: Flat, stem end rot, mix?, will shrivel, skinning, some buff skin deep eyes.

ATTX98462-3R/Y- Oblong Red Parentage (ATD251-5RY X BO811-13RY. Cross made in Aberdeen, tuberling grown and selected in Texas.
Uses: Specialty.
Strengths: keep, large tubers, nice size.
Weaknesses: heat sprouts+, road map+.

ATTX98462-9R/Y - Oblong Red Parentage (ATD251-5RY X BO811-13RY). Cross made in Aberdeen, tuberling grown and selected in Texas.
Uses: Specialty.
Strengths: Keep, BOT-

Weaknesses: Heat sprouts, buff.

ATTX98465-1R/Y - Round Red. Parentage (ATD252-5R x A89655-5DY). Cross made in Aberdeen, tuberling grown and selected in Texas. Medium-early maturity. Small vine size.

Uses: Specialty.
Strengths: Flesh color -4.4, dark yellow flesh Yield+, Yield, deep yellow flesh
Weaknesses: Drop, deep eyes, many small secondary tubers produced at tuber eyes, second growth pumpkin shape, late, rough like RLS, parent, stem attachment, silver scurf, poor shape, short dormancy, poor net, eye sprouts, silver scurf, road map.

ATTX98466-5R/W-R – Round White. Parentage (ND2051-1Ru x A7961-1). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Chip.
Strengths: Red streak in vascular, keep, smooth.
Weaknesses: Lenticels.

ATTX98468-3R/Y - Round Red Parentage (ATD252-5R X A93457-4R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths: Keep, BOT-.
Weaknesses: road map+, silver scurf+.

ATTX98468-5R/Y - Oblong Red Parentage (ATD252-5R X A93457-4R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths: Keep+, nice flesh.
Weaknesses: rough+, feathering++, heat sprouts.

ATTX98471-4R/Y - Round Red Parentage (ATD252-5R X BO811-13RY). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses:
Strengths: Yellow flesh
Weaknesses: Heat sprouts

ATTX98491-4YRsplash/Y - Oblong Red/Splash Parentage (P94A2-3Y X A92657-1R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty
Strengths: Spec/High Anti-Ox keep, red splash, nice interior.
Weaknesses: deep nose,

ATTX98493-2P/P - Oblong-Long Purple Parentage (P94A2-3Y X BO811-13RY). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty
Strengths: Nice dark flesh BOT.
Weaknesses: Rough, eye brows

ATTX98497-1R-Y/Y - Oblong Red. Parentage (P94A2-4Y X A91848-1R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas

Uses: Specialty.
Strengths: Yellow skin with red splash, dark yellow flesh, boiler.

Weaknesses: Late, road map, heat sprouts, small tubers, drop++?

ATTX98500-3W-P/Y – Oblong-Pinto/Yellow. Parentage (P94A2-4Y X Granola). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths: Smooth, unique appearance, keep.
Weaknesses: Flat, second growth, late, heat sprouts, pointed, road map, flat, some pointed to stem end.

ATTX98509-3R/Y - Round Red. Parentage (T48YF x A92657-1R). Cross made in Aberdeen, tuberling grown and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.
Strengths: Nice smooth.
Weaknesses: Small tubers, skin a little buff, skin not that attractive, poor net, buff, flat.

ATTX98510-1R/Y – Oblong-Red/Yellow. Parentage (T48YF X A93456-6R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths: keep, BOT.
Weaknesses: Small tubers road map, silver scurf+.

ATTX98510-3R/Y – Oblong-Red/Yellow. Parentage (T48YF X A93456-6R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths:
Weaknesses**:** Small tubers, poor shape, heat sprouts, rough, small, drop.

ATTX98514-1R/Y - Oblong Red. Parentage (T51YF x A93456-6R). Cross made in Aberdeen, tuberling grown and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.
Strengths: BOT keep, flesh color-3.8, nice interior color, nice keep.
Weaknesses: Rough, small tubers, poor flesh, feathering, heat sprouts, drop?, silver scurf.

ATTX98514-3R/Y - Round Red/Yellow. Parentage (T51YF X A93456-6R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths: Clam shell, small tubers, nice.
Weaknesses: Heat sprouts, late drop+?.

ATTX98516-1W/Y – Oblong White/Yellow. Parentage (T51YF X BO811-13RY). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses**:** Specialty.
Strengths: Nice keep, nice flesh, boiler.
Weaknesses: Internal problems, close set, chain tubers, drop+++, poor shape, heat sprouts, variable flesh color.

ATTX98518-11Pu/Y – Oblong Purple/Yellow Parentage (T48YF X A93456-6R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.
Strengths:
Weaknesses: Silver scurf, rough, heat sprouts, small.

ATTX98518-4Pu/Y - Round Purple. Parentage (Agria x A83350-9R). Cross made in Aberdeen, tuberling grown and selected in Texas. Late maturity. Large vine size.

Uses: Fresh.

Strengths: Nice internals, parent.

Weaknesses: Drop, late, stolons, stem attachment, feathering, rough, heat sprouts, Flesh color-3.1, scab, Rhizoctonia.

ATTX99321-1R/Y – Round Red/Yellow. Parentage (A89655-5DY X A92653-6R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.

Strengths: Yellow flesh boiler, nice shape, keep.

Weaknesses: Small round tubers, poor shape, heat sprouts.

ATTX99325-1P - Oblong Purple Parentage (AGRIA X W1100R). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.

Strengths: BOT, nice shape and size.

Weaknesses: Eye brows, heat sprouts, market?, drop, feathering+, silver scurf+, drop?.

ATX00144-2R - Round Red Parentage (Century Russet x A91048-3). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.

Strengths: Keep, buff skin, nice shape, small tubers.

Weaknesses: Road map ++drop?.

ATX01188-1R - Oblong Red Parentage (Amadeus x Winema). Cross made in Aberdeen, tuberling produced in College Station, and selected in Texas.

Uses: Specialty.

Strengths: Nice color, nice shape, good skin set, BOT, keep.

Weaknesses: Mix.

ATX84378-6Ru - Oblong-long Russet. Parentage (A79141-9 x ND329-1). Cross made in Aberdeen, Aberdeen and selected in Texas. Late maturity. Large vine size.

Uses: Fresh.

Strengths: Large tubers, large fat tubers, BOT for flesh BOT, very nice internals.

Weaknesses: Rough, blocky, growth cracks, drop, knobs.

ATX84706-2Ru - Oblong Russet. Parentage (A738-1 x COA7906-5). Cross made in Aberdeen and selected in Texas. Late maturity. Large vine size.

Uses: Dual purpose

Strengths: Apparent resistance to hollow heart, fast bulking, good specific gravity, processing qualities, high early yields, hollow heart resistant.

Weaknesses: Light russet, blocky, drop, larger, blocky, rough, knobs, skinning, thumbnail pressure cracks, hollow heart, oversize, lunker.

ATX85404-8W - Round White. Parentage (Gemchip x ND860-2). Cross made in Aberdeen and selected in Texas. Medium-late maturity. Medium-large vine size. White flower color.

Uses: Chip.

Strengths: High yield, good appearance, tubers of uniform size, low sugar accumulation in storage, some scab resistance, excellent color, low glycoalkaloids, can be chipped directly out of storage, smooth skin, nice internal.
Weaknesses: Can develop some hollow heart and is somewhat susceptible to shatter bruise, slight russet patching, susceptible to Rhizoctonia, short tuber dormancy, oversize, heat necrosis.

ATX88481-1Pu - Oblong Purple. Parentage (A83302-1 x Bison). Cross made in Aberdeen and selected in Texas. Early maturity. Medium vine size.
Uses: Fresh.
Strengths: BOT, white flesh, keep, nice, nice interior.
Weaknesses: Close set, silver scurf, drop+++, heat sprouts Drop?, purple skin, flesh very light yellow, stem end protrusion, feathering.

ATX91137-1Ru - Oblong Russet. Parentage (A81473-2 x A83343-12). Cross made in Aberdeen and selected in Texas. Medium-early maturity. Large vine size.
Uses: Fresh.
Strengths: BOT, very nice shape and internal, keep, no air cracks, attractive, BOT for all reps.
Weaknesses: Drop?, Rhizoctonia, some rot, flat tubers blocky, shape not so good, rough, blocky, short, net not as good as Norkotah.

ATX9202-1Ru - Long Russet. Parentage (A8343-12 x A8495-1). Cross made in Aberdeen and selected in Texas. Medium maturity. Large vine size.
Uses: Fresh.
Strengths:
Weaknesses: Drop, misshapen, growth cracks, knobs, blocky, rough, some rot, poor shape, poor internal, knobs++, so so.

ATX92230-1Ru - Oblong Russet. Parentage: (A8603-13 x A8495-1). Cross made in Aberdeen and selected in Texas. Medium-late maturity. Large vine size. White flower color.
Uses: Fresh.
Strengths: BOT, OK internals.
Weaknesses: Rough, knobs, short but good, some rot, feathering, pronounced lenticels, not bad, small, drop++, poor shape, drop?, OK, poor net, hollow heart on bud end.

ATX9332-8Ru - Oblong Russet. Parentage (A8850-1 x A88288-1). Cross made in Aberdeen and selected in Texas. Late maturity. Large vine size.
Uses: Fresh.
Strengths: Very white flesh, not bad blocky, nice firm internal, very nice, BOT smooth.
Weaknesses: Blocky, short, drop?, rough, poor net, Rhizoctonia, pronounced lenticels, ugly net, pointed to stem end, so so, drop, rot alligator hide, ugly net, heat necrosis.

ATX97195-1Ru - Oblong Russet. Parentage (A89149-7 x A88236-6). Cross made in Aberdeen and selected in Texas. Medium-early maturity. Large vine size.
Uses: Fresh.
Strengths: Very nice, nice internal, yield+ BOT.
Weaknesses: Drop, rough, rot, poor shape, smaller, pointed, curved, apical nipples, heat necrosis, blocky.

ATX99049-1Ru - Oblong Russet, Parentage (A84118-3 x B9922-11). Cross made in Aberdeen and selected in Texas. Medium-early maturity. Large vine size.
Uses: Fresh.

Strength: BOT, nice, nice shape and internal.
Weaknesses: Drop, rot, rough, Rhizoctonia, poor shape, smaller, drop, pointed to apical end.

ATX99092-1Ru - Long Russet. Parentage (A9305-10 x A9014-2). Cross made in Aberdeen and selected in Texas. Medium-early maturity. Large vine size.
Uses: Fresh.
Strengths: OK, very nice, nice internal, short tubers are OK.
Weaknesses: Drop, rot, rough, Rhizoctonia, poor shape, smaller, variable size, some pointed, some tuber moth, drop, pointed to apical end, mix?, blocky.

ATX99331-1Pu/Y - Round-Oblong Purple Parentage (INCA GOLD X COA94019-5R). Cross made in Aberdeen and selected in Texas.
Uses: Fresh.
Strengths: Nice shape, keep+.
Weaknesses: Road map

B0766-3T - Round White. Parentage (B0243-18 x Costal Chip). Cross made and selected in Beltsville, Maryland. Medium-early maturity. Medium vine size. White flower color.
Uses: Chip.
Strengths: Nice, yield, nice interior.
Weaknesses: Rhizoctonia, rough, internal browning.

BTX1544-2W/Y - Oblong White/Yellow. Parentage (BO811-13 x Yukon Gold). Cross made in Beltsville, Maryland and selected in Texas. Medium maturity. Medium vine size.
Uses: Specialty.
Strengths: BOT+++, nice, good color, nice interior, flesh color-3.5, deep yellow flesh.
Weaknesses: greenhead, pear shape a little rough, Rhizoctonia, rough, pointed to stem end, enlarged lenticels, growth cracks, rot, shape?, pointed to apical end rough++, variable shape.

BTX1749-1W/Y - Oblong White. Parentage (K7-6 x BO925-4). Cross made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size.
Uses: Specialty.
Strengths: BOT, keep, nice, Flesh color-3.0, Good yield nice skin, BOT-++.
Weakness:

BTX2332-1R - Round Red. Parentage (B1523-4 x Super Red Norland).Cross made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size.
Uses: Specialty.
Strengths: Very nice, nice interior, nice shape, keep, BOT++, early, smooth.
Weaknesses: Road map Rhizoctonia, feathering.

Chipeta – Oblong White. Parentage (WNC612-13 x Wischip). Cross made in Aberdeen and selected in Colorado. Released by USDA-ARS, Aberdeen, Aberdeen, and the 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

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.

CO94035-15RU - Oblong Russet. Parentage (AO80432-1 x AC83064-6). Cross made and selected in Colorado. Late maturity. Large vine size.

Uses: Dual purpose

Strengths: Nice.

Weaknesses: Drop, rot, curved tuber, flat, poor shape, Rhizoctonia, pronounced lenticels, ugly net, late, pointed, ugly net, heat spouts, crooked.

CO94157-2W/Y - Oblong White. Parentage (Russet Legend x German Butterball). Cross made and selected in Colorado. Medium-early maturity. Medium-Large vine size. White flower color.

Uses: Specialty.

Strengths: Light russet, nice smooth skin smooth.

Weaknesses: Drop, flesh color-1.8, flesh not very yellow, second growth, road map (scale-like), pear shape, heat sprouts, variable flesh color, small tubers.

CO94165-3P/P - Oblong Purple. Parentage (ND2008-2 x All Blue). Cross made and selected in Colorado. Late maturity. Large vine size.

Uses: Specialty.

Strengths: BOT, flesh color-4, superior to All Blue dark purple flesh, smooth, heavy set, very purple flesh.

Weaknesses: Road map, variable shape, rough, poor shape.

CO94183-1R/R - Oblong Red. Parentage (All Red x ND2109-7). Cross made and selected in Colorado. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: OK, nice exterior color, yield, good skin color, nice.

Weaknesses: Flesh color-2.9, not that red flesh, silver scurf, scab?, stem attachment, drop, bad shape, close set, pear shape, pointed to stem end, flesh color radiates from eyes, flat, poor yield, road map, silver scurf.

CO95051-7W - Oblong White. Parentage (AC88456-6 x BC0894-2). Cross made and selected in Colorado. Medium maturity. Medium vine size. Purple flower color.

Uses: Chip.

Strengths: Nice, nice shape.

Weaknesses: Long stolons, poor internals, heat necrosis, stem end discoloration.

CO95086-8RU - Oblong Russet. Parentage (CO87009-4 x Silverton Russet). Cross made and selected in Colorado. Early maturity. Medium vine size. Red-purple flower color.

Uses: Process.

Strengths:

Weaknesses: Bad Rhizoctonia, severe vascular discoloration, heat sprouts, poor shape, pointed to stem end, rot, drop.

CO95172-3RU - Long Russet. Parentage (Russet Nugget x AC88165-3). Cross made and selected in Colorado. . Medium maturity. Large vine size. White flower color.

Uses: Fresh.

Strengths:

Weaknesses: Pointed to stem end, poor shape, small, late, Rhizoctonia, pointed, small, feathering, drop.

CO96141-4W - Oblong White. Parentage (BC0894-2 x AC87340-2). Cross made and selected in Colorado. Medium-early maturity. Medium-small vine size. White flower color

Uses: Chip.
Strengths: BOT, nice medium size.
Weaknesses: Stem end rot, nice.

CO97043-14W – Oblong White. Parentage (AC91817-5 x AC87340-2). Cross made in and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: Chip.
Strengths: Very good.
Weaknesses**:** Deep nose.

CO97065-7W – Oblong White. Parentage (AC92513-3 x Chipeta). Cross made in and selected in Colorado. Medium maturity. Medium vine size. Red-purple flower color.

Uses: Chip.
Strengths:
Weaknesses: Flat, feathering.

CO97078-5R - Round Red. Parentage (CO86142-3 x Redsen). Cross made and selected in Colorado. Medium-early maturity. Medium vine size. Purple flower color.

Uses: Fresh.
Strengths: Nice red color, nice, nice interior, BOT.
Weaknesses: Late, feathering.

CO97137-1W – Oblong–White. Parentage (NDO2904-7 x AC89047-1). Cross made and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: Fresh.
Strengths:
Weaknesses: Pointed to apical end, skinny, slight stem end discoloration, pointed to stem end, drop.

CO97226-2R/R– Round Red/Red. Parentage (CO94183-1 x CO94214-1). Cross made in and selected in Colorado. Early maturity. Medium-large vine size. White flower color.

Uses: Chip.
Strengths: Nice internal, nice shape, dark yellow flesh, BOT-.
Weaknesses: Flat, road map many small tuber drop, feathering.

CO97232-1R/Y – Oblong-Red/Yellow. Parentage (CO94218-1 x VC0967-2). Cross made and selected in Colorado. Medium- early maturity. Medium vine size. Purple flower color.

Uses: Specialty.
Strengths: Nice color.
Weaknesses: Road map, poor shape, poor flesh color, feathering, pointed to stem end.

CO97232-2R/Y – Round-Red/Yellow. Parentage (CO94218-1 x VC0967-2). Cross made and selected in Colorado. Medium maturity. Medium vine size. Red-purple flower color.

Uses: Specialty.
Strengths: BOT, nice shape, buff, nice internal.
Weaknesses: Ugly net, road map, poor shape, pointed to stem end.

CO97233-3R/Y – Oblong-Red/Yellow. Parentage (CO94218-1 x VC0967-5). Cross made and selected in Colorado. Medium-late maturity. Medium vine size. Red-purple flower color.

Uses: Specialty.
Strengths: Nice yellow flesh, nice internal.
Weaknesses: Hollow heart, growth crack, too large, feathering, poor shape, pointed, drop severe road map, green sprout.

COA96141-2C - Oblong White. Parentage (BCO894-2 x AC73340-2). Cross made in Colorado and selected in Aberdeen. Medium maturity. Medium vine size. White flower color

Uses: Chip.
Strengths: Nice.
Weaknesses: Shape?, rough, stem end rot, nipple knobs.

COA96142-3C - Round Buff. Parentage (BCO894-2 x Ivory Crisp). Cross made in Colorado and selected in Aberdeen. Medium-early maturity. Medium vine size. Red-purple flower color.

Uses: Chip.
Strengths: Nice interior.
Weaknesses: Flat Rhizoctonia, lunker, oversize.

COTX00104-6R – Oblong-Red. Parentage (ND3574-5R x C086218-2). Cross made in Colorado and selected in Texas. Medium-early maturity. Medium vine size.

Uses: Fresh.
Strengths:
Weaknesses: Short dormancy, Rhizoctonia, road map.

COTX00197-1W – Oblong White. Parentage (A91790-13W X NDTX4930-5W). Cross made in Colorado and selected in Texas.

Uses: Chip.
Strengths:
Weaknesses:

COTX00206-1W - Round White. Parentage (AC87340-2W x NDTX4930-5W). Cross made in Colorado and selected in Texas. Early maturity. Large vine size.

Uses: Chip.
Strengths: Nice interior, nice shape.
Weaknesses: Low yield.

COTX00212-1Ru - Oblong Russet. Parentage (AC90636-3RU x AC92009-4RU). Cross made in Colorado and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.
Strengths: BOT, yield.
Weaknesses: Raised eyes, Rhizoctonia, blocky, shape smaller, rough, close set, poor shape, ugly net, rough, drop+++, feathering, russet net not as nice.

COTX00254-2W – Oblong White. Parentage (AO95496-4 x NDTX4930-5W). Cross made in Colorado and selected in Texas.

Uses: Chip.
Strengths:
Weaknesses:

COTX00290-3R - Round Red Parentage (CO94019-1R XCO89097-2R). Cross made in Colorado and selected in Texas.

Uses: Fresh.
Strengths: Keep
Weaknesses: Poor shape good skin set.

COTX00328-1Pu/Ypu Oblong Purple Parentage (ATD252-5R X BO811-13RY). Cross made in Colorado and selected in Texas.

Uses: Chip.
Strengths: Keep.
Weaknesses: Rough, vascular ring, road map.

COTX00411-4R - Oblong Red Parentage (German Butterball X NDC5281-2R). Cross made in Colorado and selected in Texas.

Uses: Fresh.
Strengths: Keep.
Weaknesses: Silver scurf+, deep nose+, drop+++?.

COTX01294-1W – Oblong White. Parentage (A89655-5DY X A92653-6R). Cross made in Colorado and selected in Texas.

Uses: Chip.
Strengths:
Weaknesses: Drop+++.

COTX01397-7R/Y - Oblong Red Parentage (VC1015-1R/Y x Winema). Cross made in Colorado and selected in Texas.

Uses: Specialty.
Strengths: Keep.
Weaknesses:

COTX01403-4R/Y - Oblong Red Parentage (VC1015-7R/Y x Winema). Cross made in Colorado and selected in Texas.

Uses: Specialty.
Strengths: Keep, BOT+-.
Weaknesses: Road map, silver scurf.

COTX01440-1Ru - Oblong Russet Parentage (Wallowa Russet x Silverton Russet). Cross made in Colorado and selected in Texas.

Uses: Fresh.
Strengths: Smooth.
Weaknesses: Ugly net, heat sprouts, drop++.

COTX94016-2W - Round White. Parentage (A84095-1 x CO86030-1). Cross made in Colorado and selected in Texas. Medium maturity. Large vine size.

Uses: Chip.
Strengths:
Weaknesses: Drop, oversize, poor shape, greenhead, poor internals, very rough, deep eyes, feathering.

COTX94218-1R – Round Red. Parentage (Red Ruby x Red Gold). Cross made in Colorado and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.
Strengths: Nice appearance, nice internal smooth, keep, nice shape, small tubers.
Weaknesses: Many small tubers, Joe Allen type, drop?, lenticels, small, road map, skin color faded.

COTX99045-2Ru/Y - Oblong light Russet. Parentage (A84095-1 x CO86030-1). Cross made in Colorado and selected in Texas. Late maturity. Large vine size.
Uses: Specialty.
Strengths: Keep, BOT.
Weaknesses: Drop, small need to bulk, thin tubers drop++?.

COTX99238-2W - Round-Oblong White. Parentage (ND2676-10 x AC87340-2). Cross made in Colorado and selected in Texas. Late maturity. Large vine size.
Uses: Chip.
Strengths: Nice shape.
Weaknesses:

COTX99314-1W - Round White. Parentage (CHIPETA X ND2676-10). Cross made in Colorado and selected in Texas.
Uses: Chip.
Strengths:
Weaknesses: Scab, Rhizoctonia.

Courage – Round Red/Yellow. Cross made in the Netherlands. Medium-early maturity. Flesh color light yellow
Uses: Specialty.
Strengths: Nice flesh.
Weaknesses: Poor shape, flat buff, road map, stem end nipples rough, scale, unattractive buff skin, green vine, heat spouts, deep nose.

Dark Red Norland - Oblong Red. Parentage (Redkote x ND626). Cross 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.

Golden Sunburst– Oblong White/Yellow. Cross made in Germany. Medium maturity.
Uses: Specialty.
Strengths: Nice, nice flesh.
Weaknesses: Pointed to stem end, chain tubers, heat sprouts, feathering, dumb bell, drop+, rough poor shape, pointed to stem end, poor internal.

Ivory Crisp - Round White. Parentage (ND292-1 x A77268-4). Cross made in North Dakota and selected in Corvallis, Oregon. Medium maturity. Medium vine size. White flower color.
Uses: Chip.
Strengths: BOT, nice.
Weaknesses: Greenhead, stem end discoloration, powdery scab, poor shape.

KLONDYKE ROSE Long Red. Cross made in Netherlands.

Uses: Specialty
Strengths:
Weaknesses: Heat sprouts, pointed to stem end.

MWTX2609-4Ru - Long Light Russet. Parentage (Russet Burbank x (Ontario x 4 x hybrid). Cross made in Madison, Wisconsin and selected in Texas. Late maturity. Large vine size.
Uses: Fresh.
Strengths: Yield, nice internal.
Weaknesses: Drop, rot, eye bulge, light russet, rough, pointed, poor shape and net, eyes a little deep, heat sprouts, pointed to stem end, stem nipples, feathering, not as long as -4, poor shape, drop++++, feathering, heat sprouts, bad sprouting, feathering.

MWTX2609-4Ru - Long Russet. Parentage (Russet Burbank x (Ontario x 4x hybrid). Cross made in Madison, Wisconsin and selected in Texas. Medium-late maturity. Medium vine size. White flower color.
Uses: Fresh.
Strengths: High yield, long, light net, BOT- for interior nice.
Weaknesses: Pointed, rough, drop+++, feathering, pointed to stem end, cone shaped, poor shape, knobs eye knobs, century like, pointed to stem end.

MWTX4241-1W - Round White. Parentage (Snowden x (US-W6703-1 x US-W8829-1)). Cross made in Madison, Wisconsin and selected in Texas. Medium maturity. Large vine size.
Uses: Chip.
Strengths:
Weaknesses: Drop, rough, deep eyes, Rhizoctonia, poor shape, deep eyes, eye sprouts, drop++, feathering.

ND2470-27 - Oblong White. Parentage (Yankee Chipper x Norchip). Cross made and selected in North Dakota. Medium maturity. Large vine size. Red-purple flower color
Uses: Chip.
Strengths: Yield, nice, nice shape and interior, good skin set.
Weaknesses: Greenhead, Rhizoctonia, color variable from 3.5-4.5, silver scurf.

ND7834-2P -Oblong-Long Purple Parentage (NorDonna x ND5554-1R). Cross made and selected in North Dakota.
Uses: Fresh/Chip.
Strengths: Nice shape smooth.
Weaknesses: Internal like all blue, chip?.

ND8083b-1pY - Round-Oblong Red Parentage (Dakota Jewel and Jacqueline Lee). Cross made and selected in North Dakota.
Uses: Fresh
Strengths: Red yellow flesh, many small tubers, boiler.
Weaknesses: Drop.

ND8362C-2 - Round White. Cross made and selected in North Dakota.
Uses: Chip.
Strengths: Nice shape.
Weaknesses:

NDA5507-3YF - Oblong White. Parentage (Brodick x Yukon Gold). Cross made in North Dakota and selected in Alberta. Medium-early maturity. Medium vine size. Red-purple flower color

Uses: Specialty.

Strengths: White with pink eyes, nice shape.

Weaknesses: Drop, red eyes, poor shape, enlarged lenticels, flat, stem attachment heat sprouts, flesh color-1.6, many small tubers, not that yellow flesh, nipple knobs at stem end, Rhizoctonia, large lenticels, feathering, pointed to stem end, buff.

NDTX028728-3W – Oblong White. Parentage (MSE149-5Y x 7188-4R). Cross made in North Dakota and selected in Texas.

Uses: Chip.

Strengths: Nice+.

Weaknesses: Very large tubers, feathering, hollow heart, deep nose.

NDTX4271-5R - Round Red. Parentage (NDTX9-1068-1R x ND2050-1R). Cross made in North Dakota and selected in Texas. Early to medium maturity. Medium vine size.

Uses: Fresh.

Strengths: Good color and shape, lots of small round tubers yield+, color+, very nice, BOT, nice interior.

Weaknesses**:** Can have buff skin, heat sprouts, Rhizoctonia.

NDTX4304-1R - Round Red. Parentage (ND1562-4R x NDTX9-1098-11R). Cross made in North Dakota and selected in Texas. Early maturity. Small-medium vine size.

Uses: Fresh.

Strengths: BOT yield+, nice exterior, hollow heart resistant, good color, very nice interior, attractive red color, BOT nice shape, nice interior.

Weaknesses: Oversize, top rot, seems to set high in bed, feathering, can skin and exhibit variability in tuber color feathering, deep nose, heat sprouts, growth cracks.

NDTX4756-1R/Y – Oblong-Red/Yellow. Parentage (3451-14R X 1618-13R). Cross made in North Dakota and selected in Texas.

Uses: Specialty.

Strengths: Keep, BOT+++, nice, nice shape, candidate, yield+.

Weaknesses: Zippered, small tubers, poor flesh, road map, oversize.

NDTX4828-2R - Oblong Red. Parentage (ND3877-2R x NorDonna). Cross made in North Dakota and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: Nice shape, very little skinning with nice color, stores very well, nice interior, yield+.

Weaknesses: Deep eyes, rough, lenticels, silver scurf, some netting at stem end, drop early, rough silver scurf.

NDTX4847-7R - Oblong Red. Parentage (ND3900IR-3R x Fontenot). Cross made in North Dakota and selected in Texas. Medium-early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: BOT*, TC?, nice internal smooth nice shape, nice.

Weaknesses: Flat, drop?, growth cracks, vascular discoloration, lenticels, second growth, poor external, feathering, small green sprouts, silver scurf+, growth cracks, Rhizoctonia.

NDTX4930-5W - Round White. Parentage (ND860-2 x A7961-1). Cross made in North Dakota and selected in Texas. Early-medium maturity. medium-large vine size. White flower color.

Uses: Chip.
Strengths: Nice shape, good yield, chips very white, early maturity and bulking, BOT+++, large tubers, candidate, nice internal, yield+.
Weaknesses: Very buff, flat, hollow heart on large tubers, rough, oversize+.

NDTX6754C-1W - Oblong White. Parentage (ND5099IB-2B x ND5433-2). Cross made in North Dakota and selected in Texas. Medium maturity. Large vine size.
Uses: Chip.
Strengths: Nice.
Weaknesses: Trace hollow heart hollow heart, deep nose, mix?, small poor internal, drop+?, buff.

NDTX6773-1W - Oblong White. Parentage (ND5175-4 x S440). Cross made in North Dakota and selected in Texas. Medium maturity. Large vine size.
Uses: Chip.
Strengths: Large tubers.
Weaknesses: Deep eyes, small, rough, drop?.

NDTX731-1R - Round Red. Parentage (ND169-10R x ND9476-5). Cross made in North Dakota and selected in Texas. Early maturity. Medium-large vine size.
Uses: Fresh.
Strengths: Uniform round tubers, BOT+, early, does not oversize.
Weaknesses: Susceptible to Rhizoctonia, rough, susceptible to hollow heart, eyes somewhat deep ugly nose.

NDTX7571-1WRE/Y Oblong White/Red Parentage (ND5084-3R x Picasso). Cross made in North Dakota and selected in Texas. .
Uses: Chip.
Strengths: keep, BOT++.
Weaknesses:

NDTX7571-3AW - Round White. Parentage (ND5084-3R x Picasso). Cross made in North Dakota and selected in Texas. Late maturity. Large vine size.
Uses: Chip.
Strengths: Nice shape and interior.
Weaknesses: Hollow heart.

NDTX7571-4AW - Round White. Parentage (ND5084-3R x Picasso). Cross made in North Dakota and selected in Texas. Late maturity. Large vine size.
Uses: Chip.
Strengths:
Weaknesses: Hollow heart, mix?.

NDTX7571-5W/Y - Round White. Parentage (ND5084-3R x Picasso). Cross made in North Dakota and selected in Texas. Late maturity. Large vine size.
Uses: Chip.
Strengths: Nice shape.
Weaknesses: Small, buff skin, low yield, small, drop?.

NDTX8555-2R/P - Oblong –Long Red Parentage (7188-4R x 5256-7R). Cross made in North Dakota and selected in Texas.

Uses: Chip.
Strengths: Keep.
Weaknesses: Road map, heat sprouts.

NY126 - Round Buff. Parentage (Keuka Gold x Pike). Cross made and selected in New York. Medium late maturity.

Uses: Specialty.
Strengths: Smooth.
Weaknesses: Somewhat flat.

PA97B3-2 - Long Russet. Parentage (A8469-5 x A77715-6). Cross made in Prosser, Washington and selected in Aberdeen. Medium maturity. Medium vine size. White flower color.

Uses: Dual.
Strengths:
Weaknesses: Rough, ugly net, drop.

PA99P20-2 – Oblong Red/Red. Parentage (N40-1 x PA96RR1-220). Cross made in Prosser, Washington and selected in Aberdeen. Medium maturity. Medium vine size. Red Purple flower color.

Uses: Dual.
Strengths:
Weaknesses: Sugar ends, drop, poor shape, pointed, curved tubers, silver scurf.

PATX99P10-1Pu/R - Oblong Red/Red. Parentage (All Red X PA96RR02-120). Cross made in Prosser, Washington, tuberling grown in Aberdeen and selected in Texas.

Uses: Dual.
Strengths: Nice?, red color in flesh from eyes, smooth. keep, chip.
Weaknesses: Hollow heart, road map+ silver scurf.

POR01PG20-12 - Oblong Red/Red. Parentage (PA97B35-2 x PA97B29-3). Cross made in Prosser, Washington and selected in Corvallis, Oregon. Medium maturity. Medium vine size. Red Purple flower color.

Uses: Dual.
Strengths: Smooth yellow/red flesh, keep, BOT- for interior.
Weaknesses: Deep eyes, drop, very late, heat sprouts, knobs, poor shape, feathering, drop, road map+, buff.

PORTX03PG22-1R/PY - Oblong Red/Red. Parentage (PA97B35-1 x PA97B36-3). Cross made in Prosser, Washington, tuberling grown in Corvallis, Oregon and selected in Texas.

Uses: Dual.
Strengths: Small tubers, nice red flesh, smooth shape, red flesh color from eyes, yield +.
Weaknesses: Buff skin, road map+, drop++, stem end nipples.

PORTX03PG25-2R/P - Long Red Parentage (PA97B35-1 x PA99P7-2). Cross made in Prosser, Washington, tuberling grown in Corvallis, Oregon and selected in Texas.

Uses:
Strengths: Fingerling, keep, BOT+++.
Weaknesses:

PORTX03PG34-4R/P - Long Red Parentage (PA99P20-2 x POROOPG2-16). Cross made in Prosser, Washington, tuberling grown in Corvallis, Oregon and selected in Texas.

Uses:

Strengths: Fingerling, keep.
Weaknesses: Not attractive exterior.

PORTX03PG59-1PINTO/Y – Oblong Purple Parentage (POROOPG9-3 x PA97B35-1)). Cross made in Prosser, Washington, tuberling grown in Corvallis, Oregon and selected in Texas.

Uses:
Strengths:
Weaknesses: Drop++++.

PORTX03PG87-1R/RY - Oblong Red/Red Yellow. Parentage (True Blue x PA97B35-3). Cross made in Prosser, Washington, tuberling grown in Corvallis, Oregon and selected in Texas.

Uses: Dual.
Strengths: Red yellow flesh
Weaknesses: Rough, heat sprouts, drop, very light red on yellow flesh, lenticels.

Ranger Russet - Long Russet. Parentage (Butte x A6595-3). Cross 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.

Red LaSoda - Oblong Red. Parentage (Triumph x Katahdin). Cross made and selected in Louisiana. Medium maturity. Medium-large vine size. Purple flower color.

Uses: Fresh.
Strengths: High yields, wide adaptability.
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.

Russet Burbank - Long Russet. Luther Burbank reported the origin of Russet Burbank in 1914 as being 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.

Russet Norkotah - Oblong-long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross 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.

Weaknesses: Weak vine, susceptibility to early dying, most viruses especially PVY and late blight, and very susceptible to Verticillium wilt and early blight.

RZD94-2262 - Oblong White/Yellow. Cross made and selected at the Potato Research Institute, Czech Republic.
Uses: Specialty.
Strengths: Smooth.
Weaknesses: Heat sprouts, drop+, nipple ends+, poor shape, second growth, long stolons, late, stem end nipples, rough, road map, heat sprouts.

RZD95-6643 - Oblong White. Cross made and selected at the Potato Research Institute, Czech Republic.
Uses: Specialty.
Strengths: Yield+, nice white flesh, smooth.
Weaknesses: Growth cracks, deep nose at both ends, rough, feathering, drop, poor shape, poor internals.

Shepody - Long White. Parentage (Bake King x F58050), Selected in New Brunswick, Canada and released by Agriculture Canada, - New Brunswick in 1980. Medium-late maturity. Medium vine size. Light violet flower color with white tips.
Uses: Early harvested processing.
Strengths: Good early yields, high percentage of large tubers, resistance to blackspot bruise, tolerant to heat stress.
Weaknesses: Specific gravity is variable and erratic, sugars accumulate during storage, fries dark from 45o storage, very susceptible to common scab, PVX, PVY, early and late blight, Verticillium wilt and pinkeye.

Stampede Russet - Oblong Russet. Parentage (BR7091-1 x Lemhi Russet). Cross made in Texas, selected in Aberdeen (Aberdeen) and reselected in Alberta, Canada. Early maturity. Medium vine size.
Uses: Fresh.
Strengths: BOT, nice shape and internal, nice net very smooth BOT+.
Weaknesses: Growth cracks, tubers can be short, blocky.

TX1523-1Ru/Y (Sierra Gold™) - Round-oblong Russet/Yellow. Parentage (Krantz x Delta Gold). Cross made and selected in Texas. Early maturity. Medium vine size.
Uses: Specialty.
Strengths: BOT, flesh color-3.3, nice yield+, nice, BOT++++,
Weaknesses: Can oversize.

TX1673-2W - Oblong White. Parentage (Allagash Russet x TND 14-1Russ). Cross made and selected in Texas. Medium maturity. Large vine size.
Uses: Chip.
Strengths: Nice, nice interior. BOT, outstanding internal.
Weaknesses: Blocky, poor shape, feathering, flat pointed.

TX1674-1W/Y - Oblong-long White/Yellow. Parentage (Russet Nugget x Delta Gold). Cross made in Texas and selected in Texas. Early maturity. Medium vine size. Light lavender flower color.
Uses: Specialty.
Strengths: Red eyes, flesh color-3.0, nice, nice interior, good yield BOT+, yield+, candidate.
Weaknesses: Drop, flat, nipple knobs, poor shape, feathering, close set, slight vascular discoloration.

TXA549-1Ru - Oval Russet. Parentage (ND9687-3Ru x ND9852-1Ru). Cross 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: BOT, nice, parent, nice net and internal, smooth tubers with good skin set, high yielding, and dark attractive russet skin, appears to be resistant to early blight, BOT for internal.

Weaknesses: Blocky, Rhizoctonia, too short, drop, may not size well, tubers could be longer, pointed stem ends, susceptible to Rhizoctonia, drop+, keep, fat tubers, nice feathering uniform.

TXDH-99-1Ru - Oblong-Long Light Russet. Selected in Dalhart, Texas. Late maturity. Large vine size.

Uses: Fresh.

Strengths: Nice internal.

Weaknesses: Drop++++, knobs, heat sprouts, poor shape, Rhizoctonia, not as nice, light net, flat, pointed, greenhead, some pointed to stem end, feathering, mix, heat necrosis, eye knobs rough, pointed, not bad, drop+++, apical nipples.

TXNS112 - (Protected – PVP) - Oblong-long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross made and selected in North Dakota. TXNS112 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: Larger than other strains nice shape and internal.

Weaknesses: Variable size, Rhizoctonia, some pointed, 3% greenhead.

TXNS223 - (Protected – PVP) - Oblong-long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross made and selected in North Dakota. TXNS 223 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: BOT, nice, yield, nice shape, net, and internal, Good yield, heavier tuber set with 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.

Weaknesses: Can produce a higher percentage of misshapen tubers than Russet Norkotah.

TXNS278 - (Protected – PVP) Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross 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.

Weaknesses: Can produce a higher percentage of misshapen tubers than Russet Norkotah.

TXNS296 - (Protected – PVP) - Oblong-long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross 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: BOT, nice.

Weaknesses: Smaller, some shape problems, rough, pointed, 5% greenhead.

TXNS410 - Oblong-long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross made and selected in North Dakota. TXNS410 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. White flower color.

Uses: Fresh.
Strengths: Keep, nice+.
Weaknesses:

TXNS551 - Oblong-long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross made and selected in North Dakota. TXNS551 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. White flower color.

Uses: Fresh.
Strengths: BOT, keep, nice.
Weaknesses: Drop, small tubers, feathering.

UNTX383-3WRE/Y - Round Red . Cross made in Minnesota and selected in Texas.

Uses: Specialty.
Strengths: Keep, BOT-.
Weaknesses:

VC0967-2R/Y - Oblong Red. Parentage (Agria x Redsen). Cross made in Lethbridge, Alberta and selected in Colorado. Medium-early maturity. Medium vine size. Red-purple flower color.

Uses: Fresh/Fry
Strengths: OK, nice yellow flesh, flesh color -2.8, best of all VC's.
Weaknesses**:** Shape, very susceptible to powdery scab, heat sprouts, flat, pointed, drop.

VC1002-3W/Y - Oblong White. Parentage (Agria x Wischip). Cross made in Lethbridge, Alberta and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: Fresh/Specialty.
Strengths: Flesh color-3.3, yield.
Weaknesses: Drop, nipple knobs, flat, stem attachments mix, poor shape, long stolons, Rhizoctonia, ugly skin, road map, poor yield, small boilers, heat sprouts, variable shape round to long, ugly skin, road map, drop

VC1009-1W/Y - Oblong Red. Parentage (Agria x MIN12823). Cross made in Lethbridge, Alberta and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: Fresh/Specialty.
Strengths: Good yellow color, flesh color-3.1, nice, very nice yellow flesh, smooth, nice small tubers.
Weaknesses: Drop, flat, poor shape, not that great, feathering, susceptible to heat, pear shape, stolon attachments, Rhizoctonia, poor yield.

VC1015-7R/Y - Oblong Red. Parentage (Agria x Chieftain). Cross made in Lethbridge, Alberta and selected in Colorado. Early maturity. Medium vine size. Purple flower color.

Uses: Fresh/Specialty
Strengths: Flesh color -3.7, BOT for flesh color, nice interior, Very nice yellow flesh nice flesh.
Weaknesses: Flat, light red skin, ugly exterior, poor skin color and texture, road map, buff.

VC1075-1R - Oblong Red. Parentage (ND1196-2R x Red Ruby). Cross made in Lethbridge, Alberta and selected in Colorado. Early maturity. Medium vine size. Purple flower color.

Uses: Fresh.
Strengths: Very nice, good color.

Weaknesses: Feathering, chain tubers, drop, heat sprouts, stem attachment, deep eyes, silver scurf, average, somewhat rough, ugly skin, flat, eye brows, nice, road map, drop.

VC1123-2W/Y - Oblong White . Parentage (Agria x FV9307-3). Cross made in Lethbridge, Alberta and selected in Colorado. Medium-late maturity. Large vine size. White flower color.

Uses: Fresh/Specialty.

Strengths:

Weaknesses: Drop, flesh color-3.1, alligator hide, heat sprouts, flat, (poor internal scales), road map (scale-like), second growth heat sprouts, flat, sunburn, late, ugly skin.

Yukon Gold - Oblong White/Yellow. Parentage (W5279-4 x Norgleam). Cross 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 seed pieces.

Appendix B. Parentage of potato varieties or selections-2005.

Variety or Selection	Parentage
Ackersegen	Hindenburg x Allerfruheste
Adora	Pimura x Alcmaria
Agria	Quarta x Semlo
All Blue	
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
Atlantic	Wauseon x B5141-6
Avalanche	DHS40-1034 9 x Maris Piper
Aziza	Smeenge 69-17 x Smeenge74-5
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
Hertha	Dijkhuis61-133 x Konst62-374
Ilong	
Innovator	Shepody x RZ 84-2580

Variety or Selection	Parentage
Irish Crispin	Amigo x DH70-699 3a
Ivory Crisp	ND292-1 x A77268-4
KLONDYKE ROSE	
Krasaua	Visnovske Rohlic x B53
La Rouge	LaSoda x Progress
Latona	Jaerla x Nicola
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	
Ranger Russet	Butte x A6595-3
Red Gold	G68211 x G6521-4RY
Red LaSoda	Triumph x Katahdin
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
Rutt	Laila x Alcmaria
Saginaw Gold	MS321-38 x Michibonne
Sangre	Viking x A6356-9
Sangre-10	Viking x A6356-9
Sante	SVPY66-13-636 x AM66-42
Satina	Puntila x 99 73
Shepody	Bakeking x F58050
Shepody	BakeKingxF58050 ,
Stampede Russet	BR7091-1 x Lemhi Russet
Strobrawa	MPI55 957/54 x Mira
Super Red	
Ukama	Marijke x Sirtema
Urgenta	Furore x Katahdin
Valisa	
Viking	Redskin x Nordak

Variety or Selection	Parentage
Vivaldi	TZ 77-148 x Monalisa
Vokal	Primura x Rheinhort
Winema	Redsen x ND1196-2R
Yellow Finn	
Yukon Gold	W5279-4 x NorGleam
Numbered Clones	
A92030-5	A8603-20 x A83043-12
A92294-6	A86332-7 x Summit Russet
A93157-6LS	A87149-4 x A88108-7
A95074-6	Agria x Summit Russet
A95109-1	A8893-1 x Summit Russet
A95409-1	A88236-4 x A89512-3
A96095-3	A89384-10 x A89512-3
A96104-2	A89384-10 x A91194-4
A96741-1R	IdaRose x Mazama
A96741-2R	IdaRose x Mazama
AC96052-1RU	A81386-1 x A9014-2
AC97097-14W	Brodick x A91746-8
AC97521-1R/Y	SJP/T48YF x A91846-5R
AO96160-3	A89384-10 x A89512-3
AO96164-1	A89384-10 x A91194-4
AOA95154-1	Bannock x A89152-4
AOA95155-7	Bannock x A89163-3LS
AOTX95265-1Ru	A89216-9 x A86102-6
AOTX95265-2ARu	A89216-9 x A86102-6
AOTX95265-3Ru	A89216-9 x A86102-6
AOTX95265-4Ru	A89216-9 x A86102-6
AOTX95269-1Ru	A89296-3 x A89804-7
AOTX95295-1Ru	A89804-7 x Ranger Russet
AOTX95295-3Ru	A89804-7 x Ranger Russet
AOTX95309-1W	A9055-8LS x A89163-3LS
AOTX95309-2W	A9055-8LS x A89163-3LS
AOTX95309-3W	A9055-8LS x A89163-3LS
AOTX96075-1Ru	A84118-3 x A89384-10
AOTX96084-1Ru	A8792-1 x A86102-6
AOTX96208-1Ru	A9057-7 x A91194-3
AOTX96216-1Ru	A9082-2 x A86102-6
AOTX96216-2Ru	A89216-9 x A86102-6
AOTX96216-3Ru	A89216-9 x A86102-6
AOTX96580-1W	A8836-5 x COO83008-1
AOTX98096-1Ru	Shepody x A92158-3
AOTX98137-1Ru	A8670-7 x A9310-1

Variety or Selection	Parentage
AOTX98183-2Ru	A90621-11LS x A9230-5
ATTX01175-1R	MN17922 x Mazama
ATTX01180-1R	ND5084-3R x A92657-1R
ATTX01180-4R	ND5084-3R x A92657-1R
ATTX8823-2W	ND2051-1Ru x A7961-1
ATTX88654-2Pu/Y	PI343201 x Gurney's Purple
ATTX88654-3W/RE/Y	PI343201 x Gurney's Purple
ATTX961014-1R/Y–	A90601-2RDY x MAZAMA
ATTX98444-16R/Y	A83360-9R x T48YF
ATTX98444-3R/Y	A83360-9R x T48YF
ATTX98452-9R	A93456-6R x A92657-1R
ATTX98453-6R	A93490-1R x A91846-5R
ATTX98462-3R/Y-	ATD251-5RY x BO811-13RY
ATTX98462-9R/Y	ATD251-5RY x BO811-13RY
ATTX98465-1R/Y	ATD252-5R x A89655-5DY
ATTX98466-5R/W-R	ND2051-1Ru x A7961-1
ATTX98468-3R/Y	ATD252-5R x A93457-4R
ATTX98468-5R/Y	ATD252-5R x A93457-4R
ATTX98471-4R/Y	ATD252-5R x BO811-13RY
ATTX98491-4YRsplash/Y	P94A2-3Y x A92657-1R
ATTX98493-2P/P	P94A2-3Y x BO811-13RY
ATTX98497-1R-Y/R	P94A2-4Y x A92657-1R
ATTX98497-1R-Y/Y	P94A2-4Y x A91848-1R
ATTX98500-3W-P/Y	P94A2-4Y x Granola
ATTX98509-3R/Y	T48YF x A92657-1R
ATTX98510-1R/Y	T48YF x A93456-6R
ATTX98510-3R/Y	T48YF x A93456-6R
ATTX98514-1R/Y	T51YF x A93456-6R
ATTX98514-3R/Y	T51YF x A93456-6R
ATTX98516-1W/Y	T51YF x BO811-13RY
ATTX98518-11Pu/Y	T48YF x A93456-6R
ATTX98518-4Pu/Y	Agria x A83350-9R
ATTX99321-1R/Y	A89655-5DY x A92653-6R
ATTX99325-1P	AGRIA x W1100R
ATX00144-2R	CenturyRussetxA91048-3
ATX01188-1R	Amadeus x Winema
ATX84378-6Ru	A79141-9 x ND329-1
ATX84706-2Ru	A738-1 x COA7906-5
ATX85404-8W	Gemchip x ND860-2
ATX88481-1Pu	A83302-1 x Bison
ATX91137-1Ru	A81473-2 x A83343-12
ATX9202-1Ru	A8343-12 x A8495-1

Variety or Selection	Parentage
ATX92230-1Ru	A8603-13 x A8495-1
ATX9332-8Ru	A8850-1 x A88288-1
ATX97195-1Ru	A89149-7 x A88236-6
ATX99049-1Ru	A84118-3 x B9922-11
ATX99092-1Ru	A9305-10 x A9014-2
ATX99331-1Pu/Y	INCAGOLDXCOA94019-5R
B0766-3T	B0243-18 x Costal Chip
BTX1544-2W/Y	BO811-13 x Yukon Gold
BTX1749-1W/Y	K7-6 x BO925-4
BTX2332-1R	B1523-4 x Super Red
CO94035-15RU	AO80432-1 x AC83064-6
CO94157-2W/Y	Russet Legend x German Butterball
CO94165-3P/P	ND2008-2 x All Blue
CO94183-1R/R	AllRedxND2109-7
CO95051-7W	AC88456-6 x BC0894-2
CO95086-8RU	CO87009-4 x Silverton Russet
CO95172-3RU	RussetNuggetxAC88165-3
CO96141-4W	BC0894-2 x AC87340-2
CO97043-14W	AC91817-5 x AC87340-2
CO97065-7W	AC92513-3 x Chipeta
CO97078-5R	CO86142-3 x Redsen
CO97137-1W	NDO2904-7 x AC89047-1
CO97226-2R/R–	CO94183-1 x CO94214-1
CO97232-1R/Y	CO94218-1 x VC0967-2
CO97232-2R/Y	CO94218-1 x VC0967-2
CO97233-3R/Y	CO94218-1 x VC0967-5
COA96141-2C	BCO894-2 x AC73340-2
COA96142-3C	BCO894-2 x Ivory Crisp
COTX00104-6R	ND3574-5R x C086218-2
COTX00197-1W	A91790-13W x NDTX4930-5W
COTX00206-1W	AC87340-2W x NDTX4930-5W
COTX00212-1Ru	AC90636-3RU x AC92009-4RU
COTX00254-2W	AO95496-4 x NDTX4930-5W
COTX00290-3R	CO94019-1R x CO89097-2R
COTX00328-1Pu/Ypu	ATD252-5R x BO811-13RY
COTX00411-4R	GermanButterballXNDC5281-2R
COTX01294-1W	A89655-5DY x A92653-6R
COTX01397-7R/Y	VC1015-1R/Y x Winema
COTX01403-4R/Y	VC1015-7R/Y x Winema
COTX01440-1Ru	Wallowa Russet x Silverton Russet
COTX94016-2W	A84095-1 x CO86030-1
COTX94218-1R	Red Ruby x Red Gold

Variety or Selection	Parentage
COTX99045-2Ru/Y	Parentage A84095-1xCO86030-1
COTX99238-2W	ND2676-10 x AC87340-2
COTX99314-1W	CHIPETA x ND2676-10
MWTX2609-4Ru	Russet Burbank x (Ontario x 4x hybrid)
MWTX2609-4Ru	Russet Burbank x (Ontario x 4x hybrid)
MWTX4241-1W	Snowden x (US-W6703-1 x US-W8829-1)
ND2470-27	Yankee Chipper x Norchip
ND7834-2P	NorDonna x ND5554-1R made
ND8083b-1pY	Dakota Jewel x Jacqueline Lee
NDA5507-3YF	Brodick x Yukon Gold
NDTX028728-3W	MSE149-5Y x 7188-4R
NDTX4271-5R	NDTX9-1068-1R x ND2050-1R
NDTX4304-1R	ND1562-4R x NDTX9-1098-11R
NDTX4756-1R/Y	3451-14R x 1618-13R
NDTX4828-2R	ND3877-2R x NorDonna
NDTX4847-7R	ND3900IR-3R x Fontenot
NDTX4930-5W	ND860-2 x A7961-1
NDTX6754C-1W	ND5099IB-2B x ND5433-2
NDTX6773-1W	ND5175-4 x S440
NDTX731-1R	ND169-10R x ND9476-5
NDTX7571-1WRE/Y	ND5084-3R x Picasso
NDTX7571-3AW	ND5084-3R x Picasso
NDTX7571-4AW	ND5084-3R x Picasso
NDTX7571-5W/Y	ND5084-3R x Picasso
NDTX8555-2R/P	Parentage 7188-4Rx5256-7R
NY126	Keuka Gold x Pike
PA97B3-2	A8469-5 x A77715-6
PA99P20-2	N40-1 x PA96RR1-220
PATX99P10-1Pu/R	AllRedXPA96RR02-120
POR01PG20-12	PA97B35-2 x PA97B29-3
PORTX03PG22-1R/PY	PA97B35-1 x PA97B36-3
PORTX03PG25-2R/P	PA97B35-1 x PA99P7-2
PORTX03PG34-4R/P	PA99P20-2 x POROOPG2-16
PORTX03PG59-1PINTO/Y	POROOPG9-3 x PA97B35-1
PORTX03PG87-1R/RY	True Blue x PA97B35-3
RZD94-2262	
RZD95-6643	
TX1523-1Ru/Y	Krantz x Delta Gold
TX1673-2W	Allagash Russet x TND 14-1Russ
TX1674-1W/Y	Russet Nugget x Delta Gold
TXA549-1Ru	ND9687-3Ru x ND9852-1Ru

Variety or Selection	Parentage
TXDH-99-1Ru	
TXNS112	ND95264Ru x ND9687-5Ru
TXNS223	ND95264Ru x ND9687-5Ru
TXNS278	ND95264Ru x ND9687-5Ru
TXNS296	ND95264Ru x ND9687-5Ru
TXNS410	ND95264Ru x ND9687-5Ru
TXNS551	ND95264Ru x ND9687-5Ru
UNTX383-3WRE/Y	
VC0967-2R/Y	Agria x Redsen
VC1002-3W/Y	Agria x Wischip
VC1009-1W/Y	Agria x MIN12823
VC1015-7R/Y	Agria x Chieftain
VC1075-1R	ND1196-2R x Red Ruby
VC1123-2W/Y	AgriaxFV9307-3

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