

Texas Potato Breeding Report 2011



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

Creighton Miller, Douglas Scheuring, and Jeff Koym
College Station & Lubbock

Table of Contents

	Page
Acknowledgements	iv
Mission Statement.....	1
Impact Statement.....	1
ZC Research Summary	2
Introduction	4
Springlake Trials, 2011	9
Western Regional Trials	13
Western Regional Chip Trial	13
Western Regional Russet Trial	21
Western Regional Red Trial	29
Western Regional Red/Yellow Trial.....	37
Western Regional White/Yellow Trial	44
Southwestern Regional Trials	51
Southwestern Regional Chip Trial.....	51
Southwestern Regional Russet Trial.....	59
Southwestern Regional Red Trial	66
Southwestern Regional Red/Yellow Trial	73
Southwestern Regional White/Yellow Trial.....	80
Southwestern Regional Purple/Purple Trial	87
Commercial Variety Chip Trial	93
Outstanding Texas Advanced Chip Selections, 2011	101
Texas Advanced Chip Selection Trial	101
Outstanding Texas Advanced Russet Selections, 2011	109
Texas Advanced Russet Selection (Co. Source) Trial.....	109
Texas Advanced Russet Selection (Tx. Source) Trial	117
Outstanding Texas Advanced Red Selections, 2011	124
Texas Advanced Red Selection (Co. Source) Trial	124
Texas Advanced Red Selection (Tx. Source) Trial	132
Outstanding Texas Advanced Red/Yellow Selections, 2011	139
Texas Advanced Red/Yellow Selection (Co. Source) Trial	139
Texas Advanced Red/Yellow Selection (Tx. Source) Trial	146
Texas Advanced Yukon Gold Strain Trial.....	153
Outstanding Texas Advanced White/Yellow Selections, 2011	160

Texas Advanced White/Yellow Selection Trial	160
Outstanding Texas Advanced Small Potato Selections, 2011	168
Texas Advanced Small Potato Selection Trial	168
Outstanding Texas Advanced Fingerling Selections, 2011	175
Texas Advanced Fingerling Selection Trial	175
2011 Dalhart Trials	181
Western Regional Chip Trial	184
Southwestern Regional Chip Trial	192
Commercial Variety Chip Trial	199
Texas Advanced Selection Chip Trial	206
2010 Chip Selections Trial, Dalhart	214
Texas Advanced Russet Selection Trial, Dalhart	216
2010 Russet Selections Trial, Dalhart	229
Texas Advanced Red Selection Trial, Dalhart.....	231
2010 Red Selections Trial, Dalhart.....	238
Texas Advanced Red Skin/Yellow Flesh Selection Trial.....	240
Texas Advanced White Skin Yellow Flesh Trial	247
2010 White Skin Yellow Flesh Selections Trial, Dalhart.....	254
Texas Advanced Small Potato Selection Trial	256
2010 Small Potato Selections Trial, Dalhart.....	263
Texas Advanced Fingerling Selection Trial	265
2010 Fingerling Selections Trial, Dalhart.....	272
2010 Purple Flesh Selections Trial, Dalhart	274
Texas Advanced Yukon Gold Strain Trial.....	276
Appendix A. General notes on potato varieties or selections- 2011.....	282
Appendix B. Parentage of potato varieties or selections-2011	350
Index of Varieties and Clones.....	362

Mention of a trade name or proprietary product does not constitute a guarantee or warranty of the product by Texas AgriLIFE Research and does not imply its approval to the exclusion of other products that also may be suitable.

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. Appropriate state and federal agencies must register all uses of pesticides before they can be recommended.

Commercial companies are mentioned in this publication solely for the purpose of providing specific information. Mention of a company does not constitute a guarantee or warranty of its products by Texas AgriLIFE Research or an endorsement over products of other companies not mentioned.

All programs, activities, information, services and facilities of Texas AgriLIFE Research are available to everyone without regard to race, color, religion, sex, age, national origin, or physical or mental handicap.

Acknowledgements

This work was conducted at the Texas AgriLIFE Research and Extension Center at Lubbock, the Department of Horticultural Sciences, College Station, and at field sites near Weslaco, Springlake, and Dalhart. Financial support for this work was partially provided by the Texas Department of Agriculture/Texas AgriLIFE, USDA-CSREES-SCRI (Project #2009-51181-20176), and USDA/NIFA Special Research Grants Program - Potato Research (Agreement # 2009-34141-20129).

Bruce Barrett of Springlake Potato Sales donated ten acres for growth of first year seedlings and advanced selections/variety trials near Springlake. Milt Carter, CSS Farms, donated seven acres for growth of first year seedlings and advanced selections/variety trials near Dalhart.

Cooperators:

Rich Novy, Brian Schneider, and Jonathan Whitworth, USDA-ARS, Aberdeen, Idaho
David Holm, Carolyn Keller, Caroline Grey, Samuel Essah, Kent Sather, and Rob Davidson, Colorado State University, San Luis Valley Research Center, Center, Colorado
Susie Thompson, Bryce Farnsworth, Gary A. Secor, and Neil Gudmestad, North Dakota State University, Fargo, North Dakota
Solomon Yilma, Oregon State University, Corvallis, Oregon
Shelley Jansky and Andy Hamernik, USDA-ARS, Madison, Wisconsin
Marty Glynn, USDA-ARS, East Grand Forks, Minnesota
Mel Henninger, Rutgers University, New Brunswick, New Jersey
David Douches, Joseph Coombs, Chris Long, and Willie Kirk, Michigan State University, East Lansing, Michigan
Donald Halseth and Walter De Jong, Cornell University, Ithaca, New York
Greg Porter, University of Maine, Orono, Maine
Luis Cisneros-Zevallos, Texas A&M University, College Station, Texas
Terry Wheeler, Texas AgriLIFE Research, Lubbock, Texas
Russell Wallace, Texas AgriLIFE Extension, Lubbock, Texas
Tom Isakeit, Texas AgriLIFE Extension, College Station, Texas
Ron French, Texas AgriLIFE Extension, Amarillo, Texas
Dr. Don Henne and John Jifon, Texas AgriLIFE Research, Weslaco, Texas
Dr. Christian Nansen and Kathy Vaughn, Texas AgriLIFE Research, Lubbock, Texas

Western Regional Cooperators:

Rob Wilson and Don Kirby, Tulelake, California
David Holm, Caroline Grey, and Samuel Essah, Center, Colorado
Rich Novy, Jonathan Whitworth, and Brian Schneider, Aberdeen, Idaho
Jeff Stark and Peggy Bain, Aberdeen, Idaho
Brain Charlton and Darrin Culp, Klamath Falls, Oregon
Clint Shock, Melheur, Oregon
Rick Knowles and Mark Pavek, Pullman, Washington
Chuck Brown and Roy Navarre, Prosser, Washington

Southwestern Regional Cooperators:

Joe Nunez and Jed DuBose, Bakersfield, California
Rob Wilson and Don Kirby, Tulelake, California
David Holm, Caroline Grey, and Samuel Essah, Center, Colorado

Grower Cooperators:

Bruce Barrett, Cliff Black, and Tim Gonzales, Springlake Potato Sales, Springlake, Texas
Grant Monie, Matt Naslund, Brian Zens, Jerry Henderson, John Wallace, and Milt Carter, CSS Farms,
Dalhart, Texas

Breeder Seed Increase:

David Holm, Caroline Grey, and Carolyn Keller, Colorado State University, San Luis Valley Research
Center, Center, Colorado
Sandy Aarestad, Valley Tissue Culture, Inc., Halstad, Minnesota
Tom Smith and Vicki Lee, Summit Plant Laboratory, Inc., Fort Collins, Colorado
Rob Campbell and Amanda Leo, California-Oregon Seed, Inc., Oakdale, California
John Wallace and Milt Carter, CSS Farms, Colorado City, Colorado

Seed Contributors:

Richard Barrett and Keith Barrett, Richard Barrett Produce, Muleshoe, Texas
Bruce Barrett, Springlake Potato Sales, Springlake, Texas
Rob Campbell, California-Oregon Seed, Inc., Oakdale, California
Ralph Child, Childstock Farms, Malone, New York

General Supply Contributors:

Bruce Barrett and Cliff Black, Springlake Potato Sales, Springlake, Texas
Grant Monie, Lucia Carpio, and Brian Zens, CCS Farms, Dalhart, Texas

Co-workers:

We would like to express our gratitude for the significant contributions of graduate student Sarah Turner, and student workers Angel Chappel, Elizabeth Villas, and Mike Jenson. Special thanks go to Jim Winder.

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

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

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

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

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

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

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

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

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

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

JTTX = cross made by USDA/ARS Madison, Wisconsin, tubers produced in College Station, Texas greenhouse, and original field selection in Texas

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

MN = cross made and selected in Minnesota

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

NDO = cross made in North Dakota and selected in Oregon

NDTX = cross made in North Dakota and selected in Texas

NY = cross made and selected in New York

OR = cross made and selected in Oregon

PA = cross made and selected in Prosser, Washington

POR = cross made in Prosser, Washington and selected in Oregon

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

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 Texas AgriLIFE Research is to identify and/or develop improved varieties adapted to the diverse Texas environmental conditions that will result in increased profits for the industry and provide superior products for consumers.

Impact Statement

Since the inception of the Texas Potato Breeding and Variety Development Program in 1973, 2,177,380 seedlings have been grown for selection in Texas, from which 10,009 original selections have been made. Twelve improved varieties have been developed/co-developed and/or released from this program. Most of the russet potatoes grown in Texas in 2011 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 2009, the average summer crop yield in Texas was reported to be 460 Cwt. /A, the highest in the nation among 11 states with summer crop production. In addition, the farm gate value of the crop has grown from <\$20 million to more than \$85 million, with an annual economic impact to the state in 2009 estimated to exceed \$212 million. Of the new varieties developed/released in the US in the last 10 years, those developed by the Texas program collectively ranked third in total seed acreage entered into certification in 2011. Certified seed acreage of the Texas Russet Norkotah strain selections increase by 25.6% in from 2010 to 2011.

ZC Research Summary

The overall objective has been to evaluate a wide range of germplasm for possible resistance /tolerance to the ZC complex (and good chip quality), in order to identify and/or develop varieties for the industry which can be more successfully grown when/where conditions for expression of ZC are present. The studies are an integral part of the Texas Potato Breeding and Variety Development Program, and in 2011 were conducted at College Station, with field planting at Weslaco, Springlake, and Dalhart. Insecticides were applied in Springlake and Dalhart.

Our approach has been to start with the most advanced material, include multi-location and multi-season evaluations, and verification of findings under controlled caged conditions. Source material has included named varieties, materials from the Southwestern and Western Regional Trials, as well as the USPB SFA Chip trial and the National Breeders Chip Trial. Texas Breeding Program selections have also been included. Trial locations have included Dalhart, Springlake, and Weslaco, Texas. Some 53,000 tubers, representing more than 600 varieties/selections, have been fresh-cut evaluated or chipped for ZC. Cage verification studies were conducted in 2010 and 2011 in Weslaco. The 2010 Weslaco trial included the following entries which had been previously classified as tolerant: 1 AOTX02060-1Ru , 2 AOTX96084-1Ru , 3 ATTX98500-3PW/Y , 4 ATX97147-4Ru , 5 ATX99194-3Ru, 6 BTX1544-2W/Y, 7 BTX1749-1W/Y, 8 COTX94218-1R , 9 NDTX049265-2WRSp/Y, 10 NDTX059759-3Pinto/Y, 11 NDTX059828-2W, 12 NDTX731-1R, 13 NY138(Waneta), 14 TX03196-1W, 15 TX05249-10W, 16 TX05249-11W, 17 TX05249-3W, and 18 TX1674-1W/Y.

Also included as susceptible checks were Atlantic and Russet Norkotah. The take-away message from this study was that: a) varieties can be overwhelmed if infective psyllids are allowed to remain on plants for an extended period of time and b) that psyllid did prefer some varieties over others. From this study, six of the above selections/varieties (Atlantic, NY138(Waneta), BTX1749-1W/Y, NDTX059828-2W, TX03196-1W, TX05249-11W, and TX1673-1W) were chosen for inclusion in a caged preference study in 2011. Three selections and Atlantic comprised a unit, and were planted in multiple replicates in six cages. Petri dishes containing 20 psyllids (five per plant) were placed in the middle of each unit. The take-away message from this study was as follows: a) Nearly all plants had ZC symptomatic tubers, b) Three entries: NY138(Waneta), BTX1749-1W/Y, TX05249-11W also had plants with tubers free of ZC symptoms (14, 29, and 25% of plants, respectively), c) One entry: NDTX059828-2W had no ZC symptoms in 10 out of 10 of the plants that emerged, and d) Although all tubers from NDTX059828-2W

were ZC negative via fry test and PCR, 5 of 10 plants had tubers that were qPCR positive. These results confirm that insects spent some time on ZC tolerant selections, but the result was lower inoculation success. In conclusion, these findings confirmed that insect preference contributes to plant tolerance to ZC.

Our program cooperated with a number of others at both the state and national levels. In Texas, we cooperated with Drs. Don Henne and John Jifon in Weslaco. At College Station, we cooperated with Drs. Cecilia Tamborindeguy (Entomology), Dennis Gross (Plant Pathology and Microbiology) and Elizabeth Pierson and Julien Levy (Horticulture). At Lubbock we cooperated with Dr. Christian Nansen, and Kathy Vaughn. At Halfway, we had cooperative trials with Drs. Pat Porter and John Goolsby. At Springlake, we had cooperative trials with Dr. Ron French. We conducted major trials at Springlake and Dalhart. We also had cooperative studies with Drs. John Trumble and Casey Butler at Riverside, CA, Joe Munyaneza at Wapato, WA, and Rich Novy at Aberdeen, ID. A very successful Field Day was conducted in July at Springlake and was well attended by many, including the above mentioned cooperators.

Acknowledgements

Financial support for this work was partially provided by the Texas Department of Agriculture/Texas AgriLife, USDA-CSREES-SCRI (Project #2009-51181-20176), and USDA/NIFA Special Research Grants Program - Potato Research (Agreement # 2009-34141-20129). In-kind support was generously provided by Bruce Barrett, Springlake Potato Sales, and Milt Carter, CSS Farms.

Introduction

Program Summary

The Texas Potato Breeding and Variety Development Program used two locations in the 2011 growing season (Table 1). The first planting was near Springlake on 21 to 24 March and harvested on 31 July, 3, and 25 August. This location included twenty two replicated trials and first generation seedlings for selection. The second planting was near Dalhart on 2 May and harvested on 19, 26 September 3, and 17 October. Eleven replicated trials, a seed increase nursery, and first year seedlings for selection were planted at this site. The Texas program entered six selections (ATTX88654-2P/Y, ATTX01180-1R/Y, TX1674-1W/Y, AOTX96075-1Ru, COTX02172-1R, and NDTX5438-11R) in the Southwestern Regional Trials conducted in Texas, Colorado, and two sites in California. The Texas Program also had one entry in the Western Regional Russet Trial (AOTX96216-2Ru) and four entries in the Western Regional Red/ Specialty Trial (ATTX01178-1R, ATTX98453-6R, ATTX98510-1R/Y, and COTX01403-4R/Y). These trials were conducted at multiple locations in six western states.

A major focus of the program in 2011 continued on Zebra Chip Research, with emphasis on varietal tolerance/resistance. The program also continued to stress virus testing, clean-up, and minituber multiplication of a number of selected clones. A successful field day was held on 15 July at Springlake, and was well attended by over 50 growers and Zebra Chip collaborators.

Seedling program

In 2011, 99,328 first year seedling tubers, resulting from 661 different parental combination or families (crosses), were grown for selection. Some 58,460 seedling tubers were planted on the Barrett Farm near Springlake while 40,868 were planted at CSS Farm near Dalhart. Four hundred ninety original selections were made from this material (Figure 1).

The 2011 first year seedling tubers from Texas (24,394) were grown from true seed during the fall of 2010 at College Station. These seed were from crosses made in Lubbock, Madison, WI and Aberdeen, ID. The remaining seedling tubers were provided by Rich Novy, Idaho (6,362), Solomon Yilma, Oregon (7,991), David Holm, Colorado (39,933), and Susie Thompson, North Dakota (20,648).

Texas also sent second and third-size seedling tubers to Idaho (4,510), Colorado (15,023), and North Dakota (4,824) for first year selections.

Table 1. Trial locations, name of trial, number of entries, and number of plots evaluated in 2011.

Springlake			Dalhart		
Trial	# of Entries	# of Plots	Trial	# of Entries	# of Plots
Field day Russets (not reported)	85	85	Western Regional Chip	10	40
Field day Red/Specialty(not reported)	56	56	Southwestern Regional Chip	3	12
Western Regional Chip	10	40	Commercial Variety Chip	7	28
Western Regional Russet	13	52	Texas Advanced Chip Selection	24	96
Western Regional Red	7	28	2010 Chip Selection	134	134
Western Regional Red/Yellow	4	16	Texas Advanced Russet Selection	219	876
Western Regional White/Yellow	3	12	2010 Russet Selection	32	32
Southwestern Regional Chip	4	16	Texas Advanced Red Selection	23	92
Southwestern Regional Russet	7	28	2010 Red Selection	35	35
Southwestern Regional Red	4	16	Texas Advanced Red/Yellow Selection	15	60
Southwestern Regional Red/Yellow	3	12	2010 Red/Yellow Selection	7	7
Southwestern Regional White/Yellow	4	16	Texas Advanced White/Yellow Selection	10	40
Southwestern Regional Purple/Purple	3	12	2010 White/Yellow Selection	25	25
Commercial Variety Chip	8	32	Texas Advanced Small Potato Selection	12	48
Texas Advanced Chip Selection	16	64	2010 Small Potato Selection	10	10
Texas Advanced Russet Selection (Co. Source)	8	32	Texas Advanced Fingerling Selection	9	36
Texas Advanced Russet Selection (TX. Source)	13	52	2010 Fingerling Selection	18	18
Texas Advanced Red Selection (Co. Source)	10	40	2010 Purple/Purple Selection	5	5
Texas Advanced Red Selection(TX. Source)	6	24	Yukon Gold Strain Selection	6	24
Texas Advanced Red/Yellow Selection(Co. Source)	3	12	Total	604	1594
Texas Advanced Red/ Yellow Selection(Tx. Source)	6	24	Total Entries and Plots	759	2355
Yukon Gold Strain Selection	5	20			
Texas Advanced White/Yellow Selection	4	16			
Texas Advanced Small Potato Selection	9	36			
Texas Advanced Fingerling Selection	5	20			
Total	155	761			

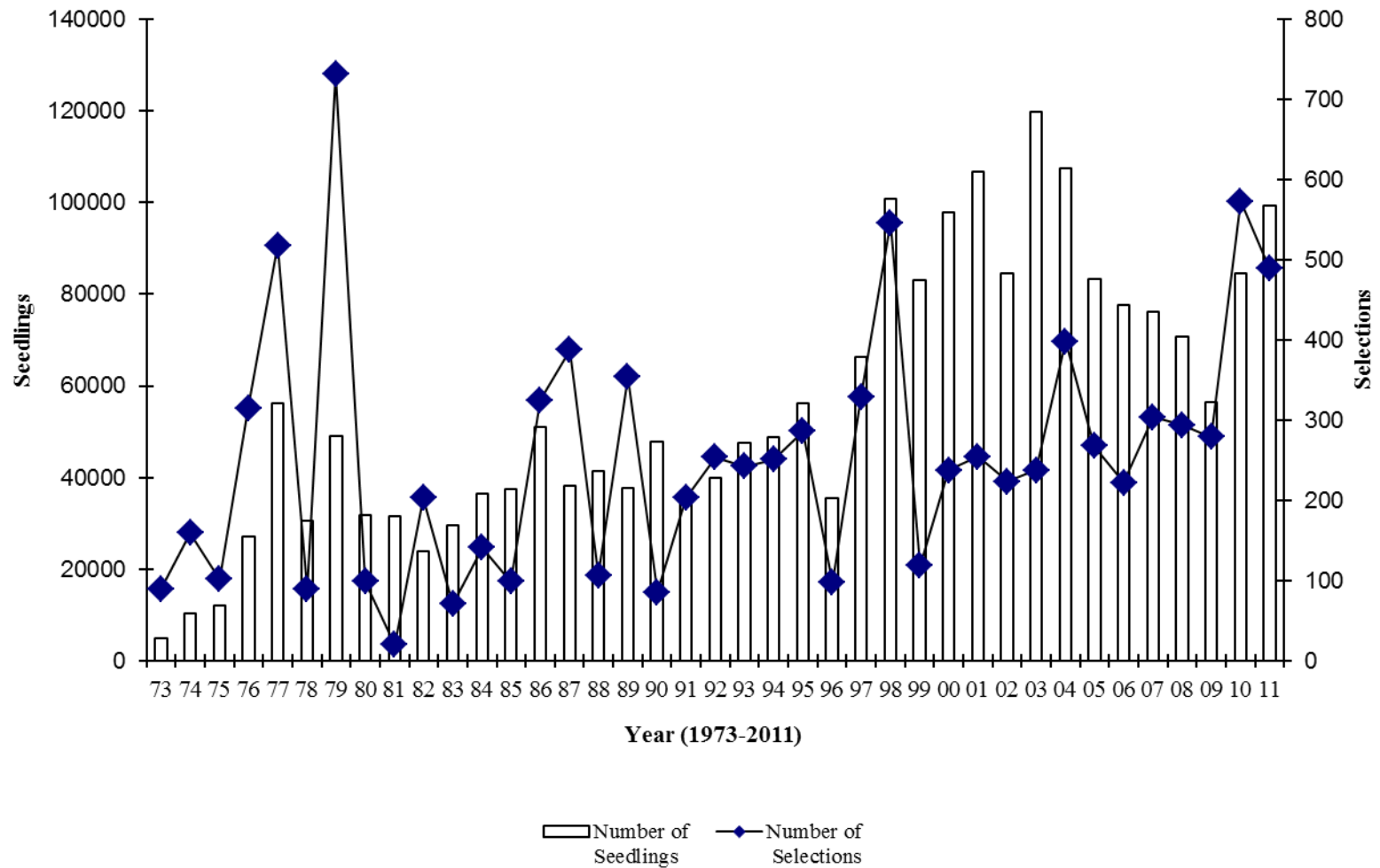


Figure. 1. Number of first year seedling tubers grown for original selection and number of selections made since the inception of the Texas Potato Variety Development Program.

Adaptation trials

The objectives of the adaptation trials were: (1) to test advanced selections and named varieties to determine their potential as replacement varieties for those presently grown in Texas, and (2) to identify potential parents for use in the Texas breeding program. Some 155 advanced selections/varieties were tested in replicated and non-replicated trials near Springlake, and 604 entries were evaluated near Dalhart. A total of 2,347 plots were planted and harvested at the two locations. A seed increase nursery was grown at the San Luis Valley Research Center, Center, Colorado, by Dr. David Holm.

Since 1973, 28,450 entries have been evaluated (Figure 2). Findings from the Texas Potato Variety Development Program trials have resulted in the release of several improved varieties which have contributed significantly to the competitiveness, sustainability, and profitability of the Texas potato industry.

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

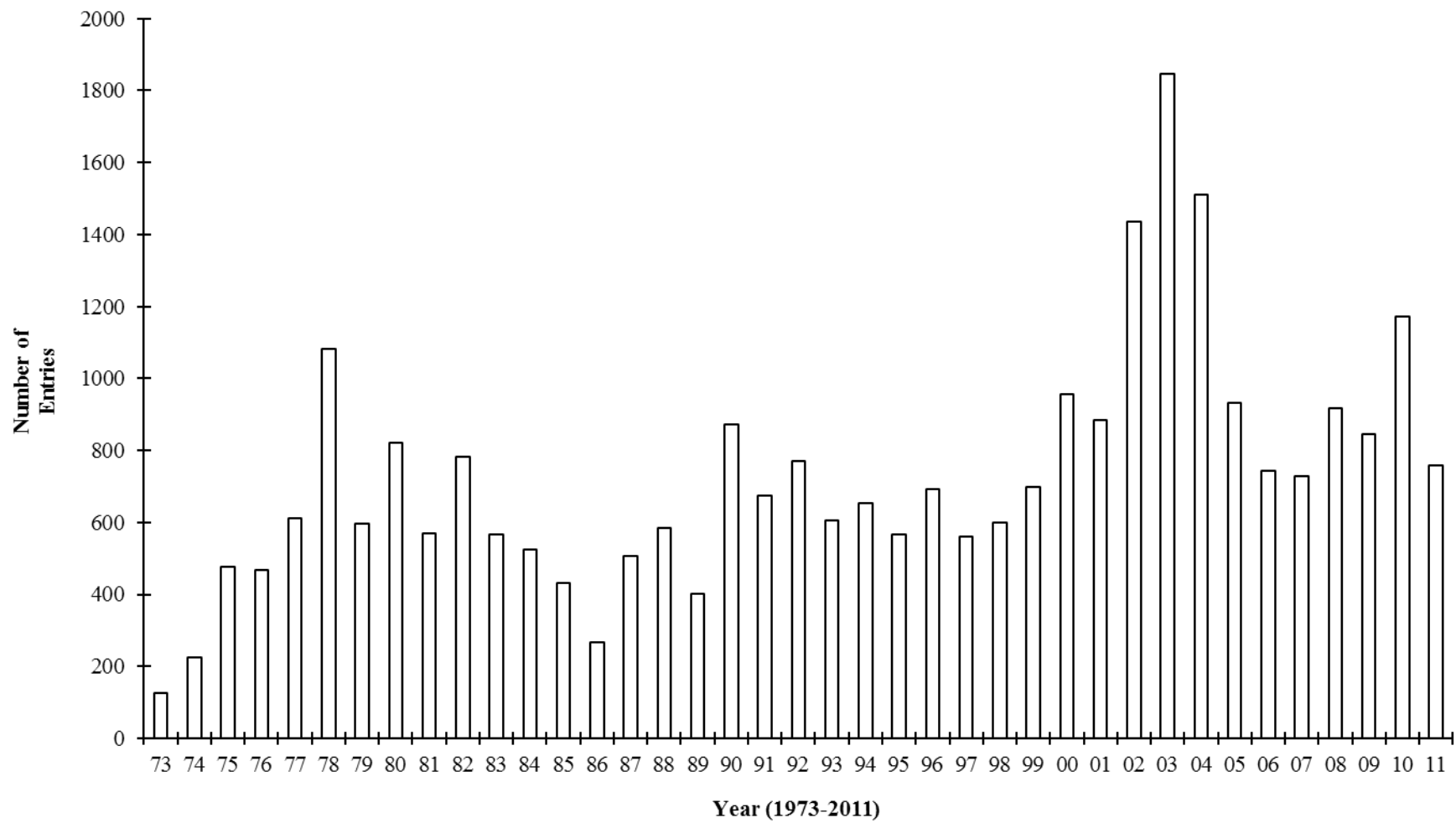


Figure 2. Number of varieties and advanced selections tested for their adaptability to Texas environmental conditions each year since the inception of the Texas Potato Variety Development Program in 1973.

Springlake Trials, 2011

Summary of growing conditions:

The trials were planted near Springlake, Texas from 21 to 24 March and harvested on 31 July, 3, and 25 August. Standard cultural practices for the area were used (Table 2). These trials were subjected to below average precipitation for the entire growing season (Figure 3). High temperatures were 10 degrees higher and low temperatures were 5 degrees higher than normal. The plots received a severe freeze on 4 and 5 May. Psyllid population was low. These factors contributed to very low yield for all trials.

Trials conducted:

- Field day Russets (not reported)
- Field day Red/Specialty(not reported)
- Western Regional Chip
- Western Regional Russet
- Western Regional Red
- Western Regional Red/Yellow
- Western Regional White/Yellow
- Southwestern Regional Chip
- Southwestern Regional Russet
- Southwestern Regional Red
- Southwestern Regional Red/Yellow
- Southwestern Regional White/Yellow
- Southwestern Regional Purple/Purple
- Commercial Variety Chip
- Texas Advanced Chip Selection
- Texas Advanced Russet Selection (Co. Source)
- Texas Advanced Russet Selection (TX. Source)
- Texas Advanced Red Selection (Co. Source)
- Texas Advanced Red Selection(TX. Source)
- Texas Advanced Red/Yellow Selection(Co. Source)
- Texas Advanced Red/Yellow Selection(Tx. Source)

- Yukon Gold Strain Selection
- Texas Advanced White/Yellow Selection
- Texas Advanced Small Potato Selection
- Texas Advanced Fingerling Selection

Table 2. Environmental and cultural inputs for the 2011 Springlake Trials.		
Location:		
Springlake, Texas		
Soil Type		
Tivoli Fine Sand		
Seed Source		
New York, North Dakota, Colorado, Oregon, Texas and Idaho		
Date:		DAP
Planted	March 24, 2011	
Vines Killed (Red, Red/Yellow)	July 27, 2011	123
Vines Killed (Chip, White/Yellow)	July 27, 2011	123
Vines Killed (Small)	August 10, 2011	136
Vines Killed (Russet)	August 31, 2011	157
Harvested (Red, Red/Yellow, White/Yellow)	July 31, 2011	127
Harvested (Chip)	August 3, 2011	129
Harvested (Russet)	August 25, 2011	151
Plot Information:		
Size of plots	21'	
Spacing between hills	9"	
Spacing between rows	36"	
Hills per plot	28	
Number of rows	2	
Number of reps	4	
Method of Harvest:		
Two-row drag digger, with hand pick up		
Fertilizer:		
Application:		
Red 104-21-21-109# per acre		
Russet, Chip, White/Yellow 125-21-21-124 # per acre		
Irrigation:		
Center Pivot		
Seed Treatment Applied:		
Cruiser Maxx		
Insecticide:		
Movento, Admire Pro, Epimek		
Fungicides Applied:		
None		
Herbicides Applied:		
Sencor, Roundup, Treflan, Dual		
Environmental Factors:		
<p>These trials were subjected to below average precipitation for the entire growing season. High temperatures were 10 degrees higher and low temperatures were 5 degrees higher than normal. The plots received a sever freeze on 4 and 5 May. Psyllid population was low. Collectively these factors contributed to very low yield for all trials.</p>		

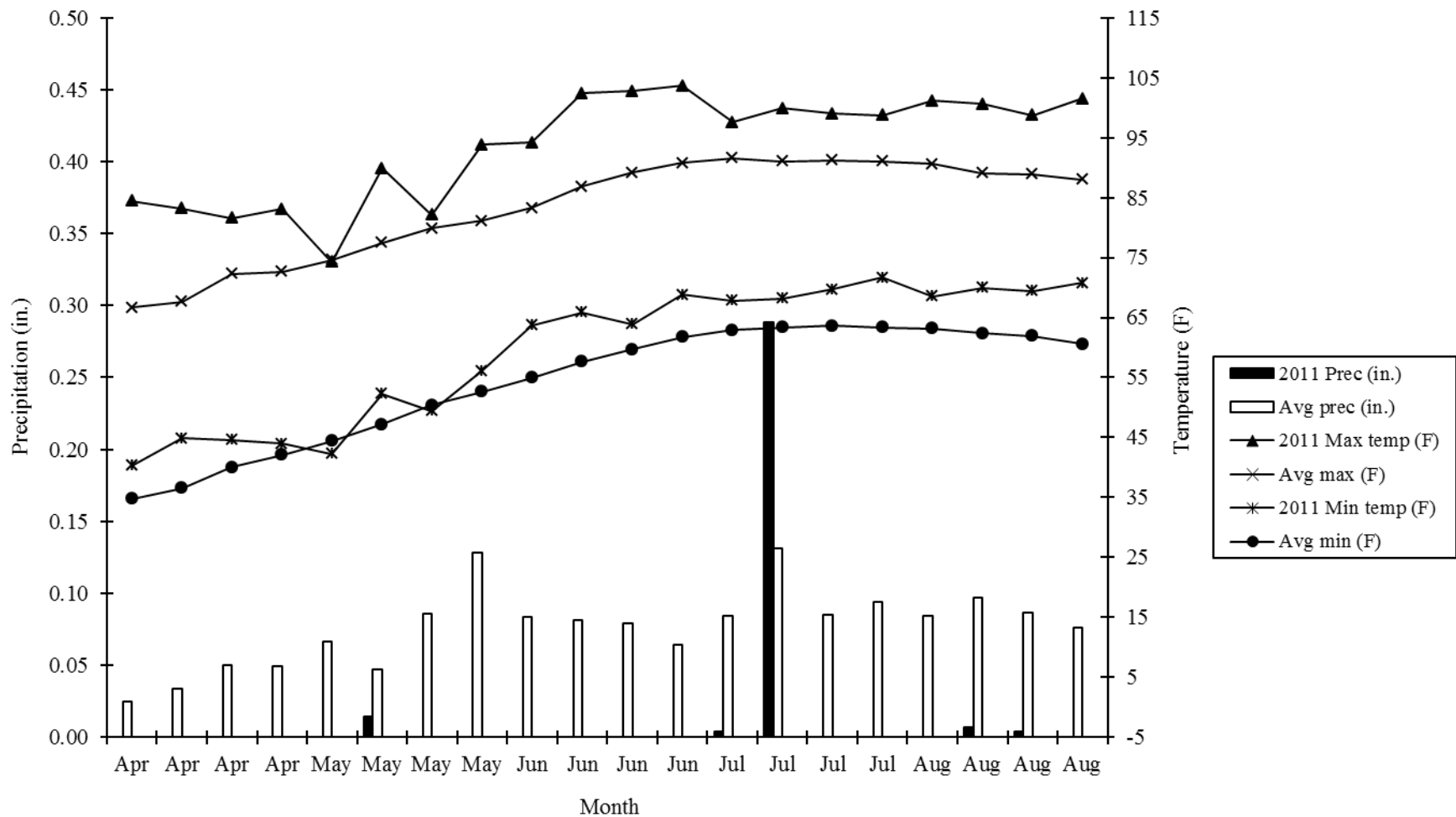


Figure 3. Weekly minimum/maximum temperatures and precipitation for the 2011 growing season near Springlake, Texas compared to the average minimum/maximum temperatures and precipitation (1949-2011).

Western Regional Trials

The Western Regional Trials were grown at 12 sites throughout the western United States as part of the WERA-27 project, with cooperators in California, Oregon, Washington, Idaho, Colorado, and Texas.

Western Regional Chip Trial

This trial consisted of eleven entries, including the three check varieties Atlantic, Chipeta, and NY 138 (Waneta).

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

- The outstanding entry for this trial, based on general rating, best of trial designation for appearance and chip quality was NY138(Waneta) (Tables 1a, 1e and 1f).
- Atlantic and NY138(Waneta) had the highest total and marketable yields (Table 1a)
- Atlantic tended to oversize and had the highest yield of 10-18 oz. tubers. While AC01151-5W had the highest yield of <4 oz. tubers. CO02033-1W had the highest yield of culls/No.2 tubers (Table 1a).
- AC01151-5W and CO02024-9W had the highest percentage of < 4 oz. tubers (Table 1b).
- CO02033-1W had the highest percentage yield of culls/No. 2 tubers (Table 1b).
- Atlantic had the highest specific gravity (Table 1b).
- A00188-3C, Chipeta, and A01143-3C were the latest maturing entries. CO00188-4W and CO02033-1W were the earliest maturing entries (Table 1c).
- Chipeta had 18% vascular discoloration (Table 1d).
- CO00188-4W received a BOT for chip quality while, AC01151-5W, and CO00270-7W received high general ratings for chip quality (Table 1f).

Comments on entries:

- NY138(Waneta) Round White smooth, soft, BOT, bad rep CR¹=1
- Atlantic Round Buff nice yield, buff, large tubers CR=1+
- CO00197-3W Round White very heavy set, small, heat sprouts, bad rep, good size, nice, nice flesh CR=1

- AC01151-5W Round White small, heavy set+, heat sprouts, bad rep, poor shape, drop CR=1
- CO00270-7W Round White small, heavy set, buff, large tubers, heat sprouts, bad rep CR=1
- CO02321-4W Round White nice rep, small, bad rep CR=1+
- CO02024-9W Round White rough, small, did not size CR=1+
- A01143-3C Round White nice rep, heat sprouts++, low yield, light set CR=1
- CO02033-1W Round White rough+ CR=2
- CO00188-4W Round White nice shape, light set, smooth CR=1
- Chipeta Round White heat sprouts, poor yield, light set CR=2

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

Summary:

Overall, the outstanding entry based on general rating, marketable yield, and chip quality was NY 138 (Waneta).

Springlake
Table 1a.

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 Western Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz					
NY138	270.0	103.7	64.6	39.1	0.0	0.0	166.3	0.0	3.8	4.0
Atlantic	265.2	144.9	72.9	48.1	23.9	0.0	118.6	1.7	3.4	3.4
CO00197-3W	237.3	59.6	41.0	18.7	0.0	0.0	170.8	6.9	3.6	3.7
AC01151-5W	226.6	35.1	27.1	8.0	0.0	0.0	179.4	12.1	3.8	2.5
CO00270-7W	203.8	63.8	49.1	14.7	0.0	0.0	133.1	6.9	3.5	3.6
CO02321-4W	183.2	65.7	46.2	15.2	4.3	0.0	112.4	5.2	3.5	3.3
CO02024-9W	162.3	21.6	21.6	0.0	0.0	0.0	135.5	5.2	3.7	3.2
A01143-3C	145.2	34.1	28.3	5.7	0.0	0.0	109.4	1.7	1.8	3.2
CO02033-1W	123.4	10.4	10.4	0.0	0.0	0.0	90.6	22.5	3.2	2.3
CO00188-4W	108.7	29.2	20.6	8.6	0.0	0.0	79.5	0.0	3.7	3.4
Chipeta	91.4	42.4	25.8	11.9	4.7	0.0	49.1	0.0	2.3	2.3
Average	183.4	55.5	37.1	15.4	3.0	0.0	122.2	5.7	3.3	3.2
L.S.D. (.05)	30.4	31.6	21.6	14.0	7.0	ns	30.1	11.3	0.6	0.6

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

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 11 entries in the Western Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
NY138	38.4	23.9	14.5	0.0	0.0	61.6	0.0	1.063	13.7	Round	White
Atlantic	54.6	27.4	18.1	9.1	0.0	44.7	0.7	1.066	14.4	Round	Buff
CO00197-3W	25.8	17.6	8.2	0.0	0.0	71.3	2.9	1.049	11.3	Round	White
AC01151-5W	15.6	12.0	3.6	0.0	0.0	78.9	5.4	1.059	13.1	Round	White
CO00270-7W	30.9	23.9	6.9	0.0	0.0	65.8	3.3	1.057	12.8	Round	White
CO02321-4W	33.6	24.2	7.5	1.9	0.0	63.8	2.7	1.061	13.5	Round	White
CO02024-9W	13.8	13.8	0.0	0.0	0.0	82.8	3.3	1.058	12.9	Round	White
A01143-3C	21.9	18.1	3.7	0.0	0.0	76.6	1.5	1.049	11.3	Round	White
CO02033-1W	7.2	7.2	0.0	0.0	0.0	75.8	17.0	1.057	12.6	Round	White
CO00188-4W	24.7	17.8	6.9	0.0	0.0	75.3	0.0	1.063	13.7	Round	White
Chipeta	44.5	26.4	11.6	6.5	0.0	55.5	0.0	1.041	9.8	Round	White
Average	28.3	19.3	7.4	1.6	0.0	68.4	3.3	1.057	12.6		
L.S.D. (.05)	14.0	9.7	6.7	3.5	ns	14.9	5.5	0.010	3.4		

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 11 entries in the Western Regional Chip Trial grown near Springlake, Texas-2011.

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	
NY138	8.8	2.5	1.5	97	100	1.4	3.5	3.6	3.5	30
Atlantic	7.6	3.0	1.7	83	96	1.6	4.1	4.0	4.0	10
CO00197-3W	10.8	2.1	1.8	86	89	1.8	3.6	3.3	3.5	18
AC01151-5W	11.5	1.7	1.6	81	95	1.8	3.8	4.4	3.7	8
CO00270-7W	8.0	2.2	1.8	84	96	1.8	4.0	4.0	3.9	13
CO02321-4W	7.3	2.4	1.6	81	94	1.5	3.2	3.4	3.4	35
CO02024-9W	8.6	1.6	1.7	97	98	2.0	3.4	3.5	3.5	56
A01143-3C	7.1	1.7	1.8	96	100	2.0	4.6	4.8	4.5	0
CO02033-1W	5.1	2.1	1.8	88	98	1.9	2.5	2.6	2.7	36
CO00188-4W	4.1	2.2	1.7	93	97	1.5	1.5	2.5	1.8	80
Chipeta	3.0	2.5	1.8	93	98	1.6	4.5	4.8	4.5	0
Average	7.4	2.2	1.7	89	96	1.7	3.5	3.7	3.5	26
L.S.D. (.05)	2.4	0.5	0.4	13	ns	ns	ns	0.1	ns	37

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

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

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

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

Springlake
Table 1d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 11 entries in the Western Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
NY138	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Atlantic	1.0	1.0	2.5	4.5	2.5	5.0	5.0	5.0	5.0	4.5	0	0	0	8
CO00197-3W	1.0	2.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	3	0
AC01151-5W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
CO00270-7W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	3
CO02321-4W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
CO02024-9W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
A01143-3C	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	3	0	0	0
CO02033-1W	1.0	2.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
CO00188-4W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Chipeta	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	18	0
Average	1.0	1.2	1.1	4.5	1.1	5.0	5.0	5.0	5.0	4.5	0	0	2	1
L.S.D. (.05)	ns	0.1	0.1	ns	0.1	ns	ns	ns	ns	ns	ns	ns	9	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 1e.

Notes and general rating for all reps of 11 entries in the Western Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Field	General Rating Grading
NY138	smooth, soft, BOT, bad rep	3.7, 3.9, 3.7, 3.9	3.9, 3.9, 4, 4
Atlantic	nice yield, buff, large tubers	3.5, 3.3, 3.5, 3.3	3.5, 3.7, 3, 3.5
CO00197-3W	very heavy set, small, heat sprouts, bad rep, good size, nice, nice flesh	3.6, 3.5, 3.6, 3.5	4, 3, 4, 3.6
AC01151-5W	small, heavy set+, heat sprouts, bad rep, small, poor shape, drop	4, 4, 3.5, 3.5	2.5, 3.5, 2.5, 1.5
CO00270-7W	small, heavy set, buff, large tubers, heat sprouts, bad rep	3.3, 3.3, 3.6, 3.6	3.7, 4, 3.5, 3
CO02321-4W	nice rep, small, bad rep	3.7, 3.3, 3.7, 3.3	3.4, 3.6, 3.4, 2.8
CO02024-9W	rough, small, did not size	3.7, 3.6, 3.7, 3.6	3, 2.7, 3.2, 3.7
A01143-3C	nice rep, heat sprouts++, low yield, light set	2, 2, 1.5, 1.5	3.8, 3, 3, 3
CO02033-1W	rough+	3, 3, 3.3, 3.3	2, 2.5, 2.5, 2
CO00188-4W	nice shape, light set, smooth	4, 4, 3.4, 3.4	3.5, 3.7, 3.5, 3
Chipeta	heat sprouts, poor yield, light set	3, 1.5, 3, 1.5	3, 2.5, 1.5, 2

Springlake
Table 1f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 11 entries in the Western Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
NY138	New York	1.063	13.7	3.5	1	32/6		0%	0%
Atlantic	Colorado	1.066	14.4	3.5	1+	29/12		0%	0%
CO00197-3W	Colorado	1.049	11.3	3.5	1	24/15		0%	0%
AC01151-5W	Colorado	1.059	13.1	4.5	1	37/3		0%	0%
CO00270-7W	Colorado	1.057	12.8	4.0	1	28/9		0%	0%
CO02321-4W	Colorado	1.061	13.5	3.5	1+	31/5		0%	0%
CO02024-9W	Colorado	1.058	12.9	3.5	1+	35/9		0%	0%
A01143-3C	Colorado	1.049	11.3	3.5	1	19/22		0%	0%
CO02033-1W	Colorado	1.057	12.6	3.0	2	24/16		0%	0%
CO00188-4W	Colorado	1.063	13.7	5.0	1	38/0	BOT	0%	0%
Chipeta	Colorado	1.041	9.8	2.0	2	6/34	IBC	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Western Regional Russet Trial

The 2011 russet trial consisted of 13 entries, including the three check varieties Ranger Russet, Russet Burbank, and Russet Norkotah.

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

- A02060-3TE had the highest total and marketable yield (Table 2a)
- AC99375-1RU had the highest yield of <4 oz. tubers. A01025-4 and A01010-1 had the highest yield of culls/No.2 tubers (Table 2a).
- CO99053-4RU and A02060-3TE had the highest and second highest percent of marketable yield respectively (Table 2b).
- AC99375-1RU and Ranger Russet had the highest and second highest percentage yield of <4 oz. tubers. A01010-1 and A01025-4 had the highest percentage yield of culls/No. 2 tubers (Table 2b).
- The highest specific gravity was recorded for CO99100-1RU (Table 2b).
- CO99053-3RU and A00324-1 were the latest maturing clones. A98345-1 and CO99100-1RU were the earliest maturing entries (Table 2c).
- A00324-1 and Russet Norkotah had 41% and 43% vascular discoloration (Table 2d).
- A01025-4 had 13% Zebra Chip (Table 2f).

Comments on entries:

- A02060-3TE Oblong Russet light set, small, nice skin, blocky, rot CR=3
- A01010-1 Long Russet skinny, long, nice skin, blocky ¹CR=3
- Russet Burbank Long Russet long, skinny+, light skin, rough, poor shape CR=2
- CO99053-3RU Oblong Russet nice shape+, skinny, long, heat sprouts, rot, heavy set, blocky
CR=3
- A01025-4 Oblong Russet light set, nice shape, blocky, small CR=1
- AOTX96265-2Ru Round Russet oblong to round, nice skin, low yield, small+, blocky CR=2
- AC99375-1RU Oblong Russet small, heat sprouts++, nice shape+, blocky CR=2
- Ranger Russet Oblong Russet very small, poor shape, skinny, heat sprouts, heavy set CR=2
- A98345-1 Oblong Russet light set, small, blocky, light russet skin, nice shape CR=2
- CO99053-4RU Oblong Russet nice shape, low yield++, light set CR=2

- A00324-1 Oblong Russet heavy set, heat sprouts, small, skinny, small CR=3
- Russet Norkotah Oblong Russet small, skinny+ CR=2
- CO99100-1RU Oblong Russet bad rep, low yield+, light set, small CR=1

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

Summary:

Due to extreme high temperature none of the entries performed satisfactorily.

Springlake
Table 2a.

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 Western Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
A02060-3TE	133.1	43.9	24.5	19.4	0.0	0.0	55.1	34.1	1.6
A01010-1	118.9	28.7	19.2	9.5	0.0	0.0	51.3	38.9	3.2
Russet Burbank	105.8	1.7	1.7	0.0	0.0	0.0	70.9	33.2	1.6
CO99053-3RU	103.9	11.4	9.3	2.1	0.0	0.0	60.2	32.3	3.2
A01025-4	103.2	33.7	18.5	15.2	0.0	0.0	29.6	39.9	2.6
AOTX96265-2Ru	99.6	25.1	20.9	4.1	0.0	0.0	66.7	7.8	2.1
AC99375-1RU	90.8	4.1	4.1	0.0	0.0	0.0	84.9	1.7	2.9
Ranger Russet	83.1	6.6	4.8	1.7	0.0	0.0	69.7	6.9	2.1
A98345-1	80.0	17.8	15.6	1.2	1.0	0.0	56.2	6.1	2.6
CO99053-4RU	73.3	28.2	20.7	7.4	0.0	0.0	38.7	6.4	3.0
A00324-1	59.1	12.3	8.8	3.5	0.0	0.0	36.1	10.7	1.6
Russet Norkotah	46.0	6.9	5.9	1.0	0.0	0.0	37.7	1.4	1.5
CO99100-1RU	36.8	10.2	8.8	1.4	0.0	0.0	26.6	0.0	1.6
Average	87.2	17.7	12.5	5.1	0.1	0.0	52.6	16.9	2.3
L.S.D. (.05)	33.8	12.6	10.2	7.9	ns	ns	17.7	13.8	0.4

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 13 entries in the Western Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
A02060-3TE	34.2	19.4	14.8	0.0	0.0	41.6	24.2	1.053	12.0	Oblong	Russet
A01010-1	24.2	16.4	7.8	0.0	0.0	43.1	32.7	1.049	11.3	Long	Russet
Russet Burbank	1.6	1.6	0.0	0.0	0.0	67.5	30.9	1.051	11.6	Long	Russet
CO99053-3RU	10.4	8.8	1.6	0.0	0.0	59.6	30.0	1.046	10.7	Oblong	Russet
A01025-4	32.7	19.1	13.6	0.0	0.0	29.3	38.0	1.052	11.7	Oblong	Russet
AOTX96265-2Ru	24.3	21.0	3.3	0.0	0.0	68.1	7.6	1.044	10.4	Round	Russet
AC99375-1RU	4.4	4.4	0.0	0.0	0.0	93.7	1.8	1.051	11.7	Oblong	Russet
Ranger Russet	7.2	5.1	2.2	0.0	0.0	85.0	7.8	1.045	10.5	Oblong	Russet
A98345-1	20.7	18.3	1.5	0.9	0.0	71.8	7.5	1.037	9.1	Oblong	Russet
CO99053-4RU	37.9	29.3	8.6	0.0	0.0	54.4	7.6	1.058	12.8	Oblong	Russet
A00324-1	19.5	14.5	5.0	0.0	0.0	64.3	16.2	1.051	11.7	Oblong	Russet
Russet Norkotah	14.7	12.0	2.7	0.0	0.0	82.7	2.7	1.058	12.9	Oblong	Russet
CO99100-1RU	22.9	20.1	2.7	0.0	0.0	77.1	0.0	1.059	13.0	Oblong	Russet
Average	19.6	14.6	4.9	0.1	0.0	64.5	15.9	1.050	11.5		
L.S.D. (.05)	11.7	10.7	7.7	ns	ns	13.5	8.5	0.004	0.8		

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 13 entries in the Western Regional Russet Trial grown near Springlake, Texas-2011.

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	
A02060-3TE	3.0	4.0	1.5	91	100	1.8	3.8	3.8	3.8	41
A01010-1	3.0	3.3	1.4	88	100	1.6	4.3	4.2	4.2	39
Russet Burbank	5.6	2.0	1.5	88	100	1.9	4.0	3.8	3.9	56
CO99053-3RU	3.7	2.6	1.4	88	100	1.9	4.6	4.8	4.3	4
A01025-4	2.7	3.3	1.5	87	96	1.9	3.5	3.7	3.6	1
AOTX96265-2Ru	3.5	2.4	2.1	97	100	1.5	3.7	3.4	3.7	28
AC99375-1RU	5.0	1.6	2.0	90	98	1.6	4.3	4.2	4.3	21
Ranger Russet	4.2	2.0	1.5	73	100	1.8	4.0	4.4	4.0	26
A98345-1	2.1	3.9	1.9	94	100	1.5	2.8	2.6	2.4	78
CO99053-4RU	2.8	2.1	2.0	99	100	1.5	2.1	5.2	2.3	100
A00324-1	2.2	2.2	1.8	98	100	1.8	4.3	4.7	4.1	14
Russet Norkotah	1.8	2.1	2.1	93	100	1.5	4.5	4.4	4.3	20
CO99100-1RU	1.2	2.5	1.9	98	100	1.5	2.1	1.8	2.4	78
Average	3.1	2.6	1.7	91	100	1.7	3.7	3.9	3.6	39
L.S.D. (.05)	1.6	ns	0.4	ns	ns	0.3	0.9	ns	0.8	25

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

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

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

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

Springlake
Table 2d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 13 entries in the Western Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
A02060-3TE	1.0	3.4	3.0	4.5	3.5	5.0	5.0	5.0	5.0	5.0	0	0	5	0
A01010-1	1.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Burbank	1.0	4.4	2.5	4.5	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO99053-3RU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A01025-4	1.0	3.8	3.0	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96265-2Ru	1.0	2.5	3.5	4.5	3.6	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AC99375-1RU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Ranger Russet	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A98345-1	1.0	3.5	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO99053-4RU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A00324-1	1.0	3.3	3.4	4.0	3.2	5.0	5.0	5.0	5.0	5.0	0	0	41	0
Russet Norkotah	1.0	3.5	2.5	4.0	2.6	5.0	5.0	5.0	5.0	5.0	0	0	43	0
CO99100-1RU	1.0	3.8	4.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.6	3.5	4.1	3.6	5.0	5.0	5.0	5.0	5.0	0	0	7	0
L.S.D. (.05)	ns	0.2	0.1	0.2	0.2	ns	ns	ns	ns	ns	ns	ns	12	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 2e.

Notes and general rating for all reps of 13 entries in the Western Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
A02060-3TE	light set, small, nice skin, blocky, rot, light set	1.5, 1.5, 2, 1.5
A01010-1	skinny, long, nice skin, blocky	3, 3, 3.3, 3.5
Russet Burbank	long, skinny+, light skin, rough, light skin, poor shape	1.5, 2, 1.5, 1.5
CO99053-3RU	nice shape+, skinny, long, heat sprouts, rot, heavy set, blocky	3.3, 3.3, 3, 3.3
A01025-4	light set, nice shape, blocky, small, light set	2.5, 2.8, 2.5, 2.5
AOTX96265-2Ru	oblong, round, nice skin, low yield, small+, blocky	2, 2, 2, 2.2
AC99375-1RU	oblong, small, heat sprouts++, nice shape+, nice shape, blocky	2.5, 3, 2.5, 3.5
Ranger Russet	very small, poor shape, skinny, heat sprouts, heavy set, poor shape	2.5, 2, 2, 2
A98345-1	light set, small, blocky, light russet skin, nice shape	2, 2.5, 2.5, 3.3
CO99053-4RU	nice shape, low yield++, nice shape, light set	2.8, 3, 3, 3
A00324-1	heavy set, heat sprouts, small, skinny, small, heat sprouts, small	1.5, 1.5, 1.5, 2
Russet Norkotah	small, small, skinny+	1.5, 1.5, 1.5, 1.5
CO99100-1RU	bad rep, low yield+, light set, small	1.5, 1.5, 1.5, 2

Springlake
Table 2f.

Specific gravity, percent solids, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 13 entries in the Western Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
A02060-3TE	Idaho	1.053	12.0	3	13/26	3 dk	0%	0%
A01010-1	Idaho	1.049	11.3	3	10/29		0%	0%
Russet Burbank	Idaho	1.051	11.6	2	24/16	6 dk	0%	0%
CO99053-3RU	Colorado	1.046	10.7	3	2/34	1 dk	0%	0%
A01025-4	Idaho	1.052	11.7	1	2/37	1 bc	13%	0%
AOTX96265-2Ru	Colorado	1.044	10.4	2	3/36	36 dk	0%	0%
AC99375-1RU	Colorado	1.051	11.7	2	5/45	8 dk, 2 bc	6%	0%
Ranger Russet	Idaho	1.045	10.5	2	10/28	14 dk	0%	0%
A98345-1	Idaho	1.037	9.1	2	8/30	5 dk	0%	0%
CO99053-4RU	Colorado	1.058	12.8	2	30/9		0%	0%
A00324-1	Idaho	1.051	11.7	3	1/36	4 dk	3%	0%
Russet Norkotah	Idaho	1.058	12.9	2	3/38	12 dk	2%	0%
CO99100-1RU	Colorado	1.059	13.0	1	31/9	4 dk	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Western Regional Red'Vt kn

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

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

- ATTX98453-6R and CO99076-6R had the highest general ratings and best of trial designations (Table 3a and Table 3e).
- Red LaSoda had the highest total yield, <4 oz., and culls/No. 2 tubers (Table 3a).
- ATTX01178-1R had the highest marketable yield (Table 3b).
- ATTX01178-1R had the highest percentage of marketable yield, while Dark Red Norland had 90% of <4 oz. tubers. (Table 3b).
- Red LaSoda had the highest average number of tubers per plant. Red LaSoda and CO99256-2R were the latest maturing, while Dark Red Norland was the earliest (Table 3c).
- Red LaSoda had the deepest eyes (Table 3d).
- Red LaSoda had higher percentages of vascular discoloration (Table 3d).

Comments on entries:

- | | | |
|--------------------|-----------|---|
| • Red LaSoda | Round Red | yield+ chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell CR=2 |
| • ATTX01178-1R | Round Red | nice, yield+ , feathering+++ , drop, early, some pointed, large tubers, sticky stolon CR=3+ |
| • ATTX98453-6R | Round Red | small, yield-, nice, yield+, smooth, light skin color, BOT+, poor skin finish, no heat sprouts CR=2 |
| • CO99076-6R | Round Red | small, great color+, BOT CR=2 |
| • Dark Red Norland | Round Red | small, nice shape, light skin color, variable color, silver scurf, heavy set, heat sprouts CR=2+ |
| • CO99256-2R | Round Red | late, small, yield-, feathering, ZC?, heat sprouts+, sticky stolon, drop+ CR=2+ |
| • CO00291-5R | Round Red | late, small, low yield, heat sprouts+++ , drop+++ , nice color CR=3 |

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

Summary:

ATTX98453-6R and CO99076-6R were the outstanding entries based on general ratings and best of trial designations.

Springlake
Table 3a.

Total yield, total yield of U.S. No. 1, under 4 ounce and culls/No.2 potatoes and general rating of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Red LaSoda	196.7	44.9	35.4	9.5	0.0	0.0	131.4	20.4	3.3	2.9
ATX01178-1R	161.8	83.5	42.0	36.8	4.7	0.0	72.4	5.9	3.6	3.5
ATX98453-6R	157.1	43.7	23.7	18.3	1.7	0.0	113.0	0.3	3.5	3.7
CO99076-6R	125.1	21.3	17.5	3.8	0.0	0.0	103.4	0.5	3.3	3.8
Dk Red Norland	119.3	13.1	10.2	1.2	1.7	0.0	103.9	2.2	3.3	3.2
CO99256-2R	90.2	15.0	9.2	5.9	0.0	0.0	64.3	10.9	3.1	2.4
CO00291-5R	43.0	6.4	3.6	2.8	0.0	0.0	35.8	0.9	2.1	2.3
Average	127.6	32.6	20.2	11.2	1.2	0.0	89.2	5.9	3.2	3.1
L.S.D. (.05)	38.2	29.2	19.6	20.9	ns	ns	25.3	9.9	0.3	0.3

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 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Red LaSoda	22.8	17.9	4.9	0.0	0.0	67.2	10.0	1.045	10.6	Round	Red
ATTX01178-1R	47.9	24.5	20.7	2.7	0.0	48.6	3.5	1.052	11.7	Round	Red
ATTX98453-6R	25.6	14.0	10.6	1.0	0.0	74.2	0.2	1.067	14.5	Round	Red
CO99076-6R	16.8	12.7	4.1	0.0	0.0	82.6	0.6	1.062	13.7	Round	Red
Dk Red Norland	8.2	6.3	0.7	1.2	0.0	90.3	1.5	1.055	12.4	Round	Red
CO99256-2R	16.0	10.1	5.9	0.0	0.0	73.5	10.5	1.039	9.4	Round	Red
CO00291-5R	14.5	8.2	6.3	0.0	0.0	83.5	2.0	1.039	9.4	Round	Red
Average	21.7	13.4	7.6	0.7	0.0	74.3	4.1	1.051	11.7		
L.S.D. (.05)	15.1	10.0	11.7	ns	ns	16.3	6.1	0.007	1.2		

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 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Red LaSoda	10.6	1.5	1.6	98	100	1.8	4.5	4.7	4.4	6
ATX01178-1R	4.9	2.8	1.6	88	97	1.4	3.2	3.0	3.3	26
ATX98453-6R	5.3	2.5	1.4	89	99	1.9	2.1	2.5	2.4	43
CO99076-6R	6.0	2.0	1.4	71	86	1.5	2.6	2.8	3.0	33
Dk Red Norland	5.5	1.8	1.7	98	100	1.5	1.9	2.0	2.0	60
CO99256-2R	5.1	1.7	1.5	74	88	1.8	4.4	4.7	4.4	3
CO00291-5R	6.0	1.9	1.6	24	33	1.6	3.8	4.3	3.9	3
Average	6.2	2.0	1.5	77	86	1.6	3.2	3.4	3.4	25
L.S.D. (.05)	1.7	0.5	0.2	13	8	ns	0.6	0.8	0.6	25

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

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

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

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

Springlake
Table 3d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Red LaSoda	1.0	2.5	1.0	2.5	2.5	5.0	5.0	5.0	5.0	2.5	0	0	15	0
ATTX01178-1R	1.0	1.1	1.0	3.8	3.0	5.0	5.0	5.0	5.0	2.0	0	0	0	0
ATTX98453-6R	1.0	2.0	1.0	4.0	3.7	5.0	5.0	5.0	5.0	4.2	0	0	0	0
CO99076-6R	1.0	1.5	1.0	4.0	4.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Dk Red Norland	1.0	2.0	1.0	3.9	2.9	5.0	5.0	5.0	5.0	4.5	0	0	0	0
CO99256-2R	1.0	1.5	1.0	4.0	3.8	5.0	5.0	5.0	5.0	3.1	0	0	0	0
CO00291-5R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Average	1.0	1.7	1.0	3.7	3.5	5.0	5.0	5.0	5.0	3.6	0	0	2	0
L.S.D. (.05)	ns	0.1	ns	0.2	0.1	ns	ns	ns	ns	0.2	ns	ns	6	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 3e.

Notes and general rating for all reps of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Red LaSoda	yield+	chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell,	3.5, 3, 3, 3.5	2.6, 2.8, 3.2, 2.8
ATTX01178-1R	nice, yield+	feathering+++ , drop, early, some pointed, large tubers, sticky stolon	3.6, 3.5, 3.6, 3.5	3.4, 3.8, 3.3, 3.4
ATTX98453-6R	small, yield-, nice, yield+	smooth, light skin color, BOT+, yield+, poor skin finish, no heat sprouts	3.3, 3.6, 3.5, 3.7	3.6, 3.6, 3.7, 3.8
CO99076-6R	small	great color+, small, , BOT	3, 3.3, 3, 3.7	3.8, 3.8, 3.7, 3.7
Dk Red Norland	small, nice shape	light skin color, variable color, small, silver scurf, heavy set, heat sprouts	3, 3, 3.2, 3.8	3, 3.3, 3.3, 3.3
CO99256-2R	late, small, yield-, late, small, yield-	feathering, ZC?, heat sprouts+, sticky stolon, drop+ heat sprouts+++ , drop+++ , light set, low yield, nice color	3.2, 3, 3, 3.3	2.3, 2.4, 2.2, 2.5
CO00291-5R	late, small, yield-		2, 2.5, 2, 2	1.8, 2.3, 2.2, 2.8

Springlake
Table 3f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 7 entries in the Western Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Red LaSoda	Idaho	1.045	10.6	1.5	2	23/17	6 Dark vas	0%	0%
ATTX01178-1R	Colorado	1.052	11.7	1.0	3+	0/39	15 Dark	0%	0%
ATTX98453-6R	Colorado	1.067	14.5	1.5	2	7/25		0%	0%
CO99076-6R	Colorado	1.062	13.7	3.5	2	23/17		0%	0%
Dk Red Norland	Idaho	1.055	12.4	1.5	2+	0/39	2Dark	0%	0%
CO99256-2R	Colorado	1.039	9.4	1.5	2+	12/29		0%	0%
CO00291-5R	Colorado	1.039	9.4	1.0	3	2/38	8Dark	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Western Regional RedYellow

This trial consisted of four entries.

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

- COTX01403-4R/Y received a high general rating and a best of trial designation (Table 4a and Table 4f).
- COTX01403-4R/Y produced the highest total and marketable yields (Table 4a).
- ATTX98510-1R/Y had the highest yield of < 4 oz. tubers (Table 4a).
- CO01399-10P/Y had the highest percentage of marketable yield. A99331-2RY had the highest percentage of < 4 oz. tubers (Table 4b).
- A99331-2RY had the highest average number of tubers per plant (Table 4c).
- CO01399-10P/Y and A99331-2RY were latest in maturity, while COTX01403-4R/Y was the earliest in maturity (Table 4c).
- A99331-2RY had the darkest yellow flesh color (Table 4d).

Comments on entries:

- COTX01403-4R/Y Round Red nice, BOT+, ZC? CR=3
 - ATTX98510-1R/Y Round Red small, very light flesh+, heavy set, drop CR=3
 - CO01399-10P/Y Round Red small, nice shape, alligator hide, poor skin finish, drop CR=2
 - A99331-2RY Round Red late heavy set, very small size, small potato+, purple eyes CR=2
- ¹CR=chip color rating 1=light to 3= dark

Summary:

COTX01403-4R/Y was the best entry based on all factors.

Springlake
Table 4a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 4 entries in the Western Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
COTX01403-4R/Y	123.6	34.4	12.6	18.5	3.3	0.0	86.8	2.4	3.7	3.7
ATTX98510-1R/Y	104.8	14.0	9.0	5.0	0.0	0.0	89.4	1.4	3.7	3.2
CO01399-10P/Y	100.1	30.8	15.6	15.2	0.0	0.0	65.5	3.8	2.8	3.0
A99331-2RY	63.6	0.0	0.0	0.0	0.0	0.0	57.6	6.1	1.6	2.0
Average	98.0	19.8	9.3	9.7	0.8	0.0	74.8	3.4	3.0	3.0
L.S.D. (.05)	39.0	18.3	7.7	11.6	ns	ns	ns	ns	0.7	0.1

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 4 entries in the Western Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
COTX01403-4R/Y	27.4	10.1	14.9	2.4	0.0	70.9	1.7	1.048	11.1	Round	Red
ATTX98510-1R/Y	12.1	7.7	4.3	0.0	0.0	86.6	1.3	1.060	13.2	Round	Red
CO01399-10P/Y	31.0	15.3	15.6	0.0	0.0	64.8	4.3	1.049	11.2	Round	Red
A99331-2RY	0.0	0.0	0.0	0.0	0.0	89.9	10.1	1.031	8.0	Round	Red
Average	17.6	8.3	8.7	0.6	0.0	78.0	4.3	1.047	10.9		
L.S.D. (.05)	14.1	5.8	9.8	ns	ns	14.5	5.2	0.004	0.8		

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 4 entries in the Western Regional Red/Yellow Trial grown near Springlake, Texas-2011.

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	
COTX01403-4R/Y	4.2	2.5	1.6	82	98	1.4	2.0	2.0	2.1	76
ATTX98510-1R/Y	5.0	1.7	1.9	97	100	1.5	3.9	3.8	3.9	18
CO01399-10P/Y	4.1	2.1	1.6	88	96	1.5	4.4	4.8	4.0	3
A99331-2RY	8.2	0.6	1.4	73	95	2.1	4.4	4.8	4.3	0
Average	5.4	1.7	1.6	85	97	1.6	3.6	3.8	3.6	24
L.S.D. (.05)	2.2	0.3	0.2	13	ns	0.3	0.7	0.6	0.5	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

Springlake
Table 4d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Western Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX01403-4R/Y	3.4	2.0	1.0	4.5	3.6	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATTX98510-1R/Y	2.4	1.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
CO01399-10P/Y	3.0	1.9	1.0	4.0	5.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
A99331-2RY	4.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Average	3.2	1.7	1.0	4.1	3.3	5.0	5.0	5.0	5.0	4.5	0	0	0	0
L.S.D. (.05)	0.1	0.2	ns	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 4e.

Notes and general rating for all reps of 4 entries in the Western Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
COTX01403-4R/Y	nice	BOT+, ZC?	3.5, 3.9, 3.6, 3.8	3.8, 3.8, 3.7, 3.5
ATX98510-1R/Y	small	very light flesh+, small, heavy set, drop	3.5, 4, 3.8, 3.6	3.2, 3.2, 3.2, 3.2
CO01399-10P/Y	small	nice shape, alligator hide, poor skin finish, drop	3, 2, 3.1, 3	3, 3, 3, 3
A99331-2RY	late	heavy set, very small size, small potato+, purple eyes	2, 2, 1.5, 1	2, 2, 2, 2

Springlake
Table 4f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 4 entries in the Western Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
COTX01403-4R/Y	Colorado	1.048	11.1	3.0	3	18/22	3Dark, 1HH	0%	0%
ATTX98510-1R/Y	Colorado	1.060	13.2	3.0	3	20/19		0%	0%
CO01399-10P/Y	Colorado	1.049	11.2	3.5	2	30/10	1Dark	0%	0%
A99331-2RY	Idaho	1.031	8.0	3.0	2	40/10		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Western Regional White/Yellow

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

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

- Yukon Gold had the highest general rating and a best of trial designation (Table 5a and 5e).
- Yukon Gold produced the highest total and marketable yields (Table 5a).
- Yukon Gold had the highest yield of < 4 oz. tubers (Table 5a).
- Yukon Gold had the highest percentage of marketable yield, while ATC00293-1W/Y had the highest percentage of < 4 oz. tubers (Table 5b).
- Yukon Gold had the highest specific gravity (Table 5b).
- Yukon Gold was earlier in maturity than all of the other entries (Table 5c).
- ATC00293-1W/Y had the darkest flesh color (Table 5d).

Comments on entries:

- Yukon Gold Round White BOT, ROT++, low yield, better rep, less ROT CR=3
- ATC00293 -1W/Y Round White many small, road map, yield-, poor skin finish, drop, heat sprouts+++ CR=3
- A99433-5Y Round White heat sprouts,+++ , drop++, marble size, very light flesh CR=2+

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

Summary:

Yukon Gold was the outstanding entry.

Springlake
Table 5a.

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 Western Regional White/
Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Yukon Gold	177.0	71.9	49.1	22.8	0.0	0.0	105.1	0.0	3.7	3.1
ATC00293 -1W/Y	90.8	17.6	11.8	5.9	0.0	0.0	72.9	0.2	3.0	2.0
A99433-5Y	77.8	18.3	17.3	1.0	0.0	0.0	59.5	0.0	3.0	1.5
Average	115.2	36.0	26.0	9.9	0.0	0.0	79.2	0.1	3.2	2.2
L.S.D. (.05)	39.6	32.3	14.0	ns	ns	ns	18.6	ns	1.7	0.7

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 3 entries in the Western Regional White /Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Yukon Gold	39.7	27.5	12.3	0.0	0.0	60.3	0.0	1.060	13.2	Round	White
ATC00293 -1W/Y	18.8	12.9	5.8	0.0	0.0	81.0	0.2	1.043	10.1	Round	White
A99433-5Y	24.0	22.9	1.1	0.0	0.0	76.0	0.0	1.049	11.3	Round	White
Average	27.5	21.1	6.4	0.0	0.0	72.4	0.1	1.051	11.6		
L.S.D. (.05)	15.5	6.5	ns	ns	ns	15.3	ns	0.007	1.2		

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 3 entries in the Western Regional White/Yellow Trial grown near Springlake, Texas-2011.

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	
Yukon Gold	7.4	2.3	1.1	68	88	1.5	3.4	3.4	3.3	20
ATC00293 -1W/Y	7.4	1.1	1.2	65	93	1.8	4.7	4.9	4.6	0
A99433-5Y	5.2	1.3	1.3	88	98	1.8	4.6	4.9	4.5	0
Average	6.7	1.6	1.2	74	93	1.7	4.2	4.4	4.1	7
L.S.D. (.05)	1.4	0.6	ns	ns	6	ns	0.7	0.4	0.4	11

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

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

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

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

Springlake
Table 5d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 3 entries in the Western Regional White/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Yukon Gold	2.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
ATC00293 -1W/Y	3.2	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A99433-5Y	2.1	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.6	1.8	1.0	4.3	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
L.S.D. (.05)	0.3	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 5e.

Notes and general rating for all reps of 3 entries in the Western Regional White/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Yukon Gold	BOT	ROT++, low yield, better rep, less ROT	3.8, 3.6, 3.8, 3.6	3, 3.2, 3, 3.3
ATC00293 -1W/Y		many small, road map, yield-, poor skin finish, drop, heat sprouts+++	3, 3, 3, 3	1.5, 1.5, 2.3, 2.5
A99433-5Y		heat sprouts,+++ , drop++, marble size, very light flesh	3, 3, 3, 3	2, 1, 1.5, 1.5

Springlake
Table 5f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 3 entries in the Western Regional White/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Yukon Gold	Colorado	1.060	13.2	3.0	3	3/20		0%	0%
ATC00293 -1W/Y	Colorado	1.043	10.1	2.5	3	11/38		0%	0%
A99433-5Y	Idaho	1.049	11.3	3.5	2+	9/30		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

''''''Southwestern Regional Trials

This is the fourteenth year for the Southwestern Regional Cooperative Trials, which in 2011 included Russet, Red, Chip (also conducted at Dalhart), and Specialty Trials. The Southwestern Regional Potato Research Program includes California, Colorado, and Texas. The objective is to evaluate promising advanced selections from the Texas and Colorado breeding programs. Entries that are successful in these trials are then graduated to the various Western Regional Trials.

''''''Southwestern Regional Chip Trial

This trial consisted of 5 entries, including the check varieties Atlantic, Chipeta, and NY138(Waneta).

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

- The outstanding entry based on general rating and best of trial designation for tuber appearance was NY138(Waneta). AC03433-1W had the highest general rating for chip quality (Tables 6a and Table 6e).
- NY138(Waneta) had the highest total yield, while Atlantic had the highest marketable yield (Table 6a).
- Atlantic had the highest percentage marketable yield, while NY138(Waneta) had the highest percentage of < 4 oz. tubers (Table 6b).
- Atlantic had the highest specific gravity (Table 6b).
- Chipeta was the latest in maturity, while NY138(Waneta) was the earliest in maturity (Table 6c).
- Chipeta had the highest percentage of vascular discoloration (Table 6d).

Comments on entries:

- | | | |
|-----------------|-------------|--|
| • NY138(Waneta) | Round White | smooth, soft, BOT, bad rep CR=1 |
| • Atlantic | Round Buff | nice yield, large tubers CR=1+ |
| • CO03243-3W | Round White | nice rep, large tubers, yield+, rough, small, bad rep CR=1 |
| • AC03433-1W | Round White | smooth CR=1 |
| • Chipeta | Round White | heat sprouts, poor yield, light set CR=2 |

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

Summary:

NY 138 (Waneta) was the outstanding entry based on yield and tuber appearance. AC03433-1W had the highest rating for chip quality.

Springlake
Table 6a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 5 entries in the Southwestern Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz					
NY138	270.0	103.7	64.6	39.1	0.0	0.0	166.3	0.0	3.8	4.0
Atlantic	253.2	132.9	72.9	48.1	11.9	0.0	118.6	1.7	3.4	3.4
CO03243-3W	246.8	119.4	83.0	30.4	6.1	0.0	123.9	3.5	3.9	3.5
AC03433-1W	176.3	77.4	41.0	36.5	0.0	0.0	93.7	5.2	3.8	3.5
Chipeta	109.8	55.1	34.6	15.9	4.7	0.0	54.6	0.0	2.3	2.3
Average	211.2	97.7	59.2	34.0	4.5	0.0	111.4	2.1	3.4	3.3
L.S.D. (.05)	17.3	22.1	14.7	10.5	ns	ns	18.9	ns	0.6	0.5

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

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 5 entries in the Southwestern Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
NY138	38.3	23.9	14.4	0.0	0.0	61.7	0.0	1.063	13.7	Round	White
Atlantic	52.3	28.6	19.1	4.5	0.0	47.0	0.7	1.072	15.3	Round	Buff
CO03243-3W	48.4	33.7	12.3	2.4	0.0	50.2	1.4	1.056	12.5	Round	White
AC03433-1W	43.8	23.1	20.7	0.0	0.0	53.3	2.8	1.061	13.3	Round	White
Chipeta	49.9	31.2	14.5	4.1	0.0	50.1	0.0	1.041	9.8	Round	White
Average	46.5	28.1	16.2	2.2	0.0	52.5	1.0	1.058	12.9		
L.S.D. (.05)	9.2	6.3	5.6	ns	ns	9.5	ns	0.004	0.7		

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 5 entries in the Southwestern Regional Chip Trial grown near Springlake, Texas-2011.

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	
NY138	8.8	2.5	1.5	97	100	1.4	3.5	3.6	3.5	30
Atlantic	7.6	2.9	2.0	83	96	1.6	4.1	4.0	4.0	10
CO03243-3W	7.2	2.9	1.7	88	98	1.5	3.7	3.8	3.7	20
AC03433-1W	6.5	2.9	1.3	67	81	1.5	3.8	3.9	3.8	18
Chipeta	3.2	2.9	1.8	93	98	1.6	4.5	4.8	4.5	0
Average	6.7	2.8	1.7	86	95	1.5	3.9	4.0	3.9	16
L.S.D. (.05)	1.1	ns	ns	13	9	ns	0.4	ns	ns	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

Springlake
Table 6d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Southwestern Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
NY138	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Atlantic	1.0	1.0	2.5	4.5	2.5	5.0	5.0	5.0	5.0	4.5	0	0	0	8
CO03243-3W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
AC03433-1W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	0	5
Chipeta	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	4.5	0	0	18	0
Average	1.0	1.0	1.3	4.5	1.3	5.0	5.0	5.0	5.0	4.5	0	0	4	3
L.S.D. (.05)	ns	ns	0.1	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 6e.

Notes and general rating for all reps of 5 entries in the Southwestern Regional Chip Trial grown near Springlake, Texas-
2011.

Variety or Selection	Notes Grading	General Rating Field	General Rating Grading
NY138	smooth, soft, BOT, bad rep	3.7, 3.9, 3.7, 3.9	3.9, 3.9, 4, 4
Atlantic	nice yield, buff, large tubers	3.5, 3.3, 3.5, 3.3	3.5, 3.7, 3, 3.5
CO03243-3W	nice rep, large tubers, yield+, rough, small, bad rep	4, 4, 3.8, 3.8	3.8, 3.8, 3.6, 2.8
AC03433-1W	smooth	4, 4, 3.6, 3.6	3.5, 3.8, 3.4, 3.3
Chipeta	heat sprouts, poor yield, light set	3, 3, 1.5, 1.5	3, 2.5, 1.5, 2

Springlake
Table 6f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 5 entries in the Southwestern Regional Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
NY138	New York	1.063	13.7	3.5	1	32/6		0%	0%
Atlantic	Colorado	1.072	15.3	3.5	1+	29/12		0%	0%
CO03243-3W	Colorado	1.056	12.5	3.5	1	29/10	2MB	0%	0%
AC03433-1W	Colorado	1.061	13.3	4.5	1	37/3		0%	0%
Chipeta	Colorado	1.041	9.8	2.0	2	6/34	1BC	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

''''''Southwestern Regional Russet Trial

This trial consisted of 7 entries, including the check variety Russet Norkotah.

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

- AC00395-2RU had the highest total and marketable yields (Table 7a).
- AC00395-2RU had the highest yield of <4 oz. tubers. CO03202-1RU had the highest yield of culls/No. 2 tubers (Table 7a).
- None of the entries had more than 18 percent marketable yield (Table 7b).
- AOTX96084-1Ru had 64% of culls/No.2 tubers (Table 7b).
- AC00395-2RU had the highest specific gravity (Table 7b).
- AC00395-2RU and CO03202-1RU were the latest maturing, while Russet Norkotah and CO03276-4RU were the earliest maturing (Table 7c).

Comments on entries:

- AC00395-2RU Round Russet nice skin, small, blocky+, heavy set CR=2
- CO03202-1RU Long Russet skinny++, many culls+, poor shape CR=2
- CO03187-1RU Oblong Russet blocky, light set++, small CR=3
- CO03276-5RU Oblong Russet low yield, small, light set, ugly CR=3
- Russet Norkotah Oblong Russet bad rep, low yield+, light set, small CR=1
- AOTX96075-1Ru Round Russet small, skinny, very low yield CR=2
- CO03276-4RU Round Russet light set++, small++ CR=2

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

Summary:

Due to extreme high temperature none of the entries performed satisfactorily.

Springlake
Table 7a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
AC00395-2RU	111.5	20.4	15.9	4.5	0.0	0.0	89.9	1.2	2.3
CO03202-1RU	100.6	2.2	1.6	0.7	0.0	0.0	32.3	66.0	1.6
CO03187-1RU	68.1	8.0	4.1	3.8	0.0	0.0	55.3	4.8	1.8
CO03276-5RU	50.6	5.5	3.1	2.4	0.0	0.0	39.2	5.9	1.3
Russet Norkotah	46.3	7.1	6.1	1.0	0.0	0.0	37.9	1.4	1.6
AOTX96075-1RU	44.4	4.7	4.0	0.7	0.0	0.0	27.8	11.9	1.8
CO03276-4RU	27.8	1.4	1.4	0.0	0.0	0.0	26.4	0.0	1.6
Average	64.2	7.0	5.2	1.9	0.0	0.0	44.1	13.0	1.7
L.S.D. (.05)	33.0	8.7	5.8	ns	ns	ns	24.0	15.9	0.5

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 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AC00395-2RU	18.6	15.3	3.3	0.0	0.0	80.4	1.1	1.066	14.2	Round	Russet
CO03202-1RU	2.4	1.7	0.8	0.0	0.0	33.4	64.1	1.053	12.0	Long	Russet
CO03187-1RU	10.8	6.0	4.8	0.0	0.0	81.8	7.4	1.060	13.3	Oblong	Russet
CO03276-5RU	8.2	4.6	3.6	0.0	0.0	80.7	11.1	1.040	9.6	Oblong	Russet
Russet Norkotah	14.9	12.2	2.7	0.0	0.0	82.4	2.6	1.059	13.0	Oblong	Russet
AOTX96075-1RU	9.4	8.3	1.1	0.0	0.0	64.7	25.9	1.049	11.3	Round	Russet
CO03276-4RU	13.3	13.3	0.0	0.0	0.0	86.7	0.0	1.060	13.2	Round	Russet
Average	11.1	8.8	2.3	0.0	0.0	72.9	16.0	1.055	12.4		
L.S.D. (.05)	ns	ns	ns	ns	ns	17.8	9.0	0.005	0.8		

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 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2011.

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	
AC00395-2RU	4.8	2.0	2.0	86	98	1.5	3.4	3.4	3.3	74
CO03202-1RU	3.5	2.3	1.8	75	100	1.5	3.8	3.4	3.7	58
CO03187-1RU	2.7	2.1	1.6	96	100	1.5	2.6	2.7	2.8	81
CO03276-5RU	2.6	1.5	1.7	96	100	1.5	3.5	3.2	3.6	89
Russet Norkotah	1.8	2.1	1.9	98	100	1.5	2.1	1.8	2.4	100
AOTX96075-1RU	1.8	2.2	1.7	91	98	1.5	3.2	3.1	3.3	71
CO03276-4RU	2.1	1.2	2.1	85	96	1.5	1.8	1.9	2.4	98
Average	2.8	1.9	1.8	90	99	1.5	2.9	2.8	3.1	81
L.S.D. (.05)	1.1	0.5	0.2	12	ns	ns	0.9	0.8	0.7	21

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

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

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

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

Springlake
Table 7d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
AC00395-2RU	1.0	2.1	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO03202-1RU	1.0	4.0	4.5	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO03187-1RU	1.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO03276-5RU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	1.0	3.8	4.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96075-1RU	1.0	2.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO03276-4RU	1.0	2.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.0	4.1	3.9	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 7e. Notes and general rating for all reps of 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
AC00395-2RU	nice skin, small, blocky+, heavy set	2, 2.5, 2, 2.8
CO03202-1RU	skinny++, many culls+, poor shape	2, 2, 1, 1.5
CO03187-1RU	blocky, light set++, small	1.5, 2, 1.5, 2
CO03276-5RU	low yield, small, light set, low yield, ugly	1.5, 1.5, 1, 1
Russet Norkotah	bad rep, low yield+, light set, small	1.5, 1.5, 1.5, 2
AOTX96075-1RU	small, skinny, small, very low yield	2, 2, 2, 1
CO03276-4RU	light set++, small++, light set,	1.5, 1.5, 1.5, 2

Springlake
Table 7f.

Specific gravity, percent solids, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 7 entries in the Southwestern Regional Russet Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
AC00395-2RU	Colorado	1.066	14.2	2	12/28		0%	0%
CO03202-1RU	Colorado	1.053	12.0	2	15/25		0%	0%
CO03187-1RU	Colorado	1.060	13.3	3	13/27	4 dark	0%	0%
CO03276-5RU	Colorado	1.040	9.6	3	4/33	20 dark	0%	0%
Russet Norkotah	Idaho	1.059	13.0	1	31/9	4 dark	0%	0%
AOTX96075-1RU	Colorado	1.049	11.3	2	17/27	4 dark	0%	0%
CO03276-4RU	Colorado	1.060	13.2	2	33/6		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Southwestern Regional Red Trial

This trial consisted of 6 entries, including the check varieties Red LaSoda and Dark Red Norland.

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

- The entries with the highest general rating were COTX02172-1R and NDTX5438-11R (Tables 4a).
- Red LaSoda had the highest yield of total, marketable and <4 oz. tubers (Table 8a).
- None of the entries had over 25% of marketable yield, while Dark Red Norland had the highest percentage of <4 oz. tubers (Table 8b).
- Dark Red Norland had the highest specific gravity (Table 8b).
- Red LaSoda was the latest in maturity, while Dark Red Norland was the earliest in maturity (Table 8c).
- Red LaSoda had the deepest eyes and the most feathering (Table 8d).

Comments on entries:

- Red LaSoda Round Red yield+, chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell CR=2
- COTX02172-1R Round Red uniform, heavy set+++ , nice flesh+, small potato CR=3+
- NDTX5438-11R Round Red small, light set, nice shape CR=3
- Dark Red Norland Round Red small, nice shape, light skin color, variable color, silver scurf, heavy set, heat sprouts CR=3

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

Summary:

COTX02172-1R and NDTX5438-11R were the outstanding entries based on appearance.

Springlake
Table 8a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Red LaSoda	178.2	37.0	29.9	7.1	0.0	0.0	120.8	20.4	3.3	2.9
COTX02172-1R	141.4	17.8	11.1	6.7	0.0	0.0	116.5	7.1	2.9	3.4
NDTX5438-11R	134.3	35.3	23.3	11.9	0.0	0.0	88.0	11.1	3.0	3.5
Dk Red Norland	119.3	13.1	10.2	1.2	1.7	0.0	103.9	2.2	3.3	3.2
Average	143.3	25.8	18.6	6.7	0.4	0.0	107.3	10.2	3.1	3.3
L.S.D. (.05)	41.4	16.7	14.7	ns	ns	ns	ns	9.2	ns	0.3

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 4 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Red LaSoda	19.6	16.1	3.5	0.0	0.0	70.3	10.1	1.045	10.6	Round	Red
COTX02172-1R	12.7	8.3	4.3	0.0	0.0	82.3	5.1	1.051	11.5	Round	Red
NDTX5438-11R	25.2	16.5	8.8	0.0	0.0	66.1	8.7	1.046	10.7	Round	Red
Dk Red Norland	8.2	6.3	0.7	1.2	0.0	90.3	1.5	1.055	12.4	Round	Red
Average	16.4	11.8	4.3	0.3	0.0	77.2	6.3	1.049	11.3		
L.S.D. (.05)	8.8	ns	5.1	ns	ns	9.8	5.7	0.006	1.0		

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 4 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Red LaSoda	9.6	1.5	1.6	98	100	1.8	4.5	4.7	4.4	6
COTX02172-1R	8.4	1.5	1.4	73	92	1.9	2.9	3.2	3.1	43
NDTX5438-11R	7.0	2.3	1.5	55	71	1.5	2.9	3.1	2.9	29
Dk Red Norland	5.5	1.8	1.7	98	100	1.5	1.9	2.0	2.0	60
Average	7.6	1.8	1.5	81	91	1.7	3.0	3.2	3.1	34
L.S.D. (.05)	1.9	0.3	0.1	14	15	0.3	1.0	1.1	0.7	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 8d. Flesh color, tuber shape, degree of Reding, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Red LaSoda	1.0	2.5	1.0	2.5	2.5	5.0	5.0	5.0	5.0	2.5	0	0	15	0
COTX02172-1R	1.0	2.3	1.0	4.0	3.7	5.0	5.0	5.0	5.0	4.5	0	0	0	0
NDTX5438-11R	1.0	2.0	1.0	4.0	4.1	5.0	5.0	5.0	5.0	4.1	0	0	0	0
Dk Red Norland	1.0	2.0	1.0	3.9	2.9	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Average	1.0	2.2	1.0	3.6	3.3	5.0	5.0	5.0	5.0	3.9	0	0	4	0
L.S.D. (.05)	ns	0.2	ns	0.1	ns	ns	ns	ns	ns	0.2	ns	ns	8	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 8e.

Notes and general rating for all reps of 4 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Red LaSoda	yield+	chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell	3.5, 3, 3, 3.5	2.6, 2.8, 3.2, 2.8
COTX02172-1R	small, uniform	heavy set+++ , nice flesh+, small potato	2.2, 3.5, 3, 3	3.4, 3.4, 3.4, 3.4
NDTX5438-11R	small	light set, nice shape	2.6, 3.3, 3, 3.2	3.5, 3.2, 3.6, 3.8
Dk Red Norland	small, nice shape	light skin color, variable color, small, silver scurf, heavy set, heat sprouts	3, 3, 3.2, 3.8	3, 3.3, 3.3, 3.3

Springlake
Table 8f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 4 entries in the Southwestern Regional Red Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Red LaSoda	Idaho	1.045	10.6	1.5	2	23/17	6 Dark vas	0%	0%
COTX02172-1R	Colorado	1.051	11.5	1.0	3+	0/39	15 Dark	0%	0%
NDTX5438-11R	Colorado	1.046	10.7	2.5	3	14/22	5BC, 2Dark	0%	0%
Dk Red Norland	Idaho	1.055	12.4	3.0	3	7/35		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Southwestern Regional Red/Yellow Trial

This trial consisted of 3 entries.

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

- ATTX01180-1R/Y had the highest general rating (Table 9a).
- ATTX01180-1R/Y had the highest total and marketable yield. CO04021-2R/Y had the highest yield of <4 oz. tubers (Table 9a).
- ATTX01180-1R/Y had the highest percentage of marketable yield. CO04021-2R/Y had the highest percentage of <4 oz. tubers and culls/No.2 tubers (Table 9b).
- All three entries were late in maturity (Table 9c).
- ATTX01180-1R/Y and CO04021-2R/Y had the darkest yellow flesh color (Table 9d).
- ATTX01180-1R/Y had a high rating for feathering (Table 9d).

Comments on entries:

- ATTX01180-1R/Y Round Red BOT, very bad feathering, rough shape+, very dark yellow flesh CR=3
- CO04021-2R/Y Round Red nice, light skin, nice flesh+, small, smooth CR=3+
- ATTX88654-2P/Y Round Red deep eyes, deep stem attachment CR=2+

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

Summary:

ATTX01180-1R/Y was the outstanding entry based on yield and general rating.

Springlake
Table 9a.

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 /Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
ATTX01180-1R/Y	138.3	94.4	25.8	45.8	22.8	0.0	42.2	1.7	3.9	3.3
CO04021-2R/Y	120.3	16.2	14.0	1.0	1.2	0.0	98.4	5.7	3.6	3.4
ATTX88654-2P/Y	83.3	42.5	17.3	22.6	2.6	0.0	40.8	0.0	3.2	3.1
Average	114.0	51.1	19.0	23.2	8.9	0.0	60.4	2.5	3.6	3.2
L.S.D. (.05)	41.2	38.6	ns	16.7	15.7	ns	19.9	3.7	0.4	ns

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 3 entries in the Southwestern Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX01180-1R/Y	67.6	18.7	32.9	16.0	0.0	31.2	1.2	1.057	12.7	Round	Red
CO04021-2R/Y	13.6	11.8	0.7	1.1	0.0	81.4	4.9	1.063	13.8	Round	Red
ATTX88654-2P/Y	47.8	19.1	26.4	2.3	0.0	52.2	0.0	1.061	13.4	Round	Red
Average	43.0	16.5	20.0	6.5	0.0	55.0	2.0	1.060	13.3		
L.S.D. (.05)	18.0	ns	7.9	10.4	ns	18.7	3.0	ns	ns		

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 3 entries in the Southwestern Regional Red/Yellow Trial grown near Springlake, Texas-2011.

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
ATTX01180-1R/Y	5.5	3.9	1.4	42	55	1.9	4.2	4.6	4.0	3
CO04021-2R/Y	6.7	1.7	1.5	73	89	1.5	4.3	4.5	4.0	18
ATTX88654-2P/Y	3.8	3.0	1.4	46	61	1.5	3.8	4.4	3.7	5
Average	5.3	2.9	1.5	54	68	1.6	4.1	4.5	3.9	8
L.S.D. (.05)	1.3	1.2	ns	26	21	0.2	ns	ns	ns	8

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

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

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

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

Springlake
Table 9d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 3 entries in the Southwestern Regional Red /Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATX01180-1R/Y	4.0	2.5	1.0	4.0	3.0	5.0	5.0	5.0	5.0	2.0	3	0	0	0
CO04021-2R/Y	3.7	3.0	1.0	4.0	2.6	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATX88654-2P/Y	3.0	3.0	1.0	2.5	5.0	5.0	5.0	5.0	5.0	4.5	0	0	0	3
Average	3.5	2.8	1.0	3.5	3.5	5.0	5.0	5.0	5.0	3.7	1	0	0	1
L.S.D. (.05)	0.3	0.1	ns	ns	0.2	ns	ns	ns	ns	0.1	ns	ns	nd	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 9e.

Notes and general rating for all reps of 3 entries in the Southwestern Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATTX01180-1R/Y	BOT	very bad feathering, feathering+, rough shape+, very dark yellow flesh, poor shape	4, 3.8, 3.7, 4	3.5, 3, 3, 3.5
CO04021-2R/Y	nice	light skin, nice flesh+, small, smooth	3.8, 3.5, 3.5, 3.6	3.2, 3.4, 3.4, 3.4
ATTX88654-2P/Y		deep eyes, deep stem attachment	3, 3, 3.7, 3	3, 3.2, 3.2, 3

Springlake
Table 9f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 3 entries in the Southwestern Regional Red/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATX01180-1R/Y	Colorado	1.057	12.7	3.0	3	26/13		0%	0%
CO04021-2R/Y	Colorado	1.063	13.8	2.5	3+	9/32		0%	0%
ATX88654-2P/Y	Colorado	1.061	13.4	3.0	2+	14/15	2Dark	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Southwestern Regional White/Yellow Trial

This trial consisted of 4 entries, including the check variety Yukon Gold.

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

- Yukon Gold received a high general rating (Table 11a).
- Yukon Gold had the highest total and marketable yields. CO04013-1W/Y had the highest yield of <4 oz. tubers. (Table 11a).
- Yukon Gold had the highest percentage of marketable yield. CO04117-5PW/Y had the highest percentage of <4 oz. tubers (Table 11b).
- CO04013-1W/Y was latest in maturity, while CO04117-5PW/Y was the earliest in maturity (Table 11c).
- CO04117-5PW/Y had the darkest yellow flesh color (Table 11d).

Comments on entries:

- | | | |
|-----------------|---------------------|--|
| • Yukon Gold | Round White | better rep, less rot++, low yield CR=3 |
| • CO04013-1W/Y | Round White | small, heavy set, nice flesh+, many small tubers, heat sprouts+++ CR=3 |
| • TX1674-1W/Y | Oblong White | dumbbell, long rough, drop, , heat sprouts, CR=3+ |
| • CO04117-5PW/Y | Oblong Purple White | heat sprouts, very nice dark yellow flesh, very small, grape size, low yield, drop+ CR=3 |

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

Summary:

None of the entries performed better than Yukon Gold

Springlake
Table 10a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Yukon Gold	132.8	51.3	39.4	11.9	0.0	0.0	81.4	0.0	3.7	3.1
CO04013-1W/Y	125.5	0.7	0.7	0.0	0.0	0.0	123.6	1.2	2.9	2.3
TX1674-1W/Y	64.0	3.8	3.8	0.0	0.0	0.0	50.8	9.3	2.7	1.5
CO04117-5PW/Y	24.5	0.5	0.5	0.0	0.0	0.0	24.0	0.0	1.0	1.1
Average	86.7	14.1	11.1	3.0	0.0	0.0	70.0	2.6	2.6	2.0
L.S.D. (.05)	34.5	24.1	13.0	ns	ns	ns	25.6	6.1	0.2	0.3

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 4 entries in the Southwestern Regional White Skin Yellow Flesh Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Yukon Gold	36.8	30.0	6.8	0.0	0.0	63.2	0.0	1.060	13.2	Round	White
CO04013-1W/Y	0.7	0.7	0.0	0.0	0.0	98.2	1.1	1.053	12.0	Round	White
TX1674-1W/Y	5.2	5.2	0.0	0.0	0.0	81.3	13.5	1.054	12.1	Oblong	White
CO04117-5PW/Y	1.0	1.0	0.0	0.0	0.0	99.0	0.0	1.048	11.0	Oblong	Purple White
Average	10.9	9.2	1.7	0.0	0.0	85.4	3.6	1.054	12.1		
L.S.D. (.05)	8.8	8.9	ns	ns	ns	14.2	7.9	ns	ns		

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 4 entries in the Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2011.

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	
Yukon Gold	5.4	2.4	1.1	68	88	1.5	3.4	3.4	3.3	20
CO04013-1W/Y	11.9	0.9	1.5	97	100	1.8	4.3	4.8	4.3	4
TX1674-1W/Y	4.5	1.6	1.3	52	77	1.8	3.6	4.1	3.6	8
CO04117-5PW/Y	2.5	1.0	1.5	60	85	1.5	1.6	2.1	1.9	80
Average	6.1	1.5	1.4	69	88	1.6	3.2	3.6	3.3	28
L.S.D. (.05)	2.3	0.5	ns	13	8	ns	0.6	0.5	0.3	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 10d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Southwestern Regional White /Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Yukon Gold	2.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
CO04013-1W/Y	3.6	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX1674-1W/Y	3.0	3.8	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
CO04117-5PW/Y	4.0	3.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.3	2.8	1.0	4.5	1.9	5.0	5.0	5.0	5.0	5.0	3	0	0	0
L.S.D. (.05)	0.1	0.1	ns	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 10e.

Notes and general rating for all reps of 4 entries in the Southwestern Regional White/ Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Field	General Rating Grading
Yukon Gold	better rep, less ROT, ROT++, low yield	3.8, 3.6, 3.6, 3.8	3, 3.3, 3.2, 3
CO04013-1W/Y	heavy set, nice flesh+, many small tubers, heat sprouts+++	2.8, 2.8, 3, 3	2, 3, 2, 2
TX1674-1W/Y	bumbell, long rough, drop, heat sprouts,	2.8, 2.8, 2.5, 2.5	1.5, 1.5, 1.5, 1.5
CO04117-5PW/Y	heat sprouts, very nice dark yellow flesh, very small, grape size, low yield, drop+	1, 1, 1, 1	1, 1.5, 1, 1

Springlake
Table 10f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 4 entries in the Southwestern Regional White/Yellow Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Yukon Gold	Colorado	1.060	13.2	3.0	3	3/20		0%	0%
CO04013-1W/Y	Colorado	1.053	12.0	3.5	3	17/20	1BC	0%	0%
TX1674-1W/Y	Colorado	1.054	12.1	2.5	3+	4/15	1dark, 1BC	0%	0%
CO04117-5PW/Y	Colorado	1.048	11.0	3.5	3	23/6	1Dark	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Southwestern Regional Purple/Purple Trial

This trial consisted of 4 entries, including the check variety Purple Majesty.

Results from the trial were as follows: (Springlake Tables 11a, 11b, 11c, 11d, and 11e)

- CO04045-4P/P received the highest general rating and a best of trial designation (Table 10a and 10e).
- CO04045-4P/P had the highest total, marketable, and yield of <4 oz. tubers (Table 10a).
- All of the entries had at least 74% of <4 oz. tubers. COTX05082-2P/P had the highest percentage of culls/No.2 tubers (Table 10b).
- CO03027-2R/R was the latest in maturity, while Purple Majesty was the earliest (Table 10c).
- CO04045-4P/P and COTX05082-2P/P had the darkest purple flesh color (Table 10d).

Comments on entries:

- CO04045-4P/P Round Purple nice dark flesh, BOT+, silver scurf, poor skin finish, nice shape
- CO03027-2R/R Round Red small, nice shape, road map, nice red flesh
- Purple Majesty Round Purple road map, poor skin finish, nice shape, all blue like flesh,
small++
- COTX05082-2P/P Round Purple light set, low yield+

Summary:

CO04045-4P/P was the best entry based on all factors.

Springlake
Table 11a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Purple/Purple Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
CO04045-4P/P	112.4	11.6	11.6	0.0	0.0	0.0	100.4	0.3	3.8
CO03027-2R/R	100.8	4.5	4.5	0.0	0.0	0.0	85.7	10.5	3.1
Purple Majesty	83.5	0.3	0.3	0.0	0.0	0.0	69.7	13.5	2.6
COTX05082-2P/P	27.3	0.0	0.0	0.0	0.0	0.0	20.4	6.9	1.0
Average	81.0	4.1	4.1	0.0	0.0	0.0	69.1	7.8	2.6
L.S.D. (.05)	5.6	7.9	7.9	ns	ns	ns	35.1	6.9	0.3

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 4 entries in the Southwestern Regional Purple/Purple Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2		
CO04045-4P/P	10.5	10.5	0.0	0.0	0.0	89.2	0.3	Round	Purple
CO03027-2R/R	4.9	4.9	0.0	0.0	0.0	84.1	11.1	Round	Red
Purple Majesty	0.3	0.3	0.0	0.0	0.0	83.6	16.1	Round	Purple
COTX05082-2P/P	0.0	0.0	0.0	0.0	0.0	74.5	25.5	Round	Purple
Average	3.9	3.9	0.0	0.0	0.0	82.8	13.3		
L.S.D. (.05)	7.6	7.6	ns	ns	ns	10.4	7.8		

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 4 entries in the Southwestern Regional Purple/Purple Trial grown near Springlake, Texas-2011.

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	
CO04045-4P/P	5.7	1.7	1.8	84	97	1.5	4.1	3.8	3.6	18
CO03027-2R/R	10.2	1.5	1.7	45	57	1.5	4.1	4.8	3.8	29
Purple Majesty	5.4	1.3	1.9	94	100	1.6	3.8	3.4	3.6	30
COTX05082-2P/P	5.0	0.9	1.6	18	55	1.5	3.5	4.5	3.5	88
Average	6.6	1.3	1.7	60	77	1.5	3.9	4.1	3.6	41
L.S.D. (.05)	2.8	0.2	ns	13	16	ns	ns	0.5	ns	20

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

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

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

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

Springlake
Table 11d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Southwestern Regional Purple/Purple Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
CO04045-4P/P	4.0	1.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO03027-2R/R	3.5	1.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Purple Majesty	2.8	1.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05082-2P/P	4.0	1.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.6	1.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 11e.

Notes and general rating for all reps of 4 entries in the Southwestern Regional Purple/Purple Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
CO04045-4P/P	nice dark flesh, BOT+, silver scurf, poor skin finish, nice flesh, nice shape	3.8, 3.8, 3.5, 4
CO03027-2R/R	small, nice shape, road map, nice red flesh	3, 3, 3, 3.3
Purple Majesty	road map, poor skin finish, nice shape, all blue like flesh, small++	3, 2.5, 2.5, 2.5
COTX05082-2P/P	light set, low yield+	1, 1, 1, 1

Commercial Variety Chip Trial

This trial consisted of 8 entries, including the check varieties Atlantic, Snowden, and NY138(Waneta).

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

- The outstanding entries for this trial, based on general rating and chip quality were FL2048 and FL1833. NY138(Waneta) and FL2053 received a best of trial designation for chip quality (Tables 12a, 12e and 12f).
- FL1833 had the highest total and marketable tubers. Snowden had the highest yield of <4 oz. tubers (Table 12a).
- FL1833 had the highest percent marketable tubers (Table 12b).
- FL1922 had the highest percentage yield of <4 oz. and cull/No. 2 tubers (Table 12b).
- Atlantic had the highest specific gravity (Table 12b)
- Snowden and Atlantic were the latest maturing entries. FL2053 was the earliest maturing entry (Table 12c).
- FL1833 and Atlantic had the highest percentage of internal brownspot (Table 12d).

Comments on entries:

- | | | |
|-----------------|--------------|--|
| • FL1833 | Round White | large, very poor internals, nice shape, heat sprouts, yellow flesh
CR=1 |
| • FL2048 | Oblong White | nice, light set, buff CR=1 |
| • Snowden | Round White | yield+, buff, heavy set, nice, small, nice flesh CR=1 |
| • Atlantic | Oblong Buff | heat sprouts, drop+, very poor internals CR=2 |
| • FL1867 | Round White | nice, low yield, heat sprouts+++ CR=1 |
| • FL2053 | Oblong White | pointed, drop CR=1 |
| • NY138(Waneta) | Round White | low yield, CR=1 |
| • FL1922 | Oblong White | low yield, poor shape++++, drop, pear shaped CR=1+ |

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

Summary:

FL1833 and FL2048 were the outstanding entries based on yield, appearance and chip quality. FL2053 and NY138(Waneta) received a best of trial designation for chip appearance.

Springlake Table 12a. 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 Commercial Variety Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz					
FL1833	179.1	121.2	64.8	41.5	14.9	0.0	50.6	7.3	3.3	3.7
FL2048	156.8	90.9	36.3	37.0	17.6	0.0	62.1	3.8	3.7	3.6
Snowden	156.8	51.3	35.3	16.1	0.0	0.0	104.4	1.0	3.8	3.7
Atlantic	137.6	64.3	36.3	21.6	6.4	0.0	72.8	0.5	3.6	3.3
FL1867	118.9	51.2	33.2	16.4	1.6	0.0	65.2	2.6	3.2	3.2
FL2053	100.8	36.1	20.4	14.0	1.7	0.0	60.3	4.3	3.2	2.9
NY138	92.1	45.6	34.1	11.6	0.0	0.0	45.6	0.9	2.6	3.2
FL1922	71.0	12.3	8.3	4.0	0.0	0.0	49.4	9.3	3.3	2.0
Average	126.6	59.1	33.6	20.3	5.3	0.0	63.8	3.7	3.3	3.2
L.S.D. (.05)	17.4	23.1	19.3	14.8	12.3	ns	17.5	ns	0.3	0.3

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

Springlake Table 12b. 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 Commercial Variety Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
FL1833	66.2	35.7	22.7	7.7	0.0	29.9	3.9	1.065	14.1	Round	White
FL2048	58.1	23.5	23.6	11.0	0.0	39.4	2.5	1.066	14.2	Oblong	White
Snowden	32.0	21.6	10.4	0.0	0.0	67.4	0.6	1.066	14.2	Round	White
Atlantic	46.5	26.5	15.4	4.6	0.0	53.0	0.4	1.071	15.2	Oblong	Buff
FL1867	42.6	28.0	13.5	1.1	0.0	55.2	2.2	1.066	14.3	Round	White
FL2053	35.4	19.9	13.9	1.6	0.0	60.2	4.4	1.073	15.5	Oblong	White
NY138	49.4	37.1	12.3	0.0	0.0	49.8	0.8	1.064	14.0	Round	White
FL1922	17.2	11.9	5.2	0.0	0.0	72.2	10.6	1.057	12.6	Oblong	White
Average	43.4	25.5	14.6	3.3	0.0	53.4	3.2	1.066	14.3		
L.S.D. (.05)	13.1	12.0	9.8	6.4	ns	ns	14.0	0.004	0.7		

Springlake
Table 12c. Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 8 entries in the Commercial Variety Chip Trial grown near Springlake, Texas-2011.

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	
FL1833	6.4	3.6	1.5	57	67	1.5	3.4	3.3	3.5	11
FL2048	5.9	3.0	1.6	59	75	1.9	3.8	3.9	3.7	1
Snowden	6.2	2.4	1.6	66	90	1.8	4.3	4.2	4.0	3
Atlantic	9.9	2.6	1.5	35	47	1.9	2.9	4.0	3.7	4
FL1867	5.7	2.8	1.6	52	63	1.5	3.3	3.7	3.6	13
FL2053	4.0	3.1	1.7	52	67	2.1	2.2	2.6	2.8	41
NY138	6.4	3.0	1.4	30	40	1.5	2.0	3.8	2.7	18
FL1922	5.0	2.0	1.3	37	58	2.1	2.9	3.8	3.1	9
Average	6.2	2.8	1.5	48	64	1.8	3.1	3.6	3.4	12
L.S.D. (.05)	2.0	0.4	ns	15	15	0.4	0.8	0.5	0.6	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

Springlake Table 12d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 8 entries in the Commercial Variety Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
FL1833	2.0	1.4	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	40
FL2048	1.0	3.5	2.5	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Snowden	1.0	2.0	2.0	3.5	2.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
Atlantic	1.0	2.0	3.0	4.5	3.0	5.0	5.0	5.0	5.0	5.0	3	0	0	38
FL1867	1.0	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	8
FL2053	1.0	3.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NY138	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	3
FL1922	1.0	3.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.1	2.3	1.6	4.4	1.6	5.0	5.0	5.0	5.0	5.0	4	0	0	11
L.S.D. (.05)	0.1	0.1	0.1	0.1	0.1	ns	ns	ns	ns	ns	6	ns	ns	25

¹ 1=light to 5=dark ⁶ 1 to 5=none

² 1=round to 5=long ⁷ 1 to 5=none

³ 1=none to 5=heavy ⁸ 1 to 5=none

⁴ 1=deep to 5=shallow ⁹ 1 to 5=none

⁵ 1=light to 5=dark ¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake Notes and general rating for all reps of 8 entries in the Commercial Variety Chip Trial grown near Springlake, Texas-2011.
Table 12e.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
FL1833	large	very poor internals, nice shape, heat sprouts, yellow flesh	3.3, 3.3, 3.3, 3.3	4, 3.6, 3.6, 3.5
FL2048	nice	light set, oblong, buff, ,	3.8, 3.6, 3.6, 3.8	3.7, 3.5, 3.7, 3.5
Snowden	yield+	buff, heavy set, nice, small, nice flesh	3.7, 3.9, 3.7, 3.9	4, 3.6, 3.7, 3.6
Atlantic		heat sprouts, buff, drop+, very poor internals	3.7, 3.5, 3.5, 3.7	3.3, 3.7, 3, 3.3
FL1867	nice	low yield, heat sprouts+++	2.7, 2.7, 3.6, 3.6	3, 3.4, 3.3, 3
FL2053		oblong, pointed, drop	3, 3, 3.3, 3.3	3, 2.8, 3, 2.8
NY138	low yield	low yield	2.7, 2.7, 2.5, 2.5	3.2, 3.4, 3.2, 3
FL1922	shape?	low yield, oblong, poor shape++++, drop, pear shaped	3, 3.5, 3.5, 3	2, 2, 2, 2

Springlake Table 12f. Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 8 entries in the Commercial Variety Chip Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
FL1833	Dalhart	1.065	14.1	4.5	1	34/7	2MB	0%	0%
FL2048	Dalhart	1.066	14.2	4.0	1	33/7	1BC	0%	0%
Snowden	Dalhart	1.066	14.2	3.0	1	34/5		0%	0%
Atlantic	Dalhart	1.071	15.2	2.0	2	14/23	14MB	0%	0%
FL1867	Dalhart	1.066	14.3	3.0	1	23/16		0%	0%
FL2053	Dalhart	1.073	15.5	4.5	1	33/4	BOT	0%	0%
NY138	Dalhart	1.064	14.0	5.0	1	42/0	BOT	0%	0%
FL1922	Dalhart	1.057	12.6	3.5	1+	26/10		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Outstanding Texas Advanced Chip Selections, 2011

Overall Summary - Springlake and Dalhart: The Texas Advanced Chip Selection Trial at Springlake included 16 entries, with 24 entries planted at Dalhart. Atlantic and Chipeta were the check varieties for both locations. Based on both trials (ATTX03475-2W, AOTX95295-1W, ATTX03474-2W, ATTX03474-3W, NDTX060700C-1W, NDTX071109C-1W, NDTX071217CB-1W/Y, NDTX8305-3W, NDTX071084C-2W, and TX03196-1W, will be re-evaluated in the 2012 season.

Texas Advanced Chip Selection Trial

This chip trial consisted of 16 entries, including the check varieties Atlantic, Chipeta, and NY138(Waneta).

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

- ATTX03474-2W was the outstanding entries based on general rating and best of trial designations for appearance and chip quality. AOTX95309-3W and ATTX03475-2W had high general ratings. ATTX03474-3W, ATTX03446-4W, NY138(Waneta), and NDTX060700C-1W had high general ratings for chip quality. NY138(Waneta) also received a best of trial designation for chip quality (Tables 13a, 13e, and 13f).
- ATTX03474-2W had the highest total and marketable yield. AOTX95309-3W had the highest yield of <4 oz. tubers (Table 13a).
- Atlantic had the highest percentage of marketable yield (Table 13b).
- NDTX060700C-1W had the highest percentage of <4 oz. tubers. TX03196-1W had the highest percentage of culls/No.2 tubers (Table 13b).
- NDTX060700C-1W had the highest specific gravity (Table 13b).
- AOTX95309-3W ATTX03474-3W and COTX03303-1W were the latest in maturity, while COTX03270-1W and NDTX060700C-1W were the earliest in maturity (Table 13c).
- Atlantic had the highest percentage of internal brownspot (Table 13d).

Comments on entries:

- ATTX03474-2W Round White BOT, yield+ very nice CR=1

- AOTX95309-3W Round White nice yield, heat sprouts, heavy set++ CR=1+
 - ATTX03475-2W Round Buff CR=1
 - ATTX03474-3W Round White heat sprouts++, buff, small, medium to heavy set CR=1
 - AOTX95295-1W Round White moderate heat sprouts, heavy set CR=2
 - ATTX03474-1W Round White nice, low yield, smooth skin CR=1
 - Atlantic Round Buff heat sprouts, drop+, very poor internals CR=2
 - COTX03303-1W Round White heat sprouts+++ CR=1+
 - NY138(Waneta) Round White low yield CR=1
 - ATTX03475-6W Round White small, nice, buff, heat sprouts, some rot CR=1+
 - ATTX03476-2W Round White low yield, heat sprouts,+, smooth skin, drop CR=1+
 - COTX02377-1W Round White rough, small CR=1+
 - ATTX03446-4W Round White low yield CR=1
 - COTX03270-1W Round White low yield, small, light set, egg size, smooth CR=1
 - TX03196-1W Round White very low yield CR=1
 - NDTX060700C-1W Round White low yield, drop+++ CR=1
- ¹CR=chip color rating 1=light to 3= dark

Summary:

ATTX03474-2W was the outstanding entries in this trial based on all factors.

Springlake
Table 13a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 16 entries in the Texas Advanced Chip Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz					
ATTX03474-2W	163.4	86.6	48.7	33.7	4.1	0.0	71.6	5.2	3.7	3.9
AOTX95309-3W	152.5	33.7	22.5	11.2	0.0	0.0	115.0	3.8	3.7	3.7
ATTX03475-2W	147.4	74.0	47.4	20.6	6.1	0.0	70.5	2.9	2.8	3.6
ATTX03474-3W	133.4	24.7	16.1	8.6	0.0	0.0	101.8	6.9	3.4	3.1
AOTX95295-1W	127.1	29.9	23.3	6.6	0.0	0.0	91.8	5.4	3.3	3.3
ATTX03474-1W	120.7	31.5	21.8	9.7	0.0	0.0	87.3	1.9	3.5	3.3
Atlantic	118.4	61.4	33.0	22.5	5.9	0.0	56.5	0.5	3.6	3.3
COTX03303-1W	109.8	20.2	18.0	2.2	0.0	0.0	84.4	5.2	3.1	2.6
NY138	92.1	45.6	34.1	11.6	0.0	0.0	45.6	0.9	2.6	3.2
ATTX03475-6W	83.8	25.8	17.5	8.3	0.0	0.0	57.4	0.7	3.1	3.2
ATTX03476-2W	79.3	24.9	11.4	9.5	4.0	0.0	50.0	4.5	3.3	2.8
COTX02377-1W	73.3	22.8	14.0	8.8	0.0	0.0	49.6	0.9	3.2	2.6
ATTX03446-4W	70.5	24.5	18.0	6.6	0.0	0.0	44.6	1.4	2.3	3.2
COTX03270-1W	49.6	6.6	3.1	3.5	0.0	0.0	40.1	2.9	2.5	2.3
TX03196-1W	40.1	4.0	2.8	1.2	0.0	0.0	32.7	3.5	2.0	1.8
NDTX060700C-1W	23.0	2.1	2.1	0.0	0.0	0.0	20.9	0.0	1.0	1.1
Average	99.0	32.4	20.9	10.3	1.3	0.0	63.7	2.9	2.9	2.9
L.S.D. (.05)	31.9	18.1	13.4	10.2	4.1	ns	24.9	3.0	0.5	0.7

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

Springlake
Table 13b.

Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 16 entries in the Texas Advanced Chip Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX03474-2W	52.5	29.8	20.3	2.4	0.0	44.4	3.0	1.060	13.2	Round	White
AOTX95309-3W	21.8	15.1	6.7	0.0	0.0	75.8	2.4	1.063	13.7	Round	White
ATTX03475-2W	50.1	32.4	13.8	3.9	0.0	47.7	2.2	1.056	12.5	Round	Buff
ATTX03474-3W	18.4	11.5	7.0	0.0	0.0	76.4	5.2	1.050	11.4	Round	White
AOTX95295-1W	23.8	18.5	5.4	0.0	0.0	71.9	4.3	1.053	12.0	Round	White
ATTX03474-1W	25.7	17.7	8.0	0.0	0.0	72.5	1.8	1.060	13.2	Round	White
Atlantic	56.8	28.6	22.4	5.8	0.0	42.8	0.4	1.071	15.2	Round	Buff
COTX03303-1W	17.1	15.5	1.6	0.0	0.0	77.9	5.1	1.057	12.7	Round	White
NY138	49.4	37.1	12.3	0.0	0.0	49.8	0.8	1.064	14.0	Round	White
ATTX03475-6W	31.1	21.1	10.0	0.0	0.0	68.2	0.7	1.046	10.7	Round	White
ATTX03476-2W	27.8	13.6	10.5	3.7	0.0	65.7	6.5	1.054	12.2	Round	White
COTX02377-1W	35.1	20.3	14.8	0.0	0.0	63.0	1.9	1.056	12.5	Round	White
ATTX03446-4W	35.5	26.6	9.0	0.0	0.0	63.0	1.5	1.062	13.6	Round	White
COTX03270-1W	14.3	6.7	7.5	0.0	0.0	79.7	6.1	1.069	14.8	Round	White
TX03196-1W	9.0	6.7	2.3	0.0	0.0	81.5	9.5	1.060	13.2	Round	White
NDTX060700C-1W	12.9	12.9	0.0	0.0	0.0	87.1	0.0	1.084	17.4	Round	White
Average	30.1	19.6	9.5	1.0	0.0	66.7	3.2	1.060	13.3		
L.S.D. (.05)	17.5	12.0	11.0	3.4	ns	17.9	3.8	0.001	1.5		

Springlake
Table 13c.

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 16 entries in the Texas Advanced Chip Selection Trial grown near Springlake, Texas-2011.

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	
ATTX03474-2W	5.2	3.0	1.8	86	91	1.6	3.8	3.8	3.7	13
AOTX95309-3W	6.5	2.0	1.8	89	99	1.5	4.4	4.4	4.0	1
ATTX03475-2W	6.6	3.2	1.8	52	61	1.5	3.5	3.2	3.2	15
ATTX03474-3W	6.4	1.9	1.9	90	97	1.5	4.7	4.6	4.5	0
AOTX95295-1W	8.9	1.8	1.9	59	66	1.5	4.1	3.8	3.7	5
ATTX03474-1W	4.8	2.5	1.5	69	84	1.9	2.0	2.8	2.9	8
Atlantic	10.0	2.2	1.5	35	47	1.9	2.9	4.0	3.7	4
COTX03303-1W	6.6	1.7	1.6	66	82	1.6	4.5	4.8	4.1	0
NY138	6.4	3.0	1.4	30	40	1.5	2.0	3.8	2.7	18
ATTX03475-6W	4.7	2.1	1.2	53	75	1.5	4.1	4.1	3.8	3
ATTX03476-2W	7.8	2.6	1.3	23	33	1.6	2.8	3.2	3.4	15
COTX02377-1W	3.3	4.2	1.5	82	91	1.5	2.8	3.0	3.3	10
ATTX03446-4W	5.5	2.9	1.5	29	38	1.9	1.0	2.5	2.1	33
COTX03270-1W	2.3	1.9	1.5	79	95	1.3	1.0	1.3	1.5	81
TX03196-1W	3.1	1.5	1.4	63	78	1.5	3.2	3.7	3.6	9
NDTX060700C-1W	2.4	1.2	1.5	63	69	2.0	1.5	1.5	2.0	5
Average	5.6	2.3	1.6	61	72	1.6	3.0	3.4	3.3	14
L.S.D. (.05)	2.0	ns	2.0	15	14	0.3	5.0	0.8	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

Springlake
Table 13d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 16 entries in the Texas Advanced Chip Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX03474-2W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95309-3W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX03475-2W	1.0	1.0	2.5	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX03474-3W	1.0	1.0	2.5	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	3	0
AOTX95295-1W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATTX03474-1W	1.0	1.0	2.0	4.5	2.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Atlantic	1.0	2.0	3.0	4.5	3.0	5.0	5.0	5.0	5.0	5.0	3	0	0	38
COTX03303-1W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NY138	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	3
ATTX03475-6W	1.0	1.0	2.5	4.5	3.0	5.0	5.0	5.0	5.0	5.0	5	0	3	0
ATTX03476-2W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX02377-1W	1.0	1.0	2.0	4.5	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX03446-4W	1.0	2.0	2.0	4.5	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX03270-1W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX03196-1W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
NDTX060700C-1W	1.0	1.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
Average	1.0	1.1	1.6	4.5	1.8	5.0	5.0	5.0	5.0	5.0	3	0	0	3
L.S.D. (.05)	ns	0.1	0.1	ns	0.1	ns	ns	ns	ns	ns	4	ns	ns	13

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 13e. Notes and general rating for all reps of 16 entries in the Texas Advanced Chip Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
ATTX03474-2W	BOT, yield+	very nice, BOT	3.8, 3.8, 3.6, 3.6	4, 4, 3.8, 3.8
AOTX95309-3W	nice yield	heat sprouts, heavy set++	3.6, 3.6, 3.7, 3.7	3.8, 3.6, 3.6, 3.7
ATTX03475-2W		buff heat sprouts++, buff, small, medium to heavy set	3.5, 3.5, 2, 2	3.6, 3.6, 3.7, 3.5
ATTX03474-3W			3.2, 3.2, 3.5, 3.5	3.5, 3.2, 3, 2.5
AOTX95295-1W		moderate heat sprouts, heavy set	3.2, 3.2, 3.3, 3.3	3.7, 3.3, 3.3, 3
ATTX03474-1W	nice	low yield, smooth skin heat sprouts, buff, drop+, very poor internals	3.2, 3.2, 3.8, 3.8	3, 3.3, 3.4, 3.4
Atlantic			3.5, 3.5, 3.7, 3.7	3, 3.7, 3.3, 3.3
COTX03303-1W		heat sprouts+++	3.2, 3.2, 3, 3	3.3, 2.5, 2.5, 2
NY138	low yield	low yield	2.5, 2.5, 2.7, 2.7	3, 3.2, 3.4, 3.2
ATTX03475-6W		small, nice, buff, heat sprouts, some rot heat sprouts+, low yield, smooth skin, drop	3.3, 3.3, 2.8, 2.8	3.5, 3.2, 3.2, 3
ATTX03476-2W	low yield		2.8, 2.8, 3.8, 3.8	3, 2.6, 2.6, 2.8
COTX02377-1W		rough, small	3, 3, 3.4, 3.4	2.5, 2.5, 2.8, 2.5
ATTX03446-4W	low yield		2.5, 2.5, 2, 2	3.2, 3.2, 3, 3.3
COTX03270-1W	low yield	small, light set, egg size, smooth	2, 2, 3, 3	2, 2, 3, 2
TX03196-1W	very low yield	low yield	2, 2, 2, 2	2, 2, 2, 1
NDTX060700C-1W	drop	low yield, drop+++	1, 1, 1, 1	1, 1.5, 1, 1

Springlake
Table 13f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 16 entries in the Texas Advanced Chip Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATTX03474-2W	Dalhart	1.060	13.2	5	1	41/0	BOT	0%	0%
AOTX95309-3W	Dalhart	1.063	13.7	2	1+	11/29		0%	0%
ATTX03475-2W	Dalhart	1.056	12.5	3.5	1	12/27	1MB	0%	0%
ATTX03474-3W	Dalhart	1.050	11.4	4	1	14/23	1Dark nice	0%	0%
AOTX95295-1W	Dalhart	1.053	12.0	2	2	10/28	1LR Drop	0%	0%
ATTX03474-1W	Dalhart	1.060	13.2	4	1	27/14	Nice	0%	0%
Atlantic	Dalhart	1.071	15.2	2	2	14/23	14MB	0%	0%
COTX03303-1W	Dalhart	1.057	12.7	3	1+	11/29		0%	0%
NY138	Dalhart	1.064	14.0	5	1	42/0	BOT	0%	0%
ATTX03475-6W	Dalhart	1.046	10.7	2	1+	8/31		0%	0%
ATTX03476-2W	Dalhart	1.054	12.2	3	1+	26/13		0%	0%
COTX02377-1W	Dalhart	1.056	12.5	3	1+	16/24		0%	0%
ATTX03446-4W	Dalhart	1.062	13.6	4.5	1	37/3	Nice	0%	0%
COTX03270-1W	Dalhart	1.069	14.8	4	1	33/3		0%	0%
TX03196-1W	Dalhart	1.060	13.2	4	1	36/15		0%	0%
NDTX060700C-1W	Dalhart	1.084	17.4	4.5	1	28/1		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Outstanding Texas Advanced Russet Selections, 2011

Overall Summary - Springlake and Dalhart: The Texas Advanced Russet Selection Trials had 13 entries at Springlake and 41 at Dalhart. Russet Norkotah was the check variety for both locations. Based on both trials, (AOTX96265-2Ru, AOTX96216-2Ru, AOTX98152-3Ru, ATX91137-1Ru, TXA549-1Ru, AOTX95265-1Ru, AOTX95265-3Ru, AOTX96084-1Ru, AOTX98202-1Ru, ATTX03475-10Ru, ATTX03475-7Ru, ATX84378-6Ru, ATX99013-1Ru, COTX05095-2Ru/Y, COTX07009-8Ru, COTX07018-2Ru, COTX07206-1Ru, and TXNS410 will be re-evaluated in the 2012 season.

Texas Advanced Russet Selection (Co. Source) Trial

This russet trial consisted of 8 entries, including the check varieties Russet Norkotah and Stampede Russet. Results were as follows: (Springlake Tables 14a, 14b, 14c, 14d, 14e, and 14f)

- TXA549-1Ru and AOTX98152-3Ru were the outstanding entries based on general rating and best of trial designation. ATX91137-1Ru also received a best of trial designation (Tables 14a and 14e).
- ATX9202-3Ru had the highest total yield, while AOTX96216-2Ru had the highest marketable yield (Table 14a).
- ATX9202-3Ru had the highest yield of <4 oz. tubers (Table a).
- ATX9202-3Ru and ATX91137-1Ru had the highest yield of culls/No. 2 tubers (Table 14a).
- AOTX96216-2Ru had the highest percentage of marketable yield (Table 14b).
- ATX9202-3Ru and Russet Norkotah had the highest percentage of <4 oz. tubers. ATX9202-3Ru and ATX91137-1Ru had the highest percentage of culls/No.2 tubers (Table 14b).
- AOTX98152-3Ru had the highest specific gravity (Table 14b).
- AOTX98152-3Ru and TXA549-1Ru were the latest in maturity, while Russet Norkotah and Stampede Russet were the earliest in maturity (Table 14c).
- ATX9202-3Ru and Stampede Russet were best of trial for processing (Table 14f).
- AOTX98152-3Ru had 5% ZC at chipping (Table 14f).

Comments on entries:

- ATX9202-3Ru Round Russet heavy set, small, deep eyes CR=2
- ATX91137-1Ru Oblong Russet BOT-, blocky, rough, small, low yield, heavy set CR=3
- AOTX98152-3Ru Long Russet nice, light russet skin, nice shape, heavy set++, small CR=2
- TXA549-1Ru Oblong Russet BOT+, heavy set, very nice, blocky, low yield CR=2
- AOTX96216-2Ru Oblong Russet BOT, nice flesh, blocky, very nice, large tubers CR=3
- Stampede Russet Oblong Russet rot, light set+, nice shape, nice, blocky, small+ CR=2
- ATX9332-12Ru Round Russet heat sprouts, small, all rot, bad rep, light set CR=3
- Russet Norkotah Long Russet low yield+, bad rep, light set, small CR=1

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

Summary:

ATX91137-1Ru and TXA549-1Ru were the outstanding entries in this trial based on yield and appearance. AOTX96216-2Ru received the highest general rating and a best of trial designation.

Springlake
Table 14a.

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 Texas Advanced Russet Selection (Co.Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
ATX9202-3RU	216.8	41.3	36.0	5.4	0.0	0.0	135.7	39.8	3.1
ATX91137-1RU	185.0	44.1	32.7	11.4	0.0	0.0	103.9	37.0	3.3
AOTX98152-3RU	157.6	40.1	29.6	10.5	0.0	0.0	99.9	17.6	3.5
TXA549-1RU	145.7	50.1	26.1	20.7	3.3	0.0	81.6	14.0	3.5
AOTX96216-2RU	105.1	63.4	27.5	24.9	11.1	0.0	30.9	10.7	3.8
Stampede Russet	92.7	10.7	8.0	2.8	0.0	0.0	67.6	14.3	3.3
ATX9332-12RU	84.4	7.3	4.8	2.4	0.0	0.0	69.8	7.3	2.0
Russet Norkotah	46.3	7.1	6.1	1.0	0.0	0.0	37.9	1.4	1.6
Average	129.2	33.0	21.3	9.9	1.8	0.0	78.4	17.8	3.0
L.S.D. (.05)	25.9	221.1	20.8	9.1	5.2	ns	17.5	16.3	0.3

¹ 1=very poor to 5= excellent

Springlake
Table 14b.

Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 8 entries in the Texas Advanced Russet Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATX9202-3RU	17.7	15.3	2.4	0.0	0.0	63.7	18.6	1.060	13.3	Round	Russet
ATX91137-1RU	24.5	18.9	5.6	0.0	0.0	57.4	18.0	1.049	11.3	Oblong	Russet
AOTX98152-3RU	25.1	18.5	6.7	0.0	0.0	63.6	11.2	1.061	13.4	Long	Russet
TXA549-1RU	34.5	18.4	13.7	2.3	0.0	55.8	9.8	1.056	12.6	Oblong	Russet
AOTX96216-2RU	62.1	27.6	23.1	11.4	0.0	28.5	9.4	1.049	11.3	Oblong	Russet
Stampede Russet	10.8	8.2	2.6	0.0	0.0	73.6	15.6	1.048	11.0	Oblong	Russet
ATX9332-12RU	7.8	5.2	2.7	0.0	0.0	83.1	9.0	1.052	11.9	Round	Russet
Russet Norkotah	14.9	12.2	2.7	0.0	0.0	82.4	2.6	1.059	13.0	Long	Russet
Average	24.7	15.5	7.4	1.7	0.0	63.5	11.8	1.054	12.2		
L.S.D. (.05)	11.8	11.1	7.6	5.2	ns	12.0	8.6	0.005	1.0		

Springlake
Table 14c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 8 entries in the Texas Advanced Russet Selection (Co. Source) Trial grown near Springlake, Texas-2011.

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	
ATX9202-3RU	6.5	2.7	1.8	79	100	1.6	4.6	4.2	4.2	44
ATX91137-1RU	5.2	2.9	1.6	73	100	1.5	2.8	2.8	3.1	60
AOTX98152-3RU	5.1	2.6	1.9	94	98	2.1	4.5	4.8	4.2	46
TXA549-1RU	5.2	3.0	1.8	68	77	2.1	4.2	4.5	4.1	30
AOTX96216-2RU	2.5	4.0	1.5	48	88	1.5	4.2	4.3	4.1	58
Stampede Russet	3.3	2.4	2.0	88	98	1.5	2.6	2.5	2.7	70
ATX9332-12RU	4.2	1.9	1.6	61	90	1.6	4.3	4.2	4.2	29
Russet Norkotah	1.8	2.1	1.9	98	100	1.5	2.1	1.8	2.4	100
Average	4.2	2.7	1.7	76	94	1.7	3.7	3.6	3.6	55
L.S.D. (.05)	1.2	0.5	0.3	32	14	0.2	0.8	0.8	0.7	20

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

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

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

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

Springlake
Table 14d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 8 entries in the Texas Advanced Russet Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATX9202-3RU	1.0	2.5	4.0	3.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX91137-1RU	1.0	3.4	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX98152-3RU	1.0	3.7	3.0	4.0	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXA549-1RU	1.0	3.5	3.5	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-2RU	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Stampede Russet	1.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX9332-12RU	1.0	2.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	1.0	3.8	4.0	3.6	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	3.2	3.8	3.8	3.9	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 14e. Notes and general rating for all reps of 8 entries in the Texas Advanced Russet Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
ATX9202-3RU	heavy set, small, round, heavy set, deep eyes, heavy set	3, 3.5, 3, 2.8
ATX91137-1RU	blocky, BOT-, rough, small, low yield, heavy set	3, 3.3, 3, 3.7
AOTX98152-3RU	nice, light russet skin, nice shape, blocky, heavy set++, small	3.5, 3.6, 3.3, 3.5
TXA549-1RU	heavy set, very nice, blocky, BOT+, low yield	3.8, 3.5, 3.5, 3.3
AOTX96216-2RU	nice flesh, BOT, blocky, very nice, large tubers	3.8, 3.8, 3.8, 3.8
Stampede Russet	rot, light set+, low yield, nice shape, nice, blocky, small+	3.5, 3.2, 3, 3.5
ATX9332-12RU	heat sprouts, small, all rot, bad rep, light set	2, 2, 2, 2
Russet Norkotah	low yield+, bad rep, light set, small	1.5, 1.5, 1.5, 2

Springlake
Table 14f.

Specific gravity, percent solids, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 8 entries in the Texas Advanced Russet Selection (Co.Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
ATX9202-3RU	Colorado	1.060	13.3	2	25/18	bot - process	0%	0%
ATX91137-1RU	Colorado	1.049	11.3	3	5/35	5 dk	0%	0%
AOTX98152-3RU	Colorado	1.061	13.4	2	10/34	14 hh, 10 dk	5%	0%
TXA549-1RU	Colorado	1.056	12.6	2	14/32	8 dk	0%	0%
AOTX96216-2RU	Colorado	1.049	11.3	3	7/22	2 dk, 4 bc	3%	0%
Stampede Russet	Colorado	1.048	11.0	2	32/8	bot process	0%	0%
ATX9332-12RU	Colorado	1.052	11.9	3	1/28	9 dk	0%	0%
Russet Norkotah	Idaho	1.059	13.0	1	31/9	4 dk	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Texas Advanced Russet Selection (Tx. Source) Trial

This trial consisted of 19 entries, including the check variety Russet Norkotah.

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

- AOTX98202-1Ru was the outstanding entry based on general rating (Tables 15a).
- ATTX03475-10Ru had the highest total yield, while AOTX98202-1Ru had the highest marketable yield (Table 15a).
- ATTX03475-10Ru had the highest yield of <4 oz. tubers (Table 15a).
- AOTX98202-1Ru and AOTX95265-1Ru had the highest yield of culls/No. 2 tubers (Table 15a).
- AOTX98202-1Ru had the highest percentage of marketable yield (Table 15b).
- ATTX03475-7Ru had the highest percentage of <4 oz., while AOTX95265-1Ru had the highest percentage of culls/No.2 tubers (Table 15b).
- AOTX98202-1Ru had the highest specific gravity (Table 15b).
- ATTX03475-10Ru, AOTX95265-3Ru, and ATTX03475-7Ru were the latest in maturity, while Russet Norkotah was the earliest (Table 15c).
- ATTX03475-7Ru had 8% vascular discoloration (Table 15d).

Comments on entries:

- | | | |
|------------------|---------------|---|
| • ATTX03475-10Ru | Oblong Russet | light russet skin, heavy set, skinny, lot of culls+ |
| • AOTX98202-1Ru | Long Russet | heavy set, nice shape+, large tubers, low yield |
| • AOTX95265-3Ru | Long Russet | skinny, pointed, light set, light russet skin |
| • ATX99194-3Ru | Oblong Russet | small, heavy set, poor skin finish++, blocky |
| • ATTX03475-7Ru | Oblong Russet | small, light set, poor internals |
| • AOTX95265-1Ru | Oblong Russet | low yield, bad rep, rough |
| • ATX84378-6Ru | Oblong Russet | small, light set, nice shape, large tubers, bad rep |
| • ATX99013-1Ru | Long Russet | low yield, nice shape, poor shape+, rough |
| • AOTX02060-1Ru | Oblong Russet | nice shape+, light set, nice skin |
| • AOTX96084-1Ru | Long Russet | pointed, small, low yield |

- COTX05095-2Ru/Y Oblong Russet poor skin finish, light yellow flesh, small, low yield
- Russet Norkotah Oblong Russet low yield, nice shape, lot of culls
- TXNS410 Oblong Russet small

Summary:

AOTX98202-1Ru was the outstanding entry in this trial based on yield and appearance.

Springlake
Table 15a.

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 (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
ATX03475-10Ru	127.9	16.2	12.3	4.0	0.0	0.0	74.2	37.5	2.3
AOTX98202-1Ru	104.4	38.7	15.4	22.3	1.0	0.0	44.4	21.3	3.4
AOTX95265-3Ru	102.3	10.9	8.0	2.9	0.0	0.0	46.0	45.5	2.1
ATX99194-3Ru	97.7	28.5	15.0	12.3	1.2	0.0	54.6	14.5	2.5
ATX03475-7Ru	90.8	6.6	5.2	1.4	0.0	0.0	69.5	14.7	1.4
AOTX95265-1Ru	67.8	5.9	3.5	2.4	0.0	0.0	24.9	37.0	2.1
ATX84378-6Ru	66.4	14.5	10.4	1.9	2.2	0.0	37.7	14.2	2.8
ATX99013-1Ru	61.2	5.7	4.3	1.4	0.0	0.0	27.5	28.0	2.3
AOTX02060-1Ru	57.9	11.6	6.9	3.6	1.0	0.0	31.3	15.0	2.9
AOTX96084-1Ru	55.1	13.0	11.1	1.9	0.0	0.0	25.9	16.2	2.0
COTX05095-2Ru/Y	53.1	7.3	6.6	0.7	0.0	0.0	31.3	14.5	2.3
Russet Norkotah	47.7	7.4	6.7	0.7	0.0	0.0	28.3	11.9	2.0
TXNS410	34.6	4.5	3.6	0.9	0.0	0.0	16.1	14.0	2.0
Average	74.4	13.1	8.4	4.3	0.4	0.0	39.4	21.9	2.3
L.S.D. (.05)	37.6	12.5	ns	3.9	ns	ns	28.1	16.4	0.3

¹ 1=very poor to 5= excellent

Springlake
Table 15b.

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 (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX03475-10Ru	12.1	9.1	3.0	0.0	0.0	56.9	31.0	1.054	12.2	Oblong	Russet
AOTX98202-1Ru	36.6	13.7	22.1	0.8	0.0	41.7	21.8	1.057	12.7	Long	Russet
AOTX95265-3Ru	11.7	8.3	3.3	0.0	0.0	45.6	42.7	1.049	11.2	Long	Russet
ATX99194-3Ru	31.8	17.3	12.9	1.6	0.0	53.2	15.0	1.056	12.4	Oblong	Russet
ATTX03475-7Ru	6.8	5.8	0.9	0.0	0.0	74.0	19.2	1.055	12.4	Oblong	Russet
AOTX95265-1Ru	10.0	4.8	5.2	0.0	0.0	32.8	57.3	1.051	11.6	Oblong	Russet
ATX84378-6Ru	21.4	13.7	3.4	4.3	0.0	57.2	21.4	1.052	11.8	Oblong	Russet
ATX99013-1Ru	9.4	7.3	2.1	0.0	0.0	45.0	45.6	1.053	12.0	Long	Russet
AOTX02060-1Ru	18.5	10.5	6.6	1.4	0.0	56.0	25.6	1.054	12.1	Oblong	Russet
AOTX96084-1Ru	19.8	16.6	3.2	0.0	0.0	50.5	29.7	1.049	11.2	Long	Russet
COTX05095-2Ru/Y	12.1	10.8	1.2	0.0	0.0	62.9	25.0	1.050	11.5	Oblong	Russet
Russet Norkotah	15.6	14.6	1.0	0.0	0.0	60.5	23.9	1.053	12.1	Oblong	Russet
TXNS410	14.4	9.8	4.6	0.0	0.0	47.5	38.0	1.049	11.2	Oblong	Russet
Average	16.9	11.0	5.3	0.6	0.0	52.6	30.5	1.053	11.9		
L.S.D. (.05)	15.1	ns	6.8	ns	ns	18.5	16.4	0.005	0.8		

Springlake
Table 15c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 13 entries in the Texas Advanced Russet Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

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	
ATX03475-10Ru	3.7	3.8	1.9	76	98	1.9	4.0	4.5	4.1	19
AOTX98202-1Ru	2.7	4.1	1.4	47	80	1.9	3.1	3.9	3.3	49
AOTX95265-3Ru	2.9	3.0	2.0	77	96	1.6	3.8	4.2	3.9	16
ATX99194-3Ru	2.9	3.5	1.8	68	80	1.6	2.9	3.4	3.1	54
ATX03475-7Ru	1.8	7.3	2.0	90	99	1.9	3.8	4.2	3.6	25
AOTX95265-1Ru	2.2	2.4	2.0	73	97	1.5	3.2	3.5	3.3	28
ATX84378-6Ru	2.3	2.3	1.8	89	98	1.6	3.4	3.7	3.5	51
ATX99013-1Ru	2.1	2.4	2.0	73	100	1.5	3.5	3.5	3.4	60
AOTX02060-1Ru	1.8	2.7	1.7	76	97	1.6	3.1	3.3	3.0	45
AOTX96084-1Ru	2.0	2.5	1.8	70	95	1.5	3.3	3.3	3.4	68
COTX05095-2Ru/Y	2.4	2.0	1.8	79	98	1.5	2.5	3.2	2.8	38
Russet Norkotah	2.0	2.0	1.9	77	97	1.6	2.7	2.4	2.6	78
TXNS410	1.3	2.4	1.9	72	95	1.5	3.0	3.5	3.5	44
Average	2.3	3.1	1.8	74	95	1.6	3.3	3.6	3.3	44
L.S.D. (.05)	1.2	ns	0.2	20	10	0.3	0.9	0.9	0.8	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 15d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 13 entries in the Texas Advanced Russet Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATX03475-10Ru	1.0	3.5	2.5	4.0	2.6	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX98202-1Ru	1.0	4.0	3.4	4.0	2.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95265-3Ru	1.0	4.0	3.7	3.9	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX99194-3Ru	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03475-7Ru	1.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	8	0
AOTX95265-1Ru	1.0	3.8	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX84378-6Ru	1.0	3.3	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX99013-1Ru	1.0	3.8	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX02060-1Ru	1.0	3.6	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96084-1Ru	1.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05095-2Ru/Y	2.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah	1.0	3.8	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXNS410	1.0	3.8	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.1	3.7	3.8	3.9	3.8	5.0	5.0	5.0	5.0	5.0	0	0	1	0
L.S.D. (.05)	ns	0.1	0.1	0.1	0.6	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 15e. Notes and general rating for all reps of 13 entries in the Texas Advanced Russet Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
ATX03475-10Ru	light russet skin, heavy set, skinny, lot of culls+, light skin	2.5, 2, 2.5, 2
AOTX98202-1Ru	heavy set, nice shape+, large tubers, low yield	3.6, 3.5, 3, 3.5
AOTX95265-3Ru	skinny, pointed, light set, light russet skin	2.5, 2, 2, 2
ATX99194-3Ru	small, heavy set, poor skin finish++, blocky	2.5, 2.5, 2.5, 2.5
ATX03475-7Ru	small, light set, poor internals	1.5, 1.5, 1.5, 1
AOTX95265-1Ru	low yield, bad rep, rough	2.5, 2, 2, 2
ATX84378-6Ru	small, light set, nice shape, large tubers, bad rep	2.7, 3, 3, 2.5
ATX99013-1Ru	low yield, nice shape, poor shape+, rough	3, 2, 2, 2
AOTX02060-1Ru	nice shape+, light set, nice skin	3.1, 3, 2.5, 2.8
AOTX96084-1Ru	pointeed, small, low yield	2, 2, 2, 2
COTX05095-2Ru/Y	poor skin finish, light yellow flesh, small, low yield	3, 2, 2, 2
Russet Norkotah	low yield, nice shape, lot of culls	2, 2, 2, 2
TXNS410	small	2, 2, 2, 2

Outstanding Texas Advanced Red Selections, 2011

Overall Summary - Springlake and Dalhart: The Texas Advanced Red Selection Trials had 16 entries at Springlake and 23 at Dalhart. Red LaSoda and Dark Red Norland were the check variety for both locations. Based on both trials,(Rio Rojo, ATTX01178-1R, ATTX98453-6R, ATTX98453-11BR, BTX2332-1R, COTX94218-1R, NDTX4784-7R, ATTX06246-1R, COTX07054-2R, NDTX050070-1R, NDTX4271-5R,and NDTX731-1R will be re-evaluated in the 2012 season.

Texas Advanced Red Selection (Co. Source) Trial

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

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

- AOTX91861-4R and BTX2332-1R were the outstanding entries based on general rating and best of trial designations. NDTX4784-7R also received a high general rating (Tables 16a and 16e).
- AOTX91861-4R had the highest total yield (Table 16a). NDTX4784-7R had the highest marketable yield (Table 16a).
- AOTX91861-4R had the highest yield of <4 oz. tubers, while Red LaSoda had the highest yield of culls/No. 2 tubers (Table 16a).
- NDTX4784-7R had the highest percentage of marketable yield (Table 16b).
- Dark Red Norland had the highest percentage of <4 oz. tubers, while Red LaSoda, COTX94218-1R, and ATTX88481-1P/W had the highest percentage of culls/No. 2 tubers (Table 16b).
- AOTX91861-4R, Red LaSoda, COTX94218-1R, and ATTX98453-11BR were the latest maturing, while ATTX88481-1P/W and Dark Red Norland were the earliest (Table 16c).
- Red LaSoda, COTX94216-1R, and ATTX98453-11BR exhibited the most feathering (Table 16d).
- Red LaSoda had the highest percentage of vascular discoloration (Table 16d).

Comments on entries:

- AOTX91861-4R Round Red BOT-, variable size, yield+, long sprouts, heavy set, few heat sprouts, keep, nice flesh, heat sprouts++ CR=3+
 - Red LaSoda Round Red yield+, chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell CR=3+
 - NDTX4784-7R Round Red BOT+, smooth, silver scurf, heavy set, road map, high yield, good color, light set, poor skin finish, nice shape CR=1+
 - COTX94216-1R Round Red yield-, light set, good color+, small, heat sprouts, drop++, silver scurf, poor skin finish CR=3
 - BTX2332-1R Round Red BOT-, nice, yield+, heat sprouts, silver scurf, light set, no feathering, low yield, nice red skin, some feathering, CR=2+
 - COTX94218-1R Round Red late, small, yield-, sticky stolon, feathering+, heat sprouts++, nice flesh CR=2
 - Dark Red Norland Round Red small, nice shape, light skin color, variable color, silver scurf, heavy set, heat sprouts CR=2
 - NDTX5003-2R Round Red nice, yield+, feathering++, ZC?, good color, zipper eye, drop+ CR=1
 - ATTX98453-11BR Round Red small, yield-, feathering+++, low yield, nice flesh, light set, sticky stolon, drop++++ CR=3
 - ATTX88481-1P/W Oblong Red small, yield-, feathering, nice flesh, drop CR=2
- ¹CR=chip color rating 1=light to 3= dark

Summary:

AOTX91861-4R and BTX2332-1R were the outstanding entries based on all factors.

Springlake
Table 16a.

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 Texas Advanced Red Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
AOTX91861-4R	193.6	61.4	44.6	16.8	0.0	0.0	127.6	4.7	3.6	3.5
Red LaSoda	178.2	37.0	29.9	7.1	0.0	0.0	120.8	20.4	3.3	2.9
NDTX4784-7R	168.0	63.6	30.9	29.2	3.5	0.0	101.3	3.1	3.8	3.6
COTX94216-1R	143.1	30.6	21.4	9.2	0.0	0.0	107.2	5.4	3.2	2.6
BTX2332-1R	132.2	43.2	22.1	18.7	2.4	0.0	88.0	1.0	3.3	3.5
COTX94218-1R	122.6	22.8	20.9	1.0	0.9	0.0	86.3	13.5	2.5	2.2
Dk Red Norland	119.3	13.1	10.2	1.2	1.7	0.0	103.9	2.2	3.2	3.2
NDTX5003-2R	104.8	26.1	15.7	10.4	0.0	0.0	71.6	7.1	3.4	2.8
ATTX98453-11BR	79.2	18.5	13.5	5.0	0.0	0.0	49.4	11.2	2.1	2.1
ATTX88481-1P/W	64.0	17.3	9.0	7.8	0.5	0.0	40.6	6.1	2.0	2.5
Average	130.5	33.4	21.8	10.6	0.9	0.0	89.7	7.5	3.0	2.9
L.S.D. (.05)	43.4	19.7	13.8	10.0	ns	ns	28.1	ns	0.5	0.3

¹ 1=very poor to 5= excellent

Springlake
Table 16b.

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 Texas Advanced Red Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AOTX91861-4R	31.9	23.0	9.0	0.0	0.0	65.7	2.4	1.045	10.5	Round	Red
Red LaSoda	19.6	16.1	3.5	0.0	0.0	70.3	10.1	1.045	10.6	Round	Red
NDTX4784-7R	35.6	17.0	16.8	1.7	0.0	62.3	2.1	1.055	12.4	Round	Red
COTX94216-1R	21.1	15.1	6.0	0.0	0.0	74.8	4.0	1.054	12.1	Round	Red
BTX2332-1R	30.1	16.2	12.3	1.6	0.0	69.0	0.9	1.047	10.9	Round	Red
COTX94218-1R	18.8	17.6	0.8	0.5	0.0	70.8	10.4	1.046	10.7	Round	Red
Dk Red Norland	8.2	6.3	0.7	1.2	0.0	90.3	1.5	1.055	12.4	Round	Red
NDTX5003-2R	23.7	14.5	9.2	0.0	0.0	71.1	5.2	1.052	11.8	Round	Red
ATTX98453-11BR	21.5	17.3	4.1	0.0	0.0	70.1	8.4	1.054	12.1	Round	Red
ATTX88481-1P/W	25.5	14.1	10.7	0.7	0.0	64.5	10.0	1.060	13.1	Oblong	Red
Average	23.6	15.7	7.3	0.6	0.0	70.9	5.5	1.051	11.7		
L.S.D. (.05)	10.8	ns	6.9	ns	ns	10.8	ns	0.004	0.6		

Springlake
Table 16c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 10 entries in the Texas Advanced Red Selection (Co. Source) Trial grown near Springlake, Texas-2011.

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	
AOTX91861-4R	7.0	2.4	1.5	95	100	2.0	4.0	4.3	4.0	6
Red LaSoda	9.6	1.5	1.6	98	100	1.8	4.5	4.7	4.4	6
NDTX4784-7R	7.0	3.5	1.8	52	71	1.5	3.3	3.2	3.1	46
COTX94216-1R	5.9	2.0	1.4	80	100	1.5	3.0	2.9	3.1	50
BTX2332-1R	4.6	2.4	1.7	95	100	1.6	3.7	3.5	3.6	18
COTX94218-1R	5.7	1.8	1.5	84	98	1.8	4.6	4.8	4.2	1
Dk Red Norland	5.5	1.8	1.7	98	100	1.5	1.9	2.0	2.0	60
NDTX5003-2R	4.9	2.2	1.4	61	79	1.5	3.0	3.2	3.2	58
ATTX98453-11BR	7.7	1.9	1.2	16	45	1.6	3.3	4.7	3.2	6
ATTX88481-1P/W	5.3	2.2	1.6	21	46	1.6	1.8	2.9	2.1	15
Average	6.3	2.2	1.5	70	84	1.6	3.3	3.6	3.3	27
L.S.D. (.05)	2.5	ns	0.3	12	9	0.3	0.6	0.8	0.6	18

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

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

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

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

Springlake
Table 16d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Texas Advanced Red Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
AOTX91861-4R	1.0	1.5	1.0	4.0	3.2	5.0	5.0	5.0	5.0	4.4	0	0	0	0
Red LaSoda	1.0	2.5	1.0	2.5	2.5	5.0	5.0	5.0	5.0	2.5	0	0	15	0
NDTX4784-7R	1.0	2.0	1.0	4.5	4.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
COTX94216-1R	1.0	1.5	1.0	4.0	3.8	5.0	5.0	5.0	5.0	4.6	0	0	0	0
BTX2332-1R	1.0	1.5	1.0	4.5	3.9	5.0	5.0	5.0	5.0	4.4	0	0	0	0
COTX94218-1R	1.0	1.9	1.0	4.0	3.5	5.0	5.0	5.0	5.0	2.1	0	0	0	0
Dk Red Norland	1.0	2.0	1.0	3.9	2.9	5.0	5.0	5.0	5.0	4.5	0	0	0	0
NDTX5003-2R	1.0	2.0	1.0	3.8	4.0	5.0	5.0	5.0	5.0	3.2	0	0	0	0
ATTX98453-11BR	1.0	2.0	1.0	3.5	3.6	5.0	5.0	5.0	5.0	1.5	0	0	0	0
ATTX88481-1P/W	1.0	3.5	1.0	4.5	5.0	5.0	5.0	5.0	5.0	2.0	0	0	0	0
Average	1.0	2.0	1.0	3.9	3.6	5.0	5.0	5.0	5.0	3.4	0	0	2	0
L.S.D. (.05)	ns	0.1	ns	0.1	0.1	ns	ns	ns	ns	0.3	ns	ns	5	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 16e.

Notes and general rating for all reps of 10 entries in the Texas Advanced Red Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
AOTX91861-4R	variable size, yield+	long sprouts, heavy set, little heat sprouts, keep, BOT-, nice flesh, heat sprouts++, heavy set	3.4, 3.7, 3.5, 3.6	3.5, 3.5, 3.7, 3.2
Red LaSoda	yield+	chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell, smooth, silver scurf, heavy set, road map, high yield, good color,	3.5, 3, 3, 3.5	2.6, 2.8, 3.2, 2.8
NDTX4784-7R	BOT+	light set, poor skin finish, nice shape	4, 4, 3.6, 3.6	3.4, 3.5, 4, 3.3
COTX94216-1R	yield-	light set, good color+, small, heat sprouts, drop++, silver scurf, poor skin finish	2.6, 3.1, 3.2, 3.7	2.3, 2.8, 2.6, 2.8
BTX2332-1R	nice, yield+	heat sprouts, silver scurf, good color, light set, nice, no feathering, low yield, , nice red skin, some feathering, BOT-	3.3, 2.5, 3.5, 4	3.5, 3.5, 3.3, 3.5
COTX94218-1R	small, late, small, yield-	sticky stolon, feathering+, heat sprouts++, nice flesh	3, 3, 2, 2	2.4, 2, 2.3, 2
Dk Red Norland	small, small, nice shape	light skin color, variable color, small, silver scurf, heavy set, heat sprouts	3, 3, 3, 3.8	3, 3.3, 3.3, 3.3
NDTX5003-2R	nice, yield+	feathering++, ZC?, good color, zipper eye, drop+	3.3, 3, 3.4, 3.7	2.8, 2.7, 2.7, 3
ATTX98453-11BR	small, yield-	feathering+++, low yield, feathering, nice flesh, light set, sticky stolon, drop++++	2, 2, 2, 2.5	2.2, 2.2, 2, 2
ATTX88481-1P/W	small, yield-	low yield, feathering, nice flesh, drop	2, 2, 2, 2	2.5, 2.5, 2.5, 2.5

Springlake
Table 16f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 10 entries in the Texas Advanced Red Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
AOTX91861-4R	Colorado	1.045	10.5	3.0	3+	5/35	14 Dark	0%	0%
Red LaSoda	Idaho	1.045	10.6	1.0	3+	0/39	15 Dark	0%	0%
NDTX4784-7R	Colorado	1.055	12.4	4.5	1+	34/3		0%	0%
COTX94216-1R	Colorado	1.054	12.1	2.0	3	17/21	10Dark	0%	0%
BTX2332-1R	Colorado	1.047	10.9	3.5	2+	15/25		0%	0%
COTX94218-1R	Colorado	1.046	10.7	4.0	2	14/26		0%	0%
Dk Red Norland	Idaho	1.055	12.4	1.5	2	23/17	6 Dark vas	0%	0%
NDTX5003-2R	Colorado	1.052	11.8	3.5	1	20/19		0%	0%
ATTX98453-11BR	Colorado	1.054	12.1	2.0	3	4/37		0%	0%
ATTX88481-1P/W	Colorado	1.060	13.1	4.5	2	24/5		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Texas Advanced Red Selection (Tx. Source) Trial

This trial consisted of six entries, including the check varieties Red LaSoda and Rio Rojo.

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

- NDTX731-1R and Rio Rojo were the outstanding entries based on general rating (Tables 17a).
- Red LaSoda had the highest total and marketable yield (Table 17a).
- Red LaSoda had the highest yield of <4 oz. and culls/No.2 tubers (Table 17a).
- NDTX731-1R had the highest percentage of marketable yield (Table 17b).
- NDTX050070-1R had the highest percentage of <4 oz. tubers. Red LaSoda had the highest percentage of culls/No. 2 tubers (Table 17b).
- Red LaSoda, NDTX050070-1R, and NDTX731-1R were the latest maturing, while NDTX4271-5R and ATX03516-2R were the earliest (Table 17c).
- Red LaSoda tended to feather (Table 17d).

Comments on entries:

- | | | |
|-----------------|------------|--|
| • Red LaSoda | Oblong Red | yield++, deep eyes, silver scurf, second growth, rough CR=2+ |
| • NDTX050070-1R | Round Red | small, heavy set, heat sprouts, drop+, small potato? CR=2 |
| • NDTX4271-5R | Round Red | nice, good color, nice shape, bad rep+ CR=2+ |
| • Rio Rojo | Round Red | nice shape, ZC?, bad rep, low yield CR=2 |
| • NDTX731-1R | Round Red | nice, yield-, ZC?, low yield, nice red skin finish, nice round shape, parent CR=2+ |
| • ATX03516-2R | Round Red | small, yield-, soft, heat sprouts, drop, good shape and color CR=2 |

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

Summary:

NDTX4271-5R was the best entry based on all factors.

Springlake
Table 17a.

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 Texas Advanced Red Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
Red LaSoda	207.1	82.8	36.5	38.9	7.4	0.0	104.4	19.9	3.7	3.0
NDTX050070-1R	102.5	12.8	10.2	2.6	0.0	0.0	86.9	2.8	3.0	2.8
NDTX4271-5R	98.2	41.5	10.9	30.6	0.0	0.0	55.7	1.0	3.2	3.3
Rio Rojo	90.8	50.6	13.0	33.5	4.1	0.0	40.1	0.0	3.3	3.4
NDTX731-1R	88.8	43.4	20.6	21.3	1.6	0.0	45.5	0.0	3.5	3.6
ATX03516-2R	69.0	23.3	11.6	10.2	1.6	0.0	43.6	2.1	2.8	3.1
Average	109.4	42.4	17.1	22.8	2.4	0.0	62.7	4.3	3.3	3.2
L.S.D. (.05)	33.5	35.1	13.3	ns	ns	ns	17.2	8.8	0.5	3.0

¹ 1=very poor to 5= excellent

Springlake
Table 17b.

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 Texas Advanced Red Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Red LaSoda	37.1	17.4	16.6	3.2	0.0	53.2	9.7	1.055	12.4	Oblong	Red
NDTX050070-1R	12.4	9.7	2.7	0.0	0.0	84.9	2.7	1.047	10.8	Round	Red
NDTX4271-5R	38.1	13.0	25.1	0.0	0.0	61.1	0.8	1.057	12.7	Round	Red
Rio Rojo	44.1	14.0	27.5	2.6	0.0	55.9	0.0	1.052	11.8	Round	Red
NDTX731-1R	48.5	24.0	22.6	1.9	0.0	51.5	0.0	1.052	11.8	Round	Red
ATX03516-2R	31.9	16.9	13.2	1.8	0.0	65.4	2.8	1.040	9.7	Round	Red
Average	35.4	15.8	18.0	1.6	0.0	62.0	2.7	1.050	11.5		
L.S.D. (.05)	20.1	ns	ns	ns	ns	20.5	4.9	0.004	0.8		

Springlake
Table 17c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Texas Advanced Red Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
Red LaSoda	6.2	3.2	1.6	81	96	2.0	4.3	4.2	4.0	18
NDTX050070-1R	6.4	1.4	1.6	90	98	2.1	4.5	4.6	4.1	3
NDTX4271-5R	3.6	3.0	1.5	58	72	1.5	2.3	2.3	2.3	54
Rio Rojo	3.0	3.8	1.2	58	69	1.8	2.0	3.3	2.3	44
NDTX731-1R	3.7	2.4	1.5	83	89	1.5	2.8	4.0	2.6	14
ATX03516-2R	3.3	2.3	1.4	63	73	1.5	2.4	2.3	2.1	56
Average	4.4	2.7	1.5	72	83	1.7	3.0	3.4	2.9	31
L.S.D. (.05)	2.0	ns	0.2	17	15	0.3	0.8	0.9	0.7	24

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

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

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

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

Springlake
Table 17d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Texas Advanced Red Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Red LaSoda	1.0	3.5	1.0	2.0	3.0	5.0	5.0	5.0	5.0	3.4	3	0	0	0
NDTX050070-1R	1.0	1.5	1.0	3.7	3.7	5.0	5.0	5.0	5.0	4.5	0	0	0	0
NDTX4271-5R	1.0	1.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.6	0	0	0	0
Rio Rojo	1.0	1.5	1.0	3.8	3.9	5.0	5.0	5.0	5.0	4.6	0	0	0	5
NDTX731-1R	1.0	2.0	1.0	3.7	3.8	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATX03516-2R	1.0	2.3	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Average	1.0	2.0	1.0	3.5	3.7	5.0	5.0	5.0	5.0	4.4	0	0	0	1
L.S.D. (.05)	ns	0.2	ns	0.1	0.1	ns	ns	ns	ns	0.2	ns	ns	ns	

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 17e.

Notes and general rating for all reps of 6 entries in the Texas Advanced Red Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
Red LaSoda	yield++, rough,	heavy yield, deep eyes, silver scurf, second growth, rough	3.8, 3.6, 3.7, 3.8	3, 3, 3, 3
NDTX050070-1R	small	small, heavy set, heat sprouts, drop+, , small potato?	3, 3.1, 3.3, 2.7	3, 2.7, 2.7, 2.7
NDTX4271-5R	nice	good color, nice shape, bad rep+	3.4, 3.6, 2.8, 3	3.6, 3.6, 3, 3
Rio Rojo	nice shape	ZC?, nice shape, bad rep, low yield	3.3, 3, 3.7, 3	3.2, 3.5, 3.5, 3.2
NDTX731-1R	nice , yield-	ZC?, low yield, nice red skin finish, nice round shape, parent	3.5, 3.7, 3, 3.7	3.5, 3.5, 3.5, 3.8
ATX03516-2R	small, yield-	soft, heat sprouts, drop, low yield, good shape and color	2.5, 3.5, 2.5, 2.8	3.4, 3, 2.7, 3.3

Springlake
Table 17f.

Specific gravity, percent solids, tuber general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Texas Advanced Red Selection (Tx. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Red LaSoda	Barrett	1.055	12.4	2.0	2+	6/31	1HH	0%	0%
NDTX050070-1R	Dalhart	1.047	10.8	3.5	2	29/9	1 Dark	0%	0%
NDTX4271-5R	Dalhart	1.057	12.7	3.0	2+	14/24		0%	0%
Rio Rojo	Dalhart	1.052	11.8	3.0	2	32/15	1Dark	0%	0%
NDTX731-1R	Dalhart	1.052	11.8	2.0	2+	25/14	1 Dark	0%	0%
ATX03516-2R	Dalhart	1.040	9.7	4.5	2	26/1	1BC Nice	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

*****Outstanding Texas Advanced RedYellow Selections, 2011

Overall Summary - Springlake and Dalhart The Texas Advanced Red Skin Yellow Flesh Selection Trials included nine entries at Springlake and 15 at Dalhart. Based on both trials, the following entries will be tested again in 2012: NDTX050184-1R/Y, ATTX961014-1BR/Y, COTX04267-1R/Y, ATTX961014-1R/Y, ATTX98510-1R/Y, BTX2103-1R/Y, COTX04193-2R/Y, ATTX01180-1R/Y.

Texas Advanced Red Skin/ Yellow Flesh (Co. Source) Selection Trial

This trial consisted of three entries.

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

- BTX2103-1R/Y received a high general rating and a best of trial designation (Tables 18a and 18e).
- BTX2103-1R/Y had the highest total, marketable yield and < 4 oz. tubers. (Table 18a).
- BTX2103-1R/Y and ATTX961014-1R/Y had the highest percentage of marketable yield. (Table 18b).
- BTX2103-1R/Y was later in maturity than ATTX961014-1R/Y and ATTX961014-1BR/Y (Table 18c).
- BTX2103-1R/Y had a darker yellow flesh color than ATTX961014-1R/Y and ATTX961014-1BR/Y (Table 18d).

Comments on entries:

- BTX2103-1R/Y Round Red BOT, nice, small, smooth CR=3
- ATTX961014-1R/Y Oblong Red BOT-, sliver scurf, small, very light flesh, nice shape CR=3
- ATTX961014-1BR/Y Oblong Red BOT-, very light flesh, heat sprouts, small, CR=2+

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

Summary:

BTX2103-1R/Y appeared to be superior in appearance with a slight increase in yield.

Springlake
Table 18a. 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 Texas Advanced Red/Yellow Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
BTX2103-1R/Y	116.9	19.0	14.2	3.3	1.6	0.0	94.6	3.3	3.7	3.7
ATX961014-1R/Y	108.9	18.3	7.6	9.2	1.6	0.0	88.5	2.1	3.7	3.4
ATX961014-1BR/Y	105.8	16.1	12.1	4.0	0.0	0.0	86.3	3.5	3.7	3.5
Average	110.5	17.8	11.3	5.5	1.0	0.0	89.8	2.9	3.7	3.5
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=very poor to 5= excellent

Springlake
Table 18b.

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 Texas Advanced Red/
Yellow Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
BTX2103-1R/Y	17.0	13.1	2.2	1.6	0.0	80.3	2.7	1.059	13.0	Round	Red
ATTX961014-1R/Y	17.0	6.4	8.8	1.9	0.0	81.1	1.8	1.061	13.3	Oblong	Red
ATTX961014-1BR/Y	14.6	11.5	3.1	0.0	0.0	81.4	4.0	1.064	13.9	Oblong	Red
Average	16.2	10.3	4.7	1.2	0.0	80.9	2.9	1.061	13.4		
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	ns	ns	ns		

Springlake
Table 18c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 3 entries in the Texas Advanced Red/Yellow Selection (Co. Source) Trial grown near Springlake, Texas-2011.

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	
BTX2103-1R/Y	6.9	1.7	1.5	63	85	1.9	4.3	4.4	3.9	15
ATTX961014-1R/Y	5.5	1.9	1.8	77	88	1.6	3.4	3.5	3.3	26
ATTX961014-1BR/Y	5.0	2.2	1.6	70	84	1.8	3.4	3.5	3.3	18
Average	5.8	1.9	1.6	70	86	1.8	3.7	3.8	3.5	20
L.S.D. (.05)	ns	ns	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 18d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 3 entries in the Texas Advanced Red/Yellow Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
BTX2103-1R/Y	3.6	1.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATTX961014-1R/Y	2.0	3.0	1.0	4.5	3.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATTX961014-1BR/Y	2.0	3.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Average	2.5	2.7	1.0	4.2	3.3	5.0	5.0	5.0	5.0	4.5	0	0	0	0
L.S.D. (.05)	0.3	0.1	ns	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 18e. Notes and general rating for all reps of 3 entries in the Texas Advanced Red/Yellow Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
BTX2103-1R/Y	nice	small, smooth, BOT	3.7, 4.1, 3.3, 3.5	3.4, 3.8, 3.8, 3.8
ATTX961014-1R/Y	BOT-	sliver scurf, small, very light flesh, nice shape	3.9, 3.5, 4, 3.5	3.5, 3.4, 3.5, 3
ATTX961014-1BR/Y	BOT-	very light flesh, heat sprouts, small	3.8, 3.7, 3.7, 3.7	3.5, 3.5, 3.5, 3.5

Springlake
Table 18f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 3 entries in the Texas Advanced Red/ Yellow Selection (Co. Source) Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
BTX2103-1R/Y	Colorado	1.059	13.0	3.0	3	27/12		0%	0%
ATTX961014-1R/Y	Colorado	1.061	13.3	2.0	3	18/21	3 Dark/MB	0%	0%
ATTX961014-1BR/Y	Colorado	1.064	13.9	3.5	2+	31/10	1HH	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Texas Advanced Red/Yellow Selection (Tx. Source) Trial

This trial consisted of six entries.

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

- COTX04193-2R/Y received a high general rating and best of trial designations. ATX05175-3R/Y and NDTX050184-1R/Y also received a high general rating (Tables 19a and 19e).
- NDTX050184-1R/Y had the highest total yield, while ATX03515-1R/Y had the highest marketable yield (Table 19a)
- COTX04267-1R/Y had the highest yield of < 4 oz. tubers. ATX05175-3R/Y had the highest yield of culls/No.2 tubers (Table 19a).
- ATX03515-1R/Y had the highest percentage of marketable yield. ATX05175-3R/Y, COTX04193-2R/Y, ATX03515-1R/Y, and COTX04188-3R/Y had the highest percentage of <4 oz. tubers (all greater than 95%). ATX05175-3R/Y had the highest percentage of culls/No.2 tubers (Table 19b).
- NDTX050184-1R/Y was the latest maturing entry, while ATX05175-3R/Y was the earliest (Table 19c).
- COTX04193-2R/Y, COTX04188-3R/Y, and COTX04267-1R/Y had the darkest yellow flesh (Table 19d).

Comments on entries:

- NDTX050184-1R/Y Round Red heavy set, heat sprouts+, many small tubers, nice shape CR=2
- COTX04267-1R/Y Round Red small, poor shape CR=3
- ATX05175-3R/Y Round Red many small tubers, nice shape CR=3
- COTX04193-2R/Y Round Red BOT-, small, nice flesh++ CR=3
- ATX03515-1R/Y Round Red yield-, poor shape, drop++, light skin and flesh CR=3
- COTX04188-3R/Y Round Red low yield CR=3+

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

Summary:

COTX04193-2R/Y was the outstanding entry for this trial based on appearance.

Springlake
Table 19a.

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 Texas Advanced Red/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
NDTX050184-1R/Y	56.0	0.0	0.0	0.0	0.0	0.0	52.9	3.1	2.0	3.4
COTX04267-1R/Y	53.4	0.0	0.0	0.0	0.0	0.0	53.4	0.0	2.0	3.2
ATX05175-3R/Y	40.1	0.0	0.0	0.0	0.0	0.0	30.9	9.2	2.0	3.5
COTX04193-2R/Y	36.5	0.0	0.0	0.0	0.0	0.0	36.0	0.5	2.0	3.6
ATX03515-1R/Y	31.1	6.9	4.5	2.4	0.0	0.0	22.8	1.4	2.0	2.9
COTX04188-3R/Y	23.3	0.0	0.0	0.0	0.0	0.0	23.3	0.0	2.0	2.5
Average	40.1	1.2	0.7	0.4	0.0	0.0	36.6	2.4	2.0	3.2
L.S.D. (.05)	16.9	3.2	ns	ns	ns	ns	16.1	4.7	ns	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 19b.

Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 6 entries in the Texas Advanced Red/
Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
NDTX050184-1R/Y	0.0	0.0	0.0	0.0	0.0	95.1	4.9	1.023	6.6	Round	Red
COTX04267-1R/Y	0.0	0.0	0.0	0.0	0.0	100.0	0.0	1.040	9.7	Round	Red
ATX05175-3R/Y	0.0	0.0	0.0	0.0	0.0	77.7	22.3	1.030	7.9	Round	Red
COTX04193-2R/Y	0.0	0.0	0.0	0.0	0.0	98.7	1.3	1.039	9.5	Round	Red
ATX03515-1R/Y	21.4	14.1	7.3	0.0	0.0	73.7	4.9	1.025	7.0	Round	Red
COTX04188-3R/Y	0.0	0.0	0.0	0.0	0.0	100.0	0.0	1.053	12.0	Round	Red
Average	3.6	2.3	1.2	0.0	0.0	90.8	5.6	1.035	8.8		
L.S.D. (.05)	9.1	10.4	ns	ns	ns	10.4	9.7	0.008	1.5		

Springlake
Table 19c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Texas Advanced Red/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

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	
NDTX050184-1R/Y	5.9	0.9	1.7	67	84	1.5	4.4	4.8	4.4	0
COTX04267-1R/Y	3.5	4.1	1.3	67	88	1.5	2.7	3.7	3.1	15
ATX05175-3R/Y	3.7	1.0	1.6	71	90	1.6	3.4	3.6	3.7	1
COTX04193-2R/Y	3.8	0.8	1.4	90	98	1.5	2.5	2.9	2.8	30
ATX03515-1R/Y	2.1	1.8	1.6	61	71	1.6	1.5	2.5	2.3	58
COTX04188-3R/Y	2.7	1.2	2.6	49	65	1.5	2.3	2.8	2.5	28
Average	3.6	1.6	1.7	68	83	1.5	2.8	3.4	3.1	22
L.S.D. (.05)	2.0	ns	0.6	ns	18	ns	0.8	0.7	0.5	1

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

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

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

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

Springlake
Table 19d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Texas Advanced Red/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
NDTX050184-1R/Y	2.0	1.5	1.0	4.5	3.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
COTX04267-1R/Y	3.4	1.5	1.0	4.5	3.4	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATX05175-3R/Y	3.1	1.5	1.0	4.5	3.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
COTX04193-2R/Y	3.8	1.5	1.0	4.5	3.8	5.0	5.0	5.0	5.0	4.5	0	0	0	0
ATX03515-1R/Y	2.6	2.5	1.0	4.5	2.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
COTX04188-3R/Y	3.6	1.5	1.0	4.5	3.4	5.0	5.0	5.0	5.0	4.5	0	0	0	0
Average	3.1	1.7	1.0	4.5	3.3	5.0	5.0	5.0	5.0	4.5	0	0	0	0
L.S.D. (.05)	0.3	0.1	ns	ns	0.2	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 19e.

Notes and general rating for all reps of 6 entries in the Texas Advanced Red/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Field	Notes Grading	General Rating Field	General Rating Grading
NDTX050184-1R/Y	small	heavy set, heat sprouts+, , many small tubers, nice shape	2, 2, 2, 2	3.3, 3.4, 3.4, 3.6
COTX04267-1R/Y	small	small, poor shape	2, 2, 2, 2	3, 3.4, 3.4, 3
ATX05175-3R/Y	small	many small tubers, nice shape, ,	2, 2, 2, 2	3.5, 3.6, 3.5, 3.4
COTX04193-2R/Y	small	BOT-, nice flesh++	2, 2, 2, 2	3.6, 3.5, 3.6, 3.6
ATX03515-1R/Y	yield-	poor shape, drop++, light skin and flesh	2, 2, 2, 2	2.8, 3, 2.8, 3
COTX04188-3R/Y	yield-	low yield	2, 2, 2, 2	2.5, 2.5, 2.5, 2.5

Springlake
Table 19f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Texas Advanced Red/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
NDTX050184-1R/Y	Dalhart	1.023	6.6	2.0	2	6/32		0%	0%
COTX04267-1R/Y	Dalhart	1.040	9.7	5.0	3	39/3	Nice	0%	0%
ATX05175-3R/Y	Dalhart	1.030	7.9	2.0	3	9/31	8LR, 1 Dark	0%	0%
COTX04193-2R/Y	Dalhart	1.039	9.5	3.0	3	21/18		0%	0%
ATX03515-1R/Y	Dalhart	1.025	7.0	3.5	3	21/4		0%	0%
COTX04188-3R/Y	Dalhart	1.053	12.0	3.0	3+	18/17	7MB	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Texas Advanced Yukon Gold Strain Trial

This trial consisted of 6 entries, including the check varieties Yukon Gold and Sierra Gold

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

- TXYG079, TXYG055, and TXYG098 received a high general rating and a best of trial designation at grading (Tables 10a and 10e).
- TXYG079 had the highest total yield, while TXYG057 had the highest marketable yield (Table 10a)
- Yukon Gold had the highest yield of <4 oz. tubers (Table 10a).
- TXYG057 had the highest percentage of marketable yield. Sierra Gold had the highest percentage of <4 oz. tubers (Table 10b).
- Sierra Gold had the highest specific gravity (Table 10b).
- Sierra Gold was earlier in maturity than the strains (Table 10c).
- All of the strains and Sierra Gold had darker yellow flesh color than Yukon Gold (Table 10d).

Comments on entries:

- TXYG079 Oblong White BOT, rot CR=3
- TXYG057 Oblong White rot, bad rep CR=3
- Yukon Gold Oblong White rot++, low yield, better rep, less rot CR=3
- TXYG055 Oblong White BOT, very nice skin, shape and flesh, darker flesh than Yukon CR=3
- TXYG098 Oblong White BOT, bad rep, rot CR=3
- Sierra Gold Oblong Russet nice, low yield, poor shape, knobs, light set, rot CR=3

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

Summary:

TXYG079 was the outstanding entry for this trial.

Springlake Table 20a. 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 Yukon Gold Strain Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
TXYG079	172.3	84.5	60.2	24.4	0.0	0.0	85.9	1.9	3.8	4.1
TXYG057	157.7	91.5	49.8	35.5	6.2	0.0	66.1	0.0	3.8	3.4
Yukon Gold	152.6	63.4	46.3	17.1	0.0	0.0	89.2	0.0	3.7	3.1
TXYG055	147.1	77.6	54.8	20.2	2.6	0.0	67.1	2.4	3.8	3.9
TXYG098	134.7	57.9	41.3	16.6	0.0	0.0	76.7	0.0	3.9	3.8
Sierra Gold	91.8	34.4	25.1	9.3	0.0	0.0	57.4	0.0	3.7	3.3
Average	152.9	75.0	50.5	22.8	1.8	0.0	77.0	0.9	3.8	3.6
L.S.D. (.05)	ns	36.3	ns	ns	4.4	ns	ns	ns	0.1	0.5

¹ 1=very poor to 5= excellent

Springlake 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 Yukon Gold Strain
 Table 20b. Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
TXYG079	49.3	35.6	13.7	0.0	0.0	49.5	1.2	1.062	13.6	Oblong	White
TXYG057	57.2	33.5	20.0	3.7	0.0	42.8	0.0	1.059	13.1	Oblong	White
Yukon Gold	41.2	31.4	9.7	0.0	0.0	58.8	0.0	1.060	13.2	Oblong	White
TXYG055	52.9	37.5	13.7	1.7	0.0	45.5	1.6	1.062	13.5	Oblong	White
TXYG098	40.2	30.0	10.2	0.0	0.0	59.8	0.0	1.059	13.0	Oblong	White
Sierra Gold	35.7	26.8	8.9	0.0	0.0	64.3	0.0	1.063	13.8	Oblong	Russet
Average	48.2	33.6	13.5	1.1	0.0	51.3	0.6	1.061	13.3		
L.S.D. (.05)	12.5	ns	ns	2.6	ns	12.2	ns	ns	ns		

Springlake
Table 20c. Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2011.

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	
TXYG079	5.5	2.8	1.2	77	95	1.5	3.6	3.7	3.5	28
TXYG057	4.6	3.4	1.2	67	85	1.5	3.1	3.2	3.1	48
Yukon Gold	6.2	2.3	1.1	68	88	1.5	3.4	3.4	3.3	20
TXYG055	5.0	2.8	1.2	70	87	1.5	3.2	3.3	3.4	20
TXYG098	4.9	2.2	1.3	85	100	1.5	3.0	3.2	3.1	29
Sierra Gold	3.0	2.8	1.3	73	90	1.5	2.9	2.6	2.6	60
Average	5.2	2.7	1.2	73	91	1.5	3.3	3.4	3.3	29
L.S.D. (.05)	1.8	0.7	0.2	ns	ns	ns	ns	0.4	0.4	26

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

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

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

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

Springlake Table 20d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
TXYG079	3.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
TXYG057	3.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	5
Yukon Gold	2.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
TXYG055	3.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	3
TXYG098	3.5	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
Sierra Gold	3.5	3.5	2.5	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.3	2.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	4	0	0	2
L.S.D. (.05)	0.1	ns	0.1	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark ⁶ 1 to 5=none

² 1=round to 5=long ⁷ 1 to 5=none

³ 1=none to 5=heavy ⁸ 1 to 5=none

⁴ 1=deep to 5=shallow ⁹ 1 to 5=none

⁵ 1=light to 5=dark ¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake Table 20e. Notes and general rating for all reps of 6 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Field	General Rating Grading
TXYG079	BOT, rot	3.7, 3.8, 3.7, 3.8	3.7, 4.5, 4.4, 3.7
TXYG057	rot, bad rep	3.8, 3.8, 3.8, 3.8	3.6, 3.4, 3, 3.4
Yukon Gold	rot++, low yield, better rep, less ROT very nice skin, shape and flesh, darker flesh	3.8, 3.6, 3.8, 3.6	3, 3.2, 3, 3.3
TXYG055	than Yukon, BOT	3.8, 3.8, 3.8, 3.8	4.3, 3.8, 3.8, 3.6
TXYG098	BOT, bad rep, rot	3.8, 3.9, 3.8, 3.9	4.3, 3.6, 3, 4.3
Sierra Gold	low yield, poor shape, knobbs, light set, rot	3.7, 3.6, 3.7, 3.6	3.4, 3, 3.4, 3.4

Springlake Table 20f. Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 6 entries in the Yukon Gold Strain Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
TXYG079	Colorado	1.062	13.6	3.5	3	17/21	6 Dark	0%	0%
TXYG057	Colorado	1.059	13.1	3.0	3	13/22	3MB	0%	0%
Yukon Gold	Colorado	1.060	13.2	3.0	3	3/20		0%	0%
TXYG055	Colorado	1.062	13.5	3.5	3	20/18	2BC	0%	0%
TXYG098	Colorado	1.059	13.0	3.5	3	21/17	3 Dark	0%	0%
Sierra Gold	Colorado	1.063	13.8	4.0	3	35/5	1BC, 1LR Nice	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Outstanding Texas Advanced White/Yellow Selections, 2011

Overall Summary - Springlake and Dalhart The Texas Advanced White Skin Yellow Flesh Selection Trials included four entries at Springlake and 24 at Dalhart. Yukon Gold was the check variety for both locations. Based on both trials, the following entries will be tested again in 2012: COTX07382-2W/Y, NDTX081451CB-1Y/Y, COTX07382-1W/Y, TX1674-1W/Y, BTX1749-1W/Y, ATTX06274-2W, BTX1544-2W/Y, and NDTX059759-3Pinto/Y.

Texas Advanced White/Yellow Selection Trial

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

Results were as follows: (Springlake Tables 21a, 21b, 21c, 21d, 21e, and 21f)

- BTX1544-2W/Y received the highest general rating and a best of trial designation (Tables 21a and 21e).
- BTX1544-2W/Y had the highest total and marketable yield (Table 21a).
- BTX1544-2W/Y had the highest yield of < 4 oz. tubers (Table 21a).
- BTX1749-1W/Y had the highest percentage of marketable yield. NDTX059759-3Pinto/Y had the highest percentage of < 4 oz. tubers (Table 21b).
- BTX1749-1W/Y had the highest specific gravity (Table 21b).
- NDTX059759-3Pinto/Y was the latest maturing entry, while BTX1544-2W/Y was the earliest (Table 21c).
- BTX1544-2W/Y and BTX1749-1W/Y had the darkest yellow flesh (Table 21d).

Comments on entries:

- | | | |
|-----------------------|------------------|--|
| • BTX1544-2W/Y | Oblong Buff | BOT, poor skin appearance, low yield+ CR=2 |
| • BTX1749-1W/Y | Oblong Buff | low yield, nice flesh CR=3 |
| • Yukon Gold | Oblong White | low yield+, growth cracks CR=3 |
| • NDTX059759-3Pinto/Y | Oblong White-Red | poor shape, small tubers, low yield CR=3 |

Summary:

BTX1544-2W/Y was the outstanding entry for this trial based on all factors.

Springlake
Table 21a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 4 entries in the Texas Advanced White/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Field	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz					
BTX1544-2W/Y	56.0	11.2	10.4	0.9	0.0	0.0	44.8	0.0	2.3	3.2
BTX1749-1W/Y	41.3	10.0	6.6	3.5	0.0	0.0	31.3	0.0	2.5	3.1
Yukon Gold	28.7	5.5	4.7	0.9	0.0	0.0	22.6	0.5	2.3	2.0
NDTX059759-3Pinto/Y	19.2	2.4	1.0	1.4	0.0	0.0	16.8	0.0	3.0	2.1
Average	36.3	7.3	5.7	1.6	0.0	0.0	28.9	0.1	2.5	2.6
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.7

¹ 1=very poor to 5= excellent

Springlake
Table 21b.

Percent by weight of U.S. No. 1, under 4 ounce and culls/No.2 potatoes, specific gravity, tuber type and skin type of 4 entries in the Texas Advanced White/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
BTX1544-2W/Y	21.0	19.4	1.6	0.0	0.0	79.0	0.0	1.058	12.9	Oblong	White
BTX1749-1W/Y	23.0	15.0	8.0	0.0	0.0	77.0	0.0	1.067	14.4	Oblong	White
Yukon Gold	21.5	17.7	3.8	0.0	0.0	76.8	1.7	1.059	13.0	Oblong	White
NDTX059759-3Pinto/Y	6.7	2.9	3.8	0.0	0.0	93.3	0.0	1.052	11.7	Oblong	White-Red
Average	18.1	13.7	4.3	0.0	0.0	81.5	0.4	1.059	13.0		
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	ns	0.006	1.2		

Springlake
Table 21c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 4 entries in the Texas Advanced White/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

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	
BTX1544-2W/Y	2.9	2.1	1.2	54	79	1.5	1.9	1.9	2.0	54
BTX1749-1W/Y	2.7	2.2	1.7	41	63	1.8	2.6	3.2	2.6	24
Yukon Gold	4.2	1.8	1.7	15	33	1.5	2.6	3.1	2.4	14
NDTX059759-3Pinto/Y	2.1	0.9	1.4	51	79	2.0	4.4	4.8	4.2	0
Average	3.0	1.8	1.5	40	64	1.7	2.9	3.2	2.8	23
L.S.D. (.05)	ns	0.9	ns	ns	28	0.2	0.8	1.2	0.9	37

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

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

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

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

Springlake
Table 21d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Texas Advanced White/ Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
BTX1544-2W/Y	3.5	3.5	2.0	4.5	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
BTX1749-1W/Y	3.6	3.5	2.0	4.5	1.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	2.5	3.5	1.0	4.5	1.0	4.6	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059759-3Pinto/Y	2.6	3.5	1.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.1	3.5	1.5	4.5	2.2	4.9	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.2	ns	0.1	ns	0.4	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 21e.

Notes and general rating for all reps of 4 entries in the Texas Advanced White/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Field	General Rating Grading
BTX1544-2W/Y	poor skin apperence, low yield+, buff skin, BOT	2.5, 2, 2.5, 2	3.4, 3, 3.4, 3
BTX1749-1W/Y	low yield,nice flesh, buff skin	3, 2, 3, 2	3, 3.4, 3, 3
Yukon Gold	low yield+, growth cracks	2, 2.5, 2, 2.5	1, 2.5, 2.5, 2
NDTX059759-3Pinto/Y	poor shape, small tubers, low yield	3, 3, 3, 3	2.5, 2, 2, 2

Springlake
Table 21f.

Specific gravity, percent solids, chip general rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 4 entries in the Texas Advanced White/Yellow (Tx. Source) Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip General Rating ¹	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
BTX1544-2W/Y	Dalhart	1.058	12.9	4.0	2	3.5/5		0%	0%
BTX1749-1W/Y	Dalhart	1.067	14.4	3.5	3	27/13	1MB	0%	0%
Yukon Gold	Colorado	1.059	13.0	3.0	3	3/20		0%	0%
NDTX059759-3Pinto/Y	Dalhart	1.052	11.7	2.0	3	2/35		0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Outstanding Texas Advanced Small Potato Selections, 2011

Overall Summary - Springlake and Dalhart The Texas Advanced Small Potato Selection Trials included nine entries at Springlake and 12 at Dalhart. Based on both trials, the following entries will be tested again in 2012: ATX05186-1R, ATX05202-3W/Y, COTX04050-1P/P, NDTX059886-1Y/Y, ATTX05175-1R/Y, ATX06264-4R/Y, NDTX071258B-1R, ATX07305-1Y/Y, and ATTX98444-16R/Y.

Texas Advanced Small Potato Selection Trial

This trial consisted of nine entries.

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

- ATX07305-1Y/Y received the highest general rating and best of trial designation, while ATX05202-3W/Y also received a best of trial designation. NDTX059886-1Y/Y and COTX04050-1P/P received a high general rating (Tables 22a and 22e).
- ATX07305-1Y/Y had the highest total yield, while ATX05202-3W/Y had the highest marketable yield (Table 22a)
- ATX07305-1Y/Y had the highest yield of <1 inch and 1-2 inch tubers. ATX05202-3W/Y had the highest yield of over 2 inch tubers (Table 22a).
- ATX07305-1Y/Y had the highest yield of culls/No. 2 tubers (Table 22a).
- ATX07305-1Y/Y had the highest percentage of <1 inch tubers, while ATX05202-3W/Y had the highest percentage of over 2 inch tubers. ATX02263-1R/Y had the highest percentage of 1-2 inch tubers (Table 22b).
- ATTX05175-1R/Y had the highest percentage of culls/No. 2 tubers (Table 22b).
- ATX07305-1Y/Y had the highest average tubers per plant (Table 22c).
- ATX07305-1Y/Y, COTX04050-1P/P, ATTX05175-1R/Y, ATX03546-1W/Y, ATX05202-3W/Y, NDTX059886-1Y/Y, and COTX05037-4Y/Y were the latest maturing entries, while ATX02263-1R/Y and ATTX98444-16R/Y were the earliest (Table 22c).

Comments on entries:

- ATX07305-1Y/Y Round Yellow BOT+, nice flesh, some nipples, heavy set, heat sprouts
- ATX05202-3W/Y Round White BOT-, poor skin finish, heavy set
- NDTX059886-1Y/Y Round Yellow poor rep, light set, larger tubers, heavy set, variable skin finish
- COTX04050-1P/P Round Purple heavy set, variable flesh color, all blue like flesh, silver scurf
- ATTX05175-1R/Y Round Red drop, too large, heavy set, light red skin, very dark flesh, variable skin color
- ATX03546-1W/Y Round White nice flesh++, low yield, light set
- ATTX98444-16R/Y Round Red light set, poor skin finish, bad rep, poor internal, drop+
- ATX02263-1R/Y Round Red oblong, light set, drop+++
- COTX05037-4Y/Y Round Yellow light set+, chain tubers, drop++

Summary:

ATX07305-1Y/Y, ATX05202-3W/Y, and NDTX059886-1Y/Y were the outstanding entries based on all factors.

Springlake
Table 22a.

Total yield, total marketable yield of U.S. No.1, less than 1 inch and culls/No.2 potatoes and general rating of 9 entries in the Texas Advanced Small Potato Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	Total Marketable Yield	1-2 inch	>2 inch	< 1 inch	Culls/ No.2	General Rating ¹ Grading
ATX07305-1Y/Y	112.7	87.5	85.9	1.6	14.3	10.9	4.1
ATX05202-3W/Y	111.0	102.5	84.5	18.0	3.5	5.0	3.4
NDTX059886-1Y/Y	93.9	83.0	76.6	6.4	3.1	7.8	3.8
COTX04050-1P/P	73.1	63.3	60.5	2.8	6.9	2.9	3.5
ATX05175-1R/Y	70.0	56.4	54.1	2.2	4.5	9.2	3.1
ATX03546-1W/Y	56.9	47.0	39.2	7.8	5.4	4.5	2.8
ATX98444-16R/Y	26.8	25.1	25.1	0.0	0.5	1.2	2.5
ATX02263-1R/Y	20.4	20.2	20.2	0.0	0.2	0.0	2.9
COTX05037-4Y/Y	11.6	9.7	9.7	0.0	0.9	1.0	1.0
Average	64.0	54.9	50.6	4.3	4.4	4.7	3.0
L.S.D. (.05)	19.7	17.2	14.1	5.6	2.5	4.2	0.2

¹ 1=very poor to 5= excellent

Springlake
Table 22b.

Percent by weight of U.S. No. 1, 1-2 inch, less than 1 inch, and culls/No.2 potatoes, tuber type and skin type of 9 entries in the Texas Advanced Small Potato Trial grown near Springlake, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1					Culls/ No. 2	Tuber Type	Skin Type
	Total Yield	1-2 inch	>2 inch	< 1 inch				
ATX07305-1Y/Y	77.4	76.2	1.2	12.7	9.9	Round	Yellow	
ATX05202-3W/Y	92.4	76.3	16.1	3.1	4.5	Round	White	
NDTX059886-1Y/Y	88.3	81.8	6.6	3.4	8.3	Round	Yellow	
COTX04050-1P/P	86.6	83.5	3.0	9.5	3.9	Round	Purple	
ATTX05175-1R/Y	81.0	78.7	2.3	6.4	12.5	Round	Red	
ATX03546-1W/Y	82.9	70.2	12.7	9.4	7.7	Round	White	
ATTX98444-16R/Y	95.6	95.6	0.0	1.4	3.0	Round	Red	
ATX02263-1R/Y	99.2	99.2	0.0	0.8	0.0	Round	Red	
COTX05037-4Y/Y	88.1	88.1	0.0	6.3	5.6	Round	Yellow	
Average	87.9	83.3	4.7	5.9	6.2			
L.S.D. (.05)	9.7	10.7	5.1	4.5	ns			

Springlake
Table 22c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 9 entries in the Texas Advanced Small Potato Trial grown near Springlake, Texas-2011.

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	
ATX07305-1Y/Y	12.5	0.9	1.6	86	92	1.9	4.4	4.6	4.5	6
ATX05202-3W/Y	8.9	1.5	1.6	63	73	1.9	4.0	4.4	4.2	6
NDTX059886-1Y/Y	5.9	1.4	2.0	89	98	1.9	4.4	4.4	4.4	5
COTX04050-1P/P	8.1	0.9	1.7	79	88	1.6	4.6	4.9	4.8	0
ATX05175-1R/Y	7.2	1.1	1.7	69	76	2.0	4.4	4.5	4.3	13
ATX03546-1W/Y	4.6	1.1	1.5	88	96	2.1	4.3	4.3	4.2	14
ATX98444-16R/Y	2.0	1.1	1.7	90	96	1.4	1.5	1.7	2.0	71
ATX02263-1R/Y	1.8	1.3	1.6	66	72	1.3	1.4	1.8	2.0	100
COTX05037-4Y/Y	5.3	1.0	2.1	12	21	1.5	2.4	4.8	3.7	5
Average	6.3	1.1	1.7	71	79	1.7	3.5	3.9	3.8	24
L.S.D. (.05)	3.1	0.2	ns	15	14	0.5	0.5	0.5	0.4	12

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

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

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

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

Springlake
Table 22d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Texas Advanced Small Potato Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATX07305-1Y/Y	2.5	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05202-3W/Y	3.1	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059886-1Y/Y	2.0	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04050-1P/P	3.8	1.5	1.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05175-1R/Y	4.2	1.5	1.0	4.5	2.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX03546-1W/Y	3.0	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX98444-16R/Y	3.5	1.5	1.0	4.5	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	3
ATX02263-1R/Y	2.5	1.5	1.0	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX05037-4Y/Y	2.5	1.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	3.0	1.5	1.0	4.5	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.1	ns	ns	ns	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 22e.

Notes and general rating for all reps of 9 entries in the Texas Advanced Small Potato Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
ATX07305-1Y/Y	nice flesh, some nipples, heavy set, heat sprouts, BOT+	4, 4, 4, 4.5
ATX05202-3W/Y	BOT-, poor skin finish, heavy set	3.5, 3.2, 3.5, 3.2
NDTX059886-1Y/Y	poor rep, light set, larger tubers, heavy set, variable skin finish	3.8, 3.7, 3.8, 3.7
COTX04050-1P/P	heavy set, variable flesh color, all blue like flesh, silver scurf	3.5, 3.5, 3.5, 3.5
ATX05175-1R/Y	drop, too large, heavy set, light red skin, very dark flesh, variable skin color	3, 3.3, 3, 3
ATX03546-1W/Y	nice flesh++, low yield, light set	2.5, 2.5, 3, 3
ATX98444-16R/Y	light set, poor skin finish, light set, bad rep, poor internal, drop+	2.5, 2.5, 2.5, 2.5
ATX02263-1R/Y	oblong, light set, drop+++	2.5, 3, 3, 3
COTX05037-4Y/Y	light set+, chain tubers, drop++	1, 1, 1, 1

Outstanding Texas Advanced Fingerling Selections, 2011

Overall Summary - Springlake and Dalhart The Texas Advanced Fingerling Selection Trials included 4 entries at Springlake and 5 at Dalhart. Banana and Purple Peruvian were the check variety for both locations. Based on both trials, the following entries (COTX07168-1Ru, TX08378-1R/R, COTX03187-1W, TX03378-3R, and PTTX05PG07-1W). will be tested again in 2012.

Texas Advanced Fingerling Selection Trial

The trial consisted of four entries, including the check varieties Banana and Purple Peruvian.

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

- PTTX05PG07-1W received the highest general rating (Tables 11a).
- COTX03187-1W had the highest total and marketable yield (Table 23a).
- CO03094-5RF/RW had the highest yield of culls/No. 2 tubers (Table 23a).
- COTX03187-1W and PTTX05PG07-1W had the highest percentage of marketable yield. CO03094-5RF/RW, Banana, and Purple Peruvian had the highest percentage of culls/No.2 tubers (Table 23b).

Comments on entries:

- COTX03187-1W Oblong White not fingerling type, large tubers, can oversize, not curved
- CO03094-5RF/RW Long Red some vascular discoloration, skinny, poor shape, drop, no red in flesh
- Banana Long White very small, poor shape, all culls, small curved, pointed
- PTTX05PG07-1W Oblong White smooth shape, light set, nice shape, low yield
- Purple Peruvian Long Purple deep eyes, small, nice flesh color, very small

Summary:

Entries and checks performed poorly in this trial..

Springlake
Table 23a.

Total yield, total marketable yield of U.S. No.1, culls/No.2 potatoes and general rating of 5 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Total Yield Cwt/A	Total Marketable Yield	Culls/ No.2	General Rating ¹ Grading
COTX03187-1W	50.5	25.9	24.5	1.5
CO03094-5RF/RW	29.4	4.5	24.9	1.0
Banana	21.3	1.2	20.1	1.1
PTTX05PG07-1W	14.5	6.2	8.3	1.9
Purple Peruvian	13.1	0.0	13.1	1.0
Average	25.8	7.6	18.2	1.3
L.S.D. (.05)	13.5	5.2	9.5	0.5

¹ 1=very poor to 5= excellent

Springlake
Table 23b.

Percent by weight of marketable tubers and culls/No.2 potatoes, tuber type and skin type of 5 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Total % Marketable Yield	Total % Culls/ No. 2	Tuber Type	Skin Type
COTX03187-1W	52.1	47.9	Oblong	White
CO03094-5RF/RW	12.9	87.1	Long	Red
Banana	5.3	94.7	Long	White
PTTX05PG07-1W	45.5	54.5	Oblong	White
Purple Peruvian	0.0	100.0	Long	Purple
Average	23.2	76.8		
L.S.D. (.05)	14.8	14.8		

Springlake
Table 23c.

Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 5 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
COTX03187-1W	5.8	0.9	1.6	42	80	1.8	3.9	4.3	3.8	5
CO03094-5RF/RW	5.2	0.5	2.1	100	100	1.6	4.5	4.4	4.3	5
Banana	6.0	0.3	1.8	91	100	1.8	4.0	3.9	3.9	21
PTTX05PG07-1W	2.0	0.7	1.6	66	88	1.7	2.0	2.0	2.2	91
Purple Peruvian	7.8	0.3	1.2	11	55	1.5	1.8	4.9	4.3	10
Average	5.4	0.5	1.7	62	85	1.7	3.2	3.9	3.7	27
L.S.D. (.05)	1.8	0.2	0.2	17	14	ns	0.5	0.6	0.5	9

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

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

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

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

Springlake
Table 23d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 5 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX03187-1W	1.0	3.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
CO03094-5RF/RW	1.0	4.0	1.0	4.5	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Banana	2.0	4.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PTTX05PG07-1W	1.0	3.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Purple Peruvian	1.0	4.0	1.0	4.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.2	3.7	1.0	4.5	2.1	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Springlake
Table 23e. Notes and general rating for all reps of 5 entries in the Texas Advanced Fingerling Selection Trial grown near Springlake, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
COTX03187-1W	not fingerling type, large tubers, can oversize, not curved	1.5, 1.5, 1.5, 1.5
CO03094-5RF/RW	some vascular discoloration, skinny, poor shape, drop, no red in flesh	1, 1, 1, 1
Banana	very small, poor shape, all culls, small curved, pointed	1, 1, 1.5, 1
PTTX05PG07-1W	smooth shape, light set, nice shape, very light set, low yield	2.5, 2, 2, 1
Purple Peruvian	deep eyes, small, nice flesh color, very small	1, 1, 1, 1

2011 Dalhart Trials

Summary of growing conditions:

These trials were planted 10 miles southwest of Dalhart in a CSS Farms production field on 2 May and harvested on 19 and 26 September and 3 and 17 October. Standard cultural practices for the area were used (Table 3). Precipitation was higher than normal during the first week in August and third week in September. High temperatures averaged 8 degrees higher during July and August (Figure 4).

Trials conducted:

- Western Regional Chip
- Southwestern Regional Chip
- Commercial Variety Chip
- Texas Advanced Chip Selection
- 2010 Chip Selection
- Texas Advanced Russet Selection
- 2010 Russet Selection
- Texas Advanced Red Selection
- 2010 Red Selection
- Texas Advanced Red/Yellow Selection
- 2010 Red/Yellow Selection
- Texas Advanced White/Yellow Selection
- 2010 White/Yellow Selection
- Texas Advanced Small Potato Selection
- 2010 Small Potato Selection
- Texas Advanced Fingerling Selection
- 2010 Fingerling Selection
- 2010 Purple/Purple Selection
- Yukon Gold Strain Selection

Table 3. Environmental and cultural inputs for the 2011 Dalhart Trials.		
Location:		
Dalhart, Texas		
Soil Type		
Dallum Fine Sand Loam		
Seed Source		
New York, Colorado, Oregon, Texas, and Idaho		
Date:		DAP
Planted	May 2, 2011	
Vines Killed (Red and Red Yellow Flesh)	August 31, 2011	119
Vines Killed (Chip and White Yellow Flesh)	September 12, 2011	130
Vines Killed (Russet)	September 19, 2011	137
Harvested (Red and Red Yellow Flesh)	September 19, 2011	137
Harvested (Small and White Yellow Flesh)	September 26, 2011	144
Harvested (Chip)	October 3, 2011	151
Harvested (Russet)	October 17, 2011	165
Plot Information:		
Size of Plots	22' 6"	
Spacing Between Hills	9"	
Spacing Between Rows	28"	
Hills Per Plot	30	
Number of Rows Per Plot	2	
Number of Reps	4	
Method of Harvest:		
Four-row digger, with hand pick up.		
Fertilizer:		
Application:		
183-101-44 # per acre		
Irrigation:		
Center Pivot		
Seed Treatment		
Cruiser Maxx		
Insecticide:		
Beleaf, EPI-MEK 0.15 EC, Fulfill, Movento, Oberon		
Herbicides Applied:		
Brawl, Dimetric, Cornerstone, Sencor DF, Select Max, Matrix, Eptan		
Fungicide Applied:		
Endura, Quadris, Bravo, Echo 720 Ag, Revus Top, Scala SC		
Environmental Factors:		
Precipitation was higher than normal during the first week in August and third week in September. High temperatures averaged 8 degrees higher during July and August.		

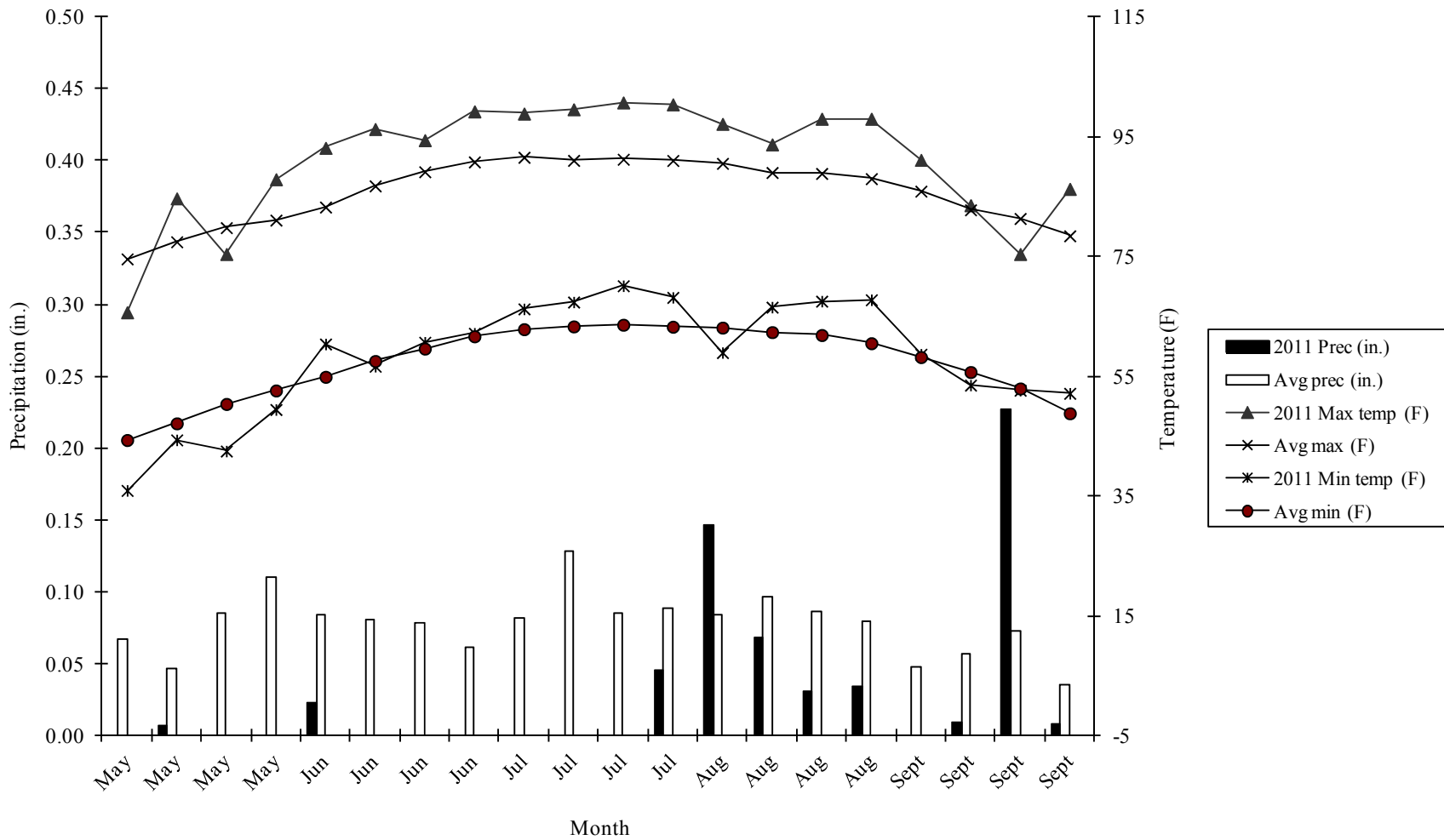


Figure 4. Weekly minimum/maximum temperatures and precipitation for the 2011-growing season near Dalhart, Texas compared to the average minimum/maximum temperatures and precipitation (1949-2011).

Western Regional Chip Trial

This trial consisted of ten entries, including the check varieties Atlantic and Chipeta.

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

- CO02024-9W and A01143-3C had a best of trial designation for chip appearance (Table 1f).
- CO02321-4W had the highest total and marketable yield (Table 1a).
- Atlantic had the highest yield of 4-6 oz. tubers, while CO02321-4W had the highest yield of over 6 oz. tubers (Table 1a).
- CO00197-3W had the highest yield of < 4 oz. tubers (Table 1a).
- CO02033-1W had the highest yield of culls/No. 2 tubers (Table 1a).
- CO02321-4W had the highest percentage of marketable yield, while Atlantic had the highest percentage of 4-6 oz. tubers (Table 1b).
- A01143-3C had the highest percentage of < 4 oz. tubers, while CO02033-1W had the highest percentage of culls/No. 2 tubers (Table 1b).
- Chipeta had the highest specific gravity (Table 1b).
- AC01151-5W had the highest average number of tubers per plant (Table 1c).
- All of the entries were late in maturity (Table 1c).
- Atlantic had 40 percent hollow heart, 50 percent vascular discoloration, and 67 percent internal brownspot (Table 1d).
- Overall, CO02024-9W and A01143-3C produced the highest quality chips (Table 1f).

Comments on entries:

- CO02321-4W Oblong White greenheads ¹CR=1
- AC01151-5W Oblong White greenhead CR=2
- CO00197-3W Oblong White drop CR=1
- Atlantic Oblong Buff drop, heat necrosis, poor internals CR=1
- CO02033-1W Oblong White ugly, many culls, drop CR=1
- CO02024-9W Round White CR=1
- CO00188-4W Round White rough CR=1
- CO00270-7W Round White oversized, light set CR=1
- Chipeta Round White light set CR=1
- A01143-3C Oblong White small, light set CR=1

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

Summary:

Overall, CO02024-9W and A01143-3C produced the highest quality chips.

Dalhart
Table 1a. 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 Western Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz				
CO02321-4W	683.0	458.0	105.8	196.6	155.6	18.0	122.0	84.9	3.0
AC01151-5W	568.1	119.2	70.9	35.2	13.1	0.0	286.3	162.7	3.0
CO00197-3W	563.8	143.1	44.8	38.0	60.4	6.8	298.1	115.7	1.8
Atlantic	510.6	271.0	106.7	121.3	42.9	16.8	90.9	131.9	3.1
CO02033-1W	508.1	64.1	33.0	26.8	4.4	0.0	121.3	322.7	2.0
CO02024-9W	441.8	82.1	70.3	11.8	0.0	0.0	212.8	146.9	3.0
CO00188-4W	411.6	146.5	73.4	68.8	4.4	0.0	174.6	90.5	2.9
CO00270-7W	283.8	122.3	16.5	63.8	42.0	0.0	34.8	126.6	2.5
Chipeta	175.5	77.2	36.1	14.9	26.1	0.0	82.5	15.9	2.2
A01143-3C	172.7	36.1	28.0	8.1	0.0	0.0	106.4	30.2	2.8
Average	431.9	152.0	58.6	58.5	34.9	4.2	153.0	122.8	2.6
L.S.D. (.05)	68.6	42.4	23.8	51.6	38.7	13.6	58.1	74.3	0.5

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

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 10 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
CO02321-4W	67.7	15.4	29.7	22.5	2.7	17.6	12.0	1.080	16.8	Oblong	White
AC01151-5W	20.9	12.5	6.0	2.4	0.0	50.6	28.5	1.072	15.4	Oblong	White
CO00197-3W	24.5	8.3	7.0	9.3	1.0	52.7	21.8	1.066	14.3	Oblong	White
Atlantic	54.6	22.5	23.4	8.7	3.8	19.5	22.2	1.077	16.2	Oblong	Buff
CO02033-1W	12.8	6.7	5.3	0.9	0.0	24.5	62.7	1.079	16.6	Oblong	White
CO02024-9W	18.8	16.0	2.8	0.0	0.0	48.5	32.8	1.069	14.9	Round	White
CO00188-4W	34.9	17.8	15.9	1.1	0.0	44.5	20.6	1.079	16.6	Round	White
CO00270-7W	42.8	5.4	22.6	14.9	0.0	11.8	45.4	1.062	13.6	Round	White
Chipeta	42.3	20.9	7.9	13.5	0.0	48.5	9.2	1.083	17.4	Round	White
A01143-3C	21.3	16.4	4.9	0.0	0.0	62.1	16.6	1.064	13.9	Oblong	White
Average	34.1	14.2	12.5	7.3	0.8	38.0	27.2	1.073	15.6		
L.S.D. (.05)	9.5	5.2	8.8	7.7	2.5	10.5	13.6	ns	ns		

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 10 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2011.

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	
CO02321-4W	7.7	6.3	79	91	1.8	3.4	3.5	3.5	8
AC01151-5W	11.2	3.3	100	100	1.7	4.3	4.2	4.2	0
CO00197-3W	10.8	3.3	86	100	1.8	4.1	4.1	4.1	0
Atlantic	5.8	6.1	75	91	2.0	3.8	3.8	3.8	0
CO02033-1W	7.3	4.7	81	100	2.0	4.1	3.9	4.0	3
CO02024-9W	9.9	3.2	66	91	1.7	3.9	4.2	4.1	0
CO00188-4W	7.3	4.0	80	91	2.0	3.6	3.7	3.8	5
CO00270-7W	3.2	6.5	65	91	1.8	4.0	4.0	4.1	0
Chipeta	3.0	3.7	64	100	1.5	4.5	4.7	4.4	0
A01143-3C	2.7	4.9	86	100	1.5	4.2	4.5	4.5	0
Average	6.9	4.6	78	96	1.8	4.0	4.1	4.1	2
L.S.D. (.05)	1.7	1.4	ns	ns	0.2	0.3	0.2	0.3	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

Dalhart
Table 1d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 10 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
CO02321-4W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	15
AC01151-5W	1.0	3.2	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	15	0	0	0
CO00197-3W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
Atlantic	1.0	3.5	2.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	40	0	50	67
CO02033-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	10	0	5	0
CO02024-9W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
CO00188-4W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	20	0	0	0
CO00270-7W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	15	0	5	0
Chipeta	1.0	2.5	1.3	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
A01143-3C	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	2.9	1.1	4.0	1.1	5.0	5.0	5.0	5.0	5.0	12	0	6	8
L.S.D. (.05)	ns	0.4	0.2	ns	0.1	ns	ns	ns	ns	ns	15	ns	26	13

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 1e. Notes and general rating for all reps of 10 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
CO02321-4W	greenheads	3, 4, 3, 2
AC01151-5W	greenhead	3.2, 3, 3, 2.8
CO00197-3W	drop	2, 1.8, 2, 1.5
Atlantic	buff, drop, heat necrosis, poor internals	2.5, 3.1, 3.8, 3
CO02033-1W	ugly, many culls, drop	2, 2, 2, 2
CO02024-9W		3, 3, 3, 3
CO00188-4W	rough	2.8, 2.9, 3, 3
CO00270-7W	oversized, light set	2.5, 2.5, 2.5, 2.5
Chipeta	light set	2, 2.2, 2.5, 2
A01143-3C	small, light set	2.5, 3, 2.8, 3

Dalhart
Table 1f. Specific gravity, percent solids, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 10 entries in the Western Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
CO02321-4W	Colorado	1.080	16.8	1	13/17	1HH,1MB,3SED	0%	0%
AC01151-5W	Colorado	1.072	15.4	2	13/16	11SED	0%	0%
CO00197-3W	Colorado	1.066	14.3	1	9/21	4AMP?,1MB, 9SED	0%	0%
Atlantic	Colorado	1.077	16.2	1	21/11	2TM,6SED	0%	0%
CO02033-1W	Colorado	1.079	16.6	1	22/7	2HH, 2TM,2MB	0%	0%
CO02024-9W	Colorado	1.069	14.9	1	24/6	BOT,1MB,2SED	0%	0%
CO00188-4W	Colorado	1.079	16.6	1	11/19	1TM,11SED	0%	0%
CO00270-7W	Colorado	1.062	13.6	1	14/16	1TM,13SED	0%	0%
Chipeta	Colorado	1.083	17.4	1	9/11	4SED	0%	0%
A01143-3C	Idaho	1.064	13.9	1	2/16	BOT,4SED,	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Southwestern Regional Chip Trial

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

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

- CO03243-3W and AC03433-1W had the highest general ratings (Table 2a).
- CO03243-3W had the highest yield in all market classes. Atlantic had the highest yield of culls/No. 2 tubers (Table 2a).
- CO03243-3W had the highest percentage of marketable yield, while AC03433-1W had the highest percentage of 4-6 oz. tubers. Chipeta had the highest percentage of <4 oz. tubers, while Atlantic had the highest percentage of culls/No. 2 tubers (Table 2a).
- Chipeta had the highest specific gravity (Table 2b).
- All of the entries were late in maturity (Table 2c).
- CO03243-3W had 19% hollow heart, while Atlantic had 40 percent hollow heart, 50 percent vascular discoloration, and 67 percent internal brownspot (Table 2d).

Comments on entries:

- CO03243-3W Round White CR=1
- Atlantic Round Buff heat necrosis, poor internals, drop CR=1
- AC03433-1W Round White sticky stolon, greenhead CR=1
- Chipeta Round White light set CR=2

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

Summary:

CO03243-3W and AC03433-1W were the outstanding entries for this trial based on appearance. None of the entries had acceptable chip quality.

Dalhart
Table 2a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 4 entries in the Southwestern Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz				
CO03243-3W	843.5	620.4	154.0	236.2	230.2	0.0	110.8	112.3	3.6
Atlantic	510.6	271.0	106.7	121.3	42.9	16.8	90.9	131.9	3.1
AC03433-1W	385.2	261.4	95.8	87.1	78.4	0.0	55.7	68.1	3.6
Chipeta	175.5	77.2	36.1	14.9	26.1	0.0	82.5	15.9	2.2
Average	478.7	307.5	98.2	114.9	94.4	4.2	84.9	82.1	3.1
L.S.D. (.05)	85.8	40.3	41.2	44.0	37.2	ns	ns	ns	0.4

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

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 4 entries in the Southwestern Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
CO03243-3W	73.7	18.2	28.0	27.5	0.0	12.9	13.4	1.069	14.9	Round	White
Atlantic	54.6	22.5	23.4	8.7	3.8	19.5	22.2	1.077	16.2	Round	Buff
AC03433-1W	68.3	26.3	23.1	18.9	0.0	15.1	16.7	1.071	15.1	Round	White
Chipeta	42.3	20.9	7.9	13.5	0.0	48.5	9.2	1.083	17.4	Round	White
Average	59.7	22.0	20.6	17.2	0.9	24.0	15.4	1.075	15.9		
L.S.D. (.05)	10.0	ns	9.0	11.7	ns	9.1	ns	ns	ns		

Dalhart
Table 2c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 4 entries in the Southwestern Regional Chip Trial grown near Dalhart, Texas-2011.

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	
CO03243-3W	8.0	6.8	95	100	1.5	4.1	4.0	4.3	4
Atlantic	5.9	6.1	75	91	2.0	3.8	3.8	3.8	0
AC03433-1W	5.2	5.4	86	91	1.7	3.7	4.1	4.1	0
Chipeta	3.0	3.7	64	100	1.5	4.5	4.7	4.4	0
Average	5.5	5.5	80	96	1.7	4.0	4.2	4.1	1
L.S.D. (.05)	1.2	0.9	ns	ns	0.2	0.6	0.4	0.4	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 russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 4 entries in the Southwestern Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
CO03243-3W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	19	0	0	5
Atlantic	1.0	3.5	2.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	40	0	50	67
AC03433-1W	1.0	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	5
Chipeta	1.0	2.5	1.3	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.0	2.4	1.3	4.0	1.3	5.0	5.0	5.0	5.0	5.0	15	0	13	19
L.S.D. (.05)	ns	0.6	ns	ns	0.1	ns	ns	ns	ns	ns	21	ns	ns	22

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 2e. Notes and general rating for all reps of 4 entries in the Southwestern Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
CO03243-3W		3.5, 3.6, 3.7, 3.5
Atlantic	heat necrosis, poor internals, buff, drop	2.5, 3.1, 3, 3.8
AC03433-1W	sticky stolon, greenhead	3.3, 3.6, 3.7, 3.7
Chipeta	light set	2, 2.2, 2.5, 2

Dalhart
Table 2f.

Specific gravity, percent solids, rating, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 4 entries in the Southwestern Regional Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
CO03243-3W	Colorado	1.069	14.9	1	14/16	1GH,4SED,2TM	0%	0%
Atlantic	Colorado	1.077	16.2	1	19/11	1GH,1TM,1SED	0%	0%
AC03433-1W	Colorado	1.071	15.1	1	13/17	1HH,1MB,3SED	0%	0%
Chipeta	Colorado	1.083	17.4	2	13/16	11SED	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Commercial Variety Chip Trial

The trial consisted of seven entries, including the check varieties Atlantic, Chipeta, and Snowden. Results were as follows: (Dalhart Tables 3a, 3b, 3c, 3d, 3e, and 3f)

- NY138 (Waneta) had the highest general rating for appearance (Table 3a).
- NY138 (Waneta) had the highest total and marketable yield (Table 3a).
- NY138 (Waneta) had the highest yield in all market classes, while Atlantic had the highest yield of culls/No. 2 tubers (Table 3a).
- NY138 (Waneta) had the highest percentage of marketable yield. Chipeta had the highest percentage of <4 oz. tubers, while FL1922 had the highest percentage of culls/No. 2 tubers (Table 3b).
- FL2053 had the highest specific gravity (Table 3b).
- All of the entries were late in maturity (Table 3c).
- Snowden had 30 percent hollow heart, while Atlantic had 40 percent hollow heart, 50 percent vascular discoloration, and 67 percent internal brownspot (Table 3d).

Comments on entries:

- NY138 (Waneta) Round White CR=1
 - Atlantic Oblong Buff drop, heat necrosis, poor internals CR=1
 - FL2053 Oblong White rough CR=1
 - FL1922 Oblong White poor shape, pointed, drop, light set CR=1
 - FL1867 Oblong White CR=1
 - Chipeta Oblong White light set CR=1
 - Snowden Round White light set, poor internals CR=2
- 1CR=chip color rating 1=light to 3= dark

Summary:

Based on all factors, NY138 was the outstanding entry based on appearance. All of the entries had acceptable chip quality except for Snowden.

Dalhart Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 7 entries in the Commercial
 Table 3a. Variety Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz				
NY138	697.3	539.5	107.0	309.0	123.5	0.0	131.9	25.8	4.0
Atlantic	536.1	271.0	106.7	121.3	42.9	25.2	90.9	149.0	3.1
FL2053	327.0	149.3	6.5	82.1	60.7	11.2	34.8	131.6	2.0
FL1922	259.5	77.8	21.8	10.6	45.4	13.1	47.9	120.7	2.0
FL1867	200.7	112.6	23.0	50.7	38.9	0.0	27.4	60.7	3.5
Chipeta	175.5	77.2	36.1	14.9	26.1	0.0	82.5	15.9	2.2
Snowden	139.4	74.1	8.7	57.3	8.1	0.0	59.7	5.6	2.7
Average	333.6	185.9	44.3	92.3	49.4	7.1	67.9	72.8	2.8
L.S.D. (.05)	85.7	54.1	39.9	36.4	28.8	11.9	26.8	72.0	0.3

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

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 7 entries in the Commercial Variety Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
NY138	77.2	14.7	44.5	18.0	0.0	19.2	3.6	1.073	15.5	Round	White
Atlantic	51.3	21.3	21.8	8.2	5.4	18.5	24.8	1.077	16.2	Oblong	Buff
FL2053	45.1	2.2	24.3	18.6	3.2	10.5	41.2	1.088	18.2	Oblong	White
FL1922	30.1	8.5	4.1	17.5	4.9	18.3	46.7	1.077	16.2	Oblong	White
FL1867	56.4	12.2	25.1	19.1	0.0	13.6	30.1	1.077	16.2	Oblong	White
Chipeta	42.3	20.9	7.9	13.5	0.0	48.5	9.2	1.059	13.0	Oblong	White
Snowden	53.8	7.3	41.0	5.4	0.0	41.8	4.4	1.073	15.5	Round	White
Average	50.9	12.4	24.1	14.3	1.9	24.3	22.9	1.075	15.8		
L.S.D. (.05)	13.5	8.9	5.4	ns	3.1	9.3	17.0	0.005	0.9		

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 7 entries in the Commercial Variety Chip Trial grown near Dalhart, Texas-2011.

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	
NY138	7.6	5.9	91	100	1.8	3.7	3.7	3.8	10
Atlantic	6.0	6.3	75	91	2.0	3.8	3.8	3.8	0
FL2053	4.6	7.7	30	63	1.5	2.1	3.8	3.8	0
FL1922	2.8	6.6	45	91	1.5	2.8	3.9	4.0	0
FL1867	3.8	7.1	20	50	1.7	2.3	3.7	3.6	0
Chipeta	3.1	3.6	64	100	1.5	4.5	4.6	4.4	0
Snowden	8.1	4.0	14	29	1.5	2.4	4.2	3.9	0
Average	5.1	5.9	48	75	1.6	3.1	3.9	3.9	1
L.S.D. (.05)	1.5	1.4	26	14	ns	1.5	ns	ns	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

Dalhart
Table 3d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 7 entries in the Commercial Variety Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
NY138	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	8
Atlantic	1.0	3.5	2.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	40	0	50	67
FL2053	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	15	0	0	0
FL1922	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
FL1867	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
Chipeta	1.0	2.5	1.3	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Snowden	1.0	2.0	2.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	30	0	5	0
Average	1.0	2.9	1.3	4.0	1.3	5.0	5.0	5.0	5.0	5.0	16	0	8	11
L.S.D. (.05)	ns	0.4	0.3	ns	0.1	ns	ns	ns	ns	ns	16	ns	33	15

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart Notes and general rating for all reps of 7 entries in the Commercial Variety Trial grown near Dalhart,
 Table 3e. Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
NY138		4, 4, 4, 4
Atlantic	buff, drop, heat necrosis, poor internals	3.8, 2.5, 3, 3.1
FL2053	rough	2, 2, 2, 2
FL1922	poor shape, pointed, drop, light set	2, 2, 2, 2
FL1867		3.5, 3.5, 3.5, 3.5
Chipeta	light set	2.5, 2, 2, 2.2
Snowden	light set, poor internals	3, 2.5, 2.6, 2.7

Dalhart
Table 3f. Specific gravity, percent solids, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 7 entries in the Commercial Variety Chip Trial grown near Dalhart, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
NY138	New York	1.073	15.5	1	11/19	2HH,7SED	0%	0%
Atlantic	Colorado	1.077	16.2	1	15/6	5SED	0%	0%
FL2053	Dalhart	1.088	18.2	1	9/11	1HH,7SED	0%	0%
FL1922	Dalhart	1.077	16.2	1	21/8	4SED, BOT	0%	0%
FL1867	Dalhart	1.077	16.2	1	20/10	2TM, 6SED	0%	0%
Chipeta	Colorado	1.059	13.0	1	13/17	1HH,1MB,3SED	0%	0%
Snowden	Springlake	1.073	15.5	2	13/16	11SED	0%	0%

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

Texas Advanced Selection Chip Trial

This trial consisted of 24 entries, including the check variety Atlantic.

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

- NDTX071084C-2W and NDTX060700C-1W were the outstanding entries for this trial based on general ratings and best of trial designations for chip quality, while NDTX071217CB-1W/Y and NDTX071109C-1W received a high general rating and satisfactory chip quality (Tables 4a, and 4f).
- Atlantic had the highest total yield, while NDTX071109C-1W had the highest marketable yield. NDTX8305-1W had the highest yield of 4-6 oz. tubers (Table 4a).
- NDTX071109C-1W had the highest yield of over 6 oz. tubers. NDTX071084C-2W had the highest yield of <4 oz. tubers. ATTX03474-2W had the highest yield of culls/No. 2 tubers (Table 4a).
- ATX06173-2W had the highest percentage of marketable yield. NDTX8305-3W had the highest percentage of 4-6 oz. tubers, while NDTX060700C-1W had the highest percentage of <4 oz. tubers. ATTX03474-2W had the highest percentage of culls/No. 2 tubers (Table 3b).
- NDTX060700C-1W had the highest specific gravity (Table 4b).
- ATX06173-2W, ATTX03475-6W, and NDTX8305-2W were the latest maturing entries, while NDTX060700C-1W was the earliest (Table 4c).
- Atlantic, NDTX8305-1W, ATTX03476-2W and COTX03303-1W had the highest percentage hollow heart, while Atlantic and ATTX03475-6W had high percentages of vascular discoloration. Atlantic had 20% internal brownspot (Table 4d).

Comments on entries:

- | | | |
|---------------------|--------------|--|
| • Atlantic | Oblong Buff | oversized, 55% heat necrosis, sticky stolon, poor internals CR=1 |
| • NDTX071112-5W | Oblong White | rough, yellow flesh, keep, pointed CR=0 chip note DROP |
| • NDTX071109C-1W | Round White | BOT, rough CR=1 |
| • NDTX8305-1W | Oblong White | nice, hollow heart CR=0 chip note DROP |
| • NDTX071217CB-1W/Y | Oblong White | some pointed, yellow flesh CR=2 |

- NDTX071084C-2W Round White baby baker, nice, small, keep CR=1 chip note BOT
- ATTX03476-2W Oblong White oversized, hollow heart++CR=1
- TX1673-1W Oblong White oversized baker? CR=0 chip note DROP
- COTX03303-1W Oblong White feathering, hollow heart, drop?, pointed+ CR=0 chip note DROP
- ATTX03474-2W Round White yield+, pointed, keep CR=1
- NDTX8305-3W Oblong White keep CR=1
- ATX06173-2W Oblong White keep CR=0 chip note DROP
- NDTX060700C-1W Oblong Russet baby baker, russet skin, very small, mixed flesh CR=1 chip note BOT
- COTX03270-1W Oblong White rough, oblong to long chip note CR=0 DROP
- ATTX03475-6W Round White small, stem end discoloration, keep, baby baker CR=0 chip note DROP
- ATTX03474-3W Oblong White keep, bad rep CR=1
- ATTX03446-4W Oblong White oversized CR=0 chip note DROP
- ATTX03474-1W Oblong White oversized, rough CR=1
- COTX02377-1W Oblong White drop++ CR=0 chip note DROP
- AOTX95309-3W Oblong White drop CR=0 chip note DROP
- TX03196-1W Oblong White rough, drop CR=0 chip note DROP
- NDTX8305-2W Oblong White low yield CR=0 chip note DROP
- AOTX95295-1W Oblong White bad rep CR=1 chip note BOT
- NDTX059997-6W no seed, dropped

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

Summary:

Based on all factors, NDTX071084C-2W and NDTX060700C-1W were the outstanding entries for this trial based on general ratings and best of trial designations for chip quality, while NDTX071217CB-1W/Y and NDTX071109C-1W received a high general rating and satisfactory chip quality.

Dalhart 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
 Table 4a. Advanced Chip Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz. ²	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz ³	6-10 oz	10-18 oz				
Atlantic	548.4	369.8	83.6	143.3	142.9	9.7	67.0	101.8	3.8
NDTX071112-5W	521.5	246.4	62.6	118.6	65.1	0.0	114.9	160.1	3.6
NDTX071109C-1W	499.1	387.5	88.4	176.3	122.8	0.0	84.6	27.0	3.9
NDTX8305-1W	487.9	258.0	124.5	81.3	52.3	0.0	187.1	42.7	3.9
NDTX071217CB-1W/Y	456.3	281.3	111.2	123.6	46.5	0.0	100.4	74.7	3.8
NDTX071084C-2W	425.6	135.7	113.3	14.9	7.5	0.0	257.6	32.4	3.8
ATTX03476-2W	416.7	315.5	61.6	110.6	143.3	0.0	43.6	57.7	3.6
TX1673-1W	412.0	271.9	29.9	86.9	155.2	29.9	20.7	89.4	3.3
COTX03303-1W	399.1	232.7	109.5	84.8	38.4	0.0	122.4	44.0	3.3
ATTX03474-2W	359.3	170.9	45.6	78.8	46.5	0.0	60.6	127.8	3.0
NDTX8305-3W	355.9	199.1	117.0	82.1	0.0	0.0	114.5	42.3	3.4
ATX06173-2W	351.9	301.0	26.0	104.1	170.8	0.0	23.8	27.2	4.0
NDTX060700C-1Ru	317.8	62.9	45.0	17.8	0.0	0.0	234.2	20.7	3.7
COTX03270-1W	314.7	168.2	61.0	44.2	63.1	2.7	35.3	108.5	3.0
ATTX03475-6W	248.5	75.5	57.7	17.8	0.0	0.0	147.7	25.3	3.8
ATTX03474-3W	233.4	140.0	64.9	44.2	30.9	0.0	73.8	19.5	2.9
ATTX03446-4W	194.6	85.0	43.1	23.2	18.7	0.0	69.3	40.2	2.8
ATTX03474-1W	188.3	113.3	25.5	49.2	38.6	0.0	20.3	54.8	3.0
COTX02377-1W	183.8	85.3	43.8	32.2	9.3	2.3	37.5	58.7	1.6
AOTX95309-3W	155.2	83.6	21.2	20.3	42.1	5.4	26.6	39.6	2.5
TX03196-1W	66.0	32.4	14.9	7.5	10.0	0.0	21.6	12.0	1.0
NDTX8305-2W	58.1	43.6	4.1	39.4	0.0	0.0	14.5	0.0	3.5
AOTX95295-1W	37.8	26.6	4.6	10.4	11.6	0.0	7.5	3.7	1.9
NDTX059997-6W	Dropped								
Average	314.4	177.7	59.1	65.7	52.8	2.2	82.0	52.6	3.2
L.S.D. (.05)	62.1	31.3	24.1	25.0	28.9	5.9	38.1	30.4	0.4

¹ 1=very poor to 5= excellent

² Approx. less than 1 inch in diameter

³ Approx. 1 to 2 inch in diameter

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 24 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
Atlantic	67.7	15.0	26.1	26.6	1.6	11.9	18.7	1.080	16.8	Oblong	Buff
NDTX071112-5W	47.9	12.0	23.5	12.5	0.0	21.6	30.4	1.072	15.3	Oblong	White
NDTX071109C-1W	77.8	17.3	35.2	25.3	0.0	16.8	5.4	1.067	14.5	Round	White
NDTX8305-1W	53.8	25.4	16.6	11.8	0.0	37.0	9.2	1.073	15.6	Oblong	White
NDTX071217CB-1W/Y	61.6	24.4	27.1	10.2	0.0	22.0	16.4	1.064	13.9	Oblong	White
NDTX071084C-2W	31.9	26.6	3.5	1.8	0.0	60.5	7.6	1.075	15.9	Round	White
ATTX03476-2W	76.5	15.2	27.3	34.0	0.0	10.4	13.2	1.069	14.8	Oblong	White
TX1673-1W	66.0	7.4	21.4	37.2	7.2	5.2	21.5	1.063	13.8	Oblong	White
COTX03303-1W	59.3	27.3	22.2	9.7	0.0	30.5	10.3	1.070	14.9	Oblong	White
ATTX03474-2W	47.6	12.7	21.9	12.9	0.0	16.9	35.6	1.069	14.9	Round	White
NDTX8305-3W	55.9	32.9	23.1	0.0	0.0	32.2	11.9	1.074	15.8	Oblong	White
ATX06173-2W	85.5	7.4	29.6	48.6	0.0	6.8	7.7	1.070	15.0	Oblong	White
NDTX060700C-1Ru	19.2	14.2	5.1	0.0	0.0	74.1	6.7	1.082	17.2	Oblong	Russet
COTX03270-1W	53.9	19.5	14.4	20.1	0.8	10.8	34.5	1.081	16.9	Oblong	White
ATTX03475-6W	30.5	23.3	7.2	0.0	0.0	59.4	10.1	1.063	13.7	Round	White
ATTX03474-3W	61.1	26.9	19.4	14.8	0.0	29.8	9.1	1.075	16.0	Oblong	White
ATTX03446-4W	44.7	22.2	12.6	9.9	0.0	33.9	21.4	1.069	14.9	Oblong	White
ATTX03474-1W	59.9	14.1	25.1	20.7	0.0	10.7	29.4	1.075	15.8	Oblong	White
COTX02377-1W	45.2	23.2	16.9	5.1	1.0	20.3	33.5	1.069	14.9	Oblong	White
AOTX95309-3W	53.5	14.5	13.5	25.5	2.9	17.3	26.3	1.066	14.2	Oblong	White
TX03196-1W	46.4	24.1	11.0	11.3	0.0	37.3	16.4	1.060	13.2	Oblong	White
NDTX8305-2W	75.0	7.1	67.9	0.0	0.0	25.0	0.0	1.060	13.2	Oblong	White
AOTX95295-1W	71.2	12.2	27.8	31.2	0.0	20.0	8.7	1.070	15.0	Oblong	White
NDTX059997-6W											
Average	56.2	18.5	21.7	16.0	0.6	26.5	16.7	1.070	15.1		
L.S.D. (.05)	8.9	6.8	12.4	13.5	1.6	8.9	9.9	0.004	0.6		

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 24 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2011.

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	
Atlantic	5.2	7.1	88	100	1.8	4.2	4.1	4.1	0
NDTX071112-5W	6.5	5.2	100	100	2.0	4.1	3.8	3.9	5
NDTX071109C-1W	5.6	5.8	75	100	2.0	4.0	4.0	4.0	0
NDTX8305-1W	10.2	4.4	65	75	1.8	4.0	4.3	4.1	0
NDTX071217CB-1W/Y	5.5	5.3	100	100	2.0	4.0	3.5	3.8	10
NDTX071084C-2W	9.9	2.8	100	100	2.0	3.8	3.3	3.8	15
ATTX03476-2W	4.0	6.8	88	100	1.5	4.1	4.3	4.1	0
TX1673-1W	3.0	8.8	77	100	2.0	3.5	3.5	3.5	0
COTX03303-1W	10.5	4.2	42	67	1.9	3.3	3.3	3.7	0
ATTX03474-2W	4.4	5.2	100	100	2.0	3.8	3.0	4.1	10
NDTX8305-3W	6.0	3.8	100	100	1.5	3.5	4.0	4.0	0
ATX06173-2W	2.3	7.3	68	136	1.5	4.5	4.5	4.0	0
NDTX060700C-1Ru	8.1	2.6	84	96	2.0	1.9	2.4	2.8	15
COTX03270-1W	5.9	5.0	42	75	2.0	3.7	3.8	3.6	0
ATTX03475-6W	8.3	2.5	28	83	1.8	4.0	4.5	4.3	0
ATTX03474-3W	4.7	4.7	23	75	1.5	4.0	4.3	4.0	0
ATTX03446-4W	6.6	4.0	27	50	2.0	3.3	3.8	3.9	0
ATTX03474-1W	4.1	6.3	28	54	2.0	2.5	3.3	3.1	0
COTX02377-1W	4.8	5.4	20	50	2.0	3.3	3.6	3.5	3
AOTX95309-3W	5.2	5.8	23	34	1.5	2.4	3.8	3.7	0
TX03196-1W	3.1	4.0	5	33	2.0	2.0	3.5	3.0	0
NDTX8305-2W	1.8	5.0	17	42	1.5	4.0	4.5	4.0	0
AOTX95295-1W	8.4	5.0	8	10	1.8	1.0	4.0	3.3	0
NDTX059997-6W									
Average	5.8	5.1	57	77	1.8	3.4	3.8	3.7	3
L.S.D. (.05)	4.8	1.0	21	21	0.2	0.5	0.4	0.3	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

Dalhart
Table 4d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 24 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
Atlantic	1.0	3.5	2.0	4.0	2.0	5.0	5.0	5.0	5.0	5.0	28	0	50	20
NDTX071112-5W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX071109C-1W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX8305-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	25	0	0	0
NDTX071217CB-1W/Y	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX071084C-2W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX03476-2W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	38	0	0	0
TX1673-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX03303-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	23	0	0	0
ATTX03474-2W	1.0	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX8305-3W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX06173-2W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	10
NDTX060700C-1Ru	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	3
COTX03270-1W	1.0	3.8	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	3
ATTX03475-6W	1.0	2.0	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	20	0
ATTX03474-3W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATTX03446-4W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	5
ATTX03474-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX02377-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
AOTX95309-3W	1.0	3.5	1.0	4.0	1.0	3.0	5.0	5.0	5.0	5.0	3	0	0	0
TX03196-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	3
NDTX8305-2W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX95295-1W	1.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
NDTX059997-6W														
Average	1.0	3.3	1.0	4.0	1.0	4.9	5.0	5.0	5.0	5.0	6	0	3	2
L.S.D. (.05)	ns	0.1	0.1	ns	0.1	0.1	ns	ns	ns	ns	15	ns	12	9

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 4e.

Notes and general rating for all reps of 24 entries in the Texas Advanced Chip Selection Tria grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	Chip Notes	General Rating Grading
Atlantic	oversized, 20% heat necrosis, sticky stolon, 60% heat necrosis, 60% heat necrosis, poor internals, 80% heat necrosis	2TM,1HH,7SED,3MB	3.6, 3.8, 4, 3.7
NDTX071112-5W	rough, yellow flesh, keep, pointed	DROP	3.5, 3.6, 3.5, 3.6
NDTX071109C-1W	rough, BOT	6SED, 1?	3.8, 3.9, 3.9, 3.8
NDTX8305-1W	nice, hollow heart	DROP	3.9, 3.9, 3.9, 3.9
NDTX071217CB-1W/	some pointed, yellow flesh	4SED	3.8, 3.8, 3.8, 3.8
NDTX071084C-2W	baby baker, nice, small, keep	BOT	3.8, 3.8, 3.8, 3.8
ATX03476-2W	oversized, , , hollow heart++	1TM,2HH,1MB,3SED	3.8, 3.5, 3.4, 3.5
TX1673-1W	oversized, baker?	DROP	3, 3.5, 3.3, 3.5
COTX03303-1W	feathering, hollow heart, drop?, pointed+, ,	DROP	2.5, 3, 3.7, 3.8
ATX03474-2W	yield+, pointed, keep	2TM,2SED	3, 3, 3, 3
NDTX8305-3W	keep		3.4, 3.4, 3.4, 3.4
ATX06173-2W	keep	DROP	4, 4, 4, 4
NDTX060700C-1Ru	baby baker, russet skin, very small, mixed flesh,	BOT,1TM	3.7, 3.8, 3.6, 3.8
COTX03270-1W	rough, oblong to long	DROP	3.5, 2.5, 3, 3
ATX03475-6W	small, stem end discoloration, keep, baby baker	DROP	3.8, 3.8, 3.8, 3.8
ATX03474-3W	keep, bad rep	2BC,3SED	3.8, 1.8, 3.5, 2.5
ATX03446-4W	oversized	DROP	2.5, 3, 2.5, 3
ATX03474-1W	oversized, rough	1MD,4SED	3, 3.2, 2.8, 3
COTX02377-1W	drop++	DROP	1, 2, 2, 1.5
AOTX95309-3W	drop	DROP	2.5, 2.5, 2.5, 2.5
TX03196-1W	rough, drop?, drop	drop	1, 1, 1, 1
NDTX8305-2W	low yield	DROP	3.5, 3.5, 3.5, 3.5
AOTX95295-1W	bad rep	BOT	2, 2, 1.5, 2
NDTX059997-6W	no seed, droppped		

Dalhart
Table 4f.

Specific gravity, percent solids, chip color rating, good chip bad chip ratio, notes, percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 24 entries in the Texas Advanced Chip Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Source	Gravity	% Solids	Chip Color ²	Good/Bad Chip Ratio	Notes ³	Percent Zebra Defect	Percent Zebra Defect at Grading
Atlantic	Colorado	1.080	16.8	1	13/27	2TM,1HH,7SED,3MB	0%	0%
NDTX071112-5W	Dalhart	1.072	15.3	0		DROP	0%	0%
NDTX071109C-1W	Dalhart	1.067	14.5	1	11/11	6SED, 1?	0%	0%
NDTX8305-1W	Dalhart	1.073	15.6	0		DROP	0%	0%
NDTX071217CB-1W/Y	Dalhart	1.064	13.9	2	5/4	4SED	0%	0%
NDTX071084C-2W	Dalhart	1.075	15.9	1	10/	BOT	0%	0%
ATTX03476-2W	Springlake	1.069	14.8	1	24/16	1TM,2HH,1MB,3SED	0%	0%
TX1673-1W	Dalhart	1.063	13.8	0		drop	0%	0%
COTX03303-1W	Springlake	1.070	14.9	0		DROP	0%	0%
ATTX03474-2W	Dalhart	1.069	14.9	1	4/5	2TM,2SED	0%	0%
NDTX8305-3W	Dalhart	1.074	15.8	1	4/0		0%	0%
ATX06173-2W	Springlake	1.070	15.0	0		DROP	0%	0%
NDTX060700C-1Ru	Dalhart	1.082	17.2	1	28/9	BOT,1TM	0%	0%
COTX03270-1W	Springlake	1.081	16.9	0		DROP	0%	0%
ATTX03475-6W	Dalhart	1.063	13.7	0		DROP	0%	0%
ATTX03474-3W	Springlake	1.075	16.0	1	33/7	2BC,3SED	0%	0%
ATTX03446-4W	Springlake	1.069	14.9	0		DROP	0%	0%
ATTX03474-1W	Springlake	1.075	15.8	1	16/6	1MD,4SED	0%	0%
COTX02377-1W	Springlake	1.069	14.9	0		DROP	0%	0%
AOTX95309-3W	Springlake	1.066	14.2	0		DROP	0%	0%
TX03196-1W	Dalhart	1.060	13.2	0		DROP	0%	0%
NDTX8305-2W	Dalhart	1.060	13.2	0		DROP	0%	0%
AOTX95295-1W	Springlake	1.070	15.0	1		BOT	0%	0%
NDTX059997-6W								

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

¹1=poor, 5=excellent

²1=light, 3+=very dark

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

2010 Chip Selections Trial, Dalhart

The trial consisted of 134 entries. The following 18 (JTTX124-2Ru, JTTX21-1Ru, JTTX75-2W, JTTX91-6Ru, JTTX91-7W, JTTX91-8Ru, JTTX94-1W, JTTX94-2W, JTTX94-3W, NDTX081644CAB-2W, NDTX081648CB-13W, NDTX081648CB-1W, NDTX081648CB-2W, NDTX081648CB-4W, NDTX081651CAB-2W, NDTX091908AB-2W, NDTX091908AB-4W, and NDTX091908AB-9W) will be advanced in 2012 (Table 5).

Dalhart
Table 5

Inventory weight and Chip Notes of 18 entries to be advanced from the 2010 Chip Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Trial	Inventory Weight	Chip Notes
JTTX124-2Ru	10SEL	11.4	BOT+
JTTX21-1Ru	10SEL	6.3	BOT
JTTX75-2W	10SEL	4.4	
JTTX91-6Ru	10SEL	3.3	
JTTX91-7W	10SEL	8.8	SED
JTTX91-8Ru	10SEL	7.4	
JTTX94-1W	10SEL	3.1	Vas-
JTTX94-2W	10SEL	8.4	BOT, SED-
JTTX94-3W	10SEL	5.9	SED
NDTX081644CAB-2W	10SEL	9.6	BOT
NDTX081648CB-13W	10SEL	13.8	
NDTX081648CB-1W	10SEL	16.5	BOT
NDTX081648CB-2W	10SEL	13.1	BOT
NDTX081648CB-4W	10SEL	22.5	BOT 1 VAS/BRUIS
NDTX081651CAB-2W	10SEL	8.7	
NDTX091908AB-2W	10SEL	13.8	
NDTX091908AB-4W	10SEL	7.1	BOT
NDTX091908AB-9W	10SEL	13.8	BOT

Texas Advanced Russet Selection Trial, Dalhart

The trial consisted of 41 entries, including the check varieties Russet Norkotah, Russet Norkotah112, Russet Norkotah223, Russet Norkotah278, Russet Norkotah296, Stampede Russet, Russet NorkotahS3, and Russet NorkotahS8.

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

- AOTX95265-1Ru, TXA549-1Ru, ATTX03475-10Ru, and ATX84378-6Ru were the outstanding entries for this trial, based on general rating and best of trial designations. ATX91137-1Ru, Stampede Russet, ATX99013-1Ru, AOTX96084-1Ru, ATTX03475-7Ru, AOTX98152-3Ru, ATX99194-3Ru, COTX07018-2Ru, and AOTX96265-2Ru also had high general ratings (Tables 6a and 6e).
- ATX91137-1Ru had the highest total and marketable yield (Table 6a).
- AOTX95265-1Ru had the highest yield of over 18 oz. tubers, while ATTX03475-7Ru had the highest yield of <4 oz. tubers (Table 6a).
- Russet Norkotah223 had the highest yield of culls/No.2 tubers (Table 6a).
- ATTX03475-10Ru had the highest percentages of marketable yield, while AOTX95265-1Ru had the highest percentage of over 18 oz. tubers (Table 6b).
- ATTX06008-2Ru had the highest percentage of <4 oz. tubers, while AOTX96216-2Ru had the highest percentage of culls/No. 2 tubers (Table 6b).
- ATX9332-12Ru had the highest specific gravity (Table 6b).
- ATX9202-3Ru, Stampede Russet, COTX07009-8Ru, ATTX03475-7Ru, AOTX98152-3Ru, AOTX96075-1Ru, Russet NorkotahS8, COTX07018-2Ru Russet Norkotah S3, and COTX07024-4Ru were the latest maturing, while Russet Norkotah, AOTX95265-1Ru, COTX05095-2Ru/Y, ATX99013-1Ru, ATTX03475-10Ru, ATX84378-6Ru, ATX99194-3Ru, COTX07354-1Ru, and TXNS410 were the earliest maturing (Table 6c).
- AOTX96265-2Ru and COTX07380-2Ru had the highest percentage of hollow heart (Table 6d).
- COTX07024-4Ru had the highest percentage of internal brownspot (Table 6d).

Comments on entries:

- ATX91137-1Ru Oblong Russet
- Russet Norkotah Long Russet

- COTX07380-2Ru Long Russet pointed, hollow heart, drop++
- AOTX95265-1Ru Long Russet BOT, * in basket, oversized, yield+
- ATX9202-3Ru Oblong Russet deep eyes
- Russet Norkotah296 Long Russet skinny
- Russet Norkotah112 Long Russet heavy set
- COTX07206-1Ru Long Russet nice white flesh
- Russet Norkotah278 Long Russet heavy yield, oversized, skinny
- Stampede Russet Oblong Russet 20% ZC?, nice, * in basket
- Russet Norkotah223 Long Russet pointed
- AOTX95265-3Ru Long Russet oversized, pointed
- COTX05095-2Ru/Y Long Russet heavy set+, yield parent, yellow flesh, keep
- ATX99013-1Ru Long Russet oversized, keep
- ATX9332-12Ru Long Russet oversized, nice flesh
- COTX07009-8Ru Oblong Russet
- TXA549-1Ru Oblong Russet BOT+, blocky, keep, * in basket, nice
- ATTX03475-10Ru Oblong Russet BOT-, nice, keep, * in basket
- ATTX03475-9Ru Oblong Russet rough, blocky, alligator skin, drop
- AOTX96084-1Ru Long Russet light set, oversized, pointed
- ATTX03475-7Ru Oblong Russet very nice, slightly pointed, blocky, small, heavy set
- AOTX98152-3Ru Oblong Russet blocky+, nice
- ATTX06026-1Ru Oblong Russet heavy set
- COTX07009-7Ru Oblong Russet light set
- COTX07179-2Ru Oblong Russet
- ATTX06008-2Ru Oblong Russet ugly, growth cracks, drop
- AOTX96075-1Ru Oblong Russet drop?
- ATX84378-6Ru Long Russet BOT, some pointed
- ATX99194-3Ru Long Russet alligator skin, poor internals, blocky, nice shape, poor skin finish
- AOTX98202-1Ru Oblong Russet pointed, knobs, drop?
- ATTX06008-6Ru Oblong Russet drop++
- Russet NorkotahS8 Oblong Russet small, long skinny, drop+
- COTX07018-2Ru Long Russet keep, ugly net, light russet skin

- COTX07354-1Ru Oblong Russet poor internals, * in basket, blocky
- COTX07199-2Ru Oblong Russet ugly net+, light russet skin
- AOTX96216-2Ru Oblong Russet oversized, hollow heart, * in basket, light set
- Russet NorkotahS3 Oblong Russet small, drop
- COTX07024-1Ru Oblong Russet low yield, poor internals, drop, 50% mahogany browning

- COTX07024-4Ru Long Russet
- AOTX96265-2Ru Long Russet nice, * in basket, light set, some pointed, hollow heart+
- TXNS410 Long Russet hollow heart, light set, low yield

Summary:

Based on all factors AOTX95265-1Ru, TXA549-1Ru, ATTX03475-10Ru, and ATX84378-6Ru were the outstanding entries in this trial. Other deserving mention were ATX91137-1Ru, Stampede Russet, ATX99013-1Ru, AOTX96084-1Ru, ATTX03475-7Ru, AOTX98152-3Ru, ATX99194-3Ru, COTX07018-2Ru, and AOTX96265-2Ru

Dalhart
Table 6a.

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 Russet Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
ATX91137-1RU	825.4	606.7	69.5	157.2	380.0	118.0	35.1	65.5	3.8
Russet Norkotah	765.0	474.6	61.6	99.6	313.4	152.7	55.8	81.9	3.2
COTX07380-2Ru	701.5	409.5	55.2	127.8	226.5	195.4	51.4	45.2	2.9
AOTX95265-1Ru	695.9	345.8	55.8	77.4	212.6	264.1	30.5	55.6	3.9
ATX9202-3RU	693.0	526.7	81.7	182.7	262.2	53.1	69.1	44.2	3.1
Russet Norkotah296	675.4	407.4	58.1	106.0	243.3	166.8	36.1	65.1	3.5
Russet Norkotah112	661.5	396.2	61.4	92.5	242.3	156.6	45.4	63.3	3.4
COTX07206-1Ru	657.5	386.6	68.5	130.1	188.1	176.5	42.1	52.3	2.7
Russet Norkotah278	655.9	417.6	57.3	108.9	251.4	145.2	35.5	57.7	3.4
Stampede Russet	634.3	421.9	129.4	164.5	128.0	43.6	141.3	27.6	3.8
Russet Norkotah223	633.3	369.6	62.4	158.3	148.9	145.6	35.7	82.3	3.0
AOTX95265-3Ru	590.8	422.7	43.6	136.1	243.1	101.2	27.8	39.0	3.4
COTX05095-2Ru/Y	577.9	410.3	103.9	164.5	141.9	32.6	102.7	32.4	3.2
ATX99013-1Ru	573.5	292.1	53.3	80.3	158.5	167.8	58.9	54.8	3.8
ATX9332-12RU	561.5	377.3	68.7	175.1	133.6	77.0	52.7	54.6	3.1
COTX07009-8Ru	555.4	415.9	166.8	161.8	87.3	11.2	105.9	22.4	3.4
TXA549-1RU	552.0	393.3	63.5	138.6	191.2	79.2	52.9	26.6	4.1
ATX03475-10Ru	540.1	448.5	123.2	202.9	122.4	0.0	68.9	22.8	3.9
ATX03475-9Ru	538.1	406.6	72.2	177.8	156.6	48.5	52.7	30.3	2.3
AOTX96084-1Ru	535.6	353.0	60.8	77.6	214.7	103.7	43.6	35.3	3.6
ATX03475-7Ru	534.8	328.8	192.3	97.5	39.0	51.6	142.7	11.6	3.7
AOTX98152-3RU	520.2	392.9	77.0	172.0	144.0	40.7	67.0	19.7	3.8
ATX06026-1Ru	500.5	346.6	99.6	179.2	67.8	35.9	78.4	39.6	2.9
COTX07009-7Ru	500.2	308.0	121.7	95.0	91.3	78.4	87.9	25.9	2.8
COTX07179-2Ru	490.4	360.3	104.5	141.3	114.5	27.4	74.1	28.6	3.3
ATX06008-2Ru	488.5	336.0	57.7	108.5	169.9	59.1	24.1	69.3	2.5
AOTX96075-1RU	467.1	329.4	62.2	133.6	133.6	73.8	35.7	28.2	2.5
ATX84378-6Ru	461.5	261.6	39.6	82.8	139.2	118.9	30.1	51.0	3.9
ATX99194-3Ru	441.8	299.9	63.5	73.4	163.0	39.0	34.0	68.9	3.6

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
 Table 6a. cont. Advanced Russet Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
AOTX98202-1Ru	440.4	347.2	63.3	97.9	186.1	18.5	39.6	35.1	3.2
ATTX06008-6Ru	438.3	217.4	56.4	49.6	111.4	46.3	125.7	49.0	2.3
Russet Norkotah S8	432.9	307.4	41.3	108.5	157.6	41.1	45.4	39.0	2.3
COTX07018-2Ru	429.0	314.0	83.4	101.6	129.0	68.0	42.7	4.1	3.6
COTX07354-1Ru	417.3	291.6	73.4	145.6	72.6	15.8	88.4	21.6	3.1
COTX07199-2Ru	413.0	335.0	80.7	100.4	153.9	13.7	38.6	25.7	3.3
AOTX96216-2RU	407.2	175.1	14.1	43.8	117.2	126.5	12.2	93.3	3.5
Russet Norkotah S3	373.0	242.3	69.5	88.6	84.2	43.8	56.6	30.3	2.3
COTX07024-1Ru	346.4	248.5	62.2	72.6	113.7	53.5	39.0	5.4	3.1
COTX07024-4Ru	314.9	219.0	35.3	87.9	95.8	48.5	31.5	15.8	3.3
AOTX96265-2Ru	307.3	190.6	28.2	47.5	114.9	86.7	14.7	15.2	3.8
TXNS410	246.4	198.1	37.3	70.9	89.8	24.5	13.3	10.6	2.6
Average	606.8	400.7	84.5	136.2	180.1	98.9	63.8	43.4	3.3
L.S.D. (.05)	78.5	86.6	37.3	53.3	70.8	72.3	30.0	35.7	0.4

¹ 1=very poor to 5= excellent

Dalhart
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 141 entries in the Texas Advanced Russet Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATX91137-1RU	73.5	8.5	19.1	45.9	14.6	4.3	7.7	1.066	14.3	Oblong	Russet
Russet Norkotah	62.2	8.4	13.5	40.4	19.4	7.7	10.7	1.068	14.7	Long	Russet
COTX07380-2Ru	58.7	8.1	18.4	32.2	28.0	7.2	6.0	1.073	15.6	Long	Russet
AOTX95265-1Ru	51.8	8.7	11.5	31.5	35.8	4.4	8.0	1.068	14.6	Long	Russet
ATX9202-3RU	75.7	12.0	26.6	37.1	7.7	10.2	6.4	1.075	15.8	Oblong	Russet
Russet Norkotah296	61.0	8.6	15.8	36.7	23.7	5.5	9.7	1.068	14.7	Long	Russet
Russet Norkotah112	60.1	9.3	13.9	36.8	23.5	6.9	9.5	1.067	14.4	Long	Russet
COTX07206-1Ru	59.2	10.5	20.4	28.4	26.5	6.4	7.8	1.068	14.6	Long	Russet
Russet Norkotah278	63.7	8.9	16.7	38.1	21.8	5.6	9.0	1.067	14.5	Long	Russet
Stampede Russet	66.6	20.4	25.9	20.3	6.5	22.5	4.4	1.060	13.2	Oblong	Russet
Russet Norkotah223	58.6	9.8	25.1	23.6	22.9	5.7	12.8	1.066	14.3	Long	Russet
AOTX95265-3Ru	71.7	7.3	23.6	40.8	16.9	4.7	6.6	1.066	14.3	Long	Russet
COTX05095-2Ru/Y	71.1	18.9	29.2	23.0	5.0	18.3	5.7	1.071	15.2	Long	Russet
ATX99013-1Ru	52.7	9.8	14.2	28.6	28.5	9.0	9.8	1.073	15.6	Long	Russet
ATX9332-12RU	68.9	12.8	32.2	23.9	11.3	9.7	10.2	1.083	17.4	Long	Russet
COTX07009-8Ru	74.4	30.5	28.3	15.6	1.9	19.5	4.2	1.080	16.8	Oblong	Russet
TXA549-1RU	72.4	11.9	26.3	34.2	13.5	9.5	4.6	1.074	15.7	Oblong	Russet
ATTX03475-10Ru	83.2	22.4	38.9	22.0	0.0	12.6	4.2	1.073	15.5	Oblong	Russet
ATTX03475-9Ru	75.4	13.3	33.0	29.1	9.1	9.9	5.7	1.070	15.0	Oblong	Russet
AOTX96084-1Ru	66.0	11.2	15.0	39.8	19.5	8.3	6.2	1.070	15.1	Long	Russet
ATTX03475-7Ru	62.8	36.3	18.6	7.9	8.2	27.0	2.0	1.079	16.6	Oblong	Russet
AOTX98152-3RU	75.7	15.0	33.2	27.4	7.5	13.3	3.6	1.069	14.8	Oblong	Russet
ATTX06026-1Ru	71.2	19.0	37.6	14.5	6.4	14.9	7.5	1.072	15.4	Oblong	Russet
COTX07009-7Ru	61.4	24.2	19.3	17.9	15.8	17.6	5.2	1.073	15.6	Oblong	Russet
COTX07179-2Ru	74.9	22.8	30.2	21.9	5.3	14.7	5.0	1.073	15.6	Oblong	Russet
ATTX06008-2Ru	69.6	12.0	22.7	35.0	11.6	5.0	13.7	1.074	15.8	Oblong	Russet
AOTX96075-1RU	70.5	13.3	28.6	28.6	15.8	7.6	6.0	1.064	13.9	Oblong	Russet
ATX84378-6Ru	56.5	8.6	18.1	29.8	26.2	6.4	11.0	1.071	15.2	Long	Russet
ATX99194-3Ru	67.7	14.3	16.7	36.7	8.8	7.8	15.7	1.069	14.8	Long	Russet

Dalhart
Table 6b. cont. 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 Russet Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
AOTX98202-1Ru	78.1	14.3	21.6	42.2	4.4	9.1	8.4	1.063	13.8	Oblong	Russet
ATTX06008-6Ru	49.6	12.7	11.4	25.6	10.4	28.9	11.0	1.082	17.2	Oblong	Russet
Russet Norkotah S8	70.5	9.6	24.9	35.9	9.5	10.7	9.3	1.065	14.1	Oblong	Russet
COTX07018-2Ru	70.1	17.1	23.3	29.7	19.6	9.1	1.2	1.071	15.2	Long	Russet
COTX07354-1Ru	70.0	17.9	35.0	17.1	3.7	21.1	5.2	1.073	15.6	Oblong	Russet
COTX07199-2Ru	81.1	19.7	24.0	37.3	3.4	9.2	6.3	1.070	15.0	Oblong	Russet
AOTX96216-2RU	43.0	3.5	10.8	28.8	31.1	3.0	22.9	1.069	14.8	Oblong	Russet
Russet Norkotah S3	68.0	19.5	25.0	23.5	9.0	15.0	8.0	1.064	13.9	Long	Russet
COTX07024-1Ru	71.9	18.5	20.9	32.5	15.0	11.7	1.4	1.072	15.3	Long	Russet
COTX07024-4Ru	67.0	11.2	26.6	29.2	16.5	10.8	5.7	1.070	15.0	Long	Russet
AOTX96265-2Ru	63.0	9.3	16.0	37.7	26.7	5.1	5.2	1.071	15.2	Long	Russet
TXNS410	78.5	15.5	25.0	38.0	11.0	5.3	5.2	1.067	14.4	Oblong	Russet
Average	66.9	14.8	23.5	28.7	15.2	11.0	6.9	1.071	15.2		
L.S.D. (.05)	14.2	7.8	11.4	12.5	12.0	5.5	6.4	0.005	0.9		

Dalhart
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 41 entries in the Texas Advanced Russet Selection Trial grown near Dalhart, Texas-2011.

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	
ATX91137-1RU	5.7	9.3	0.0	100	100	2.0	3.8	4.0	3.8	0
Russet Norkotah	6.0	8.6	0.0	100	100	2.0	3.5	3.5	3.5	15
COTX07380-2Ru	5.8	7.9	0.0	100	100	2.0	3.6	3.6	3.5	0
AOTX95265-1Ru	4.3	10.4	0.0	100	100	2.0	3.5	3.5	3.5	0
ATX9202-3RU	6.5	7.0	0.0	100	100	2.0	4.0	4.5	4.0	0
Russet Norkotah296	5.1	8.6	0.0	100	100	2.0	4.2	4.0	4.2	0
Russet Norkotah112	5.1	8.5	0.0	100	100	2.0	4.1	3.8	4.1	15
COTX07206-1Ru	5.4	8.0	0.0	100	100	2.0	4.2	4.3	4.2	3
Russet Norkotah278	4.6	9.2	0.0	100	100	2.0	4.0	3.9	4.2	10
Stampede Russet	7.0	5.9	0.0	94	100	2.0	4.1	4.4	4.1	0
Russet Norkotah223	5.3	7.7	0.0	100	100	2.0	4.4	3.9	4.4	10
AOTX95265-3Ru	4.1	9.4	0.0	96	100	2.0	3.9	3.9	4.0	5
COTX05095-2Ru/Y	7.7	4.7	0.0	100	100	2.0	3.5	3.5	3.7	8
ATX99013-1Ru	4.0	9.2	0.0	100	100	2.0	3.8	3.5	3.9	0
ATX9332-12RU	5.3	6.8	0.0	100	100	2.0	4.3	3.9	4.3	4
COTX07009-8Ru	7.3	4.9	0.0	100	100	2.0	4.5	4.5	4.5	0
TXA549-1RU	4.1	8.7	0.0	100	100	2.0	4.0	4.0	4.0	0
ATX03475-10Ru	5.9	5.9	0.0	100	100	2.0	3.5	3.5	3.9	8
ATX03475-9Ru	4.9	7.2	0.0	100	100	2.0	4.0	4.2	4.0	0
AOTX96084-1Ru	4.2	8.2	0.0	100	100	2.0	4.0	4.1	4.0	0
ATX03475-7Ru	7.5	4.6	0.0	100	100	2.0	4.0	4.5	4.4	0
AOTX98152-3RU	5.1	6.8	0.0	100	100	2.0	4.3	4.5	4.2	0
ATX06026-1Ru	5.7	5.6	0.0	100	100	2.0	4.0	4.0	4.0	0
COTX07009-7Ru	5.8	5.8	0.0	100	100	2.0	4.0	4.0	4.0	0
COTX07179-2Ru	6.0	5.5	0.0	91	94	2.0	4.5	4.3	4.5	0
ATX06008-2Ru	3.8	8.3	0.0	100	100	2.0	4.5	4.2	4.6	0
AOTX96075-1RU	4.7	6.3	0.0	100	100	2.0	4.3	4.5	4.3	0
ATX84378-6Ru	3.0	10.0	0.0	100	100	2.0	3.8	3.5	3.8	0
ATX99194-3Ru	7.6	7.4	0.0	54	67	2.0	3.5	3.5	3.8	0

Dalhart
Table 6c. 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 Russet Selection Trial grown near Dalhart, Texas-2011.

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	
AOTX98202-1Ru	4.1	7.6	0.0	88	92	2.0	4.0	4.0	4.0	0
ATX06008-6Ru	5.6	5.1	0.0	100	100	2.0	3.5	4.0	3.5	0
Russet Norkotah S8	3.9	7.3	0.0	100	100	2.0	4.5	4.5	4.5	0
COTX07018-2Ru	3.5	8.0	0.0	100	100	2.0	4.5	4.5	4.5	0
COTX07354-1Ru	6.2	4.4	0.0	100	100	2.0	3.6	3.5	3.5	0
COTX07199-2Ru	4.1	6.6	0.0	97	100	2.0	3.3	3.9	3.6	3
AOTX96216-2RU	2.2	12.3	0.0	96	100	2.0	3.6	3.6	3.8	8
Russet Norkotah S3	4.7	5.3	0.0	100	100	2.0	4.5	4.5	4.5	0
COTX07024-1Ru	3.8	7.2	0.0	60	83	2.0	3.6	4.0	3.8	0
COTX07024-4Ru	3.3	6.0	0.0	92	100	2.0	4.5	4.5	4.5	0
AOTX96265-2Ru	2.0	9.8	0.0	92	100	2.0	4.2	4.1	4.2	0
TXNS410	4.7	8.1	0.0	33	46	2.0	2.6	3.4	3.4	20
Average	5.5	7.4	0.0	99	100	2.0	4.0	4.0	4.0	3
L.S.D. (.05)	1.5	1.4		15	11	ns	0.3	0.2	0.2	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 6d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 41 entries in the Texas Advanced Russet Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATX91137-1RU	1.0	3.5	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	3
Russet Norkotah	1.0	4.1	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	15	0	0	0
COTX07380-2Ru	1.0	4.1	3.8	4.0	3.8	5.0	5.0	5.0	5.0	5.0	45	0	0	0
AOTX95265-1Ru	1.0	4.4	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
ATX9202-3RU	1.0	3.5	4.0	2.5	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah296	1.0	4.1	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	5	0	0	3
Russet Norkotah112	1.0	4.1	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
COTX07206-1Ru	1.0	4.1	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Russet Norkotah278	1.0	4.1	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	15	0	0	0
Stampede Russet	1.0	3.6	3.6	4.0	3.7	5.0	5.0	5.0	5.0	5.0	3	0	0	0
Russet Norkotah223	1.0	4.1	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
AOTX95265-3Ru	1.0	4.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
COTX05095-2Ru/Y	2.5	4.0	3.5	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX99013-1Ru	1.0	4.1	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
ATX9332-12RU	1.0	4.1	3.8	3.6	4.0	5.0	5.0	5.0	5.0	5.0	8	0	0	0
COTX07009-8Ru	1.0	3.5	3.5	4.0	3.5	5.0	5.0	5.0	5.0	5.0	15	0	0	0
TXA549-1RU	1.0	3.5	3.8	3.8	3.8	5.0	5.0	5.0	5.0	5.0	13	0	0	0
ATX03475-10Ru	1.0	3.5	3.6	4.0	3.6	5.0	5.0	5.0	5.0	5.0	20	0	0	0
ATX03475-9Ru	1.0	3.5	3.8	4.0	3.8	5.0	5.0	5.0	5.0	5.0	5	0	0	5
AOTX96084-1Ru	1.0	4.1	3.8	3.9	3.8	5.0	5.0	5.0	5.0	5.0	3	0	0	0
ATX03475-7Ru	1.0	3.5	3.8	3.6	3.8	5.0	5.0	5.0	5.0	5.0	8	0	0	0
AOTX98152-3RU	1.0	3.5	3.8	4.0	4.0	5.0	5.0	5.0	5.0	5.0	10	0	0	8
ATX06026-1Ru	1.0	3.5	4.0	4.0	3.9	5.0	5.0	5.0	5.0	5.0	11	0	0	0
COTX07009-7Ru	1.0	3.5	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
COTX07179-2Ru	1.0	3.5	3.8	3.5	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX06008-2Ru	1.0	3.5	3.8	3.7	3.8	2.0	5.0	5.0	5.0	5.0	15	0	0	0
AOTX96075-1RU	1.0	4.0	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX84378-6Ru	1.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	8	0	0	13
ATX99194-3Ru	1.0	3.5	3.8	4.0	3.8	5.0	5.0	5.0	5.0	5.0	20	0	0	15

Dalhart
Table 6d. cont. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 41 entries in the Texas Advanced Russet Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
AOTX98202-1Ru	1.0	3.6	3.8	4.0	3.8	5.0	5.0	5.0	5.0	5.0	3	5	0	0
ATTX06008-6Ru	1.0	3.5	3.8	4.0	3.8	5.0	5.0	5.0	5.0	5.0	8	0	0	0
Russet Norkotah S8	1.0	4.1	3.8	3.7	3.8	5.0	5.0	5.0	5.0	5.0	23	0	0	0
COTX07018-2Ru	1.0	3.5	2.5	3.8	2.5	5.0	5.0	5.0	5.0	5.0	20	0	0	0
COTX07354-1Ru	1.0	3.5	3.6	3.8	3.6	5.0	5.0	5.0	5.0	5.0	25	0	0	0
COTX07199-2Ru	1.0	3.5	2.5	3.8	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
AOTX96216-2RU	1.0	4.4	3.8	3.7	3.8	5.0	5.0	5.0	5.0	5.0	10	0	0	0
Russet Norkotah S3	1.0	4.0	3.8	3.8	4.0	5.0	5.0	5.0	5.0	5.0	3	0	0	0
COTX07024-1Ru	1.0	3.5	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX07024-4Ru	1.0	3.5	4.0	3.8	4.0	5.0	5.0	5.0	5.0	5.0	20	0	0	45
AOTX96265-2Ru	1.0	4.5	3.8	3.6	3.8	5.0	5.0	5.0	5.0	5.0	45	0	0	0
TXNS410	1.0	4.1	4.0	3.5	4.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
Average	1.0	3.8	3.8	3.8	3.8	4.9	5.0	5.0	5.0	5.0	9	0	0	1
L.S.D. (.05)	ns	0.1	0.1	0.1	0.1	0.1	ns	ns	ns	ns	20	ns	ns	5

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart Notes and general rating for all reps of 41 entries in the Texas Advanced Russet Selection Trial grown near Dalhart, Texas-2011.
Table 6e.

Variety or Selection	Notes Grading	General Rating Grading
ATX91137-1RU		3.6, 4.5, 3.6, 3.5
Russet Norkotah		4, 3, 3.5, 2.3
COTX07380-2Ru	pointed, hollow heart, drop++	2.8, 2.8, 3, 3
AOTX95265-1Ru	* in basket, oversized, yield+, BOT	3.7, 3.9, 4, 4
ATX9202-3RU	deep eyes,	3.5, 3, 2.7, 3
Russet Norkotah296	skinny	3.3, 4, 3.7, 3
Russet Norkotah112	heavy set	3.3, 3.2, 3.5, 3.4
COTX07206-1Ru	nice white flesh	3, 2.5, 2.7, 2.7
Russet Norkotah278	heavy yield, oversized, skinny	3.3, 3.5, 3.2, 3.4
Stampede Russet	20ZC?, nice, * in basket	3.8, 3.7, 3.7, 3.8
Russet Norkotah223	pointed	3, 3.2, 3, 2.8
AOTX95265-3Ru	oversized, pointed	3, 3.7, 3.5, 3.3
COTX05095-2Ru/Y	heavy set+, yield parent, yellow flesh, keep	3.4, 3.5, 3, 3
ATX99013-1Ru	oversized, keep	3.8, 3.8, 3.8, 3.8
ATX9332-12RU	oversized, nice flesh	3.2, 3, 3.5, 2.7
COTX07009-8Ru		3.4, 3.4, 3.4, 3.3
TXA549-1RU	blocky, keep, * in basket, , nice, BOT+	4.5, 3.5, 4, 4.2
ATTX03475-10Ru	nice, keep, BOT-, * in basket	4, 4.5, 3.5, 3.5
ATTX03475-9Ru	rough, blocky, alligator skin, drop	2.3, 2.5, 2, 2.5
AOTX96084-1Ru	light set, oversized, pointed	3.7, 3.5, 3.6, 3.5
ATTX03475-7Ru	very nice, slightly pointed, blocky, small, heavy set	4.5, 3.4, 3.5, 3.2
AOTX98152-3RU	blocky+, nice	3.5, 4, 3.5, 4
ATTX06026-1Ru	heavy set	3, 3.3, 2.9, 2.3
COTX07009-7Ru	light set	2.8, 2.8, 2.8, 2.8
COTX07179-2Ru		3.7, 3.3, 3, 3.3
ATTX06008-2Ru	ugly, growth cracks, drop	2.5, 2.5, 2.5, 2.5
AOTX96075-1RU	drop?	2.5, 2.5, 2.5, 2.5
ATX84378-6Ru	BOT, some pointed	4, 3.7, 3.8, 4
ATX99194-3Ru	alligator skin, poor internals, blocky, nice shape, poor skin finish, , poor internals	3.5, 3.7, 3.5, 3.7

Dalhart Notes and general rating for all reps of 41 entries in the Texas Advanced Russet Selection Trial grown near Dalhart, Texas-2011.
 Table 6e. cont

Variety or Selection	Notes Grading	General Rating Grading
AOTX98202-1Ru	pointed, knobs, drop?	3.5, 3.4, 3, 2.8
ATTX06008-6Ru	drop++	2.3, 2.3, 2.3, 2.3
Russet Norkotah S8	small, long skinny, drop+	2.5, 2, 2.5, 2
COTX07018-2Ru	keep, ugly net, light russet skin	3.8, 3.8, 3.3, 3.3
COTX07354-1Ru	poor internals, * in basket, , blocky	2.8, 2.8, 3.4, 3.4
COTX07199-2Ru	ugly net+, light russet skin	3.5, 3.2, 3.2, 3.4
AOTX96216-2RU	oversized, hollow heart, * in basket, light set	3.6, 3.6, 3.4, 3.4
Russet Norkotah S3	small, drop	2.5, 2.5, 2, 2
COTX07024-1Ru	low yield, poor internals, drop, 50% mahogany browning	3.2, 3.2, 3, 3
COTX07024-4Ru		3.5, 3.5, 3, 3
AOTX96265-2Ru	nice, * in basket, light set, some pointed, hollow heart+	4, 4, 3.5, 3.5
TXNS410	hollow heart, light set, low yield	2.5, 3, 2.5, 2.5

2010 Russet Selections Trial, Dalhart

The trial consisted of 122 entries of which 32 (AOTX061009-2Ru, AOTX06562-1Ru, AOTX06562-2Ru, AOTX07729-1Ru, AOTX07755-1Ru, AOTX07876-1Ru, AOTX07919-1Ru, AOTX07920-5Ru, AOTX08070-1W, AOTX08084-1Ru, COTX08013-3Ru, COTX08014-2Ru, COTX08063-2Ru, COTX08080-7Ru, COTX08117-1Ru, COTX08118-2Ru, COTX08121-1Ru, COTX08121-3Ru, COTX08121-4Ru, COTX08122-1Ru, COTX08214-2Ru, COTX08322-10Ru, COTX08322-11Ru, COTX08322-2Ru, COTX08322-3Ru, COTX08322-4Ru, COTX08322-5Ru, COTX08322-7Ru, COTX08322-8Ru, COTX08323-3Ru, TX08350-3Ru, and TX08350-12Ru) will be advanced in 2012 (Table 7).

Variety or Selection	Trial	Notes	Inventory Weight
AOTX061009-2Ru	10SEL	3.7	3.5
AOTX06562-1Ru	10SEL	3.8	16.7
AOTX06562-2Ru	10SEL	3.7	17.5
AOTX07729-1Ru	10SEL	3.8	4.4
AOTX07755-1Ru	10SEL	3.5	7.9
AOTX07876-1Ru	10SEL	3.6	18.2
AOTX07919-1Ru	10SEL	3.5	5.7
AOTX07920-5Ru	10SEL	3.7	18.5
AOTX08070-2W	10SEL	3.7	11
AOTX08084-1Ru	10SEL	3.6	2.2
COTX08013-3Ru	10SEL	3.5	17.1
COTX08014-2Ru	10SEL	3.9TC	8.3
COTX08063-2Ru	10SEL	3.9TC	14.7
COTX08080-7Ru	10SEL	3.6	20.3
COTX08117-1Ru	10SEL	3.8	25.4
COTX08118-2Ru	10SEL	3.8	17.9
COTX08121-1Ru	10SEL	4.5TC	19.4
COTX08121-3Ru	10SEL	3.9	24.4
COTX08121-4Ru	10SEL	4.5TC	18.1
COTX08122-1Ru	10SEL	3.8	8.9
COTX08214-2Ru	10SEL	3.5	8.6
COTX08322-10Ru	10SEL	3.8	9.5
COTX08322-11Ru	10SEL	3.6	10.9
COTX08322-2Ru	10SEL	3.8	1.3
COTX08322-3Ru	10SEL	3.5	6.1
COTX08322-4Ru	10SEL	3.6	1.5
COTX08322-5Ru	10SEL	4	1.5
COTX08322-7Ru	10SEL	3.8	3.1
COTX08322-8Ru	10SEL	3.5	13.4
COTX08323-3Ru	10SEL	3.7	11.2
TX08350-3Ru	10SEL	3.7TC 2010	8
TX08350-12Ru	10SEL	3.9TC 2010	23.3

Texas Advanced Red Selection Trial, Dalhart

This trial consisted of 25 entries and the check varieties Red LaSoda, Rio Rojo, Chieftain, and Dark Red Norland

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

- ATTX98453-6R, NDTX731-1R, BTX2332-1R, and ATTX06246-1R were the outstanding entries based on general rating and best of trial designation, while ATTX01178-1R and COTX07054-2R also had a best of trial designation. ATTX98453-11BR, COTX94218-1R, COTX94216-1R, NDTX050070-1R, NDTX5003-2R, NDTX4271-5R, and NDTX4784-7R had high general rating (Tables 8a, and 8e).
- ATTX98453-6R had the highest total and marketable yield (Table 8a).
- NDTX731-1R had the highest yield of over 4-6 oz. tubers (Table 8a).
- NDTX050070-1R had the highest yield of <4 oz. tubers, while ATTX88481-1P/W had the highest yield of culls/No. 2 tubers (Table 8a).
- ATTX98453-11BR had the highest percentage marketable yield (Table 8b).
- BTX2332-1R had the highest percentage of over 4-6 oz. tubers. (Table 8b).
- ATTX06246-1R had the highest percentage of <4 oz. tubers, while ATX07144-1R had the highest percentage of culls/No. 2 tubers (Table 8b).
- ATTX98453-6R had the highest specific gravity (Table 8b)
- COTX94218-1R, Red LaSoda, and AOTX91861-4R were the latest maturing, while Dark Red Norland, ATTX88481-1P/W, and ATX07144-1R were the earliest maturing (Table 8c).
- ATTX01178-1R, ATTX88481-1P/W, ATX07144-1R, and ATX03550-2R had the poorest rating for feathering. Chieftain had the highest percentage of internal brownspot (Table 8d).

Comments on entries:

- | | | |
|--------------------|------------|--|
| • ATTX98453-6R | Oblong Red | BOT some feathering, BOT- in basket, bad rep, shallow eyes, smooth |
| • ATTX98453-11BR | Oblong Red | nice+ |
| • NDTX731-1R | Round Red | BOT, poor skin finish, bad rep |
| • Dark Red Norland | Oblong Red | 10% ZC? |
| • COTX94218-1R | Round Red | did not oversize, shallow eyes |

- COTX94216-1R Round Red poor skin finish++, buff, drop for skin finish
- NDTX050070-1R Round Red b size, heavy set, small potato
- Chieftain Oblong Red feathering, light set
- ATTX01178-1R Round Red feathering, nice keep, BOT in basket
- ATTX88481-1P/W Long Red feathering, rough
- BTX2332-1R Round Red b size, feathering, BOT- in basket, smooth
- NDTX5003-2R Round Red light set, drop
- COTX07054-2R Oblong Red BOT in basket
- ATX03516-2R Oblong Red light set, drop?
- Red LaSoda Oblong Red deep eyes, growth cracks, drop
- ATTX06246-1R Round Red small potato+, very dark skin, BOT in basket, good flesh color
- NDTX5438-11R Oblong Red feathering, light set
- AOTX91861-4R Oblong Red feathering, black heart, nice flesh, drop
- NDTX4271-5R Round Red light set+, smooth growth cracks
- NDTX4784-7R Round Red silver scurf, nice appearance, nice, light set
- Rio Rojo Oblong Red mixed, light set, rot
- ATX07144-1R Round Red poor shape, drop
- ATX03550-2R Oblong Red feathering, ugly, light set

Summary:

ATTX98453-6R, ATTX98453-11BR, NDTX731-1R, COTX94218-1R, COTX94216-1R, and NDTX050070-1R were the outstanding entries for this trial based on all factors. ATTX01178-1R BTX2332-1R COTX07054-2R ATTX06246-1R received best of trial designation for appearance.

Dalhart
Table 8a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 23 entries in the Texas
Advanced Red Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
ATTX98453-6R	589.7	463.0	75.1	134.8	253.1	42.3	79.7	4.8	3.9
ATTX98453-11BR	499.9	411.5	69.3	122.0	220.3	15.3	65.5	7.5	3.9
NDTX731-1R	467.3	352.6	165.5	109.5	77.6	0.0	97.1	17.6	3.8
Dk Red Norland	466.7	299.7	91.3	110.4	98.1	19.1	126.3	21.6	3.4
COTX94218-1R	419.0	252.0	157.9	67.4	26.8	0.0	154.5	12.4	3.9
COTX94216-1R	400.5	254.5	132.1	91.3	31.1	0.0	121.1	24.9	3.7
NDTX050070-1R	385.4	162.0	90.0	61.6	10.4	0.0	219.9	3.5	3.9
Chieftain	381.7	267.6	95.8	114.1	57.7	0.0	80.9	33.2	3.3
ATTX01178-1R	369.2	290.4	73.8	97.1	119.5	18.0	45.2	15.6	3.3
ATTX88481-1P/W	364.2	249.5	70.5	95.8	83.2	10.4	25.9	78.4	3.4
BTX2332-1R	349.3	225.3	130.7	71.8	22.8	0.0	122.2	1.9	3.8
NDTX5003-2R	342.0	229.4	99.2	67.2	63.1	5.2	106.6	0.8	3.6
COTX07054-2R	329.8	214.5	85.9	79.2	49.4	0.0	101.2	14.1	3.4
ATX03516-2R	314.5	221.9	67.2	74.1	80.7	22.4	47.5	22.6	3.2
Red LaSoda	288.5	151.4	55.8	63.5	32.2	0.0	99.4	37.8	3.1
ATTX06246-1R	258.0	45.4	27.4	14.7	3.3	0.0	209.7	2.9	3.9
NDTX5438-11R	251.4	171.3	55.6	58.9	56.8	0.0	59.9	20.1	3.0
AOTX91861-4R	237.9	153.1	83.0	40.7	29.5	0.0	79.9	5.0	3.4
NDTX4271-5R	235.6	165.7	58.3	46.0	61.4	0.0	51.6	18.3	3.6
NDTX4784-7R	217.4	162.6	35.7	71.8	55.2	0.0	41.1	13.7	3.8
Rio Rojo	204.7	158.1	63.5	53.5	41.1	0.0	41.9	4.8	3.4
ATX07144-1R	197.5	107.0	19.9	64.7	22.4	0.0	43.1	47.3	2.8
ATX03550-2R	172.2	140.0	30.1	47.9	62.0	0.0	19.1	13.1	3.2
Average	336.6	223.9	79.7	76.4	67.7	5.8	88.7	18.3	3.5
L.S.D. (.05)	79.2	68.9	34.8	46.0	44.4	17.0	33.4	16.0	0.5

¹ 1=very poor to 5= excellent

Dalhart
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 23 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
ATTX98453-6R	78.0	12.5	21.8	43.7	8.0	13.1	0.8	1.068	14.6	Oblong	Red
ATTX98453-11BR	82.1	13.9	24.4	43.9	3.1	13.3	1.5	1.059	13.1	Oblong	Red
NDTX731-1R	75.4	34.7	23.8	16.9	0.0	20.7	3.9	1.052	11.8	Round	Red
Dk Red Norland	64.1	19.5	23.6	21.0	4.1	27.1	4.6	1.054	12.1	Oblong	Red
COTX94218-1R	61.0	37.5	16.5	6.9	0.0	36.2	2.8	1.058	12.9	Round	Red
COTX94216-1R	62.3	33.2	22.4	6.6	0.0	31.8	5.9	1.059	13.1	Round	Red
NDTX050070-1R	42.0	23.6	15.5	2.9	0.0	57.1	0.8	1.058	12.9	Round	Red
Chieftain	70.4	25.3	29.7	15.4	0.0	21.1	8.5	1.056	12.4	Oblong	Red
ATTX01178-1R	77.7	21.1	26.2	30.4	4.4	13.3	4.6	1.062	13.5	Round	Red
ATTX88481-1P/W	68.1	19.2	26.2	22.7	2.9	7.1	21.9	1.059	13.0	Long	Red
BTX2332-1R	63.9	38.1	19.1	6.6	0.0	35.6	0.6	1.054	12.1	Round	Red
NDTX5003-2R	66.6	29.1	19.6	17.9	1.4	31.8	0.3	1.059	13.0	Round	Red
COTX07054-2R	64.8	26.8	22.5	15.5	0.0	31.2	4.0	1.064	13.9	Oblong	Red
ATX03516-2R	71.5	21.7	23.9	25.9	6.3	14.8	7.4	1.049	11.2	Oblong	Red
Red LaSoda	53.1	18.9	23.4	10.8	0.0	34.3	12.6	1.050	11.5	Oblong	Red
ATTX06246-1R	17.7	10.7	5.7	1.3	0.0	81.2	1.1	1.052	11.7	Round	Red
NDTX5438-11R	68.3	21.4	23.9	23.0	0.0	24.0	7.7	1.055	12.4	Oblong	Red
AOTX91861-4R	63.8	35.9	16.6	11.3	0.0	34.3	1.9	1.053	12.0	Oblong	Red
NDTX4271-5R	71.4	23.3	21.4	26.7	0.0	21.0	7.6	1.053	11.9	Round	Red
NDTX4784-7R	74.9	17.3	31.8	25.9	0.0	19.4	5.7	1.054	12.2	Round	Red
Rio Rojo	78.9	30.4	26.1	22.3	0.0	18.7	2.4	1.052	11.8	Oblong	Red
ATX07144-1R	54.2	10.1	32.8	11.3	0.0	21.8	23.9	1.058	12.9	Round	Red
ATX03550-2R	80.7	20.8	30.2	29.7	0.0	11.8	7.5	1.058	12.9	Oblong	Red
Average	65.7	23.7	22.9	19.1	1.3	27.0	6.0	1.056	12.6		
L.S.D. (.05)	9.5	9.9	11.7	12.9	3.8	8.4	4.5	0.004	0.7		

Dalhart
Table 8c.

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 23 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2011.

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	
ATTX98453-6R	5.8	7.7	78	92	2.1	4.0	3.7	3.9	5
ATTX98453-11BR	4.4	7.4	80	100	2.5	4.4	3.4	3.9	15
NDTX731-1R	8.7	5.1	52	75	2.1	3.9	3.6	3.9	9
Dk Red Norland	6.5	5.1	67	91	2.4	3.6	3.3	3.5	15
COTX94218-1R	8.8	3.5	68	89	1.5	4.6	4.5	4.5	0
COTX94216-1R	6.6	4.1	74	94	2.0	4.3	4.3	4.3	0
NDTX050070-1R	8.7	2.9	96	100	2.3	4.3	4.1	4.0	4
Chieftain	7.3	5.4	53	67	2.0	3.5	3.8	3.5	0
ATTX01178-1R	4.9	5.9	63	83	2.1	4.3	4.3	4.0	0
ATTX88481-1P/W	5.3	6.7	49	67	2.0	3.3	3.3	3.6	12
BTX2332-1R	5.6	4.0	90	100	1.6	4.5	4.5	4.4	0
NDTX5003-2R	6.6	4.2	56	83	2.1	4.5	4.2	4.2	4
COTX07054-2R	5.3	4.4	73	92	2.0	4.3	4.3	4.3	0
ATX03516-2R	6.0	6.2	42	61	1.8	3.6	4.0	3.8	0
Red LaSoda	4.8	3.9	93	100	2.0	4.7	4.8	4.7	0
ATTX06246-1R	8.1	2.1	87	100	1.8	4.5	4.4	4.4	0
NDTX5438-11R	5.5	5.1	23	61	2.0	3.5	3.6	3.6	8
AOTX91861-4R	4.0	4.1	81	94	2.1	4.6	4.5	4.4	0
NDTX4271-5R	5.3	4.9	41	67	2.0	3.5	3.7	3.6	9
NDTX4784-7R	4.3	5.5	22	58	1.8	3.5	3.4	3.9	5
Rio Rojo	5.3	4.5	33	58	2.0	2.9	3.6	3.4	4
ATX07144-1R	3.3	4.6	63	83	1.5	4.0	3.2	4.0	0
ATX03550-2R	3.2	6.8	30	50	2.0	3.2	3.5	3.5	10
Average	5.8	5.0	61	81	2.0	4.0	3.9	4.0	4
L.S.D. (.05)	7.2	0.9	22	17	0.3	0.5	0.4	0.3	6

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 8d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 23 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATTX98453-6R	1.0	3.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.0	0	0	0	0
ATTX98453-11BR	1.0	3.5	1.0	3.5	4.0	5.0	5.0	5.0	5.0	4.5	0	0	0	0
NDTX731-1R	1.0	2.0	1.0	3.5	4.5	5.0	5.0	5.0	5.0	4.0	3	0	0	0
Dk Red Norland	1.0	3.5	1.0	3.5	3.5	4.5	5.0	5.0	5.0	4.4	0	0	0	0
COTX94218-1R	1.0	2.4	1.0	4.0	3.8	5.0	5.0	5.0	5.0	3.0	0	0	0	0
COTX94216-1R	1.0	2.0	1.0	4.0	3.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX050070-1R	1.0	2.0	1.0	4.0	4.3	5.0	5.0	5.0	5.0	4.4	0	0	0	0
Chieftain	1.0	3.5	1.0	4.0	3.0	5.0	5.0	5.0	5.0	3.0	0	0	0	15
ATTX01178-1R	1.0	2.5	1.0	4.0	3.8	5.0	5.0	5.0	5.0	2.5	3	0	0	0
ATTX88481-1P/W	1.0	4.0	1.0	4.0	4.2	4.5	5.0	5.0	5.0	2.5	10	0	0	0
BTX2332-1R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	3.0	0	0	0	0
NDTX5003-2R	1.0	2.0	1.0	3.8	2.9	5.0	5.0	5.0	5.0	4.0	3	0	0	0
COTX07054-2R	1.0	3.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	3.3	5	0	5	0
ATX03516-2R	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	2.9	0	0	0	0
Red LaSoda	1.0	3.5	1.0	2.0	4.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
ATTX06246-1R	1.0	2.0	1.0	4.0	4.5	5.0	5.0	5.0	5.0	4.5	0	0	0	0
NDTX5438-11R	1.0	3.5	1.0	3.5	3.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
AOTX91861-4R	1.0	3.4	1.0	3.8	3.5	5.0	5.0	5.0	5.0	2.9	8	0	0	0
NDTX4271-5R	1.0	2.0	1.0	4.0	4.0	3.0	5.0	5.0	5.0	4.0	0	0	0	0
NDTX4784-7R	1.0	2.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
Rio Rojo	1.0	3.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.0	0	0	0	0
ATX07144-1R	1.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	2.5	0	0	0	0
ATX03550-2R	1.0	3.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	2.5	5	0	0	5
Average	1.0	2.8	1.0	3.8	3.8	4.9	5.0	5.0	5.0	3.6	2	0	0	1
L.S.D. (.05)	ns	0.1	ns	0.1	0.2	0.3	ns	ns	ns	0.2	6	ns	2	5

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 8e.

Notes and general rating for all reps of 23 entries in the Texas Advanced Red Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
ATTX98453-6R	some feathering, BOT- in basket, bad rep, shallow eyes, smooth, BOT	3.9, 3.9, 3.9, 3.9
ATTX98453-11BR	nice+	4, 3.8, 4, 3.8
NDTX731-1R	BOT, poor skin finish, bad rep	4.5, 3.8, 4, 3
Dk Red Norland	10% ZC?	3, 4, 3.4, 3.2
COTX94218-1R	did not oversize, shallow eyes	3.8, 3.9, 3.8, 3.9
COTX94216-1R	poor skin finish++, buff, drop for skin finish	3.8, 3.4, 3.7, 3.7
NDTX050070-1R	b size, heavy set, small potato	4, 3.8, 3.9, 4
Chieftain	feathering, light set	3.6, 3.2, 3.2, 3.3
ATTX01178-1R	feathering, nice keep, BOT in basket	3.8, 3.6, 2, 3.8
ATTX88481-1P/W	feathering, rough	3.8, 3.2, 3.3, 3.4
BTX2332-1R	b size, feathering, BOT- in basket, smooth	3.8, 3.8, 3.5, 3.9
NDTX5003-2R	light set, drop	3.7, 3.7, 3.7, 3.2
COTX07054-2R	BOT in basket	3.9, 2.8, 3.9, 2.8
ATX03516-2R	light set, drop?	2.8, 3.5, 3.5, 3
Red LaSoda	deep eyes, growth cracks, drop	3.5, 3, 3.2, 2.8
ATTX06246-1R	small potato+, very dark skin, BOT in basket, good flesh color, nice flesh	3.9, 3.9, 4, 3.9
NDTX5438-11R	feathering, light set	3, 2.5, 3.5, 3
AOTX91861-4R	feathering, black heart, nice flesh, drop	3.8, 3.2, 3.4, 3.2
NDTX4271-5R	light set+, smooth growth cracks	3.9, 3.7, 3.2, 3.7
NDTX4784-7R	silver scurf, nice appearance, nice, light set	3.8, 3.8, 3.8, 3.8
Rio Rojo	mixed, light set, rot	4, 3, 3, 3.5
ATX07144-1R	poor shape, drop	2.8, 2.8, 2.8, 2.8
ATX03550-2R	feathering, ugly, light set	3.3, 3.3, 3, 3.2

2010 Red Selections Trial, Dalhart

The trial consisted of 35 entries of which one (NDTX081572B-1R) will be advanced in 2012 (Table 9).

Dalhart
Table 9

Inventory weight of 1 entry to be Advanced from the 2010 Red
Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Trial	Inventory Weight
NDTX081572B-1R	10SEL	18

*****Texas Advanced Red/Yellow Selection Trial

This trial consisted of 15 entries.

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

- NDTX050184-1R/Y, ATTX961014-1BR/Y, ATTX961014-1R/Y, and COTX04193-2R/Y were the outstanding entries for this trial based on general rating and best of trial designations. Other entries receiving high general ratings were COTX04267-1R/Y and ATTX98510-1R/Y (Table 10a, 10e).
- COTX01403-4R/Y had the highest total and marketable yield (Table 10a)
- ATTX98510-1R/Y had the highest yield of over 4-6 oz. tubers, while NDTX050184-1R/Y had the highest yield of <4 oz. tubers (Table 10a).
- BTX2103-1R/Y had the highest yield of culls/No. 2 tubers (Table 10a).
- ATTX961014-1BR/Y had the highest percentage of marketable yield (Table 10b).
- ATTX98510-1R/Y had the highest percentage over 4-6 oz. tubers (Table 10b).
- COTX06245-3R/Y had the highest percentage of <4 oz. tubers, while ATX05175-3R/Y had the highest percentage of culls/No. 2 tubers (Table 10b).
- COTX04188-3R/Y had the highest specific gravity (Table 10b).
- COTX01403-4R/Y and COTX04267-1R/Y were the earliest maturing entries. All of the other entries were late in maturity (Table 10c).
- COTX04267-1R/Y, COTX04193-2R/Y, and ATTX01180-1R/Y had the darkest yellow flesh color (Table 10d).
- COTX01403-4R/Y COTX04188-3R/Y ATTX01180-1R/Y and COTX07154-1R/Y had the poorest ratings for feathering (Table 10d).

Comments on entries:

- COTX01403-4R/Y Oblong Red oversized++, knobs, poor skin finish, poor internals, vascular brownspot, ugly, large tuber, rough, poor shape
FC = 3.0
- NDTX050184-1R/Y Round Red BOT+, nice skin, heavy set, b size, light flesh, feathering, keep, small potato FC=2.5
- ATTX961014-1BR/Y Oblong Red BOT, smooth, nice FC= 2.5

- COTX04267-1R/Y Round Red light skin, very nice flesh, heavy set, growth cracks, rough, ZC? FC=4.4
- ATTX961014-1R/Y Oblong Red BOT++, smooth, very nice FC=2.5
- ATTX98510-1R/Y Oblong Red deep eyes, 10% ZC?, very heavy set, high yield, stem attachment, rough FC=2.7
- BTX2103-1R/Y Oblong Red heavy set, some pointed, poor shape, keep, rough FC=3.5
- COTX04193-2R/Y Round Red BOT, silver scurf, small potato, nice dark flesh, very heavy set+, b size FC=4.5
- ATTX03516-2R/Y Oblong Red drop++++ FC= 2.5
- ATX05175-3R/Y Oblong Red poor shape, small, drop++, low yield, bad rep FC= 3.4
- COTX04188-3R/Y Round Red feathering, 20% ZC?, drop++, 10% ZC? FC=3.5
- ATX03515-1R/Y Oblong Red ugly, drop+++ FC=2.5
- COTX06245-3R/Y Round Red all b size, very light flesh, drop++ FC=2.0
- ATTX01180-1R/Y Oblong Red feathering, nice flesh, mixed, bad rep, low yield FC=3.8
- COTX07154-1R/Y Round Red feathering FC=2.0

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

Summary:

NDTX050184-1R/Y, ATTX961014-1BR/Y, ATTX961014-1R/Y, and COTX04193-2R/Y were the outstanding entries for this trial based on all factors.

Dalhart
Table 10a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 15 entries in the Texas
Advanced Red/Yellow Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
COTX01403-4R/Y	603.2	438.5	103.3	83.8	251.4	71.4	66.4	27.0	3.5
NDTX050184-1R/Y	577.3	134.2	85.0	41.9	7.3	0.0	435.8	7.3	4.7
ATTX961014-1BR/Y	569.4	430.4	124.9	159.7	145.8	12.4	97.7	28.8	4.1
COTX04267-1R/Y	551.1	202.2	83.0	93.1	26.1	0.0	329.4	19.5	3.6
ATTX961014-1R/Y	529.4	385.6	84.4	150.4	150.8	4.8	106.0	33.0	4.4
ATTX98510-1R/Y	528.3	290.4	141.5	97.9	51.0	0.0	220.7	17.2	3.8
BTX2103-1R/Y	476.5	218.6	117.8	70.5	30.3	2.5	221.1	34.2	3.0
COTX04193-2R/Y	403.9	90.9	62.9	28.0	0.0	0.0	306.4	6.6	4.0
ATTX03516-2R/Y	268.8	171.8	69.7	102.1	0.0	0.0	97.1	0.0	2.0
ATX05175-3R/Y	201.8	36.5	9.1	15.8	11.6	0.0	132.8	32.6	1.3
COTX04188-3R/Y	178.4	45.8	31.1	14.7	0.0	0.0	106.0	26.6	2.8
ATX03515-1R/Y	160.5	75.5	8.3	35.3	31.9	2.3	60.2	22.6	2.0
COTX06245-3R/Y	131.1	17.4	17.4	0.0	0.0	0.0	108.7	5.0	3.0
ATTX01180-1R/Y	101.6	69.3	22.4	14.5	32.4	5.4	15.3	11.6	3.0
COTX07154-1R/Y	99.6	58.5	26.1	27.4	5.0	0.0	38.6	2.5	2.5
Average	358.7	177.7	65.8	62.3	49.6	6.6	156.1	18.3	3.2
L.S.D. (.05)	105.2	58.9	33.2	40.0	53.0	32.9	57.9	24.7	0.3

¹ 1=very poor to 5= excellent

Dalhart
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 15 entries in the Texas Advanced Red/Yellow Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
COTX01403-4R/Y	74.3	19.2	14.6	40.4	9.6	12.4	3.7	1.054	12.2	Oblong	Red
NDTX050184-1R/Y	22.3	14.4	6.8	1.2	0.0	76.5	1.2	1.057	12.7	Round	Red
ATTX961014-1BR/Y	75.4	21.9	28.8	24.7	1.8	17.5	5.3	1.065	14.1	Oblong	Red
COTX04267-1R/Y	36.5	14.9	16.6	5.0	0.0	60.1	3.4	1.058	12.9	Round	Red
ATTX961014-1R/Y	73.4	16.1	28.1	29.1	0.8	19.6	6.2	1.065	14.2	Oblong	Red
ATTX98510-1R/Y	55.8	27.4	18.8	9.6	0.0	41.3	2.9	1.056	12.5	Oblong	Red
BTX2103-1R/Y	46.1	24.9	14.5	6.7	0.5	46.3	7.0	1.056	12.5	Oblong	Red
COTX04193-2R/Y	22.4	15.8	6.6	0.0	0.0	76.0	1.6	1.058	12.9	Round	Red
ATTX03516-2R/Y	63.9	25.9	38.0	0.0	0.0	36.1	0.0	1.058	12.9	Oblong	Red
ATX05175-3R/Y	20.1	3.3	8.4	8.4	0.0	61.7	18.2	1.061	13.4	Oblong	Red
COTX04188-3R/Y	25.4	17.0	8.3	0.0	0.0	59.1	15.5	1.074	15.8	Round	Red
ATX03515-1R/Y	49.0	5.8	22.6	20.6	1.3	36.5	13.2	1.058	12.9	Oblong	Red
COTX06245-3R/Y	13.3	13.3	0.0	0.0	0.0	82.9	3.8	1.049	11.3	Round	Red
ATTX01180-1R/Y	69.6	21.3	13.1	35.2	4.1	14.8	11.5	1.062	13.6	Oblong	Red
COTX07154-1R/Y	58.5	26.1	26.0	6.4	0.0	38.3	3.2	1.053	12.0	Round	Red
Average	47.1	17.8	16.8	12.5	1.2	45.3	6.5	1.059	13.0		
L.S.D. (.05)	10.1	7.3	8.1	8.4	4.4	9.9	7.0	0.004	0.8		

Dalhart
Table 10c.

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 15 entries in the Texas Advanced Red/Yellow Trial grown near Dalhart, Texas-2011.

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	
COTX01403-4R/Y	7.1	6.4	74	88	1.8	3.9	3.5	4.1	5
NDTX050184-1R/Y	13.2	2.8	100	100	1.8	4.5	4.6	4.3	0
ATTX961014-1BR/Y	6.7	5.5	100	100	1.8	4.3	4.3	4.5	0
COTX04267-1R/Y	11.2	3.2	100	100	2.3	3.8	3.6	4.0	3
ATTX961014-1R/Y	6.2	5.6	100	100	2.0	4.5	4.5	4.5	0
ATTX98510-1R/Y	9.7	3.5	100	100	1.8	4.5	4.6	4.6	0
BTX2103-1R/Y	9.2	3.6	92	96	2.0	4.4	4.4	4.3	0
COTX04193-2R/Y	10.4	2.5	97	100	2.0	4.1	3.9	4.2	8
ATTX03516-2R/Y	4.4	3.9	40	100	2.0	2.5	4.0	3.0	0
ATX05175-3R/Y	8.2	2.8	34	63	1.8	3.8	4.3	3.9	0
COTX04188-3R/Y	6.4	3.1	40	62	1.8	3.2	4.3	4.1	0
ATX03515-1R/Y	5.6	4.6	19	42	1.8	2.6	4.0	3.7	0
COTX06245-3R/Y	6.1	2.1	37	67	2.5	3.5	4.5	3.8	0
ATTX01180-1R/Y	5.6	5.8	12	25	2.0	2.3	4.0	3.5	0
COTX07154-1R/Y	8.0	3.4	10	25	2.0	1.8	4.0	3.0	0
Average	7.9	3.9	64	78	1.9	3.6	4.1	4.0	1
L.S.D. (.05)	3.8	0.7	17	16	0.3	0.5	0.4	0.4	5

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 10d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 15 entries in the Texas Advanced Red/Yellow Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX01403-4R/Y	3.0	3.8	1.0	4.0	3.6	5.0	5.0	5.0	5.0	2.5	0	0	13	3
NDTX050184-1R/Y	2.5	2.5	1.0	4.0	3.6	5.0	5.0	5.0	5.0	3.0	0	0	0	0
ATTX961014-1BR/Y	2.5	3.6	1.0	4.0	3.3	5.0	5.0	5.0	5.0	4.0	0	0	0	0
COTX04267-1R/Y	4.4	2.0	1.0	3.9	3.0	3.0	5.0	5.0	5.0	4.0	0	0	0	5
ATTX961014-1R/Y	2.5	3.5	1.0	4.0	3.3	5.0	5.0	5.0	5.0	4.0	0	0	0	3
ATTX98510-1R/Y	2.7	3.5	1.0	2.5	3.5	5.0	5.0	5.0	5.0	4.0	3	0	5	0
BTX2103-1R/Y	3.5	3.0	1.0	4.0	3.6	5.0	5.0	5.0	5.0	4.0	0	0	0	0
COTX04193-2R/Y	4.5	2.0	1.0	3.8	4.0	5.0	5.0	5.0	5.0	4.0	0	0	0	0
ATTX03516-2R/Y	2.5	3.5	1.0	4.0	3.3	5.0	5.0	5.0	5.0	4.0	0	0	0	0
ATX05175-3R/Y	3.4	3.0	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.0	8	0	0	0
COTX04188-3R/Y	3.5	2.5	1.0	4.0	3.6	5.0	5.0	5.0	5.0	2.5	3	0	0	3
ATX03515-1R/Y	2.5	3.5	1.0	4.0	3.0	5.0	5.0	5.0	5.0	4.0	0	0	0	3
COTX06245-3R/Y	2.0	2.0	1.0	4.0	3.5	5.0	5.0	5.0	5.0	4.0	0	0	0	0
ATTX01180-1R/Y	3.8	3.5	1.0	3.8	4.0	5.0	5.0	5.0	5.0	2.5	0	0	0	0
COTX07154-1R/Y	2.0	1.5	1.0	4.0	4.0	5.0	5.0	5.0	5.0	2.0	0	0	0	0
Average	3.0	2.9	1.0	3.9	3.5	4.9	5.0	5.0	5.0	3.5	1	0	1	1
L.S.D. (.05)	0.2	0.1	ns	0.1	0.1	0.1	ns	ns	ns	0.1	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 10e.

Notes and general rating for all reps of 15 entries in the Texas Advanced Red/Yellow Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
COTX01403-4R/Y	oversized++, knobs, poor skin finish, poor internals, vascular brownspot, ugly, large tuber, rough, poor shape	3.6, 3.5, 3.5, 3.5
NDTX050184-1R/Y	nice skin, heavy set, b size, BOT+, light flesh, feathering, keep, small potato	4.5, 5, 4.8, 4.5
ATTX961014-1BR/Y	smooth, nice, BOT	4.3, 4, 4, 4
COTX04267-1R/Y	light skin, very nice flesh, heavy set, growth cracks, rough, ZC?	3.8, 4, 3.4, 3
ATTX961014-1R/Y	smooth, very nice, BOT++	4.5, 4.5, 4.5, 4
ATTX98510-1R/Y	deep eyes, 10ZC?, very heavy set, high yield, stem attachment, rough	3.4, 4, 3.8, 4
BTX2103-1R/Y	heavy set, some pointed, poor shape, keep, rough	3, 3.5, 3, 2.5
COTX04193-2R/Y	silver scurf, small potato, nice dark flesh, very heavy set+, b size, BOT	4, 3.8, 4, 4
ATTX03516-2R/Y	drop++++	2, 2, 2, 2
ATX05175-3R/Y	poor shape, small, drop++, low yield, bad rep	2, 1, 1, 1
COTX04188-3R/Y	feathering, 20%ZC?, drop++, 10%ZC?	2.8, 2.8, 2.8, 2.8
ATX03515-1R/Y	ugly, drop+++	2, 2, 2, 2
COTX06245-3R/Y	all b size, very light flesh, drop++	3, 3, 3, 3
ATTX01180-1R/Y	feathering, nice flesh, mixed, bad rep, low yield	3, 3, 3, 3
COTX07154-1R/Y	feathering	2.5, 2.5, 2.5, 2.5

*****Texas Advanced WhiteYellow Trial

This trial consisted of 20 entries, including Yukon Gold and Sierra Gold as check varieties.

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

- COTX07382-2W/Y, NDTX081451CB-1Y/Y, COTX07382-1W/Y, Sierra Gold, BTX1749-1W/Y, TX1674-1W/Y, and Yukon Gold were the outstanding entries for this trial based on general ratings (Tables 11a).
- COTX07382-2W/Y had the highest total yield, while COTX07382-1W/Y had the highest marketable yield (Table 11a).
- COTX07382-2W/Y had the highest yield of over 10 oz. tubers, while NDTX081451CB-1Y/Y had the highest yield of 4-6 oz., and <4 oz. tubers. COTX07382-2W/Y had the highest yield of culls/No. 2 tubers (Table 11a).
- NDTX059759-3Pinto/Y had the highest percentage of marketable yield (Table 11b).
- TXYG055 had the highest percent yield of over 10 oz. tubers. NDTX081451CB-1Y/Y had the highest percentage of 4-6 oz. and <4 oz. tubers, while TXYG079 had the highest percentage of culls/No. 2 tubers (Table 11b).
- COTX07382-2W/Y had the highest specific gravity (Table 11b).
- NDTX081451CB-1Y/Y, TX1674-1W/Y and NDTX059759-3Pinto/Y were the latest maturing, while BTX1544-2W/Y was the earliest (Table 11c).
- NDTX081451CB-1Y/Y, Sierra Gold, and BTX1749-1W/Y had the darkest yellow flesh (Table 11d).
- COTX07382-1W/Y had 20% hollow heart (Table 11d).

Comments on entries:

- | | | |
|---------------------|---------------|---|
| • COTX07382-2W/Y | Oblong White | oversized, rough, many culls, high biomass
FC=2.0 |
| • NDTX081451CB-1Y/Y | Oblong Yellow | heavy set and yield, nice flesh, few culls,
small, (bad rep, drop?) FC=3.0 |
| • COTX07382-1W/Y | Oblong White | few culls, poor internals, rough, oblong to
long, knobs FC=2.0 |

- TXYG055 Oblong White FC=2.5
- Sierra Gold Oblong Russet very nice FC=3.0
- TX1674-1W/Y Oblong White smooth, few misshaped, oblong to long
FC=2.8
- Yukon Gold Oblong White oversized, feathering FC=2.0
- BTX1749-1W/Y Oblong White slight russet skin FC=3.0
- TXYG098 Oblong White rough FC=2.6
- TXYG079 Oblong White FC=2.0
- ATTX06274-2W Oblong White bad rep, drop, smooth+ FC=2.4
- TXYG057 Oblong White rough, growth cracks FC=2.5
- BTX1544-2W/Y Oblong White low yield, light set, drop+ FC=2.5
- NDTX059759-3Pinto/Y Oblong Pinto light set FC=2.0

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

Summary:

COTX07382-2W/Y, NDTX081451CB-1Y/Y, COTX07382-1W/Y, Sierra Gold, BTX1749-1W/Y, TX1674-1W/Y, and Yukon Gold were the outstanding entries for this trial based on all factors.

Dalhart
Table 11a.

Total yield, total yield of U.S. No.1, under 4 ounce and culls/No.2 potatoes and general rating of 14 entries in the Texas
Advanced White/Yellow Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
COTX07382-2W/Y	751.7	453.4	66.8	137.3	249.3	8.7	49.0	240.6	3.9
NDTX081451CB-1Y/Y	700.1	454.7	250.6	139.4	64.7	0.0	201.2	44.2	3.7
COTX07382-1W/Y	592.8	492.4	81.1	196.0	215.3	11.6	32.2	56.6	3.6
TXYG055	515.3	336.4	38.6	104.1	193.7	31.1	19.1	128.6	3.0
Sierra Gold	481.0	364.9	75.9	129.4	159.5	16.6	65.5	34.0	4.0
TX1674-1W/Y	475.0	380.8	109.5	126.5	144.8	0.0	55.6	38.6	3.9
Yukon Gold	463.8	315.5	59.7	136.1	119.7	15.3	46.7	86.3	3.9
BTX1749-1W/Y	453.6	376.3	56.4	158.1	161.8	0.0	65.1	12.2	3.8
TXYG098	432.3	248.9	48.3	147.3	53.3	0.0	40.9	142.5	3.3
TXYG079	424.0	208.3	0.0	83.8	124.5	0.0	4.1	211.6	3.0
ATTX06274-2W	386.9	255.3	121.1	67.0	67.2	0.0	108.7	22.8	3.0
TXYG057	348.9	211.2	35.7	98.3	77.2	5.8	19.9	112.0	3.5
BTX1544-2W/Y	231.1	144.4	74.7	46.7	23.0	0.0	42.7	44.0	2.5
NDTX059759-3Pinto/Y	124.5	113.7	35.7	46.5	31.5	0.0	10.8	0.0	3.2
Average	455.8	311.2	75.3	115.5	120.4	6.4	54.4	83.9	3.4
L.S.D. (.05)	92.6	63.4	37.6	42.9	48.7	14.3	25.0	59.3	0.4

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 14 entries in the Texas Advanced White/Yellow Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
COTX07382-2W/Y	62.4	9.5	18.3	34.6	0.9	6.2	30.5	1.083	17.2	Oblong	White
NDTX081451CB-1Y/Y	64.7	35.2	19.9	9.5	0.0	29.4	6.0	1.077	16.2	Oblong	Yellow
COTX07382-1W/Y	83.7	14.9	33.0	35.7	1.9	5.8	8.6	1.081	17.0	Oblong	White
TXYG055	64.6	7.6	20.2	36.8	6.3	3.6	25.5	1.077	16.2	Oblong	White
Sierra Gold	76.0	16.0	27.0	33.0	3.3	13.7	7.0	1.075	15.9	Oblong	Russet
TX1674-1W/Y	79.9	23.3	26.2	30.5	0.0	11.9	8.2	1.078	16.4	Oblong	White
Yukon Gold	68.8	13.0	29.7	26.1	3.4	10.1	17.7	1.075	15.9	Oblong	White
BTX1749-1W/Y	83.4	12.8	34.2	36.4	0.0	14.0	2.7	1.081	17.0	Oblong	White
TXYG098	57.8	11.2	34.1	12.5	0.0	9.5	32.8	1.072	15.3	Oblong	White
TXYG079	49.1	0.0	19.8	29.4	0.0	1.0	49.9	1.077	16.2	Oblong	White
ATTX06274-2W	66.3	31.2	17.0	18.1	0.0	27.7	6.0	1.072	15.3	Oblong	White
TXYG057	60.6	10.1	28.3	22.2	1.6	5.8	32.0	1.074	15.7	Oblong	White
BTX1544-2W/Y	62.6	32.4	20.2	10.0	0.0	18.6	18.8	1.074	15.8	Oblong	White
NDTX059759-3Pinto/Y	91.3	28.7	37.3	25.3	0.0	8.7	0.0	1.071	15.3	Oblong	Pinto
Average	69.4	17.6	26.1	25.7	1.2	11.9	17.5	1.076	16.1		
L.S.D. (.05)	10.0	6.0	7.7	8.8	3.0	5.1	9.0	0.003	0.6		

Dalhart
Table 11c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 14 entries in the Texas Advanced White/Yellow Selection Trial grown near Dalhart, Texas-2011.

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	
COTX07382-2W/Y	5.6	8.6	100	100	2.0	3.9	3.6	3.6	5
NDTX081451CB-1Y/Y	11.0	4.1	83	100	1.8	4.2	4.2	3.9	0
COTX07382-1W/Y	5.0	7.6	100	100	2.0	3.9	3.8	3.7	5
TXYG055	4.3	9.5	83	83	1.8	3.7	3.6	3.8	5
Sierra Gold	4.9	6.3	92	100	1.9	4.0	3.9	4.1	3
TX1674-1W/Y	5.3	5.8	92	100	2.0	4.0	4.4	4.3	0
Yukon Gold	4.1	7.3	93	100	1.8	3.8	3.5	3.7	6
BTX1749-1W/Y	4.9	6.0	100	100	2.0	3.5	3.5	3.5	0
TXYG098	4.7	6.8	80	89	1.5	3.7	3.7	3.6	2
TXYG079	2.7	10.0	67	100	1.5	4.0	3.8	3.8	0
ATTX06274-2W	6.2	4.1	38	100	1.8	2.3	3.0	2.5	8
TXYG057	3.5	8.7	67	75	1.5	3.6	3.8	3.8	3
BTX1544-2W/Y	6.3	4.4	59	63	2.0	2.1	2.6	2.3	11
NDTX059759-3Pinto/Y	1.9	4.1	50	100	2.0	3.5	4.5	4.2	0
Average	5.0	6.7	79	94	1.8	3.6	3.7	3.6	3
L.S.D. (.05)	1.4	0.7	24	24	0.3	0.5	0.5	0.3	6

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, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 14 entries in the Texas Advanced White/Yellow Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX07382-2W/Y	2.0	3.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
NDTX081451CB-1Y/Y	3.0	3.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX07382-1W/Y	2.0	3.8	1.0	4.5	1.0	5.0	5.0	5.0	3.5	5.0	20	0	0	0
TXYG055	2.5	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
Sierra Gold	3.0	3.5	3.0	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX1674-1W/Y	2.8	3.8	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Yukon Gold	2.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	10	0	0	0
BTX1749-1W/Y	3.0	3.5	2.0	4.5	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXYG098	2.6	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	8	0	5	0
TXYG079	2.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX06274-2W	2.4	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXYG057	2.5	3.5	1.0	4.0	1.0	3.0	5.0	5.0	5.0	5.0	10	0	0	0
BTX1544-2W/Y	2.5	3.5	1.0	4.3	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	5
NDTX059759-3Pinto/Y	2.0	3.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	2.4	3.5	1.2	4.2	1.3	4.9	5.0	5.0	4.9	5.0	5	0	0	0
L.S.D. (.05)	0.2	0.1	0.1	0.1	0.1	0.1	ns	ns	0.1	ns	2	ns	4	ns

¹ 1=light to 5=dark

⁶ 1 to 5=none

² 1=round to 5=long

⁷ 1 to 5=none

³ 1=none to 5=heavy

⁸ 1 to 5=none

⁴ 1=deep to 5=shallow

⁹ 1 to 5=none

⁵ 1=light to 5=dark

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 11e.

Notes and general rating for all reps of 14 entries in the Texas Advanced White/Yellow Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
COTX07382-2W/Y	oversized, rough, many culls, high biomass	4, 4, 3.8, 3.8
NDTX081451CB-1Y/Y	heavy set and yield, nice flesh, few culls, small, bad rep, drop	4, 3.9, 3.7, 3.2
COTX07382-1W/Y	few culls, poor internals, rough, oblong to long, knobs	3.8, 4, 3.2, 3.5
TXYG055		3, 3, 3, 3
Sierra Gold	very nice	4, 4, 3.8, 4.3
TX1674-1W/Y	smooth, few misshaped, oblong to long	4, 4, 3.8, 3.8
Yukon Gold	oversized, feathering	3.8, 3.8, 4, 4
BTX1749-1W/Y	slight russet skin,	3.5, 3.5, 4, 4
TXYG098	rough	3.2, 3.8, 3.3, 2.8
TXYG079		3, 3, 3, 3
ATTX06274-2W	bad rep, drop, smooth+	3.5, 3.5, 2.5, 2.5
TXYG057	rough, growth cracks	3.5, 3.5, 3.5, 3.5
BTX1544-2W/Y	low yield, light set, drop+	2.5, 2.5, 2.5, 2.5
NDTX059759-3Pinto/Y	light set	3.8, 3, 3, 3

''''''''2010 WhiteYellow Selections Trial, Dalhart

The trial consisted of 25 entries of which one (NDTX081803Ab-2Y/Y) will be advanced in 2012 (Table 12).

Dalhart
Table 12

Inventory weight of 1 entry to be advanced from the 2010 White/
Yellow Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Trial	Inventory Weight
NDTX081803Ab-2Y/Y	10SEL	6

Texas Advanced Small Potato Selection Trial

This trial consisted of 12 entries.

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

- ATX07305-1Y/Y, NDTX071258B-1R, ATX05202-3W/Y, COTX04050-1P/P and ATTX05175-1R/Y were the outstanding entries for this trial based on general rating and best of trial designations, while ATX06264-4R/Y also received a high general rating (Tables 13a and 13e).
- ATX06264-4R/Y had the highest total and marketable yield. NDTX071258B-1R had the highest yield of 1-2 inch tubers. ATX06264-4R/Y had the highest yield of over 2 inch tubers, while ATX07305-1Y/Y had the highest yield of <1 inch and culls/No.2 tubers (Table 13a)
- NDTX071258B-1R had the highest percentage of marketable and 1-2 inch tubers. ATX06264-4R/Y had the highest percentage of over 2 inch tubers (Table 13b).
- ATX07305-1Y/Y had the highest percentage of <1 inch and culls/No. 2 tubers (Table 13b).
- ATX07305-1Y/Y had the highest average number of tubers per plant (Table 13c).
- All of the entries were late in maturity except for NDTX071258B-1R which was the earliest maturing (Table 13c).
- ATX06264-4R/Y had the darkest yellow flesh. COTX04050-1P/P had very dark purple flesh (Table 13d).

Comments on entries:

- ATX06264-4R/Y Round Red TC, greenheads, nice flesh
- ATX07305-1Y/Y Round Yellow TC, BOT-, little rough, heavy set, big?, smooth
- NDTX059886-1Y/Y Round Yellow TC, heavy set, light flesh, round to oblong, baby baker, light set, bad rep
- NDTX071258B-1R Round Red BOT-, TC, heavy set, not many culls, deep eyes, white flesh
- ATX05202-3W/Y Round White BOT, TC, large tubers, heavy set, too many large tubers, 10% ZC?
- COTX04050-1P/P Round Purple BOT, TC, very dark flesh
- ATTX05175-1R/Y Round Red TC, nice flesh+, too small, nice skin
- ATTX98444-16R/Y Round Red nice flesh

- ATTX06046-1Ru no seed, dropped
- ATX02263-1R/Y no seed, dropped
- ATX03546-1W/Y no seed, dropped
- COTX05037-4Y/Y no seed, dropped

Summary:

ATX07305-1Y/Y, NDTX071258B-1R, ATX05202-3W/Y, COTX04050-1P/P and ATTX05175-1R/Y were the outstanding entries for this trial based on all factors.

Dalhart
Table 13a.

Total yield, total yield of U.S. No.1, under 1 inch and culls/No.2 potatoes and general rating of 12 entries in the Texas Advanced Small Potato Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	Total Marketable Yield	1-2 inch	>2 inch	< 1 inch	Culls/ No.2	General Rating ¹ Grading
ATX06264-4R/Y	440.6	367.1	185.4	181.7	41.1	32.4	3.8
ATX07305-1Y/Y	385.8	256.0	231.5	24.5	90.4	39.4	4.0
NDTX059886-1Y/Y	351.6	303.7	241.4	62.2	29.9	18.0	4.0
NDTX071258B-1R	337.7	302.0	245.6	56.4	35.7	0.0	4.0
ATX05202-3W/Y	333.5	272.1	209.3	62.9	34.2	27.2	4.0
COTX04050-1P/P	325.9	263.2	207.0	56.2	46.0	16.6	4.0
ATTX05175-1R/Y	303.7	241.0	145.2	95.8	41.5	21.2	3.1
ATTX98444-16R/Y	294.8	252.6	168.4	84.2	16.2	25.9	3.7
ATTX06046-1Ru	Dropped						
ATX02263-1R/Y	Dropped						
ATX03546-1W/Y	Dropped						
COTX05037-4Y/Y	Dropped						
Average	346.7	282.2	204.2	78.0	41.9	22.6	3.8
L.S.D. (.05)	71.6	61.3	62.4	30.5	12.4	20.3	0.3

¹ 1=very poor to 5= excellent

Dalhart
Table 13b.

Percent by weight of U.S. No. 1, under 1 inch and culls/No.2 potatoes, tuber type and skin type of 12 entries in the Texas Advanced Small Potato Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1			< 1 inch	Culls/ No. 2	Tuber Type	Skin Type
	Total Yield	1-2 inch	>2 inch				
ATX06264-4R/Y	83.3	42.1	41.2	9.3	7.3	Round	Red
ATX07305-1Y/Y	66.7	60.4	6.3	23.5	9.8	Round	Yellow
NDTX059886-1Y/Y	86.6	70.2	16.4	8.7	4.7	Round	Yellow
NDTX071258B-1R	89.4	72.7	16.7	10.6	0.0	Round	Red
ATX05202-3W/Y	81.9	63.1	18.8	10.3	7.7	Round	White
COTX04050-1P/P	80.7	63.4	17.3	14.2	5.2	Round	Purple
ATTX05175-1R/Y	78.4	43.9	34.4	14.3	7.3	Round	Red
ATTX98444-16R/Y	85.7	56.7	29.0	5.5	8.8	Round	Red
ATTX06046-1Ru							
ATX02263-1R/Y							
ATX03546-1W/Y							
COTX05037-4Y/Y							
Average	81.6	59.1	22.5	12.1	6.4		
L.S.D. (.05)	5.5	13.5	11.3	3.7	5.2		

Dalhart
Table 13c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 12 entries in the Texas Advanced Small Potato Trial grown near Dalhart, Texas-2011.

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	
ATX06264-4R/Y	11.2	2.5	100	100	2.0	4.5	4.5	4.5	0
ATX07305-1Y/Y	17.2	1.5	100	100	1.5	4.6	4.8	4.5	0
NDTX059886-1Y/Y	10.3	2.2	100	100	1.8	4.6	4.4	4.7	0
NDTX071258B-1R	11.2	1.9	100	100	2.0	3.5	3.5	4.0	0
ATX05202-3W/Y	10.2	2.1	100	100	1.5	4.7	4.8	4.7	0
COTX04050-1P/P	12.7	1.7	100	100	1.8	4.7	4.8	4.3	0
ATTX05175-1R/Y	11.5	1.7	100	100	1.8	4.7	4.7	4.3	0
ATTX98444-16R/Y	7.9	2.4	100	100	1.8	4.4	4.1	4.3	4
ATTX06046-1Ru									
ATX02263-1R/Y									
ATX03546-1W/Y									
COTX05037-4Y/Y									
Average	11.5	2.0	100	100	1.8	4.4	4.4	4.4	0
L.S.D. (.05)	2.6	0.4	ns	ns	0.3	0.2	0.4	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 13d. Flesh color, tuber shape, degree of russetting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 12 entries in the Texas Advanced Small Potato Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russetting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
ATX06264-4R/Y	3.5	1.5	1.0	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX07305-1Y/Y	2.5	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX059886-1Y/Y	2.7	2.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
NDTX071258B-1R	1.0	1.5	1.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATX05202-3W/Y	2.5	1.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX04050-1P/P	4.5	1.5	1.0	4.5	4.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX05175-1R/Y	2.8	1.5	1.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX98444-16R/Y	3.3	2.5	1.0	4.0	3.4	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX06046-1Ru														
ATX02263-1R/Y														
ATX03546-1W/Y														
COTX05037-4Y/Y														
Average	2.8	1.8	1.0	3.9	2.6	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.2	0.1		0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 13e.

Notes and general rating for all reps of 12 entries in the Texas Advanced Small Potato Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
ATX06264-4R/Y	greenheads, nice flesh, TC	3.8, 3.8, 3.8, 3.8
ATX07305-1Y/Y	little rough, heavy set, TC, BOT-, big?, smooth	4, 4, 4, 4
NDTX059886-1Y/Y	heavy set, light flesh, round to oblong, TC , baby baker, light set, bad rep	4, 4, 4, 4
NDTX071258B-1R	heavy set, not many culls, deep eyes, white flesh, BOT-, TC	4, 4, 4, 4
ATX05202-3W/Y	large tubers, heavy set, too many large tubers, 10%ZC?, TC, BOT	4, 4, 4, 4
COTX04050-1P/P	TC, very dark flesh, BOT	4, 4, 4, 4
ATTX05175-1R/Y	TC, nice flesh+, too small, nice flesh and skin	3.5, 3.5, 3, 2.5
ATTX98444-16R/Y	nice flesh	3.6, 3.6, 3.7, 3.8
ATTX06046-1Ru	russet skin, no seed, dropped	0, 0, 0, 0
ATX02263-1R/Y	oblong, large tuber, no seed, dropped	0, 0, 0, 0
ATX03546-1W/Y	oversized, nice flesh, no seed, dropped	0, 0, 0, 0
COTX05037-4Y/Y	low yield, no seed, dropped	0, 0, 0, 0

2010 Small Potato Selections Trial, Dalhart

The trial consisted of 13 entries of which nine (AOTX06598-1R, ATX05186-1R, ATX05186-2R, ATX08153-1Y/Y, COTX08291-7W, COTX08376-1R, ATTX05186-3W/Y, COTX08078-1Ru, and JTTX69-1Ru) will be advanced in 2012 (Table 14).

Dalhart
Table 14

Inventory weight of 9 entries to be advanced from the 2010 Small
Potato Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Trial	Inventory Weight
AOTX06598-1R	10SEL	10
ATX05186-1R	10SEL	10
ATX05186-2R	10SEL	38
ATX08153-1Y/Y	10SEL	12.5
COTX08291-7W	10SEL	4
COTX08376-1R	10SEL	15.5
ATX05186-3W/Y	10SEL	14
COTX08078-1Ru	10SEL	3.2
JTTX69-1Ru	10SEL	2.3

Texas Advanced Fingerling Selection Trial

This trial consisted of nine entries, including the check varieties Banana and Purple Peruvian.

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

- TX08378-3R and PTTX05PG07-1W were the outstanding entries for this trial based on general ratings and best of trial designation. COTX07168-1Ru and COTX03187-1W also received a high general rating (Table 15a).
- COTX07168-1Ru had the highest total and marketable yield (Table 15a)
- TX08378-3R had the highest yield of 2 inch tubers. COTX07168-1Ru had the highest yield of 3 inch tubers. Banana had the highest yield of <2 inch tubers. TX08378-3R had the highest yield of culls/No. 2 tubers (Table 15a).
- TX08378-1R/R had the highest percentage of marketable yield. TX08378-3R had the highest percentage of 2 inch tubers. TX08378-1R/R had the highest percentage of 3 inch tubers. Purple Peruvian had the highest percentage of <2 inch tubers. TX08378-3R had the highest percentage of culls/No. 2 tubers (Table 15b).
- TX08378-3R had the highest average number of tubers per plant (Table 15c).
- All of the entries were late in maturity, except TX08378-1R/R which was the earliest (Table 15c).

Comments on entries:

- | | | |
|-------------------|---------------|--|
| • COTX07168-1Ru | Long Russet | oversized, large tubers, poor internal, very light russet, too fat |
| • TX08378-1R/R | Long Red | growth cracks, more culls |
| • COTX03187-1W | Long White | smooth, nice interior |
| • TX08378-3R | Long Red | BOT, oversized, light red flesh, heavy set |
| • PTTX05PG07-1W | Long White | BOT, nice flesh, light set, bad rep, smooth |
| • Banana | Long White | light set, drop |
| • COTX07172-1W | Long White | buff skin, bad rep |
| • Purple Peruvian | Oblong Purple | deep eyes, all blue like flesh, drop, darker flesh |
| • ATTX02247-1R | Long Red | low yield+, light set |

Summary:

COTX03187-1W, TX08378-3R, and PTTX05PG07-1W were the outstanding entries for this trial based on all factors.

Dalhart
Table 15a.

Total yield, total yield of U.S. No.1, under 2 inch and culls/No.2 potatoes and general rating of 9 entries in the Texas Advanced Fingerling Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Under 2 in.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	2 in.	3 in.	over 3 in.			
COTX07168-1Ru	336.2	315.1	100.4	186.7	28.0	17.4	3.7	3.8
TX08378-1R/R	274.8	261.4	91.3	170.1	0.0	13.5	0.0	3.5
COTX03187-1W	270.8	236.8	86.6	150.2	0.0	21.6	12.4	3.9
TX08378-3R	240.8	161.0	122.2	38.8	0.0	48.3	31.5	4.0
PTTX05PG07-1W	234.2	192.1	102.9	89.2	0.0	18.9	23.2	3.7
Banana	131.1	78.8	19.5	59.3	0.0	50.8	1.5	2.3
COTX07172-1W	101.6	93.3	31.1	62.2	0.0	8.3	0.0	2.0
Purple Peruvian	74.5	39.2	27.3	11.9	0.0	35.3	0.0	2.2
ATTX02247-1R	24.9	19.9	18.0	1.9	0.0	5.0	0.0	2.5
Average	187.7	155.3	66.6	85.6	3.1	24.3	8.0	3.1
L.S.D. (.05)	74.6	66.4	24.6	62.0	15.7	30.6	ns	0.5

¹ 1=very poor to 5= excellent

Dalhart
Table 15b.

Percent by weight of U.S. No. 1, under 2 inch and culls/No.2 potatoes, tuber type and skin type of 9 entries in the Texas Advanced Fingerling Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Under 2 in.	Culls/ No. 2	Tuber Type	Skin Type
	Total Yield	2 in.	3 in.	over 3 in				
COTX07168-1Ru	93.5	30.7	55.9	6.8	5.1	1.4	Long	Russet
TX08378-1R/R	95.1	33.2	61.9	0.0	4.9	0.0	Long	Red
COTX03187-1W	86.1	34.2	51.9	0.0	8.3	5.7	Long	White
TX08378-3R	68.2	50.5	17.6	0.0	20.0	11.8	Long	Red
PTTX05PG07-1W	80.5	47.7	32.8	0.0	8.2	11.3	Long	White
Banana	66.9	22.1	44.8	0.0	32.2	0.9	Long	White
COTX07172-1W	91.8	30.6	61.2	0.0	8.2	0.0	Long	White
Purple Peruvian	52.0	36.5	15.5	0.0	48.0	0.0	Oblong	Purple
ATTX02247-1R	81.0	75.6	5.4	0.0	19.0	0.0	Long	Red
Average	79.4	40.1	38.6	0.8	17.1	3.5		
L.S.D. (.05)	18.8	19.4	22.6	3.9	17.6	ns		

Dalhart
Table 15c.

Average number of tubers per plant, average tuber weight, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 9 entries in the Texas Advanced Fingerling Selection Trial grown near Dalhart, Texas-2011.

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	
COTX07168-1Ru	7.1	3.1	100	100	1.5	4.7	4.7	4.5	0
TX08378-1R/R	6.3	2.8	100	100	2.5	4.0	3.7	4.0	10
COTX03187-1W	8.2	2.1	96	100	1.5	4.6	4.7	4.5	0
TX08378-3R	13.2	1.4	78	86	1.8	4.4	4.6	4.6	0
PTTX05PG07-1W	9.2	2.3	63	83	1.5	4.3	4.4	4.4	0
Banana	4.1	2.1	100	100	1.5	4.6	4.8	4.5	0
COTX07172-1W	4.1	2.9	31	67	1.5	4.7	4.8	4.3	0
Purple Peruvian	8.0	0.6	100	100	1.5	4.7	4.7	4.4	0
ATTX02247-1R	1.7	1.1	42	83	1.5	4.3	4.7	4.0	0
Average	6.9	2.1	79	91	1.6	4.5	4.6	4.4	1
L.S.D. (.05)	2.9	0.6	26	ns	0.1	ns	0.2	0.2	1

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

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

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

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

Dalhart
Table 15d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 9 entries in the Texas Advanced Fingerling Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
COTX07168-1Ru	1.0	4.5	2.0	4.5	2.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX08378-1R/R	3.8	4.0	1.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX03187-1W	1.0	4.5	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TX08378-3R	3.5	4.0	1.0	4.0	4.8	5.0	5.0	5.0	5.0	5.0	0	0	0	0
PTTX05PG07-1W	1.0	4.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Banana	1.5	4.0	1.0	4.5	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
COTX07172-1W	1.0	4.5	2.5	4.5	2.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Purple Peruvian	3.6	3.5	1.0	2.0	4.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
ATTX02247-1R	1.0	3.8	1.0	4.5	3.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
Average	1.9	4.1	1.3	4.1	2.6	5.0	5.0	5.0	5.0	5.0	0	0	0	0
L.S.D. (.05)	0.1	0.1	0.1	0.1	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns

¹ 1=light to 5=dark

² 1=round to 5=long

³ 1=none to 5=heavy

⁴ 1=deep to 5=shallow

⁵ 1=light to 5=dark

⁶ 1 to 5=none

⁷ 1 to 5=none

⁸ 1 to 5=none

⁹ 1 to 5=none

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart
Table 15e.

Notes and general rating for all reps of 9 entries in the Texas Advanced Fingerling Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
COTX07168-1Ru	oversized, large tubers, poor internal, very light russet, too fat	3.6, 3.9, 3.6, 3.9
TX08378-1R/R	growth cracks, more culls	3.5, 3.5, 3.5, 3.5
COTX03187-1W	smooth, nice interior	3.8, 3.8, 4, 3.8
TX08378-3R	oversized, BOT, light red flesh, heavy set	4, 4, 4, 4
PTTX05PG07-1W	nice flesh, BOT, light set, bad rep, smooth	4, 3.8, 3, 4
Banana	light set, drop	2.5, 2.5, 2, 2
COTX07172-1W	buff skin, bad rep	2.5, 1.5, 2.5, 1.5
Purple Peruvian	deep eyes, all blue like flesh, drop, darker flesh	2.3, 2.5, 2.5, 1.5
ATTX02247-1R	low yield+, light set	2.5, 2.5, 2.5, 2.5

2010 Fingerling Selections Trial, Dalhart

The trial consisted of 43 entries of which 18 (COTX08046-9P/P, COTX08044-1R/R, COTX08045-2R/R, COTX08046-2R, COTX08046-3R/R, COTX08046-5R/R, COTX08056-10R, COTX08056-12R/R, COTX08056-5R/R, COTX08056-6R/R, COTX08061-3R/R, COTX08365-1P/P, COTX08365-3P/P, COTX08365-4R/R, COTX08365-5P/P, COTX08367-2R/R, COTX08376-2R/Y, and COTX08387-1R/R) will be advanced in the 2012 season (Table 16).

Dalhart
Table 16

Inventory weight of 18 entries to be advanced from the 2010
Fingerling Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Trial	Inventory Weight
COTX08046-9P/P	10SEL	7
COTX08044-1R/R	10SEL	5.5
COTX08045-2R/R	10SEL	4.5
COTX08046-2R	10SEL	5
COTX08046-3R/R	10SEL	5
COTX08046-5R/R	10SEL	2.5
COTX08056-10R	10SEL	7
COTX08056-12R/R	10SEL	15
COTX08056-5R/R	10SEL	5
COTX08056-6R/R	10SEL	10.5
COTX08061-3R/R	10SEL	18.5
COTX08365-1P/P	10SEL	23.5
COTX08365-3P/P	10SEL	15
COTX08365-4R/R	10SEL	8
COTX08365-5P/P	10SEL	6
COTX08367-2R/R	10SEL	20.5
COTX08376-2R/Y	10SEL	3.5
COTX08387-1R/R	10SEL	10.5

2010 Purple Flesh Selections Trial, Dalhart

The trial consisted of five entries of which 3 (COTX08046-8P/P, NDTX081618-1P/P, and NDTX091886-3P/P) will be advanced in the 2012 season (Table 17).

Dalhart
Table 17

Inventory weight of 3 entries to be advanced from the 2010 Purple
Flesh Selection Trial grown near Dalhart, Texas-2011.

Variety or Selection	Trial	Inventory Weight
COTX08046-8P/P	10SEL	15.5
NDTX081618-1P/P	10SEL	13
NDTX091886-3P/P	10SEL	6.5

Texas Advanced Yukon Gold Strain Trial

This trial consisted of 6 entries, including the check varieties Yukon Gold and Sierra Gold.

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

- Yukon Gold and Sierra Gold were the outstanding entries for this trial based on general ratings (Table 15a).
- TXYG055 had the highest total yield, while Yukon Gold had the highest marketable yield (Table 15a)
- TXYG055 had the highest yield of over 10 oz. tubers, while Sierra Gold had the highest yield of <4 oz. tubers. TXYG079 had the highest yield of culls/No. 2 tubers (Table 15a).
- Sierra Gold had the highest percentage of marketable yield. TXYG055 had the highest percentage of over 10 oz. tubers. Sierra Gold had the highest percentage of <4 oz. tubers, while TXYG079 had the highest percentage of culls/No. 2 tubers (Table 15b).
- TXYG079 and TXYG055 had the highest specific gravity (Table 15b).
- Sierra Gold had the highest average number of tubers per plant (Table 15c).

Comments on entries:

- | | | |
|---------------|---------------|------------------------------|
| • TXYG055 | Oblong White | FC=2.5 |
| • Yukon Gold | Oblong White | oversized, feathering FC=2.0 |
| • Sierra Gold | Oblong Russet | very nice FC=3.0 |
| • TXYG079 | Oblong White | FC=2.0 |
| • TXYG098 | Oblong White | rough FC=2.6 |
| • TXYG057 | Oblong White | rough, growth cracks FC=2.5 |

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

Summary:

Based on all factors none of the strains performed better than the checks.

Dalhart 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 Yukon Gold Strain Trial grown near Dalhart, Texas-2011.

Variety or Selection	Total Yield Cwt/A	U.S. No. 1 Cwt. Per Acre				Over 18 oz	Under 4 oz.	Culls/ No.2	General Rating ¹ Grading
		Total Yield	4-6 oz	6-10 oz	10-18 oz				
TXYG055	515.3	336.4	38.6	104.1	193.7	31.1	19.1	128.6	3.0
Yukon Gold	495.8	351.4	70.9	141.5	139.0	15.3	42.7	86.3	3.9
Sierra Gold	448.5	333.5	69.5	126.5	137.5	16.6	64.3	34.0	4.0
TXYG079	424.0	208.3	0.0	83.8	124.5	0.0	4.1	211.6	3.0
TXYG098	401.6	226.7	38.8	119.7	68.2	0.0	32.4	142.5	3.3
TXYG057	348.9	211.2	35.7	98.3	77.2	5.8	19.9	112.0	3.5
Average	439.0	277.9	42.2	112.3	123.4	11.5	30.4	119.2	3.5
L.S.D. (.05)	104.6	87.6	25.3	ns	53.4	ns	23.6	60.5	0.3

¹ 1=very poor to 5= excellent

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 6 entries in the Yukon Gold Strain
 Table 18b. Trial grown near Dalhart, Texas-2011.

Variety or Selection	Percent By Weight of U.S. No. 1				Percent By Weight			Specific Gravity	% Solids	Tuber Type	Skin Type
	Total Yield	4-6 oz	6-10 oz	10-18 oz	Over 18 oz.	Under 4 oz.	Culls/ No. 2				
TXYG055	64.6	7.6	20.2	36.8	6.3	3.6	25.5	1.077	16.2	Oblong	White
Yukon Gold	71.4	14.2	29.3	27.9	3.3	9.2	16.2	1.075	15.9	Oblong	White
Sierra Gold	74.0	15.6	28.6	29.8	3.3	14.6	8.1	1.075	15.9	Oblong	Russet
TXYG079	49.1	0.0	19.8	29.4	0.0	1.0	49.9	1.077	16.2	Oblong	White
TXYG098	56.3	9.2	28.5	18.7	0.0	7.6	36.0	1.072	15.3	Oblong	White
TXYG057	60.6	10.1	28.3	22.2	1.6	5.8	32.0	1.074	15.7	Oblong	White
Average	62.7	9.4	25.8	27.5	2.4	7.0	27.9	1.075	15.9		
L.S.D. (.05)	10.7	3.9	ns	9.9	ns	6.1	12.1	ns	ns		

Dalhart
Table 18c. Average number of tubers per plant, average tuber weight, average number of stems per plant, percent stand 40 days after planting, percent stand 60 days after planting, plant characteristics and percent dead vines at vine kill of 6 entries in the Yukon Gold Strain Trial grown near Dalhart, Texas-2011.

Variety or Selection	Average Number Tubers/ Plant	Average Tuber Weight In oz.	Average Number Stems/ Plant	Percent Stand 40 DAP	Percent Stand 60 DAP	Plant Characteristics				Percent Dead Vines
						Plant Type ¹	Vigor ²	Maturity ³	Vine Size ⁴	
TXYG055	4.3	9.5	0.0	83	83	1.8	3.7	3.6	3.8	5
Yukon Gold	4.3	7.4	0.0	93	100	1.8	3.8	3.5	3.7	6
Sierra Gold	4.6	6.3	0.0	92	100	1.9	4.0	3.9	4.1	3
TXYG079	2.7	10.0	0.0	67	100	1.5	4.0	3.8	3.8	0
TXYG098	3.9	7.5	0.0	80	89	1.5	3.7	3.6	3.6	2
TXYG057	3.5	8.7	0.0	67	75	1.5	3.6	3.8	3.8	3
Average	3.9	8.2	0.0	80	91	1.6	3.8	3.7	3.8	3
L.S.D. (.05)	0.9	1.5		ns	17	ns	0.3	0.2	0.2	ns

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

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

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

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

Dalhart
Table 18d. Flesh color, tuber shape, degree of russeting, eye depth, skin color, growth cracks, shatter bruise, scab, knobiness, feathering, percent hollow heart, percent blackspot, percent vascular discoloration, percent internal brownspot of 6 entries in the Yukon Gold Strain Trial grown near Dalhart, Texas-2011.

Variety or Selection	Flesh Color ¹	Tuber Shape ²	Degree of Russeting ³	Eye Depth ⁴	Skin Color ⁵	Growth Cracks ⁶	Shatter Bruise ⁷	Scab ⁸	Knobs ⁹	Feathering ¹⁰	Percent Hollow Heart	Percent Blackspot	Percent Vascular Discoloration ¹⁰	Percent Internal Brownspot
TXYG055	2.5	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	5	0	0	0
Yukon Gold	2.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	3.0	10	0	0	0
Sierra Gold	3.0	3.5	3.0	4.0	3.5	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXYG079	2.0	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	0	0	0	0
TXYG098	2.6	3.5	1.0	4.0	1.0	5.0	5.0	5.0	5.0	5.0	8	0	5	0
TXYG057	2.5	3.5	1.0	4.0	1.0	3.0	5.0	5.0	5.0	5.0	10	0	0	0
Average	2.4	3.5	1.3	4.0	1.4	4.7	5.0	5.0	5.0	4.7	5	0	1	0
L.S.D. (.05)	0.1	ns	0.1	ns	0.1	0.1	ns	ns	ns	0.1	ns	ns	4	ns

¹ 1=light to 5=dark

⁶ 1 to 5=none

² 1=round to 5=long

⁷ 1 to 5=none

³ 1=none to 5=heavy

⁸ 1 to 5=none

⁴ 1=deep to 5=shallow

⁹ 1 to 5=none

⁵ 1=light to 5=dark

¹⁰ 1 to 5=none

¹¹ Stem end vascular discoloration severely evaluated

Dalhart Notes and general rating for all reps of 6 entries in the Yukon Gold Strain Trial grown near Dalhart,
 Table 18e. Texas-2011.

Variety or Selection	Notes Grading	General Rating Grading
TXYG055		3, 3, 3, 3
Yukon Gold	oversized, feathering	4, 3.8, 4, 3.8
Sierra Gold	very nice	3.8, 4, 4.3, 4
TXYG079		3, 3, 3, 3
TXYG098	rough	3.2, 2.8, 3.8, 3.3
TXYG057	rough, growth cracks, rough, growth cracks	3.5, 3.5, 3.5, 3.5

Appendix A. General notes on potato varieties or selections- 2011.

A00324-1- Long Light Russet. Parentage (Ranger Russet x Premier Russet). Cross was made and selected in Aberdeen. Medium early maturity. Medium large vine size. Red purple flower color

Uses: dual.

Strengths: heavy set

Weaknesses: heat sprouts, small, skinny

Cutting Notes: rot, small, skinny

A01010-1- Long Medium Russet. Parentage (A92303-7 x A96004-8). Cross was made and selected in Aberdeen. Medium maturity. Medium large vine size. White flower color

Uses: dual.

Strengths: nice skin, blocky

Weaknesses: skinny

Cutting Notes: poor shape, growth cracks, knobs, rough.

A01025-4- Long Medium Russet. Parentage (A96095-3 x Premier Russet). Cross was made and selected in Aberdeen. Medium maturity. Medium large vine size. White flower color

Uses: dual.

Strengths: nice shape, blocky

Weaknesses: light set small

Cutting Notes: rough, purple streaks in flesh

A01143-3C- Round White. Parentage (COA95070-8 x Chipeta). Cross was made and selected in Aberdeen. Medium late maturity. Medium vine size. White flower color

Uses: chip.

Strengths: nice

Weaknesses: heat sprouts++, low yield, light set

Cutting Notes: feathering, nice shape

Chip Notes: CR=1

A02060-3TE- Long Light Russet. Parentage (A97201-4 x Premier Russet). Cross was made and selected in Aberdeen. Medium late maturity. Medium vine size. White flower color

Uses: dual.

Strengths: nice skin, blocky

Weaknesses: light set, small rot

Cutting Notes: purple streaks in flesh

A98345-1-Long Russet. Parentage (Ranger Russet x Premier). Cross was made and selected in Aberdeen. Medium maturity. Medium vine size. White flower color.

Uses: dual.

Strengths: blocky, nice shape

Weaknesses: light set, small light russet skin

Cutting Notes: purple streaks in flesh, blocky, small, rough

A99331-2RY- Oblong Red/Yellow. Parentage (Inca Gold x COA94019-5R). Cross was made and selected in Aberdeen. Medium-early maturity. Medium-vine size. Red purple flower

Uses: specialty.

Strengths: heavy set

Weaknesses: late very small size, small potato+, purple eyes:

Cutting Notes: feathering, white eyes, FL=2

A99433-5Y- Round Yellow. Parentage (Chipeta x MSG274-3). Cross was made and selected in Aberdeen. Medium late maturity. Medium large vine size. White flower color.

Uses: fresh.

Strengths:

Weaknesses: heat sprouts, +++, drop++, marble size, very light flesh

Cutting Notes: light flesh, rough, FL=2

AC00395-2RU- Long Russet. Parentage (A95523-12 x A84118-3). Cross was made in Aberdeen, and selected in Colorado. Late maturity. Very large vine. Light purple flower color.

Uses: fresh.

Strengths: nice skin, blocky+, heavy set

Weaknesses: small

Cutting Notes:

AC01151-5W- Oblong White. Parentage (COA96142-7 x NDA2031-2). Cross was made in Aberdeen and selected in Colorado. Medium maturity. Medium vine size. Purple flower color.

Uses: chip.

Strengths: nice shape heavy set+

Weaknesses: heat sprouts, bad rep, small, poor shape, drop poor internals, brown ring in vascular ring greenhead

Cutting Notes: large

Chip Notes: CR=1

AC03433-1W- Round White. Parentage (A94322-8C x COA96141-4). Cross was made in Aberdeen and selected in Colorado.

Uses: chip

Strengths nice shape smooth:

Weaknesses: sticky stolon, greenhead:

Cutting Notes: nice shape

Chip Notes: CR=1

AC99375-1RU-. Oblong Russet. Parentage (AWN86514-2 x A89384-10). Cross was made in Aberdeen, and selected in Colorado. Medium maturity. Large vine. White flower color.

Uses: dual.

Strengths: nice shape, blocky

Weaknesses: small, heat sprouts++

Cutting Notes: blocky, nice shape

AOTX02060-1Ru- Oblong Russet. Parentage (A97201-4 x A93157-6LS). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths: nice shape+, nice skin

Weaknesses: light set skinny, drop,

Cutting Notes:

AOTX061009-2Ru- Oblong Russet. Parentage (PA03NM3-4 x PA99N2-1). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX06562-1Ru- Oblong Russet. Parentage (A00444-4LB x A01749-1). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX06562-2Ru- Oblong Russet. Parentage (A00444-4LB x A01749-1). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX06598-1R-Oblong Russet. Parentage (A031087-79 x ND4659-5R). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX07729-1Ru- Oblong Russet. Parentage (A02673-3Y x Premier Russet). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX07755-1Ru- Oblong Russet. Parentage (AO95518-1 X CO95051-7W). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX07876-1Ru- Oblong Russet. Parentage (A00715-8 X A93575-4). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX07919-1Ru- Oblong Russet. Parentage (PA03NM3-4 x A00385-2). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX07920-5Ru- Oblong Russet. Parentage (PA03NM3-4 X A01054-4). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX08070-1W- Oblong Russet. Parentage (Highland Russet x A98289-1). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX08084-1Ru- Oblong Russet. Parentage (Rio Grande Russet X A98289-1). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

AOTX91861-4R- Oblong Red. Parentage (Red LaSoda x ND2224-5R). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-late maturity. Medium vine size. Red-purple flower color.

Uses: fresh.

Strengths: nice flesh yield+ little heat sprouts heavy set, keep, BOT-, nice flesh
Weaknesses: feathering, black heart drop variable size, long sprouts heat sprouts++
Cutting Notes: small uniform, nice

AOTX95265-1Ru- Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Medium vine size. White flower color.

Uses: fresh.

Strengths: * in basket, yield+, BOT
Weaknesses: oversized: low yield, bad rep, rough
Cutting Notes: nice skin, small

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

Uses: fresh.

Strengths:
Weaknesses: oversized, pointed skinny, pointed, light set, light russet skin
Cutting Notes: skinny, light small yellow flesh

AOTX95295-1W- Round White. Parentage (A89804-7 x Ranger Russet). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: chip.

Strengths: moderate heat sprouts, heavy set
Weaknesses:
Cutting Notes: shriveled, sprouts++
Chip Notes: CR=1 BOT

AOTX95309-3W- Round White. Parentage (A9055-8LS x A89163-3LS). Cross was made in Aberdeen, produced in Oregon, and selected in Texas. Late maturity. Large vine size.

Uses: chip.

Strengths: nice yield heavy set++

Weaknesses: heat sprouts, drop

Cutting Notes: shriveled

Chip Notes: DROP

AOTX96075-1Ru- Long Russet. Parentage (A84118-3 x A89384-10). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: drop? skinny, small, very low yield

Cutting Notes:

AOTX96084-1Ru- Oblong Russet. Parentage (A8792-1 X A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium maturity. Large vine size. White flower color.

Uses: fresh.

Strengths:

Weaknesses: light set, oversized, pointed, small, low yield

Cutting Notes:

AOTX96216-2Ru- Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Late maturity. Large vine size. White flower color

Uses: fresh.

Strengths: * in basket nice flesh, BOT, blocky, very nice, large tubers

Weaknesses: oversized, hollow heart, light se

Cutting Notes: blocky, very nice: very large tubers, nice shape

AOTX96265-2Ru- Oblong Russet. Parentage (A90621-4 X A84180-8). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Late maturity. Large vine size.

White flower color

Uses: fresh.

Strengths: nice, * in basket nice skin blocky

Weaknesses: light set, some pointed, hollow heart oblong, round low yield, small+

Cutting Notes: blocky, large tubers

AOTX98152-3Ru- Oblong Russet. Parentage (A88338-1 X A9201-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium early maturity. Medium vine size. Lavender flower color.

Uses: fresh.

Strengths: nice, light russet skin, nice shape, blocky, heavy set++,

Weaknesses: small

Cutting Notes: blocky, nice shape small

AOTX98202-1Ru- Oblong Russet. Parentage (A9201-6 X A9014-2). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths: heavy set, nice shape+, large tubers

Weaknesses: low yield, pointed, knobs, drop?

Cutting Notes: blocky nice shape small, pointed

ATC00293-1W/Y- Oblong White/Yellow. Parentage (Agria x TXA1655-1DY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Colorado. Medium maturity. Large vine size. Purple flower color.

Uses: fresh.

Strengths:

Weaknesses: many small, road map, yield-, poor skin finish, drop, heat sprouts+++

Cutting Notes: nice flesh, FL3.5

Atlantic- Round White. Parentage (Wauseon x Lenape). Cross was-made in Beltsville, Maryland, and selected in Maine. Released in 1976 by USDA-ARS, Florida, Virginia, New Jersey and Maine Agricultural Experiment Stations. Medium maturity. Medium vine size. Pale lavender flower color.

Uses: chip.

Strengths: high yield, high specific gravity, low sugar buildup in storage, chips well directly from field short term storage at 50o, uniform tuber size and shape, tolerant to scab and Verticillium wilt, resistant to pink eye and highly resistant to race A of golden nematode, PVX and tuber net necrosis.

Weaknesses: very poor internals, very susceptible to internal heat necrosis, particularly in sandy soils in warm, dry seasons, susceptible to hollow heart, shatter bruise, Rhizoctonia and storage rots, buff skin Oversize

Cutting Notes: buff skin, nice shape

Chip Notes:

ATTX01178-1R- Oblong Red. Parentage (ND5084-3R x Winema). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: fresh.

Strengths: nice keep, BOT in basket nice, yield+

Weaknesses: feathering+++ , drop, early, some pointed, large tubers, sticky stolon

Cutting Notes: nice shape and flesh nice shape and size

ATTX01180-1R/Y- Oblong Red/Yellow Parentage (ND5084-3R x A92657-1R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: specialty.

Strengths: nice flesh FC=3.8 very dark yellow flesh BOT

Weaknesses: feathering, mixed, bad rep, low yield rough shape+

Cutting Notes: nice flesh, red streaks, FL=2.5

ATTX02247-1R- Oblong White. Parentage (A096863-8 X ND5256-7R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: low yield+, light set

Cutting Notes shriveled

ATTX03446-4W- Oblong White. Parentage (A96920-17 x MSI152A). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths:

Weaknesses: oversized low yield

Cutting Notes: shriveled, sprouts+

Chip Notes: DROP

ATTX03474-1W- Round White. Parentage (NDTX493O-5W X C0A96141-4). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths: nice smooth skin

Weaknesses: low yield oversized, rough

Cutting Notes: small

Chip Notes: CR=1

ATTX03474-2W- Round White. Parentage (NDTX493O-5W X C0A96141-4). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths: yield+, very nice, keep, BOT+

Weaknesses: pointed,

Cutting Notes:

Chip Notes: CR=1

ATTX03474-3W- Round White. Parentage (NDTX4930-5W X C0A96141-4). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths: keep medium to heavy set

Weaknesses: bad rep heat sprouts++, buff, small,

Cutting Notes: small very nice

Chip Notes: CR=1

ATTX03475-10Ru- Oblong Russet. Parentage (NDTX4930-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths: light russet skin, heavy set nice, keep, BOT-, * in basket

Weaknesses: skinny, lot of culls+

Cutting Notes: blocky nice shape, light russet skin

ATTX03475-2W- Round Buff. Parentage (NDTX4930-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: +

Cutting Notes:

Cutting Notes: large tubers

Chip Notes: CR=1

ATTX03475-6W- Oblong Russet. Parentage (NDTX4930-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths: nice, buff, keep, baby baker

Weaknesses: small heat sprouts, some rot stem end discoloration

Cutting Notes: buff small

Chip Notes: DROP

ATTX03475-7Ru- Oblong Russet. Parentage (NDTX4930-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths very nice, blocky heavy set:

Weaknesses: small, light set, poor internals slightly pointed,

Cutting Notes: small, nice shape

ATTX03475-9Ru- Oblong Russet. Parentage (NDTX4930-5W X NYII2). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths: blocky

Weaknesses: rough, alligator skin, drop

Cutting Notes: blocky, small

ATTX03476-2W- Oblong White. Parentage (NDTX4930-5W X Chipeta). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths: smooth skin

Weaknesses: oversized, hollow heart++ low yield, heat sprouts+, drop

Cutting Notes:

Chip Notes: CR=1

ATTX03516-2R/Y- Oblong Red/Yellow. Parentage (A961014-12RY x NDTX4271-5R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: drop++++ FC= 2.5

Cutting Notes:

ATTX05175-1R/Y-Round Red/Yellow. Parentage (A99331-2RY X COA99261-IRY). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths: heavy set very dark flesh TC, nice flesh and skin

Weaknesses: drop, too large light red skin, variable skin color too small,

Cutting Notes: nice shape, FL=2.8

ATTX05186-3W/Y- Oblong White/Yellow. Parentage (A99433-5Y x VC1075-1R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

ATTX06008-2Ru- Russet. Parentage (A920305 x A961098) Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas

Uses: fresh

Strengths:

Weaknesses: ugly, growth cracks, drop

Cutting Notes: blocky, light skin

ATTX06008-6Ru- Russet. Parentage (A920305 x A961098) Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas

Uses: fresh

Strengths:

Weaknesses: drop++

Cutting Notes: blocky, small

ATTX06026-1Ru- Russet. Parentage (A99034-2E x AOND95249-1 Russ) Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas

Uses: fresh

Strengths: heavy set

Weaknesses:

Cutting Notes: small

ATTX06046-1Ru- Russet. Parentage (C0A00287-1 x Western Russet) Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas

Uses: fresh

Strengths: heavy set

Weaknesses:

Cutting Notes

ATTX06246-1R- Red. Parentage (Gogu Valley x Modoc) Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas

Uses: fresh

Strengths small potato+, very dark skin, BOT in basket, good flesh color, nice flesh:

Weaknesses: no seed, dropped

Cutting Notes

ATTX06274-2W- Oblong White. Parentage (C0A99261-IRY x VC1075-IR) Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas

Uses: chip

Strengths: smooth+ FC=2.4

Weaknesses: bad rep, drop,

Cutting Notes: smooth, nice shape

ATTX88481-1P/W- Oblong Purple. Parentage (A83302-1 x Bison). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths: nice flesh

Weaknesses: feathering, rough small, yield-, low yield, feathering drop

Cutting Notes: nice shape nice skin, poor shape feathering, drop

ATTX88654-2P/Y- Oblong Purple/Yellow. Parentage (PI343201 x Gurney's Purple). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses: deep eyes, deep stem attachment

Cutting Notes: good skin set, FL=2.5

ATTX961014-1BR/Y- Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early maturity.

Medium vine size. Purple flower color.

Uses: specialty.

Strengths: smooth, nice, BOT+ FC=2.5

Weaknesses: heat sprouts, small

Cutting Notes: very light yellow flesh, FL=2

ATTX961014-1R/Y- Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early maturity. Medium vine size. Purple flower color.

Uses: specialty.

Strengths: smooth, very nice, BOT++ FC=2.5

Weaknesses: sliver scurf, small, very light flesh

Cutting Notes: red streaks in flesh FL=2.5

ATTX98444-16R/Y- Oblong Red/Yellow. Parentage (A83360-9R X T48YF). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: specialty.

Strengths: nice flesh

Weaknesses: light set, poor skin finish, light set, bad rep, poor internal, drop+

Cutting Notes: nice shape and skin, FL=2.5 poor shape

ATX98453-11BR- Round Red. Parentage (A93490-1R X A91846-5R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early-medium maturity. Small-medium vine size. Lavender flower color.

Uses: fresh.

Strengths: nice+ nice flesh

Weaknesses: small, yield-, feathering+++, low yield light set, sticky stolon, drop++++

Cutting Notes: nice flesh

ATX98453-6R- Round Red. Parentage (A93490-1R x A91846-5R). Cross was made in Aberdeen, tuberling produced in Texas and selected in Texas. Late maturity. Medium-large vine size. Lavender flower color.

Uses: fresh.

Strengths: BOT- in basket, shallow eyes, smooth, BOT nice, yield+, smooth, light skin color, BOT+, yield+, poor skin finish, no heat sprouts

Weaknesses: some feathering , bad rep small, yield-

Cutting Notes: nice color and shape

ATX98510-1R/Y- Oblong Red/Yellow. Parentage (T48YF X A93456-6R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: specialty.

Strengths: very heavy set, high yield heavy set, FC=2.7

Weaknesses: deep eyes, 10% ZC?, stem attachment, rough, small, very light flesh+, drop

Cutting Notes: nice flesh, hollow heart very nice, hollow heart, BOT, FL=3.5

ATX02263-1R/Y- Oblong Red/Yellow. Parentage (Inca Gold x A92653-6R). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: light set, drop+++no seed, dropped

Cutting Notes: light yellow flesh, nice shape, FL=1.5

ATX03515-1R/Y- Oblong Red/Yellow. Parentage (A961014-12RY x NDC5281-2). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: FC=2.5

Weaknesses: ugly, drop+++ yield-, poor shape, drop++, light skin and flesh

Cutting Notes: very light flesh, small, FL=1.5

ATX03516-2R- Oblong Red. Parentage (A961014-12RY x NDTX4271-5R). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: good shape and color

Weaknesses: light set, drop small, yield-, soft, heat sprouts, drop, low yield

Cutting Notes: nice shape small

ATX03546-1W/Y- Oblong White/Yellow. Parentage (ATA98472-2Y x A97523-1RY). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: nice flesh++,

Weaknesses: low yield, light set no seed, dropped

Cutting Notes: light yellow flesh very small, FL=2

ATX03550-2R- Oblong Red. Parentage (NDTX4271-5R x AO96747-2R/Y). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: feathering, ugly, light set

Cutting Notes:

ATX05175-3R/Y- Oblong Red. Parentage (A99331-2RY x COA99261-1RY). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: many small tubers, nice shape FC= 3.4

Weaknesses: poor shape, small, drop++, low yield, bad rep

Cutting Notes: uniform, small, FL=2

ATX05186-1R- Oblong Red. Parentage (A99433-5Y x VC1075-1R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

ATX05186-2R- Oblong Red. Parentage (A99433-5Y x VC1075-1R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

ATX05202-3W/Y- Oblong White/Yellow. Parentage (A00286-3Y x A99433-5Y). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: heavy set BOT TC, BOT -

Weaknesses: poor skin finish large tubers too many large tubers, 10% ZC?,

Cutting Notes: nice shape, FL=2.5

ATX06173-2W- Round White/Yellow. Parentage (A99007-12 x AOA95154-1). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths keep:

Weaknesses:

Cutting Notes:

Chip Notes: DROP

ATX06264-4R/Y- Round Red/Yellow. Parentage (A99331-2RY x Durango Red) Cross was made in Aberdeen and selected in Texas

Uses: fresh.

Strengths: nice flesh, TC

Weaknesses: greenheads,

Cutting Notes: small:

ATX07144-1R- Red. Parentage (NorDonna x VC1075-1R) Cross was made in Aberdeen and selected in Texas

Uses: fresh.

Strengths:

Weaknesses: poor shape, drop

Cutting Notes: shriveled

ATX07305-1Y/Y- Yellow/Yellow. Parentage (A99433-5Y x Mila) Cross was made in Aberdeen and selected in Texas

Uses: fresh.

Strengths: nice flesh smooth heavy set, TC, BOT-, BOT+

Weaknesses: little rough big? some nipples, heat sprouts

Cutting Notes: very small, light flesh, FL=1.5

ATX08153-1Y/Y- Yellow/Yellow. Parentage (A00286-3Y x 93-1285-6) Cross was made in Aberdeen and selected in Texas

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

ATX84378-6Ru- Oblong-Long Russet. Parentage (A79141-9 x ND329-1). Cross was made in Aberdeen, and selected in Texas.

Uses: fresh.

Strengths: nice shape, large tubers BOT

Weaknesses: some pointed small, light set

Cutting Notes: large, blocky, skinny

ATX91137-1Ru- Oblong Russet. Parentage (A81473-2 x A8343-12) Cross was made in Aberdeen, and selected in Texas.

Uses: fresh.

Strengths: heavy set blocky, BOT-,

Weaknesses: rough, small, low yield

Cutting Notes: nice shape

ATX9202-3Ru- Oblong Russet. Parentage (A8343-12 x A8495-1) Cross was made in Aberdeen, and selected in Texas.

Uses: fresh.

Strengths: heavy set

Weaknesses: deep eyes small, round, deep eyes

Cutting Notes: purple streaks in flesh, large tubers

ATX9332-12Ru- Oblong Russet. Parentage (A8850-1 x A88288-1). Cross was made in Aberdeen and selected in Texas. Late maturity. Large vine size. White flower color.

Uses: fresh

Strengths: nice flesh

Weaknesses: oversized, heat sprouts, small, all rot, bad rep, light set

Cutting Notes: small

ATX99013-1Ru- Long Russet. Parentage (A8893-1 x A91186-2). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: nice shape, keep

Weaknesses: low yield, poor shape+, rough oversized

Cutting Notes: nice shape small

ATX99194-3Ru- Oblong Russet. Parentage (A94137-1 x GemStar Russet). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: blocky, nice shape heavy set

Weaknesses: alligator skin, poor internals, poor skin finish++

Cutting Notes:

Banana- Long White. Parentage (Grown in British Columbia for over 90 years. Research indicates that the variety might have been introduced to early settlers and natives by Russian fur traders. The exact origin, parental lines or breeding techniques used in its development are not known.)

Uses: specialty.

Strengths:

Weaknesses: light set, drop very small, poor shape, all culls, small curved, pointed

Cutting Notes: rough

BTX1544-2W/Y- Oblong White/Yellow. Parentage (BO811-13 x Yukon Gold). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Medium vine size.

Uses: specialty.

Strengths: FC=2.5 BOT

Weaknesses: poor skin appearance, low yield, light set, drop+

Cutting Notes: FL=2

BTX1749-1W/Y- Oblong White/Yellow. Parentage (K7-6 x BO925-4). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size.

Uses: specialty

Strengths: nice flesh

Weaknesses: low yield, slight russet skin FC=3.0

Cutting Notes: FL=2

BTX2103-1R/Y- Oblong Red/Yellow. Parentage (BO811-13 x ARS-W82-21285-1). Cross was made in Beltsville, Maryland and selected in Texas.

Uses: specialty.

Strengths: nice, small, smooth, keep FC=3.5 BOT

Weaknesses: some pointed, poor shape, rough

Cutting Notes: flat, light flesh nice shape and skin, heavy set FL=3

BTX2332-1R- Round Red. Parentage (B1523-4 x Super Red Norland). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size. Lavender flower color

Uses: fresh.

Strengths: nice red skin no feathering nice, yield+, b size BOT- in basket, smooth BOT-

Weaknesses: feathering heat sprouts, silver scurf, light set low yield

Cutting Notes: nice shape and skin, purple streaks in flesh road map, nice shape, red streak in flesh

Chieftain- Round Red. Parentage (Ia1027-18 x La1354). Cross was made and selected at Iowa State University.

Uses: fresh

Strengths:

Weaknesses: feathering, light set

Cutting Notes:

Chipeta- Oblong White. Parentage (WNC612-13 x Wischip). Cross was made in Aberdeen and selected in Colorado. Released by USDA-ARS, Aberdeen, and Colorado Agricultural Experiment Stations. Late maturity. Large vine size. Red-Reddish purple corollas and large yellow anthers.

Uses: chip and French fries.

Strengths: High yield potential, high specific gravity and low sugar accumulation in storage will occasionally chip out of 40o storage, resistant to most internal and external defects including second growth, growth cracks, hollow heart, heat necrosis and blackspot bruises. Also resistant to leaf roll- induced net necrosis, Verticillium wilt, and both foliar and tuber phases of early blight BOT-++.

Weaknesses: Irregular shape, may oversize, buff skin, variable tuber size, skin feathering, some russet patches, green heads, susceptible to Rhizoctonia, common scab, and Fusarium dry rot, late maturity, deep eyes

Cutting Notes: large very nice

CO00188-4W- Oblong White. Parentage (A90490-1W x BC0894-2W). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: chip.

Strengths: nice shape, smooth

Weaknesses: light set

Cutting Notes: nice shape large tubers, nice shape

Chip Notes: CR=1

CO00197-3W- Oblong White. Parentage (A91790-13W x NDTX4930-5W). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: chip.

Strengths: very heavy set good size, nice, nice flesh

Weaknesses: small, heat sprouts, bad rep drop

Cutting Notes: nice shape

Chip Notes: CR=1

CO00270-7W- Oblong White. Parentage (BC0894-2W x A91790-13W). Cross was made and selected in Colorado. Early-medium maturity. Medium vine size. Purple flower color.

Uses: chip.

Strengths: heavy set

Weaknesses: oversized, light set small t, buff, large tubers, heat sprouts, bad rep

Cutting Notes: nice shape

Chip Notes: CR=1

CO00291-5R-Round Red. Parentage (CO94019-1R x Rio Colorado). Cross was made and selected in Colorado. Medium late maturity. Large vine size. Dark red purple flower color.

Uses: specialty.

Strengths: nice color

Weaknesses: late, small, yield-, low yield, heat sprouts+++, drop+++, light set

Cutting Notes: poor shape and skin, ugly

CO01399-10P/Y- Round Purple/Yellow. Parentage (VC1015-5P/Y x Colorado Rose). Cross was made and selected in Colorado. Medium maturity. Large vine size. Purple flower color.

Uses: specialty.

Strengths: nice shape

Weaknesses: small, alligator hide, poor skin finish, drop

Cutting Notes: nice shape and skin, FL=2.5

CO02024-9W- Round White. Parentage (A91790-13W x CO95051-7W). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: chip.

Strengths:

Weaknesses: rough, small, did not size

Cutting Notes: nice shape

Chip Notes: CR=1

CO02033-1W- Oblong White. Parentage (A91790-13W x S440). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: chip.

Strengths:

Weaknesses: ugly, many culls rough+, drop

Cutting Notes: nice shape

Chip Notes: CR=1

CO02321-4W- Oblong White. Parentage (NY115W x BC0894-2W). Cross was made and selected in Colorado. Medium maturity. Medium-large vine size. Purple flower color.

Uses: chip.

Strengths: nice rep

Weaknesses: greenheads, small, bad rep

Cutting Notes: nice shape

Chip Notes: CR=1+

CO03027-2R/R- Round Red. Parentage (Mountain Rose x POR00PG2-16P/P). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: specialty.

Strengths: nice shape, nice red flesh

Weaknesses: small road map

Cutting Notes: nice red flesh:

CO03094-5RF/RW- Long Red. Parentage (Austrian Crescent x Huckleberry). Cross was made and selected in Colorado. Medium maturity. Medium vine size. Red-purple flower color.

Uses: specialty.

Strengths:

Weaknesses: some vascular discoloration, skinny, poor shape, drop, no red in flesh

Cutting Notes: pointed, skinny, ugly, red flesh

CO03187-1RU-Long White. Parentage (Rio Grande Russet x A9304-3). Cross was made and selected in Colorado. Very Early-early maturity. Medium vine size. Light purple flower color.

Uses: fresh.

Strengths: blocky

Weaknesses: light set++, small

Cutting Notes:

CO03202-1RU-Oblong White. Parentage (AC96010-3RU x Canela Russet). Cross was made and selected in Colorado. Late maturity. Very large-large vine size. White flower color.

Uses: fresh.

Strengths:

Weaknesses: skinny++, many culls+, poor shape

Cutting Notes:

CO03243-3W- Round White. Parentage (BC0894-2W x A91790-13). Cross was made and selected in Colorado

Uses: chip

Strengths: nice rep, large tubers, yield+

Weaknesses: rough, small, bad rep

Cutting Notes: nice shape, brown ring in vascular ring

Chip Notes: CR=1

CO03276-4RU-Oblong Russet. Parentage (CO95086-8RU x Blazer Russet). Cross was made and selected in Colorado. Medium maturity. Medium large vine size. White flower color.

Uses: fresh.

Strengths:

Weaknesses: light set++, small++,

Cutting Notes:

CO03276-5RU-Long Russet. Parentage (CO95086-8RU x Blazer Russet). Cross was made and selected in Colorado. Medium early maturity. Medium large vine size. Purple flower color.

Uses: fresh.

Strengths:

Weaknesses: low yield, small, light set, low yield, ugly

Cutting Notes:

CO04013-1W/Y-Round White. Parentage (ATC98495-1W/Y x CO97237-5W/Y). Cross was made and selected in Colorado. Medium maturity. Medium large vine size. Purple flower color.

Uses: specialty.

Strengths: very nice dark yellow flesh

Weaknesses: heat sprouts very small, grape size, low yield, drop+

Cutting Notes: nice shape, FL=2.5

CO04021-2R/Y-Oblong Red/Yellow. Parentage (ATC98509-1R/Y x US147-96R/Y). Cross was made and selected in Colorado. Medium maturity. Large vine size. Light purple flower color.

Uses: specialty.

Strengths: nice, nice flesh+, smooth

Weaknesses: small light skin,

Cutting Notes: FL=2.8

CO04045-4P/P- Round Purple. Parentage (CO97215-2P/P x CO97216-1P/P). Cross was made and selected in Colorado. Medium early maturity. Small vine size. White flower color.

Uses: specialty.

Strengths: nice dark flesh, nice flesh, nice shape BOT+

Weaknesses: poor skin finish silver scurf

Cutting Notes: very dark flesh, FL=5

CO04117-5PW/Y-Oblong White. Parentage (Inca Gold x US147-96R/Y). Cross was made and selected in Colorado. Very early-early maturity. Small vine size.

Uses: specialty.

Strengths: BOT better rep, less rot

Weaknesses: rot++, low yield

Cutting Notes: nice flesh, poor shape, pinto, FL=3.5

CO111f2-1 P/P- Oblong Purple/Purple. Parentage (??). Cross made and selected in Colorado.

Uses: specialty.

Strengths: high in anti-oxidants

Weaknesses:

Cutting Notes: very dark flesh

CO99053-3RU-Long Russet. Parentage (AC91014-2 x Silverton Russet). Cross was made and selected in Colorado. Late maturity. Large vine size. White flower color

Uses: dual.

Strengths: nice shape heavy set, blocky +-

Weaknesses: skinny, long, heat sprouts, rot,

Cutting Notes:

CO99053-4RU- Long Russet. Parentage (AC91014-2 x Silverton Russet). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: fresh.

Strengths: nice shape

Weaknesses: low yield++,

Cutting Notes:

CO99076-6R- Round Red. Parentage (AC91848-1 x Rio Colorado). Cross was made and selected in Colorado. Early maturity. Medium vine size. Red-purple flower color

Uses: fresh.

Strengths: great color+ BOT,

Weaknesses: small,

Cutting Notes: nice, small, uniform

CO99100-1RU- Oblong Russet. Parentage (AC93047-1 x Silverton Russet). Cross was made and selected in Colorado. Early maturity. Small-medium vine size. White flower color.

Uses: dual.

Strengths:

Weaknesses: bad rep, low yield+, light set, small

Cutting Notes:

CO99256-2R- Oblong Red. Parentage (Rio Colorado x Colorado Rose). Cross was made and selected in Colorado. Medium maturity. Large vine size. Purple flower color

Uses: fresh.

Strengths:

Weaknesses: late, small, yield-, late, small, yield-, feathering, ZC?, heat sprouts+, sticky stolon, drop+

Cutting Notes: very small, poor shape

COTX01403-4R/Y- Oblong Red/Yellow Parentage (VC1015-7R/Y x Winema). Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: nice, BOT+

Weaknesses: ZC? oversized++, knobs, poor skin finish, poor internals, vascular brownspot, ugly, large tuber, rough, poor shape 1FC =3.0

Cutting Notes: nice size and shape and skin, FL=2.5

COTX02172-1R-Oblong Red. Parentage (CO94065-2R x ND3574-5R). Cross was made in Colorado and selected in Texas. Medium early maturity. Medium vine size. Lavender flower color.

Uses: fresh.

Strengths: uniform heavy set+++ , nice flesh+ , small potato

Weaknesses: small

Cutting Notes: red streak in flesh

COTX02377-1W- Round White-Buff. Parentage (Dakota Pearl x Chipeta). Cross was made in Colorado and selected in Texas.

Uses: chip.

Strengths:

Weaknesses: rough, small drop++ :

Cutting Notes: small, shriveled

Chip Notes: DROP

COTX03187-1W- Long White. Parentage (AC89536-5RU x A9304-3). Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: smooth, nice interior

Weaknesses: not fingerling type, large tubers, can oversize, not curved

Cutting Notes: larger tubers nice shape

COTX03270-1W- Oblong White-Buff. Parentage (CO95007-1RU x AC96052-1RU). Cross was made in Colorado and selected in Texas.

Uses: chip.

Strengths: smooth

Weaknesses: rough, oblong to long, low yield, small, light set, egg size

Cutting Notes: small

Chip Notes: DROP

COTX03303-1W- Oblong White. Parentage (CO96083-7RU X Silverton Russet). Cross was made in Aberdeen and selected in Texas.

Uses: chip.

Strengths:

Weaknesses: feathering, hollow heart, drop?, pointed+ heat sprouts+++

Cutting Notes: nice shape, small buff, poor internals, blackspot

Chip Notes: CR=1+DROP

COTX04050-1P/P- Oblong Purple/Purple. Parentage (CO97215-2P/P x CO97306-2P/P). Cross was made in Colorado and selected in Texas

Uses: specialty.

Strengths heavy set TC, very dark flesh, BOT

Weaknesses: variable flesh color, all blue like flesh, silver scurf

Cutting Notes: nice shape smooth, nice dark purple flesh, FL=5

COTX04188-3R/Y- Oblong Red/Yellow. Parentage (ATC98515-1R/Y x ATC98444-1R/Y).

Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: FC=3.5

Weaknesses: low yield feathering, 20% ZC?, drop++, 10%ZC?

Cutting Notes: small, light flesh uniform, small, FL=2.5

COTX04193-2R/Y- Oblong Red/Yellow. Parentage (ATC98515-1R/Y x ND3574-5R). Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: small potato, nice dark flesh, very heavy set+, b size, BOT small, BOT-, nice flesh++

FC=4.5

Weaknesses: silver scurf

Cutting Notes: light flesh smooth, small, FL=2

COTX04267-1R/Y- Oblong Red/Yellow. Parentage (CO98012-5R x CO97232-2R/Y). Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: very nice flesh, heavy set FC=4.4

Weaknesses: light skin, growth cracks, rough, ZC? small, poor shape

Cutting Notes: nice flesh small, FL=2

COTX05037-4Y/Y- Oblong Yellow/Yellow. Parentage (AC99330-1P/Y x CO97227-2P/PW).

Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses: light set+, chain tubers, drop++no seed, dropped

Cutting Notes: very small, FL=2.5

COTX05082-2P/P- Oblong Purple/Purple. Parentage (CO97227-2P/P x WMSG147-3). Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths

Weaknesses: light set, low yield

Cutting Notes: very dark flesh, FL=5

COTX05095-2Ru/Y- Long Russet/Yellow. Parentage (CO99045-1W/Y X AO96164-1). Cross was made in Aberdeen and selected in Texas.

Uses: fresh.

Strengths: heavy set+, yield parent, yellow flesh, keep

Weaknesses: poor skin finish, light yellow flesh, small, low yield

Cutting Notes: yellow flesh, pointed FL=2.5

COTX06245-3R/Y- Oblong Red/Yellow. Parentage (CO01399-11R/Y X A83350-9R). Cross was made in Colorado and selected in Texas

Uses: fresh.

Strengths:

Weaknesses: all b size, very light flesh, drop++ FC=2.0

Cutting Notes: nice flesh

COTX07009-7Ru- Oblong Russet. Parentage (AC97306-1RU x CO99053-3RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: light set

Cutting Notes: nice shape

COTX07009-8Ru- Oblong Russet. Parentage (AC97306-1RU x CO99053-3RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes: nice skin

COTX07018-2Ru- Long Russet. Parentage (AC99375-1RU x CO99053-3RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths: keep

Weaknesses: ugly net, light russet skin

Cutting Notes: large

COTX07024-1Ru- Oblong Russet. Parentage (AC00033-2RU x CO98067-7RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: low yield, poor internals, drop, 50% mahogany browning:

Cutting Notes: nice shape, small

COTX07024-4Ru- Long Russet. Parentage (AC00033-2RU x CO98067-7RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes: hollow heart

COTX07054-2R- Oblong Red. Parentage (ATDC9801-3P x CO99076-6R) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths: BOT in basket

Weaknesses: small

Cutting Notes:

COTX07154-1R/Y- Round Red/Yellow. Parentage (Rodeo x CO99076-6R) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: FC=2.0

Weaknesses: feathering

Cutting Notes:

COTX07168-1Ru- Long Russet. Parentage (A89219-7RU x AC97306-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: oversized, large tubers, poor internal, very light russet, too fat

Cutting Notes: larger tubers

COTX07172-1W- Long White. Parentage (A90045-7RU x AC98043-2RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: buff skin, bad rep

Cutting Notes: skinny

COTX07179-2Ru- Oblong Russet. Parentage (A93157-6LS x CO98067-7RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes: small, skinny

COTX07199-2Ru- Oblong Russet. Parentage (AC97044-4RU x Blazer Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: ugly net+, light russet skin

Cutting Notes: light skin

COTX07206-1Ru- Long Russet. Parentage (AC97306-1RU x CO99028-2RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths: nice white flesh

Weaknesses: skinny

Cutting Notes:

COTX07354-1Ru- Oblong Russet. Parentage (PA99N82-4 x CO99100-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths: * in basket, blocky

Weaknesses: poor internals

Cutting Notes: nice shape

COTX07380-2Ru- Long Russet. Parentage (Blazer Russet x CO99100-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses: pointed, hollow heart, drop++

Cutting Notes:

COTX07382-1W/Y Oblong White/Yellow. Parentage (Blazer Russet x Innovator) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: few culls, FC=2.0

Weaknesses: poor internals, rough, oblong to long, knobs

Cutting Notes: nice shape and flesh

COTX07382-2W/Y- White/Yellow. Parentage (Blazer Russet x Innovator) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths: high biomass FC=2.0

Weaknesses: oversized, rough, many culls,

Cutting Notes: nice flesh

COTX08013-3Ru- Russet. Parentage (A99073-1 x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08014-2Ru- Russet. Parentage (A99073-1 x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08044-1R/R- Red/Red. Parentage (FF x KP (501) x FF x KP (501)) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08045-2R/R- Red/Red. Parentage (FF x KP (501) x POR01PG22-1) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08046-2R- Red. Parentage (FF x KP (501) x Magic Molly) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08046-3R/R- Red/Red. Parentage (FF x KP (501) x Magic Molly) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08046-5R/R- Red/Red. Parentage (FF x KP (501) x Magic Molly) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08046-8P/P- Purple/Purple. Parentage (FF x KP (501) x Magic Molly) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08046-9P/P- Purple/Purple. Parentage (FF x KP (501) x Magic Molly) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08056-10R – Red. Parentage (French Fingerling x POR01PG22-2) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08056-12R/R- Red/Red. Parentage (French Fingerling x POR01PG22-2) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08056-5R/R- Red/Red. Parentage (French Fingerling x POR01PG22-2) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08056-6R/R- Red/Red. Parentage (French Fingerling x POR01PG22-2) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08061-3R/R- Red/Red. Parentage (Magic Molly x POR01PG22-1) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08063-2Ru-Russet. Parentage (A93157-6LS x A99073-1) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08078-1Ru-Russet. Parentage (A95109-1 x Blazer Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08080-7Ru-Russet. Parentage (A95409-1 x CO02098-3RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08117-1Ru- Russet. Parentage (A99073-1 X Summit Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08118-2Ru- Russet. Parentage (A0008-1TE X CO98067-7RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08121-1Ru-Russet. Parentage (AC96052-1RU X Blazer Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08121-3Ru- Russet. Parentage (AC96052-1RU X Blazer Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08121-4Ru- Russet. Parentage (AC96052-1RU X Blazer Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08122-1Ru- Russet. Parentage (AC97306-1RU x A93157-6LS) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08214-2Ru- Russet. Parentage (AWN86514-2 x Canela Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08291-7W- White. Parentage (PA99N82-4 x Summit Russet) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-10Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-11Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-2Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-3Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-4Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-5Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-7Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08322-8Ru- Russet. Parentage (Blazer Russet x AC96052-1RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08323-3Ru- Russet. Parentage (Blazer Russet x AOTX95265-4RU) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08365-1P/P – Purple/Purple. Parentage (POR01PG16-1 x CO00405-1R) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08365-3P/P- Purple/Purple. Parentage (POR01PG16-1 x CO00405-1R) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08365-4R/R- Red/Red. Parentage (POR01PG16-1 x CO00405-1R) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08365-5P/P- Purple/Purple. Parentage (POR01PG16-1 x CO00405-1R) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08367-2R/R- Red/Red. Parentage (POR01PG20-12 x CO00405-1R) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08376-1R- Red. Parentage (US147-96 x POR01PG22-1) Cross was made in Colorado and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

COTX08376-2R/Y-Red/Yellow. Parentage (US147-96 x POR01PG22-1) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX08387-1R/R –Red/Red. Parentage (French Fingerling x POR01PG20-12) Cross was made in Colorado and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

COTX94216-1R- Round Red. Parentage (Purple Peruvian x Chipeta). Cross was made in Colorado and selected in Texas. Medium maturity. Medium vine size. Purple flower color.

Uses: fresh.

Strengths good color+:

Weaknesses: poor skin finish++, buff, drop for skin finish yield-, light set, small, heat sprouts, drop++, silver scurf, poor skin finish

Cutting Notes: nice skin and flesh uniform, nice

COTX94218-1R- Round Red. Parentage (Red Ruby x Red Gold). Cross was made in Colorado and selected in Texas. Medium maturity. Large vine size. Lavender flower color.

Uses: fresh.

Strengths: nice flesh, did not oversize, shallow eyes

Weaknesses: late, small, yield-, sticky stolon, feathering+, heat sprouts+

Cutting Notes: nice skin and flesh small, uniform

Dark Red Norland- Oblong Red. Parentage (Redcoat x ND626). Cross was made and selected in North Dakota. Dark Red Norland is a clonal selection made by Stan Barrett of Texas and propagated by Gene Shaver, Nebraska. Early maturity. Medium vine size. Purple flower color.

Uses: fresh.

Strengths: Early maturity, dark red tubers, high resistance to PVA and moderate resistance to common scab, PVY and PLRV.

Weaknesses: Tuber color will fade if allowed to fully mature, tubers exhibit variable tuber color and size, enlarged lenticels, will heat sprout and hollow heart, susceptible to PVS and early and late blights, rough, deep eyes, faded red skin, rusting silver scurf+, pointed Rhizoctonia

Cutting Notes: nice shape and flesh

FL1833- Round White. Parentage (??). Cross was made and selected by FRITO LAY CO.

Uses: chip.

Strengths: nice shape yellow flesh

Weaknesses: large, very poor internals heat sprouts

Cutting Notes:

Chip Notes:

FL1867- Round White. Parentage (FL 162 x ATLANTIC). Cross was made and selected by FRITO LAY CO.

Uses: chip.

Strengths nice

Weaknesses: low yield, heat sprouts+++

Cutting Notes: small, firm, nice shape small, shriveled

Chip Notes: CR=1

FL1922- Round White. Parentage (FL 1207 x AUK). Cross was made and selected by FRITO LAY CO.

Uses: chip.

Strengths:

Weaknesses: low yield, oblong, poor shape++++, drop, pear shaped poor shape, pointed, drop, light set

Cutting Notes: small, shriveled, poor internals, brownspot

Chip Notes: CR=1

FL2048- Oblong White. Parentage (??). Cross was made and selected by FRITO LAY CO.

Uses: chip.

Strengths: nice, buff

Weaknesses: light set, oblong.

Cutting Notes: large tubers

Chip Notes: CR=1

FL2053- Round White. Parentage (??). Cross was made and selected by FRITO LAY CO.

Uses: chip.

Strengths:

Weaknesses: rough oblong, pointed, drop

Cutting Notes: small

Chip Notes:

JTTX69-1Ru-White. Parentage (Atlantic x 2268). Cross was made in at USDA-ARS, Madison, Wisconsin, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

JTTX94-1W White. Parentage (2293 x 2268). Cross was made in at USDA-ARS, Madison, Wisconsin, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

JTTX94-2W White. Parentage (2293 x 2268). Cross was made in at USDA-ARS, Madison, Wisconsin, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

JTTX94-3W White. Parentage (2293 x 2268). Cross was made in at USDA-ARS, Madison, Wisconsin, tuberling produced in Texas, and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX050070-1R- Round Red. Parentage (ND 8375b-6R x ND 8347CB-12R). Cross was made in North Dakota and selected in Texas.

Uses: fresh.

Strengths: heavy set small potato

Weaknesses: b size small heat sprouts, drop+,

Cutting Notes: small, uniform yellow flesh

NDTX050184-1R/Y- Round Red/Yellow. Parentage (ND 028577-6RY x ND 8555-8R). Cross was made in North Dakota and selected in Texas.

Uses: fresh.

Strengths nice skin, heavy set, b size, BOT+ keep, small potato FC=2.5

Weaknesses: very light flesh, feathering

Cutting Notes: very light flesh, small, FL=1.5

NDTX059759-3Pinto/Y- Oblong Pinto/Yellow. Parentage (ATND 99331-2 Pinto x ND 7834-2P). Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths: FC=2.0

Weaknesses: red poor shape, small tubers, low yield light set

Cutting Notes: small nice red color, pinto, FL=2

NDTX059828-2W- Round White. Parentage (ND 4659-5R x ND 8524B-1R). Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses: drop heat sprouts

Cutting Notes:

Chip Notes:

NDTX059886-1Y/Y- Oblong Yellow/Yellow. Parentage (ND 7192-1 x ND 8178-1Y). Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths: TC , baby baker heavy set heavy set

Weaknesses: variable skin finish light flesh, round to oblong, light set, bad rep poor rep, light set, larger tubers

Cutting Notes: nice shape small, uniform FL=2

NDTX059997-6W- Round White. Parentage (ND 7799c-1 x ND 860-2).Cross was made in North Dakota and selected in Texas

Uses: chip.

Strengths:

Weaknesses: no seed, dropped

Cutting Notes:

NDTX060700C-1W- Round White. Parentage (NDTX 7560C-4 x NDTX 7192-1).Cross was made in North Dakota and selected in Texas

Uses: chip.

Strengths:

Weaknesses: low yield, drop+++ baby baker, russet skin, very small, mixed flesh

Cutting Notes: small: poor internals

Chip Notes: BOT

NDTX071084C-2W- Round White. Parentage (ND 6809C-3 x ND 860-2) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths: baby baker, nice, small, keep

Weaknesses:

Cutting Notes:

Chip Notes: BOT

NDTX071109C-1W- Round White. Parentage (ND 7226C-17 x ND 860-2) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths: BOT

Weaknesses: rough

Cutting Notes: small

NDTX071112-5W- Round White. Parentage (ND 7818-1Y x ND 860-2) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths: keep

Weaknesses: rough, yellow flesh pointed

Cutting Notes:

Chip Note: DROP

NDTX071217CB-1W/Y- Round White. Parentage (ND 028801CB-1 x ND 039004B-2Y) Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths: some pointed, yellow flesh

Weaknesses:

Cutting Notes: yellow flesh

NDTX071258B-1R- Round Red. Parentage (ND 039035B-9R x ND 4659-5R) Cross was made in North Dakota and selected in Texas.

Uses: fresh.

Strengths: heavy set, not many culls white flesh, BOT-, TC

Weaknesses: deep eyes

Cutting Notes: nice flesh

NDTX081451CB-1Y/Y- Oblong Yellow/Yellow. Parentage (Dakota Diamond x Gala) Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths: heavy set and yield, nice flesh, few culls, small FC=3.0

Weaknesses: (bad rep, drop?)

Cutting Notes: smooth, nice flesh

NDTX081572B-1R- Red. Parentage (ND 4659-5R x ND 028940B-102R) Cross was made in North Dakota and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081618-1P/P- Purple/Purple. Parentage (ND 7834-2P x ND 5858) Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081644CAB-2W- White. Parentage (ND 8331Cb-3 x ND 028804CAb-5) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081648CB-13W- White. Parentage (ND 8456-1 x ND7377CB-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081648CB-1W- White. Parentage (ND 8456-1 x ND7377CB-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081648CB-2W- White. Parentage (ND 8456-1 X ND7377CB-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081648CB-4W- White. Parentage (ND 8456-1 X ND7377CB-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081651CAB-2W- White. Parentage (ND 8479C-2 X ND 039163AB-209) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX081803Ab-2Y/Y- Yellow/Yellow. Parentage (793101.3 X ND 039163Ab-209) Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

NDTX091886-3P/P- Purple/Purple. Parentage (COND 04082-8RR X ND 7519-1) Cross was made in North Dakota and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses:

Cutting Notes:

NDTX091908AB-2W- White. Parentage (Ebt 6-21-5 X ND 7519-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX091908AB-4W- White. Parentage (Ebt 6-21-5 X ND 7519-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX091908AB-9W- White. Parentage (Ebt 6-21-5 X ND 7519-1) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

NDTX4271-5R- Round Red. Parentage (NDTX9-1068-1R x ND2050-1R). Cross was made in North Dakota and selected in Texas. Early to medium maturity. Medium vine size.

Uses: fresh.

Strengths: smooth nice, good color, nice shape

Weaknesses: light set+ growth cracks

Cutting Notes: small

NDTX4784-7R- Round Red. Parentage (ND3574-5R x ND2050-1R). Cross was made in North Dakota and selected in Texas. Early maturity. Medium vine size. Lavender flower color

Uses: fresh.

Strengths: nice shape nice appearance high yield, good color heavy set BOT+, smooth

Weaknesses: road map silver scurf light set, poor skin finish: silver scurf

Cutting Notes: larger tubers, nice

NDTX5003-2R- Round Red. Parentage (ND3504-3R x ND2050-1R). Cross was made in North Dakota and selected in Texas. Very early maturity. Small vine size. Lavender flower color

Uses: fresh.

Strengths: good color nice, yield+, nice shape

Weaknesses: feathering++, ZC?, zipper eye, drop+ light set, drop

Cutting Notes: uniform, nice

NDTX5438-11R- Round Red. Parentage (ND4339-10R x ND4269-9R). Cross was made in North Dakota and selected in Texas. Late maturity. Medium vine size. Lavender flower color.

Uses: fresh.

Strengths: nice shape

Weaknesses: feathering, light set small, light set

Cutting Notes: very nice

NDTX731-1R- Round Red. Parentage (ND169-10R x ND9476-5). Cross was made in North Dakota and selected in Texas. Early maturity. Medium-large vine size.

Uses: fresh.

Strengths: nice, nice red skin finish, nice round shape, parent BOT

Weaknesses: yield-, ZC?, low yield poor skin finish, bad rep

Cutting Notes: small

NDTX8305-2W- White. Parentage (ND 2471-8 x White. Pearl) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes: small

Chip Notes: DROP

NDTX8305-3W- White. Parentage (ND 2471-8 x White. Pearl) Cross was made in North Dakota and selected in Texas.

Uses: chip.

Strengths: keep

Weaknesses:

Cutting Notes:

Chip Notes: CR=1

NY138(Waneta)- Oblong White. Parentage (?). Cross made and selected at Cornell University.

Uses: chip.

Strengths: smooth, soft, BOT

Weaknesses: low yield

Cutting Notes: no sprouts

PTTX05PG07-1W- Long White. Parentage (POR01PG22-1 x OR00067-7). Cross was made in Prosser, Washington, tuberling produced in Texas and selected in Texas.

Uses: specialty.

Strengths: smooth shape, nice flesh, smooth BOT

Weaknesses: light set, bad rep

Cutting Notes: very nice shape

Purple Majesty- Oblong Purple/Purple. Parentage (ND2008-2 x All Blue). Cross made and selected in Colorado. Late maturity. Large vine size. Blue flower color

Uses: specialty.

Strengths: nice shape

Weaknesses: road map, poor skin finish, all blue like flesh, small++

Cutting Notes: all blue like flesh, very dark flesh, FL=5

Purple Peruvian- Long Purple/Purple. Parentage (ND1562-4R x NDTX9-1098-11R).

Uses: specialty

Strengths: nice flesh color

Weaknesses: all blue like flesh, drop, darker flesh, very small deep eyes, small

Cutting Notes: deep eyes

Ranger Russet- Long Russet. Parentage (Butte x A6595-3). Cross was made and selected in Aberdeen. Released in 1991 by USDA-ARS, and the Colorado, Aberdeen, Oregon and Washington Agricultural Experiment Stations. Medium-late maturity. Large vine size. White flower color.

Uses: dual

Strengths: dual purpose, medium to high specific gravity, good fry color from 45° storage, resistance to internal defects including hollow heart, brown center, net necrosis and sugar ends, high yield of large tubers, resistance to early dying.

Weaknesses: susceptibility to scab, tendency for deep eyes, susceptibility to stress induced malformities, mediocre performance in Texas, feathering sticky stolon drop

Cutting Notes: skinny

Red LaSoda- Oblong Red. Parentage (Triumph x Katahdin). Cross was made and selected in Louisiana. Red LaSoda is a clonal selection from LaSoda made by Louisiana State University. Medium maturity. Medium-large vine size. Purple flower color.

Uses: fresh.

Strengths: high yields, wide adaptability nice white, flesh.

Weaknesses: Deep eyes, light color, occasional hollow heart, occasional growth cracks, Susceptible to PVX, PVY, PVS, PVM, PLRV, early and late blights, scab, corky ring spot, bacterial wilt, and Rhizoctonia, tubers can over-size and have poor skin set.

Cutting Notes: nice, small, uniform

Rio Rojo (073)- (Protected – PVP). - Round-oval Red. Parentage (ND1562-4R x NDTX9-1098-11R). Evaluated as NDTX4304-1R. Cross was made in North Dakota and selected in Texas. Early to medium maturity. Medium vine size. Dormancy is similar to Red LaSoda but longer than Dark Red Norland.

Uses: fresh.

Strengths: nice shape

Weaknesses: mixed, light set, rot ZC?, bad rep, low yield

Cutting Notes: small

Russet Burbank- Long Russet. Luther Burbank reported the origin of Russet Burbank in 1914 as a chimeric selection from the variety Burbank by Lou Sweet. Lou Sweet was a potato grower in

the western slope area of Colorado and was President of the Potato Association of America in 1920. Late maturity. Large vine size. White flower color.

Uses: dual.

Strengths: Tolerant to scab, good long term storage.

Weaknesses: Susceptible to Fusarium and Verticillium wilts, PLRV, PVY and net necrosis, Jelly-end and sugar-end develop in tubers when plants are subjected to stress, stress results in knobs, pointed ends, and dumbbells many culls, Rhizoctonia++, rough, poor shape, skinny

Cutting Notes:

Russet Norkotah- Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Released in 1987 by the North Dakota Agricultural Experiment Station. Early-medium maturity. Medium vine size. Corolla is white and anthers are yellow-orange.

Uses: fresh.

Strengths: uniform tuber shape, excellent appearance, and resistance to hollow heart, shallow eyes, high percentage of #1 tubers, tolerance to common scab and silver scurf nice flesh.

Weaknesses: weak vine, susceptibility to early dying, most virus

Uses: especially PVY, and late blight, and very susceptible to Verticillium wilt and early blight Rhizoctonia, low yield.

Cutting Notes: nice shape, Oregon seed, small points

Russet NorkotahS3 (Protected – PVP)-. Oblong-long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross was made and selected in North Dakota. S3 is a mutant strain selection made in Colorado. Large vine size. White flower color.

Uses: fresh.

Strengths:

Weaknesses

Russet NorkotahS8. (Protected – PVP)-. Oblong-long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross was made and selected in North Dakota. S3 is a mutant strain selection made in Colorado. Large vine size. White flower color.

Uses: fresh.

Strengths: potential for high yield, nice shape.

Weaknesses:

Russet Norkotah112 (Protected – PVP)-. Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Russet Norkotah112 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity.

Medium-large vine size. White flower color.

Uses: fresh.

Strengths: good yield, uniform tuber shape, excellent appearance, resistance to hollow heart, some increased resistance to early dying, and environmental stresses, lower N requirement, more vigorous, and higher yielding than Russet Norkotah, heavy net, BOT.

Weaknesses: five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah Rhizoctonia thin, pointed

Cutting Notes:

Russet Norkotah223 (Protected – PVP)-. Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Russet Norkotah223 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity.

Medium-large vine size. White flower color.

Uses: fresh.

Strengths: good yield, uniform tuber shape, excellent appearance, resistance to hollow heart, some increased resistance to early dying, and environmental stresses, lower N requirement, more vigorous, and higher yielding than Russet Norkotah, heavy net, BOT.

Weaknesses: five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah Rhizoctonia thin, pointed

Cutting Notes:

Russet Norkotah278 (Protected – PVP)-. Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Russet Norkotah278 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity.

Medium-large vine size. White flower color.

Uses: fresh.

Strengths: good yield, uniform tuber shape, excellent appearance, resistance to hollow heart, some increased resistance to early dying, and environmental stresses, lower N requirement, more vigorous, and higher yielding than Russet Norkotah, heavy net, BOT.

Weaknesses: five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah Rhizoctonia thin, pointed

Cutting Notes:

Russet Norkotah296 (Protected – PVP)- Oblong-Long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross was made and selected in North Dakota. Russet Norkotah296 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity.

Medium vine size. White flower color.

Uses: fresh.

Strengths: nice, BOT.

Weaknesses: five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah, rot.

Cutting Notes:

Sierra Gold (Protected – PVP)- Round-oblong Russet/Yellow. Parentage (Krantz x Delta Gold). Cross was made and selected in Texas. Early maturity. Medium vine size.

Uses: specialty.

Strengths: nice, very nice FC=3.0

Weaknesses: low yield, poor shape, knobs, light set, rot

Cutting Notes: nice, BOT FL=2

Snowden- Oblong White. Parentage (B5141-6 x Wischip) Cross was made at the University of Wisconsin. Late maturity. White flower color

Uses: chip.

Strengths

Weaknesses: light set, poor internals

Cutting Notes: small, shriveled

Chip Notes: yield+, buff, heavy set, nice, nice flesh

Stampede Russet (Protected – PVP)- Oblong-Long Russet. Parentage (BR7091-1 x Lemhi Russet), cross made in Texas, selected in Idaho and tested extensively in Alberta, Canada. Released in 1999 by Agriculture and Agri-Food Canada and the Texas Agricultural Experiment Station. Early maturity. Medium vine size. Lavender flower color.

Uses: fresh.

Strengths nice, * in basket nice shape, nice, blocky

Weaknesses: rot, light set+, low yield 20ZC small+

Cutting Notes: large tubers skinny, small

TX03196-1W- Round White. Parentage (NDTX4748-7R x Adora). Cross was made and selected in Texas.

Uses: chip.

Strengths:

Weaknesses: rough, drop very low yield

Cutting Notes: no sprouts

Chip Notes: DROP

TX05249-10W- Round White. Parentage (Gem Russet x A91790-13). Cross was made and selected in Texas.

Uses: chip.

Strengths: early bulk

Weaknesses: rough drop, yield-, sticky stolon CR=2

Cutting Notes: oversized

Chip Notes:

TX05249-11W- Round White. Parentage (Gem Russet x A91790-13). Cross was made and selected in Texas.

Uses: chip.

Strengths:

Weaknesses:

Cutting Notes:

TX08350-12Ru- Russet. Parentage (TXA549-1Ru x AC96052-1RU). Cross was made and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

TX08350-3Ru- Russet. Parentage (TXA549-1Ru x AC96052-1RU). Cross was made and selected in Texas.

Uses: fresh.

Strengths:

Weaknesses:

Cutting Notes:

TX08378-1R/R- Red/Red. Parentage (POR01PG20-12 x POR02PG26-5) Cross was made and selected in Texas.

Uses: specialty.

Strengths:

Weaknesses: growth cracks, more culls

Cutting Notes:

TX08378-3R- Long Red. Parentage (POR01PG20-12 x POR02PG26-5) Cross was made and selected in Texas.

Uses: fresh.

Strengths: heavy set, light yellow flesh with red center, BOT

Weaknesses: oversized

Cutting Notes:

TX1673-1W- Oblong White. Parentage (Russet Nugget x CS 7802L-2). Cross was made in Texas and selected in Texas.

Uses: chip.

Strengths:

Weaknesses: oversized baker?

Cutting Notes: nice

Chip Notes: DROP

TX1674-1W/Y- Long White/Yellow. Parentage (Russet Nugget x Delta Gold). Cross was made and selected in Texas.

Uses: specialty.

Strengths: smooth few misshaped, oblong to long FC=2.8

Weaknesses: dumbbell, long rough, drop, heat sprouts CR

Cutting Notes: nice flesh skinny, FL=2

TXA549-1Ru- Oval Russet. Parentage (ND9687-3Ru x ND9852-1Ru). Cross was made in Texas, selected in Aberdeen and tested extensively in Alberta, Canada. Medium-late maturity. Medium-large vine size. Purple flower color with White tips.

Uses: dual.

Strengths: blocky, keep, * in basket, nice, BOT+, heavy set, very nice, blocky, BOT+,

Weaknesses: low yield

Cutting Notes: blocky, nice shape, BOT

TXNS410-. Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS410 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium-large vine size. White flower color.

Uses: fresh

Strengths:

Weaknesses: hollow heart, light set, low yield

Cutting Notes: very small

TXYG055- Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG055 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: specialty

Strengths: very nice skin, shape and flesh, darker flesh than Yukon, BOT FC=2.5

Weaknesses:

Cutting Notes: nice large tuber, FL=2

TXYG057- Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG057 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: specialty

Strengths

Weaknesses: rough, rot, bad rep growth cracks FC=2.5

Cutting Notes: very nice large tuber, FL=2

TXYG079- Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The

Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG079 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: specialty

Strengths: BOT

Weaknesses: rot

Cutting Notes: large tuber, FL=2

TXYG098- Oblong-White. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. TXYG098 is a mutant strain selection made in 1997 by Texas from the variety Yukon Gold

Uses: specialty

Strengths BOT FC=2.6

Weaknesses: bad rep, rot rough

Cutting Notes: nice shape and skin, FL=2

Yukon Gold- Oblong White/Yellow. Parentage (W5279-4 x Norgleam). Cross was made and selected in Ontario, Canada. Released in 1980 by Agriculture Canada, The University of Guelph, and The Ontario Ministry of Agriculture & Food, Guelph, Ontario. Medium-early maturity. Medium-large vine size. Violet flower color.

Uses: Specialty.

Strengths: Attractive yellow flesh tubers with red eyes, good yield, resistant to mild mosaic, moderately resistant to PLRV.

Weaknesses: Can exhibit some feathering, Susceptible to PVY and common scab, hollow heart and internal heat necrosis can be a problem, Plant establishment is irregular, particularly from basal end seed pieces.

Cutting Notes: large tuber, FL=2,

Appendix B. Parentage of potato varieties or selections-2011.

Variety or Selection	Parentage
Ackersegen	Hindenburg x Allerfruheste
Adora	Pimura x Alcmaria
Agria	Quarta x Semlo
All Blue	Unknown
Alpha	Paul Kruger x Preferent
Ambra	Duke of York x Reneta Lub B 53
Asterix	Cardinal x SVP VE 70-9
Atlantic	Wauseon x Lenape
Avalanche	DHS40-1034 9 x Maris Piper
Aziza	Smeenge 69-17 x Smeenge74-5
Banana	
Beacon Chipper	??
Binje	Munstersen x Fransen
Boulder	MS702-80 x NY88
Caesar	Monalisa x Rop B 1176
Carola	
Carrera	
Century	A6789-7 x A6680-5
Chieftain	la1027-18 x La1354
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	

Variety or Selection	Parentage
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
Green Mountain	Dunmore x Excelsior
Hertha	Dijkhuis61-133 x Konst62-374
Ilong	
Innovator	Shepody x RZ 84-2580
Irish Crispin	Amigo x DH70-699 3a
Ivory Crisp	ND292-1 x A77268-4
Kalkaska	B1254-1 X S440
Keuka Gold	Steuben x Norwis
King Harry	
Klondyke Rose	
Krasaua	Visnovske Rohlic x B53
La Rouge	LaSoda x Progress
Latona	Jaerla x Nicola
Magic Molly	Open pollinated seed ball from Red Beauty
Maris Piper	
Mazama	ND1196-2R x Redsen

Variety or Selection	Parentage
MegaChip	Wischip x FYF85
Molli	
Mondial	Spunta x Ve 66-295
Morning Gold	Olinda x Y 68-4-103
NorDonna	ND206-1R x ND821-6R
Norgold-M	ND2475-8 x A119-1
NorValley	NorChip x ND860-2
Oscar	Desiree x VK 64 491
Ottar	Dore x DsxAS-737
Penta	Bellona x Estima
Pimpernel	
Platina	
Premiere	
Primica Inta	
Prince Hairy	Hudson x PI 310925
Purple Majesty	ND2008-2 x All Blue
Purple Peruvian	ND1562-4R x NDTX9-1098-11R
Ranger Russet	Butte x A6595-3
Red Gold	G68211 x G6521-4RY
Red LaSoda	Triumph x Katahdin
Rio Rojo	ND1562-4R x NDTX9-1098-11R
Rose Gold	Abnaki x G6521-4RY
Russet Burbank	Mutant from Burbank
Russet Legend	Century Russet x WNC672-2
Russet Norkotah	ND9526-4RU x ND9687-5Ru
Russet Norkotah112	ND9526-4RU x ND9687-5Ru
Russet Norkotah223	ND9526-4RU x ND9687-5Ru
Russet Norkotah278	ND9526-4RU x ND9687-5Ru
Russet Norkotah296	ND9526-4RU x ND9687-5Ru
Rutt	Laila x Alcmaria

Variety or Selection	Parentage
Saginaw Gold	MS321-38 x Michibonne
Sangre	Viking x A6356-9
Sangre10	Viking x A6356-9
Sante	SVPY66-13-636 x AM66-42
Satina	Puntila x 99 73
Shepody	Bakeking x F58050
Sierra Gold™	Krantz x Delta Gold
Snowden	B5141-6 x Wischip
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
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	
A00324-1	Ranger Russet x Premier Russet
A01010-1	A92303-7 x A96004-8
A01025-4	A96095-3 x Premier Russet
A01143-3C	COA95070-8 x Chipeta
A02060-3TE	A97201-4 x Premier Russet
A98345-1	Ranger Russet x Premier
A99331-2RY	Inca Gold x COA94019-5R
A99433-5Y	Chipeta x MSG274-3
AC00395-2RU	A95523-12 x A84118-3

Variety or Selection	Parentage
AC01151-5W	COA96142-7 x NDA2031-2
AC03433-1W	A94322-8C x COA96141-4
AC99375-1RU	AWN86514-2 x A89384-10
AOTX02060-1Ru	A97201-4 x A93157-6LS
AOTX061009-2Ru	PA03NM3-4 x PA99N2-1
AOTX06562-1Ru	A00444-4LB x A01749-1
AOTX06562-2Ru	A00444-4LB x A01749-1
AOTX06598-1R	A031087-79 x ND4659-5R
AOTX07729-1Ru	A02673-3Y x Premier Russet
AOTX07755-1Ru	AO95518-1 X CO95051-7W
AOTX07876-1Ru	A00715-8 X A93575-4
AOTX07919-1Ru	PA03NM3-4 x A00385-2
AOTX07920-5Ru	PA03NM3-4 X A01054-4
AOTX08070-1W	Highland Russet x A98289-1
AOTX08084-1Ru	Rio Grande Russet X A98289-1
AOTX91861-4R	Red LaSoda x ND2224-5R
AOTX95265-1Ru	A89216-9 x A86102-6
AOTX95265-3Ru	A89216-9 x A86102-6
AOTX95295-1W	A89804-7 x Ranger Russet
AOTX95309-3W	A9055-8LS x A89163-3LS
AOTX96075-1Ru	A84118-3 x A89384-10
AOTX96084-1Ru	A8792-1 X A86102-6
AOTX96216-2Ru	A89216-9 x A86102-6
AOTX96265-2Ru	A90621-4 X A84180-8
AOTX98152-3Ru	A88338-1 X A9201-6
AOTX98202-1Ru	A9201-6 X A9014-2
ATC00293-1W/Y	Agria x TXA1655-1DY
ATX01178-1R	ND5084-3R x Winema
ATX01180-1R/Y	ND5084-3R x A92657-1R
ATX02247-1R	A096863-8 X ND5256-7R

Variety or Selection	Parentage
ATTX03446-4W	A96920-17 x MSI152A
ATTX03474-1W	NDTX4930-5W X C0A96141-4
ATTX03474-2W	NDTX4930-5W X C0A96141-4
ATTX03474-3W	NDTX4930-5W X C0A96141-4
ATTX03475-10Ru	NDTX4930-5W X NYII2
ATTX03475-2W	NDTX4930-5W X NYII2
ATTX03475-6W	NDTX4930-5W X NYII2
ATTX03475-7Ru	NDTX4930-5W X NYII2
ATTX03475-9Ru	NDTX4930-5W X NYII2
ATTX03476-2W	NDTX4930-5W X Chipeta
ATTX03516-2R/Y	A961014-12RY x NDTX4271-5R
ATTX05175-1R/Y	A99331-2RY X COA99261-IRY
ATTX05186-3W/Y	A99433-5Y x VC1075-1R
ATTX06008-2Ru	A920305 x A961098
ATTX06008-6Ru	A920305 x A961098
ATTX06026-1Ru	A99034-2E x AOND95249-1 Russ
ATTX06046-1Ru	C0A00287-1 x Western Russet
ATTX06246-1R	Gogu Valley x Modoc
ATTX06274-2W	C0A99261-IRY x VC1075-IR
ATTX88481-1P/W	A83302-1 x Bison
ATTX88654-2P/Y	PI343201 x Gurney's Purple
ATTX961014-1BR/Y	A90601-2RDY X MAZAMA
ATTX961014-1R/Y	A90601-2RDY X MAZAMA
ATTX98444-16R/Y	A83360-9R X T48YF
ATTX98453-11BR	A93490-1R X A91846-5R
ATTX98453-6R	A93490-1R x A91846-5R
ATTX98510-1R/Y	T48YF X A93456-6R
ATX02263-1R/Y	Inca Gold x A92653-6R
ATX03515-1R/Y	A961014-12RY x NDC5281-2
ATX03516-2R	A961014-12RY x NDTX4271-5R

Variety or Selection	Parentage
ATX03546-1W/Y	ATA98472-2Y x A97523-1RY
ATX03550-2R	NDTX4271-5R x AO96747-2R/Y
ATX05175-3R/Y	A99331-2RY x COA99261-1RY
ATX05186-1R/Y	A99433-5Y x VC1075-1R
ATX05186-2R/Y	A99433-5Y x VC1075-1R
ATX05202-3W/Y	A00286-3Y x A99433-5Y
ATX06173-2W	A99007-12 x AOA95154-1
ATX06264-4R/Y	A99331-2RY x Durango Red
ATX07144-1R	NorDonna x VC1075-1R
ATX07305-1Y/Y	A99433-5Y x Mila
ATX08153-1Y/Y	A00286-3Y x 93-1285-6
ATX84378-6Ru	A79141-9 x ND329-1
ATX91137-1Ru	A81473-2 x A8343-12
ATX9202-3Ru	A8343-12 x A8495-1
ATX9332-12Ru	A8850-1 x A88288-1
ATX99013-1Ru	A8893-1 x A91186-2
ATX99194-3Ru	A94137-1 x GemStar Russet
BTX1544-2W/Y	BO811-13 x Yukon Gold
BTX1749-1W/Y	K7-6 x BO925-4
BTX2103-1R/Y	BO811-13 x ARS-W82-21285-1
BTX2332-1R	B1523-4 x Super Red Norland
CO00188-4W	A90490-1W x BC0894-2W
CO00197-3W	A91790-13W x NDTX4930-5W
CO00270-7W	BC0894-2W x A91790-13W
CO00291-5R	CO94019-1R x Rio Colorado
CO01399-10P/Y	VC1015-5P/Y x Colorado Rose
CO02024-9W	A91790-13W x CO95051-7W
CO02033-1W	A91790-13W x S440
CO02321-4W	NY115W x BC0894-2W
CO03027-2R/R	Mountain Rose x POR00PG2-16P/P

Variety or Selection	Parentage
CO03094-5RF/RW	Austrian Crescent x Huckleberry
CO03187-1RU	Rio Grande Russet x A9304-3
CO03202-1RU	AC96010-3RU x Canela Russet
CO03243-3W	BC0894-2W x A91790-13
CO03276-4RU	CO95086-8RU x Blazer Russet
CO03276-5RU	CO95086-8RU x Blazer Russet
CO04013-1W/Y	ATC98495-1W/Y x CO97237-5W/Y
CO04021-2R/Y	ATC98509-1R/Y x US147-96R/Y
CO04045-4P/P	CO97215-2P/P x CO97216-1P/P
CO04117-5PW/Y	Inca Gold x US147-96R/Y
CO111f2-1 P/P	??
CO99053-3RU	AC91014-2 x Silverton Russet
CO99053-4RU	AC91014-2 x Silverton Russet
CO99076-6R	AC91848-1 x Rio Colorado
CO99100-1RU	AC93047-1 x Silverton Russet
CO99256-2R	Rio Colorado x Colorado Rose
COTX01403-4R/Y	VC1015-7R/Y x Winema
COTX02172-1R	CO94065-2R x ND3574-5R
COTX02377-1W	Dakota Pearl x Chipeta
COTX03187-1W	AC89536-5RU x A9304-3
COTX03270-1W	CO95007-1RU x AC96052-1RU
COTX03303-1W	CO96083-7RU X Silverton Russet
COTX04050-1P/P	CO97215-2P/P x CO97306-2P/P
COTX04188-3R/Y	ATC98515-1R/Y x ATC98444-1R/Y
COTX04193-2R/Y	ATC98515-1R/Y x ND3574-5R
COTX04267-1R/Y	CO98012-5R x CO97232-2R/Y
COTX05037-4Y/Y	AC99330-1P/Y x CO97227-2P/PW
COTX05082-2P/P	CO97227-2P/P x WMSG147-3
COTX05095-2Ru/Y	CO99045-1W/Y X AO96164-1
COTX06245-3R/Y	CO01399-11R/Y X A83350-9R

Variety or Selection	Parentage
COTX07009-7Ru	AC97306-1RU x CO99053-3RU
COTX07009-8Ru	AC97306-1RU x CO99053-3RU
COTX07018-2Ru	AC99375-1RU x CO99053-3RU
COTX07024-1Ru	AC00033-2RU x CO98067-7RU
COTX07024-4Ru	AC00033-2RU x CO98067-7RU
COTX07054-2R	ATDC9801-3P x CO99076-6R
COTX07154-1R/Y	Rodeo x CO99076-6R
COTX07168-1Ru	A89219-7RU x AC97306-1RU
COTX07172-1W	A90045-7RU x AC98043-2RU
COTX07179-2Ru	A93157-6LS x CO98067-7RU
COTX07199-2Ru	AC97044-4RU x Blazer Russet
COTX07206-1Ru	AC97306-1RU x CO99028-2RU
COTX07354-1Ru	PA99N82-4 x CO99100-1RU
COTX07380-2Ru	Blazer Russet x CO99100-1RU
COTX07382-1W/Y	Blazer Russet x Innovator
COTX07382-2W/Y	Blazer Russet x Innovator
COTX08013-3Ru	A99073-1 x AC96052-1RU
COTX08014-2Ru	A99073-1 x AC96052-1RU
COTX08044-1R/R	FF x KP (501) x FF x KP (501)
COTX08045-2R/R	FF x KP (501) x POR01PG22-1
COTX08046-2R	FF x KP (501) x Magic Molly
COTX08046-3R/R	FF x KP (501) x Magic Molly
COTX08046-5R/R	FF x KP (501) x Magic Molly
COTX08046-8P/P	FF x KP (501) x Magic Molly
COTX08046-9P/P	FF x KP (501) x Magic Molly
COTX08056-10R	French Fingerling x POR01PG22-2
COTX08056-12R/R	French Fingerling x POR01PG22-2
COTX08056-5R/R	French Fingerling x POR01PG22-2
COTX08056-6R/R	French Fingerling x POR01PG22-2
COTX08061-3R/R	Magic Molly x POR01PG22-1

Variety or Selection	Parentage
COTX08063-2Ru	A93157-6LS x A99073-1
COTX08078-1Ru	A95109-1 x Blazer Russet
COTX08080-7Ru	A95409-1 x CO02098-3RU
COTX08117-1Ru	A99073-1 X Summit Russet
COTX08118-2Ru	A0008-1TE X CO98067-7RU
COTX08121-1Ru	AC96052-1RU X Blazer Russet
COTX08121-3Ru	AC96052-1RU X Blazer Russet
COTX08121-4Ru	AC96052-1RU X Blazer Russet
COTX08122-1Ru	AC97306-1RU x A93157-6LS
COTX08214-2Ru	AWN86514-2 x Canela Russet
COTX08291-7W	PA99N82-4 x Summit Russet
COTX08322-10Ru	Blazer Russet x AC96052-1RU
COTX08322-11Ru	Blazer Russet x AC96052-1RU
COTX08322-2Ru	Blazer Russet x AC96052-1RU
COTX08322-3Ru	Blazer Russet x AC96052-1RU
COTX08322-4Ru	Blazer Russet x AC96052-1RU
COTX08322-5Ru	Blazer Russet x AC96052-1RU
COTX08322-7Ru	Blazer Russet x AC96052-1RU
COTX08322-8Ru	Blazer Russet x AC96052-1RU
COTX08323-3Ru	Blazer Russet x AOTX95265-4RU
COTX08365-1P/P	POR01PG16-1 x CO00405-1R
COTX08365-3P/P	POR01PG16-1 x CO00405-1R
COTX08365-4R/R	POR01PG16-1 x CO00405-1R
COTX08365-5P/P	POR01PG16-1 x CO00405-1R
COTX08367-2R/R	POR01PG20-12 x CO00405-1R
COTX08376-1R	US147-96 x POR01PG22-1
COTX08376-2R/Y	US147-96 x POR01PG22-1
COTX08387-1R/R	French Fingerling x POR01PG20-12
COTX94216-1R	Purple Peruvian x Chipeta
COTX94218-1R	Red Ruby x Red Gold

Variety or Selection	Parentage
FL1833	??
FL1867	FL 162 x ATLANTIC
FL1922	FL 1207 x AUK
FL2048	??
FL2053	??
JTTX69-1Ru	Atlantic x 2268
JTTX94-1W	2293 x 2268
JTTX94-2W	2293 x 2268
JTTX94-3W	2293 x 2268
NDTX050070-1R	ND 8375b-6R x ND 8347CB-12R
NDTX050184-1R/Y	ND 028577-6RY x ND 8555-8R
NDTX059759-3Pinto/Y	ATND 99331-2 Pinto x ND 7834-2P
NDTX059828-2W	ND 4659-5R x ND 8524B-1R
NDTX059886-1Y/Y	ND 7192-1 x ND 8178-1Y
NDTX059997-6W	ND 7799c-1 x ND 860-2
NDTX060700C-1W	NDTX 7560C-4 x NDTX 7192-1
NDTX071084C-2W	ND 6809C-3 x ND 860-2
NDTX071109C-1W	ND 7226C-17 x ND 860-2
NDTX071112-5W	ND 7818-1Y x ND 860-2
NDTX071217CB-1W/Y	ND 028801CB-1 x ND 039004B-2Y
NDTX071258B-1R	ND 039035B-9R x ND 4659-5R
NDTX081451CB-1Y/Y	Dakota Diamond x Gala
NDTX081572B-1R	ND 4659-5R x ND 028940B-102R
NDTX081618-1P/P	ND 7834-2P x ND 5858
NDTX081644CAB-2W	ND 8331Cb-3 x ND 028804CAB-5
NDTX081648CB-13W	ND 8456-1 x ND7377CB-1
NDTX081648CB-1W	ND 8456-1 x ND7377CB-1
NDTX081648CB-2W	ND 8456-1 X ND7377CB-1
NDTX081648CB-4W	ND 8456-1 X ND7377CB-1
NDTX081651CAB-2W	ND 8479C-2 X ND 039163AB-209

Variety or Selection	Parentage
NDTX081803Ab-2Y/Y	793101.3 X ND 039163Ab-209
NDTX091886-3P/P	COND 04082-8RR X ND 7519-1
NDTX091908AB-2W	Ebt 6-21-5 X ND 7519-1
NDTX091908AB-4W	Ebt 6-21-5 X ND 7519-1
NDTX091908AB-9W	Ebt 6-21-5 X ND 7519-1
NDTX4271-5R	NDTX9-1068-1R x ND2050-1R
NDTX4784-7R	ND3574-5R x ND2050-1R
NDTX5003-2R	ND3504-3R x ND2050-1R
NDTX5438-11R	ND4339-10R x ND4269-9R
NDTX731-1R	ND169-10R x ND9476-5
NDTX8305-2W	ND 2471-8 x White. Pearl
NDTX8305-3W	ND 2471-8 x White. Pearl
NY138(Waneta)	??
PTTX05PG07-1W	POR01PG22-1 x OR00067-7
TX03196-1W	NDTX4748-7R x Adora
TX05249-10W	Gem Russet x A91790-13
TX05249-11W	Gem Russet x A91790-13
TX08350-12Ru	TXA549-1Ru x AC96052-1RU
TX08350-3Ru	TXA549-1Ru x AC96052-1RU
TX08378-1R/R	POR01PG20-12 x POR02PG26-5
TX08378-3R	POR01PG20-12 x POR02PG26-5
TX1673-1W	Russet Nugget x CS 7802L-2
TX1674-1W/Y	Russet Nugget x Delta Gold
TXA549-1Ru	ND9687-3Ru x ND9852-1Ru
TXNS410	ND9526-4Ru x ND9687-5Ru
TXYG055	W5279-4 x Norgleam
TXYG057	W5279-4 x Norgleam
TXYG079	W5279-4 x Norgleam
TXYG098	W5279-4 x Norgleam

Index of Varieties and Clones

A00324-1	21, 22, 23, 282, 353
A01010-1	21, 23, 282, 353
A01025-4	21, 23, 282, 353
A01143-3C.....	13, 14, 15, 184, 185, 186, 282, 353
A02060-3TE	21, 23, 283, 353
A98345-1	21, 23, 283, 353
A99331-2RY.....	37, 38, 283, 295, 300, 301, 353, 355, 356
A99433-5Y	44, 45, 283, 295, 300, 301, 353, 355, 356
AC00395-2RU	59, 60, 284, 353
AC01151-5W.....	13, 14, 15, 184, 186, 284, 354
AC03433-1W	51, 52, 53, 192, 193, 284, 354
AC99375-1RU	21, 23, 284, 315, 354, 358
Ackersegen.....	350
Adora.....	345, 350, 361
Agria	290, 350, 354
All Blue.....	340, 350, 352
Alpha.....	350
Ambra	350
AOTX02060-1Ru	2, 117, 119, 285, 354
AOTX061009-2Ru	229, 230, 285, 354
AOTX06562-1Ru	229, 230, 285, 354
AOTX06562-2Ru	229, 230, 285, 354
AOTX06598-1R	263, 264, 286, 354
AOTX07729-1Ru	229, 230, 286, 354
AOTX07755-1Ru	229, 230, 286, 354
AOTX07876-1Ru	229, 230, 286, 354
AOTX07919-1Ru	229, 230, 286, 354
AOTX07920-5Ru	229, 230, 287, 354

AOTX08070-1W	229, 230, 287, 354
AOTX08084-1Ru	229, 230, 287, 354
AOTX91861-4R	124, 125, 126, 231, 232, 233, 287, 354
AOTX95265-1Ru	109, 117, 119, 216, 217, 218, 219, 288, 354
AOTX95265-3Ru	109, 117, 119, 217, 219, 288, 354
AOTX95295-1W	101, 102, 103, 207, 208, 288, 354
AOTX95309-3W	101, 102, 103, 207, 208, 288, 354
AOTX96075-1Ru	4, 59, 60, 216, 217, 219, 289, 354
AOTX96084-1Ru	2, 59, 109, 117, 119, 216, 217, 218, 219, 289, 354
AOTX96216-2Ru	4, 109, 110, 111, 216, 218, 220, 289, 354
AOTX96265-2Ru	21, 23, 109, 216, 218, 220, 290, 354
AOTX98152-3Ru	109, 110, 111, 216, 217, 218, 219, 290, 354
AOTX98202-1Ru	109, 117, 118, 119, 217, 220, 290, 354
Asterix	350
ATC00293-1W/Y	44, 45, 290, 354
Atlantic2, 13, 15, 51, 53, 93, 95, 101, 102, 103, 184, 186, 192, 193, 199, 200, 206, 208, 291, 331, 350, 360	
ATTX01178-1R	4, 29, 31, 124, 231, 232, 233, 291, 354
ATTX01180-1R/Y	4, 73, 74, 139, 240, 241, 242, 291, 354
ATTX02247-1R	265, 292, 354
ATTX03446-4W	101, 102, 103, 207, 208, 292, 355
ATTX03474-1W	102, 103, 207, 208, 292, 355
ATTX03474-2W	101, 102, 103, 206, 207, 208, 292, 355
ATTX03474-3W	101, 102, 103, 207, 208, 293, 355
ATTX03475-10Ru	109, 117, 119, 216, 217, 218, 219, 293, 355
ATTX03475-2W	101, 102, 103, 293, 355
ATTX03475-6W	102, 103, 206, 207, 208, 293, 355
ATTX03475-7Ru	109, 117, 119, 216, 217, 218, 219, 294, 355
ATTX03475-9Ru	217, 219, 294, 355
ATTX03476-2W	102, 103, 206, 207, 208, 294, 355

ATX03515-1R/Y	146, 147, 241, 242, 299, 355
ATX03516-2R	132, 133, 232, 233, 299, 355
ATX03546-1W/Y	168, 169, 170, 257, 258, 299, 356
ATX03550-2R	231, 232, 299, 356
ATX05175-3R/Y	146, 147, 240, 241, 242, 300, 356
ATX05186-1R	168, 263, 264, 300
ATX05186-2R	263, 264, 300
ATX05202-3W/Y	168, 169, 170, 256, 257, 258, 300, 356
ATX06173-2W	206, 207, 208, 301, 356
ATX02263-1R/Y	168, 169, 170, 257, 258, 299, 355
ATX03515-1R/Y	146, 147, 241, 242, 299, 355
ATX03516-2R	132, 133, 232, 233, 299, 355
ATX03546-1W/Y	168, 169, 170, 257, 258, 299, 356
ATX03550-2R	231, 232, 299, 356
ATX05175-3R/Y	146, 147, 240, 241, 242, 300, 356
ATX05186-1R	168, 263, 264, 300
ATX05186-2R	263, 264, 300
ATX05202-3W/Y	168, 169, 170, 256, 257, 258, 300, 356
ATX06173-2W	206, 207, 208, 301, 356
ATX98453-6R	4, 29, 30, 31, 124, 231, 232, 233, 298, 355
ATX98453-11BR	124, 125, 126, 231, 232, 233, 298, 355
ATX98444-16R/Y	168, 169, 170, 257, 258, 297, 355
ATX961014-1R/Y	139, 140, 240, 241, 242, 297, 355
ATX961014-1BR/Y	139, 140, 240, 241, 242, 297, 355
ATX88654-2P/Y	4, 73, 74, 297, 355
ATX88481-1P/W	124, 125, 126, 231, 232, 233, 296, 355
ATX06274-2W	248, 249, 296, 355
ATX06246-1R	124, 231, 232, 233, 296, 355
ATX06046-1Ru	257, 258, 296, 355
ATX06026-1Ru	217, 219, 296, 355
ATX06008-6Ru	217, 220, 295, 355
ATX06008-2Ru	216, 217, 219, 295, 355
ATX05186-3W/Y	263, 264, 295, 355
ATX05186-2R/Y	356
ATX05186-1R/Y	356
ATX05175-1R/Y	168, 169, 170, 256, 257, 258, 295, 355
ATX03516-2R/Y	241, 242, 294, 355

ATX06264-4R/Y	168, 256, 258, 301, 356
ATX07144-1R	231, 232, 233, 301, 356
ATX07305-1Y/Y	168, 169, 170, 256, 257, 258, 301, 356
ATX08153-1Y/Y	263, 264, 302, 356
ATX84378-6Ru	117, 119, 216, 217, 218, 219, 302, 356
ATX84378-6Ru,	109
ATX91137-1Ru	109, 110, 111, 216, 218, 219, 302, 356
ATX9202-3Ru	109, 110, 111, 216, 217, 219, 302, 356
ATX9332-12Ru	110, 111, 216, 217, 219, 303, 356
ATX97147-4Ru	2
ATX99013-1Ru	109, 117, 119, 216, 217, 218, 219, 303, 356
ATX99194-3Ru	2, 117, 119, 216, 217, 218, 219, 303, 356
Avalanche	350
Aziza	350
Banana.....	175, 176, 265, 267, 303, 350
Beacon Chipper.....	350
Binje.....	350
Boulder.....	350
BTX1544-2W/Y	2, 160, 161, 162, 247, 248, 249, 304, 356
BTX1749-1W/Y	2, 160, 162, 247, 248, 249, 304, 356
BTX2103-1R/Y.....	139, 140, 240, 241, 242, 304, 356
BTX2332-1R.....	124, 125, 126, 231, 232, 233, 304, 356
Caesar.....	350
Carola.....	350
Carrera.....	350
Century.....	350, 352
Chieftain.....	231, 232, 233, 305, 350
Chipeta13, 14, 15, 51, 53, 101, 184, 186, 192, 193, 199, 200, 282, 283, 294, 305, 312, 328, 350, 353, 355, 357, 359	
Climax.....	350

CO00188-4W	13, 14, 15, 184, 186, 305, 356
CO00197-3W	13, 15, 184, 186, 306, 356
CO00270-7W	13, 14, 15, 184, 186, 306, 356
CO00291-5R	29, 31, 306, 356
CO01399-10P/Y	37, 38, 306, 356
CO02024-9W	14, 15, 184, 185, 186, 307, 356
CO02033-1W	13, 14, 15, 184, 186, 307, 356
CO02321-4W	14, 15, 184, 186, 307, 356
CO03027-2R/R	87, 88, 307, 356
CO03094-5RF/RW	175, 176, 308, 357
CO03187-1RU	59, 60, 308, 357
CO03202-1RU	59, 60, 308, 357
CO03243-3W	51, 53, 192, 193, 308, 357
CO03276-4RU	59, 60, 309, 357
CO03276-5RU	59, 60, 309, 357
CO04013-1W/Y	80, 81, 309, 357
CO04021-2R/Y	73, 74, 309, 357
CO04045-4P/P	87, 88, 309, 357
CO04117-5PW/Y	80, 81, 310, 357
CO111f2-1 P/P	310, 357
CO99053-3RU	21, 23, 310, 315, 357, 358
CO99053-4RU	21, 22, 23, 310, 357
CO99076-6R	29, 30, 31, 311, 316, 357, 358
CO99100-1RU	21, 22, 23, 311, 318, 357, 358
CO99256-2R	29, 31, 311, 357
COTX01403-4R/Y	4, 37, 38, 240, 242, 311, 357
COTX02172-1R	4, 66, 67, 312, 357
COTX02377-1W	102, 103, 207, 208, 312, 357
COTX03187-1W	175, 176, 265, 266, 267, 312, 357
COTX03270-1W	101, 102, 103, 207, 208, 312, 357

COTX03303-1W.....	101, 102, 103, 206, 207, 208, 313, 357
COTX04050-1P/P.....	168, 169, 170, 256, 257, 258, 313, 357
COTX04188-3R/Y.....	146, 147, 240, 241, 242, 313, 357
COTX04193-2R/Y.....	139, 146, 147, 240, 241, 242, 313, 357
COTX04267-1R/Y.....	139, 146, 147, 240, 241, 242, 314, 357
COTX05037-4Y/Y.....	168, 169, 170, 257, 258, 314, 357
COTX05082-2P/P.....	87, 88, 314, 357
COTX05095-2Ru/Y.....	109, 118, 119, 216, 217, 219, 314, 357
COTX06245-3R/Y.....	240, 241, 242, 315, 357
COTX07009-7Ru.....	217, 219, 315, 358
COTX07009-8Ru.....	109, 216, 217, 219, 315, 358
COTX07018-2Ru.....	109, 216, 218, 220, 315, 358
COTX07024-1Ru.....	218, 220, 316, 358
COTX07024-4Ru.....	216, 218, 220, 316, 358
COTX07054-2R.....	231, 232, 233, 316, 358
COTX07154-1R/Y.....	240, 241, 316, 358
COTX07168-1Ru.....	175, 265, 267, 316, 358
COTX07172-1W.....	265, 267, 317, 358
COTX07179-2Ru.....	217, 219, 317, 358
COTX07199-2Ru.....	218, 220, 317, 358
COTX07206-1Ru.....	109, 217, 219, 317, 358
COTX07354-1Ru.....	216, 218, 220, 318, 358
COTX07380-2Ru.....	216, 217, 219, 318, 358
COTX07382-1W/Y.....	247, 248, 249, 318, 358
COTX07382-2W/Y.....	247, 248, 249, 318, 358
COTX08013-3Ru.....	229, 230, 319, 358
COTX08014-2Ru.....	229, 230, 319, 358
COTX08044-1R/R.....	272, 273, 319, 358
COTX08045-2R/R.....	272, 273, 319, 358
COTX08046-2R.....	272, 273, 320, 358

COTX08046-3R/R.....	272, 273, 320, 358
COTX08046-5R/R.....	272, 273, 320, 358
COTX08046-8P/P.....	274, 275, 320, 358
COTX08046-9P/P.....	272, 273, 320, 358
COTX08056-10R.....	272, 273, 321, 358
COTX08056-12R/R.....	272, 273, 321, 358
COTX08056-5R/R.....	272, 273, 321, 358
COTX08056-6R/R.....	272, 273, 321, 358
COTX08061-3R/R.....	272, 273, 322, 358
COTX08063-2Ru.....	229, 230, 322, 359
COTX08078-1Ru.....	263, 264, 322, 359
COTX08080-7Ru.....	229, 230, 322, 359
COTX08117-1Ru.....	229, 230, 323, 359
COTX08118-2Ru.....	229, 230, 323, 359
COTX08121-1Ru.....	229, 230, 323, 359
COTX08121-3Ru.....	229, 230, 323, 359
COTX08121-4Ru.....	229, 230, 324, 359
COTX08122-1Ru.....	229, 230, 324, 359
COTX08214-2Ru.....	229, 230, 324, 359
COTX08291-7W.....	263, 264, 324, 359
COTX08322-10Ru.....	229, 230, 324, 359
COTX08322-11Ru.....	229, 230, 325, 359
COTX08322-2Ru.....	229, 230, 325, 359
COTX08322-3Ru.....	229, 230, 325, 359
COTX08322-4Ru.....	229, 230, 325, 359
COTX08322-5Ru.....	229, 230, 326, 359
COTX08322-7Ru.....	229, 230, 326, 359
COTX08322-8Ru.....	229, 230, 326, 359
COTX08323-3Ru.....	229, 230, 326, 359
COTX08365-1P/P.....	272, 273, 327, 359

COTX08365-3P/P.....	272, 273, 327, 359
COTX08365-4R/R.....	272, 273, 327, 359
COTX08365-5P/P.....	272, 273, 327, 359
COTX08367-2R/R.....	272, 273, 328, 359
COTX08376-1R.....	263, 264, 328, 359
COTX08376-2R/Y.....	272, 273, 328, 359
COTX08387-1R/R.....	272, 273, 328, 359
COTX94216-1R.....	124, 125, 126, 231, 232, 233, 328, 359
COTX94218-1R.....	2, 124, 125, 126, 231, 232, 233, 329, 359
Courage.....	350
Dakota Jewel.....	350
Dark Red Norland.....	29, 31, 66, 67, 124, 125, 126, 231, 233, 329, 341, 350
Day-9.....	350
Delikat.....	350
Desiree.....	351, 352
Diamante.....	351
Dore.....	351, 352
Eerstellung.....	351
Eigenheimer.....	351
Estima.....	351, 352
Fabula.....	351
FL1833.....	93, 94, 95, 329, 360
FL1867.....	93, 95, 199, 200, 330, 360
FL1922.....	93, 95, 199, 200, 330, 360
FL2048.....	93, 94, 95, 330, 360
FL2053.....	93, 94, 95, 199, 200, 330, 360
Florissant.....	351
Fortuna.....	351
Foxton.....	351
German Butter Ball.....	351

Golden Sunburst.....	351
Granola.....	351
Green Mountain	351
Hertha.....	351
Ilong	351
Innovator	318, 351, 358
Irish Crispin	351
Ivory Crisp	351
JTTX69-1Ru	263, 264, 331, 360
JTTX94-1W	215, 331, 360
JTTX94-2W	215, 331, 360
JTTX94-3W	215, 331, 360
Kalkaska.....	351
Keuka Gold	351
King Harry	351
Klondyke Rose.....	351
Krasaua	351
La Rouge.....	351
Latona.....	351
Magic Molly.....	320, 322, 351, 358
Maris Piper.....	350, 351
Mazama.....	351
MegaChip.....	352
Molli.....	352
Mondial	352
Morning Gold.....	352
NDTX049265-2WRSp/Y	2
NDTX050070-1R	124, 132, 133, 231, 232, 233, 332, 360
NDTX050184-1R/Y	139, 146, 147, 240, 241, 242, 332, 360
NDTX059759-3Pinto/Y	2, 160, 162, 247, 248, 249, 332, 360

NDTX059828-2W	2, 332, 360
NDTX059886-1Y/Y	168, 169, 170, 256, 258, 333, 360
NDTX059997-6W	207, 208, 333, 360
NDTX060700C-1W	101, 102, 103, 206, 207, 208, 333, 360
NDTX071084C-2W	101, 206, 207, 208, 333, 360
NDTX071109C-1W	101, 206, 207, 208, 334, 360
NDTX071112-5W	206, 208, 334, 360
NDTX071217CB-1W/Y	101, 206, 207, 208, 334, 360
NDTX071258B-1R	168, 256, 257, 258, 334, 360
NDTX081451CB-1Y/Y	247, 248, 249, 335, 360
NDTX081572B-1R	238, 335, 360
NDTX081618-1P/P	274, 275, 335, 360
NDTX081644CAB-2W	215, 335, 360
NDTX081648CB-13W	215, 335, 360
NDTX081648CB-1W	215, 336, 360
NDTX081648CB-2W	215, 336, 360
NDTX081648CB-4W	215, 336, 360
NDTX081651CAB-2W	215, 336, 360
NDTX081803Ab-2Y/Y	254, 337, 361
NDTX091886-3P/P	274, 337, 361
NDTX091908AB-2W	215, 337, 361
NDTX091908AB-4W	215, 337, 361
NDTX091908AB-9W	214, 215, 338, 361
NDTX4271-5R	124, 132, 133, 231, 232, 233, 294, 299, 338, 355, 356, 361
NDTX4784-7R	124, 125, 126, 231, 232, 233, 338, 361
NDTX5003-2R	125, 126, 231, 232, 233, 338, 361
NDTX5438-11R	4, 66, 67, 232, 233, 339, 361
NDTX731-1R	2, 124, 132, 133, 231, 232, 233, 339, 361
NDTX8305-1W	206, 208
NDTX8305-2W	206, 207, 208, 339, 361

NDTX8305-3W	101, 206, 207, 208, 339, 361
NorDonna.....	301, 352, 356
Norgold-M	352
NorValley.....	352
NY138(Waneta).....	2, 13, 15, 51, 53, 93, 94, 95, 101, 102, 103, 199, 200, 340, 361
Oscar	352
Ottar	352
Penta.....	352
Pimpernel	352
Platina	352
Premiere	351, 352
Primica Inta.....	352
Prince Hairy	352
PTTX05PG07-1W	175, 176, 265, 266, 267, 340, 361
Purple Majesty	87, 88, 340, 352
Purple Peruvian.....	175, 176, 265, 267, 328, 340, 352, 359
Ranger Russet	21, 23, 282, 283, 288, 340, 352, 353, 354
Red LaSoda.....	29, 31, 66, 67, 124, 125, 126, 132, 133, 231, 232, 233, 287, 341, 352, 354
Rio Rojo.....	124, 132, 133, 231, 232, 233, 341, 352
Rose Gold.....	352
Russet Burbank.....	21, 23, 341, 352
Russet Legend.....	352
Russet Norkotahviii, 1, 2, 21, 22, 23, 59, 60, 109, 110, 111, 117, 118, 119, 216, 217, 219, 342, 343, 344, 348, 352	
Russet Norkotah112.....	216, 217, 219, 343, 352
Russet Norkotah223.....	216, 217, 219, 343, 352
Russet Norkotah278.....	216, 217, 219, 344, 352
Russet Norkotah296.....	216, 217, 219, 344, 352
Russet NorkotahS3.....	216, 218, 220, 342
Russet NorkotahS8.....	216, 217, 220, 343

Rutt.....	352
Saginaw Gold.....	353
Sangre	353
Sangre10	353
Sante.....	353
Satina.....	353
Shepody.....	351, 353
Sierra Gold	153, 154, 247, 248, 249, 276, 277, 344, 353
Snowden.....	93, 95, 199, 200, 345, 353
Stampede Russet.....	109, 110, 111, 216, 217, 218, 219, 345, 353
Strobrawa	353
Super Red.....	304, 353, 356
TX03196-1W	2, 101, 102, 103, 207, 208, 345, 361
TX03378-3R	175
TX05249-10W	2, 345, 361
TX05249-11W	2, 346, 361
TX05249-3W	2
TX08350-12Ru	229, 346, 361
TX08350-3Ru	229, 230, 346, 361
TX08378-1R/R	175, 265, 267, 346, 361
TX08378-3R	265, 266, 267, 347, 361
TX1673-1W	2, 207, 208, 347, 361
TX1674-1W/Y	2, 4, 80, 81, 247, 248, 249, 347, 361
TXA549-1Ru	109, 110, 111, 216, 217, 218, 219, 346, 347, 361
TXNS410	109, 118, 119, 216, 218, 219, 348, 361
TXYG055	153, 154, 247, 248, 249, 276, 277, 348, 361
TXYG057	153, 154, 248, 249, 276, 348, 361
TXYG079	153, 154, 247, 248, 249, 276, 277, 348, 361
TXYG098	153, 154, 248, 249, 276, 277, 349, 361
Ukama.....	353

Urgenta.....	351, 353
Valisa	353
Viking	353
Vivaldi.....	353
Vokal.....	353
Winema.....	291, 311, 353, 354, 357
Yellow Finn	353
Yukon Gold	viii, 10, 44, 45, 80, 81, 153, 154, 160, 162, 247, 248, 249, 276, 277, 304, 348, 349, 353, 356



Improving Life Through Science and Technology.

**Cover by Sarah Turner
Edited by Jeannie Miller**