2007 Annual Potato Field Day Texas Potato Variety Development Program



Wednesday June 27, 2007

Texas Agricultural Experiment Station
Department of Horticultural Sciences
Texas A&M University

Cooperator: Springlake Potato Sales, Inc.

2007 Field Day Handbook

Texas Potato Variety Development Program

Creighton Miller, Jeff Koym, and Douglas Scheuring

Department of Horticultural Sciences Texas Agricultural Experiment Station Texas A&M University

June 27, 2007

Hosted by Springlake Potato Sales, Inc. Frank Barrett Bruce Barrett

Funds Received to Support The Texas Potato Variety Development Program July 1, 2006- June 30, 2007

USDA/CSREES	(Special Research	Grants Program,	Potato Research)	\$45,505

Royalty returned to program \$27,123

\$72,628

Total (July 1, 2005- June 30, 2006) \$92,600

Expected but not received:

USDA/CSREES (Special Research Grants Program, Potato Research) \$44,350 Royalty (Estimated) \$30,000

\$74,350

In-kind support:

CSS Farms (Milt Carter, John Wallace, Dennis Janke, Grant Monie, \$10,000 Randy Spevak, Lucila Caprio, and Kees Schillhorn van Veen)

Springlake Potato Sales (Frank and Bruce Barrett, Cliff Black, and Tim Gonzales) \$12,000

\$22,000

The Texas Potato Variety Development Program Team:

Creighton Miller – Project Leader

Jeff Koym - Research Associate

Douglas Scheuring - Senior Research Associate

Safia Naqi – Research Associate (Tissue Culture/virus eradication)

Tyann, Blessington, Ndambe Nzaramba, Lavanya Redavarri – Graduate Students

Brian Grubbs, Shara Adcock, Kristen Sikorski – Student Workers

2007 Springlake Plot Plan

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		405	405																		
		Parents																			
				310																	
			COLFL																		
	-	TXRU	1							SWRU	†		TXRD								
	-	11110								51120	1	ľ		1							
			PVP																		
	-	COLFL	HZP	TXRU			WRRU			FDTrus	1	-	FDTred		-	TXSP		-	WRRD		
Blank	Blank	fill	fill	fill	Blank	Rlank	fill	Rlank	Blank	fill	Rlank	Blank	fil	Rlank	Blank	fill	Blank	Blank	fill	Blank	Blank
96	95	94-93	92-91	90-81	80	79	78-69	68	67	66-57	56	55	54-45	44	43	42-33	32	31	30-21	20	19
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Texas Potato Variety Development Program 2007 Trials

Location	Trial	Planted
Springlake	Southwest Regional Reds	4/1/07
	Southwest Regional Specialty	4/1/07
	Western Regional Reds	4/2/07
	Texas Advanced Specialty Selections	4/2/07
	Field Day Trial Reds	4/3/07
	Texas Advanced Red Selections	4/3/07
	Field Day Trial Russets	4/3/07
	Southwest Regional Russets	4/3/07
	Western Regional Russets	4/4/07
	Texas Advanced Russet Selections	4/4/07
	HZP Observation	4/16/07
	Plant Variety Protection	4/16/07
	Colored Flesh Observation	4/16/07
	Parents	4/16/07
	First Year Seedlings (40,594)	4/4/07
Dalhart	Texas Advanced Specialty Selections	4/24/07
	06 Specialty Selection	4/24/07
	07 Nuclear Specialty	4/24/07
	Western Regional Chipping	4/25/07
	Texas Advanced Chipping Selections	4/25/07
	06 Chip Selections	4/25/07
	07 Nuclear Chip	4/25/07
	Texas Advanced Red Selections	4/25/07
	06 Red Selection	4/25/07
	07 Nuclear Red	4/25/07
	Texas Advanced Russet Selections	4/25/07
	06 Russet Selection	4/25/07
	07 Nuclear Russet	4/25/07
	First Year Seedlings (35,676)	4/25/07

Seedlings for Selection in Texas - 2007

Seedlings planted at Springlake

Source	Families	Total Planted
North Dakota	183	24,810
Oregon	201	15,784
Total	384	40,594

Seedlings planted at Dalhart

Source	Families	Total Planted
Texas	31	6,561
Colorado	80	19,978
Aberdeen	86	9,137
Total	197	35,676

Grand Total – 76,270 seedlings from 581 families (crosses) were planted in 2007.

2007 Field Day Trial in Entry Order

Red Skin Selections/Varieties

<u>Dark Red Norland</u> - Oblong Red. Parentage (Redkote x ND626). Cross was made and selected in North Dakota. Dark Red Norland is a clonal selection made by Stan Barrett of Texas and propagated by Gene Shaver, Nebraska. Early maturity. Medium vine size. Purple flower color.

Uses: Fresh.

Strengths: Early maturity, dark red tubers, high resistance to PVA and moderate resistance to common scab, PVY and PLRV, nice BOT+.

Weaknesses: Tuber color will fade if allowed to fully mature, tubers exhibit variable tuber color and size, enlarged lenticels, will heat sprout and hollow heart, susceptible to PVS and early and late blights, rough, deep eyes, faded red skin, russetting.

Red LaSoda - Oblong Red. Parentage (Triumph x Katahdin). Cross was made and selected in Louisiana. Red LaSoda is a clonal selection from LaSoda made by Louisiana. Medium maturity. Medium-large vine size. Purple flower color.

Uses: Fresh.

Strengths: High yields, wide adaptability.

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.

<u>Rio Rojo</u> (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: Yield+, nice exterior, hollow heart resistant, good color, very nice interior, attractive bright red color, can store well, BOT.

Weaknesses: Can oversize, seems to set high in bed, feathering, can skin and exhibit variability in tuber color, feathering, deep nose, heat sprouts, and growth cracks, some rot, silver scurf

<u>NDTX4271-5R -</u> 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: Good color and shape, lots of small round tubers yield+, color+, very nice, nice interior, BOT. very white flesh

Weaknesses: Can have buff skin, heat sprouts, Rhizoctonia, road map, buff oversized, heat sprouts. 005ATTX98453-6R - Round Red. Parentage (A93490-1R x A91846-5R). Cross was made in Aberdeen, tuberling produced in Texas and selected in Texas. Late maturity. Medium-large vine size. Uses: Fresh.

Strengths: Nice white interior, smooth skin, nice shape To WR, BOT.

Weaknesses: Flat, stem end rot, will shrivel, skinning, some buff skin deep eyes, some russeting, mix.

<u>ATTX98453-6R</u> - Round Red. Parentage (A93490-1R x A91846-5R). Cross was made in Aberdeen, tuberling produced in Texas and selected in Texas. Late maturity. Medium-large vine size.

Uses: Fresh

Strengths: Nice white interior, smooth skin, nice shape To WR, BOT.

Weaknesses: Flat, stem end rot, will shrivel, skinning, some buff skin deep eyes, some russeting, mix. <u>ATX00270-2R</u>-Red Round Red. Parentage (CO89097-2 x ND5256-7R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Fresh.

Strengths: Heavy set, very nice skin set, boiler BOT+++.

Weaknesses: Poor internals drop.

<u>BTX2332-1R -</u> Round Red. Parentage (B1523-4 x Super Red Norland). Cross was made in Beltsville, Maryland and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.

Strengths: Very nice, nice interior, nice shape, early, heavy set smooth, TO SWR or WR, keep, BOT++.

Weaknesses: Road map Rhizoctonia, feathering, poor internals, light skin color, buff.

<u>CO98012-</u>5R Oblong Light Russet. Parentage (PA92A17-6 x A91194-4). Cross was made and selected in Aberdeen. Medium maturity. Medium-large vine size.

Uses: Dual.

Strengths: Large tubers.

Weaknesses:

<u>CO99076-6R</u> Oblong Light Russet. Parentage (PA92A17-6 x A91194-4). Cross was made and selected in Aberdeen. Medium maturity. Medium-large vine size.

Uses: Dual.

Strengths: Large tubers.

Weaknesses:

<u>CO99256-</u>2R Oblong Light Russet. Parentage (PA92A17-6 x A91194-4). Cross was made and selected in Aberdeen. Medium maturity. Medium-large vine size.

Uses: Dual.

Strengths: Large tubers.

Weaknesses:

<u>CO99256-3R</u> — Oval Red. Parentage (Rio Colorado x Colorado Rose). Cross was made and selected in Colorado. Early maturity. Medium vine size. Purple flower color.

Uses: Fresh

Strengths: Nice shape, skin and flesh.

Weaknesses: Feathering, some purple streaking.

<u>COTX00104-7R</u> — Oblong Red. Parentage (ND3574-5R x C086218-2). Cross was made in Colorado and selected in Texas. Medium-early maturity. Medium vine size.

Uses: Fresh.

Strengths: Nice skin and shape yield+, smooth.

Weaknesses: Short dormancy, Rhizoctonia, road map, drop for poor internals, late, growth cracks, shape-, alligator skin, small, rough, nipples at stem end silver scurf, drop++.

<u>COTX00411-4R-</u>Oblong Red. Parentage (German Butterball X NDC5281-2R). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths: Nice shape, skin and flesh, heavy set, 'b' and' c' size keep, TC, BOT.

Weaknesses: Silver scurf+, deep nose+, poor shape shriveled, drop+++?.

<u>COTX02172-1R</u> - Oblong Red. Parentage (CO94065-2R x ND3574-5R). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths: Nice, yield+, very nice, nice internals, smooth skin, keep.

Weaknesses: Shriveled, road map, some red streaks in the flesh slight purple in vascular.

<u>COTX03254-2R</u> - Oblong Red. Parentage (CO94019-1R x CO97078-5R). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses:

<u>COTX94218-1R</u> - Round Red. Parentage (Red Ruby x Red Gold). Cross was made in Colorado and selected in Texas. Medium maturity. Large vine size.

Uses: Fresh.

Strengths: Nice appearance, nice internals, smooth, keep, nice shape, small tubers, good color heavy set, BOT-.

Weaknesses: Many small tubers, "Joe Allen" type, lenticels, small, road map, skin color faded, slight russet, rough feathering, drop?.

<u>NDA7985-1R</u> -Oval Red. Parentage (Minn 17922 x ND2225-1R). Cross was made in North Dakota and selected in Aberdeen. Early maturity. Medium-small vine size.

Uses:

Strengths: Large tubers

Weaknesses:

<u>NDTX039190-1R</u> Oblong Red. Parentage (ND 8089-2R x ND 4659-5R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh

Strengths:

Weaknesses:

<u>NDTX049349-10R</u> - Oblong Red. Parentage (ND 4659-3R x Dakota Jewel). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses:

<u>NDTX4784-7R</u> - Round Red. Parentage (ND3574-5R x ND2050-1R). Cross was made in North Dakota and selected in Texas.

Uses: Fresh.

Strengths: Nice, very nice TC, to WR, BOT++.

Weaknesses: Silver scurf.

<u>NDTX4847-7R</u> - Oblong Red. Parentage (ND3900IR-3R x Fontenot). Cross was made in North Dakota and selected in Texas. Medium-early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: Nice internal smooth nice shape, nice, TC?, BOT*.

Weaknesses: Flat, growth cracks, vascular discoloration, lenticels, second growth, poor external,

feathering, small green sprouts, silver scurf+, growth cracks, Rhizoctonia, poor skin, russeting, scab, buff, poor internals drop+.

<u>NDTX731-1R</u> - 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: Uniform round tubers, early, does not oversize, BOT+.

Weaknesses: Susceptible to Rhizoctonia, rough, susceptible to hollow heart, eyes somewhat deep ugly nose, silver scurf, road map, poor internals, oversize, deep eyes and nose, silver scurf

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

Uses: Specialty.

Strengths: Nice shape, dark yellow flesh, nice flesh.

Weaknesses: Flat, poor shape, pointed to stem end, buff skin on stem end, rough, feathering, heat sprouts, chain tubers, road map drop++.

<u>AC99329-7RW/Y</u> –Round Purple-White. Parentage (Inca Gold x A91846-5R). Cross was made in Aberdeen, and selected in Colorado. Medium maturity. Large-very large vine. Purple flower color.

Uses: Specialty

Strengths: Nice skin, shape, and flesh.

Weaknesses:

<u>AC99330-1P/Y</u>-Round Purple. Parentage ((Inca Gold xA89655-5DY). Cross was made in Aberdeen, and selected in Colorado. Early maturity. Large- vine. Blue flower color.

Uses: Specialty.

Strengths: BOT, nice skin, shape, and flesh

Weaknesses:

<u>ATTX961014-1AR/Y</u> - Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early maturity. Medium vine size. Purple flower color.

Uses: Specialty.

Strengths: Nice shape, skin and flesh keep, BOT.

Weaknesses: Road map, yellow flesh with some purple vascular color, heat sprouts, road map pointed slight road map heat sprouts at apical end.

<u>ATTX961014-1R/Y-</u>Oblong Red/Yellow. Parentage (A90601-2RDY X MAZAMA). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas. Early maturity. Medium vine size. Purple flower color.

Uses: Specialty.

Strengths: Nice internal, Spec/High AntiOx, To WR, keep++, BOT.

Weaknesses: Lenticels, road map+, silver scurf+, heat sprouts, large eye brows, drop.

<u>ATTX98444-16R/Y</u> - Oblong Red Parentage (A83360-9R X T48YF). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths: Nice skin and flesh, heavy set boiler, keep, BOT-.

Weaknesses: Small, pointed to stem end, silver scurf, road map, poor internals++, scale, heat sprouts, drop.

<u>ATTX98462-3R/Y</u> - Oblong Red. Parentage (ATD251-5RY X BO811-13RY. Cross was made in Aberdeen, tuberling produced in Texas and selected in Texas.

Uses: Specialty.

Strengths: Keep, large tubers, nice size and shape. Yield+, smooth, keep, BOT,

Weaknesses: Heat sprouts+, road map+, flesh not as yellow, some vascular discoloration.

<u>ATTX98468-5R/Y</u> - Oblong Red. Parentage (ATD252-5R X A93457-4R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths: nice flesh, To SWR or WR keep+. BOT

Weaknesses: rough+, feathering++, heat sprouts, rough, oversize, poor shape flat, light red skin, powdery scab, ugly skin, close set, rough, drop+

<u>ATTX98491-4YRsplash/Y</u> - Oblong Red/Splash. Parentage (P94A2-3Y X A92657-1R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Specialty

Strengths: Spec/High Anti-Ox keep, red splash, nice interior, nice shape and flesh

Weaknesses: Road map, deep nose.

ATTX98500-2P/Y - Oblong-Purple/Yellow. Parentage (P94A2-4Y X Granola). Cross was made in Aberdeen,

tuberling produced in Texas, and selected in Texas. Late maturity. Large vine size. Purple flower color

Uses: Specialty.

Strengths: Very nice skin, flesh, and shape keep.

Weaknesses: Long stolons, rough, poor shape, deep eyes, lenticels, drop.

ATTX98500-3P/Y - Oblong-Pinto/Yellow. Parentage (P94A2-4Y X Granola). Cross was made in Aberdeen,

tuberling produced in Texas, and selected in Texas. Late maturity. Large vine size. Purple flower color

Uses: Specialty.

Strengths: Smooth, unique appearance, keep, nice flesh, stores well.

Weaknesses: Flat, second growth, late, heat sprouts, pointed, road map, flat, some pointed to stem end, eye tubers, poor shape, drop.

<u>ATTX99325-</u>1P – Oblong Purple. Parentage (AGRIA X W1100R). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths: Nice shape and size, BOT.

Weaknesses: Eye brows, heat sprouts, market, feathering+, rough silver scurf+, road map drop.

<u>CO97232-1R/Y</u> - Oblong-Red/Yellow. Parentage (CO94218-1 x VC0967-2). Cross was made and selected in Colorado. Medium- early maturity. Medium vine size. Purple flower color.

Uses: Specialty.

Strengths: Nice color, very nice flesh, nice smooth skin.

Weaknesses: Road map, poor shape, poor flesh color, feathering, pointed to stem end, flat, not dark skin or flesh poor skin set.

<u>CO97232-2R/Y</u> - Round-Red/Yellow. Parentage (CO94218-1 x VC0967-2). Cross was made and selected in Colorado. Medium maturity. Medium vine size. Red-purple flower color.

Uses: Specialty.

Strengths: Nice shape, buff, nice internal, BOT.

Weaknesses: Ugly net, road map, poor shape, pointed to stem end, poor skin, drop.

<u>CO97233-3R/Y</u> - Oblong-Red/Yellow. Parentage (CO94218-1 x VC0967-5). Cross was made and selected in Colorado. Medium-late maturity. Medium vine size. Red-purple flower color.

Uses: Specialty.

Strengths: Nice yellow flesh, nice internal, many tubers.

Weaknesses: Hollow heart, growth crack, too large, feathering, poor shape, pointed, severe road map, green sprout, Klondike type, road map, close set, pear shaped, pointed to stem end, drop+.

<u>COTX03094-1R/Y-R</u> –Long Red/Yellow-Red. Parentage (Austrian Crescent x Huckleberry). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths: Fingerling

Weaknesses:

<u>NDTX4756-1R/Y</u> - Oblong-Red/Yellow. Parentage (3451-14R X 1618-13R). Cross was made in North Dakota and selected in Texas.

Uses: Specialty.

Strengths: Nice shape and flesh, yield+, keep, BOT+++.

Weaknesses: Zippered, small tubers, poor flesh, road map, oversize, silver scurf, mix yield-, light redskin, heat sprouts skin drop++.

<u>POR00PG4-1</u> –Oval Yellow-Red. Parentage (Granola x NDOP5847-1). Cross was made in Prosser, Washington and selected in Oregon. Medium-late maturity. Medium vine size.

Uses: Specialty.

Strengths: Very dark yellow flesh.

Weaknesses: Poor shape.

<u>PTTX05PG11-2R/Y</u> –Long Red/Yellow. Parentage (POR02PG26-1 x MAZAMA). Cross was made in Prosser, Washington, tuberling produced in Texas, and selected in Texas.

Uses: Specialty

Strengths:

Weaknesses:

<u>TX03198-2Y-R/Y</u> -.Round Yellow-Red/Yellow. Parentage (ATTX98498-1R/Y x NDTX4271-1R). Cross was made and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>CO97222-1R/R</u> - Oblong Red/Red. Parentage (CO94170-1 x CO94183-1). Cross was made in and selected in Colorado.

Uses: Specialty.

Strengths:

Weaknesses: Eye brows, rough, very buff skin, ugly bud end, ugly nose, drop++

<u>CO97226-2R/R</u> - Round Red/Red. Parentage (CO94183-1 x CO94214-1). Cross was made in and selected in Colorado. Early maturity. Medium-large vine size. White flower color.

Uses: Specialty.

Strengths: Nice internal, nice shape.

Weaknesses: Late, road map, buff, many small tubers, drop.

<u>COTX03119-1R/R</u>. Round Red. Parentage (French Fingerling x Kipfel). Cross was made in Colorado and selected in Texas.

Uses: Specialty

Strengths: Fingerling.

Weaknesses:

<u>COTX03137-2R/R</u> Round Red. Parentage (Purple Peruvian x POR00PG2-16P/P). Cross was made in Colorado and selected in Texas.

Uses: Specialty

Strengths:

Weaknesses:

POR01PG20-12 - Oblong Red/Red. Parentage (PA97B35-2 x PA97B29-3). Cross was made in Prosser,

Washington, tuberling produced in Oregon, and selected in Oregon. Medium maturity. Medium vine size. Red Purple flower color.

Uses: Specialty.

Strengths: Nice internal.

Weaknesses: Too long for a red, poor flesh, very late did not fill out, chip??.

<u>POR01PG22-1</u> - Long Red Fingerling. Parentage (PA97B23-2 x Red bulk). Cross was made in Prosser,

Washington, tuberling produced in Oregon, and selected in Oregon. Medium maturity. Medium vine size. Red Purple flower

Uses: Specialty.

Strengths: Fingerling, BOT.

Weaknesses: Poor flesh color, and shape, heat sprouts, rough, alligator, buff, russeting, drop.

<u>POR02PG5-1</u> -Round Red-Mottled/Red-White. Parentage (Achirana x POR00PG2-17). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Late maturity. Large vine size. Red Purple flower

Uses: Specialty

Strengths:

Weaknesses:

<u>PTTX05PG06-1R/R</u> -Fingerling Red/Red. Parentage (POR01PG22-1 x MODOC). Cross was made in Prosser, Washington, tuberling produced in Texas, and selected in Texas.

Uses: Specialty

Strengths:

Weaknesses:

<u>PTTX05PG06-2R/R</u> –Fingerling Red/Red. Parentage (POR01PG22-1 x MODOC). Cross was made in Prosser, Washington, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>PTTX05PG07-2P/R</u> -. Fingerling Purple/Red. Parentage (POR01PG22-1 x OR00067-7). Cross was made in Prosser, Washington, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>PTTX05PG07-3R/R</u> -Fingerling Red/Red. Parentage (POR01PG22-1 x OR00067-7). Cross was made in Prosser, Washington, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>AC97097-14W</u> -. Parentage (PA92A17-6 x A91194-4). Cross was made and selected in Aberdeen. Medium maturity. Medium-large vine size.

Uses: Dual.

Strengths: Large tubers.

Weaknesses:

<u>TX03185-1R/R</u> –Oblong Red/Red. Parentage (BTX1749-1W/Y x NDTX4271-1R). Cross was made and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>All Blue</u> - Oblong Purple. Parentage (Unknown). Medium-late maturity. Medium-large vine size. Blue flower color.

Uses: Specialty.

Strengths:

Weaknesses: Rough shape, small tubers, road map, stem attachments, center pith and cortex is white, purple flesh color more intense at eyes, poor shaped, road map, buff very late, heat sprouts, second growth, chain tubers, rough, pointed, dog, drop.

<u>CO97215-2P/P</u> - Oblong Purple/Purple. Parentage (CO94163-1 x CO94183-1). Cross was made in Colorado and selected in Colorado.

Uses: Specialty.

Strengths: Nice shape and flesh.

Weaknesses: Road map, heat sprouts, late, rough, eye tubers, drop.

<u>CO97227-2P/PW</u> - Oblong Purple/Purple. Parentage (CO94183-1 x CO94215-1). Cross was made in Colorado and selected in Colorado.

Uses: Specialty.

Strengths: Smooth very dark flesh solid flesh color keep for extraction.

Weaknesses: Flesh color variable from all purple to purple with white, long stolons, late rough, dog, drop. <u>COTX03025-1P/P</u>—Oblong Purple/Purple. Parentage (CO94165-3P/P x PA97B36-3). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses: Roadmap.

<u>COTX03025-2P/P</u>-Oblong Purple/Purple. Parentage (CO94165-3P/P x PA97B36-3). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>COTX03047-1P/P</u> -. Oblong Purple/Purple. Parentage (PA97B37-3R/R x All Blue). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>COTX03137-1P/P</u>_Oblong Purple/Purple. Parentage (Purple Peruvian x POR00PG2-16P/P). Cross was made in Colorado and selected in Texas

Uses: Specialty.

Strengths:

Weaknesses:

<u>COTX04050-1P/P</u>-Oblong Purple/Purple. Parentage (CO97215-2P/P x CO97306-2P/P). Cross was made in Colorado and selected in Texas

Uses: Specialty.

Strengths:

Weaknesses:

<u>POR01PG16-1</u> - Long Purple Fingerling. Parentage (NDOP5847-1 x Red bulk). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium maturity. Medium vine size. Blue flower color.

Uses: Specialty.

Strengths: Flesh darker than All Blue, very dark flesh.

Weaknesses: Scab, rough road map, dumb bell, poor shape, drop++.

<u>PORTX03PG25-2R/P</u> - Long Red Fingerling. Parentage (PA97B35-1 x PA99P7-2). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Texas.

Uses: Specialty.

Strengths: Nice red flesh, keep, nice shape for a fingerling BOT+++.

Weaknesses: Skinny tubers, curved, skinny, rough, alligator pointed to stem end.

<u>Yukon Gold</u> - 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.

<u>A96510-4Y</u> - Oblong Light Russet. Parentage (PA92A17-6 x A91194-4). Cross was made and selected in Aberdeen.

Uses: Dual.

Strengths: Large tubers.

Weaknesses: Rough, feathering, flesh not very yellow, rough, pear shaped, poor shaped, pointed to stem end, drop+++.

<u>ATX9132-2W/Y</u>- Round White/Yellow. Parentage (??). Cross was made in Aberdeen and selected in Texas.

Uses: Dual.

Strengths: Large tubers.

Weaknesses:

<u>BTX1544-2W/Y</u> - 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: Nice, good color, nice interior, nice yellow flesh, BOT+++.

Weaknesses: Greenhead, pear shape, Rhizoctonia, rough, pointed to stem end, enlarged lenticels, growth cracks, rot, pointed to apical end, rough++, variable shape, oversize, buff, greening.

<u>BTX1749-1W/Y</u> - Oblong White. 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 color-3.0, good yield, nice shape nice skin, To SW or WR keep BOT-++.

Weaknesses: Feathering, rough, greening.

<u>CO99045-1W/Y</u>-Long White/Yellow. Parentage (Rio Grande Russet x German Butterball). Cross was made and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: Specialty.

Strengths:

Weaknesses:

<u>CO99338-3RU/Y</u>—Round Russet/Yellow. Parentage (Russet Nugget x Crispin). Cross was made and selected in Colorado. Early maturity. Medium vine size. White flower color.

Uses: Specialty.

Strengths:

Weaknesses:

<u>COTX03079-1W/Y</u>-Oblong White/Yellow. Parentage (VC1015-7R/Y x CO97232-2R/Y). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>COTX03187-1W</u>- Fingerling White. Parentage (AC89536-5RU x A9304-3). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>COTX04015-3W/Y</u>-Oblong White/Yellow. Parentage (ATC98495-1W/Y x TX1674-1W/Y). Cross was made in Colorado and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>POR02PG26-5</u>-Oval Yellow-Red Eyes/Yellow. Parentage (PA99P11-2 x Pig420). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium maturity. Medium vine size. Purple flower color.

Uses: Specialty

Strengths: Nice Weaknesses:

<u>POR02PG37-</u>-Oval Yellow-Red Eyes/Yellow. Parentage (PA99P35-1 x Rose Gold). Cross was made in Prosser, Washington, tuberling produced in Oregon, and selected in Oregon. Medium early maturity. Medium small vine size. Red purple flower color.

Uses: Specialty Strengths: Nice Weaknesses: Small

<u>PTTX05PG07-1W</u>-Oblong . Parentage (POR01PG22-1 x OR00067-7). Cross was made in Prosser, Washington, tuberling produced in Texas, and selected in Texas.

Uses: Specialty.

Strengths:

Weaknesses:

<u>TX1523-1Ru/Y (Sierra GoldTM).</u> (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: Flesh color-3.3, nice yield+, nice, excellent internals BOT++++.

Weaknesses: Can oversize.

<u>TX1674-1W/Y</u> - Oblong-long White/Yellow. Parentage (Russet Nugget x Delta Gold). Cross was made in Texas and selected in Texas. Early maturity. Medium vine size. Light lavender flower color.

Uses: Specialty.

Strengths: Red eyes, flesh color-3.0, nice, nice interior, yield+, to WR or SWR, parent, BOT+.

Weaknesses: Drop, flat, nipple knobs, poor shape, feathering, close set, slight vascular discoloration, some greening in flesh, flat, pink eyes, slight russet pointed to stem end.

<u>UNTX383-3WRE/Y</u> - Round White Red Eye/Yellow. Cross was made in Minnesota and selected in Texas.

Uses: Specialty.

Strengths: Keep, nice shape, skin, and flesh, excellent flesh smooth skin, keep, TC BOT-.

Weaknesses: Road map, boiler only, yellow pale red eyes, skin??.

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.

Weaknesses: Weak vine, susceptibility to early dying, most viruses especially PVY, and late blight, and very susceptible to Verticillium wilt and early blight.

<u>Russet Norkotah-S3</u> (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: Ten to 14 days later than Russet Norkotah, late, rough, poor shape, pointed, small, pointed skinny.

<u>Russet Norkotah 278</u> (Protected – PVP)-. Oblong-Long Russet. Parentage (ND9526-4Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS 278 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium-large vine size. White flower color.

Uses: Fresh

Strengths: Good yield, uniform tuber shape, excellent appearance, resistance to hollow heart, some increased resistance to early dying, and environmental stresses, lower N requirement, more vigorous, and higher yielding than Russet Norkotah, heavy net, BOT.

Weaknesses: Five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah.

<u>Russet Norkotah 296</u> (Protected – PVP). - Oblong-long Russet. Parentage (ND95264Ru x ND9687-5Ru). Cross was made and selected in North Dakota. TXNS 296 is a mutant strain selection made in 1989 by Texas from the variety Russet Norkotah. Early maturity. Medium vine size. White flower color.

Uses: Fresh.

Strengths: Nice, BOT.

Weaknesses: Five to ten days later than Russet Norkotah. Can produce a higher percentage of misshapen tubers than Russet Norkotah.

<u>Ranger Russet</u> - Long Russet. Parentage (Butte x A6595-3). Cross was made and selected in Aberdeen. Released in 1991 by USDA-ARS, and the Colorado, Aberdeen, Oregon and Washington Agricultural Experiment Stations.

Medium-late maturity. Large vine size. White flower color.

Uses: Dual purpose.

Strengths: Dual purpose, medium to high specific gravity, good fry color from 450 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.

<u>Russet Burbank</u> - 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.

<u>Shepody</u> - Long White. Parentage (Bake King x F58050)., Selected in New Brunswick, Canada and released by Agriculture Canada, - New Brunswick in 1980. Medium-late maturity. Medium vine size. Light violet flower color with white tips.

Uses: Early harvested processing.

Strengths: Good early yields, high percentage of large tubers, resistance to blackspot bruise, tolerant to heat stress.

Weaknesses: Specific gravity is variable and erratic, sugars accumulate during storage, fries dark from 450 storage, very susceptible to common scab, PVX, PVY, early and late blight, Verticillium wilt and pinkeye, small, curved, poor shape, dumb bell, blocky, rough.

<u>Stampede Russet</u> - 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: Smooth tubers with good skin set, high yielding, dark attractive russet skin.

Weaknesses: Tubers can be short.

<u>A95409-1</u> - Long Russet. Parentage (A89146-8 x Ranger Russet). Cross was made and selected in Aberdeen. Medium-late maturity. Large vine size. Red-purple flower color.

Uses: Dual.

Strengths: Large tubers.

Weaknesses: Powdery scab, feathering, rough, light russet, pointed, yield+, skinny, drop.

<u>A96104-2</u> - Long Russet. Parentage (A88236-4 x A89512-3). Cross was made and selected in Aberdeen. Mediumlate maturity. Medium vine size. Red-purple flower color.

Uses: Dual.

Strengths: Nice.

Weaknesses: Powdery scab, late, small, poor shape, Rhizoctonia, poor skin light skin, smooth, blocky, heat sprouts, drop.

<u>A97287-6</u>- Oblong Light Russet. Parentage (PA92A17-6 x A91194-4). Cross was made and selected in Aberdeen. Medium maturity. Medium-large vine size.

Uses: Dual.

Strengths: Large tubers.

Weaknesses:

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

Uses: Dual.

Strengths: Nice, nice shape, heavy set, smooth, BOT.

Weaknesses: Small, heat necrosis, late, pear shaped, heat sprouts, drop.

<u>A096141-3</u> - Long Russet. Parentage (A89222-3 x COA90064-6). Cross was made and selected in Aberdeen. Medium maturity. Medium-large vines. White flower color.

Uses: Dual.

Strengths:

Weaknesses: Small, skinny, heat sprouts, pointed to apical, knobs drop.

<u>A096164-1</u> - Long Russet. Parentage (A89384-10 x A91194-4). Cross was made in Aberdeen and selected in Oregon. Medium maturity. Medium vine size. White flower color.

Uses: Dual.

Strengths:

Weaknesses: Growth cracks, pointed to stem end, pointed to bud end, poor shape, skinny, flat, rough, poor shape, curved, drop.

<u>AOA95154-1</u> - Long Russet. Parentage (Bannock x A89152-4). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Aberdeen. Medium-early maturity. Medium-large vine size. Medium-purple flower color.

Uses: Dual.

Strengths: Nice, nice white flesh, blocky.

Weaknesses: Small, heat sprouts, late, B size tubers did not size drop.

<u>AOA95155-7</u> - Long Russet. Parentage (Bannock x A89163-3LS). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Aberdeen. Medium-late maturity. Small vine size. Red-purple flower color. Uses: Dual.

Strengths: Nice white flesh, good processor, resistant to blackspot bruise, BOT.

Weaknesses: Pointed to apical end, growth cracks, heat sprouts, very late, feathering, poor shape, small, drop.

<u>AOTX02060-1Ru</u> - 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 flesh, blocky:

Weaknesses

<u>AOTX02066-1Ru</u>-Oblong Russet. Parentage (A97218-1 x A97201-4). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: Blocky, large tubers.

Weaknesses: Poor internals.

<u>AOTX02136-1Ru</u> - Oblong Russet. Parentage (A96563-8 x A92030-5). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: Nice, uniform, yield+, fat tubers, nice shape, smooth, keep, BOT, blocky.

Weaknesses: Pointed, light skin, small, poor yield, some pointed, mix, rough, pointed to stem end.

<u>AOTX03096-1Ru</u>-Oblong Russet. Parentage (A97198-15 x A92030-5). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: Blocky, large tubers.

Weaknesses

<u>AOTX03134-1Ru</u>-Oblong Russet. Parentage (A98082-17 x AC93026-9RU). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: Blocky, large tubers.

Weaknesses: Hollow heart.

<u>AOTX95265-1Ru</u> - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Large vine size.

Uses: Fresh.

Strengths: Nice net, very nice appearance, nice interior, uniform, longer than Norkotah, nice yield+, blocky, BOT++.

Weaknesses:, Rough, tuber moth, Rhizoctonia, some curved and pointed, some shriveling, small tubers.

<u>AOTX95265-2ARu</u> - Long Russet. Parentage (A89216-9 X A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas.

Uses: Fresh.

Strengths: OK, nice heavy net, nice shape, keep, blocky, BOT.

Weaknesses: Deeper eyes, pointed to apical end, pointed to stem end, some curved, feathering, rough, heat necrosis, flat, poor shape, crooked dumb bell, bud cracks apical green head.

<u>AOTX95265-3Ru</u> - 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.

Uses: Fresh.

Strengths: Very nice, good internal, some large tubers, yield+, nice shape, nice internals blocky, BOT. Weaknesses: Rhizoctonia, rough, , heat sprouts, small tubers, variable size tubers, sprouts, some shriveling, ugly net on stem end, hollow heart, pointed, curved, poor shape+, greening++, too long, points,

small, rough, curved, skinny, drop+
<u>AOTX95265-4Ru</u> - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-late maturity. Medium-large vine size. White flower color.

Strengths: Nice, good internal, hollow heart resistant, longest clone, flesh whiter than Norkotah, BOT. Weaknesses: Rhizoctonia, nipple knobs, some crooked, bruising, some greening, a little rough, skinny, pointed feathering, greening, bud cracks, drop+.

<u>AOTX95269-1Ru</u> - Long Russet. Parentage (A89296-3 x A89804-7). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-maturity. Large vine size.

Uses: Fresh.

Strengths: Yield, will store, nice, large tubers, yield+, BOT.

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

<u>AOTX95295-1Ru</u> - Long Russet. Parentage (A89804-7 x Ranger Russet). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

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

Weaknesses: Heat sprouts, Rhizoctonia, skinny tubers, some shrinking, sugar end, pointed, curved, pointed to apical end rot, rough, uneven net, pointed to bud end, hollow heart, bud cracks, 15% heat necrosis, drop?.

<u>AOTX95295-3Ru</u> - Long Russet. Parentage (A89804-7 x Ranger Russet). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Medium vine size.

Uses: Fresh.

Strengths: Good shape and internal, some very large tubers, longer than Norkotah, blocky, uniform, keep, BOT+++.

Weaknesses: Some rot, Rhizoctonia, not as nice as other selections, hollow heart, smaller, poor net too long, pointed, curved, rough, yield-, greening, curved, skinny, drop?.

<u>AOTX96075-1Ru</u> - Long Russet. Parentage (A84118-3 x A89384-10). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: Nice shape and internals, good yield, nice++, longer than Norkotah, yield+, fat tubers large tubers keep BOT+*.

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

<u>AOTX96208-1Ru</u> - Long Russet. Parentage (A9057-7 x A91194-3). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Large vine size.

Uses: Fresh.

Strengths: Nice, good internal, large tubers, nice shape, smooth blocky, yield+, BOT.

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

<u>AOTX96216-2Ru</u> - Long Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh.

Strengths: Nice, nice internal, nice shape, fat, nice shape, large tubers, yield+ keep, BOT.

Weaknesses: Heat sprouts, rot, Rhizoctonia, some rot, rough, poor shape, late, 10% heat necrosis, curved, pointed, skinny, drop.

<u>AOTX96216-3Ru</u> - Oblong Russet. Parentage (A89216-9 x A86102-6). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium maturity. Medium-large vine size.

Uses: Fresh.

Strengths: Very nice smooth, nice shape and size, keep, BOT.

Weaknesses: Rot, rough, poor shape, knobs, clunker, late, some pointed to apical end, curved, small, blocky, yield-, drop?.

<u>AOTX98096-1Ru</u> - Oblong Russet. Parentage (Shepody x A92158-3). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium-early maturity. Large vine size.

Uses: Fresh

Strengths: Yield, nice shape and internal, very long, fat tubers, blocky, yield+, nice, keep, BOT.

Weaknesses: Some rot, , poor shape, small tubers, rough, pointed, skinny, drop++?.

<u>AOTX98137-1Ru</u> - Oblong Russet. Parentage (A8670-7 x A9310-1). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Early maturity. Medium-large vine size.

Uses: Fresh.

Strengths: Very nice, nice shape and internal, blocky, BOT for shape, uniform, smooth, keep, BOT+. Weaknesses: Smaller, rot, , heat necrosis, shrinkage, different, small, short, some pointed to stem end, pointed, rough poor shape, curved drop.

ATX02014-1Ru-Oblong Russet. Parentage (Cruza 148 x Ranger Russet). Cross was made in Aberdeen and

selected in Texas.

Uses: Fresh.

Strengths: Nice appearance.

Weaknesses: Low yield.

<u>ATX84378-6RU</u>-Oblong-long Russet. Parentage (A79141-9 x ND329-1). Cross was made in Aberdeen, and selected in Texas.

Uses: Fresh.

Strengths: Large tubers, blocky.

Weaknesses: Rough

<u>ATX91137-1RU</u>-Oblong Russet. Parentage (A81473-2 x A8343-12) Cross was made in Aberdeen, and selected in Texas.

Uses: Fresh.

Strengths: Very nice, blocky.

Weaknesses:

<u>ATX97147-4Ru</u> - Long Russet. Parentage (A79180-10 x A88236-6). Cross was made in Aberdeen and selected in Texas.

Uses: Fresh.

Strengths:

Weaknesses: Growth cracks, knobs, hollow heart, pointed, rough, small, poor shape, light russet, poor internal, poor skin drop++.

<u>ATX97232-1RU</u>-Oblong Russet. Parentage (A79180-10 x A88236-6). Cross was made in Aberdeen and selected in Texas. Early-medium maturity. Medium vine size.

Uses: Fresh.

Strengths: Nice skin and shape, blocky.

Weaknesses: Small.

<u>CO95172-3RU</u> - Oblong Russet. Parentage (Russet Nugget x AC88165-3). Cross was made and selected in Colorado. Medium maturity. Large vine size. Red-purple flower color.

Uses: Fresh.

Strengths: Nice shape, heavy set, nice interior, light skin.

Weaknesses: Pointed to stem end, poor shape, small, late, Rhizoctonia, pointed, small, feathering, heat sprouts skinny drop.

<u>CO97087-2RU</u> - Oblong Russet. Parentage (CO87009-4 x W1005). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: Fresh.

Strengths: Nice, nice internals.

Weaknesses: Flat, rough, road map, close set, small, pointed, drop++.

<u>CO97138-3RU</u> - Oblong Russet. Parentage (NDO2904-7 x CO90052-1). Cross was made and selected in Colorado. Medium maturity. Medium-large vine size. White flower color.

Uses: Fresh.

Strengths: Very nice, nice interior, yield, BOT of all Colorado entries.

Weaknesses: Poor and variable shape, some road map, hollow heart.

<u>CO97138-7RU</u> - Oblong Russet. Parentage (NDO2904-7 x CO90052-1). Cross was made and selected in Colorado. Medium maturity. Medium vine size. White flower color

Uses: Fresh.

Strengths: Nice, nice internals.

Weaknesses: Flesh not very white, heat sprouts, poor shape, curved, poor skin, rough, pointed.

<u>CO98067</u>-7RU-Long Russet. Parentage (Silverton Russet x TC1675-1). Cross was made and selected in Colorado.

Early-medium maturity. Medium vine size. White flower color

Uses: Dual. Strengths: Nice.

Weaknesses: Small.

<u>CO98368-2RU</u>- Oblong Russet. Parentage (Russet Nugget x Bannock Russet). Cross was made and selected in Colorado. Early-medium maturity. Medium vine size. Purple flower color.

Uses: Fresh. Strengths:

Weaknesses: Small, flat.

<u>COTX03261-1Ru</u> - Oblong Russet. Parentage (CO94084-12RU x A88093-1). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths: Nice, BOT+. Weaknesses: Small.

<u>COTX03285-4Ru</u> Oblong Russet. Parentage (CO96043-5RU x A93157-6LS). Cross was made in Colorado and selected in Texas.

Uses: Fresh.

Strengths: Large tuber, blocky.

Weaknesses:

<u>MWTX2609-2Ru</u> - Long Light Russet. Parentage (Russet Burbank x (Ontario x 4 x hybrid). Cross was made by USDA/ARS Madison, Wisconsin and selected in Texas. Late maturity. Large vine size. White flower color.

Uses: Fresh.

Strengths: Nice, high yield, long, light net, BOT- for interior. yield+, nice internals.

Weaknesses: Pointed, rough, feathering, cone shaped, poor shape, knobs, eye knobs, century like, pointed to stem end, skinny rough, curved feathering drop+++.

<u>MWTX2609-4Ru - Long Light Russet</u>. Parentage (Russet Burbank x (Ontario x 4 x hybrid). Cross was made by USDA/ARS Madison, Wisconsin and selected in Texas. Late maturity. Large vine size. White flower color.

Uses: Fresh.

Strengths: Yield, nice internal, yield+.

Weaknesses: Rot, eye bulge, light russet, rough, pointed, poor shape and net, eyes a little deep, heat sprouts, pointed to stem end, stem nipples, not as long as -4, poor shape, feathering, heat sprouts, bad sprouting, feathering, rough, curved, low gravity, pointed drop++++.

<u>TXA549-1Ru</u> - 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: Nice, parent, nice net and internal, smooth tubers with good skin set, high yielding, and dark attractive russet skin, appears to be resistant to early blight, BOT for internal.

Weaknesses: Blocky, Rhizoctonia, too short, may not size well, tubers could be longer, pointed stem ends, susceptible to Rhizoctonia, keep, fat tubers, nice feathering uniform, drop.

<u>Atlantic</u> - Round White. Parentage (Wauseon x B5141-6). Cross was-made in Beltsville, Maryland, and selected in Maine. Released in 1976 by USDA-ARS, Florida, Virginia, New Jersey and Maine Agricultural Experiment Stations. Medium maturity. Medium vine size. Pale lavender flower color.

Uses: Chip.

Strengths: High yield, high specific gravity, low sugar buildup in storage, chips well directly from field short term storage at 50o, uniform tuber size and shape, tolerant to scab and Verticillium wilt, resistant to pink eye and highly resistant to race A of golden nematode, PVX and tuber net necrosis.

Weaknesses: Very susceptible to internal heat necrosis, particularly in sandy soils in warm, dry seasons, susceptible to hollow heart, shatter bruise, Rhizoctonia and storage rots, buff skin10 % Zebra.

<u>Chipeta</u> - 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, 20% Zebra.

<u>Ivory Crisp</u> - Round White. Parentage (ND292-1 x A77268-4). Cross was made in North Dakota and selected in Corvallis, Oregon. Medium maturity. Medium vine size. White flower color.

Uses: Chip.

Strengths: Nice, BOT. uniform, nice shape, skin, and internals++, BOT+.

Weaknesses: Greenhead, stem end discoloration, powdery scab, poor shape, bud cracks+,10 % Zebra.

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

Uses: Chip.

Strengths: Nice interior, good, nice, uniform nice shape.

Weaknesses: Variable shape, road map, yield-, hollow heart++, buff, poor internals, 20% Zebra.

<u>CO96141-4W</u> - Round White. Parentage (BC0894-2 x AC87340-2). Cross was made and selected in Colorado. Medium-early maturity. Medium-small vine size. White flower color

Uses: Chip.

Strengths: Nice medium size, uniform, nice shape, yield+, BOT.

Weaknesses: Stem end rot, nice, some internal greening.

<u>097043-14W</u> - Round White. Parentage (AC91817-5 x AC87340-2). Cross was made in and selected in Colorado. Medium maturity. Medium vine size. White flower color.

Uses: Chip.

Strengths: Very good, nice flesh and shape, uniform, yield, BOT.

Weaknesses: Deep nose, flat chain tubers, rough stem attachment.

<u>CO97065-7W</u> - Round White. Parentage (AC92513-3 x Chipeta). Cross was made in and selected in Colorado. Medium maturity. Medium vine size. Red-purple flower color.

Uses: Chip.

Strengths: buff uniform, nice excellent internals, BOT+++.

Weaknesses: Flat, feathering, some internal greening, growth cracks, oversized, 10 % zebra.

<u>AOTX95309-1W</u>- Oblong White. Parentage (A9055-8LS x A89163-3LS). Cross was made in Aberdeen, tuberling produced in Oregon, and selected in Texas. Medium maturity. Large vine size.

Uses: Chip.

Strengths: Yield, nice internal, candidate, very uniform, to SWR, excellent internals, BOT+++.

Weaknesses: Heat sprouts.

<u>AOTX95309-3W</u> - Oblong 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 shape, nice interior, yield+, uniform, to SWR excellent internals, BOT+++.

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

<u>ATTX98466-5R/W-R</u> - Round White. Parentage (ND2051-1Ru x A7961-1). Cross was made in Aberdeen, tuberling produced in Texas, and selected in Texas.

Uses: Chip.

Strengths: Red streak in vascular, nice red skin, nice shape, white/red flesh yield+, keep, smooth.

Weaknesses: Lenticels, flat.

<u>ATX85404-8W</u> - Round White. Parentage (Gemchip x ND860-2). Cross was made in Aberdeen and selected in Texas. Medium-late maturity. Medium-large vine size. White flower color.

Uses: Chip.

Strengths: High yield, good appearance, tubers of uniform size, low sugar accumulation in storage, some scab resistance, excellent color, low glycoalkaloids, can be chipped directly out of storage, smooth skin, nice internal. BOT+++.

Weaknesses: Can develop some hollow heart and is somewhat susceptible to shatter bruise, slight russet patching, susceptible to Rhizoctonia, short tuber dormancy, oversize, heat necrosis.

<u>COTX00328-1Pu/Ypu</u> - Oblong Purple. Parentage (ATD252-5R X BO811-13RY). Cross was made in Colorado and selected in Texas.

Uses: Chip.

Strengths: Nice shape and skin, yellow with purple flesh, keep.

Weaknesses: Rough, vascular ring, road map, buff, knobs.

<u>COTX02377-1W</u> - Round White. Parentage (Dakota Pearl x Chipeta). Cross was made in Colorado and selected in Texas.

Uses: Chip.

Strengths: Nice skin, flesh, and shape.

Weaknesses: Rough, bud cracks, hollow heart, drop++.

<u>COTX02377-2W</u> - Oblong White. Parentage (Dakota Pearl x Chipeta). Cross was made in Colorado and selected in Texas.

Uses: Chip.

Strengths: Nice flesh, very nice, uniform, large, nice shape and skin, excellent internals++

Weaknesses: Rough, knobs, buff.

<u>NDTX049265-2W</u> - Oblong White. Parentage (ATND 99331-2 Pinto x Dakota Rose). Cross was made in North Dakota and selected in Texas.

Uses: Chip.

Strengths:

Weaknesses:

<u>NDTX4930-5W</u> - Round White. Parentage (ND860-2 x A7961-1). Cross was made in North Dakota and selected in Texas. Early-medium maturity. Medium-large vine size. White flower color.

Uses: Chip.

Strengths: Nice shape, good yield, chips very white, early maturity and bulking, large tubers, nice internals, yield+, nice shape, excellent internals BOT+++.

Weaknesses: Very buff, flat, hollow heart on large tubers, rough, oversize+, gravity could be higher.

<u>NDTX6773-1W</u> - Oblong White. Parentage (ND5175-4 x S440). Cross was made in North Dakota and selected in

Texas. Medium maturity. Large vine size.

Uses: Chip.

Strengths: Large tubers, very nice.

Weaknesses: Deep eyes, small, rough, pointed, hollow heart++, drop?.

<u>NDTX7571-3AW</u> - Round White. Parentage (ND5084-3R x Picasso). Cross was made in North Dakota and selected in Texas. Late maturity. Large vine size.

Uses: Chip.

Strengths: Nice shape and interior, Atlantic-like, buff.

Weaknesses: Hollow heart, some zebra defect, yield-, poor internals, hollow heart flat,

<u>NDTX7571-5AW</u> - Round White. Parentage (ND5084-3R x Picasso). Cross was made in North Dakota and selected in Texas.

Uses: Chip.

Strengths: Nice flesh, Atlantic-like, nice internals nice shape buff and smooth skin.

Weaknesses: small, flat, mix, poor internals, rough yield-.

<u>PATX99P10-1Pu/R</u> - Oblong Red/Red. Parentage (All Red X PA96RR02-120). Cross was made in Prosser, Washington, tuberling grown in Aberdeen and selected in Texas.

Uses: Chip.

Strengths: Nice, red color in flesh from eyes, smooth, nice skin and shape, keep. BOT for flesh color Weaknesses: Hollow heart, road map+, silver scurf.

<u>AC99213-8W</u> -Round White. Parentage (A900467-14 x NDA5698-8). Cross was made in Aberdeen and selected in Colorado. Medium maturity. Large vine size. White flower color.

Uses: Chip.

Strengths:

Weaknesses:

<u>Green Mountain</u>-.Oval White/Yellow Parentage (Dunmore x Excelsior).Cross made by O. H. Alexander, Charlotte, Vermont. Late maturity. Large vine size. White flower color

Uses: Specialty.

Strengths: High yielding variety; stores well; well suited for washing after two months storage; grows well in light soils, excellent for boiling, baking, and french frying; Resistant: black leg, Fusarium dry rot, verticillium wilt.

Weaknesses: Susceptible: common scab, leaf roll, phoma rot, tuber net necrosis, viruses X and Y, highly susceptible: late blight.

<u>Keuka Gold</u> –Round White/Yellow. Parentage (Steuben x Norwis). Cross made by Cornell University Potato Breeding Program; Ithaca, NY. Medium-late maturity. Medium –large vine size. White flower color Uses: Specialty.

Strengths: Resistances to Golden nematode race Roland Common scab.

Weaknesses: Susceptible to internal heat necrosis

<u>Magic Molly</u>-Fingerling Purple/Purple. Parentage (Open pollinated seed ball from Red Beauty). Cross made by Bill Campbell Seed Specialist, Alaska Dept. of Natural Resources, Div. of Agriculture Plant Material, Palmer, Alaska. Medium-late maturity. Medium-large vine size.

Uses: Fresh.

Strengths: Novelty color.

Weaknesses: Susceptible to scab, PVX.

Prefix source key for numbered advanced selections:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CO = cross made and selected in Colorado

COO = cross made in Colorado and selected in Oregon

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

COTX = cross made in Colorado and selected in Texas

DT = cross made in North Dakota and selected in Texas

FL = cross made and selected by Frito-Lay

LA = cross made and selected in Louisiana

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

MN = cross made and selected in Minnesota

MNTX = cross made in Minnesota and selected in Texas

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

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

ND = cross made and selected in North Dakota

NDA= cross made in North Dakota and selected in Idaho (Aberdeen)

NDC = cross made in North Dakota and selected in Colorado

NDD = cross made in North Dakota and selected in California (Davis)

NDO = cross made in North Dakota and selected in Oregon

NDTX = cross made in North Dakota and selected in Texas

NY = cross made and selected in New York

PA = cross made in Prosser, Washington and selected in Aberdeen, Idaho.

TC = cross made in Texas and selected in Colorado

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

TXND = cross made in Texas and selected in North Dakota

WC = cross made in Washington and selected in Colorado

WD = cross made in Washington and selected in California (Davis)

WN = cross made in Washington and selected in North Dakota

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

TXNS "numbers" = Texas selections (strains) out of Russet Norkotah made by Texas program

TXY "numbers" = Texas selections (strains) out of Yukon Gold made by Texas program

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