

2023 WESTERN REGIONAL CHIPPING POTATO TRIAL REPORT

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2023 WESTERN REGIONAL CHIPPING POTATO VARIETY TRIAL REPORT

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Compiled by Caroline Gray and Beth Niebaum

Data provided by cooperators in California, Colorado, Idaho, Oregon, Texas, and Washington

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TABLE 1: 2023 Western Regional Chipping Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION

Locations	Cooperators	Trial	Irrigation	Fertilizer N-P-K-S(lb/A)	Spacing	Planting Date	Vine Kill Date	Harvest Date	Days to Vine Kill	Days to Harvest	Herbicides	Insecticides	Fungicides
Tulelake California (CA)	R. Wilson D. Culp K. Nicholson	Late	Sprink.	120-0-300	10" x 36"	19-May	28-Aug	26-Sep	101	130	Prowl h20 Outlook Matrix Reglone/Rolling	Admire-Pro (in-furrow) Vydate (Chemigation)	Vellum Prime (in-furrow) Quadris (in furrow) Luna Tranquility (Chemigation) Manzate Max (Chemigation)
San Luis Valley Colorado (CO)	J. Chitwood-Brown D. Holm C. Gray B. Niebaum	Late	Pivot	180-80-60	12" x 34"	16-May	6-Sep	3-Oct	113	140	Metribuzin 75 Tuscany Boundary 6.5 EC Dual II Magnum Reglone	Sefina Inscalis Movento HL	Amistar Top Revus Top
Aberdeen Idaho (ID)	R. Spear C. Lowder R. Novy J. Whitworth	Late	Sprink.	305-140-130-60-5Zn	10" x 36"	2-May	1-Sep Mechanical	18-Sep	122	139	TriCor 4F Matrix Eptam 7-E	Admire Pro	
Hermiston Oregon (HRM)	V. Sathuvalli I. Thompson	Early	Pivot	370-220-200-138-84Ca- 3Cu-5.50Zn-3B	9.25 x 34	30-Mar	21-Jul	4-Aug	113	127	Matrix Dual Magnum Prowl, Eptam Cut Roll & Reglone	Admire pro Vantacor	Ridomil gold Quadris Omega
Klamath Falls Oregon (KF)	B. Charlton N. Baley	Late	Sprink.	150-0-0-170	9.25" x 36"	18-May	6-Sep	29-Sep	111	134	Prowl Glory Eptam Reglone	Alias Vydate	Vertisan
Dalhart Texas (DTX)	I. Vales J. Koym D. Scheuring J. Pandey S. Toinga-Villafuerte	Early	Pivot	211-226-263	10.2" x 28"	12-May	14-Aug	19-Sep	94	130	Eptam 7E Gly Star 5 Extra he Matrix SG TriCor 4F Trifluralin Trifluralin 4 EC (Agri Star) Volunteer (42750-72-55467) Reglone	Fulfill Reaper ClearForm Silencer Transform WG	Aframe Endura Fungicide Manzate Max Minuet Provyisol Revus Top Xyler FC
Springlake Texas (STX)	I. Vales J. Koym D. Scheuring J. Pandey S. Toinga-Villafuerte	Early	Pivot	159-64.5-9	9" x 36"	24-Mar	27-Jun Mechanical	10-Jul	95	108	Boundary 6.5 EC Eptam 7E Makaze	Eptam 7E Movento Oberon@4 SC Sivanto 200 SL SPE 120 Velum Prime	Makaze Headline Luna Tranquility Miravis Prime NUCOP Provyisol™ Scala SC
Othello Washington (OTH)	Z. Holden J. Blauer N. Fuller	Late	Pivot	380-250-400		6-Apr	1-Sep Mechanical	6-Sep	148	153	PreEmerge: Outlook Prowl H20 Eptam	Admire	Bravo Priaxor Zing Luna Tranquility

TABLE 2: 2023 Western Regional Chipping Potato Variety Trial - CLONE, PARENTS, FLOWER COLOR, ENTERED BY, YEARS IN TRIAL, SEED SOURCE, STAND, TUBER AND VINE CHARACTERISTICS, AND STEMS PER PLANT

No.	Clone	Parents	Flower Color	Entered by	Year in Trial	Seed Source	% Stand Mean	Tuber Shape ¹	Tuber Skin ²	Vine Size ³	Vine Maturity ⁴	Stems/Plant Mean
1	Atlantic	Wauseon x B5141-6	Red-purple	Check	Ck	OR	93	Round	Buff	Medium	Med Early	2.4
2	Lamoka	NY120 x NY115	Purple	Check	Ck	OR	93	Round	White	Med-large	Medium	1.9
3	Snowden	Lenape x Wischip	White	Check	Ck	OR	95	Round	Buff	Med-large	Medium	2.7
4	A13125-3C	Saginaw Chipper x Winterset	White	CO	2	ID	94	Round	White	Med-large	Late	1.9
5	AC13126-1Wadg	MSR061-1 x CO95051-7W	Blue-Purple	CO	1	CO	90	Round	Buff	Med-large	Med-late	1.6
6	CO12235-3W	AC00206-2W x AC03433-1W	White	CO	3	CO	94	Round	White	Medium	Med Early	2.5
7	CO12293-1W	CO02024-9W x ND7519-1	White	CO	3	CO	94	Round	White	Med-large	Late	3.1
8	COOR13270-2	Winterset x CO02024-9W	White	CO	3	OR	89	Round	White	Medium	Med-late	2.0
9	NYOR14Q9-5	Eva x H25-4	White	OR	3	OR	93	Round	White	Med-large	Late	2.0
10	NYOR14Q9-9	Eva x H25-4	White	OR	2	OR	92	Round	White	Medium	Med-late	2.2

Numerical values are means of all trial locations.

1 1.0-2.0=Round, 2.1-2.5=Oval, 2.6-3.5=Oblong, 3.6-4.0=Oblong-Long, 4.1-5.0=Long

2 1.0-2.0=White, 2.1-3.0=Light Russet, 3.1-4.0=Medium Russet, 4.1-4.5=Medium Heavy Russet, 4.6-5.0 Heavy Russet

3 1.0-2.5=Small, 2.6-3.0=Medium, 3.1-4.0=Medium-Large, 4.1-4.5=Large, 4.6-5.0=Very Large

4 1.0-2.5=Early, 2.6-3.0=Medium-Early, 3.1-3.5=Medium, 3.6-4.0= Medium-Late, 4.1-4.5=Late, 4.6-5.0=Very Late

TABLE 3: 2023 Western Regional Chipping Potato Variety Trial - TOTAL YIELD - YIELD OF U.S. #1'S (CWT/A & %)

No. Clone	Total Yield (CWT/A)									U.S. No. 1's (CWT/A) / %										
	CA	CO	ID	HRM	KF	DTX	STX	OTH*	Entry Mean	Rank	CA	CO	ID	HRM	KF	DTX	STX	OTH*	Entry Mean	Rank
1 ATLANTIC	419	332	327	575	383	306	257	961	371	9	340	279	242	324	259	226	151	826	260	9
											81	84	74	56	68	74	59	86	71	6
2 Lamoka	534	432	321	528	368	357	391	996	419	5	476	359	245	305	220	273	320	878	314	5
											89	83	76	58	60	77	82	88	75	3
3 SNOWDEN	411	374	346	564	474	418	332	886	417	6	316	249	179	359	301	263	195	845	266	8
											77	67	52	64	64	63	59	95	64	9
4 A13125-3C	613		474	407	541	363	340	836	456	4	518		358	259	337	250	262	737	331	4
											85		75	64	62	69	77	88	72	4
5 AC13126-1Wadg	489	297	315	543	404	325	393		395	7	440	252	257	300	203	203	309		281	6
											90	85	82	55	50	62	78		72	5
6 CO12235-3W	423	279	298	399	495	332	325		364	10	312	211	118	216	326	179	115		211	10
											74	76	40	52	66	54	35		57	10
7 CO12293-1W	614	382	481	534	503	380	327		460	3	540	321	389	348	309	258	262		347	2
											88	84	81	65	61	68	80		75	2
8 COOR13270-2	541	357	308	455	489	342	268	1051	394	8	443	262	220	239	292	193	218	976	267	7
											82	73	71	53	60	56	81	93	68	8
9 NYOR14Q9-5	562	394	422	543	572	442	364	1052	471	2	534	337	346	321	341	316	303	996	357	1
											95	86	82	59	60	72	83	95	77	1
10 NYOR14Q9-9	625	411	344	667	469	422	425	842	480	1	539	314	190	389	328	287	272	792	331	3
											86	76	55	58	70	68	64	94	68	7
Location Mean	446	362	364	521	470	369	342	946	410		446	287	254	306	292	245	241	####	296	
											85	79	69	58	62	66	70	####	70	

*Othello, WA is not included in the means or rankings because of incomplete data set.

TABLE 4: 2023 Western Regional Chipping Potato Variety Trial - YIELD OF U.S. #1'S >10 OZ. & YIELD <4OZ. (CWT/A & %)

No. Clone	U.S. No. 1's > 10 OZ (CWT/A) / %										Yield < 4 OZ (CWT/A) / %									
	CA	CO	ID	HRM	KF	DTX	STX	OTH*	Entry		CA	CO	ID	HRM	KF	DTX	STX	OTH*	Entry	
									Mean	Rank									Mean	Rank
1 ATLANTIC	123	73	51	79	65	61	27	478	68	7	61	50	55	111	34	74	91	63	68	7
	29	22	16	14	17	20	10	50	18	4	15	15	17	19	9	24	36	7	19	5
2 Lamoka	170	91	62	95	90	52	62	500	89	2	36	57	47	73	24	84	55	42	54	9
	32	21	19	18	24	15	16	50	21	3	7	13	15	14	7	23	14	4	13	9
3 SNOWDEN	48	30	11	68	106	10	0	413	39	9	93	123	156	109	31	155	133	77	114	2
	12	8	3	12	22	2	0	47	8	9	23	33	45	19	7	37	40	9	29	2
4 A13125-3C	134		108	74	131	0	0	432	74	5	53		80	57	34	114	74	44	69	6
	22		23	18	24	0	0	52	14	7	9		17	14	6	31	22	5	16	6
5 AC13126-1Wadg	134	92	81	119	150	0	32		87	3	43	30	45	76	20	111	67		56	8
	27	31	26	22	37	0	8		22	2	9	10	14	14	5	34	17		15	8
6 CO12235-3W	33	49	6	4	49	0	0		20	10	105	55	166	172	92	153	192		134	1
	8	18	2	1	10	0	0		6	10	25	20	56	43	19	46	59		38	1
7 CO12293-1W	87	85	112	77	125	23	11		74	6	71	50	69	94	44	117	52		71	5
	14	22	23	15	25	6	3		15	5	12	13	14	18	9	31	16		16	7
8 COOR13270-2	128	46	62	12	82	0	0	729	47	8	81	76	54	199	46	147	43	31	92	4
	24	13	20	3	17	0	0	69	11	8	15	21	17	44	9	43	16	3	24	4
9 NYOR14Q9-5	309	118	199	108	178	7	39	536	137	1	25	51	35	64	32	123	44	66	53	10
	55	30	47	20	31	2	11	51	28	1	4	13	8	12	6	28	12	6	12	10
10 NYOR14Q9-9	169	85	26	102	61	27	56	294	75	4	71	85	143	120	62	129	129	94	106	3
	27	21	8	15	13	6	13	35	15	6	11	21	42	18	13	31	30	11	24	3
Location Mean	134	74	72	74	104	18	23	483	71		64	64	85	108	42	121	88	60	82	
	23	19	17	12	20	5	6	44	14		12	16	22	20	8	30	24	6	19	

*Othello, WA is not included in the means or rankings because of incomplete data set.

TABLE 5: 2023 Western Regional Chipping Potato Variety Trial - SPECIFIC GRAVITY

No. Clone	Specific Gravity								Entry Mean	Rank
	CA	CO	ID	KF	HRM	DTX	STX	OTH		
1 Atlantic	1.095	1.092	1.093	1.094	1.081	1.078	1.081	1.085	1.087	2
2 Lamoka	1.094	1.097	1.089	1.096	1.082	1.077	1.079	1.086	1.087	1
3 Snowden	1.090	1.096	1.085	1.089	1.084	1.071	1.075	1.083	1.084	5
4 A13125-3C	1.092		1.087	1.098	1.079	1.078	1.072	1.083	1.084	4
5 AC13126-1Wadg	1.090	1.094	1.086	1.093	1.078	1.069	1.069		1.083	8
6 CO12235-3W	1.092	1.092	1.083	1.087	1.075	1.079	1.078		1.084	6
7 CO12293-1W	1.091	1.091	1.084	1.091	1.076	1.068	1.066		1.081	10
8 COOR13270-2	1.092	1.094	1.088	1.092	1.080	1.072	1.076	1.075	1.084	7
9 NYOR14Q9-5	1.088	1.089	1.085	1.088	1.077	1.071	1.069	1.086	1.082	9
10 NYOR14Q9-9	1.090	1.092	1.091	1.090	1.091	1.074	1.078	1.083	1.086	3
Location Mean	1.091	1.093	1.087	1.092	1.080	1.074	1.074	1.083	1.084	

TABLE 6: 2023 Western Regional Chipping Potato Variety Trial - AVERAGE TUBER SIZE, AND TUBER SHAPE

No. Clone	Average Tuber Size (oz)									Tuber Shape ²																	Entry Mean							
	CA	CO	ID	HRM	KF	DTX	STX	OTH ¹	Entry Mean	Length/Width							Width/Thick							(1-5, 1 = round, 5 = long)										
										CA	CO	ID	HRM	KF	DTX	STX	Entry Mean	CA	CO	ID	HRM	KF	DTX	STX	Entry Mean	CA		CO	ID	HRM	KF	DTX	STX	OTH
1 Atlantic	6.4	5.8	5.3	5.0	5.7	5.0	4.5	8.9	5.7	1.04	1.03	1.06	0.94	1.06	1.05	1.05	1.03	1.00	1.23	1.25	1.25	1.22	1.17	1.22	1.19	2.0	1.0	1.7	1.5	2.6	1.5	1.0	1.0	1.5
2 Lamoka	7.2	6.7	5.7	5.5	6.1	5.6	5.5	9.6	5.3	1.08	1.11	1.13	1.00	1.19	1.10	1.10	1.10	1.00	1.23	1.43	1.36	1.29	1.22	1.31	1.26	2.0	2.0	1.9	1.5	3.3	1.5	1.6	1.0	1.8
3 Snowden	5.1	4.4	3.8	4.9	6.4	4.5	3.1	8.1	5.1	0.96	0.98	1.01	0.89	0.98	0.93	0.93	0.95	1.00	1.29	1.25	1.34	1.32	1.16	1.37	1.25	2.0	1.0	1.4	2.0	2.5	1.0	1.0	1.0	1.5
4 A13125-3C	6.7		5.7	5.4	7.4	4.5	4.3	9.3	5.7	1.08		0.98	1.01	1.09	1.05	1.05	1.04	1.00		1.15	1.20	1.17	1.11	1.10	1.12	2.0		1.5	1.5	2.4	1.0	1.0	1.0	1.5
5 AC13126-1Wadg	6.9	6.0	5.9	5.6	6.9	4.0	4.5		4.8	0.97	1.04	0.95	0.98	1.04	0.99	0.99	1.00	1.00	1.14	1.13	1.23	1.16	1.12	1.27	1.15	2.0	1.0	1.4	1.0	2.4	1.0	1.2		1.4
6 CO12235-3W	5.0	5.2	3.3	3.3	4.6	3.9	2.8		4.7	1.04	0.93	1.04	0.99	1.05	1.06	1.06	1.02	1.00	1.16	1.22	1.21	1.13	1.16	1.26	1.16	2.0	2.0	1.1	1.0	1.8	1.0	1.0		1.4
7 CO12293-1W	6.1	6.1	5.7	5.0	6.0	4.6	4.1		4.9	1.03	1.01	1.09	1.10	1.13	1.09	1.09	1.08	1.00	1.24	1.32	1.26	1.18	1.17	1.18	1.19	1.5	2.0	1.6	2.0	2.0	1.0	1.0		1.6
8 COOR13270-2	6.1	5.1	5.0	3.5	5.7	4.1	2.0	11.9	5.4	1.06	1.08	1.10	1.02	1.14	1.27	1.27	1.13	1.00	1.14	1.31	1.19	1.22	1.14	1.11	1.16	2.0	1.0	1.8	2.0	2.5	1.3	2.0	1.0	1.7
9 NYOR14Q9-5	9.0	6.1	7.3	5.7	7.1	4.4	4.7	8.3	5.6	0.95	0.91	1.04	0.95	1.04	1.08	1.08	1.01	1.00	1.32	1.34	1.29	1.27	1.19	1.20	1.23	2.0	2.0	1.6	1.5	2.9	1.0	2.0	1.0	1.8
10 NYOR14Q9-9	6.5	5.3	4.0	5.0	4.9	4.7	3.9	7.1	4.9	0.96	0.93	1.11	0.99	1.03	1.19	1.19	1.06	1.00	1.18	1.38	1.32	1.27	1.22	1.22	1.23	2.0	2.0	1.4	1.5	1.9	2.2	2.0	1.0	1.7
Location Mean	6.5	5.6	5.2	4.9	6.1	4.5	3.9	9.0	5.2	1.02	1.00	1.05	0.99	1.08	1.08	1.08	1.04	1.00	1.21	1.28	1.26	1.22	1.17	1.22	1.19	2.0	1.6	1.5	1.6	2.4	1.3	1.4	1.0	1.6

¹Othello, WA tuber size not included in mean because of incomplete data set.²L=length, W=width, T=thickness. For L:W <1.00=compressed; 1.00-1.15=round; 1.16-1.55=oval; 1.56-1.95=oblong; 1.96-2.35=long; >2.35=very long. For W:T, the larger the value, the flatter the tuber.

TABLE 7: 2023 Western Regional Chipping Potato Variety Trial - EXTERNAL DEFECTS - GROWTH CRACKS, SECOND GROWTH, SHATTER BRUISE, SCAB - MEANS OF LOCATIONS

No. Clone	Growth Cracks ¹									Second Growth ¹									Greening ¹									Shatter Bruise ¹							Scab ¹						
	CA ²	CO	HRM	ID	KF	DTX	STX	OTH	Entry	CA ²	CO	ID	HRM	KF	DTX	STX	OTH	Entry	CA ²	CO	ID	HRM	KF	DTX	STX	OTH	Entry	ID ³	CO	HRM	KF	DTX	STX	OTH	Entry	ID	HRM	DTX	STX	OTH	Entry
									Mean									Mean									Mean								Mean						
1 Atlantic	1.7	5.0	5.0	4.2	5.0	5.0	5.0	4.7	4.8	0.0	5.0	5.0	4.6	4.4	5.0	5.0	5.0	4.9	1.1	4.0	3.5	4.3	4.3	5.0	4.0	3.0	4.0	2.7	5.0	4.5	5.0	5.0	5.0	1.0	4.3	3.3	5.0	5.0	5.0	3.0	4.3
2 Lamoka	0.8	5.0	5.0	5.0	4.8	5.0	5.0	4.3	4.9	1.3	5.0	5.0	4.6	5.0	5.0	4.8	5.0	4.9	1.8	3.0	3.6	3.8	3.9	4.9	4.8	2.7	3.8	3.4	5.0	4.8	4.9	5.0	5.0	4.0	4.8	2.6	5.0	5.0	5.0	4.0	4.3
3 Snowden	0.0	5.0	5.0	4.9	5.0	5.0	5.0	5.0	5.0	0.0	5.0	5.0	4.8	5.0	5.0	5.0	5.0	5.0	0.6	4.0	4.4	4.8	3.8	4.9	5.0	2.7	4.2	3.1	5.0	4.8	5.0	5.0	5.0	3.0	4.6	3.4	4.9	5.0	5.0	3.0	4.3
4 A13125-3C	3.0		4.8	4.5	4.8	5.0	5.0	3.7	4.6	0.1		5.0	4.5	5.0	5.0	5.0	5.0	4.9	2.8		3.6	4.6	3.6	5.0	5.0	3.0	4.1	3.6		4.6	4.8	5.0	5.0	2.0	4.3	2.5	5.0	5.0	5.0	3.7	4.2
5 AC13126-1Wadg	0.4	5.0	4.0	4.9	5.0	5.0	5.0		4.8	0.7	5.0	5.0	4.8	5.0	4.7	5.0		4.9	0.2	3.0	3.8	4.9	4.1	5.0	3.8		4.1	3.9	5.0	4.8	5.0	5.0	5.0		5.0	2.3	4.1	5.0	5.0		4.1
6 CO12235-3W	0.3	4.0	5.0	5.0	5.0	5.0	5.0		4.8	0.8	5.0	5.0	4.6	4.6	5.0	4.5		4.8	0.2	3.0	3.8	4.9	3.8	4.8	4.5		4.1	3.5	5.0	4.5	4.5	5.0	5.0		4.8	3.4	4.9	4.9	5.0		4.5
7 CO12293-1W	0.0	5.0	5.0	4.9	5.0	5.0	5.0		5.0	0.2	5.0	5.0	4.8	4.5	5.0	5.0		4.9	0.8	3.0	3.9	4.5	3.9	4.9	5.0		4.2	3.8	5.0	4.5	4.9	5.0	5.0		4.9	4.0	5.0	5.0	5.0		4.8
8 COOR13270-2	0.0	5.0	5.0	4.8	5.0	5.0	4.5	4.7	4.9	0.3	5.0	4.9	4.8	4.5	5.0	5.0	5.0	4.9	2.5	2.0	2.8	4.9	2.6	5.0	5.0	3.0	3.6	3.3	5.0	4.6	4.4	5.0	5.0	5.0	4.8	2.9	5.0	4.8	5.0	4.3	4.4
9 NYOR14Q9-5	0.0	5.0	4.8	5.0	5.0	5.0	5.0	4.3	4.9	0.0	5.0	4.8	4.8	5.0	5.0	4.6	5.0	4.9	1.2	4.0	3.4	4.1	3.9	4.7	4.5	3.3	4.0	3.6	5.0	4.6	5.0	5.0	5.0	2.0	4.4	3.0	5.0	5.0	5.0	4.3	4.5
10 NYOR14Q9-9	0.1	5.0	4.6	5.0	5.0	5.0	5.0	5.0	4.9	0.7	5.0	5.0	4.8	4.6	5.0	4.0	5.0	4.8	1.4	4.0	4.1	4.4	3.6	5.0	4.0	3.0	4.0	3.3	5.0	4.6	4.6	5.0	5.0	4.0	4.7	3.3	5.0	5.0	5.0	3.3	4.3
Location Mean	0.6	4.9	4.8	4.8	5.0	5.0	5.0	4.5	4.9	0.4	5.0	5.0	4.7	4.8	5.0	4.8	5.0	4.9	1.3	3.3	3.7	4.5	3.8	4.9	4.6	3.0	4.0	3.4	5.0	4.6	4.8	5.0	5.0	3.0	4.7	3.1	4.9	5.0	5.0	3.7	4.4

¹Score 1-5, with 1=severe, 5=none.²Tulelake, CA percent of total³Aberdeen, ID shatter scores obtained from bruise evaluation conducted using a shatter chamber [1-5(none)].

TABLE 8: 2023 Western Regional Chipping Potato Variety Trial - INTERNAL DEFECTS - HOLLOW HEART PLUS BROWN CENTER, INTERNAL BROWN SPOT, VASCULAR DISCOLORATION/NET NECROSIS, BLACKSPOT - MEANS OF LOCATIONS

No.	Clone	Percent Hollow Heart ¹ plus Brown Center									Percent Internal Brown Spot						Percent Net Necrosis Vascular Discoloration						Blackspot Bruise												
		CA	CO	ID	HRM	KF	DTX	STX	OTH	Entry		CO	HRM	KF	DTX	STX	OTH	Entry		CA	CO	HRM	KF	DTX	STX	OTH	Entry		CO ²	CA ⁴	ID ³	HRM ⁵	OTH	DTX ⁶	STX ⁶
										Mean	Mean							Mean	Mean																
1	Atlantic	0	2	0	5	5	23	30	11	10	0	15	0	20	20	39	16	3	0	3	0	0	0	0	0	1	3.3	3.3	3.8	2.5	5.0	5.0	5.0		
2	Lamoka	0	0	0	8	0	3	0	0	1	2	0	3	3	0	0	1	3	0	8	10	0	0	0	3	3.8	3.3	3.8	3.5	5.0	5.0	5.0			
3	Snowden	0	1	0	0	0	0	0	5	1	3	0	0	10	0	5	3	3	1	5	5	40	0	0	8	3.3	3.3	2.4	4.0	5.0	5.0	5.0			
4	A13125-3C	0		0	0	3	0	0	0	0		0	0	0	0	0	0	10		5	8	30	0	0	9		0.0	3.9	4.3	5.0	5.0	5.0			
5	AC13126-1Wadg	0	0	3	0	0	3	0		1	0	0	0	0	0		0	17	2	3	0	13	0		6	3.4	3.3	4.5	4.5		5.0	5.0			
6	CO12235-3W	7	0	3	0	3	0	0		2	3	0	0	0	0		1	3	0	13	5	10	0		5	3.6	0.0	4.9	4.8		5.0	5.0			
7	CO12293-1W	0	0	0	0	0	0	10		1	0	0	3	0	0		1	3	1	3	3	0	0		2	4.0	0.0	5.0	4.8		5.0	5.0			
8	COOR13270-2	7	0	0	8	3	0	20	5	5	2	0	0	47	0	0	8	3	2	5	0	3	0	5	3	3.7	0.0	3.4	4.5	5.0	5.0	5.0			
9	NYOR14Q9-5	7	2	40	0	5	7	0	0	8	0	0	0	0	0	0	0	10	0	0	0	0	0	0	1	4.2	0.0	4.2	4.3	5.0	5.0	5.0			
10	NYOR14Q9-9	0	2	3	0	0	0	0	7	1	0	0	0	17	10	0	4	7	0	13	0	0	0	0	3	4.2	0.0	4.0	3.5	5.0	5.0	5.0			
Location Mean		2	1	5	2	2	4	6	4	3	1	2	1	10	3	6	3	6	1	6	3	10	0	1	4	3.7	1.3	4.0	4	5.0	5.0	5.0			

¹Hollow heart is reported as the percentage of 10 tubers greater than 10 oz. showing the defect.

²Colorado blackspot scores come from intentionally bruising tubers with a 5 oz. weight from a height of 24" on bud and stem end [1-5(none)].

³Aberdeen, ID blackspot scores from an abrasive peel test [1-5(none)].

⁴Tulelake, CA and Hermiston, OR blackspot score is a percent of total .

⁵Hermiston blackspot scores are percent of tubers.

⁶Texas blackspot score is from recording naturally occurring bruises observed after harvest [1-5(none)].

TABLE 9: 2023 Western Regional Chipping Potato Variety Trial - CHIP COLOR

No. Clone	DTX ¹		STX ¹		OTH ²		HRM ³				CO ³			ID ³			40 Mean	40 Recon Mean	50 ⁴ Mean			
	Harvest ²		Chip 40		Harvest ²		Chip		Chip 40		Chip 50		Chip 40		Chip 50							
	Color	Rating	Rating	Recon	Color	Rating	Harvest ³	Chip 48 ^c	^a	Recon ^b	^c	Recon ^d	^a	Recon ^b	^c	Recon ^d				^a	Recon ^b	^c
1 Atlantic	1.3	3.5	4.1	4.0	1.0	2.0	2.6	3.8	1.8	4.8	1.8	2.5	4.0	4.0	3.0	3.0	3.1	4.3	2.2	2.6	4.3	2.3
2 Lamoka	1.7	2.3	3.9	1.7	1.0	2.2	2.2	2.2	1.9	4.0	1.9	1.5	4.5	2.0	1.5	2.0	2.5	1.5	1.1	2.6	2.3	1.5
3 Snowden	1.7	2.9	4.5	2.7	1.0	2.0	2.8	1.3	1.5	4.7	1.5	1.4	4.0	3.0	3.0	2.5	3.9	3.2	1.4	2.8	3.4	2.0
4 A13125-3C	1.0	2.0	3.1	2.7	1.0	2.5	3.2	2.3	1.5	4.5	1.5	1.8					1.8	2.7	1.7	1.6	3.3	1.6
5 AC13126-1Wadg	1.0	4.0	3.6	4.2	1.0	1.2			1.6	4.0	1.6	1.6	3.5	4.0	2.0	2.0	2.8	3.3	1.6	2.3	3.9	1.7
6 CO12235-3W	1.0	1.9	3.3	3.4	1.0	1.0			1.4	3.5	1.4	1.3	3.5	2.5	1.5	3.0	1.0	1.0	1.0	1.8	2.6	1.3
7 CO12293-1W	1.0	2.9	4.0	3.4	1.0	1.8			1.8	4.5	1.8	1.2	4.5	2.0	1.5	2.5	3.3	2.8	1.5	2.7	3.2	1.6
8 COOR13270-2	1.3	2.6	4.0	3.6	1.0	2.8	2.0	1.0	1.5	3.8	1.5	1.0	3.5	3.5	2.5	2.5	1.8	2.0	1.6	2.2	3.2	1.9
9 NYOR14Q9-5	1.0	2.1	1.7	3.5	1.0	1.8	3.0	2.7	1.4	3.0	1.4	1.0	3.0	3.0	1.0	2.0	1.4	1.3	1.0	1.5	2.7	1.1
10 NYOR14Q9-9	1.0	4.3	4.2	4.3	1.0	2.5	3.0	2.0	2.1	4.0	2.1	2.5	5.0	4.0	2.5	1.5	4.5	3.3	2.3	3.2	3.9	2.3
Location Means	1.2	2.9	3.6	3.3	1.0	2.0	2.7	2.2	1.7	4.1	1.7	1.6	3.9	3.1	2.1	2.3	2.6	2.5	1.5	2.3	3.3	1.7

¹ TX chip color 1=light, 3+=very dark. TX chip rating 1=poor, 5=excellent.

² TX and WA chipped directly out of the field.

³ Color using Snack Food Association Color Standards for Potato Chips (1-5 (darkest)).

^a Stored 6 weeks at 8 weeks at 40F (HRM); 6 weeks at 40F (CO) and 6 weeks at 40F (ID).

^b Stored 6 weeks at 42F plus 2 weeks at 74F (TX); stored 8 weeks at 40F plus 3 weeks at 47F (HRM); stored 6 weeks at 40F plus 3 weeks at 60F (CO); stored 6 weeks at 40F plus 3 weeks at 60F (ID).

^c Stored 8.5 weeks at 48F (WA), 8 weeks at 47F (HRM); stored 6 weeks (CO) and 5 weeks at 50F (ID).

^d Stored 8 weeks (HRM) at 47F plus 3 weeks at 47F; stored 6 weeks at 50F plus 3 weeks at 60F (CO).

⁴ Mean for HRM, CO and ID.

Table 10. 2023 Aberdeen Regional Chip Trial - SOLIDS, DEXTROSE, SUCROSE, PROTEIN, VITAMIN C, AND GLYCOALKALOIDS - ABERDEEN, IDAHO; ANTIOXIDANTS - TEXAS

Clone	Solids Oven Dry (%)	Sugars		Protein (%DWB) ²	Vitamin C (mg/100g FWB)	Glycoalkaloids ³ (mg/100gFWB)	Texas Antioxidant Equivalents ⁴	
		Dextrose (%FWB) ¹	Sucrose (%FWB) ¹				µg Trolox equivalents/gfw ⁵	AOA ⁶
1 Atlantic	22.09	0.021	0.106	5.44	22.19	4.68	135.3	M
2 Lamoka	22.26	0.008	0.095	5.41	23.08	5.85	130.1	M
3 Snowden	21.56	0.038	0.135	5.25	25.10	6.40	101.9	L
4 A13125-3C	21.84	0.012	0.128	6.15	22.85	2.95	105.3	L
5 AC13126-1Wadg	20.16	0.012	0.102	6.93	17.39	3.45	158.6	M
6 CO12235-3W	21.48	0.006	0.085	6.80	21.58	3.23	239.9	M
7 CO12293-1W	20.69	0.026	0.143	5.84	21.79	1.89	155.5	M
8 COOR13270-2	21.82	0.012	0.095	5.45	33.94	2.82	115.5	L
9 NYOR14Q9-5	21.64	0.003	0.098	5.67	24.57	6.36	80.9	L
10 NYOR14Q9-9	21.66	0.047	0.115	4.84	23.64	2.44	67.5	L
Means	21.52	0.018	0.110	5.78	23.61	4.01	129.1	

¹ FWB = fresh weight basis

² DWB = dry weight basis

³ Lenape Check = 57.6

⁴ The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30.

Antioxidants soluble in methanol were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH).

This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

⁵ µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: $y = -272.42x + 292.13$

⁶ VH=very high (>417), H=high (416-302), M=medium (301-127), L=low (126-67), VL=very low (<66). n=70 including 14 check varieties.

TABLE 11: 2023 Western Regional Chipping Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/Early Dying		Early Blight				Common Scab		Corky Ringspot		Soft Rot	Dry rot	PVY %	Metr. Reaction	C. Root ⁶ Knot Nematode	
	AB ¹		HERM		AB ¹		AB ¹		PROS ³		<i>Pecto-</i>	<i>Fusarium</i>				
	(0-9)	AUDPC	(0-9)	AUDPC	(0-9)	AUDPC	Incidence (%)	Serious Defects(%)	Incidence (%)	Serious Defects (%)	reaction	<i>bacterium</i>				<i>sambucinum</i>
					Foliar							AB ¹				AB ¹
1 Atlantic	7.7	633	7.5	541	7.3	463	25.6	22.6	67.2	52.7	S	3.0	4.2	100	MS	S
2 Lamoka	6.0	333	6.3	389	5.0	187	45.8	21.4	52.5	36.9	S	2.5	4.0	90	MR	S
3 Snowden	6.3	390	5.5	280	5.0	112	30.8	9.8	--	--	--	3.1	3.6	75	MR	S
4 A13125-3C	4.3	91	4.0	179	5.3	307	58.5	36.1	--	--	--	1.7	2.5	95	MR	MS
5 AC13126-1Wadg	5.0	161	4.0	144	4.7	137	46.5	28.2	46.1	26.3	S	1.1	3.1	10	MR	S
6 CO12235-3W	6.7	340	6.0	344	7.0	603	33.1	22.3	--	--	--	1.1	4.1	85	MR	S
7 CO12293-1W	5.3	172	3.0	116	5.3	195	37.0	16.3	3.3	0.5	R	1.2	3.8	85	R	S
8 COOR13270-2	--	--	5.0	229	--	--	37.1	28.6	0.0	0.0	R	--	--	100	MR	S
9 NYOR14Q9-5	5.3	238	3.2	127	6.0	278	19.8	16.4	75.8	53.6	S	1.9	2.7	20	R	S
10 NYOR14Q9-9	7.3	647	3.7	166	7.0	469	68.6	40.5	58.3	30.6	S	2.3	4.8	5	R	S
MEANS	6.0	334	4.8	251	5.9	305	40.3	24.2	43.3	28.7		2.0	3.6	66.5		
LSD @ .05	1.2				1.4		29.0					1.2	1.1			
Castle Russet									0.0	0.0	R					

¹ Evaluations made at Aberdeen, Idaho by Jonathan Whitworth, Hermiston, Oregon by Sagar Sathuvalli; scale as indicated with highest number being most severe. For 0 to 9: 0=no symptoms;

1= trace; 2=1-5%; 3=5-10%; 4=10-20%; 5=25-40%; 6=40-60%; 7=60-70%; 8=75-90%; 9=90-100% dead or dying with typical disease symptoms.

Early Blight and Vert. Wilt AUDPC: Area Under the Disease Progress Curve based on foliar readings taken 3 separate days after planting.

Common Scab serious defects are the number of tubers with a 3 rating (0-5 scale) or higher, divided by the total number of tubers examined.

² For 0 to 5: 0=none, 5=severe as a combination of tuber area and degree impacted by *Pectobacterium* or *Fusarium sambucinum* inoculations done at Aberdeen

³ Corky ringspot readings Prosser, WA by Rich Quick and Launa Cimrhakl

⁴ PVY readings Hermiston, OR from tuber sprouts by Sagar Sathuvalli

⁵ Metribuzin Reaction measured at Aberdeen, ID by Chelsey Lowder. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible

⁶ Columbia root knot nematode ratings from Hermiston, OR provided by Sagar Sathuvalli; S= over 50 dots; MS less than 20 and 40 dots; MR 5 and 20

TABLE 12: 2023 Western Regional Chipping Potato Variety Trial - MERIT SCORES (1-5(best))

No.	Clone	Fresh Merit							Process Merit					Entry Mean	
		CA	CO	HRM	ID	DTX	STX	OTH	CO	HRM	ID	DTX	STX		
1	Atlantic	3.5	3.0	2.0	2.8	3.7	3.8	2.3	3.0	2.0	3.5	2.7	3.0	3.4	2.9
2	Lamoka	3.5	3.0	2.5	2.5	4.1	3.8	3.0	3.2	3.5	3.5	3.8	3.5	3.6	3.6
3	Snowden	3.5	3.0	2.0	2.9	4.2	3.7	1.7	3.0	2.0	3.0	2.5	3.3	3.5	2.9
4	A13125-3C	3.5		3.0	2.6	4.1	4.0	2.7	3.3		3.0	3.7	3.4	3.6	3.4
5	AC13126-1Wadg	3.5	3.5	2.5	2.4	3.5	3.8		3.2	3.0	2.5	3.2	3.0	3.8	3.1
6	CO12235-3W	3.5	2.5	2.5	3.6	3.8	3.8		3.3	3.0	2.0	5.0	3.2	4.0	3.4
7	CO12293-1W	3.5	2.0	3.0	3.0	4.0	4.0		3.3	3.5	2.5	3.2	3.0	3.6	3.2
8	COOR13270-2	3.5	2.5	3.5	2.8	3.7	3.6	3.0	3.2	2.5	3.0	3.8	3.0	3.3	3.1
9	NYOR14Q9-5	3.0	2.5	2.5	2.1	4.3	3.6	3.0	3.0	3.5	3.0	4.7	3.6	3.6	3.7
10	NYOR14Q9-9	3.5	3.0	2.5	3.1	3.8	4.2	2.7	3.3	3.0	3.0	2.0	3.0	3.6	2.9
Location Mean		3.5	2.8	2.6	2.8	3.9	3.8	2.6	3.2	2.9	2.9	3.5	3.2	3.6	3.2

TABLE 13: 2023 Western Regional Chipping Potato Variety Trial - SUMMARY

No.	Clone	Year in Trial	Total Yield ¹ Rank	US#1's Yield ¹ %	Tuber Size (oz)	Specific Gravity	Chip Color ²	Process Merit Score
1	Atlantic	Ck	371 9	260 71	5.7	1.087	2.3	2.9
2	Lamoka	Ck	419 5	314 75	5.3	1.087	1.5	3.4
3	Snowden	Ck	417 6	266 64	5.1	1.084	2.0	3.2
4	A13125-3C	2	456 4	331 72	5.7	1.084	1.6	3.1
5	AC13126-1Wadg	1	395 7	281 72	4.8	1.083	1.7	3.7
6	CO12235-3W	3	364 10	211 57	4.7	1.084	1.3	2.9
7	CO12293-1W	3	460 3	347 75	5.1	1.081	1.6	3.2
8	COOR13270-2	3	394 8	267 68	5.4	1.084	1.9	3.1
9	NYOR14Q9-5	3	471 2	357 77	5.6	1.082	1.1	3.7
10	NYOR14Q9-9	2	480 1	331 68	4.9	1.086	2.3	2.9

¹(CWT/A)²Mean for CO, ID and HRM stored at 50°F

TABLE 14: 2023 Western Regional Chipping Potato Variety Trial - 3 Year Summary of Graduating Entries

Clone	2021					2022					2023				
	Total Yield ¹ Rank	US#1's Yield ¹ %	Specific Gravity	Chip Color ²	Merit Score	Total Yield ¹ Rank	US#1's Yield ¹ %	Specific Gravity	Chip Color ²	Merit Score	Total Yield ¹ Rank	US#1's Yield ¹ %	Specific Gravity	Chip Color ²	Merit Score
Atlantic	478 3	317 69	1.090	2.0	3.0	472 2	321 68	1.087	2.4	2.46	371 9	260 71	1.087	2.3	2.9
Lamoka	371 11	268 72	1.093	1.9	2.9	452 6	353 74	1.088	1.7	2.98	419 5	314 75	1.087	1.5	3.4
Snowden	454 5	298 67	1.088	2.2	2.8	466 3	274 55	1.083	2.0	3.3	417 6	266 64	1.084	2.0	3.2
CO12235-3W	369 12	224 62	1.087	2.2	2.8	375 11	238 61	1.083	1.8	3.3	364 10	211 57	1.084	1.3	2.9
CO12293-1W	454 4	302 70	1.085	1.9	3.0	454 5	350 75	1.081	2.0	3.0	460 3	347 75	1.081	1.6	3.2
COOR13270-2	438 7	292 68	1.084	2.3	2.3	418 10	268 60	1.082	2.2	2.9	394 8	267 68	1.084	1.9	3.1
NYOR14Q9-5	488 2	320 71	1.083	2.1	3.5	462 4	344 75	1.080	1.5	3.5	471 2	357 77	1.082	1.1	3.7
Trial Mean	447	321 74	1.086	2.2	2.7	449	286 65	1.087	2.1	2.8	410	296	1.084	1.7	3.2

3 Year Average (2021-2023)

Clone	Total Yield ¹	US#1's Yield ¹ %	Specific Gravity	Chip Color ²	Merit Score	Noted Weaknesses	Noted Strengths
Lamoka	414	312	1.089	1.7	3.1		
Snowden	483	356	1.085	2.1	3.1		
CO12235-3W	369	224	1.085	1.8	3.0	low yield (3/3), small tuber size (2/3)	good chip color (3/3), low level of vert wilt (2/3), low levels of soft rot (2/3); high protein (3/3)
CO12293-1W	456	333	1.082	1.8	3.1	growth crack (2/3), low specific gravity (2/3)	high US No. 1 yield (3/3), resistant to CRS (3/3), resistant to metribuzin (3/3)
COOR13270-2	417	276	1.085	1.8	3.0	internal brown spot (2/3)	resistant to CRS (3/3), resistant to metribuzin (3/3)
NYOR14Q9-5	474	340	1.082	1.5	3.5	hollow heart (3/3)	high yield (3/3), good chip color (3/3), resistant to PVY, resistant to metribuzin (3/3), high process merit score (3/3)
Mean ³	435	301	1.086	2.0	2.9		

¹(CWT/A)²Mean for CO, ID and HRM stored at 50°F³Mean includes all trial entries 2021-2023

Comments not included in report and Information from States

			Sugar Ends (%)	Early Blight	Vert Wilt	Rot (CWT/A)
Aberdeen, Idaho Comments²						
1	Atlantic	Some russetting (2)	3.7	1.0	1.0	0.7
2	Lamoka	Flat (4); few pear, few ats, scab (2)	0.0	1.1	1.3	0.0
3	Snowden	Sugar ends, deeper eyes, squarish (4); uniform, scab (2)	40.4	1.8	2.8	0.0
4	A13125-3C	Flat, few ats, few bumps, scab (3); green, some deeper eyes	0.0	2.4	4.3	0.0
5	AC13126-1Wadg	Deeper eyes (3); bad scab (2); few ats	2.8	2.6	4.0	0.0
6	CO12235-3W	Round, uniform, good fry color (4); good eyes, some scab (2)	0.0	1.0	1.0	0.0
7	CO12293-1W	Little flat (3); some ats (2); few misshapen	0.0	2.4	4.0	0.0
8	COOR13270-2	Flat, green (3); bigger, scab (2); sligth checking	0.0	1.8	3.0	0.0
9	NYOR14Q9-5	Good fry color, big (4); few bumps, flat (3)	0.0	1.9	3.5	0.4
10	NYOR14Q9-9	Ats, SE (4); small (3)	19.7	1.5	2.5	2.3
Tulelake, California			Early Dying/ Vert Rating¹			
1	Atlantic		1215.0			
2	Lamoka	flat tuber	535.0			
3	Snowden	had rhizoc	1580.0			
4	A13125-3C	susceptible to rhizoctonia	107.5			
5	AC13126-1Wadg	high % vascular discoloration	368.3			
6	CO12235-3W	skins easily	323.0			
7	CO12293-1W	skins easily	128.0			
8	COOR13270-2	red splash around eyes	300.5			
9	NYOR14Q9-5	inconsistent shape	285.5			
10	NYOR14Q9-9	flat tuber	520.0			
Hermiston, OR²						
1	Atlantic	rhizoc, rotx4, greening, FBEx4, stickyx4, netty, compressed, flakey, nipple, nice, stripey				
2	Lamoka	greeningx3, disc, sticky, pty, bottle, rhizoc x 2, skinning x 3, rot				
3	Snowden	FBEx4, FSEx2, deep eyesx2, sticky, nettyx4, donut, irregular				
4	A13125-3C	XL, Stickyx2, nicex3, baseball x2, chain, rot, rhizoc				
5	AC13126-1Wadg	FBE x3, cracky scab x4, irregular, netty, lenticels x 3, GCx3				
6	CO12235-3W	dirtyx2, lenticels x3, stickyx3, SB, Skinning x 3				
7	CO12293-1W	nicex4, lenticelsx3 skinning, pty				
8	COOR13270-2	eggx2, nicex3, shortx3, lenticels, rhizoc				
9	NYOR14Q9-5	greening, disc x 3, rhizo x 3, rot x 3, sticky x3				
10	NYOR14Q9-9	GC, discx4, stickyx4, rot, nice				
Klamath Falls, Oregon²						
1	Atlantic	looks nice x2; some pointy x1; few mis-shapen x1				
2	Lamoka	irregular size x2; looks good x1; pears x1				
3	Snowden	lenticel scars x2; deep eyes x1; FBE x1				
4	A13125-3C	poor skin appearance x1; lenticel scars x2, russetting x1				
5	AC13126-1Wadg	looks nice x2; nice skin x2				
6	CO12235-3W	looks nice x3; mis-shapen x1				
7	CO12293-1W	looks nice x3; FBE x1				
8	COOR13270-2	pears x2; looks good x2				
9	NYOR14Q9-5	big x1; flatter shape x1; looks good x2				
10	NYOR14Q9-9	knobby x1; looks nice x2, nice skin x1				

¹Area Under Disease Progress Curve based on foliar early-dying ratings taken 60, 67, 76, 82 and 91 days after planting. Higher value is more susceptible.

²FBE=folded bud end, GC=growth crack, SE=sugar ends, ATS=attached stolons.

Comments not included in report and Information from States

Othello, Washington		
1	Atlantic	Range of sizes, deep eyes, a bit irregular shaped.
2	Lamoka	Medium size, many flat ones. Greening.
3	Snowden	Very deep eyes, a bit flat, very lumpy. After storage chip color lightened from 2.8 to 1.3.
4	A13125-3C	Plump, eyes a bit deep, greening.
8	COOR13270-2	Bad greening, larger, somewhat flat, lumpy. Averaged the lightest chip color out of the field and storage.
9	NYOR14Q9-5	Mostly plump, smaller, but good size uniformity.
10	NYOR14Q9-9	Plump, a lot of undersized, ok size uniformity.
Springlake, Texas ¹		
1	Atlantic	Large, buff skin, 6 green heads
2	Lamoka	Large, oval, a little flat, feathering, 5 green heads
3	Snowden	Nice, smaller size profile than Atlantic and Lamoka, buff skin, 4 green heads
4	A13125-3C	Nice, very round, uniform shape, BOT, feathering, 2 green heads, translucent center
5	AC13126-1Wadg	Very high tuber number, high yield, round to oval, buff, greens, 10 green heads
6	CO12235-3W	High tuber number, nice shape, feathering, smooth skin, 5 green heads
7	CO12293-1W	BOT, great size and shape, nice skin, high yield, 9 green heads
8	COOR13270-2	Oval, smooth skin, some rotten, a little flat, smooth skin, translucent center, 3 green heads
9	NYOR14Q9-5	High yield, feathering, some gemmations, 5 green heads
10	NYOR14Q9-9	High tuber number, good skin, 9 green heads
Dalhart, Texas		
1	Atlantic	deep bud end
2	Lamoka	large, oval+, very nice size
3	Snowden	high tuber number++, buff skin+, deep eyes
4	A13125-3C	good size and shape++, rhizoctonia?+, very nice, round, smooth skin, good skin
5	AC13126-1Wadg	ugly skin++, thin cracks, good size and shape
6	CO12235-3W	good size and shape+, some greens
7	CO12293-1W	good size and shape+, smooth skin+, very nice, high tuber number
8	COOR13270-2	large+, scab++, oval, pointed
9	NYOR14Q9-5	very high tuber number++, good size and shape+, round, good skin
10	NYOR14Q9-9	high tuber number+, good size, large tubers are oval to oblong, the shape is not good for a chipper

¹BOT=best of trial

*Springlake, Texas reported plots received 11.0 inches of precipitation.

**Dalhart, Texas reported the plots received received 9.6 inches of precipitation during the growing season.
30 inches of irrigation was applied.