

2012 WESTERN REGIONAL CHIPPING POTATO TRIAL REPORT

State Agricultural Experiment Stations and the
USDA-ARS

California
Colorado
Idaho
Oregon
Texas



2012 WESTERN REGIONAL CHIPPING POTATO VARIETY TRIAL REPORT

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Compiled by David Holm and Caroline Gray

TABLE 1: 2012 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. Kirby D. Culp	Late	Sprink.	199-73-16-31	9.1" x 36"	16-May	14-Sep	10-Oct	121	147	Matrix Metribuzin	Admire Pro	Moncut Bravo Weather Stick Manzate
San Luis Valley Colorado (CO)	D. Holm C. Gray	Late	Pivot	120-60-40-25-2.5Zn	12" x 34"	16-May	31-Aug	24-Sep	107	131	Matrix SG Eptam 7E	Fulfill	Quadris Endura
Aberdeen Idaho (ID)	J. Stark R. Novy J. Whitworth P. Bain	Late	Sprink.	235-220-65	10.6" x 36"	30-Apr	30-Aug	20-Sep	122	143	Outlook Prowl H2O Metribuzin	Admire Pro	Pennco Zeb 75DF Echo
Hermiston Oregon (HRM)	P. Hamm L. Leroux	Early	Pivot	300-380-200-60-5Zn-1.5B	9.25" x 34"	23-Mar	23-Jul	8-Aug	122	138	Matrix Gramoxone	Admire Radiant Agrimek Oberon Movento	Maxim 4FS Ridomil Gold Dithane Quadris Omega
Klamath Falls Oregon (KF)	B. Charlton	Late	Sprink.	193-116-250-132	9.25" x 36"	24-May	10-Sep	18-Oct	109	147	Prowl Matrix	Admire Pro Movento Fulfill Asana Endigo Assail Vydate C-LV Telone II	Moncut Ridomil Bravo Endura
Dalhart Texas (DTX)	J. C. Miller, Jr. J. Koym D. Schuering	Late	Pivot	140-134-62	9" x 28"	7-May	28-Aug	18-Sep	113	134	Sencor DF Select Max Matrix	Admire Pro Beleaf Epimek Fulfill Movento Oberon	Quadris Penncozeb Bravo Revus Top Scala SC Luna Tranquility
Springlake Texas (STX)	J. C. Miller, Jr. J. Koym D. Schuering	Early	Pivot	155-50-50	9" x 36"	27-Mar	20-Jul	31-Jul	125	130	Roundup Sencor Treflan	Movento Platinum Epimek Fulfill	

TABLE 2: 2012 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	Mean Stand %	Tuber Shape	Skin	Vine Size	Maturity	Stems/Plant
1	ATLANTIC	WAUSEON B5141-6	V Lt Red-purple	Check	Ck	CO/P	89	2.0 Oval	2.4 Buff	3.8 Med-large	3.5 Medium	2.5
2	CHIPETA	WNC612-13 WISCHIP	Med Red-purple	Check	Ck	CO/P	96	2.4 Oblong	1.7 White	4.5 Large	4.2 Late	2.4
3	A00188-3C	A91790-13W Dakota Pearl	Aborted	ID	2	P	99	1.3 Round	1.2 White	3.6 Med-large	3.8 Med-late	3.2
4	A01143-3C	COA95070-8 Chipeta	White	ID	3	ID	93	1.3 Round	1.5 White	3.8 Med-large	4.1 Late	3.6
5	AC01151-5W	COA96142-7 NDA2031-2	Purple	CO	2	CO	96	1.3 Round	1.2 White	3.5 Med-large	4.0 Med-late	2.5
6	AC03433-1W	A94322-8C COA96141-4	Light Purple	CO	1	CO	91	1.5 Round	1.6 White	3.5 Med-large	3.9 Med-late	2.1
7	CO02024-9W	A91790-13W CO95051-7W	White	CO	2	CO	98	2.0 Oval	1.2 White	3.5 Med-large	3.5 Medium	2.5
8	CO02033-1W	A91790-13W S440	White	CO	2	CO	94	2.2 Oblong	1.3 White	3.8 Med-large	3.3 Medium	2.4
9	CO02321-4W	NY115W BC0894-2W	Light Purple	CO	2	CO	95	1.4 Round	1.2 White	3.4 Med-large	3.3 Medium	2.4
10	CO03243-3W	BC0894-2W A91790-13	Light Purple	CO	1	CO	96	1.4 Round	1.6 White	3.8 Med-large	3.6 Med-late	2.2

1 Numerical values are means of all trial locations. Stand % for Klamath Falls was taken at 30 days.

2 1.0-2.0=Round, 2.1-2.5=Round-Oblong, 2.6-3.5=Oblong, 3.6-4.0=Oblong-Long, 4.1-5.0=Long

3 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

4 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

5 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: 2012 Western Regional Chipping Potato Variety Trial - TOTAL YIELD - YIELD OF U.S. #1'S (CWT/A & %)

No. Clone	Total Yield (CWT/A)							Entry		U.S. No. 1's (CWT/A) / %							Entry	
	CA	CO	ID	HRM	KF	DTX	STX	Mean	Rank	CA	CO	ID	HRM	KF	DTX	STX	Mean	Rank
1 ATLANTIC	502	442	395	617	300	402	227	412	9	388	355	305	560	244	259	179	327	7
										77	80	77	91	81	65	79	79	5
2 CHIPETA	532	558	519	739	699	334	258	520	2	484	484	390	637	616	234	208	436	2
										91	87	73	86	88	70	81	82	3
3 A00188-3C	485	406	452	632	555	330	258	445	5	325	298	376	542	472	122	112	321	8
										67	73	83	86	85	37	43	68	9
4 A01143-3C	429	457	461	511	338	310	217	389	10	324	313	316	403	285	145	63	264	10
										76	69	68	79	84	47	29	65	10
5 AC01151-5W	557	475	563	715	575	354	303	506	3	422	430	390	631	464	101	167	372	3
										76	90	69	88	81	29	55	70	7
6 AC03433-1W	475	355	494	627	562	222	187	418	8	397	272	411	555	497	138	131	343	6
										83	77	83	89	89	62	70	79	4
7 CO02024-9W	527	392	423	487	499	354	272	422	7	402	304	343	419	424	106	112	301	9
										76	78	81	86	85	30	41	68	8
8 CO02033-1W	503	438	483	662	476	384	283	461	4	385	391	388	622	406	175	137	358	5
										77	89	80	94	85	46	49	74	6
9 CO02321-4W	509	427	447	639	497	242	231	427	6	437	352	379	601	438	160	182	364	4
										86	83	85	94	88	66	79	83	2
10 CO03243-3W	551	449	527	663	684	439	360	525	1	479	385	451	627	642	294	303	455	1
										87	86	85	95	94	67	84	85	1
Location Mean	507	440	476	629	518	337	260			404	358	375	560	449	173	159		
										80	81	79	89	86	52	61		

TABLE 4: 2012 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 ¹	KF	DTX	STX	Entry Mean	Rank	CA	CO	ID	HRM	KF	DTX	STX	Entry Mean	Rank
	1 ATLANTIC	161	73	121	131	159	86	31	109	3	51	78	37	19	5	138	46	54
	32	17	30	21	53	21	14	27	2	10	18	9	3	2	34	20	14	8
2 CHIPETA	272	160	297	247	375	97	101	221	1	22	61	21	18	40	86	31	40	10
	51	29	51	33	54	29	39	41	1	4	11	4	2	6	26	12	9	10
3 A00188-3C	42	42	98	17	137	18	8	52	6	149	103	66	52	54	185	94	100	3
	9	10	22	3	25	5	3	11	7	31	25	15	8	10	56	37	26	4
4 A01143-3C	82	32	83	2	97	27	5	47	8	70	138	97	79	21	129	125	94	4
	19	7	17	0	29	9	2	12	6	16	30	22	15	6	42	58	27	2
5 AC01151-5W	71	115	34	23	76	6	4	47	9	102	45	158	45	90	230	129	114	1
	13	24	6	3	13	2	1	9	9	18	9	28	6	16	65	42	26	3
6 AC03433-1W	107	22	164	110	256	42	12	102	4	43	64	28	20	29	64	55	43	9
	22	6	34	18	46	19	6	21	4	9	18	6	3	5	29	29	14	7
7 CO02024-9W	46	46	44	0	61	6	0	29	10	106	82	77	55	69	246	156	113	2
	9	12	11	0	12	2	0	6	10	20	21	18	11	14	69	57	30	1
8 CO02033-1W	39	63	98	69	57	27	2	51	7	107	45	50	18	51	185	98	79	5
	8	14	20	10	12	7	1	10	8	21	10	10	3	11	48	35	20	5
9 CO02321-4W	97	54	81	131	162	57	29	87	5	61	64	50	18	32	80	48	50	8
	19	13	18	20	33	23	12	20	5	12	15	11	3	6	33	21	14	6
10 CO03243-3W	110	87	166	53	385	79	59	134	2	68	54	43	26	17	140	57	58	6
	20	19	32	8	56	18	16	24	3	12	12	8	4	2	32	16	12	9
Location Mean	93	63	108	71	160	40	23	80		71	67	57	32	37	135	76	68	
	20	15	24	12	33	13	9	18		15	17	13	6	8	43	33	19	

¹12 ounce

TABLE 5: 2012 Western Regional Chipping Potato Variety Trial - SPECIFIC GRAVITY

No. Clone	Specific Gravity							Entry Mean	Rank
	CA	CO	ID	HRM	KF	DTX	STX		
1 ATLANTIC	1.097	1.098	1.100	1.081	1.091	1.081	1.078	1.090	3
2 CHIPETA	1.095	1.094	1.083	1.074	1.083	1.070	1.058	1.079	10
3 A00188-3C	1.097	1.089	1.095	1.078	1.090	1.079	1.069	1.085	4
4 A01143-3C	1.095	1.096	1.087	1.071	1.089	1.074	1.069	1.083	5
5 AC01151-5W	1.086	1.093	1.085	1.069	1.085	1.073	1.074	1.081	9
6 AC03433-1W	1.091	1.089	1.084	1.072	1.084	1.074	1.076	1.081	8
7 CO02024-9W	1.093	1.089	1.084	1.074	1.085	1.075	1.071	1.082	7
8 CO02033-1W	1.099	1.097	1.103	1.085	1.096	1.081	1.072	1.090	1
9 CO02321-4W	1.093	1.103	1.099	1.079	1.091	1.082	1.081	1.090	2
10 CO03243-3W	1.092	1.094	1.089	1.074	1.086	1.071	1.067	1.082	6
Location Mean	1.094	1.094	1.091	1.076	1.088	1.076	1.072		

TABLE 6: 2012 Western Regional Chipping Potato Variety Trial - AVERAGE TUBER SIZE, AND TUBER SHAPE

No. Clone	Average Tuber Size (oz)							Tuber Shape													
	CA	ID	HRM	KF	DTX	STX	Entry Mean	Length/ Width CA	Length/ Width CO	Length/ Width ID	Entry Mean	Width/ Thick ID	Width/ Thick CO	Entry Mean	(1-5, 1 = round, 5 = long)						Entry Mean
															CO	ID	HRM	KF	DTX	STX	
1 ATLANTIC	7.1	7.1	6.8	8.8	4.8	5.3	6.6	1.07	1.09	1.08	1.08	1.21	1.22	1.22	2.0	2.8	2.0	2.0	1.5	1.5	2.0
2 CHIPETA	9.0	10.8	7.9	7.1	5.3	6.2	7.7	1.15	1.19	1.20	1.18	1.19	1.14	1.17	2.0	4.0	2.2	1.4	1.5	3.5	2.4
3 A00188-3C	4.6	5.9	5.2	5.3	3.6	3.4	4.6	1.03	1.06	1.06	1.05	1.18	1.11	1.15	1.0	1.0	1.0	1.0	2.0	1.5	1.3
4 A01143-3C	5.8	5.5	4.0	5.6	4.2	2.6	4.6	1.12	1.08	1.08	1.09	1.22	1.16	1.19	1.0	1.5	1.0	1.1	1.5	1.5	1.3
5 AC01151-5W	5.4	4.6	5.0	4.3	2.9	3.5	4.3	1.12	1.09	1.04	1.08	1.24	1.19	1.22	1.0	1.1	1.4	1.0	1.5	1.5	1.3
6 AC03433-1W	6.4	8.3	6.4	7.1	5.2	4.1	6.2	1.06	1.08	0.99	1.04	1.24	1.12	1.18	1.0	2.5	1.4	1.0	1.5	1.5	1.5
7 CO02024-9W	5.0	5.2	4.5	4.3	3.2	3.3	4.3	1.10	1.07	1.11	1.10	1.34	1.23	1.29	2.0	2.0	2.0	1.0	1.5	3.5	2.0
8 CO02033-1W	5.0	6.5	6.1	4.9	4.1	3.7	5.0	1.07	1.11	1.19	1.12	1.33	1.23	1.28	1.0	2.5	1.5	1.3	3.5	3.5	2.2
9 CO02321-4W	6.1	6.2	6.2	5.9	5.0	5.0	5.7	1.10	1.05	1.03	1.06	1.19	1.15	1.17	1.0	1.3	1.7	1.0	2.0	1.5	1.4
10 CO03243-3W	6.2	7.2	5.6	8.5	5.1	5.6	6.4	1.07	1.11	1.07	1.08	1.13	1.09	1.11	1.0	2.0	1.4	1.0	1.5	1.5	1.4
Location Mean	6.0	6.7	5.8	6.2	4.3	4.3		1.09	1.09	1.09		1.23	1.16		1.3	2.1	1.6	1.2	1.8	2.1	

TABLE 7: 2012 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								Shatter Bruise ¹					Scab ¹					
	CA ²	CO	ID	HRM	KF	DTX	STX	Entry Mean	CA ²	CO	ID	HRM	KF	DTX	STX	Entry Mean	HRM	KF	DTX	STX	Entry Mean	ID ³	ID	HRM	DTX	STX	Entry Mean
1 ATLANTIC	4.0	4.0	3.8	3.5	4.1	5.0	5.0	4.2	3.0	5.0	4.0	4.0	4.5	5.0	5.0	4.4	3.5	3.4	5.0	5.0	4.2	3.0	4.8	4.5	5.0	5.0	4.8
2 CHIPETA	4.0	4.0	3.3	2.5	4.8	5.0	5.0	4.1	4.0	5.0	3.3	4.0	5.0	5.0	5.0	4.5	4.3	3.9	5.0	5.0	4.5	2.8	4.8	2.5	5.0	5.0	4.3
3 A00188-3C	4.0	4.0	5.0	4.5	4.8	5.0	5.0	4.6	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	3.6	4.3	5.0	5.0	4.5	3.3	4.8	5.0	5.0	5.0	4.9
4 A01143-3C	4.0	4.0	4.3	5.0	4.6	5.0	5.0	4.6	4.0	5.0	4.8	5.0	5.0	5.0	5.0	4.8	4.5	3.9	5.0	5.0	4.6	3.6	4.3	4.0	5.0	5.0	4.6
5 AC01151-5W	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.9	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	5.0	4.5	5.0	5.0	4.9	3.2	2.0	4.4	5.0	5.0	4.1
6 AC03433-1W	4.0	3.0	3.5	3.8	4.6	5.0	5.0	4.1	4.0	5.0	4.5	4.0	5.0	5.0	5.0	4.6	5.0	4.1	5.0	5.0	4.8	3.4	3.5	3.5	5.0	5.0	4.3
7 CO02024-9W	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.4	4.1	5.0	5.0	4.6	2.9	3.8	5.0	5.0	5.0	4.7
8 CO02033-1W	4.0	5.0	5.0	3.8	5.0	5.0	5.0	4.7	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	2.1	3.3	5.0	5.0	3.8	1.7	2.3	4.0	5.0	5.0	4.1
9 CO02321-4W	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	5.0	4.6	5.0	5.0	4.9	3.6	2.0	4.9	5.0	5.0	4.2
10 CO03243-3W	4.0	4.0	4.0	4.9	4.8	5.0	5.0	4.5	4.0	5.0	4.5	5.0	5.0	5.0	5.0	4.8	4.5	4.1	5.0	5.0	4.7	3.6	4.0	5.0	5.0	5.0	4.8
Location Mean	4.2	4.2	4.4	4.3	4.8	5.0	5.0		3.9	5.0	4.6	4.7	5.0	5.0	5.0		4.2	4.0	5.0	5.0		3.1	3.6	4.3	5.0	5.0	

¹ Score 1-5, with 1=severe, 5=none.

²Tulelake, CA percents were converted to a 1-5 score

³Aberdeen, ID shatter scores obtained from bruise evaluation conducted using a shatter chamber [1-5(none)].

TABLE 8: 2012 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 plus Brown Center								Percent Internal Brown Spot					Percent Net Necrosis Vascular Discoloration					Blackspot Bruise ¹									
		CA	CO	ID	HRM	KF	DTX	STX	Entry Mean	ID	HRM	KF	DTX	STX	Entry Mean	CA	ID	HRM	KF ²	DTX	STX	Entry Mean	CA ³	STX	DTX	CO	HRM	KF ⁴	ID ⁵
1	ATLANTIC	10	0	23	35	63	15	0	21	0	0	0	43	75	24	0	0	0	0	0	0	0	3.0	5.0	5.0	3.6	3.0	3.0	4.0
2	CHIPETA	5	1	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	13	3	3	5.0	5.0	5.0	4.6	4.0	2.0	3.0	
3	A00188-3C	3	0	3	0	23	0	0	4	0	0	3	0	8	2	3	0	3	3	0	3	2	5.0	5.0	5.0	4.8	4.5	4.0	4.2
4	A01143-3C	5	0	0	0	5	0	0	1	0	1	0	8	5	3	0	0	0	0	3	1	4.0	5.0	5.0	3.9	4.0	4.0	3.3	
5	AC01151-5W	10	0	0	10	8	3	0	4	0	1	0	8	10	4	3	0	0	5	0	0	1	3.0	5.0	5.0	3.8	4.0	3.0	3.1
6	AC03433-1W	8	0	38	3	23	0	0	10	0	3	0	0	0	1	0	0	0	0	3	1	4.0	5.0	5.0	4.5	5.0	5.0	3.4	
7	CO02024-9W	10	0	0	13	0	0	0	3	0	3	0	0	0	1	5	0	0	3	0	3	2	1.0	5.0	5.0	4.1	4.0	1.0	3.2
8	CO02033-1W	20	2	8	11	18	0	0	8	0	3	3	0	0	1	0	0	0	3	0	3	1	5.0	5.0	5.0	3.8	4.5	5.0	3.6
9	CO02321-4W	5	0	0	5	3	8	0	3	3	8	0	0	0	2	3	0	6	3	0	3	2	2.0	5.0	5.0	4.2	4.5	4.0	3.6
10	CO03243-3W	0	1	0	1	5	0	0	1	0	0	0	3	0	1	0	0	0	0	0	18	3	3.0	5.0	5.0	4.5	4.0	2.0	3.2
Location Mean		8	0	7	8	15	3	0		0.3		0.5	6.2	9.8		1.3	0.0	0.9	1.5	1.3	3.9		3.5	5.0	5.0	4.2	4.2	3.3	3.5

¹ Score 1-5, with 1=severe, 5=none.

² Klamath Falls, OR blackspot bruise scores include shatter, white knot and blackspot

³ Tulelake, CA percents were converted to a 1-5 score

⁴ Klamath Falls, OR Vascular Discoloration scores include stem end browning

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

TABLE 9: 2012 Western Regional Chipping Potato Variety Trial - CHIP COLOR

Clone	HRM ¹ Field	STX ¹ Field	DTX ¹ Field	CO ¹				ID ¹			50 ² Mean
				Chip 40		Chip 50		Chip 40		Chip 50	
				a	Recon ^b	c	Recon ^d	a	Recon ^b	c	
1 ATLANTIC	1.6	1.0	1.0	4.5	4.0	3.0	2.0	3.1	2.3	1.8	2.4
2 CHIPETA	1.8	2.0	1.0	5.0	4.5	2.5	2.0	3.5	3.8	1.8	2.2
3 A00188-3C	1.5	1.0	1.0	4.0	4.0	1.5	1.5	2.8	2.3	1.4	1.4
4 A01143-3C	1.5	2.0	1.0	4.0	1.5	1.5	1.5	1.8	1.5	1.6	1.6
5 AC01151-5W	1.6	1.0	1.0	4.5	4.0	2.5	3.0	2.2	1.9	1.7	2.1
6 AC03433-1W	1.4	1.0	1.0	3.5	3.0	1.5	1.5	1.7	1.7	1.9	1.7
7 CO02024-9W	1.4	1.0	1.0	4.0	2.5	1.5	1.5	2.2	1.9	1.6	1.6
8 CO02033-1W	1.6	2.0	1.0	4.0	3.0	1.5	2.0	2.0	1.6	1.8	1.6
9 CO02321-4W	1.5	1.0	1.0	4.0	2.0	1.5	1.0	1.9	1.7	1.4	1.5
10 CO03243-3W	1.4	1.0	1.0	4.5	3.0	2.0	1.5	2.1	1.8	1.4	1.7
Location Means	1.5	1.3	1.0	4.2	3.2	1.9	1.8	2.3	2.0	1.6	

¹ Color using Snack Food Association Frycolor Standards (1-5(darkest)).

^a Stored 5 weeks (CO) and 8 weeks (ID) at 40°F.

^b Stored 5 weeks (CO) and 8 weeks (ID) at 40°F plus 3 weeks at 60°F.

^c Stored 5 weeks (CO) and 8 weeks (ID) at 50°F.

^d Stored 5 weeks at 50°F plus 3 weeks at 60°F.

² Mean for CO and ID

Table 10. 2012 Western Regional Chipping Potato Variety Trial - SOLIDS, DEXTROSE, SUCROSE, PROTEIN, VITAMIN C, AND GLYCOALKALOIDS - ABERDEEN, IDAHO

Clone	Solids Oven Dry (%)	Sugars		Protein (%DWB)	Vitamin C (mg/100g FWB)	Glycoalkaloids (mg/100gFWB)
		Dextrose (%FWB)	Sucrose (%FWB)			
1 ATLANTIC	21.8	0.011	0.135	6.62	19.0	5.9
2 CHIPETA	22.6	0.049	0.148	6.35	21.5	10.8
3 A00188-3C	21.6	0.006	0.105	6.65	20.7	1.3
4 A01143-3C	21.9	0.005	0.118	6.50	20.3	3.2
5 AC01151-5W	21.6	0.003	0.150	5.01	13.6	5.5
6 AC03433-1W	22.1	0.002	0.082	7.02	11.7	1.4
7 CO02024-9W	21.6	0.003	0.097	6.60	15.3	3.3
8 CO02033-1W	21.8	0.006	0.145	6.38	18.0	2.5
9 CO02321-4W	23.7	0.004	0.084	6.38	25.4	2.7
10 CO03243-3W	22.1	0.004	0.118	5.37	14.9	1.6
Means	22.1	0.009	0.118	6.29	18.0	3.8

FWB = fresh weight basis DWB = dry weight basis

Desirable levels of Dextrose are $\leq 0.05\%$

Sucrose levels of $\leq 0.15\%$ are excellent, 0.16-2.0% are good, and $\geq 2.1\%$ are fair to poor

Glycoalkaloids: The 2012 Lenape check from Aberdeen was 32.0 mg/100g

TABLE 11: 2012 Western Regional Chipping Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/ Early Dying				Early Blight			Late Blight			Common Scab		% Net Necrosis/ vascular discoloration ¹		Rhizoc.	Pecto- bacterium	Fusarium		Metr.
	AB ¹		HERM ¹		AB ¹		Tuber	CORV ²		AB ¹				KLAM ³	Soft Rot ¹	Dry Rot (0-5)		Reaction	
	(0-9)	AUDPC	(0-9) ²	AUDPC	(0-9)	AUDPC	%	(1-9)	AUDPC	%	Incidence	Defect	Incidence	% Serious Defect	(1-5=none) ³	AB (0-5)	F(sam)	F(sol)	AB ⁴
1 Atlantic	8.3	585	7.9	167.7	6.7	373	4	--	--	--	37	21	17	3	4.1	2.9	3.3	2.1	MS
2 Chipeta	6.0	247	6.5	115.3	4.7	143	3	7.0	1480	15.0	41	10	47	0	3.9	1.7	3.4	2.1	R
3 A00188-3C	6.7	391	6.9	154.1	6.7	401	0	9.0	1681	2.5	31	7	63	18	4.5	3.5	3.3	1.7	MR
4 A01143-3C	5.3	276	5.5	91.7	5.7	272	0	8.5	1675	10.0	27	8	37	6	2.6	2.7	3.8	1.4	VR
5 AC01151-5W	3.0	216	7.9	142.9	6.3	261	2	8.5	1750	40.0	63	43	46	25	4.8	3.5	4.3	3.0	MR
6 AC03433-1W	5.3	148	6.9	105.2	6.7	381	5	7.8	1612	15.0	48	20	14	3	4.6	3.1	4.5	2.3	MR
7 CO02024-9W	6.3	317	7.4	167.6	6.0	293	7	8.3	1522	17.5	59	35	29	7	4.4	3.3	3.4	1.9	R
8 CO02033-1W	8.0	608	7.9	166.5	6.7	391	3	8.8	1686	30.0	61	27	61	8	4.9	4.3	2.9	2.5	MR
9 CO02321-4W	8.7	626	8.5	180.0	6.7	363	0	8.8	1800	2.5	66	44	23	0	3.6	1.9	2.1	2.7	S
10 CO03243-3W	5.7	185	7.0	135.6	6.0	293	6	8.3	1589	2.5	74	24	17	0	4.4	1.9	3.9	3.0	R
MEANS	6.3	360	7.2	142.7	6.2	317.1	3	8.3	1643.7	15.0	50.6	23.8	35	7	4.2	2.9	3.5	2.3	
LSD @ .05	1.1				1.5		n.s.	0.8	297.1	21.9	22.0	11.0	34	17	0.9	1.4	1.1	0.8	

¹ Evaluations made at Aberdeen, Idaho by Jonathan Whitworth and Hermiston, Oregon by Laurie LaRoux; 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 106, 113, and 120 days after planting.

Common Scab and Net Necrosis serious defects are the number of tubers with a 3 rating (0-5 scale) or higher, divided by the total number of tubers examined. Net necrosis data from PLRV-infected plots.

For 0 to 5: 0=0%/none; 5=100%/severe as a combination of tuber area and degree impacted by Fusarium and Pectobacterium inoculations.

² Evaluations made at Corvallis, Oregon by Solomon Yilma; 1=no foliar injury; 3=5-10%; 5=25-40%; 7=60-75%; 8=75-90%; 9=90-100%.

Late blight AUDPC=area under the disease progress curve. Higher number indicates more disease over time; % of tubers examined with any late blight symptoms.

³ *Rhizoctonia solani* readings made by Brian Charlton, Klamath Falls, Oregon; scale as indicated with lowest number being most severe

⁴ Metribuzin Reaction measured at Aberdeen, ID. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible

TABLE 12: 2012 Western Regional Chipping Potato Variety Trial - MERIT SCORES (1-5(best))

No.	Clone	Fresh Merit						Process Merit			
		CA	CO	ID	DTX	STX	Entry Mean	CO	ID	HRM	Entry Mean
1	ATLANTIC	3.9	2.0	1.8	3.5	3.7	3.0	2.0	3.5	3.5	3.0
2	CHIPETA	3.8	5.0	2.0	3.0	3.3	3.4	5.0	3.0	3.5	3.8
3	A00188-3C	3.7	1.0	3.8	3.1	2.9	2.9	3.0	3.8	4.5	3.8
4	A01143-3C	3.5	2.0	2.3	3.3	2.4	2.7	4.0	4.0	2.0	3.3
5	AC01151-5W	3.9	4.0	3.5	3.4	3.6	3.7	3.0	3.8	2.0	2.9
6	AC03433-1W	3.7	1.0	2.3	3.1	3.2	2.7	3.0	3.0	2.0	2.7
7	CO02024-9W	3.4	1.0	3.1	3.7	3.6	3.0	3.0	3.8	4.0	3.6
8	CO02033-1W	3.3	3.0	2.3	2.6	2.8	2.8	4.0	3.8	3.5	3.8
9	CO02321-4W	3.9	2.0	4.0	3.0	3.9	3.4	4.0	4.0	4.0	4.0
10	CO03243-3W	4.1	3.0	3.0	4.0	4.7	3.8	4.0	3.8	3.5	3.8
Location Mean		3.7	2.4	2.8	3.3	3.4		3.5	3.7	3.3	

TABLE 13: 2012 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	Merit Score
1	ATLANTIC	CK	412 9	327 79	6.6	1.090	2.4	3.0
2	CHIPETA	CK	520 2	436 82	7.7	1.079	2.2	3.8
3	A00188-3C	2	445 5	321 68	4.6	1.085	1.4	3.8
4	A01143-3C	3	389 10	264 65	4.6	1.083	1.6	3.3
5	AC01151-5W	2	506 3	372 70	4.3	1.081	2.1	2.9
6	AC03433-1W	1	418 8	343 79	6.2	1.081	1.7	2.7
7	CO02024-9W	2	422 7	301 68	4.3	1.082	1.6	3.6
8	CO02033-1W	2	461 4	358 74	5.0	1.090	1.6	3.8
9	CO02321-4W	2	427 6	364 83	5.7	1.090	1.5	4.0
10	CO03243-3W	1	525 1	455 85	6.4	1.082	1.7	3.8

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

TABLE 14: 2012 Western Regional Chipping Potato Variety Trial - 3 Year Summary of Graduating Entries

Clone	2010					2011					2012				
	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	493 1	428 87	1.092	2.5	2.0	437 7	318 74	1.090	2.3	2.6	412 9	327 79	1.090	2.4	3.0
CHIPETA	479 2	425 89	1.081	2.6	2.3	465 5	374 75	1.081	2.3	3.2	520 2	436 82	1.079	2.2	3.8
A01143-3C	462 4	374 83	1.079	1.1	4.5	430 8	304 64	1.081	1.8	4.5	389 10	264 65	1.083	1.6	3.3
Trial Mean	443	363 83	1.083	1.9	3.2	447	301 67	1.083	1.7	3.4	452	354 75	1.084	1.8	3.5

3 Year Average (2010-2012)

Clone	Total Yield ¹	US#1's		Chip Color ²	Merit Score	Noted Weaknesses	Noted Strengths
		Yield ¹	%				
ATLANTIC	447	358 80	1.090	2.4	2.5		
CHIPETA	488	412 82	1.080	2.3	3.1		
A01143-3C	427	314 71	1.081	1.5	4.1	Zebra chip (2/3)	Good chip color (3/3), High merit (2/3)
Mean ³	336	345 75	1.083	1.8	3.4		

¹ (CWT/A)²Mean for CO and ID stored at 50°F³Mean includes all trial entries 2010-2012

Comments and Information from States

Aberdeen, Idaho Comments ¹			Eye Depth (1-5 shal.)	Sugar Ends						
1	ATLANTIC	rot	3.0	8.3						
2	CHIPETA	green, rough, shatter, green	2.8	5.6						
3	A00188-3C	Nice, round, ATS	3.0	0.0						
4	A01143-3C	deep ends	3.3	0.0						
5	AC01151-5W	round, scab, deep eyes	3.3	2.8						
6	AC03433-1W	large, GC, shattered	3.8	0.0						
7	CO02024-9W	oval, slightly flat	3.8	0.0						
8	CO02033-1W	large, shatter, slightly flat	3.7	0.0						
9	CO02321-4W	nice, round but elongates with size	3.5	0.0						
10	CO03243-3W	deep ends	3.5	0.0						
Hermiston, Oregon Comments				Tuber/ plant						
1	ATLANTIC	ok shape, few knobs		7.4						
2	CHIPETA	attached stems, flat, few knobs		7.5						
3	A00188-3C	nice, some attached stems		9.9						
4	A01143-3C	too compact, deep bud/stem ends		10.4						
5	AC01151-5W	nice, round, bad black bruising		11.4						
6	AC03433-1W	rough shape, knobs, flat, ugly		8.2						
7	CO02024-9W	nice, little flat		8.7						
8	CO02033-1W	nice, little flat		8.9						
9	CO02321-4W	nice tuber shape, size		9.2						
10	CO03243-3W	nice shape, size, attached stems		9.5						
Klamath Falls, Oregon Comments ²					White-knot Bruise (%)	Greening (1-5 none)				
1	ATLANTIC	Poor x 2, Fair x 2			25.0	3.9				
2	CHIPETA	Big x 4, GE Rot x 2, SB x 3			15.0	3.8				
3	A00188-3C	Typy x 4, Smooth x 4, Low IB			7.5	4.5				
4	A01143-3C	Poor x 3, IB x 2, FBE			20.0	4.0				
5	AC01151-5W	Typy x 4, Smooth x 4, IB x 3, Best Appearance			12.5	4.3				
6	AC03433-1W	Typy x 3, Lenticels x 4, Eratic Size			20.0	3.6				
7	CO02024-9W	Flat x 4, Small x 4, IB x 4, Drop			22.5	4.4				
8	CO02033-1W	Flat x 4, SB x 4, IB x 4, Drop			17.5	4.0				
9	CO02321-4W	Nice x 3, Smooth x 2, Eratic Size x 2			22.5	3.8				
10	CO03243-3W	Typy x 4, Big x 3, IB x 2			12.5	4.1				
Tulelake, California				Green (%)	Tuber/ plant	Stem End Browning	Uniformity (1-5 good)	Eye Depth (1-5 shal.)	Vert wilt ³ 14-Aug 21-Aug	
1	ATLANTIC		4.8	6.7	0.0	3.8	4.0	4.5	5.8	
2	CHIPETA		3.9	5.2	2.5	3.9	4.1	2.5	4.8	
3	A00188-3C	Scab	0.6	9.1	6.7	4.1	4.3	2.3	3.0	
4	A01143-3C	Skinning	4.0	6.5	2.5	3.5	3.9	5.0	5.0	
5	AC01151-5W		4.2	9.4	5.0	3.7	4.1	2.0	2.8	
6	AC03433-1W	Skinning	2.9	6.9	2.5	4.0	4.0	2.5	3.0	
7	CO02024-9W	Flat	3.8	9.5	5.0	3.4	4.0	4.3	4.3	
8	CO02033-1W	Skinning	1.4	8.9	0.0	3.8	3.9	5.0	6.3	
9	CO02321-4W		2.5	7.6	2.5	3.9	3.9	3.8	4.9	
10	CO03243-3W		0.9	8.1	2.5	4.1	4.1	2.5	4.8	

¹ATS=attached stonlons, GC=growth crack²SB=shatter bruise, IB=impact bruise (shatter, white-knot, thumbnail cracks, blackspot), FBE=folded bud end, GE=green ends³Evaluations made at Tulelake, CA by Rob Wilson. Vert wilt rating 0-9, 9=worst 90-100% plants showing symptoms.

Comments and Information from States

Dalhart, Texas Comments ¹			Chip Ratio good/bad	Zebra Defect fresh cut	Zebra Defect	Chip Notes ¹
1	ATLANTIC	low yield, buff, nice shape	29/12	10%	0%	6 Stem, 1TM, 1HH, 1MB
2	CHIPETA	low yield, rough	14/25	0%	0%	Drop, 13Stem
3	A00188-3C	poor shape	23/16	0%	0%	15 Stem, 1Mech
4	A01143-3C	poor shape, light set, rough	29/11	0%	8%	8Stem
5	AC01151-5W	nice shape, poor internals, lots of B's	23/16	0%	0%	3TM , 7Stem, 2Scab, 1Mech
6	AC03433-1W	low yield+, nice shape, light set	33/5	0%	0%	1Mech,2GH, 2Stem, 1TM
7	CO02024-9W	lots of B's, nice shape	31/6	5%	3%	1TM/GH, 3Stem
8	CO02033-1W	too oblong, poor shape	30/10	5%	0%	10Stem, Drop, Shape-
9	CO02321-4W	light set, some too oblong	27/11	0%	0%	10Stem
10	CO03243-3W	BOT+, nice shape	32/5	0%	0%	4Stem
Springlake, Texas Comments			Chip Ratio good/bad	Zebra Defect	Chip Notes ¹	
1	ATLANTIC	low yield, buff, poor internals, light set	24/14	0%	2 Stem, 11 MB	
2	CHIPETA	too large, rough, large tubers+, heat sprouts	20/24	0%	9 Stem, 5 SE	
3	A00188-3C	lots of culls, rough	29/14	0%	11 Stem, 1 SE	
4	A01143-3C	heat necrosis, small+, poor internals, heat sprouts++, drop+	31/8	3%		
5	AC01151-5W	poor internals	18/21	0%	6 Stem, 6 SE	
6	AC03433-1W	poor shape, nice flesh	39/2	0%	1 Stem BOT	
7	CO02024-9W	uniformly small, small, nice	37/3	0%		
8	CO02033-1W	flat, drop+	21/20	0%	15 Stem	
9	CO02321-4W	large tubers	34/6	0%	6 Stem	
10	CO03243-3W	smooth, nice, parent	36/4	0%	3 Stem, 1 SE	

¹BOT=Best Of Trial, MB=mahogany browning, HH=hollow heart, SE=sugar ends, PB= pressure bruise, GH=greenheads, TM=tuber moth
Stem=stem end discoloration, Mech=mechanical damage

***Hermiston, Oregon reported temperatures above average with several days over 100 F in early July. The field was fall fumigated with 41 gallons metham sodium, per acre.**

****Dalhart, Texas reported higher than normal precipitation the first week of June, first and second week of August, and second week of September. Temperatures were slightly higher than average during the growing season.**

*****Springlake, Texas reported below average precipitation during the growing season, except the second week of July. The high temperatures were 10 degrees higher and low temperatures were 7 degrees higher than normal in April and May.**