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Eastern Regional Potato Trials 2005: Summary of NE1014 Regional Project Field Testing of New Potato Clones

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Eastern Regional Potato Trials 2005:
Summary of NE1014 Regional Project Field Testing of New
Potato Clones

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Cooperators in 2005

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Twenty trials were conducted in eight states and two Canadian provinces. Fourteen named varieties and 22 numbered clones were available to the cooperators (Table 1). Seed for all clones and varieties was grown by the University of Maine at Aroostook Research Farm. Seedpieces were prepared, cut, and suberized by the staff at the Maine Agricultural and Forest Experiment Station in Presque Isle, Maine. Cultural practices were generally similar to those used by commercial growers near each location.

OBJECTIVES

The objectives of this regional project are (1) to develop pest-resistant, early-maturing, long-dormant varieties that will process from cold storage; (2) to evaluate new and specialty varieties developed in the Northeast; (3) to determine climatic effects on performance to develop predictive models for potato improvement; and (4) to determine heritability/linkage relationships and improve the genetic base of tetraploid cultivated varieties. The results presented in this report reflect a portion of the activity directed toward objectives 1, 2, and 3.

RESULTS

Total yield, marketable yield, specific gravity, tuber size, tuber defects, chip color results, boil and bake results are presented in East Region Trial Tables 2 to 7.

Round whites cultivars

For round whites, Atlantic, Kennebec, Snowden, NY125, NY126, NY127, and NY128 had the highest total yields (Table 2). Snowden and NY126 were the only clones in the 2005 regional trials that had US#1 yields equaling or exceeding those of Atlantic in side-by-side tests (Tables 3 and 6). Across sites these varieties had US#1 yields averaging 103% and 107% those of Atlantic, respectively. NY125, NY127, and NY128 also provided relatively high marketable yields (averaging 94%, 96%, and 94% of Atlantic, respectively). Specific gravities of Snowden, AF2207-4, AF2211-9, AF2215-1, and AF2291-10 were close to or greater than Atlantic at comparable sites (Tables 4 and 6). Katahdin, AF2290-8, and NY127 had an average specific gravity below 1.070. Atlantic, Katahdin, Kennebec, AC Sunbury, Yukon Gold, AF2211-2, AF2291-10, and NY126 sized well in most trials (Tables 5 and 6). AF2206-9,

AF2207-4, B1806-8, and NY125, had small tuber size. AC Sunbury, Yukon Gold, AF2211-9, and NY126 had particularly good external appearance ratings. Snowden, AF2206-9, AF2211-2, AF2211-9, AF2215-1, AF2222-2, AF2291-10, and NY126 chipped well in most 2005 tests. AF2115-1 and NY126 scored particularly well in boiling tests. All of the new clones scored well in baking tests (Table 6).

Many of the white cultivars and clones had relatively high incidences of external tuber defects during 2005 (Table 7). Nine of 22 had more than 10% external defects. Clones with a low incidence of external defects incidence (less than or equal to 8%) during 2005 were Atlantic, Snowden, AC Sunbury, Superior, NY120, NY125, NY126, and NY128. Atlantic, AC Sunbury, AF2207-4, AF2211-9, AF2222-2, and AF2291-10 had high incidences of hollow heart. Atlantic, AF2211-9, AF2222-2, and AF2290-8 had the highest incidence of internal necrosis. AF2290-8 and NY125 had very high incidence of vascular discoloration.

Red-skinned cultivars

In the trials of red-skinned potatoes, NDTX731-1R and NY129 had higher US#1 yields than Chieftain (Table 6). NDTX731-1R had the best overall appearance ratings and had relatively low incidence of internal and external defects (Tables 6 and 7). It has very low specific gravity and fair cooking quality. NY129 had marginal appearance and a low incidence of defects. It is more susceptible to internal necrosis than is NDTX731-1R and has had variable boiled cooking quality. NDTX731-1R had high vascular discoloration incidence during 2005, while NY129 incidence was moderate. AC Red Island has a dark red, netted skin, and oblong to round tubers with fair appearance. It is susceptible to internal necrosis and vascular discoloration. Considering all attributes, NDTX731-1R was the best red clone in the trials.

B1816-5 and B1952-2 are purple-skinned clones tested in the 2005 trials. Both clones produce US#1 yields that are similar to those of Dark Red Norland. B1816-5 produces small, oblong tubers with yellow flesh. Skin problems detract from an otherwise attractive purple color. B1952 has slightly better appearance and much larger, white-fleshed tubers. Boiled and baked quality have been fair to good for B1816-5, while boiled quality of B1952-2 has been marginal. Internal defects have not caused problems in either clone to date.

Russet-skinned cultivars

In the trials of russeted and long-tuber-type varieties, Russet Burbank and Stampede Russet had the highest total yields, while Stampede Russet had the highest average US#1 yields (Tables 2 and 3). Shepody, Stampede Russet, and A9014-2 had US#1 yields equaling or exceeding those of Russet Norkotah (Tables 3 and 6). Across sites, these varieties had US#1 yields averaging 115%, 146%, and 131% those of Russet Norkotah, respectively. Specific gravities of A9014-2, AF1808-18, and AF2199-6 were greater than or equal to 1.080 (Table 4). Shepody, Stampede Russet, and AF1808-18 had large tuber size (Tables 5 and 6). Russet Norkotah, Stampede Russet, A9014-2, and AF1808-18 had very good tuber appearance (Table 6). Shepody, A9014-2, AF1866-8, and AF1808-18 had acceptable boiled and baked quality scores during 2005, while AF2199-6 had poor boiled quality and good baked quality (Table 6).

Only Russet Norkotah and Stampede Russet had acceptable incidence of external defects incidence for fresh market (<10%) during 2005 (Table 7). A9014-2 had high hollow heart incidence. None of the russeted/long-type clones had high levels of internal necrosis or vascular discoloration during 2005.

Promising 2005 clones

NY126, a yellow-fleshed clone, showed good promise for fresh market during 2005 and could potentially be dual-purpose for chipping and fresh use. NY125 shows promise for fresh markets that do not require large tuber size. AF2291-10 was the most promising of the new chipping clones entered in 2005. Yield, specific gravity, tuber size, and chip color were acceptable. Hollow heart incidence was higher than desirable in its first year of regional trials. NDTX731-1R was the most promising red-skinned clone. B1816-5 is promising as a purple-skinned, yellow-fleshed specialty clone. Stampede Russet was the most promising russet fresh market clone tested in 2005.

East Region Trial Table 1. General characteristics and known disease resistance for 14 named varieties and 22 numbered clones grown at 20 locations in the Eastern United States and Eastern Canada.

Clone ¹	Pedigree	Skin Color ²	Skin Text. ³	Flesh Color ⁴	Tuber Shape ⁵	Utilization ⁶	Known Disease Tolerance or Resistance ⁸	
							Resistant	Moderate Resistance
Round Whites								
Atlantic	Wauseon x Lenape	BuWh	N	OW	R	Chip	GN, NN, PVA, PVX	CS, VW, Bwlt
Katahdin	40658 x 24642	White	S	Wh	RO	Table	PVA	NN, VW, Bleg, PVS, PVX, PVY
Kennebec	B127 x X(95-96)	White	S	Wh	O	Table	NN, PVA, PVY	Bleg, PVS, PVX, LB, Wart
Snowden	B5141-6 x Wischip	BuTan	N	OW	R	Chip		CS
Sunbury, AC	Raritan x Agitato	BuYI	S	YF1	RO	Table	GN, PVY	
Superior	X(96-56) x N59.44	BuWh	SN	OW	RO	Table	CS, NN	
Yukon Gold	W5279-4 x Norgleam	BuYI	S	YF2	RO	Table	PLRV, PVA	
AF2115-1	Goldrus x Penobscot	White	S	Wh	OR	Table/Chip ⁷	NN	
AF2206-9	AF186-2 x AF84-4	BuWh	S	Wh	RO	Chip	NN, GN	
AF2207-4	AF637-1 x AF879-18	BuWh	SN	OW	RO	Chip	GN, NN	VW
AF2211-2	Atlantic x MaineChip	BuWh	SN	Wh	R	Chip	NN	CS
AF2211-9	Atlantic x MaineChip	BuWh	SN	OW	R	Chip	NN	CS
AF2215-1	MaineChip x Atlantic	BuWh	SN	OW	RO	Chip	NN	
AF2222-2	SC8805-12 x ND860-2	White	S	OW	R	Table/Chip	NN	
AF2290-8	AF303-5 x CS7983-26	White	S	W	OR	Table		
AF2291-10	SA8211-6 x EB8109-1	BuWh	S	OW	RO	Chip		
B1806-8	B0925-4 x B0809-10	BuYI	S	YF1½	OR	Table/Chip ⁷		
NY120	Kanona x AF186-2	BuTan	N	Wh	R	Chip ⁷	GN	CS
NY125	Keuka Gold x Genesee	BuYI	SN	YF1	RO	Table	GN	CS
NY126	Keuka Gold x Pike	BuYI	SN	YF1	RO	Table/Chip	GN	CS
NY127	Q237-8 x Pike	White	S	OW	R	Table	GN, Ro2	
NY128	NY121 x Pike	BuWh	SN	OW	R	Chip ⁷	GN, Ro2	LB
Red Clones								
Chieftain	La1027-18 x La1354	RD2	S	Wh	RO	Table		NN, CS, VW, RZ
Dk Rd Norland	Redkote x ND626	RD3	S	Wh	RO	Table	PVA	CS, RZ, Wart
Red Island, AC	Brigus x Redson	RD6	N	YF½	OR	Table	Wart	CS
B1816-5	B0810-1 x B0918-5	PUR3	SN	YF2	OR	Table	GN	
B1952-2	B0813-7 x B0918-5	PUR4	SN	OW	RO	Table		
NDTX731-1R	ND169-10R x ND9476-5R	RD5	SN	Wh	R	Table	CS	PSc
NY129	N38-1 x ND2225-1R	RD4	N	Wh	R	Table	GN, CS	

East Region Trial Table 1. Continued.

Clone ¹	Pedigree	Skin Color ²	Skin Text. ³	Flesh Color ⁴	Tuber Shape ⁵	Utilization ⁶	Known Disease Tolerance or Resistance ⁸	
							Resistant	Moderate Resistance
Russets/Long Whites								
R Burbank	Sport of Burbank	LtBr	Ru1	OW	L	Table/Proc.	CS, Bleg	
R Norkotah	ND9687-5 x ND9526-4	Brown	Ru2	OW	OL	Table	CS	PLRV, PSc
Shepody	Bakeking x F58050	White	S	Wh	L	Processing		EB, RZ
Stampede	BR7091-1 x Lemhi Russet	Brown	Ru2	OW	L	Table	CS, Fdr	EB, VW
Russet								
A9014-2	Gem Russet x A8341-5	LtBr	Ru2	Wh	OL	Table/Proc.	CS	VW, PSc
A90586-11	KSA195-90 x Ranger Russet	BuWh	SN	OW	OL	Processing	VW, LB, CRS, PVX	
AF1808-18	AF1367-13 OP	Brown	Ru2	OW	OL	Table/Proc.	NN	VW
AF2199-6	A84118-3 x AF295-10	LtBr	Ru1	OW	L	Proc.	CS, GN, NN	

¹Origin of numbered clones: A = USDA-ARS Aberdeen, ID, and Univ. of ID; AF = Univ. of Maine, Arrostook Research Farm, Presque Isle, ME; B = USDA-ARS Beltsville, MD; NDTX = Cross by North Dakota potato breeding program, but selected by Texas A&M, College Station; NY = Cornell University, Ithaca, NY.

²Skin color varies with growing conditions. This information reflects general performance and should not be used to predict exact results for a specific location or growing season. This table summarizes subjective ratings: BuWh = buff to white; BuYl = buff to yellow; BuTan = buff to tan; RD = red (number scale: 1 = pale red; 2 = light to medium red; 3 = medium red; 4 = medium to deep red; 5 = deep red; 6 = dark red, sometimes too dull); LtBr = light brown; PUR = purple (number scale: 1 = pale purple; 2 = light to medium purple; 3 = medium purple; 4 = medium to deep purple; 5 = deep purple; 6 = dark purple, sometimes too dull); LtBr = light brown.

³See cautions in footnote 2. This table summarizes subjective ratings from four representative locations (ME, NJ, NY, NC): S = smooth; SN = slight net; N = netted; Ru = russeted (1 = light; 2 = moderate; 3 = heavy).

⁴See cautions in footnote 2. This table summarizes subjective ratings from Maine: Wh = white; OW = off white; YF = yellow (½ = cream to very pale yellow; 1 = pale yellow; 2 = moderate yellow; 3 = bright yellow).

⁵See cautions in footnote 2. This table summarizes cumulative subjective ratings from all NE1014 locations: R = mostly round; RO = round to oblong; OR = oblong to round; O = oblong; OL = oblong to long; L = long. See Table 6 for numerical summary.

⁶Expected utilization is based on commercial experience and/or currently available research results, where processing = french fry processing.

⁷Chipping directly from the field has been acceptable, but chipping had not been acceptable or has been inconsistent from storage.

⁸Known disease resistance is based on commercial experience and/or currently available research results. In some cases, disease resistance screening is in very early stages. In many cases, disease incidence can vary dramatically depending on the strain of the plant pathogen that is present. Key to codes: NN = tuber net necrosis; GN = golden nematode, race Ro1; Ro2 = golden nematode, race Ro2; CS = common scab; VW = verticillium wilt; LB = late blight; EB = early blight; PSc = powdery scab; RZ = Rhizoctonia; Fdr = Fusarium dry rot; PVA = potato virus A; PVX = potato virus X; PVS = potato virus S; PLRV = potato leafroll virus; CRS = corky ringspot virus; Bwlt = southern bacterial wilt; Bleg = blackleg; Wart = wart.

East Region Trial Table 2. Total yields (cwt/acre) for 14 named varieties and 22 numbered clones grown at 20 locations in the Eastern United States and Eastern Canada.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Round Whites																					
Atlantic	402	381	367	300	271	499	543	500	367	311	395	323	371	545	439	244	361	372	246	231	375
Katahdin	385	319	334	284	186	375	608	407	314				403	506	424	266	357	345	239	157	348
Kennebec	402	445	443	326	286			304	304				345	544				369	227	226	356
Snowden	329	352	325	223	277	543		395	395		404	346	338	488	328	259	441		398	216	356
Sunbury, AC	335		305	222	198									397				287			291
Superior	382	324	373	250	207	451	607	349	231				362	455				263	298	153	336
Yukon Gold	360	335	305	192	169	464	596	301	301				363	432				332	279	79	324
AF2115-1	371	341	348	279	183			290	290					497							330
AF2206-9	338	314	330		168	357		328	261				294	381			302	242	209	113	280
AF2207-4	322	368			226									432					220		314
AF2211-2	394	383	363					288	288				280	412					330	161	326
AF2211-9	378	343	360		184	412		391	321				341	427		200	395	323	202	223	321
AF2215-1	348	357	310	236	217			305	305				324	442		208			211		296
AF2222-2					174								359	464	468						366
AF2290-8	450	332	390		250			273	273					455						138	327
AF2291-10	360	358	370			397	519		281				346	435	348		421		362	184	365
B1806-8	371	335	361	316	297	512		333	293	90			346	557		185		291	348	116	317
NY120	365	368		312		446		308	308		290	322	355	466					259		349
NY125	402		383	291	230	519	682	524	347	247			391	512	428	203	461	371		185	386
NY126	413	429	395	275	242	532	546	505	337	228			314	533	481	258	471	420	323	243	386
NY127	419		397	332	290	580		410	410				417	494					221		396
NY128	367	442		241	254	523		357	357	324			373	525							378

East Region Trial Table 2. Continued.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Red and Purple Clones																					
Chieftain	403		400	299	237	469	704	450	394	180				499	280	411	488		291		394
Dk Rd Norland	373		310	192	156	416	497		320	187			307	363				306	270	123	294
Red Island, AC	337		327	256	234									556				373	291		339
B1816-5	325		297	276	180	373	560	373	297	224			350	430				274	159	180	307
B1952-2	331		320	246	198	249	464		284	231				440				264	234	134	283
NDTX731-1R	406		362	203	144	512	687		417	369				567					290	184	379
NY129	420		373	274	232	456	645	447	388				235	525	211	404	619	344	309	162	380
Russets/Long Whites																					
R Burbank	358		274	250					372					498				356	279		341
R Norkotah	253		257	258		368	465		198					378					243	43	274
Shepody	320		321											426				301	291		332
Stampede Rus.	258		267			446	547													221	348
A9014-2	273		226			339	473		277					389				373	314	153	313
AF1808-18	253		270											394				254	271		288
AF2199-6	226		217			324	356		206					401				283	189	89	255

¹Trials were conducted in three Maine locations, Presque Isle (ME1), Exeter (ME2), and St. Agatha (ME3).

²The two trial locations for New Jersey were Upper Deerfield main-season trial (NJ1) and Pittstown late-season trial (NJ2).

³The five trial locations in New York were Riverhead, Long Island (NY1), Freeville (NY2), Wayne County, muck soil (NY3), Steuben County (NY4), Wyoming County (NY5).

⁴There were four trial locations in Pennsylvania (Rock Springs [PA1], Erie County [PA2], Lehigh County [PA3], and Somerset County [PA4]).

Additional note: ME and NY had several clones tested in two or more trials per location. For these states, means are presented by location rather than by trial.

East Region Trial Table 3. Marketable yields (cwt/acre) for 14 named varieties and 22 numbered clones grown at 20 locations in the Eastern United States and Eastern Canada.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Round Whites																					
Atlantic	358	306	305	261	257	449	512	444	314	236	343	264	211	499	338	227	323	354	156	190	320
Katahdin	331	249	281	234	170	348	554	354	264				211	441	296	234	312	313	139	117	285
Kennebec	301	301	300	283	252			189	189				164	448				341	154	176	264
Snowden	303	319	303	150	248	490		328	328	364	272		237	440	250	221	392		314	160	301
Sunbury, AC	318		274	193	188								364					281			270
Superior	361	301	334	206	185	397	560	298	190				140	404				241	155	129	279
Yukon Gold	332	266	215	156	146	399	523	250	250				155	380				321	171	67	260
AF2115-1	333	287	220	226	168			228	228				202	376							263
AF2206-9	289	264	189		118	262		269	206				202	322			255	218	86	72	212
AF2207-4	266	300			185								340						146		247
AF2211-2	330	180	195					220	220				166	360					259	114	228
AF2211-9	309	232	188		169	337		353	263				195	356		191	316	315	157	195	255
AF2215-1	322	252	271	195	177			250	250				258	418		187			164		249
AF2222-2					122								222	411	367						281
AF2290-8	411	260	337		202			218	218				369							102	271
AF2291-10	309	313	305			341	418		165				168	389	253		370		280	147	288
B1806-8	347	285	170	251	274	435		276	249	34			167	519		131		266	286	89	252
NY120	339	325		261		377		263	263		241	254	198	400					143		280
NY125	361		351	208	192	430	599	468	299	138			198	469	327	152	411	362		142	319
NY126	378	399	373	242	227	479	524	472	294	173			164	486	336	236	431	407	250	197	337
NY127	332		310	268	245	495		346	346				198	429					111		304
NY128	301	397		154	219	451		298	298	184			242	476							302

East Region Trial Table 3. Continued.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Red and Purple Clones																					
Chieftain	377		383	261	207	347	591	407	332	121				423	258	354	357		186		332
Dk Rd Norland	354		256	139	117	277	433		269	137			241	312				283	136	87	234
Red Island, AC	310		313	185	188									473				345	175		284
B1816-5	283		260	206	151	201	474	319	215	130			177	354				230	55	108	226
B1952-2	305		281	205	178	199	440		222	164				402				253	154	90	241
NDTX731-1R	378		341	142	112	452	639		354	303				520					211	132	330
NY129	394		358	232	210	409	596	419	325				195	488	184	363	526	323	255	99	339
Russets/Long Whites																					
R Burbank	291	239	155					128						209				269	173		209
R Norkotah	249		247	202		245	367		120					277					154	26	210
Shepody	283		212											321				227	220		253
Stampede Rus.	250		242			346	444													70	270
A9014-2	264		192			274	406		145					275				292	198	77	236
AF1808-18	219		243											203				205	191		212
AF2199-6	221		203			261	226		92					313				231	127	13	187

¹Trials were conducted in three Maine locations, Presque Isle (ME1), Exeter (ME2), and St. Agatha (ME3).

²The two trial locations for New Jersey were Upper Deerfield main-season trial (NJ1) and Pittstown late-season trial (NJ2).

³The five trial locations in New York were Riverhead, Long Island (NY1), Freeville (NY2), Wayne County, muck soil (NY3), Steuben County (NY4), Wyoming County (NY5).

⁴There were four trial locations in Pennsylvania (Rock Springs [PA1], Erie County [PA2], Lehigh County [PA3], and Somerset County [PA4]).

Additional note: ME and NY had several clones tested in two or more trials per location. For these states, means are presented by location rather than by trial.

East Region Trial Table 4. Specific gravities (1.0 excluded) for 14 named varieties and 22 numbered clones grown at 20 locations in the Eastern United States and Eastern Canada.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Round Whites																					
Atlantic	90	93	83	75	75	77	82	81	90	88	86	99	85	96	76	88	82	98	76	84	86
Katahdin	74	74	68	68	73	54	67	59	71				67	80	67	67	76	79	65	60	69
Kennebec	78	79	72	70	84				74				63	78				84	71	65	74
Snowden	89	94	85	73	76	76			89		82	94	75	95	74	82	85		71	76	83
Sunbury, AC	84		72	74	76									87				81			80
Superior	81	81	75	70	69	63	72	70	74				70	75				89	77	63	74
Yukon Gold	81	86	80	73	76	69	82		87				80	87				91	76	68	80
AF2115-1	71	79	68	71	84				77				80	80							76
AF2206-9	87	91	80		75	76		74	87				77	84			85	94	77	77	82
AF2207-4	98	101			87									101					84		94
AF2211-2	86	89	76						83				80	85					74	72	81
AF2211-9	93	93	84		78	74		81	86				72	89		82	84	97	78	84	84
AF2215-1	92	99	82	76	71				98				88	100		87			84	84	88
AF2222-2					70								74	89	79						78
AF2290-8	62	62	55		59				64					65						56	60
AF2291-10	90	94	85			77	89		84				73	95	81		90		84	69	84
B1806-8	81	86	78	72	71	71	78	69	78	77			68	86		80		83	71	70	76
NY120	83	87		77		69			75		72	82	70	81					59		76
NY125	75		71	70	69	64	75	67	75	71			71	80	69	77	68	81		68	72
NY126	87	87	76	76	78	68	75	72	82	74			76	86	73	77	73	89	70	70	77
NY127	72		65	60	64	63			72				79	81					68		69
NY128	81	85		73	75	73			83	76			72	84							78

East Region Trial Table 4. Continued.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NJ1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Red and Purple Clones																					
Chieftain	69	61	60	61	61	55	67	61	69	65				72	67	65	64		67		65
Dk Rd Norland	67	64	59	58	57	52	57		62	57			66	62				72	64	44	60
Red Island, AC	77	76	72	68										80				87	68		75
B1816-5	79	75	72	67	69	69	69	71	73	70			73	78				82	79	64	73
B1952-2	82	78	75	68	70	73	73		79	72				81				86	77	66	76
NDTX731-1R	64	65	56	58	50	63	63		61	55				64					63	52	60
NY129	65	63	60	59	62	64	59	66					66	68	67	65	66	74	64	59	64
Russets/Long Whites																					
R Burbank	83	70	75						77					83				82	72		77
R Norkotah	77	74	66			70	71		71					75					66		71
Shepody	81	75												90				81	64		78
Stampede Rus.	68	67				53	61														62
A9014-2	81	75				75	83		82					91				85	70		80
AF1808-18	79	78												83				86	74		80
AF2199-6	78	74				81	83		80					84				84	80		81

¹Trials were conducted in three Maine locations, Presque Isle (ME1), Exeter (ME2), and St. Agatha (ME3).
²The two trial locations for New Jersey were Upper Deerfield main-season trial (NJ1) and Pittstown late-season trial (NJ2).
³The five trial locations in New York were Riverhead, Long Island (NY1), Freeville (NY2), Wayne County, muck soil (NY3), Steuben County (NY4), Wyoming County (NY5).
⁴There were four trial locations in Pennsylvania (Rock Springs [PA1], Erie County [PA2], Lehigh County [PA3], and Somerset County [PA4]).
 Additional note: ME and NY had several clones tested in two or more trials per location. For these states, means are presented by location rather than by trial.

East Region Trial Table 5. Percentage yield of tubers in the 2.5 to 4 inch size range for round whites and reds and russets (greater than eight ounces at most locations) for 14 named varieties and 22 numbered clones grown at 20 locations in the Eastern United States and Eastern Canada.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA34	PA4 ⁴	PEI	QC	VA	Mean
Round Whites																					
Atlantic	61	76	74	40	60	50	77	61	48	81	95	88		76	61	64	68	77	13		63
Katahdin	73	51	64	13	47	57	90	60	49					75	48	55	64	79	30		56
Kennebec	68	60	84	23	54			48						69				75	39		57
Snowden	46	64	35	5	48	41		40			91	80		60	33	35	47		43		47
Sunbury, AC	79		81	19	55									64				85			64
Superior	65	59	78	3	42	30	64	34	49					63				50	16		47
Yukon Gold	69	73	73	12	46	56	85		59					65				66	26		58
AF2115-1	66	51	76	9	36			55						57							50
AF2206-9	16	19	32		10	8		9	27					36			31	31	6	24	21
AF2207-4	37	44			30									45					32		38
AF2211-2	62	75	56					53						72					49	42	58
AF2211-9	41	56	46		52	28		52	33					61		69	57	73	43	64	52
AF2215-1	45	66	45	8	36			26						69		57			36		43
AF2222-2					22									59	47						43
AF2290-8	71	54	66		30			44						53						46	52
AF2291-10	60	66	62			45	80							64	53		60		47	53	59
B1806-8	44	31	39	10	33	31		20	16	47				63		18		47	56	49	36
NY120	42	48		13		34		35	35		84	80		60					26		47
NY125	34		55	3	21	15	51	25	26	64				53	50	20	58	71	14	54	40
NY126	59	63	73	16	62	63	90	74	59	85				77	49	59	72	72	14	54	61
NY127	48		54	23	44	42		49	49					57					19		42
NY128	40	52		8	36	29		36	36	63				63							41

East Region Trial Table 5. Continued.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY2 ³	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	PA4 ⁴	PEI	QC	VA	Mean
Red and Purple Clones																					
Chieftain	57			19	46	46	68	61	55	76				69	65	65	64		18		53
Dk Rd Norland	43			3	8	23	45		48	77				50				39	30	32	36
Red Island, AC	44			7	15									44				41	30		32
B1816-5	12			6	21	18	30	10	18	64				24				21	0	24	21
B1952-2	41			18	31	30	61		40	81				67				63	23	37	47
NDTX731-1R	56			2	22	60	83		49	91				74					37	39	51
NY129	55			25	45	62	80	69	72					76	38	59	72	65	49	31	56
Russets/Long Whites																					
R Burbank	41			13	3				37					24				43	16		25
R Norkotah	36			12		10	48		71					56					11	17	27
Shepody	53													58				62	20		49
Stampede Rus.	37					19	54													9	32
A9014-2	48					31	60		36					45				68	0	8	36
AF1808-18	45													37				57	23		41
AF2199-6	19					22	28		29					53				29	24	1	25

¹Trials were conducted in three Maine locations, Presque Isle (ME1), Exeter (ME2), and St. Agatha (ME3).

²The two trial locations for New Jersey were Upper Deerfield main-season trial (NJ1) and Pittstown late-season trial (NJ2).

³The five trial locations in New York were Riverhead, Long Island (NY1), Freeville (NY2), Wayne County, muck soil (NY3), Steuben County (NY4), Wyoming County (NY5).

⁴There were four trial locations in Pennsylvania (Rock Springs [PA1], Erie County [PA2], Lehigh County [PA3], and Somerset County [PA4]).

Additional note: ME and NY had several clones tested in two or more trials per location. For these states, means are presented by location rather than by trial.

East Region Trial Table 6. Average (sites x years) US#1 yield, specific gravity, and tuber size distribution relative to standard varieties, tuber appearance and shape ratings, chip color, and bake and boil scores for 14 named and 22 numbered round-white clones. Number of comparisons (sites x years) are in parentheses.

Variety	Year(s)	Comparison to Std ¹				Chip Color ⁴							Boil Score ⁷	Bake Score										
		US#1 % of std	Spec. Grav.	Size Distrib.	Appearance Rating ²	Shape Rating ³	Out of Field ⁵	50-55°F Storage	45°F Storage	Reconditioned ⁶														
Round Whites																								
Atlantic	2005	100(24)	0(24)	0(23)	5.7(21)	2.1(20)	0	1	0	5	4	5	1	3	3	4	4	5	1	1	5	1	0	0
Atlantic	16	100(307)	0(301)	0(252)	6.3(275)	2.0(194)	35	22	6	79	26	29	24	14	23	43	26	18	26	16	34	23	9	3
Katahdin	2005	87(17)	-15(17)	-4(16)	5.5(17)	2.6(16)	0	1	0	0	1	4	0	0	2	0	0	2	2	0	1	2	0	0
Katahdin	16	93(211)	-15(198)	-2(170)	6.1(210)	2.7(145)	10	8	14	5	18	51	0	1	35	2	2	30	35	23	2	23	13	3
Kennebec	2005	91(11)	-11(11)	-2(10)	4.7(11)	4.5(10)	1	0	0	1	2	4	0	0	3	0	0	3	1	1	0	1	0	0
Kennebec	16	93(189)	-12(186)	0(152)	5.3(185)	4.5(109)	10	5	16	27	22	48	4	2	33	7	2	33	26	20	6	18	14	4
Snowden	2005	103(18)	-2(18)	-14(17)	5.1(16)	1.9(15)	0	1	0	7	3	0	3	3	0	9	1	0	0	1	4	0	0	1
Snowden	14	98(174)	-1(165)	-15(135)	5.6(170)	2.0(121)	33	4	1	65	16	10	26	10	5	47	7	2	9	11	19	8	2	5
Sunbury, AC	2005	80(6)	-6(6)	-1(6)	6.3(6)	3.2(6)	0	0	1	0	0	2	0	0	1	0	0	1	1	0	0	0	1	0
Sunbury, AC	3	74(27)	-8(23)	0(27)	6.5(28)	3.2(24)	1	2	1	0	0	6	0	0	2	0	0	3	1	2	1	2	1	0
Superior	2005	84(14)	-11(14)	-13(13)	5.7(14)	3.6(13)	0	0	1	0	1	5	0	0	2	0	0	2	1	2	0	2	0	0
Superior	16	87(196)	-11(186)	-8(154)	5.9(195)	3.1(145)	25	14	19	21	24	39	1	5	26	2	6	20	31	22	6	20	14	4
Yukon Gold	2005	79(13)	-5(13)	-2(12)	6.3(13)	2.8(12)	0	0	0	1	0	5	0	0	2	0	0	2	1	2	0	2	0	0
Yukon Gold	16	84(149)	-7(137)	1(115)	6.6(155)	3.0(108)	5	1	4	6	12	44	0	1	18	0	2	18	20	14	4	14	5	0
AF2115-1	2005	80(7)	-11(7)	-13(7)	5.6(7)	3.9(7)	0	1	0	0	0	5	0	0	2	0	0	2	2	0	0	1	0	0
AF2115-1	3	84(28)	-10(24)	-9(27)	5.7(29)	3.7(25)	3	1	0	1	0	16	0	0	7	0	1	9	6	0	0	2	2	0
AF2206-9	2005	66(13)	-4(13)	-40(12)	4.9(13)	3.3(12)	1	0	0	8	0	0	1	2	1	2	1	1	1	0	0	1	0	0
AF2207-4	2005	82(5)	8(5)	-19(5)	4.0(5)	3.8(4)	0	1	0	2	2	1	1	0	2	0	0	3	0	0	1	1	0	0
AF2207-4	3	71(27)	4(23)	-23(26)	4.7(28)	3.5(23)	3	1	0	9	8	1	1	1	5	3	2	4	0	1	2	1	0	0
AF2211-2	2005	84(8)	-7(8)	-1(7)	5.4(8)	2.0(7)	0	0	0	5	1	1	0	0	3	0	1	2	1	0	0	1	0	0
AF2211-9	2005	84(14)	-2(14)	-9(13)	6.0(14)	2.2(13)	1	0	0	8	0	0	2	1	2	1	2	2	0	1	0	1	0	0
AF2215-1	2005	88(10)	2(10)	-14(9)	5.3(10)	2.5(9)	0	0	1	6	2	0	1	1	2	2	0	2	1	1	0	1	0	0
AF2215-1	3	87(30)	0(26)	-11(28)	5.3(31)	2.8(26)	2	0	1	18	6	0	3	3	4	8	3	3	1	4	0	2	0	0
AF2222-2	2005	86(4)	-5(4)	-23(3)	5.0(4)	2.8(4)	0	1	0	3	0	0	0	1	1	1	1	0	0	0	1	1	0	0
AF2222-2	3	71(25)	-10(21)	-27(23)	6.0(26)	2.1(23)	2	1	0	10	0	0	2	4	1	5	3	1	0	1	3	2	0	0
AF2290-8	2005	83(7)	-27(7)	-13(7)	5.5(7)	3.7(7)	0	0	1	0	0	6	0	0	3	0	0	3	0	1	0	1	0	0
AF2291-10	2005	92(12)	0(12)	-3(10)	5.0(12)	2.4(11)	0	0	0	7	2	0	1	1	3	3	0	2	0	0	1	1	0	0
B1806-8	2005	83(15)	-9(15)	-25(14)	5.5(14)	3.0(13)	0	0	0	2	2	3	0	1	3	0	1	3	1	2	0	2	0	0
B1806-8	3	88(36)	-10(32)	-20(34)	6.1(36)	3.3(31)	4	0	0	2	4	9	0	1	7	1	3	6	3	2	1	4	0	0

East Region Trial Table 6. Continued.

Variety	Year(s)	US#1 % of std	Spec. Grav.	Size Distrib.	Appear- ance Rating ²	Shape Rating ³	Out of Field ⁵	Chip Color ⁴				Recon- ditioned ⁶	Boil Score ⁷	Bake Score											
								50-55°F Storage	45°F Storage	50-55°F Storage	45°F Storage														
NY120	2005	90(10)	-11(10)	-13(9)	5.5(8)	1.9(7)	0	0	3	3	0	1	2	1	0	0	1	0							
NY120	3	85(36)	-10(32)	-19(31)	6.3(32)	1.9(27)	5	0	8	5	4	1	1	7	4	5	6	4	0	1	1	0			
NY125	2005	94(16)	-13(16)	-25(15)	5.8(15)	3.4(15)	0	0	3	2	2	2	0	3	1	1	3	2	1	0	1	0	0		
NY125	3	94(42)	-14(38)	-20(39)	6.0(40)	3.3(35)	2	0	4	4	7	2	0	6	2	2	6	5	4	0	3	0	0		
NY126	2005	107(18)	-7(18)	-1(17)	6.1(17)	2.8(16)	1	0	7	3	0	0	2	4	2	3	2	3	1	0	1	0	1	0	
NY126	3	109(51)	-9(47)	0(48)	5.9(48)	3.1(43)	5	0	17	4	3	3	4	6	5	7	5	8	1	0	2	1	0	0	
NY127	2005	96(9)	-14(9)	-11(8)	5.5(9)	2.1(8)	1	0	1	0	3	0	0	1	0	0	1	1	1	0	0	1	0	0	
NY127	3	96(37)	-17(33)	-10(34)	5.7(36)	2.0(29)	5	0	1	2	8	0	0	4	0	1	4	4	4	0	2	1	0	0	
NY128	2005	94(9)	-8(9)	-21(8)	5.7(9)	1.9(8)	0	1	3	3	0	0	0	3	2	0	2	0	1	1	0	1	0	0	
NY128	3	94(42)	-8(38)	-17(37)	6.0(36)	1.9(31)	5	1	0	9	6	3	5	2	5	10	3	5	0	3	8	2	1	0	
Red and Purple Clones																									
Chieftain	2005	100(15)	0(15)	0(15)	5.2(14)	3.0(13)	0	0	0	0	2	0	0	0	0	0	0	0	2	1	0	1	0	0	0
Chieftain	16	100(140)	0(129)	0(110)	5.9(126)	2.8(81)	1	0	2	0	3	31	0	3	0	1	2	21	5	1	7	2	0	0	0
Norland, Dk Red	2005	77(10)	-4(10)	-14(10)	5.6(12)	3.0(10)	0	0	0	0	2	0	0	0	0	0	0	0	2	2	0	2	0	0	0
Norland, Dk Red	13	77(102)	-5(92)	-16(92)	6.1(120)	3.0(87)	2	1	4	6	9	14	0	0	2	1	1	12	9	3	9	3	1	0	0
Red Island, AC	2005	90(6)	8(6)	-13(6)	5.0(7)	3.3(6)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Red Island, AC	3	95(26)	8(23)	-8(26)	5.7(30)	3.4(25)	0	0	0	2	2	0	0	0	0	0	0	1	1	0	2	0	0	0	0
B1816-5	2005	73(11)	9(11)	-29(10)	5.2(13)	3.8(12)	0	0	2	1	0	0	0	0	0	0	0	3	1	0	1	0	1	0	0
B1952-2	2005	84(10)	11(10)	-4(10)	5.4(11)	3(10)	0	0	0	1	1	0	0	0	0	0	0	1	2	1	1	1	0	0	0
NDTX731-1R	2005	112(11)	-4(11)	1(11)	6.1(11)	2.0(10)	0	0	0	0	2	0	0	0	0	0	0	1	1	1	1	1	0	0	0
NDTX731-1R	3	108(36)	-6(32)	-2(34)	6.5(37)	1.9(33)	0	0	0	0	6	0	0	0	0	0	0	3	3	1	1	2	0	0	0
NY129	2005	106(14)	-1(14)	6(14)	5.8(17)	2.1(17)	0	0	0	0	3	0	0	0	0	0	0	2	0	2	0	0	1	0	0
NY129	3	107(41)	0(37)	4(38)	6.1(45)	2.2(41)	0	0	0	0	10	0	0	0	0	0	0	3	3	2	1	1	0	0	0

East Region Trial Table 6. Continued.

Variety	Year(s)	Comparison to Std ¹			Appearance Rating ²	Shape Rating ³	Out of Field ⁵	Chip Color ⁴			Reconditioned ⁶	Boil Score ⁷	Bake Score													
		US#1 % of std	Spec. Grav.	Size Distrib.				50-55°F Storage	45°F Storage	50-55°F Storage																
Russets/Long Whites																										
Russet Burbank	2005	98(6)	5(6)	-6(6)	4.3(7)	6.4(6)	0	0	0	0	0	1	0	1	2	1	1	0								
Russet Burbank	16	94(58)	7(49)	-7(46)	4.1(59)	7.3(66)	0	1	0	1	6	36	0	0	21	0	1	19	21	10	10	16	15	1		
Russet Norkotah	2005	100(9)	0(8)	0(9)	6.1(9)	6.4(8)	0	0	0	0	0	2	0	0	1	0	0	1	0	1	2	1	1	0		
Russet Norkotah	9	100(85)	0(78)	0(68)	6.5(78)	6.5(66)	0	0	0	0	0	3	31	0	0	14	0	0	12	9	4	7	7	5	2	
Shepody	2005	115(4)	4(4)	11(4)	5.2(5)	5.8(4)	0	0	0	0	0	0	3	0	0	1	0	0	1	0	1	0	1	0	0	
Shepody	9	99(45)	7(37)	16(34)	5.0(46)	6.8(31)	0	0	0	1	4	16	0	0	9	0	0	0	9	3	5	0	2	0	0	
Stampede Russet	2005	146(5)	-11(4)	11(5)	6.6(5)	7.4(5)	0	0	0	0	0	3	0	0	1	0	0	1	0	0	1	0	0	0	0	
Stampede Russet	2	124(10)	-11(9)	8(10)	6.7(10)	7.3(10)	0	0	0	0	0	5	0	0	2	0	0	2	0	2	1	0	0	0	0	
A9014-2	2005	131(8)	8(7)	3(8)	6.2(9)	6.8(8)	0	0	0	0	1	2	0	0	1	0	0	1	0	1	2	1	0	2	0	0
A9014-2	4	124(29)	9(26)	5(29)	5.9(32)	6.7(30)	0	0	0	2	2	6	0	2	1	0	0	3	4	4	0	5	1	0	0	
AF1808-18	2005	96(4)	6(4)	3(4)	6.2(4)	6.0(4)	0	0	0	0	0	3	0	0	1	0	0	1	0	1	0	0	1	0	0	
AF1808-18	3	86(19)	7(17)	6(19)	5.7(21)	6.2(18)	0	0	0	0	0	10	0	0	3	0	0	3	0	2	2	1	1	3	0	
AF2199-6	2005	83(8)	8(7)	-5(8)	5.3(9)	6.4(8)	0	0	0	0	2	1	0	0	1	0	0	1	0	1	1	0	1	2	0	0

¹Standard varieties were as follows: Atlantic was used as the standard for all whites; Chieftain was used for all reds; and Russet Norkotah was used for all russets and long-tuber-type clones. All relative comparisons are calculated by location and then averaged over locations for presentation. US#1 data are the relative yield as a percentage of the standard. Specific gravity data (1.0 excluded) are the difference vs the standard (minus sign indicates lower specific gravity than the standard). Size distribution for whites and reds is the percentage of yield from 2½ to 4 inches in diameter and is expressed as the difference relative to the standard (minus sign indicates smaller tubers than standard). Size distribution for the russet and long varieties is calculated the same way, but is based on the percentage of yield consisting of tubers greater than 8 oz in weight.

²Average value from visual ratings using standard NE1014 rating codes where 1 = very poor appearance and 9 = excellent appearance.

³Average value from visual ratings using standard NE1014 rating codes where 1 = round, 5 = oblong, and 8 = long.

⁴From left to right, the number of trials with good, borderline, and poor chipping scores, respectively.

⁵Out of field samples were fired three to 12 days after harvest in New Jersey, North Carolina, Virginia, and the New York early maturity trial.

⁶Chips were reconditioned in Maine, Upstate New York, New Brunswick, and Ohio trials. Initial storage temperature ranged from 38 to 45°F.

⁷From left to right, the number of trials with good, borderline, and poor boil and bake scores, respectively. Data are from Maine, New Brunswick, New York, Pennsylvania, and Ohio.

East Region Trial Table 7. Average (sites x years) percentage tuber defects for 14 named and 22 numbered round-white clones. Number of comparisons (sites x years) are in parentheses.

Variety	Year(s)	% External Tuber Defects				% Internal Tuber Defects ²		
		Total ¹	Sunburn	Mis-shapen	Growth cracks	Hollow Heart	Internal Necrosis	Vascular Discolor.
Round Whites								
Atlantic	2005	6.6(23)	2.5(14)	1.5(14)	0.7(14)	14.9(23)	24.2(17)	3.1(8)
Atlantic	16	8.4(186)	4.0(142)	2.0(145)	1.2(148)	9.4(217)	21.6(146)	4.0(50)
Katahdin	2005	9.1(16)	5.1(7)	1.5(7)	0.6(7)	2.2(16)	6.3(12)	4.2(3)
Katahdin	16	11.4(140)	7.0(102)	1.4(97)	0.6(104)	4.7(179)	6.1(107)	3.0(26)
Kennebec	2005	18.3(10)	7.4(6)	6.1(6)	1.2(6)	0.8(10)	2.6(6)	0.8(3)
Kennebec	16	20.9(112)	9.3(85)	5.1(85)	3.0(80)	3.0(135)	3.9(81)	4.5(20)
Snowden	2005	5.3(16)	1.4(8)	2.2(8)	0.3(8)	8.1(16)	3.7(13)	4.6(6)
Snowden	14	5.5(100)	2.7(77)	1.7(77)	0.3(77)	4.0(132)	2.7(93)	10.9(34)
Sunbury, AC	2005	4.1(6)	0.7(4)	0.2(4)	0.7(4)	9.4(6)	0.0(3)	0.0(1)
Sunbury, AC	3	7.8(26)	1.1(15)	1.1(15)	0.6(15)	9.4(24)	3.4(17)	0.0(6)
Superior	2005	7.0(13)	0.8(7)	2.3(7)	1.0(7)	2.7(13)	2.5(9)	8.3(3)
Superior	16	7.5(133)	1.6(96)	3.1(96)	0.9(98)	1.5(161)	2.1(115)	4.2(28)
Yukon Gold	2005	10.7(12)	1.5(6)	2.9(6)	0.6(6)	3.8(12)	3.8(8)	3.3(3)
Yukon Gold	16	11.1(101)	4.0(70)	2.5(70)	0.9(71)	5.9(111)	5.8(83)	2.1(24)
AF2115-1	2005	14.3(7)	5.2(5)	4.8(5)	0.1(5)	0.0(7)	0.0(4)	0.0(2)
AF2115-1	3	13.6(26)	7.2(17)	3.0(17)	0.9(17)	1.7(25)	1.4(16)	1.4(7)
AF2206-9	2005	8.2(12)	0.8(6)	2.8(6)	0.6(6)	2.5(12)	1.4(8)	5.0(3)
AF2207-4	2005	10.7(4)	7.8(2)	2.8(2)	1.2(2)	11.0(4)	0.0(2)	0.0(1)
AF2207-4	3	12.4(22)	9.2(12)	1.4(12)	1.1(12)	12.2(23)	1.7(15)	0.0(6)
AF2211-2	2005	24.3(7)	5.5(4)	5.2(4)	1.9(4)	5.7(7)	1.2(4)	1.2(2)
AF2211-9	2005	12.8(13)	6.6(6)	1.1(6)	1.3(6)	10.6(13)	18.4(9)	8.3(3)
AF2215-1	2005	8.1(9)	1.9(5)	1.9(5)	0.4(5)	3.5(9)	4.2(6)	0.0(3)
AF2215-1	3	9.7(26)	4.1(15)	1.8(15)	0.6(15)	3.9(26)	2.1(18)	1.1(9)
AF2222-2	2005	14.0(4)	(0)	(0)	(0)	10.9(4)	20.1(4)	0.0(2)
AF2222-2	3	7.1(22)	1.3(12)	1.7(12)	0.2(12)	7.8(22)	5.4(16)	0.0(8)
AF2290-8	2005	8.8(7)	2.2(4)	5.4(4)	0.2(4)	3.9(7)	22.5(4)	15.2(2)
AF2291-10	2005	12.3(11)	2.9(4)	6.0(4)	0.3(4)	12.4(11)	5.3(8)	5.0(2)
B1806-8	2005	9.0(14)	1.5(8)	0.2(8)	0.0(8)	1.7(14)	0.2(10)	3.1(4)
B1806-8	3	8.3(33)	2.5(17)	0.4(17)	0.3(17)	5.8(32)	0.2(23)	1.6(8)
NY120	2005	4.7(9)	1.0(6)	1.2(6)	0.2(6)	2.6(9)	0.0(7)	0.0(4)
NY120	3	5.7(34)	1.9(23)	0.7(23)	0.3(23)	3.2(32)	0.4(24)	2.5(13)
NY125	2005	6.0(16)	2.8(7)	0.4(7)	0.0(7)	2.0(16)	0.6(13)	11.2(4)
NY125	3	6.7(36)	3.9(18)	0.9(18)	0.1(18)	4.4(38)	0.6(31)	6.4(12)
NY126	2005	8.0(17)	2.1(8)	1.4(8)	0.2(8)	8.2(17)	0.2(13)	5.0(4)
NY126	3	7.9(44)	2.6(24)	1.8(24)	0.5(24)	7.6(46)	0.9(36)	6.9(12)
NY127	2005	11.4(8)	2.6(4)	1.9(4)	2.4(4)	0.0(8)	0.0(7)	3.3(3)
NY127	3	11.9(30)	4.1(18)	1.8(18)	1.8(18)	0.8(32)	0.1(27)	8.8(12)
NY128	2005	5.2(9)	3.4(5)	2.0(5)	0.5(5)	5.8(9)	0.0(7)	8.1(4)
NY128	3	5.9(36)	3.3(22)	1.1(22)	0.2(22)	7.6(38)	0.8(31)	7.4(16)
Red and Purple Clones								
Chieftain	2005	8.5(14)	1.1(7)	1.3(7)	1.1(7)	1.5(14)	12.3(11)	12.7(3)
Chieftain	16	7.0(92)	1.5(63)	1.4(65)	1.3(64)	1.0(108)	13.4(73)	4.1(23)
Norland, Dk Red	2005	8.6(12)	0.7(6)	1.2(6)	1.5(6)	0.4(12)	1.4(9)	8.8(4)
Norland, Dk Red	13	5.5(79)	1.1(50)	1.6(49)	1.3(41)	0.8(94)	0.8(76)	3.8(24)
Red Island, AC	2005	2.9(6)	1.4(4)	0.5(4)	0.0(4)	0.0(6)	4.2(3)	5.0(1)
Red Island, AC	3	7.2(28)	2.1(15)	1.3(15)	0.7(15)	0.2(26)	7.7(19)	14.3(7)

East Region Trial Table 7. Continued.

Variety	Year(s)	% External Tuber Defects				% Internal Tuber Defects ²		
		Total ¹	Sunburn	Mis-shapen	Growth cracks	Hollow Heart	Internal Necrosis	Vascular Discolor.
B1816-5	2005	8.0(13)	0.9(7)	3.4(7)	0.3(7)	0.2(13)	1.6(10)	3.8(4)
B1952-2	2005	7.3(11)	1.1(6)	3.2(6)	3.2(6)	0.9(11)	0.0(8)	17.7(3)
NDTX731-1R	2005	4.3(11)	1.1(6)	2.0(6)	1.0(6)	0.4(11)	1.5(8)	26.0(3)
NDTX731-1R	3	5.8(36)	1.1(20)	2.1(20)	2.3(20)	0.8(35)	1.4(26)	12.5(11)
NY129	2005	5.7(16)	1.3(7)	0.7(7)	0.7(7)	1.2(16)	5.3(12)	6.7(3)
NY129	3	4.6(44)	1.0(22)	0.7(22)	0.8(22)	0.8(42)	4.0(32)	8.2(11)
Russets/Long Whites								
Russet Burbank	2005	27.4(6)	0.8(5)	18.7(5)	2.5(5)	3.3(6)	0.3(3)	5.0(1)
Russet Burbank	16	21.6(80)	1.3(70)	15.8(70)	1.3(66)	7.8(87)	6.8(43)	3.0(10)
Russet Norkotah	2005	8.4(8)	0.7(4)	6.2(4)	0.5(4)	5.4(7)	2.2(5)	0.0(1)
Russet Norkotah	9	9.0(54)	1.5(37)	4.8(37)	0.6(37)	5.8(63)	1.3(39)	1.2(9)
Shepody	2005	24.8(4)	5.2(3)	13.5(3)	0.1(3)	7.8(4)	0.0(1)	(0)
Shepody	9	31.6(30)	7.1(26)	12.1(26)	0.6(26)	5.5(34)	1.9(14)	4.8(9)
Stampede Russet	2005	7.0(5)	3.0(2)	4.7(2)	0.5(2)	0.0(4)	0.0(2)	(0)
Stampede Russet	2	8.0(10)	2.3(5)	4.9(5)	0.8(5)	0.8(9)	0.5(5)	10.0(1)
A9014-2	2005	15.3(8)	3.0(4)	13.1(4)	1.0(4)	14.5(7)	0.6(4)	0.0(1)
A9014-2	4	12.3(31)	1.3(19)	7.3(19)	0.6(19)	10.7(27)	0.8(22)	2.1(6)
AF1808-18	2005	23.4(4)	6.2(3)	7.2(3)	2.0(3)	3.8(4)	0.0(1)	(0)
AF1808-18	3	21.1(19)	7.5(13)	6.9(13)	1.4(13)	6.7(18)	0.2(11)	9.2(3)
AF2199-6	2005	13.7(8)	1.1(4)	11.5(4)	3.0(4)	3.9(8)	4.0(5)	10.0(1)

¹Total defects may contain defects (common scab, rot, etc.) other than the three categories listed in this table.

²Typically 30 to 40 tubers per clone are cut and examined for internal defects at each location. For most eastern test locations where internal necrosis is reported the specific internal defect being rated is internal heat necrosis (IHN).



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