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Gregory Porter

Chad Hutchinson

J. Marion White

Paul Ocaya

Craig Yencho

See next page for additional authors

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Authors

Gregory Porter, Chad Hutchinson, J. Marion White, Paul Ocaya, Craig Yencho, Mark Clough, Dale Moyer, Joe Siczka, Don Halseth, Matt Kleinhenz, David Kelly, Barbara Christ, Pierre Turcotte, Daniel Harvey, Gilles Hamel, and Rikki Sterrett

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**Florida, Chad Hutchinson and J. Marion White
Maine, Gregory Porter and Paul Ocaya
North Carolina, Craig Yencho and Mark Clough
New Jersey, Mel Henninger
Long Island, New York, Dale Moyer and Joe Siczka
Upstate New York, Don Halseth
Ohio, Matt Kleinhenz and David Kelly
Pennsylvania, Barbara Christ
Quebec, Pierre Turcotte, Daniel Harvey, and Gilles Hamel
Virginia, Rikki Sterrett**

Eastern Regional Potato Trials 2004:
Summary of NE1014 Regional Project Field Testing of New
Potato Clones

Gregory A. Porter
Professor of Agronomy

Cooperators in 2004

Chad Hutchinson and J. Marion White
Gregory Porter and Paul Ocaya
Craig Yencho and Mark Clough
Mel Henninger
Dale Moyer and Joe Sieczka
Don Halseth
Matt Kleinhenz and David Kelly
Barbara Christ
Pierre Turcotte, Daniel Harvey, and Gilles Hamel
Rikki Sterrett

Department of Plant, Soil & Environmental Sciences
University of Maine
Orono, ME 04469

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Nineteen trials were conducted in eight states and one Canadian province. Fourteen named varieties and 23 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 University of 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) 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

White-skinned cultivars

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. For round whites, Atlantic, Kennebec, Snowden, AF1569-2, NY125, NY126, NY127, and NY128 had the highest total yields (Table 2). Snowden, NY125, NY126, NY127, and NY128 were the only clones in the 2004 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 102%, 101%, 108%, 107%, and 101% those of Atlantic, respectively. AF1569-2 and B1806-8 also provided relatively high marketable yields (averaging 92% and 98% of Atlantic, respectively). Specific gravities of Snowden, AF1455-20, AF2207-4, and AF2215-1 were close to or greater than Atlantic at comparable sites (Tables 4 and 6). SC8801-2 had an average specific gravity below 1.070. Atlantic, Katahdin, Kennebec, AC Sunbury, Yukon Gold, AF1455-20, AF1569-2, B1240-1, B1826-1, NY126, and SC8801-2 sized well in

most trials (Tables 5 and 6). Snowden, AF2207-4, AF2222-2, B1806-8, NY120, NY125, and NY128 had small tuber size. AC Sunbury, Yukon Gold, and B1806-8 had particularly good external appearance ratings. Snowden and AF2207-4 chipped well in most 2004 tests. In addition to these lines, Atlantic, Superior, AF1455-20, AF1569-2, AF2115-1, AF2215-1, AF2222-2, B1240-1, B1806-8, NY120, NY125, NY126, NY127, and NY128 produced good chips out of the field. AF2115-1 and NY126 scored particularly well in boiling tests. All of the new clones scored well in baking tests (Table 6).

Most of the white cultivars and clones had relatively high incidences of external tuber defects during 2004 (Table 7). Twelve of 22 had more than 10% external defects. Clones with a low incidence of external defects incidence (less than 9%) during 2004 were Snowden, AF2215-1, AF2222-2, B1806-8, NY120, NY125, NY126, and NY128. Atlantic, Katahdin, AC Sunbury, Yukon Gold, AF2207-4, B1240-1, B1806-8, and NY128 had high incidences of hollow heart. Atlantic, Katahdin, and AC Sunbury had the highest incidence of internal necrosis. Kennebec, Snowden, and AF1455-20 had very high incidence of vascular discoloration. Atlantic, Katahdin, Superior, B1826-1, NY126, NY127, and NY128 had moderate incidence.

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 acceptable 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. Both clones had some vascular discoloration during 2004. AC Red Island has a dark red, netted skin, and oblong to round tubers. It is susceptible to internal necrosis and vascular discoloration. Considering all attributes, NDTX731-1R was the best red clone in the trials.

Russet-skinned cultivars

In the trials of russeted and long-tuber-type varieties, Russet Burbank and A90586-11 had very high total yields, while A9014-2, A90586-11, and ATX84706-2Ru had the highest average US#1 yields (Tables 2 and 3). Shepody, Stampede Rus-

set, A9014-2, A90586-11, and ATX84706-2Ru had US#1 yields equaling or exceeding those of Russet Norkotah (Tables 3 and 6). Across sites, these varieties had US#1 yields averaging 103%, 102%, 120%, 106%, and 124% those of Russet Norkotah, respectively. Specific gravities of Russet Burbank, A9014-2, A90586-11, and AF1808-18 were greater than or equal to 1.080 (Table 4). Shepody and ATX84706-2Ru had very large tuber size (Tables 5 and 6). Russet Norkotah and Stampede Russet had very good tuber appearance (Table 6). A9014-2, A90586-11, AF1808-18, AF1866-8, AF2133-17, and ATX84706-2Ru had fair tuber appearance. Shepody, Stampede Russet, A9014-2, AF1866-8, and AF2133-17 had acceptable boiled quality scores during 2004, while Shepody, A9014-2, A90586-11, AF1866-8, and AF2133-17 received good baked quality scores (Table 6).

Only Russet Norkotah, Stampede Russet, and A9014-2 had acceptable incidence of external defects incidence (<15%) during 2004 (Table 7). Stampede Russet and AF2133-17 had low hollow heart incidence. None of the russeted/long-type clones had high levels of internal necrosis.

Promising 2004 clones

NY126, a yellow-fleshed clone, showed good promise for dual-purpose chipping and fresh use during 2004. NY125 shows promise for fresh markets that do not require large tuber size. AF2215-1 has provided a reasonable combination of high specific gravity, acceptable chip color, and freedom from internal/external defects, but yields in regional small-plot trials have been marginal at best. It is not acceptable for fresh market. NDTX731-1R was the most promising red-skinned clone. NY129 is also a promising red. Stampede Russet and A9014-2 were the most promising russet/long-white clones tested in 2004. Several additional red-, russet-, and white-skinned clones showed promise during 2004, but will require another year of testing before making decisions on commercialization potential.

East Region Trial Table 1. General characteristics and known disease resistance for 14 named varieties and 23 numbered clones grown at 19 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	
							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 Wischp	BuTan	N	OW	R	Chip		CS
Sunbury, AC	Raritan x Agitato	BuYl	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	BuYl	S	YF2	RO	Table	PLRV, PVA	
AF1455-20	AF988-2 OP	BuWh	SN	OW	R	Table/Chip ⁷	GN, NN, VW, PVY	
AF1569-2	Portage x Sunrise	BuWh	SN	Wh	RO	Table	NN	
AF2115-1	Goldrus x Penobscot	White	S	Wh	OR	Table/Chip ⁷	NN	
AF2207-4	AF637-1 x AF879-18	BuWh	SN	OW	RO	Chip	GN, NN	VW
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	
B1240-1	B0172-22 x B0186-3	BuTan	SN	OW	RO	Table/Chip ⁷	GN, PVS	EB
B1806-8	B0925-4 x B0809-10	BuYl	S	YF1½	OR	Table/Chip ⁷		
B1826-1	B1110-10 x B0807-2	White	S	Wh	RO	Table/Chip	GN	
NY120	Kanona x AF186-2	BuTan	N	Wh	R	Chip ⁷	GN	CS
NY125	Keuka Gold x Genesee	BuYl	SN	YF1	RO	Table	GN	CS
NY126	Keuka Gold x Pike	BuYl	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
SC8801-2	Abnaki x SA8207-3	BuWh	S	Wh	O	Table	NN, PLRV	CS
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
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	
							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 Russet	BR7091-1 x Lemhi Russet	Brown	Ru2	OW	L	Table	CS, Fdr	EB, VW
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
AF1866-8	(AF1166-4 x CS79123) x AF235-5	Brown	Ru2	Wh	O	Table	NN	PSc
AF2133-17	AF522-5 x CS79123-12	Brown	Ru2	Wh	OL	Table	GN, NN	PSc
ATX84706-2Ru	A7938-1 x COA7906-5	BuTan	SN	OW	OL	Processing		

¹Origin of Numbered Clones: A = USDA-ARS Aberdeen, ID, and Univ. of ID; AF, SC = Univ. of Maine, Aroostook Research Farm, Presque Isle, ME; ATX = Cross by USDA-ARS Aberdeen, ID, but selected by Texas A&M, College Station, TX; 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 2003 subjective ratings from four representative locations (ME, NJ, NY, NC), where: 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.

³See cautions in footnote #2. This table summarizes 2003 subjective ratings from four representative locations (ME, NJ, NY, NC), where: S = smooth; SN = slight net; N = netted; Ru = russeted (1 = light; 2 = moderate; 3 = heavy).

⁴See cautions in footnote #2. This table summarizes 2003 subjective ratings from Maine, where: 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, where: 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 23 numbered clones grown at 19 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	QC1 ⁵	QC2 ⁵	VA	Mean
Round Whites																				
Atlantic	449	406	410	498	245	375	440	513	420	281	332	407	296	552	432	478	376	457	431	413
Katahdin	428	393	344	195	351	421	421	537	434				275	491	377	514	413	398	387	397
Kennebec	452	466	440	179	338	444	444	663	437				240	623			423	485	469	435
Snowden	353	382	351	426	256	412		555	508		372	449	230	516	470	527	332	359	383	410
Sunbury, AC	360		354	332	183	196	288		276					379			364	355		309
Superior	377	310	424	168	294	290	290	476	323	224			203	442			270	404	341	323
Yukon Gold	409	388	359	362	186	410	191		364				242	436			300	448	322	342
AF1455-20	343	397	373	312		230			412				277	501			385	400		363
AF1569-2													242	588	393		380	454	489	424
AF2115-1	384	286	380	412	246				389				240	530	477		402	400		377
AF2207-4	326	290	329	174									231	453	454		378	404		338
AF2215-1	360	318	370	353	260				369				250	516	346		361	428		357
AF2222-2	304	244	279	351	194				300				217	407			351	246		289
B1240-1	418	453	393	176	309	507							227	580			369	445		388
B1806-8	378	297	369	478	311	430		475					237	510			395	403	463	396
B1826-1	490	397	384	247	320				440				242	496			388	365		377
NY120	394	290	408	479	198	272			270				245	415			367	347	439	344
NY125	468		347	223	345			654	405	389			250	496	445	646	333	403	392	414
NY126	431	447	404	406	244	375		559	416	367			219	571	351	588	412	421	391	413
NY127	450		435	531	289	426		569	485	258	473		196	634			402	480		433
NY128	353	413		397	221			547	425	326	336	393	279	534	440	621	303	510	438	409
SC8801-2	486	314	385			377								477			373	344		394
Red Clones																				
Chieftain	399		454	425	243	366	454	581	505	254				532	428	602	377	430		430
Dk Rd Norland	321		340	330	149	363			378	304			235	403	321		333	410	423	332
Red Island, AC	355		387	363	136	407	554		467	254			268	578			380	429	444	386
NDTX731-1R	392		427	394	212	504	409		386	446			215	499			385	469	467	400
NY129	433		412	408	184	532	603	636	471	335			284	651	476	518	380	467	426	450

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	QC1 ⁵	QC2 ⁵	VA	Mean
Russets/Long Whites																				
R Burbank	362		391	464		330	640		487					577			339	414		445
R Norkotah	294		333	340		420	324		351					472			329	289		350
Shepody	361		376		135				376					509			348	394		357
Stampede Rus.	314		389			301	294		344											328
A9014-2	356		366	389	160	382	514		397			280		563			371	395		379
A90586-11	362		336						510					586			361	446		434
AF1808-18	351		367	326					352			203		315			301	338		319
AF1866-8												181		343			366	317		302
AF2133-17	243		319	320								211		362			249	296		286
ATX84706-2Ru	409		360	460	216	440	513		414					580			348	340		403

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 three trial locations in Pennsylvania [Rock Springs (PA1), Lehigh County (PA2), and Somerset County (PA3)].

⁵The two Quebec trials were Louiseville (QC1) and Rawdon(QC2).

Additional note: Some states (ME, NJ, 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 23 numbered clones grown at 19 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	QC1 ⁵	QC2 ⁵	VA	Mean	
Round Whites																					
Atlantic	402	308	369	417	212	320	398	461	347	166	266	354	231	469	401	408	323	397	369	352	
Katahdin	381	229	298		173	318	392	471	350				204	445	346	390	330	350	346	335	
Kennebec	362	210	336		123	266	264	520	164				151	491			321	325	427	305	
Snowden	314	332	327	366	216	375		525	426	301	375		179	465	416	480	299	323	318	359	
Sunbury, AC	342		257	265	154	140	254		246					346			331	313		265	
Superior	344	248	385		151	216	259	419	275	186			146	370			219	364	308	274	
Yukon Gold	382	275	317	269	160	369	175		288				164	389			264	403	287	288	
AF1455-20	318	306	333	200		201			334				216	463			371	373		312	
AF1569-2													157	441	346		292	372	431	340	
AF2115-1	338	202	301	334	213			333					168	440	441		366	360		318	
AF2207-4	268	207	270		132								159	323		358	288	323		259	
AF2215-1	321	271	335	305	228			299					175	467	324		212	340		298	
AF2222-2	265	210	249	249	138			264					146	348			202	209		228	
B1240-1	376	307	347		154	241	459						185	400			310	342		312	
B1806-8	335	229	312	405	250	383		413					189	452			351	360	385	339	
B1826-1	442	237	264		202	250			342				166	394			313	304		291	
NY120	364	257	363	399	120	200			211				185	349			185	281	341	271	
NY125	440		301		147	319		582	354	260			185	436	393	559	273	330	270	346	
NY126	380	388	369	312	221	303		513	332	296			173	506	325	545	378	404	353	362	
NY127	395		356		233	332		483	413	162	395		118	556			325	408		356	
NY128	310	331		306	183			465	376	238	273	327	192	451	367	484	236	460	392	337	
SC8801-2	451	229	340			337							215	623	437	477	306	292		338	
Red Clones																					
Chieftain	372		415	353	177	245	380	542	453	191				491	391	559	309	383		376	
DR Norland	297		311	271	112	290		307	229				162	356	293		287	357	321	276	
Red Island, AC	320		359	286	46	310	449		411	181			179	513			352	373	393	321	
NDTX731-1R	359		396	302	177	489	383		321	370			154	453			350	417	419	354	
NY129	413		374	280	143	514	560	607	434	257			215	623	437	477	341	430	387	406	

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	QC1 ⁵	QC25	VA	Mean
Russets/Long Whites																				
R Burbank	305		290	214		156	223		196					419			245	298		261
R Norkotah	274		296	233		357	236		199					386			275	255		279
Shepody	311		273		32				176					380			286	312		253
Stampede Rus.	299		369			243	231		222				165	469			326	351		273
A9014-2	347		324	243	122	328	345		241					412			279	339		296
A90586-11	314		239					200						121	237		236	273		223
AF1808-18	261		248	236				173					115	249			289	270		231
AF1866-8													137	312			218	263		219
AF2133-17	189		205	209										438			340	282		324
ATX84706-2Ru	354		268	317	186	396	414		248											

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 three trial locations in Pennsylvania [Rock Springs (PA1), Lehigh County (PA2), and Somerset County (PA3)].

⁵The two Quebec trials were Louiseville (QC1) and Rawdon(QC2).

Additional note: Some states (ME, NJ, 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 23 numbered clones grown at 19 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	QC1 ⁵	QC2 ⁵	VA	Mean
Round Whites																				
Atlantic	101	90	82	87	77	83	85	91	95	82	94	99	87	92	89	88			81	90
Katahdin	82	72	67		48	70	68	73	79				78	72	75	73			69	71
Kennebec	79	80	68		54	74	77	78	80				74	79					68	74
Snowden	111	89	81	84	69	81		90	93		98	92	82	92	91	81			74	88
Sunbury, AC	88		72	87	61	81	81		84					72						78
Superior	88	73	75		59	70	76	78	79	74			80	72					79	75
Yukon Gold	89	82	80	78	58	78	79		88				85	80					79	80
AF1455-20	94	86	81	83		80			90				84	88					79	86
AF1569-2													79	72	73					76
AF2115-1	80	75	69	83	71				77				82	77	79					77
AF2207-4	109	94	86		69								96	91		92				91
AF2215-1	105	93	77	93	56				95				89	95	94					89
AF2222-2	96	76	78	79	55				82				78	78						78
B1240-1	91	82	77		61	81	80						89	89					69	81
B1806-6	81	75	77	78	59	78		78					79	79					72	75
B1826-1	84	74	71		52	73			77				78	79						74
NY120	97	83	80	83	56	76			82				82	80					75	79
NY125	82		69		52	72		75	77	74			78	77	75	78			71	73
NY126	90	83	80	79	41	79		83	85	76			74	88	81	81			72	78
NY127	74		69	74	54	70		69	73	70	75		77	75						71
NY128	98	80	81	81	64			87	83	72	85	84	78	81	88	81			78	81
SC8801-2	75	69	62		65									66						67
Red Clones																				
Chieftain	73		61	68	52	64	66	68	75	66				64	68	73				67
DR Norland	70		58	70	51	57	70		70	57			70	62	64				55	62
Red Island, AC	83		65	78	52	70	74		84	71			78	77					65	72
NDTX731-1R	67		58	73	42	60	64		67	61			63	58					57	61
NY129	74		59	70	45	65	67	68	76	67			66	71	67	81			69	68

East Region Trial Table 4. 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	QC1 ⁵	QC2 ⁵	VA	Mean
Russets/Long Whites																				
R Burbank	86		70	77		77	73		91					85						80
R Norkotah	74		65	71		76	76		74					74						73
Shepody	82		69		61				90					81						77
Stampede Rus.	67		58			58	62		66				85	85						62
A9014-2	86		70	76	64	79	83		88					91						80
A90586-11	91		73						94					83	75					87
AF1808-18	87		71	77					90					78	70					81
AF1866-8													65	78						74
AF2133-17	76		70	73										80						72
ATX84706-2Rus	87		67	75	56	66	75		80					80						73

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 three trial locations in Pennsylvania [Rock Springs (PA1), Lehigh County (PA2), and Somerset County (PA3)].

⁵The two Quebec trials were Louiseville (QC1) and Rawdon(QC2).

Additional note: Some states (ME, NJ, 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 23 numbered clones grown at 19 locations in the Eastern United States and Eastern Canada.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NY1 ³	NY23	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	QC1 ⁵	QC2 ⁵	VA	Mean
Round Whites																				
Atlantic	48	70	51	37	21	81	79	77	71	80	88	91		70	67	68	76	79	67	67
Katahdin	62	67	59		41	77	80	66	70					76	69	58	71	80	75	68
Kennebec	65	73	74		38	75	53	74	67					64			68	60	77	66
Snowden	23	46	32	29	20	78		53	62		90	90		59	32	48	75	76	59	55
Sunbury, AC	66		59	34	31	83	76	61	61					69			75	74		63
Superior	47	60	63		14	58	67	58	57	89				59			65	75	74	60
Yukon Gold	66	73	65	32	19	87	64		68					69			72	78	76	64
AF1455-20	54	75	59	9		70			68					73			78	80		63
AF1569-2														48	60		64	71	75	64
AF2115-1	45	56	49	19	20				70					65	66		77	78		55
AF2207-4	24	43	31		18									44		44	53	64		40
AF2215-1	47	62	46	31	12				71					76	63		61	66		54
AF2222-2	20	22	26	4	5				31					54			53	70		32
B1240-1	54	75	51		30	76	84							58			72	67		63
B1806-8	34	48	37	32	12	72		60						47			68	68	59	49
B1826-1	60	74	60		30	70			66					60			63	72		62
NY120	33	30	40	31	6	65			48					56			52	68	53	44
NY125	42		45		12	67		50	60	82				57	43	45	56	70	36	51
NY126	54	68	60	23	41	78		84	77	91				72	51	63	82	85	80	67
NY127	35		54	28	15	73		37	65	80	94			72			61	72		57
NY128	26	44		25	21			36	57	84	86	86		58	20	29	62	86	72	53
SC8801-2	77	85	72			84								70			74	78		77
Red Clones																				
Chieftain	51		52	27	20	48	67	67	72	88				70	63	69	67	70		59
DR Norland	33		45	20	12	64			65	82				56	40		54	77	45	49
Red Island, AC	33		46	18	0	45	72		54	79				62			68	69	40	49
NDTX731-1R	43		54	23	33	82	67		60	92				74			75	80	77	62
NY129	49		45	12	28	87	74	84	76	83				78	66	76	77	82	78	65

East Region Trial Table 5. Continued.

Clone	ME1 ¹	ME2 ¹	ME3 ¹	FL	NC	NJ1 ²	NJ2 ²	NJ1 ³	NY23	NY3 ³	NY4 ³	NY5 ³	OH	PA1 ⁴	PA2 ⁴	PA3 ⁴	QC1 ⁵	QC2 ⁵	VA	Mean
Russets/Long Whites																				
R Burbank	36		47	6		24	26		41					38			57	60		37
R Norkotah	28		50	16		66	33		39					54			61	80		47
Shepody	51		73		2				48					53			73	72		53
Stampepe Russet	69		37			45	52		31											47
A9014-2	31		71	7	12	38	48		49					64			67	79		47
A90586-11	35		54						43					41			65	68		51
AF1808-18	46		76	10					48					48			68	76		53
AF1866-8														43			68	81		64
AF2133-17	37		63	13										59			69	83		54
ATX84706-2Rus	74		73	38	60	83	81		53					61			93	75		69

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 three trial locations in Pennsylvania [Rock Springs (PA1), Lehigh County (PA2), and Somerset County (PA3)].
 5The two Quebec trials were Louiseville (QC1) and Rawdon(QC2).
 Additional note: Some states (ME, NJ, 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. Continued.

Variety	Year(s)	Comparison to Std ¹		Chip Color ⁴																			
		US#1 % of std	Spec. Grav.	Appearance Rating ²	Shape Rating ³	Out of Field ⁵	50-55°F Storage	45°F Storage	Reconditioned ⁶	Boil Score ⁷	Bake Score ⁷												
B1826-1	2004	88(10)	-14(8)	6.4(10)	2.5(8)	0	0	0	3	1	1	0	0	3	0	1	2	1	1	0	1	0	0
B1826-1	2	87(18)	-12(14)	6.2(18)	2.9(14)	1	0	0	6	1	1	1	0	3	2	1	2	1	1	0	1	0	0
NY120	2004	79(12)	-8(10)	6.4(12)	2.0(10)	2	0	0	2	1	2	1	0	3	1	0	3	1	1	0	1	0	0
NY120	2	83(26)	-9(22)	6.5(24)	1.9(20)	5	0	0	5	2	4	1	0	5	3	3	4	3	3	0	1	0	0
NY125	2004	101(14)	-14(12)	6.1(14)	3.3(11)	1	0	0	0	2	4	0	0	3	1	0	3	1	3	0	2	0	0
NY125	2	94(26)	-15(22)	6.1(25)	3.3(20)	2	0	0	1	2	5	0	0	3	1	1	3	3	3	0	2	0	0
NY126	2004	108(16)	-10(14)	5.7(15)	3.1(13)	1	0	0	4	1	2	1	2	2	2	1	3	3	0	0	1	0	0
NY126	2	110(33)	-10(29)	5.8(31)	3.3(27)	4	0	0	10	1	3	3	2	2	3	4	3	3	5	0	0	0	0
NY127	2004	107(13)	-17(11)	5.9(13)	1.9(9)	1	0	0	0	1	3	0	0	2	0	0	2	2	2	0	2	0	0
NY127	2	96(28)	-18(24)	5.7(27)	2.0(21)	4	0	0	0	2	5	0	0	3	0	1	3	3	3	0	2	0	0
NY128	2004	101(16)	-8(14)	6.2(13)	1.8(11)	2	0	0	1	3	2	3	2	2	4	1	3	0	1	5	2	0	0
NY128	2	94(33)	-8(29)	6.1(27)	1.9(23)	5	0	0	6	3	3	5	2	2	8	3	3	0	2	7	2	0	0
SC8801-2	2004	91(7)	-22(5)	5.9(7)	4.8(5)	0	0	0	0	0	3	0	0	2	0	0	2	1	1	0	1	1	0
SC8801-2	2	88(11)	-21(2)	6.0(11)	4.9(7)	0	0	0	0	0	5	0	0	2	0	0	2	1	1	1	1	1	0
Red Clones																							
Chieftain	2004	100(15)	0(13)	5.9(14)	2.6(12)	0	0	0	0	0	7	0	0	0	0	0	0	0	0	1	2	0	0
Chieftain	15	100(125)	0(114)	6.0(112)	2.8(68)	1	0	2	0	3	29	0	0	3	0	1	2	19	4	1	6	2	0
Norland, Dk Red	2004	85(11)	-4(9)	6.0(12)	2.7(10)	0	0	0	1	1	3	0	0	0	0	0	0	1	1	2	1	1	0
Norland, Dk Red	12	77(92)	-5(82)	6.2(108)	3.0(77)	2	1	4	6	9	12	0	0	2	1	1	1	10	7	3	7	3	1
Red Island, AC	2004	94(10)	7(9)	5.8(12)	2.6(10)	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	1	0	0
Red Island, AC	2	96(20)	8(17)	5.9(23)	3.4(19)	0	0	0	0	2	2	0	0	0	0	0	0	0	1	0	1	0	0
NDTX731-1R	2004	113(12)	-5(10)	6.9(13)	1.9(11)	0	0	0	0	0	3	0	0	0	0	0	0	2	2	0	0	2	0
NDTX731-1R	2	106(25)	-7(21)	6.7(26)	1.9(23)	0	0	0	0	0	6	0	0	0	0	0	0	2	2	0	0	2	0
NY129	2004	114(15)	1(13)	6.4(16)	2.2(14)	0	0	0	0	0	3	0	0	0	0	0	0	0	1	2	1	0	0
NY129	2	107(27)	1(23)	6.3(28)	2.2(24)	0	0	0	0	0	7	0	0	0	0	0	0	3	1	2	1	0	0

East Region Trial Table 6. Continued.

Variety	Year(s)	Comparison to Std ¹		Chip Color ⁴																					
		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	Boil Score ⁷	Bake Score ⁷													
Russets/Long Whites																									
Russet Burbank	2004	95(9)	7(7)	-10(9)	4.9(9)	7.1(7)	0	0	0	0	0	0	1	1	1	1	0								
Russet Burbank	15	93(52)	7(43)	-7(40)	4.1(113)	7.4(60)	0	1	0	1	6	33	0	0	20	0	1	18	21	9	8	15	14	1	
Russet Norkotah	2004	100(9)	0(9)	0(9)	6.8(9)	6.0(7)	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2	1	1	0
Russet Norkotah	8	100(76)	0(70)	0(59)	6.5(69)	6.5(58)	0	0	0	0	3	29	0	0	13	0	0	11	9	4	5	6	4	2	
Shepody	2004	103(6)	9(4)	10(6)	4.8(7)	6.4(5)	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	1	0	0	
Shepody	8	97(41)	7(33)	17(30)	5.0(41)	6.9(27)	0	0	0	1	4	13	0	0	8	0	0	8	3	4	0	1	0	0	
Stampede Russet	2004	102(5)	-11(5)	4(5)	6.7(5)	7.2(5)	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	
A9014-2	2004	120(9)	8(7)	3(9)	5.6(11)	6.6(9)	0	0	0	0	1	3	0	1	0	0	0	1	1	1	0	2	0	0	
A9014-2	3	121(21)	9(19)	6(21)	5.8(23)	6.6(22)	0	0	0	2	1	4	0	2	0	0	0	2	2	3	0	3	1	0	
A90586-11	2004	106(9)	8(7)	3(9)	5.6(11)	5.8(4)	0	0	0	0	0	3	0	0	1	0	0	1	0	0	2	1	0	0	
A90586-11	3	119(25)	11(21)	3(24)	5.5(28)	6.3(20)	0	0	0	0	0	10	0	0	4	0	0	4	0	1	4	3	0	0	
AF1808-18	2004	89(7)	8(5)	7(7)	5.8(8)	6.0(6)	0	0	0	0	0	4	0	0	1	0	0	1	1	1	1	1	0	2	
AF1808-18	2	83(15)	7(13)	7(15)	5.6(17)	6.3(14)	0	0	0	0	0	7	0	0	2	0	0	2	1	2	1	0	3	0	
AF1866-8	2004	92(3)	-4(1)	-1(3)	5.5(4)	5.0(2)	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	
AF1866-8	2	80(6)	-7(4)	2(6)	5.3(8)	5.2(5)	0	0	0	0	1	4	0	0	1	0	0	1	2	0	0	1	1	0	
AF2133-17	2004	82(6)	3(4)	6(6)	5.6(7)	5.3(5)	0	0	0	0	0	4	0	0	1	0	0	1	1	0	0	1	0	0	
AF2133-17	3	78(20)	1(16)	4(20)	5.9(22)	5.7(17)	0	0	0	0	1	10	0	0	4	0	0	4	1	1	1	1	1	0	
ATX84706-2Ru	2004	124(9)	3(7)	23(9)	5.9(10)	5.4(8)	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	1	0	
ATX84706-2Ru	3	125(27)	3(23)	35(27)	5.8(30)	5.7(25)	0	0	0	4	1	4	0	1	3	0	0	4	0	3	0	1	1	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 versus 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 ounces 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 fried three to twelve 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 45oF

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) percent tuber defects for 14 named and 23 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	Sun-burn	Mis-shapen	Growth cracks	Hollow Heart	Internal Necrosis	Vascular Discolor.
Round Whites								
Atlantic	2004	9.7(22)	5.0(13)	2.4(13)	1.3(13)	15.0(22)	17.2(17)	12.8(8)
Atlantic	15	8.6(163)	4.2(128)	2.1(131)	1.2(134)	8.7(194)	21.3(129)	4.2(42)
Katahdin	2004	11.3(13)	10.5(5)	1.2(5)	0.6(5)	10.6(13)	4.9(10)	12.5(3)
Katahdin	15	11.7(124)	7.1(95)	1.4(90)	0.6(97)	4.9(163)	6.1(95)	2.8(23)
Kennebec	2004	26.9(11)	18.6(5)	5.9(5)	5.2(5)	5.9(11)	3.1(8)	27.5(3)
Kennebec	15	21.1(102)	9.4(79)	5.0(79)	3.1(74)	3.2(125)	4.0(75)	5.1(17)
Snowden	2004	5.4(16)	4.0(9)	1.5(9)	0.5(9)	6.0(16)	2.0(13)	27.9(6)
Snowden	13	5.5(84)	2.9(69)	1.6(69)	0.3(69)	3.4(116)	2.5(80)	12.3(28)
Sunbury, AC	2004	11.0(8)	1.0(4)	1.5(4)	0.8(4)	17.0(8)	4.4(6)	0.0(2)
Sunbury, AC	2	8.9(20)	1.3(11)	1.4(11)	0.6(11)	9.4(18)	4.1(14)	0.0(5)
Superior	2004	11.0(13)	2.4(8)	4.4(8)	0.3(8)	3.5(12)	1.8(10)	10.0(4)
Superior	15	7.5(120)	1.7(89)	3.2(89)	0.9(91)	1.4(148)	2.1(106)	3.7(25)
Yukon Gold	2004	10.1(12)	3.8(6)	3.3(6)	1.1(6)	9.5(12)	2.0(9)	0.6(4)
Yukon Gold	15	11.2(89)	4.2(64)	2.5(64)	0.9(65)	6.2(99)	6.0(75)	1.9(21)
AF1455-20	2004	9.2(8)	4.5(5)	2.0(5)	0.4(5)	2.3(8)	1.5(5)	28.8(2)
AF1455-20	4	11.0(30)	3.5(17)	3.6(17)	0.8(17)	2.5(36)	2.0(27)	5.2(12)
AF1569-2	2004	13.3(4)	(0)	(0)	(0)	1.6(4)	0.0(4)	0.0(1)
AF1569-2	4	12.4(25)	7.5(11)	1.1(11)	1.7(11)	1.2(27)	1.6(26)	0.0(10)
AF2115-1	2004	11.3(9)	7.3(5)	2.4(5)	0.3(5)	0.0(9)	0.0(6)	3.3(3)
AF2115-1	2	13.3(19)	8.1(12)	2.2(12)	1.2(12)	2.4(18)	1.9(12)	2.0(5)
AF2207-4	2004	14.6(7)	10.3(3)	1.2(3)	1.2(3)	17.7(7)	1.6(4)	0.0(2)
AF2207-4	2	12.8(18)	9.5(10)	1.1(10)	1.1(10)	12.5(19)	2.0(13)	0.0(5)
AF2215-1	2004	8.7(9)	3.2(5)	1.5(5)	0.7(5)	5.0(9)	0.0(6)	3.3(3)
AF2215-1	2	10.5(17)	5.2(10)	1.7(10)	0.7(10)	4.1(17)	1.1(12)	1.7(6)
AF2222-2	2004	6.0(8)	1.3(5)	1.6(5)	0.1(5)	6.4(8)	0.0(5)	0.0(3)
AF2222-2	2	5.6(18)	1.3(12)	1.7(12)	0.2(12)	7.1(18)	0.5(12)	0.0(6)
B1240-1	2004	14.5(8)	9.6(3)	0.4(3)	2.1(3)	12.7(8)	0.5(5)	5.0(2)
B1240-1	4	13.0(42)	6.7(21)	1.0(21)	3.7(21)	12.0(42)	3.2(40)	4.0(13)
B1806-8	2004	6.9(10)	3.9(5)	0.6(5)	0.5(5)	9.4(10)	0.0(7)	0.0(2)
B1806-8	2	7.7(19)	3.4(9)	0.6(9)	0.5(9)	8.9(18)	0.2(13)	0.0(4)
B1826-1	2004	19.5(8)	7.5(4)	2.0(4)	3.0(4)	2.7(8)	0.5(5)	10.0(3)
B1826-1	2	16.6(16)	5.5(10)	1.8(10)	3.7(10)	1.6(15)	0.3(10)	8.4(6)
NY120	2004	8.9(10)	3.0(6)	1.1(6)	0.5(6)	4.1(10)	0.4(7)	7.5(3)
NY120	2	6.1(25)	2.2(17)	0.5(17)	0.3(17)	3.5(23)	0.6(17)	3.6(9)
NY125	2004	7.6(12)	4.8(5)	1.5(5)	0.3(5)	5.3(12)	1.1(10)	6.8(4)
NY125	2	7.2(20)	4.6(11)	1.2(11)	0.1(11)	6.1(22)	0.6(18)	4.0(8)
NY126	2004	8.4(14)	3.6(7)	2.8(7)	0.6(7)	8.6(14)	1.2(11)	9.6(4)
NY126	2	7.8(27)	2.8(16)	2.0(16)	0.7(16)	7.3(29)	1.3(23)	7.9(8)
NY127	2004	11.6(11)	4.1(7)	1.3(7)	1.1(7)	0.6(11)	0.3(9)	13.0(5)
NY127	2	12.1(22)	4.5(14)	1.8(14)	1.6(14)	1.1(24)	0.1(20)	10.6(9)
NY128	2004	7.2(14)	3.8(8)	1.0(8)	0.1(8)	9.9(14)	1.4(12)	10.0(6)
NY128	2	6.1(27)	3.3(17)	0.8(17)	0.1(17)	8.1(29)	1.0(24)	7.1(12)
SC8801-2	2004	12.1(5)	8.9(3)	1.7(3)	1.1(3)	2.0(5)	0.0(2)	N/A
SC8801-2	2	13.9(9)	8.7(7)	3.4(7)	1.3(7)	2.1(7)	0.0(2)	N/A

East Region Trial Table 7. Continued.

Variety	Year(s)	% External Tuber Defects				% Internal Tuber Defects ²		
		Total ¹	Sun-burn	Mis-shapen	Growth cracks	Hollow Heart	Internal Necrosis	Vascular Discolor.
Red Clones								
Chieftain	2004	6.9(13)	1.3(7)	1.3(7)	0.9(7)	2.8(13)	18.6(10)	16.7(3)
Chieftain	15	6.7(78)	1.6(56)	1.4(58)	1.3(57)	0.9(94)	13.6(62)	2.8(20)
Norland, Dk Red	2004	6.9(11)	0.9(5)	1.4(5)	2.1(5)	1.1(11)	0.0(8)	12.5(4)
Norland, Dk Red	12	5.0(67)	1.1(44)	1.6(43)	1.3(35)	0.9(82)	0.7(67)	2.8(20)
Red Island, AC	2004	8.0(11)	2.0(5)	1.3(5)	0.0(5)	0.0(11)	9.0(9)	23.8(4)
Red Island, AC	2	8.4(22)	2.3(11)	1.6(11)	1.0(11)	0.3(20)	8.3(16)	15.9(6)
NDTX731-1R	2004	5.3(12)	0.8(6)	1.4(6)	2.5(6)	1.7(12)	1.4(9)	13.8(4)
NDTX731-1R	2	6.5(25)	1.1(14)	2.2(14)	2.8(14)	1.0(24)	1.3(18)	7.5(8)
NY129	2004	4.8(15)	0.9(7)	0.5(7)	0.6(7)	1.0(15)	4.5(12)	15.0(4)
NY129	2	4.0(28)	0.8(15)	0.7(15)	0.8(15)	0.6(26)	3.2(20)	8.8(8)
Russets/Long Whites								
Russet Burbank	2004	30.3(7)	1.5(4)	22.4(4)	1.4(4)	11.2(7)	1.0(5)	17.5(1)
Russet Burbank	15	21.1(74)	1.3(65)	15.6(65)	1.2(61)	8.1(81)	7.3(40)	2.8(9)
Russet Norkotah	2004	10.3(7)	1.2(4)	5.2(4)	0.8(4)	16.1(7)	1.0(5)	5.0(1)
Russet Norkotah	8	9.1(46)	1.6(33)	4.6(33)	0.6(33)	5.9(56)	1.2(34)	1.3(8)
Shepody	2004	31.1(5)	6.9(3)	10.5(3)	0.4(3)	12.7(5)	2.7(3)	8.8(2)
Shepody	8	32.6(26)	7.3(23)	11.9(23)	0.7(23)	5.2(30)	2.0(13)	4.8(9)
Stampede Russet	2004	8.9(5)	1.8(3)	5.1(3)	1.0(3)	1.5(5)	0.8(3)	10.0(1)
A9014-2	2004	14.2(9)	0.9(4)	7.8(4)	0.4(4)	10.7(9)	1.4(7)	4.2(3)
A9014-2	3	11.3(23)	0.9(15)	5.8(15)	0.5(15)	9.4(20)	0.9(18)	2.5(5)
A90586-11	2004	24.4(4)	8.5(3)	14.8(3)	1.0(3)	20.3(4)	0.0(2)	12.5(1)
A90586-11	3	16.0(19)	6.6(11)	8.6(11)	0.8(11)	7.0(17)	0.7(12)	4.2(3)
AF1808-18	2004	25.1(6)	11.9(4)	7.6(4)	1.3(4)	10.8(6)	0.0(4)	12.5(2)
AF1808-18	2	20.5(15)	7.9(10)	6.8(10)	1.2(10)	7.5(14)	0.2(10)	9.2(3)
AF1866-8	2004	22.0(4)	(0)	(0)	(0)	12.5(2)	0.0(2)	0.0(1)
AF1866-8	2	18.1(8)	1.5(4)	6.3(4)	6.3(4)	6.5(5)	0.0(3)	0.0(1)
AF2133-17	2004	20.7(5)	0.2(3)	4.2(3)	0.2(3)	1.0(5)	0.0(3)	10.0(1)
AF2133-17	3	15.5(18)	1.1(11)	6.9(11)	0.7(11)	0.6(17)	0.0(11)	5.0(2)
ATX84706-2Ru	2004	15.7(8)	3.6(4)	5.9(4)	3.3(4)	9.7(8)	0.8(6)	10.0(2)
ATX84706-2Ru	3	20.0(25)	4.1(13)	5.1(13)	7.9(13)	5.4(24)	0.6(19)	4.5(5)

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).

AF2133-17 had good tuber appearance (Table 6). None of the russets received outstanding boiled quality scores during 2003, while A9014-2 received good baked quality scores (Table 6).

Russet Norkotah, A9014-2, A90586-11, AF1866-8, and AF2133-17 had less than 15% external defects (Table 7). Russet Burbank, Shepody, A9014-2, AF1753-16, and AF1808-18 had more than 5% hollow heart during 2003. None of the lines had any substantial incidence of internal necrosis or vascular discoloration during 2003.



MAINE AGRICULTURAL AND FOREST EXPERIMENT STATION
5782 WINSLOW HALL
ORONO ME 04469-5782

5-5-38900

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