

Potato Show & Tell, 5 December 2012



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Description of Advanced Selections From Cornell Breeding Program
Based on Cornell trials in 2012 and prior years
Last updated: 1 December 2012

Waneta (NY138, Y18-16) = Marcy x NY115 (1998). Late maturity chipstock and tablestock. Large tubers, attractive shape, moderately textured skin.

- Tompkins County marketable yields over the past ten years have averaged 90% of Atlantic (26 trials).
- Yields in Steuben and Wyoming County trials averaged 103% of Atlantic in 2004, 114% in 2005, 102% in 2006, 103% in 2007, 107% in 2008, 90% in 2009, 103% in 2010, 94% in 2011, and 103% of Atlantic in 2012. Nine year average: 102%.
- Wayne County (muck soil) yield was 120% of Atlantic in 2006, 81% in 2007, 118% in 2009, 69% in 2011, and 112% of Atlantic in 2012.
- Riverhead yields were 84% of Norwis in 2004. Yields were 90% of Reba in 2005, 98% in 2006, 79% in 2007, 107% in 2008, 106% in 2009, and 116% of Reba in 2010.
- Yields in PA were 111% of Atlantic (3 trials) in 2005, 82% in 2006 (3 trials), 100% in 2007 (3 trials), 93% in 2008 (2 trials), 87% in 2009 (3 trials), 96% in 2010 (3 trials), and 100% of Atlantic in 2011 (2 trials).
- US#1 yields in 9 states in Snack Food Association trials in 2008 were 91% of Snowden. In 10 SFA trials in 2009, yields averaged 101% of Snowden, while in 10 SFA trials in 2010 yields averaged 97% of Snowden.

A few pickouts due to growth cracks and misshapes. Large tubers have shown 5-10% hollow heart in most trials. Tuber size is similar to Atlantic. Specific gravity has averaged 0.010 less than Atlantic (44 trials). Moderate resistance to common scab. Chip color out of 44F has been very good to date: visual chip scores over the past eight years averaged 3.0 compared to 3.6 for Snowden (lower is better). In fifteen SFA trials Agtron scores for NY138 averaged 65, compared to 63 for Snowden. Tubers sometimes darken slightly after boiling. Less susceptible to blackspot bruise than Snowden, presumably because of lower specific gravity. Relatively long tuber dormancy; seven weeks longer than Atlantic. Vines have a slow start but soon develop into a nice type. Pale purple flowers, some fruit at end of season. Some resistance to powdery scab has been observed in PA tests. Resistant to race Ro1 of the golden nematode. We have submitted an application for PVP.

Lamoka (NY139, Y28-9) = NY120 x NY115 (1998). Late season chipstock.

- Marketable yields in Tompkins County over the past ten years have averaged 92% of Atlantic (25 trials).
- Yields in Steuben and Wyoming County trials averaged 96% of Atlantic in 2004, 99% in 2005, 102% in 2006, 104% in 2007, 93% in 2008, 96% in 2009, 80% in 2010, 91% in 2011, and 97% of Atlantic in 2012. Nine year average: 95%.
- Wayne County (muck soil) yield was 128% of Atlantic in 2006 and 104% in 2009.
- Riverhead, Long Island yield was 85% of Norwis in 2004. Yield was 106% of Reba in 2005, 88% in 2006, 79% in 2007, 109% in 2008, 103% in 2009, and 129% of Reba in 2010.
- In PA yield averaged 125% of Atlantic in 2004 (2 trials), 83% in 2006 (4 trials), 104% in 2007 (4 trials), 90% in 2008 (2 trials), 87% in 2009 (3 trials), 125% in 2010 (3 trials), and 85% of Atlantic in 2011 (2 trials).
- US#1 yields in 9 states in SFA trials in 2008 were 89% of Snowden. Yields in 10 SFA trials in 2009 averaged 99% of Snowden. Yields in 10 SFA trials in 2010 averaged 93% of Snowden.

A low frequency of pickouts due to misshapes and growth cracks. Few standard internal defects have been observed. In Ithaca, but not yet elsewhere, we have observed small spots of translucent tissue inside tubers. Specific gravity has been very good, averaging 0.004 less than Atlantic (42 trials). Chip color out of 44F has been excellent, averaging 2.9 over the past eight years, compared to 3.6 for Snowden (lower is better). In fifteen SFA trials from 2008 to 2010, Agtron scores averaged 64 for NY139 compared to 63 for Snowden. Moderate resistance to common scab. Less susceptible to blackspot bruise than Snowden. Tubers darken slightly after boiling. Tuber dormancy is about one week longer than Atlantic. Very nice light green vines, magenta flowers with white tips, sets many fruit. Resistant to race Ro1 of the golden nematode. We have submitted an application for PVP.

NY140 (Y36-4) = NY121 x NY115 (1998). Late season, dual purpose chip and tablestock. High yields of large tubers, lightly textured skin. Resistant to races Ro1 and Ro2 of the golden nematode.

- Marketable yields in Tompkins County over the past ten years have averaged 115% of Atlantic (25 trials).
- Yields in Steuben and Wyoming County trials averaged 111% of Atlantic in 2006, 119% in 2007, 117% in 2008, 119% in 2009, 102% in 2010, 106% in 2011, and 105% of Atlantic in 2012. Seven year average: 112%.
- Yield in Wayne County was 129% of Atlantic in 2008, 123% in 2009, and 112% of Atlantic in 2012.
- Yields on Long Island were 108% of Norwis in 2004. Yields were 103% of Reba in 2005, 116% in 2006, 91% in 2007, 105% in 2008, 128% in 2009, 139% in 2010, 126% in 2011, and 120% of Reba in 2012.
- In PA yields averaged 106% of Atlantic in 2005 (3 trials), 124% in 2007 (4 trials), 119% in 2008 (2 trials), 104% in 2009 (3 trials), 112% in 2010 (3 trials), and 107% of Atlantic in 2011 (2 trials).
- Yield in North Carolina averaged 117% of Atlantic in 2009 (3 trials) and 96% of Atlantic in 2010 (2 trials).

A low frequency of pickouts due to knobs, misshapes and growth cracks. Some internal defects, most commonly hollow heart and internal necrosis, have been observed. Tuber size is unmistakably large, averaging 6.2 ounces per tuber (19 trials). Even at 6 inch spacing, tuber size remains large (2009 and 2010 trials). Specific gravity has averaged 0.012 less than Atlantic (33 trials). This will limit the locations where it could be grown for chips. Chip quality has generally been very good: over the past eight years it has averaged 3.6, comparable to Snowden, which also averaged 3.6 in the same trials (lower is better). Susceptible to common scab, comparable to Katahdin. Tubers remain white after boiling, and do not slough significantly. Tuber dormancy is about six weeks longer than Atlantic. Nice vines, white flowers, few fruit. Exhibited moderate resistance to late blight as well as early blight in PA trials in 2007 - 2009. Good resistance to blackspot bruise. Resistant to races Ro1 and **Ro2** of the golden nematode.

NY141 (Y41-67) = R6-4 x NY115 (1998). Early to mid season tablestock, attractive tubers.

- Marketable yields in Tompkins County over the past ten years have averaged 98% of Atlantic (27 trials).
- Yield in Wayne County was 107% of Atlantic in 2008, 106% in 2009, 78% in 2011, and 108% of Atlantic in 2012.
- Yields on Long Island were 82% of Norwis in 2004. Yields were 95% of Reba in 2005, 100% in 2006, 81% in 2007, 111% in 2008, 110% in 2009, 118% in 2010, 110% in 2011, and 102% of Reba in 2012.
- Yield in PA in 2005 was 107% of Atlantic in 2005 (1 trial), 92% in 2007 (4 trials), 79% in 2008 (2 trials), 94% in 2009 (3 trials), 115% in 2010 (3 trials), and 91% of Atlantic in 2011 (2 trials).

Typically 2 to 3% of tubers have knobs. A low frequency of internal defects, mostly brown center, have also been observed. Has set an average of 7.0 tubers per foot, with an average weight of 6.1 ounces (14 trials). Early yield, assessed at the end of July in Ithaca, has been good: 112% of Superior in 2010, 110% of Atlantic in 2009, 101% of Superior in 2006, and 122% of Superior in 2005. Specific gravity has averaged 0.011 less than Atlantic (28 trials). Does not chip. Good resistance to common scab. Tubers remain white after boiling, and do not slough significantly. Tuber dormancy is about two weeks longer than Atlantic. Nice vines, white flowers, some fruit. Very good resistance to blackspot bruise. Resistant to race Ro1 of the golden nematode.

NY148 (E106-4) = NY128 x Marcy (2003). Late season, high gravity chipstock.

- In 12 Tompkins County trials over the past five years, marketable yields averaged 112% of Atlantic.
- In trials in Wyoming and Steuben Counties, yield averaged 112% of Atlantic in 2009, 81% in 2010, 108% in 2011, and 90% of Atlantic in 2012.
- Yield on Long Island was 98% of Reba in 2010, 106% in 2011, and 113% of Reba in 2012.
- Yield in PA in 2011 was 113% of Atlantic (1 trial).

In general, few pickouts or internal defects have been observed – but in 2010, two-thirds of tubers exhibited internal necrosis in one yield trial (Harford). Heat necrosis has also been observed in small-scale NCPT trials in southern states. Tuber size is similar to Snowden, averaging 4.5 ounces per tuber (9 trials). Scurfy tuber skin. Specific gravity is high and has averaged only 0.001 less than Atlantic (21 trials). In 2008, chip color from December, January and February averaged 3.5, not as good as Snowden at 2.3 in the same trials. In 2009, chip color averaged 3.8, better than Snowden at 4.5. In 2010 chip color averaged 3.3 compared to Snowden at 2.5. In 2011 chip color averaged 3.8 versus 3.7 for Snowden. Has exhibited moderate resistance to common scab to date. Tubers darken slightly after boiling, and slough moderately. Tuber dormancy is comparable to Atlantic. Many white flowers. Resistant to race Ro1 of the golden nematode.

NY149 (F11-1) = Yukon Gold x Keuka Gold (2004). Mid-late season yellow-fleshed tablestock, with slightly-textured skin and pink eyes.

{This clone will resume testing in several years, as soon as we have virus-free seed again}.

NY150 (F52-1) = NY121 x Jacqueline Lee (2004). Niche-market, early season tablestock. Produces many small tubers with bright white skin.

- In nine Tompkins County trials over the past four years, yields of tubers between 1 and 1.875 inches averaged 163 cwt/acre, while yields of tubers between 1.875 and 2.5 inches in diameter averaged 145 cwt. acre. In the same trials yield of tubers greater than 2.5 inches averaged only 14 cwt/acre. For comparison, marketable yield of Atlantic (>1.875 inches) in the same trials averaged 374 cwt/acre.

Few pickouts (mostly misshapes) or internal defects have been observed. Specific gravity has averaged 0.010 less than Atlantic (9 trials). Intermediate reaction to common scab. Tubers do not darken or slough appreciably after boiling. Tuber dormancy is about 2 weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

NY151 (G73-1) = NY121 x Salem (2005). Late season, white tablestock with relatively smooth skin.

- In six Tompkins County trials over the past three years, marketable yields averaged 104% of Atlantic.
- Yield on Long Island was 116% of Reba in 2011 and 118% of Reba in 2012.
- Yield in PA was 117% of Atlantic in 2011 (1 trial).

Low levels of pickouts (mostly growth cracks) or internal defects (brown center) have been observed. Specific gravity is low and has averaged 0.022 less than Atlantic (6 trials). Moderate resistance to common scab. Tubers do not darken or slough appreciably after boiling. Tuber dormancy is comparable to Atlantic. Resistant to race Ro1 of the golden nematode.

H15-5 = B38-14 x Marcy (2006). Late season chipstock.

- In three Tompkins County trials over the past two years, marketable yields averaged 95% of Atlantic.
- Yield in PA was 106% of Atlantic in 2011 (1 trial).
- In trials in Wyoming and Steuben Counties, yield averaged 97% of Atlantic in 2012.

Low levels of pickouts (growth cracks) or internal defects (hollow heart) have been observed. Specific gravity has averaged 0.008 less than Atlantic (4 trials). Chip color from 44F storage in December, January and February (2011 crop season) averaged 3.0 compared to 4.0 for Snowden (lower is better). Moderate resistance to common scab. Tuber dormancy is about 5 weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

H15-17 = B38-14 x Marcy (2006). Late season chipstock.

- In three Tompkins County trials over the past two years, marketable yields averaged 120% of Atlantic.
- Yield in PA was 91% of Atlantic in 2011 (1 trial).
- In trials in Wyoming and Steuben Counties, yield averaged 122% of Atlantic in 2012.

Low levels of pickouts (knobs) or internal defects (hollow heart) have been observed. Specific gravity has averaged 0.008 less than Atlantic (4 trials). Chip color from 44F storage in December, January and February (2011 crop season) averaged 3.3 compared to 4.0 for Snowden (lower is better). Moderately resistant to common scab. Tuber dormancy is about 3 weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

H25-4 = Waneta x Pike (2006). Late season chipstock, high specific gravity, promising chip color.

- In four Tompkins County trials over the past two years, marketable yields averaged 96% of Atlantic.
- Yield in PA was 71% of Atlantic in 2011 (1 trial).
- In trials in Wyoming and Steuben Counties, yield averaged 94% of Atlantic in 2012.

Low levels of pickouts (knobs) have been observed. The frequency of hollow heart to date is nevertheless of concern. Specific gravity has averaged 0.001 less than Atlantic (5 trials). Chip color from 44F storage in December, January and February (2011 crop season) averaged 2.0 compared to 4.0 for Snowden (lower is better). Moderate resistance to common scab. Tuber dormancy is about 6 weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

H122-4 = NY136 x Nordonna (2006). Early maturing, pink-skinned tablestock.

- In three Tompkins County trials over the past two years, marketable yields averaged 105% of Chieftain.
- Yield on Long Island was 76% of Chieftain in 2012.
- Yield in PA was 115% of Chieftain in 2011 (2 trials).

Tubers are uniform, large (6.2 ounce average, 2 trials) and have an oblong, flattened shape with shallow eyes and – even though both its parents have deep red skin – **very light pink skin**. Low levels of pickouts (secondary growth) or internal defects have been observed. Moderate resistance to common scab. Tubers do not darken or slough appreciably after boiling. Tuber dormancy is two weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

2012 Summary of Yield Trials
 Marketable yield larger than 1 7/8" (including green tubers).
 Performance given as % of check variety.

	Ellis Hollow		Freeville				County			
	Advanced Trial	Red Trial	CU Trial	Early Trial	Med Trial	Late Trial	Red Trial	Wayne Marion	Steuben Arkport	Wyoming Portage
Atlantic	100		100	100	100	100		100	100	100
Snowden	95		101		94	103		107	109	
Andover	59		73	73						
Andover GH2	94		114							
Lamoka	94					86			97	98
Waneta	69					77		112	101	105
Reba	83				91			100		
NY140	107					110		112	110	98
NY141	96			95	93			108		
NY148	98					114		120	82	97
NY150	46*			77*				62*		
NY151	111				68			58		
G70-3	81									
H15-5	72								109	86
H15-17	97							84	118	126
H23-16	72								77	105
H25-4	81		97						73	116
Chieftain		100					100	100		
Nordonna		75								
Red Maria		98					91	88		
NY136		91					113	88		
C100-2		78								
H52-1		77					72	63		
H73-1		76								
H90-4		82*								
H122-4		137								
J34-1		61					67	50		

*includes tubers less than 1.875 inches; this clone produces many small tubers

2012 Summary of Specific Gravities

Entries show differences (in units of 0.001) from Atlantic or Snowden

	Ellis Hollow	Freeville					County	
	Advanced Trial	CU Trial	Early Trial	Med Trial	Med-late Trial	Late Trial	Steuben Arkport	Wyoming Portage
Atlantic	1.081	1.094	1.091	1.089		1.094	1.097	1.089
Snowden	-1	1		-2		-2	-7	4
Andover	-5	-10						
Andover GH2	-7	-6						
Lamoka	-5					-8	-7	-4
Waneta	-7					-15	-9	-9
Reba	-11			-10				
NY140	-10					-9	-13	-3
NY141	-9		-13	-8				
NY148	1					3	-1	4
NY150	-6		-9					
NY151	-20			-23				
G70-3	-12							
H15-5	-6						-7	-7
H15-17	-9						-8	-6
H23-16	-4						-11	-7
H25-4	0	1					-6	4

Results from Cornell Breeding Program Trials

Walter De Jong and Robert Plaisted

2012 Advanced and Intermediate Stage Yield Trial, Ellis Hollow

Plots 2 rows x 20', hills spaced at 8.2"

4 Replicates (unless indicated otherwise in parentheses)

Planted May 2, harvested September 20. Vines burned down on August 29.

	cwt/acre		%	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC		
Andover	222	59	27	1	k	0	0	0	3.8	1.076
Andover GH2	354	162	46	0	-	0	0	0	3.9	1.074
Atlantic	376	211	56	1	gc	0	13	0	3.5	1.081
Lamoka	354	247	70	1	gc	0	0	0	3.4	1.076
Reba	311	220	71	0	-	3	3	0	3.1	1.070
Snowden	356	179	50	0	-	0	8	0	3.0	1.080
Waneta (3)	261	171	66	1	gc	0	0	0	3.6	1.074
NY140	402	299	74	1	k	0	0	0	3.4	1.071
NY141	362	246	68	9	k	3	0	0	3.6	1.072
NY148	367	188	51	0	-	0	10	0	3.1	1.082
NY150**	77	5	6	0	-	0	0	0	3.2	1.075
NY151 (G73-1)	417	271	65	2	k	0	3	0	3.6	1.061
G70-3	306	135	44	3	2og	0	3	0	3.7	1.069
H15-5 (3)	270	81	30	1	k	0	0	0	3.4	1.075
H15-17 (3)	364	235	65	4	2og	0	0	0	3.2	1.072
H23-16 (3)	269	136	51	1	2og	0	0	0	3.6	1.077
H25-4 (3)	306	129	42	2	k	0	0	0	3.5	1.081

**NY150 also produced an additional 96 cwt/acre of tubers less than 1.875 inches in diameter

2012 First Stage Yield Trial, Ellis Hollow

Plots 2 rows x 15', hills spaced at 8.2"

3 Replicates (unless indicate dotherwise in parentheses)

Planted May 2, harvested September 20. Vines burned down on August 29.

	cwt/acre		%	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC		
Atlantic	384	238	62	2	gc	0	10	3	3.5	1.080
Reba	345	238	69	0	-	0	0	7	3.2	1.068
Snowden	393	182	46	1	mis	0	23	0	3.0	1.075
Keuka Gold	385	233	61	0	-	0	7	0	3.6	1.068
Eva (2)	370	211	57	2	k	0	0	0	3.6	1.067
J2-2	260	118	45	1	gc	0	10	3	3.6	1.076
J2-15	259	91	35	0	-	0	0	0	3.1	1.080
J2-21	306	179	59	3	k	0	20	0	3.1	1.076
J2-25	320	176	55	2	gc	0	10	0	3.2	1.074
J2-27	295	94	32	1	k	3	10	0	3.5	1.081
J2-29	332	187	56	2	gc	0	3	13	3.0	1.075
J2-37	339	210	62	3	gc	0	0	3	3.1	1.075
J3-14	298	101	34	0	-	0	0	0	3.6	1.073
J4-3	315	158	50	1	2°g	0	7	0	3.4	1.075
J5-2 (2)	347	137	39	1	mis	0	0	0	3.2	1.071
J9-6	347	210	61	0	-	0	20	0	3.5	1.064
J13-2	353	161	46	0	-	0	3	0	3.0	1.074
J15-7	409	215	53	1	2°g	0	17	0	3.5	1.067
J16-2	337	184	55	2	gc	0	23	0	3.5	1.071
J17-1 (2)	364	248	68	1	k	0	5	0	3.4	1.071
J17-6	288	109	38	0	-	0	3	0	3.6	1.075
J18-2	349	193	55	2	k	0	3	0	3.5	1.070
J21-1	378	196	52	2	k	0	0	0	3.4	1.069
J21-5	309	143	46	2	gc	0	7	0	3.7	1.067
J100-5	347	113	33	1	k	0	0	0	3.4	1.074
J100-6	275	55	20	0	-	0	0	0	3.6	1.085
J102-9	312	160	51	2	gc	0	13	0	3.2	1.071
J103-1	258	124	48	0	-	0	0	0	3.5	1.072
J103-17	196	68	35	2	gc	0	10	0	3.6	1.081
J104-3	352	196	56	0	-	0	10	0	3.3	1.074
J105-9	291	114	39	0	-	0	7	0	3.5	1.077
J105-10	312	111	35	0	-	0	20	0	3.3	1.076
J106-2	324	176	54	1	gc	0	23	3	3.4	1.072
J107-4	327	117	36	0	-	0	3	0	3.7	1.073
J107-5	290	134	46	0	-	0	3	0	3.3	1.074
J110-6	284	137	48	1	k	0	23	0	3.4	1.071
J110-12	307	103	34	1	k	0	0	0	3.5	1.076
J112-2	300	118	39	1	mis	0	0	0	3.5	1.080
J112-8	275	109	40	0	-	0	7	0	3.2	1.078
J112-9	303	83	27	0	-	0	0	0	3.4	1.079

2012 Red Trial, Ellis Hollow

Plots 2 rows x 15', hills spaced at 8.2"

3 replicates (unless indicated otherwise in parentheses)

Planted May 2, harvested September 20. Vines burned down on August 29.

	cwt/acre		%	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC		
Adirondack Blue	238	74	31	0	-	0	0	0	2.9	1.066
Chieftain	331	169	51	3	gc	0	3	0	3.5	1.062
Nordonna	249	83	33	3	k	0	0	0	3.6	1.063
Dark Red Norland	213	51	24	3	2°g	0	0	0	3.6	<1.060
Red Maria	324	174	54	1	gc	0	0	0	3.6	1.060
NY136	301	168	56	3	mis	0	0	0	3.4	1.064
C100-2 (2)	257	114	45	1	gc	0	0	0	3.7	1.062
H52-1	255	91	35	2	2°g	0	0	0	3.0	1.063
H73-1	253	75	30	11	2°g	0	23	0	3.6	<1.060
H90-4**	174	35	20	0	-	0	0	0	3.4	1.072
H122-4	452	224	50	6	2°g	0	0	0	3.5	<1.060
J34-1	203	24	12	0	-	0	10	3	3.7	1.069

** H90-4 also produced an additional 98 cwt/acre of tubers less than 1.875 inches in diameter

2011 Crop Season Chip Color Scores - University Trials

44F Storage

Average of Two Sites (Harford and Ellis Hollow)

	VISUAL SCORES			
	DEC	JAN	FEB	Average 3 MONTHS
SNOWDEN	4.5	3.0	3.5	3.7
WANETA	3.0	2.5	2.0	2.5
LAMOKA	2.5	2.5	2.5	2.5
NY140	3.0	2.0	2.5	2.5
NY148	4.5	3.0	4.0	3.8

VISUAL CHIP SCALE: 1 - 10

1 = best

4 = marginal

5 and over = not acceptable

Samples were reconditioned for 5 days before chipping in December, but were not reconditioned before chipping in January or February.

Average Chip Color over Four Years - University Trials

Out of 44F storage: 2008 - 2011 crop seasons.

Reconditioned 0-2 weeks at room temperature

	VISUAL SCORES			
	(4 YEARS, 2 LOCATIONS*)			
	DEC	JAN	FEB	AVG
Snowden	3.7	3.3	3.0	3.3
Waneta	3.0	2.8	2.6	2.8
Lamoka	3.1	3.0	2.7	2.9
NY140	3.4	3.4	3.0	3.3
NY148	3.6	3.7	3.4	3.6

VISUAL CHIP SCALE: 1 - 10

1 = best

4 = marginal

5 and over = not acceptable

* Locations are Ellis Hollow and Harford (both in Tompkins County).

Tuber Dormancy Relative to Atlantic

Replicate 10 tuber samples from each clone were stored in the dark at room temperature.
The number of weeks that each clone sprouted earlier (-) or later (+) than Atlantic is shown.
Atlantic typically breaks dormancy in late October to mid November

Dormancy is considered broken when half or more of the sample has 1/4" long sprouts.

	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Round whites:											
Andover	3	3	3		4	4	3		1	4	1
Atlantic		0	0	0	0	0	0	0	0	0	0
Eva	8								9	8	7
Katahdin				1							
King Harry					0	0		-1	-2	0	-1
Lamoka	0	1	1	1	2	3	-1	1			
Lehigh				3	3	3	3	1	2	3	1
Marcy	4				4	4	3	2	2	2	2
Pike				4	5			2	4	3	2
Reba		5	5	4	6	7	5	3	4	3	2
Salem											3
Snowden	2	2	2	1	4	2	0	0	0	1	1
Superior				2					-1	1	
Waneta	7	8	8	6	8	7	5	6			
Yukon Gold	0	1									
NY140	6	6	7	5	6	6	5	5			
NY141	2	2	2	2	3	3	1	2			
NY148	1	0	0	0							
NY149	0	2	1								
NY150	2	2	2								
NY151	1	0									
H15-5	5										
H15-17	3										
H25-4	6										
Reds and purples:											
Chieftain	1	2	1	1	0	2	2	1	1	1	2
Norland DR				-3	-3		-2	-2	-2	-1	3
Nordonna	0	1	2	0	0	1	1	0			
Red Maria	4	5	3	3	4	4	1	4	3	2	2
NY136	4	5			4	4	5	4	3	2	
H52-1	0										
H122-4	2										
Ad. Blue					2	2	1	-1		2	0
Ad. Red					2	1	5			3	2

(blank)

Results from Freeville Research Farm *and* Upstate County Farm Trials

Don Halseth

Upstate New York Table 2. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the early maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ¹ (% of total yield)					Size Distrib. (%)		Mean Tuber		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4"	#/ft.	wt.(oz.)	
ANDOVER	315	301	95	2	44	49	5	0	98	54	6.1	5.4	83
ATLANTIC	460	413	130	3	28	49	17	3	94	66	7.6	6.3	91
AF4157-6	388	334	105	9	71	19	1	0	91	19	10.7	3.8	86
MSS576-055SPL	471	436	138	4	37	49	8	1	94	57	9.2	5.3	79
NY141	434	390	123	4	39	47	10	0	96	57	8.4	5.4	78
NY150 (CU-PB)	336	203	64	36	63	2	0	0	64	2	13.1	2.7	82
NY150 (NE1031)	370	213	67	40	59	1	0	0	60	1	14.9	2.6	81
ROCHDALE GOLD-DOREE	381	318	100	5	36	46	12	2	93	57	7.3	5.5	78
SUPERIOR	351	317	100	2	31	47	18	2	96	65	5.9	6.2	78
Average:	390	325	103	12	45	34	8	1	87	42	9.2	4.8	82
Maximum:	471	436	138	40	71	49	18	3	98	66	14.9	6.3	91
Minimum:	315	203	64	2	28	1	0	0	60	1	5.9	2.6	78
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 2

Maturity Ratings: Aug 20

Vinekill (mow) Date: Aug 21

Harvest Date: Aug 22

Upstate New York Table 3. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the early maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Plant ¹ Mat. At Vinekill	Tuber Attributes ¹			External Tuber Defects (%)					Int. Tuber Defects (%) ²				Scab Rating
		Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Sun- Green	Mis- shapen	Growth Cracks	Rot	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.	
ANDOVER	3.0	4	6	5.6	2.5	0.3	1.0	0.9	0.4	0.0	0.0	0.0	0.0	3.6
ATLANTIC	5.8	2	6	3.5	4.7	0.4	1.0	3.3	0.0	7.5	0.0	0.0	10.0	2.9
AF4157-6	5.5	2	6	5.0	4.6	1.1	0.8	2.4	0.3	0.0	0.0	12.5	0.0	4.5
MSS576-055SPL	5.8	3	8	6.6	1.9	0.6	0.3	0.9	0.1	0.0	0.0	2.5	0.0	1.3
NY141	5.0	3	6	6.9	5.8	1.2	4.0	0.6	0.1	0.0	0.0	0.0	0.0	2.0
NY150 (CU-PB)	5.0	1	8	6.8	4.2	0.3	3.7	0.1	0.0	0.0	0.0	2.5	0.0	2.1
NY150 (NE1031)	5.8	1	8	7.0	3.0	0.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	1.6
ROCHDALE GOLD-DOREE	6.3	2	6	6.1	9.6	1.7	7.5	0.2	0.2	2.5	0.0	5.0	0.0	3.0
SUPERIOR	4.0	3	6	4.0	5.0	0.8	3.5	0.7	0.0	0.0	0.0	15.0	0.0	1.0
Average:	5	2	7	5.7	4.6	0.7	2.7	1.0	0.1	1.1	0.0	4.2	1.1	2.4
Maximum:	6	4	8	7.0	9.6	1.7	7.5	3.3	0.4	7.5	0.0	15.0	10.0	4.5
Minimum:	3	1	6	3.5	1.9	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.0

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 4. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the medium maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ¹					Size Distrib. (%)		Mean Tuber		Spec. Grav.
		Cwt/A	% of Std.	(% of total yield)					1-7/8"	2-1/2"	#/ft.	wt.(oz.)	
				1	2	3	4	5	to 4"	to 4 "			
ATLANTIC	459	426	100	2	31	55	10	1	97	66	8.0	6.0	89
AF0338-17	472	438	103	2	27	60	8	3	95	68	8.1	6.1	83
AF4147-1	384	334	78	10	66	24	0	0	90	24	11.0	3.6	85
AF4376-3	495	428	101	2	19	46	26	7	91	72	6.9	7.4	79
B2727-2	319	302	71	2	27	56	13	2	96	69	5.4	6.2	89
DAKOTA CRISP	470	440	103	4	38	46	12	0	96	57	9.4	5.2	78
EVA	390	367	86	2	36	57	5	1	97	61	7.3	5.5	75
LEHIGH	374	348	82	2	32	48	16	2	96	64	6.3	6.2	81
NY141	433	402	94	2	35	53	9	1	97	62	8.0	5.6	81
NY151	347	272	64	6	30	43	17	5	90	60	6.3	5.8	66
REBA	418	392	92	3	35	52	9	1	96	61	8.0	5.4	79
SALEM	456	396	93	4	28	54	9	5	91	63	8.4	5.7	73
SNOWDEN	434	406	95	3	47	45	4	0	97	49	9.3	4.9	87
YUKON GEM	479	448	105	2	35	47	15	1	97	62	8.0	6.2	75
YUKON GOLD	346	301	71	2	21	55	17	4	94	72	5.5	6.6	84
Average:	418	380	89	3	34	49	11	2	95	61	7.7	5.8	80
Maximum:	495	448	105	10	66	60	26	7	97	72	11.0	7.4	89
Minimum:	319	272	64	2	19	24	0	0	90	24	5.4	3.6	66
Waller-Duncan													
LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 2

Maturity Ratings: Aug 13

Vinekill Date: Aug 15

Harvest Date: Aug 27

Upstate New York Table 5. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the medium maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Plant ¹ Mat. At Vinekill	Tuber Attributes ¹			External Tuber Defects (%)					Int. Tuber Defects (%) ²				Scab Rating
		Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Sun- Green	Mis- shapen	Growth Cracks	Rot	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.	
ATLANTIC	6.7	1	6	5.5	4.3	1.3	1.5	1.5	0.0	0.0	0.0	3.3	0.0	1.7
AF0338-17	7.0	2	6	7.0	1.7	0.7	0.8	0.0	0.2	0.0	0.0	0.0	3.3	0.7
AF4147-1	4.3	2	6	3.7	3.2	0.3	1.1	1.4	0.3	0.0	0.0	3.3	0.0	3.5
AF4376-3	6.7	3	6	4.7	4.6	0.9	1.9	1.8	0.0	0.0	0.0	0.0	0.0	2.7
B2727-2	5.0	4	6	4.0	1.2	0.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.8
DAKOTA CRISP	7.3	1	6	6.5	1.9	0.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2.5
EVA	5.3	1	7	7.3	3.3	1.0	1.6	0.6	0.0	0.0	0.0	0.0	0.0	2.7
LEHIGH	6.7	3	6	5.3	3.5	1.1	2.1	0.3	0.0	0.0	0.0	0.0	0.0	1.5
NY141	5.0	3	7	7.8	4.3	0.2	3.4	0.7	0.0	0.0	0.0	0.0	0.0	0.8
NY151	6.0	2	8	7.5	11.1	8.4	0.8	1.9	0.0	0.0	0.0	3.3	0.0	2.7
REBA	5.3	2	8	6.3	2.3	0.4	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.5
SALEM	5.0	3	6	5.3	4.5	0.9	2.4	0.9	0.2	0.0	0.0	13.3	0.0	3.3
SNOWDEN	5.7	1	6	5.2	3.2	0.2	2.2	0.8	0.0	0.0	0.0	6.7	0.0	1.2
YUKON GEM	5.7	4	6	6.0	4.0	0.3	2.4	1.1	0.2	0.0	0.0	0.0	6.7	3.0
YUKON GOLD	4.0	3	7	5.3	6.4	0.3	0.5	4.9	0.7	0.0	0.0	0.0	0.0	0.8
Average:	6	2	6	5.8	3.9	1.1	1.6	1.1	0.1	0.0	0.0	2.0	0.7	2.0
Maximum:	7	4	8	7.8	11.1	8.4	3.4	4.9	0.7	0.0	0.0	13.3	6.7	3.5
Minimum:	4	1	6	3.7	1.2	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 6. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the medium-late maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ¹ (% of total yield)					Size Distrib. (%)		Mean Tuber		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4"	#/ft.	wt.(oz.)	
ATLANTIC	468	439	100	1	29	50	18	2	97	68	7.6	6.4	90
AF4013-3	452	422	96	4	46	47	3	0	96	49	9.9	4.8	85
AF4130-7	393	359	82	4	37	48	11	1	95	58	7.6	5.5	92
AF4363-5	393	363	83	4	37	50	9	0	96	59	7.8	5.3	84
AF4430-2	568	504	115	2	19	50	24	4	93	74	8.6	6.9	63
AF4454-3	523	484	110	3	38	49	10	0	97	59	10.2	5.3	64
AF4463-7	518	477	109	2	41	49	7	2	96	56	9.4	5.9	78
BNC182-5	482	456	104	2	37	50	9	1	97	60	8.9	5.6	88
CASTILE	418	371	84	4	43	41	11	2	94	52	8.1	5.3	79
KENNEBEC	420	273	62	1	33	46	14	7	92	60	6.7	6.6	75
KEUKA GOLD	449	425	97	4	48	44	4	0	96	49	9.5	4.9	75
SNOWDEN	461	427	97	4	57	37	1	0	96	39	10.6	4.5	89
W5015-12	457	414	94	7	70	22	0	1	92	22	12.2	3.9	89
W6703-1Y	378	352	80	5	49	40	5	0	95	45	8.5	4.6	80
W6703-5Y	398	348	79	6	33	44	14	4	91	58	10.4	4.4	71
Average:	452	408	93	4	41	44	9	2	95	54	9.1	5.3	80
Maximum:	568	504	115	7	70	50	24	7	97	74	12.2	6.9	92
Minimum:	378	273	62	1	19	22	0	0	91	22	6.7	3.9	63
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 2

Maturity Ratings: Aug 13

Vinekill Date: Aug 15

Harvest Date: Aug 29

Upstate New York Table 7. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the medium-late maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Plant ¹ Mat. At Vinekill	Tuber Attributes ¹			External Tuber Defects (%)					Int. Tuber Defects (%) ²				Scab Rating
		Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Sun- Green	Mis- shapen	Growth Cracks	Rot	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.	
ATLANTIC	6.0	1	6	5.3	2.7	0.4	1.1	1.0	0.2	3.3	0.0	3.3	0.0	1.0
AF4013-3	5.7	3	6	6.5	2.5	0.5	1.5	0.3	0.2	0.0	0.0	0.0	0.0	2.8
AF4130-7	7.3	2	6	6.2	3.5	1.3	1.4	0.3	0.5	6.7	0.0	0.0	0.0	1.3
AF4363-5	8.0	3	8	7.0	3.1	1.4	1.4	0.0	0.3	0.0	0.0	0.0	0.0	2.3
AF4430-2	7.3	3	8	6.7	4.5	0.2	1.4	2.7	0.1	0.0	0.0	0.0	0.0	4.3
AF4454-3	7.0	3	8	7.2	4.3	1.0	1.2	0.9	1.2	0.0	3.3	0.0	0.0	2.3
AF4463-7	6.3	3	8	6.7	4.5	0.6	1.8	2.1	0.0	0.0	0.0	0.0	0.0	2.0
BNC182-5	7.3	1	6	6.0	2.4	0.5	1.0	0.4	0.4	0.0	0.0	0.0	0.0	1.0
CASTILE	8.0	4	8	4.7	5.7	0.8	4.1	0.8	0.0	0.0	0.0	6.7	0.0	2.5
KENNEBEC	7.0	8	8	3.0	27.0	3.5	9.6	13.5	0.4	0.0	0.0	0.0	0.0	2.5
KEUKA GOLD	6.3	1	6	6.0	1.7	0.0	1.5	0.2	0.0	0.0	0.0	0.0	6.7	2.2
SNOWDEN	6.0	1	6	4.3	3.2	0.1	2.6	0.5	0.0	0.0	0.0	3.3	0.0	1.3
W5015-12	7.3	1	6	4.2	1.5	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3.2
W6703-1Y	7.7	1	6	6.5	1.7	0.4	1.0	0.2	0.0	0.0	0.0	0.0	3.3	2.5
W6703-5Y	8.0	3	6	6.5	3.4	0.2	2.2	0.6	0.4	0.0	0.0	0.0	3.3	3.3
Average:	7	3	7	5.8	4.8	0.8	2.2	1.6	0.2	0.7	0.2	0.9	0.9	2.3
Maximum:	8	8	8	7.2	27.0	3.5	9.6	13.5	1.2	6.7	3.3	6.7	6.7	4.3
Minimum:	6	1	6	3.0	1.5	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.0

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 8. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the late maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ¹ (% of total yield)					Size Distrib. (%)		Mean Tuber		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4"	#/ft.	wt.(oz.)	
ATLANTIC	345	333	100	1	26	59	13	1	98	72	7.3	6.6	94
A00286-3Y	372	349	105	3	49	43	4	0	97	48	10.2	5.0	82
A00293-2Y	248	228	69	7	76	15	2	0	93	17	9.5	3.6	77
AF3001-6	374	365	110	2	36	55	7	0	98	62	9.0	5.9	93
AF4442-4	332	316	95	4	51	43	2	1	96	45	9.3	4.9	86
AF4463-8	417	405	122	2	30	62	6	0	98	68	9.8	5.9	78
CO99045-1W/Y	338	316	95	5	52	42	1	0	95	43	10.4	4.5	90
KATAHDIN	283	273	82	2	41	50	7	0	98	57	7.3	5.3	73
LAMOKA	299	284	85	2	51	43	3	1	97	46	8.0	5.2	86
MARCY	383	367	110	1	29	60	8	2	97	68	9.1	5.8	90
MSQ279-1	307	268	81	2	32	53	9	3	94	62	7.3	5.9	83
NY140	396	362	109	1	28	54	12	6	93	65	8.5	6.5	85
NY148	395	382	115	3	59	35	2	0	97	37	11.6	4.7	97
SNOWDEN	351	343	103	2	57	39	2	0	98	40	10.4	4.8	92
SPARTAN SPLASH	313	299	90	3	46	48	3	0	97	51	8.6	5.1	77
WANETA	261	255	77	2	41	55	2	0	98	57	6.7	5.4	79
Average:	338	322	97	3	44	47	5	1	96	52	8.9	5.3	85
Maximum:	417	405	122	7	76	62	13	6	98	72	11.6	6.6	97
Minimum:	248	228	69	1	26	15	1	0	93	17	6.7	3.6	73
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 7

Maturity Ratings: Aug 23

Vinekill Date: Aug 29

Harvest Date: Sep 12

Upstate New York Table 9. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the late maturity trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Plant ¹ Mat. At Vinekill	Tuber Attributes ¹			External Tuber Defects (%)					Int. Tuber Defects (%) ²				Scab Rating
		Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Sun- Green	Mis- shapen	Growth Cracks	Rot	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.	
ATLANTIC	4.0	1	6	5.2	1.6	0.3	0.0	1.2	0.0	0.0	0.0	3.3	6.7	2.0
A00286-3Y	7.0	3	8	5.8	2.7	1.4	1.3	0.0	0.0	0.0	0.0	3.3	0.0	2.5
A00293-2Y	6.7	3	8	5.8	0.5	0.1	0.4	0.0	0.0	0.0	0.0	10.0	0.0	3.0
AF3001-6	5.0	1	6	4.8	0.6	0.3	0.3	0.1	0.0	0.0	3.3	6.7	0.0	2.5
AF4442-4	6.3	1	6	6.0	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.7
AF4463-8	5.7	1	6	6.5	0.8	0.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.8
CO99045-1W/Y	7.0	6	6	4.5	1.4	1.0	0.3	0.1	0.0	3.3	0.0	6.7	0.0	3.0
KATAHDIN	4.3	2	8	4.3	1.6	0.8	0.5	0.0	0.3	10.0	0.0	0.0	0.0	3.3
LAMOKA	3.7	2	6	5.0	1.7	0.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	2.0
MARCY	6.0	2	6	5.0	0.4	0.1	0.3	0.0	0.0	10.0	0.0	0.0	0.0	2.0
MSQ279-1	6.3	1	6	5.5	6.7	4.4	0.9	1.1	0.3	3.3	0.0	0.0	0.0	2.3
NY140	6.0	3	7	5.7	1.8	1.4	0.1	0.3	0.0	0.0	0.0	13.3	0.0	2.5
NY148	6.3	1	6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	2.5
SNOWDEN	4.3	1	6	5.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
SPARTAN SPLASH	4.3	3	8	7.0	1.1	0.3	0.3	0.0	0.6	0.0	0.0	0.0	0.0	3.3
WANETA	5.3	1	7	6.7	0.7	0.3	0.4	0.0	0.0	0.0	0.0	3.3	0.0	2.3
Average:	6	2	7	5.6	1.4	0.7	0.4	0.2	0.1	1.7	0.2	3.1	0.4	2.5
Maximum:	7	6	8	7.0	6.7	4.4	1.3	1.2	0.6	10.0	3.3	13.3	6.7	3.3
Minimum:	4	1	6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 10. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the red and purple-skinned variety trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ¹ (% of total yield)					Size Distrib. (%)		Mean Tuber		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4"	#/ft.	wt.(oz.)	
AC99329-7PW/Y	436	366	77	9	51	37	2	0	91	40	11.4	4.0	81
ATTX01178-1R	489	417	88	3	28	51	13	5	93	65	8.0	6.4	77
ATTX98453-3R	363	319	68	9	51	38	2	0	91	40	9.6	3.9	73
B2873-1	316	284	60	8	54	36	2	0	92	38	8.0	4.1	71
BTX2332-1R	351	326	69	5	57	31	6	1	94	37	8.0	4.6	72
CHIEFTAIN	523	472	100	4	41	50	5	0	96	55	10.5	5.2	76
COTX02293-4R	319	295	62	6	49	39	6	0	94	45	7.3	4.5	66
DARK RED NORLAND-USDA	441	422	89	2	42	46	9	0	98	56	8.5	5.4	70
DARK RED NORLAND-NE1031	379	355	75	5	39	53	3	0	95	56	7.8	5.0	67
H52-1	360	339	72	2	51	40	6	0	98	46	7.3	5.1	74
J34-1	354	315	67	10	65	24	1	0	90	25	9.9	3.7	79
MSR214-2P	444	424	90	2	45	48	5	0	98	53	8.5	5.5	76
NDA050237B-1R	482	425	90	8	47	37	9	0	92	46	10.8	4.6	76
NDTX4784-7R	343	314	66	6	42	39	13	0	94	52	7.1	4.9	73
NY136	620	533	113	3	29	46	15	6	91	61	10.3	6.2	80
PURPLE 5	397	364	77	4	55	39	2	0	96	41	9.1	4.5	79
RED MARIA	471	427	91	2	28	56	10	4	95	67	8.5	5.8	71
ROSE VALLEY	411	361	76	9	74	16	1	0	91	16	12.1	3.5	88
W8405-12	566	518	110	6	49	40	5	0	94	45	12.7	4.7	73
W8886-3R	394	368	78	3	42	48	5	2	95	53	7.7	5.3	73
Average:	423	382	81	5	47	41	6	1	94	47	9.2	4.9	75
Maximum:	620	533	113	10	74	56	15	6	98	67	12.7	6.4	88
Minimum:	316	284	60	2	28	16	1	0	90	16	7.1	3.5	66

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 7

Maturity Ratings: Aug 9

Vinekill Date: Sep 5

Harvest Date: Sep 20

Note: trial consists of two replications per entry.

Upstate New York Table 11. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the late red and purple-skinned variety trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Plant ¹ Mat. At Vinekill	Tuber Attributes ¹			External Tuber Defects (%)					Int. Tuber Defects (%) ²				Scab Rating
		Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Sun- Green	Mis- shapen	Growth Cracks	Rot	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.	
AC99329-7PW/Y	8.0	1	8	6.0	7.2	3.0	3.2	0.0	0.9	0.0	0.0	10.0	0.0	0.8
ATTX01178-1R	7.0	1	8	5.5	7.0	2.5	1.4	2.1	1.0	0.0	0.0	0.0	0.0	1.8
ATTX98453-3R	6.5	1	8	5.0	3.0	0.1	0.2	0.5	2.1	0.0	0.0	5.0	0.0	2.3
B2873-1	2.0	1	5	4.5	1.9	0.5	0.0	1.4	0.0	0.0	0.0	15.0	0.0	2.5
BTX2332-1R	3.0	2	6	4.0	1.4	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	3.5
CHIEFTAIN	5.5	3	8	5.3	6.0	0.0	0.1	0.4	5.4	0.0	0.0	0.0	20.0	3.0
COTX02293-4R	2.5	3	8	5.5	2.6	0.3	0.1	0.7	1.5	25.0	0.0	5.0	0.0	1.5
DARK RED NORLAND-I	4.5	5	8	5.5	2.0	0.2	0.0	1.2	0.6	0.0	0.0	0.0	0.0	2.0
DARK RED NORLAND-I	5.0	3	6	4.5	1.9	0.2	1.8	0.0	0.0	0.0	0.0	0.0	10.0	2.0
H52-1	4.0	8	6	4.0	3.1	0.0	2.3	0.0	0.9	0.0	0.0	0.0	0.0	2.0
J34-1	4.5	3	8	5.5	1.2	0.9	0.2	0.0	0.2	5.0	45.0	0.0	0.0	1.0
MSR214-2P	8.0	1	8	3.5	2.4	0.0	0.6	0.9	1.0	0.0	0.0	0.0	0.0	4.3
NDA050237B-1R	8.0	1	8	7.0	4.1	0.4	2.6	0.0	1.1	0.0	0.0	10.0	0.0	1.5
NDTX4784-7R	6.5	1	8	7.0	3.5	0.2	0.2	2.5	0.5	0.0	0.0	0.0	0.0	1.5
NY136	6.5	3	8	6.0	4.0	0.4	1.3	0.2	2.0	0.0	0.0	0.0	0.0	2.0
PURPLE 5	5.0	3	6	5.5	3.9	0.0	1.4	0.6	1.9	0.0	0.0	0.0	0.0	2.5
RED MARIA	7.0	1	6	6.0	3.9	0.0	1.2	0.0	2.7	0.0	0.0	0.0	0.0	3.0
ROSE VALLEY	7.5	5	6	5.0	2.9	0.0	2.7	0.2	0.0	0.0	0.0	10.0	0.0	2.0
W8405-12	7.0	3	6	6.0	2.3	0.0	0.5	0.0	1.8	0.0	0.0	0.0	25.0	2.0
W8886-3R	6.5	3	7	4.8	2.1	0.0	2.1	0.0	0.0	0.0	0.0	5.0	0.0	3.5
Average:	6	3	7	5.3	3.3	0.4	1.1	0.6	1.2	1.5	2.3	3.0	2.8	2.2
Maximum:	8	8	8	7.0	7.2	3.0	3.2	2.5	5.4	25.0	45.0	15.0	25.0	4.3
Minimum:	2	1	5	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table16. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the advanced Cornell "H" and "J" clone trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ¹ (% of total yield)					Size Distrib. (%)		Mean Tuber		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4"	#/ft.	wt.(oz.)	
AEGGEBLOMME	402	173	45	52	47	0	0	0	48	0	21.0	2.0	93
ANDOVER	305	279	73	1	25	62	10	2	97	71	4.8	6.6	84
ANDOVER - GIANT HILL 2	465	435	114	4	29	59	7	1	95	66	8.3	5.8	88
ATLANTIC	423	381	100	3	31	52	12	3	95	64	7.5	5.9	94
BLOSSOM	353	188	49	29	48	18	4	0	71	22	7.9	4.7	90
GENESEE	185	130	34	3	32	41	22	2	95	63	3.1	6.1	77
KATAHDIN	323	295	77	4	49	39	7	1	95	46	6.4	5.2	73
SIBERIAN	342	249	65	25	71	4	0	0	75	4	13.5	2.7	78
SNOWDEN	403	382	100	3	30	57	10	0	97	67	7.2	5.8	95
SUPERIOR	318	297	78	1	29	57	12	1	98	69	5.2	6.4	76
H25-4 **	388	366	96	3	39	53	5	0	97	58	7.6	5.4	95
H122-4	505	464	122	2	38	52	7	1	96	59	8.8	6.0	64
J2-25 **	369	334	88	9	56	34	1	0	91	35	10.0	3.8	84
J3-14 **	385	362	95	5	47	46	2	0	95	48	8.8	4.6	80
J9-6 **	342	318	83	6	56	34	3	0	94	37	7.6	4.7	62
J13-2 **	480	455	119	3	36	55	5	1	96	60	9.4	5.4	84
J15-7	451	425	111	5	33	55	7	0	95	62	8.5	5.5	91
J16-2 **	352	320	84	4	53	41	2	0	96	43	7.6	4.8	80
J17-1 **	450	393	103	3	26	54	10	6	91	64	7.6	6.2	91
J18-2 **	419	393	103	5	49	45	1	0	95	47	8.9	4.9	75
J21-1 **	345	310	81	4	51	43	2	0	96	45	7.5	4.8	79
J21-5 **	393	360	94	3	38	53	6	0	97	59	7.6	5.4	76
J100-5 **	494	447	117	7	51	41	1	0	93	43	12.2	4.2	80
J102-9 **	507	456	120	5	44	45	5	2	93	50	10.1	5.2	91
J105-9 **	363	321	84	10	45	42	1	1	89	44	8.8	4.3	86
J105-10 **	382	345	91	9	54	37	0	0	91	37	9.9	4.0	90
J106-2 **	370	331	87	3	35	53	8	1	96	61	7.2	5.4	82
J107-4 **	340	320	84	5	40	48	7	0	95	55	6.3	5.7	83
J110-12 **	450	403	106	8	51	38	3	1	91	40	10.7	4.4	85
Average:	390	342	90	8	43	43	5	1	91	49	8.6	5.0	83
Maximum:	507	464	122	52	71	62	22	6	98	71	21.0	6.6	95
Minimum:	185	130	34	1	25	0	0	0	48	0	3.1	2.0	62
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 11

Maturity Ratings: Aug 28

Vinekill Date: Sep 12

Harvest Date: Oct 4

Note: entry name or number followed by ** had two replications, remainder of entries were in 4 replications.

Upstate New York Table 17. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the advanced Cornell "H" and "J" clone trial grown at Freeville, New York - 2012.

Genotype Variety or Clone	Plant ¹ Mat. At Vinekill	Tuber Attributes ¹			External Tuber Defects (%)					Int. Tuber Defects (%) ²				Scab Rating
		Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Sun- Green	Mis- shapen	Growth Cracks	Rot	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.	
AEGGEBLOMME	6.5	3	8	4.0	4.4	1.7	1.0	0.6	1.1	0.0	0.0	0.0	0.0	0.5
ANDOVER	2.5	3	6	6.0	5.7	0.3	0.0	0.0	5.4	0.0	0.0	0.0	0.0	2.0
ANDOVER - GIANT HIL	5.5	3	6	6.1	1.5	0.6	0.0	0.2	0.7	5.0	0.0	0.0	0.0	1.0
ATLANTIC	4.3	2	6	4.3	4.2	0.8	0.4	0.1	2.8	0.0	0.0	0.0	0.0	2.3
BLOSSOM	8.0	8	8	3.5	17.6	2.0	15.3	0.0	0.2	7.5	0.0	0.0	0.0	4.0
GENESEE	7.5	3	8	5.0	22.5	17.3	1.4	2.4	1.4	2.5	0.0	5.0	0.0	2.6
KATAHDIN	4.0	2	8	4.0	3.1	1.4	0.4	0.0	1.3	0.0	0.0	0.0	0.0	2.8
SIBERIAN	7.5	3	8	4.3	2.1	0.5	1.3	0.0	0.3	0.0	0.0	0.0	0.0	1.6
SNOWDEN	5.3	1	6	4.0	2.0	1.8	0.2	0.0	0.0	15.0	0.0	2.5	0.0	2.5
SUPERIOR	2.0	2	5	3.5	4.7	0.8	1.1	0.9	1.9	2.5	2.5	0.0	0.0	0.5
H25-4 **	7.5	3	8	6.5	2.7	1.4	1.1	0.0	0.2	35.0	0.0	0.0	0.0	1.3
H122-4	2.0	3	8	4.8	4.6	0.1	0.5	0.0	4.0	0.0	2.5	0.0	0.0	1.6
J2-25 **	3.5	1	6	6.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5
J3-14 **	3.0	1	6	5.0	0.8	0.7	0.1	0.0	0.0	5.0	0.0	0.0	0.0	2.3
J9-6 **	2.0	3	8	6.0	1.0	0.2	0.3	0.0	0.4	0.0	0.0	5.0	0.0	1.8
J13-2 **	3.5	1	6	5.5	1.6	0.3	0.0	0.0	1.3	10.0	0.0	0.0	0.0	1.5
J15-7	5.8	1	6	6.5	1.0	0.4	0.0	0.0	0.5	0.0	0.0	7.5	0.0	2.0
J16-2 **	5.0	2	6	4.0	5.2	0.3	0.0	4.4	0.5	0.0	0.0	0.0	0.0	4.3
J17-1 **	3.0	3	6	6.5	2.7	0.0	0.4	0.0	2.3	10.0	0.0	0.0	0.0	1.3
J18-2 **	2.5	1	7	6.3	1.7	0.0	0.0	0.0	1.7	10.0	0.0	0.0	0.0	3.0
J21-1 **	3.0	1	8	7.0	5.6	2.1	1.3	0.0	2.2	0.0	0.0	0.0	0.0	2.0
J21-5 **	2.0	2	8	6.0	5.4	0.6	0.3	1.5	3.0	0.0	0.0	0.0	0.0	2.0
J100-5 **	3.0	2	8	5.0	2.9	1.4	0.2	0.0	1.2	0.0	0.0	0.0	0.0	1.0
J102-9 **	5.0	1	7	5.3	3.0	1.2	0.4	1.0	0.3	25.0	0.0	0.0	0.0	2.0
J105-9 **	5.0	1	6	6.0	0.5	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.5
J105-10 **	3.0	2	7	4.5	1.1	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0
J106-2 **	2.0	1	8	6.5	6.5	0.1	0.0	0.7	5.7	0.0	10.0	0.0	0.0	1.8
J107-4 **	3.5	2	7	5.0	0.9	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.5
J110-12 **	2.0	1	8	6.5	1.7	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.5
Average:	4	2	7	5.3	4.0	1.3	0.9	0.4	1.4	4.4	0.5	0.7	0.0	1.8
Maximum:	8	8	8	7.0	22.5	17.3	15.3	4.4	5.7	35.0	10.0	7.5	0.0	4.3
Minimum:	2	1	5	3.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 24. Yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, percentage of defects, and specific gravity for Wayne County muck soil red and purple-skinned variety trial grown near Marion, New York - 2012.

Variety or Clone	Total Yield	Mkt. Yield		Size Distribution ¹				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
	Cwt/A	Cwt/A	% of Std.	(% of total yield)				#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
				1	2	3	4											
AC99329-7PW/Y	325	207	70	21	70	10	0	10.1	3.3	13	0	0	3	0	0	20	0	75
B2818-1 *	236	115	39	45	55	0	0	11.2	2.2	6	0	0	0	0	0	20	0	70
B2844-12	168	77	26	40	54	7	0	7.4	2.4	9	2	1	2	0	0	10	5	61
B2873-1	219	140	47	27	67	6	0	7.4	3.1	2	0	7	0	10	0	30	0	71
CHIEFTAIN	429	295	100	7	56	33	4	8.0	5.6	14	1	4	1	0	0	0	0	70
DARK RED NORLAND	328	227	77	16	71	13	1	9.6	3.5	10	0	2	2	60	0	0	0	64
H52-1	314	206	70	26	67	6	1	6.6	5.0	3	1	0	3	20	0	0	0	69
J34-1	268	155	53	32	66	1	0	10.6	2.7	8	0	1	1	10	0	0	0	74
MSR214-2P	450	328	111	10	78	12	0	11.1	4.2	3	1	11	2	0	0	0	0	63
NDA050237B-1R	285	216	73	16	66	18	0	8.3	3.7	4	0	1	3	0	0	0	0	60
NDTX4784-7R *	314	222	75	11	62	25	3	7.3	4.5	4	0	11	1	0	0	0	0	68
NY136	382	276	94	18	62	20	0	10.3	3.9	7	0	0	2	0	0	0	0	66
RED MARIA	329	288	98	9	68	23	0	8.0	4.3	2	0	1	0	5	0	0	0	67
ROSE VALLEY	334	214	73	30	67	3	0	11.2	3.1	3	2	0	0	0	0	0	0	70
W8405-12	458	271	92	23	70	6	0	14.3	3.3	16	1	0	1	0	0	5	0	63
Average:	323	216	73	22	65	12	1	9.4	3.7	7	1	3	1	7	0	6	0	67
Maximum:	458	328	111	45	78	33	4	14.3	5.6	16	2	11	3	60	0	30	5	75
Minimum:	168	77	26	7	54	0	0	6.6	2.2	2	0	0	0	0	0	0	0	60

¹Tuber size classes:

1 = under 2" dia., 2 = 2" to 3" dia., 3 = 3" to 4" dia., and 4 = over 4" dia.

Plant Date: June 6

Vinekill Date: September 9

Harvest Date: October 1

Fertilizer: 87 N-70 P-230 K lbs. per acre

Vinekill: 1 pt./a Reglone

Irrigation: none

Other: 12 oz /a Widow, 1 Pt/a Quadris, 1 Qt/a Vydate CLV, 6 oz/a Ranman.

* Note: This trial had two replications, except there was only one plot each for B2818-1 and NDTX4784-7R as denoted by "*".

Upstate New York Table 25. Yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, percentage of defects, and specific gravity for Wayne County muck soil white-skinned variety trial grown near Marion, New York - 2012.

Variety or Clone	Total	Mkt. Yield		Size Distribution ¹				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
	Yield	Cwt/A	% of Std.	(% of total yield)				#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
	Cwt/A			1	2	3	4											
ATLANTIC	386	298	100	8	60	30	2	8.3	4.8	10	2	0	1	65	0	0	0	86
A00286-3Y *	378	275	92	14	65	21	0	9.3	4.2	11	0	0	2	10	0	0	0	68
AF0338-17 *	373	308	103	7	60	33	0	7.6	5.1	8	0	0	2	0	0	0	0	77
AF4013-3	281	160	54	22	74	3	1	7.9	3.7	17	0	0	4	0	0	5	0	81
AF4157-6 *	412	310	104	12	76	13	0	11.3	3.8	10	2	0	1	0	0	0	0	84
B2832-8	307	154	52	33	61	6	0	11.9	2.7	11	3	1	2	0	0	10	0	80
B2842-3 *	316	141	47	36	62	3	0	13.8	2.4	14	1	2	3	0	0	20	0	90
B2905-1	360	285	96	17	76	7	0	10.8	3.5	3	0	0	0	10	0	10	5	88
H15-17	328	247	83	13	76	11	0	8.5	4.0	11	1	0	1	0	0	15	0	80
LEHIGH	471	384	129	6	44	47	3	7.7	6.5	9	0	0	0	30	0	0	0	80
NY140	417	314	105	8	72	20	0	9.0	4.8	17	0	0	0	5	0	25	0	78
NY141	404	303	102	7	72	21	0	8.4	5.0	17	0	0	0	0	0	0	0	80
NY148	443	349	117	8	76	16	0	9.7	4.8	13	0	0	0	0	0	5	0	84
NY150	213	12	4	85	15	0	0	17.7	1.4	7	0	0	2	0	0	15	0	81
NY151	296	150	50	18	62	19	0	8.4	3.7	27	0	0	3	0	0	15	0	68
REBA	402	286	96	5	65	28	1	7.5	5.5	15	0	0	8	15	0	0	0	75
SPARTAN SPLASH	371	299	100	16	78	6	0	11.0	3.5	2	1	0	1	0	0	10	0	80
WANETA	413	312	105	4	65	31	0	7.9	5.5	18	1	1	1	5	0	10	0	79
Average:	365	255	86	18	64	17	0	9.8	4.2	12	1	0	2	8	0	8	0	80
Maximum:	471	384	129	85	78	47	3	17.7	6.5	27	3	2	8	65	0	25	5	90
Minimum:	213	12	4	4	15	0	0	7.5	1.4	2	0	0	0	0	0	0	0	68

¹Tuber size classes: 1 = under 2" dia., 2 = 2" to 3" dia., 3 = 3" to 4" dia., and 4 = over 4" dia.

Plant Date: June 6

Vinekill Date: September 9

Harvest Date: October 1

Fertilizer: 87 N-70 P-230 K lbs. per acre

Vinekill: 1 pt./a Reglone

Irrigation: none

Other: 12 oz /a Widow, 1 Pt/a Quadris, 1 Qt/a Vydate CLV, 6 oz/a Ranman.

* Note: This trial had two replications, except there was only one plot each for A00286-3Y, AF0338-17, AF4157-6 and B2842-3 denoted by "**".

Upstate New York Table 26. Yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, percentage of defects, and specific gravity for Steuben County chipping variety trial grown near Arkport, New York - 2012.

Variety or Clone	Total Yield	Mkt. Yield		Size Distribution ¹ (% of total yield)				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
	Cwt/A	Cwt/A	% of Std.	1	2	3	4	#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
ATLANTIC	308	276	100	8	76	16	0	7.4	4.6	2	1	0	0	10	0	17	0	97
H15-5 *	396	279	101	19	80	1	0	13.0	3.4	10	0	1	0	0	0	20	0	90
H15-17 *	379	316	115	8	71	21	0	9.5	4.4	5	2	1	1	10	0	60	0	89
H23-16 *	246	212	77	10	86	5	0	6.7	4.1	3	1	0	0	0	0	20	0	86
H25-4 *	263	197	71	18	74	8	0	8.0	3.6	5	1	0	0	30	0	0	0	91
LAMOKA	316	261	94	11	80	9	0	8.5	4.1	5	0	1	0	0	0	13	0	90
LELAH	285	230	83	9	78	13	0	6.7	4.7	4	4	2	0	50	5	10	5	95
NY140	348	301	109	11	77	12	0	8.8	4.4	3	0	0	0	0	0	40	0	84
NY148	276	224	81	16	74	10	0	8.2	3.7	3	0	0	0	0	0	15	0	96
SNOWDEN	353	294	106	13	72	14	0	9.9	3.9	3	0	0	0	30	3	43	0	90
TUNDRA	287	242	88	8	86	6	0	7.5	4.2	5	2	0	0	0	0	15	0	97
WANETA	312	269	97	7	74	18	0	7.3	4.7	6	0	0	0	3	0	47	0	88
Average:	314	258	94	11	77	11	0	8.5	4.1	4	1	0	0	11	1	25	0	91
Maximum:	396	316	115	19	86	21	0	13.0	4.7	10	4	2	1	50	5	60	5	97
Minimum:	246	197	71	7	71	1	0	6.7	3.4	2	0	0	0	0	0	0	0	84

¹Tuber size classes:

1 = under 2" dia., 2 = 2" to 3" dia., 3 = 3" to 4" dia., and 4 = over 4" dia.

Plant Date: May 31

Vinekill Dates: September 13 and 20

Harvest Date: October 9

Fertilizer: 128 N-256 P-128 K-0.24 B-8 ZN-4 S

Vinekill: 1 pt./a Rowrunner (Diquat) per application

Irrigation: 3 times, 4 inches total

Other: 7.0 oz./a Quadris and 2.67 oz./a Platinum at planting.

Spacing: 36 inch bed width by 8.0 inch within-row seed spacing.

* Note: This trial had two replications, except there was only one plot each of H15-5, H15-17, H23-16, and H25-4.

Upstate New York Table 27. Yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, percentage of defects, and specific gravity for Wyoming County chipping variety trial grown near Portage, New York - 2012.

Variety or Clone	Total Yield	Mkt. Yield		Size Distribution ¹ (% of total yield)				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
	Cwt/A	Cwt/A	% of Std.	1	2	3	4	#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
ATLANTIC	418	361	100	11	85	3	0	11.3	3.8	0	1	0	0	0	5	20	0	89
H15-5 *	455	310	86	32	68	0	0	17.4	2.7	0	0	0	0	0	0	60	0	82
H15-17 *	487	453	126	6	86	7	0	10.7	4.7	0	0	0	0	0	0	40	0	83
H23-16 *	428	378	105	11	74	15	0	10.8	4.1	0	0	0	0	0	0	30	0	82
H25-4 *	473	419	116	10	85	5	0	13.0	3.8	0	1	1	0	0	0	40	0	93
LAMOKA	408	351	97	12	79	10	0	10.7	4.0	1	2	0	0	0	0	25	5	85
LELAH	267	231	64	12	83	5	0	7.9	3.5	1	1	0	0	5	10	25	5	94
NY140	420	352	98	16	80	4	0	12.0	3.6	0	0	0	0	0	0	70	0	86
NY148	433	348	96	18	78	3	1	14.2	3.2	1	0	0	0	0	0	5	5	93
SNOWDEN	471	393	109	16	81	3	0	15.2	3.2	0	0	0	0	0	0	55	0	93
TUNDRA	262	211	59	19	80	2	0	8.9	3.1	0	0	0	0	0	0	10	0	91
WANETA	417	374	104	8	80	12	0	9.6	4.5	1	0	0	0	0	0	30	0	80
Average:	412	349	97	14	80	6	0	11.8	3.7	0	0	0	0	0	1	34	1	87
Maximum:	487	453	126	32	86	15	1	17.4	4.7	1	2	1	0	5	10	70	5	94
Minimum:	262	211	59	6	68	0	0	7.9	2.7	0	0	0	0	0	0	5	0	80

¹Tuber size classes:

1 = under 2" dia., 2 = 2" to 3" dia., 3 = 3" to 4" dia., and 4 = over 4" dia.

Plant Date: May 15

Vinekill Dates: September 10 and 17

Harvest Date: October 11

Vinekill: 2 pt. Diquat per application

Irrigation: 5 inches total

Fertilizer: 110 N-160 P-185 K-3.3 MG-20.8 S-0.6 B at planting plus 82N at hilling.

Spacing: 34 inch bed width by 8.0 inch within-row seed spacing.

Other: 3 pt. Vydate, 6.3 oz. Quadris and 6.3 oz. Ridomil Gold in furrow, 2 applications of 1.25 lbs. Ridomil foliar.

* Note: This trial had two replications, except there was only one plot each of H15-5, H15-17, H23-16 and H25-4.

Data from Riverhead, Long Island Trials
Sandra Menasha

Long Island Table 2. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of Cornell advanced white-skinned clones grown at Riverhead, N.Y. - 2012

Clone	Total		Marketable Yield		Size Distribution (%)					Size Distribution		Specific ¹ Gravity
	Yield			percentage		2 to	2.5 to	3.25 to		2 to	2.5 to	
	cwt/A	cwt/A	of standard		< 2"	2.5"	3.25"	4"	> 4"	4 in	4 in	
Season-132 days												
Reba	506	470	100		2	16	57	24	1	97	81	68
Andover	467	446	95		2	26	67	5	0	98	72	77
Marcy	610	584	124		2	14	68	16	0	98	84	77
Norwis	469	450	96		2	11	56	31	0	98	88	62
Superior	512	483	103		4	35	60	2	0	96	62	69
AF4130-7	554	524	111		2	14	63	20	1	97	84	80
NY 140	590	562	120		2	16	64	18	0	98	82	74
NY 141	525	480	102		2	21	63	12	1	97	76	69
NY 143	495	459	98		4	37	57	2	0	96	59	61
NY 148	558	530	113		4	31	62	3	0	96	65	80
NY 150	372	284	60		22	71	6	0	0	78	6	73
NY 151	618	553	118		3	20	59	17	1	96	76	60
G70-3	549	496	106		6	29	61	4	0	94	65	63
<i>Fisher's Protected</i>												
LSD (0.05)	(66)	(65)										(4)

Planted on 4/10/12, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 8/20/12, harvested on 9/

¹ -1.0 is excluded from specific gravity readings.

Long Island Table 3. Maturity, tuber shape, and internal and external defects of Cornell advanced white-skinned clones grown at Riverhead, N.Y. - 2012

Clone	Maturity ¹ on	Tuber Data ¹		Tuber Defects (%)					Percentage				
		Shape	Appearance	Total	Sun- burn	Mis- shapen	Growth cracks	Other ²	Hollow heart	Brown center	Internal Necrosis		
											Sl.	Mod.	Sev.
Season-132 days													
Reba	7	O-R	7	4	2	1	0	1	43	10	0	0	0
Andover	1	R-O	7	2	1	0	1	1	10	3	8	0	0
Marcy	7	O-R	7	3	1	0	0	1	3	0	25	3	0
Norwis	4	O-R	7	2	0	0	1	1	15	3	20	0	0
Superior	5	R-O	7	2	0	1	0	1	0	0	0	0	0
AF4130-7	8	O-R	8	3	2	1	0	0	13	0	0	0	0
NY 140	6	R-O	8	3	2	1	0	0	3	5	5	0	0
NY 141	5	R-O	7	6	2	3	0	1	0	15	0	0	0
NY 143	4	O-R	7	3	1	2	0	0	3	3	0	0	0
NY 148	5	R	7	1	0	0	0	0	0	0	45	10	0
NY 150	1	R	8	2	0	1	0	1	3	5	0	3	0
NY 151	5	R-O	8	7	4	1	0	1	0	5	3	0	0
G70-3	5	O-R	8	4	1	1	0	1	0	0	43	5	0

¹ -See rating system outlined in the text

² -Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U.S.

No. 1 grade. Mechanical defects, however, were not scored

Long Island Table 4. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of NE 1031 white-skinned clones grown at Riverhead, N.Y. - 2012.

Clone	Total		Marketable Y yield		Size Distribution (%)					Size Distributor		Specific ¹ Gravity
	Yield		percentage		2 to	2.5 to	3.25 to		2 to	2.5 to		
	cwt/A	cwt/A	of standard	< 2'	2.5'	3.25'	4'	> 4'	4 in	4 in		
Season-132 days												
Atlantic	626	578	100	1	10	52	37	0	99	88	80	
Dakota Crisp	647	604	105	3	14	52	31	0	97	83	72	
Katahdin	458	429	74	4	29	65	3	0	96	68	63	
Rochdale Gold	395	360	62	5	23	62	10	0	95	72	67	
Superior	544	518	90	3	22	67	8	0	97	75	69	
Yukon Gold	397	357	62	3	20	62	15	0	97	76	73	
Yukon Gem	423	393	68	2	23	71	4	0	98	75	63	
AF4013-3	452	411	71	7	53	40	0	0	93	40	75	
AF4157-6	528	487	84	4	29	63	4	0	96	67	72	
B2727-2	542	526	91	1	16	67	16	0	99	83	75	
BNC182-5	575	551	95	3	24	63	11	0	97	73	72	
NY 150	409	321	56	20	69	11	0	0	80	11	74	
NYE106-4	566	546	95	3	29	63	6	0	97	69	80	
Fisher's Protected LSD (0.05)	(142)	(132)									(5)	

Planted on 4/10/12, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 8/20/12, harvested on 9/20/12.

¹ -1.0 is excluded from specific gravity readings.

Long Island Table 5. Maturity, tuber shape, and internal and external defects of NE 1031 white-skinned clones grown at Riverhead, N.Y. - 2012.

Clone	Maturity ¹ on 8/9/2012	Tuber Data ¹		Tuber Defects (%)					Percentage				
		Shape	Appear- ance	Total	Sun- burn	Mis- shapen	Growth cracks	Other ²	Hollow heart	Brown center	Internal Necrosis		
											Sl.	Mod.	Sev.
Season-132 days													
Atlantic	5	R-O	6	6	2	1	2	2	23	0	18	15	0
Dakota Crisp	4	R-O	6	4	2	1	0	0	0	0	10	3	0
Katahdin	2	O-R	7	3	1	1	0	1	8	5	3	0	0
Rochdale Gold	3	R	6	4	1	1	0	2	8	23	3	0	0
Superior	1	O-R	6	2	0	1	0	1	5	0	3	0	0
Yukon Gold	1	O-R	6	7	2	0	1	4	20	13	3	0	0
Yukon Gem	1	O-R	7	5	1	2	1	1	5	13	5	0	0
AF4013-3	3	O-R	7	2	0	1	0	1	0	0	0	0	0
AF4157-6	2	R-O	7	4	1	0	2	1	20	0	5	0	0
B2727-2	5	O-R	7	2	1	0	0	1	28	0	3	0	0
BNC182-5	5	R	7	1	1	1	0	0	10	0	0	0	0
NY 150	1	R	7	2	0	1	0	1	3	10	0	0	0
NYE106-4	6	R	6	1	0	0	0	0	0	0	28	13	0

¹ -See rating system outlined in the text.

² -Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U.S.

No. 1 grade. Mechanical defects, however, were not scored.

Long Island Table 8. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of purple and red-skinned clones grown at Riverhead, N.Y. - 2012.

Clone	Total		Marketable Yield		Size Distribution (%)					Size Distribution		Specific ¹ Gravity
	Yield		percentage		2 to	2.5 to	3.25 to		2 to	2.5 to		
	cwt/A	cwt/A	of standard	< 2"	2.5"	3.25"	4"	> 4"	4 in	4 in		
Season-131 days												
Chieftain	544	502	100	4	22	67	7	0	96	74	62	
Dark Red Norland	387	348	69	3	26	68	3	0	97	71	62	
Red Maria	509	483	96	3	19	66	12	0	97	77	63	
B2818-1	232	187	37	19	65	15	1	0	81	16	61	
B2873-1	348	326	65	5	30	61	4	0	95	65	63	
BNC244-10	333	295	59	10	53	37	0	0	90	37	79	
H52-1	198	150	30	19	70	11	0	0	81	11	61	
H90-4	341	279	56	17	66	17	0	0	83	17	69	
H122-4	437	382	76	5	43	51	0	0	95	52	62	
<i>Fisher's Protected</i>												
LSD (0.05)	(59)	(53)									(2)	

Planted on 4/11/12, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 8/20/12, harvested on 9/17

¹ -1.0 is excluded from specific gravity readings.

Long Island Table 9. Maturity, tuber shape, and internal and external defects of purple and red-skinned clones grown at Riverhead, N.Y. - 2012.

Clone	Maturity ¹ on	Tuber Data ¹		Tuber Defects (%)					Percentage				
		Shape	Appearance	Total	Sun-burn	Mis-shapen	Growth cracks	Other ²	Hollow heart	Brown center	Internal Necrosis		
	1/1/1904										Sl.	Mod.	Sev.
Season-131 days													
Chieftain	1	R-O	6	4	1	1	1	0	0	10	3	0	0
Dark Red Norland	1	R-O	5	7	1	1	4	0	5	0	0	0	0
Red Maria	3	R-O	7	2	1	1	0	0	0	3	0	0	0
B2818-1	1	R	6	1	0	0	0	1	3	3	0	0	0
B2873-1	1	R-O	6	2	0	0	1	0	5	5	0	0	0
BNC244-10	1	R-O	7	2	0	2	0	0	0	0	0	0	0
H52-1	1	O-L	7	6	0	6	0	0	55	0	0	0	0
H90-4	1	R	6	2	0	1	0	0	0	0	0	0	0
H122-4	1	O-R	6	8	2	4	0	2	0	5	0	0	0

¹ -See rating system outlined in the text.

² -Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U.S. No. 1 grade. Mechanical defects, however, were not scored.

Harvesting an on-farm yield trial (McCormick Farms, Wyoming County)

