



Potato Show & Tell  
8 December 2011



劲爽浓情  
Intense & Stimulating

飘香麻辣锅味  
Numb & Spicy Hot Pot Flavor



## **Contents of this Report**

- I. Paragraph descriptions of advanced selections from the Cornell Breeding Program
- II. Summary tables comparing yield and specific gravity across trial sites
- III. Results from Cornell Breeding Trials (Walter De Jong and Bob Plaisted)
  - i. Advanced Stage Yield Trial, Ellis Hollow
  - ii. Intermediate Stage Yield Trial, Ellis Hollow
  - iii. First Stage Yield Trial, Ellis Hollow
  - iv. Advanced and Intermediate Yield Trials, Harford
  - v. Red Yield Trial, Ellis Hollow
  - vi. Chip Color Data for 2010 Crop in University Trials
  - vii. Chip Color Summary for past three years in University Trials
  - viii. Common Scab Resistance Test Data
  - ix. Tuber Dormancy Data
- IV. Data from Freeville and Upstate County Trials (Don Halseth)
  - i. Early Maturity Yield Trial, Freeville
  - ii. Medium Maturity Yield Trial, Freeville
  - iii. Medium-Late Maturity Yield Trial, Freeville
  - iv. Late Maturity Yield Trial, Freeville
  - v. Red-Skinned Yield Trial, Freeville
  - vi. Cornell "G" and "H" White Clone Yield Trial, Freeville
  - vii. Wayne County Muck Soil - Red Yield Trial, Marion
  - viii. Wayne County Muck Soil - White Yield Trial, Marion
  - ix. Steuben County Chipstock Yield Trial, Arkport
  - x. Wyoming County Chipstock Yield Trial, Gainesville
- V. Data from Long Island Trials (Sandra Menasha and Joe Sieczka)
  - i. Cornell Advanced Clone Yield Trial
  - ii. Cornell and Maine Clone Yield Trial
  - iii. Northeast Regional Evaluation Project (NE1031) Yield Trial
  - iv. Red Clone Yield Trial

**Description of Advanced Selections From Cornell Breeding Program**  
**Based on Cornell trials in 2011 and prior years**  
**Last updated: 1 December 2011**

**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 nine years have averaged 91% of Atlantic (24 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, and 94% of Atlantic in 2011. Eight year average: 102%.
- Wayne County (muck soil) yield was 120% of Atlantic in 2006, 81% in 2007, 118% in 2009, and 69% of Atlantic in 2011.
- 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), and 96% of Atlantic in 2010 (3 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 (40 trials). Moderate resistance to common scab. Chip color out of 44F has been very good to date: visual chip scores over the past seven years averaged 3.1 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; six 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 nine years have averaged 92% of Atlantic (23 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, and 91% of Atlantic in 2011. Eight 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), and 125% of Atlantic in 2010 (3 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 (38 trials). Chip color out of 44F has been excellent, averaging 3.0 over the past seven 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 race Ro1 of the golden nematode and moderately resistant to race Ro2.

- Marketable yields in Tompkins County over the past nine years have averaged 116% of Atlantic (23 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, and 106% of Atlantic in 2011. Six year average: 113%.
- Yield in Wayne County was 129% of Atlantic in 2008 and 123% of Atlantic in 2009.
- 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, and 126% of Reba in 2011.
- 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), and 112% of Atlantic in 2010 (3 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 6.5 ounces per tuber (16 trials). Even at 6 inch spacing, tuber size remains large (2009 and 2010 trials). Specific gravity has averaged 0.012 less than Atlantic (29 trials). This will limit the locations where it could be grown for chips. Chip quality has generally been very good: over the past seven years it has averaged 3.7, comparable to Snowden, which 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 nine years have averaged 99% of Atlantic (24 trials).
- Yield in Wayne County was 107% of Atlantic in 2008, 106% in 2009, and 78% in 2011.
- 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, and 110% of Reba in 2011.
- 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), and 115% of Atlantic in 2010 (3 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 6.7 tubers per foot, with an average weight of 6.3 ounces (11 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 (25 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, scab-resistant chipstock.

- In ten Tompkins County trials over the past four years, marketable yields averaged 113% of Atlantic.
- In trials in Wyoming and Steuben Counties, yield averaged 112% of Atlantic in 2009, 81% in 2010, and 108% of Atlantic in 2011.
- Yield on Long Island was 98% of Reba in 2010 and 106% in 2011.

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). Tuber size is similar to Snowden, averaging 4.8 ounces per tuber (6 trials). Scurfy tuber skin. Specific gravity is high and has averaged only 0.002 less than Atlantic (17 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. 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.

- In seven Tompkins County trials over the past three years, marketable yields averaged 84% of Atlantic.
- Wayne County (muck soil) yield was 67% of Atlantic in 2011.
- Yield on Long Island was 83% of Yukon Gold in 2011.
- Yield in PA was 118% of Atlantic in 2011 (1 trial).

Tuber flesh color comparable to Yukon Gold, but tuber size is smaller. A low level of pickouts, mostly misshapes, have been observed. Generally free of internal defects. Specific gravity has averaged 0.011 less than Atlantic (7 trials). Moderately resistant to common scab. Tubers do not darken, and only exhibit slight sloughing, after boiling. Tuber dormancy is about 1 week longer than Atlantic. Resistant to race Ro1 of the golden nematode.

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

- In seven Tompkins County trials over the past three years, yields of tubers between 1 and 1.875 inches averaged 179 cwt/acre, while yields of tubers between 1.875 and 2.5 inches in diameter averaged 147 cwt. acre. In the same trials yield of tubers greater than 2.5 inches averaged only 16 cwt/acre. For comparison, marketable yield of Atlantic (>1.875 inches) in the same trials averaged 368 cwt/acre.

Few pickouts (mostly misshapes) or internal defects have been observed. Specific gravity has averaged 0.011 less than Atlantic (7 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.

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

- In four Tompkins County trials over the past two years, marketable yields averaged 112% of Atlantic.
- Yield on Long Island was 116% of Reba in 2011.
- Yield in PA was 133% of Atlantic in 2011 (1 trial).

Low levels of pickouts (mostly growth cracks) or internal defects (brown center) have been observed. Specific gravity has averaged 0.022 less than Atlantic (4 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.

**2011 Summary of Yield Trials**  
 Marketable yield larger than 1 7/8" (including green tubers).  
 Performance given as % of check variety.

	Ellis Hollow			Harford	Freeville						County			
	Advanced Trial	Intermed Trial	Red Trial	Advanced Trial	CU Trial	Early Trial	Med Trial	Med-late Trial	Late Trial	Red Trial	Wayne Marion	Wayne Marion	Steuben Arkport	Wyoming Gainesville
Atlantic	<b>100</b>	<b>100</b>		<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>			<b>100</b>	<b>100</b>	<b>100</b>
Snowden	116	127		104	116		94	99	141				91	97
Andover	81	95		64	61	73								
Andover GH2	118			113	110									
Lamoka	101			82					123				84	97
Waneta	101			91								69	94	93
Yukon Gold	83			74		82	70							
NY140	129			118					141				106	117
NY141	103			100		120	89					78		
NY145				75			88						77	59
NY148	127			105					160				108	109
NY149	75			80				84				67		
NY150	68*			69*		110*						52*		
E105-16	132			105					131			98	84	51
G20-31		96		97	61								79	77
G20-41		91		87	73								91	68
G20-55		103		71	55								76	82
G70-3		108		95	57							76		
G73-1		133		114	98							91		
G87-3		73		76	67								89	82
Chieftain			<b>100</b>							<b>100</b>	<b>100</b>			
Nordonna			67								44			
Red Maria			91								88	124		
NY136			89								86	142		
NY144			79*								120*	106*		
G4-2			60				119					36		

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



**2011 Summary of Specific Gravities**  
 Entries show differences (in units of 0.001) from Atlantic or Snowden

	Ellis Hollow		Harford	Freeville					County	
	Advanced Trial	Intermed. Trial	Advanced Trial	CU Trial	Early Trial	Med Trial	Med-late Trial	Late Trial	Steuben Arkport	Wyoming Gainesville
Atlantic	<b>1.076</b>	<b>1.075</b>	<b>1.081</b>	<b>1.087</b>	<b>1.090</b>	<b>1.087</b>	<b>1.087</b>	<b>1.086</b>	<b>1.089</b>	<b>1.086</b>
Snowden	-3	0	+2	-7		-8	-6	-5	-3	-2
Andover	-5	-2	-5	-9	-12					
Andover GH2	-9		-10	-10						
Lamoka	-1		-4					-4	-5	-3
Waneta	-8		-8					-7	-11	-1
Yukon Gold	-9		-2		-11	-11				
NY140	-11		-11					-8	-9	-10
NY141	-8		-10		-14	-13				
NY145			-3			-8			-4	-4
NY148	+1		-3					-1	-2	-3
NY149	-10		-8				-15			
NY150	-6		-6		-15					
E105-16	-15		-19					-19	-22	-16
G20-31		-8	-6	-10					-11	-7
G20-41		-2	-4	-8					-9	-5
G20-55		-4	-8	-11					-12	-3
G70-3		-11	-13	-24						
G73-1		-15	-20	-31						
G87-3		+1	-1	-13					+1	-6

**Results from Cornell Breeding Program Trials**

**Walter De Jong and Robert Plaisted**

### 2011 Advanced Stage Yield Trial, Ellis Hollow

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

4 Replicates

Planted May 9, vines burned down on August 26, harvested September 13

	cwt/acre		%	pickout		% internal defects			appear.	specific
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC	score	gravity
Andover	314	181	58	4	gc, 2 <sup>o</sup> g	0	0	0	4.0	1.071
Andover GH2	455	341	75	0	-	0	3	0	3.7	1.067
Atlantic	387	290	75	7	gc	0	5	5	3.3	1.076
Keuka Gold	383	258	67	7	2 <sup>o</sup> g	0	0	0	3.4	1.066
Lamoka	392	282	72	1	gc	0	3	0	3.6	1.075
Snowden	447	270	60	1	mis	0	3	0	3.0	1.073
Waneta	392	291	74	1	mis	0	0	0	3.8	1.068
Yukon Gold	321	250	78	9	gc	3	8	3	3.5	1.067
NY140	501	374	75	1	k	0	5	0	3.5	1.065
NY141	397	274	69	10	k	0	0	0	3.7	1.068
NY148	493	320	65	1	k	0	0	0	3.1	1.077
NY149	290 *	101	35	0	-	0	0	0	3.7	1.066
NY150	71**	0	0	0	-	0	0	0	3.2	1.070
E105-16	512	361	70	2	k	0	8	0	3.6	1.061

\* NY149 yielded an additional 62 pounds/acre of potatoes less than 1.875 inches in diameter

\*\* NY150 yielded an additional 194 pounds/acre of potatoes less than 1.875 inches in diameter

### 2011 Intermediate Stage Yield Trial, Ellis Hollow

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

Three replicates

Planted May 10, harvested September 14. Vines burned down on August 26.

	cwt/acre		% >2 1/2"	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"		cwt/A	type	HHT	IN	BC		
Atlantic	322	231	72	3	gc	0	0	0	3.4	1.075
Snowden	410	239	58	0	-	0	0	0	3.0	1.075
Marcy	417	289	69	0	-	0	0	0	3.2	1.070
Andover	305	145	48	0	-	0	0	0	3.8	1.073
G20-31	309	118	38	0	-	0	0	0	3.6	1.067
G20-41	292	139	47	0	-	0	0	0	3.3	1.073
G20-55	332	155	47	3	gc	0	0	0	3.2	1.071
G70-3	348	181	52	0	-	0	3	0	3.9	1.064
G73-1	429	296	69	1	gc	0	0	0	3.6	1.060
G87-3	235	101	43	0	-	0	0	0	3.5	1.076

### 2011 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 9, harvested September 13. Vines burned down on August 26.

	cwt/acre		%	pickout		% internal defects			appear.
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC	score
Andover	345	206	60	5	2°g, gc	0	0	0	3.8
Atlantic	411	308	75	8	gc	0	10	0	3.5
Snowden (2)	406	238	59	9	2°g	10	5	0	3.0
Eva	383	293	76	5	2°g, gc	0	0	0	3.6
H4-1	274	102	37	11	2°g	0	7	0	3.4
H6-3	301	136	45	40	2°g	10	0	0	3.3
H15-5	456	224	49	0	-	0	0	0	3.3
H15-6	449	282	63	19	2°g	0	0	0	3.1
H15-9 (2)	348	205	59	1	2°g	0	0	0	3.4
H15-17	487	343	70	5	2°g	3	0	0	3.4
H23-16	296	186	63	18	2°g	3	0	0	3.5
H25-2	365	168	46	1	2°g	0	0	0	3.3
H25-4	409	200	49	14	2°g	20	0	0	3.2
H25-5	317	216	68	20	2°g	0	0	0	3.2

### 2011 Advanced and Intermediate Stage Yield Trials, Harford

Plots 2 rows x 15', hills spaced at 8.2". 3 Replicates (unless indicated in parentheses)

Planted May 12, vine killer applied August 26

This trial site is not irrigated.

	cwt/A		%	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC		
Andover	325	169	52	10	gc	0	0	0	3.8	1.076
Andover GH2	570	465	81	1	gc	0	0	0	3.6	1.071
Atlantic	505	399	79	7	gc	0	0	7	3.4	1.081
Lamoka	414	320	77	3	gc	0	0	0	3.3	1.077
Snowden	525	351	67	1	k	0	0	0	3.1	1.083
Waneta	460	376	82	3	gc	0	0	0	3.8	1.073
Yukon Gold	374	298	80	13	gc	0	0	0	2.9	1.079
NY140 (6" spacing)	595	487	82	6	gc	3	0	0	3.4	1.070
NY141	504	411	82	4	gc	0	0	0	3.7	1.071
NY145	379	180	47	0	-	0	3	0	3.6	1.078
NY148	531	369	70	0	-	0	0	0	3.2	1.078
NY149	404	198	49	0	-	0	0	0	3.6	1.073
NY150 **	131	5	4	0	-	0	0	0	3.9	1.075
E105-16	531	396	75	0	-	0	7	0	3.6	1.062
G20-31	490	273	56	0	-	0	0	0	3.6	1.075
G20-41	442	296	67	0	-	0	3	0	3.4	1.077
G20-55	357	228	64	1	gc	0	0	0	3.7	1.073
G70-3	481	334	69	2	gc	0	0	0	3.9	1.068
G73-1	578	437	76	2	gc	3	7	0	3.8	1.061
G87-3	382	187	49	0	-	0	3	0	3.8	1.080

\*\* NY150 also yielded 221 pounds/acre of potatoes less than 1.875 inches in diameter

### 2011 Red Trial, Ellis Hollow

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

3 replicates (unless indicated otherwise in parentheses)

Planted May 10, harvested September 14. Vine killer applied August 26.

	cwt/acre		%	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"		>2 1/2"	cwt/A	type	HHT	IN		
Chieftain	434	287	66	9	2°g, gc	3	3	0	3.5	<1.060
Nordonna	292	123	42	26	2°g	0	0	0	3.4	1.062
G4-2	261	63	24	33	2°g	10	0	0	3.1	<1.060
Red Maria	393	265	67	0	-	0	0	0	3.5	1.060
NY136	388	207	53	4	2°g	0	0	0	2.3	1.062
NY144 (6" spacing)	205 *	45	22	25	2°g	0	0	0	3.6	<1.060
NY144 (8" spacing)	222 **	44	20	12	2°g	0	0	0	3.5	<1.060
H52-1	236	95	40	10	2°g	0	0	0	3.4	1.064
H63-1	267	112	42	5	gc, 2°g	0	0	0	3.4	1.071
H73-1	337	146	44	25	2°g	0	0	0	3.5	<1.060
H85-2	163 #	16	10	0	-	0	0	0	3.5	1.071
H90-4	186 @	17	9	0	-	0	7	0	3.6	1.070
H91-1	354	172	49	19	gc	0	7	0	2.9	1.064
H122-4	429	280	65	10	2°g, mis	0	0	0	3.5	<1.060

\* NY144 also produced an additional 144 cwt/acre of tubers less than 1.875 inches in diameter.

\*\* NY144 also produced an additional 116 cwt/acre of tubers less than 1.875 inches in diameter.

# H85-2 also produced an additional 85 cwt/acre of tubers less than 1.875 inches in diameter

@ H90-4 also produced an additional 132 cwt/acre of tubers less than 1.875 inches in diameter

## 2010 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	2.5	2.5	2.5	2.5
NY138	2.0	2.0	2.5	2.2
NY139	2.8	3.2	2.3	2.8
NY140	3.0	2.5	2.8	2.8
E106-4	2.5	4.0	3.5	3.3

VISUAL CHIP SCALE: 1 - 10

1 = best

4 = marginal

5 and over = not acceptable

Samples were reconditioned for 1-5 days before chipping.



### Average Chip Color over Three Years - University Trials

Out of 44F storage: 2008 - 2010 crop seasons.

Reconditioned 0-2 weeks at room temperature

	VISUAL SCORES			
	(2 YEARS, 2 LOCATIONS*)			
	DEC	JAN	FEB	AVG
Snowden	3.4	3.2	2.8	3.1
Waneta	3.0	2.9	2.8	2.9
Lamoka	3.3	3.1	2.8	3.1
NY140	3.5	3.8	3.1	3.5
E106-4	3.2	3.9	3.2	3.4

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.

	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
<b>Round whites:</b>											
Andover	3	3		4	4	3		1	4	1	2
Atlantic	0	0	0	0	0	0	0	0	0	0	0
Eva								9	8	7	7
Katahdin			1								1
King Harry				0	0		-1	-2	0	-1	0
Lamoka	1	1	1	2	3	-1	1				
Lehigh			3	3	3	3	1	2	3	1	2
Marcy				4	4	3	2	2	2	2	2
Pike			4	5			2	4	3	2	2
Reba	5	5	4	6	7	5	3	4	3	2	3
Salem										3	2
Snowden	2	2	1	4	2	0	0	0	1	1	1
Superior			2					-1	1		
Waneta	8	8	6	8	7	5	6				
Yukon Gold	1										
NY125					0	-1	-1	-1	-1	-1	-1
NY140	6	7	5	6	6	5	5				
NY141	2	2	2	3	3	1	2				
NY148	0	0	0								
NY149	2	1									
NY150	2	2									
G73-1	0										
<b>Reds and purples:</b>											
Chieftain	2	1	1	0	2	2	1	1	1	2	1
Norland DR			-3	-3		-2	-2	-2	-1	3	
Nordonna	1	2	0	0	1	1	0				
Red Maria	5	3	3	4	4	1	4	3	2	2	3
NY136	5			4	4	5	4	3	2		
NY144	-1	-3	-3	-3							
Ad. Blue				2	2	1	-1		2	0	1
Ad. Red				2	1	5			3	2	1

**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 - 2011.**

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% 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.)	
ALBANE	403	317	190	10	55	33	2	0	90	35	9.3	4.5	69
ANDOVER	235	188	113	7	50	35	5	2	91	40	5.2	4.7	78
ATLANTIC	315	257	154	5	28	53	10	4	91	63	5.8	5.6	90
APOLLINE	488	248	148	5	30	48	14	4	91	62	9.0	5.6	60
EVA	305	274	164	3	34	59	4	0	97	63	5.5	5.7	72
KING HARRY	291	253	151	4	33	57	4	1	95	62	5.6	5.4	75
MSQ425-4YSPL	310	265	159	11	56	32	1	0	89	33	8.5	3.8	74
NY141	367	307	184	6	36	51	5	1	93	57	7.2	5.3	76
NY150	291	71	43	73	27	0	0	0	27	0	14.8	2.1	75
SUPERIOR (NE)	211	167	100	7	46	45	2	0	93	47	4.8	4.5	71
SUPERIOR (NY)	175	133	79	10	51	35	3	1	89	39	4.1	4.5	69
YUKON GOLD	270	213	128	3	21	53	17	6	92	70	4.0	7.0	79
Average:	305	225	134	12	39	42	6	2	86	47	7.0	4.9	74
Maximum:	488	317	190	73	56	59	17	6	97	70	14.8	7.0	90
Minimum:	175	71	43	3	21	0	0	0	27	0	4.0	2.1	60
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

<sup>1</sup>Tuber 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 9

Maturity Ratings: Aug 15

Vinekill (Mow) Date: Aug 23

Harvest Date: Aug 24

**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 - 2011.**

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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.	
ALBANE	6.3	3	8	3.5	11.3	1.0	6.6	3.5	0.2	2.5	0.0	0.0	0.0	2.5
ANDOVER	2.8	3	6	5.0	10.1	0.3	6.4	2.3	1.1	0.0	0.0	2.5	0.0	0.9
ATLANTIC	5.5	2	6	4.0	9.5	1.1	3.4	4.8	0.2	10.0	0.0	5.0	0.0	0.6
APOLLINE	7.0	5	9	3.0	44.2	3.7	12.0	27.8	0.7	5.0	0.0	12.5	27.5	3.5
EVA	4.0	3	9	7.0	6.6	1.2	3.9	1.1	0.4	2.5	0.0	5.0	0.0	1.8
KING HARRY	1.8	2	7	5.5	7.8	0.7	3.4	3.1	0.7	0.0	0.0	0.0	0.0	1.4
MSQ425-4YSPL	3.8	2	7	8.0	4.1	0.1	3.2	0.4	0.3	0.0	0.0	7.5	0.0	0.0
NY141	4.5	2	8	6.5	8.9	1.4	6.4	0.2	1.0	0.0	0.0	7.5	0.0	1.5
NY150	3.8	1	8	7.5	2.6	0.4	1.7	0.3	0.2	0.0	0.0	7.5	0.0	0.0
SUPERIOR (NE)	2.5	1	6	3.0	14.0	0.2	9.0	4.4	0.5	2.5	0.0	10.0	7.5	1.0
SUPERIOR (NY)	2.8	1	6	3.0	13.4	2.3	4.3	2.8	4.0	5.0	0.0	10.0	12.5	1.4
YUKON GOLD	2.8	3	9	4.0	12.1	0.4	3.2	3.4	5.2	2.5	0.0	17.5	20.0	0.3
Average:	4	2	7	5.0	12.0	1.1	5.3	4.5	1.2	2.5	0.0	7.1	5.6	1.2
Maximum:	7	5	9	8.0	44.2	3.7	12.0	27.8	5.2	10.0	0.0	17.5	27.5	3.5
Minimum:	2	1	6	3.0	2.6	0.1	1.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0

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

<sup>2</sup>Based 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 - 2011.**

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% 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 - CU-PB	258	217	87	5	37	50	7	1	93	57	5.2	5.1	87
ATLANTIC - NE1031	300	251	100	4	35	53	6	2	94	59	5.9	5.3	86
CAROLA	296	192	77	12	45	40	4	0	88	44	6.9	4.4	68
EVA	231	212	85	3	46	49	2	0	97	51	4.8	5.0	71
G4-2	444	298	119	18	62	20	0	0	82	20	13.1	3.5	67
LEHIGH	255	225	90	5	33	56	7	0	95	63	4.9	5.5	76
NY115	188	164	66	6	45	43	5	0	94	48	4.2	4.7	67
NY141	269	224	90	6	38	53	3	0	94	56	5.7	4.9	74
NY145	275	221	88	13	60	26	1	0	87	27	8.2	3.5	79
REBA	244	214	86	5	31	53	11	1	95	64	4.6	5.6	72
SALEM	287	228	91	7	33	52	5	2	90	57	5.9	5.0	62
SASSY	383	288	115	20	63	15	1	0	80	16	13.2	3.0	79
SNOWDEN	275	236	94	9	51	37	3	0	91	40	7.1	4.0	79
YUKON GEM	316	260	104	5	30	46	13	6	90	59	5.3	6.1	66
YUKON GOLD	218	178	71	4	31	52	11	2	94	63	3.9	5.7	76
Average:	283	227	91	8	43	43	5	1	91	48	6.6	4.8	74
Maximum:	444	298	119	20	63	56	13	6	97	64	13.2	6.1	87
Minimum:	188	164	66	3	30	15	0	0	80	16	3.9	3.0	62
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

<sup>1</sup>Tuber 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 9

Maturity Ratings: Aug 15

Vinekill Date: Aug 17

Harvest Date: Aug 26

**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 - 2011.**

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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 - CU-PB	5.3	1	6	5.3	8.9	0.6	5.3	2.6	0.4	7.5	0.0	5.0	0.0	0.9
ATLANTIC - NE1031	5.8	1	6	5.3	10.2	0.8	4.5	4.6	0.3	7.5	0.0	7.5	2.5	1.0
CAROLA	7.0	4	8	3.0	24.7	1.7	18.7	2.0	2.2	0.0	0.0	2.5	5.0	0.8
EVA	3.3	2	9	7.0	5.3	0.0	4.0	0.9	0.4	5.0	2.5	0.0	0.0	1.0
G4-2	7.0	3	8	6.0	15.6	0.8	14.3	0.4	0.1	0.0	0.0	22.5	0.0	1.5
LEHIGH	4.3	3	7	5.6	7.3	0.3	5.0	1.7	0.4	7.5	0.0	5.0	0.0	1.0
NY115	2.8	3	9	6.3	6.3	0.0	5.9	0.0	0.4	0.0	0.0	2.5	0.0	0.5
NY141	4.8	2	8	6.9	11.5	0.4	9.6	0.9	0.6	0.0	0.0	0.0	0.0	0.8
NY145	3.8	1	8	7.0	6.4	0.3	4.8	0.9	0.3	2.5	0.0	5.0	5.0	1.0
REBA	5.3	3	8	6.0	7.2	0.9	3.4	2.4	0.5	10.0	0.0	0.0	0.0	0.6
SALEM	4.8	2	8	5.5	10.7	0.8	5.8	2.9	1.0	0.0	0.0	22.5	0.0	1.0
SASSY	5.5	1	6	3.8	4.3	0.9	2.9	0.3	0.2	0.0	0.0	2.5	2.5	1.4
SNOWDEN	5.8	2	6	3.4	4.9	0.3	3.9	0.5	0.2	2.5	0.0	30.0	12.5	1.8
YUKON GEM	5.5	3	8	3.0	8.7	0.8	3.4	3.3	1.2	5.0	0.0	5.0	2.5	1.0
YUKON GOLD	3.0	2	8	5.5	12.4	0.0	6.3	4.2	2.0	7.5	0.0	12.5	7.5	1.5
Average:	5	2	8	5.3	9.6	0.6	6.5	1.9	0.7	3.7	0.2	8.2	2.5	1.0
Maximum:	7	4	9	7.0	24.7	1.7	18.7	4.6	2.2	10.0	2.5	30.0	12.5	1.8
Minimum:	3	1	6	3.0	4.3	0.0	2.9	0.0	0.1	0.0	0.0	0.0	0.0	0.5

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

<sup>2</sup>Based 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 - 2011.**

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% 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 - CUPB	290	251	89	5	34	55	5	1	94	60	5.7	5.3	87
ATLANTIC - NE-1031	324	283	100	3	29	61	7	1	96	67	5.9	5.7	87
AF0338-17	273	229	81	5	30	57	8	1	94	65	4.9	5.8	77
AF2291-10	316	225	79	6	48	42	3	0	94	45	6.8	4.8	80
AF2866-3	265	208	73	7	47	39	6	1	93	45	5.9	4.7	62
AF4013-3	305	259	92	9	68	21	1	0	91	22	8.1	3.9	78
AF4047-2	211	179	63	7	37	52	4	0	93	56	4.5	4.8	65
B1992-106	314	263	93	5	37	45	10	2	92	56	6.1	5.4	76
B2727-2	165	142	50	9	55	36	0	0	91	36	3.8	4.6	84
CASTILE	227	155	55	18	55	24	2	1	81	26	6.2	3.8	73
KENNEBEC	215	72	26	6	42	36	15	2	92	50	4.2	5.3	61
KEUKA GOLD	334	303	107	4	37	53	7	0	96	60	6.2	5.5	72
NY143	284	257	91	5	41	46	8	0	95	54	5.3	5.5	65
NY149	282	239	84	12	68	20	0	0	88	20	8.1	3.6	72
SNOWDEN	320	276	98	6	49	42	3	0	94	45	7.5	4.4	81
Average:	275	223	79	7	45	42	5	1	92	47	5.9	4.9	75
Maximum:	334	303	107	18	68	61	15	2	96	67	8.1	5.8	87
Minimum:	165	72	26	3	29	20	0	0	81	20	3.8	3.6	61
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

<sup>1</sup>Tuber 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 10

Maturity Ratings: Aug 16

Vinekill Date: Aug 31

Harvest Date: Sep 12

**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 - 2011.**

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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 - CUPB	4.5	2	6	5.1	7.2	1.3	2.5	2.9	0.5	5.0	0.0	7.5	0.0	0.8
ATLANTIC - NE-1031	5.0	2	6	5.0	8.9	1.1	3.5	4.1	0.3	2.5	0.0	0.0	0.0	0.8
AF0338-17	6.3	3	6	4.5	10.4	3.5	1.4	3.3	2.2	12.5	0.0	7.5	10.0	1.5
AF2291-10	7.8	2	7	4.1	23.8	4.9	15.9	1.7	1.3	25.0	0.0	22.5	0.0	1.0
AF2866-3	4.5	3	6	5.0	15.3	2.1	5.2	1.1	7.0	5.0	0.0	5.0	2.5	1.1
AF4013-3	4.3	3	9	6.5	6.5	0.4	5.0	0.4	0.7	0.0	0.0	45.0	0.0	1.5
AF4047-2	3.8	1	6	5.4	10.0	1.0	3.1	3.2	2.7	10.0	0.0	2.5	0.0	1.7
B1992-106	6.0	3	6	5.8	7.9	3.1	2.9	1.7	0.2	10.0	0.0	2.5	0.0	2.6
B2727-2	3.3	3	6	5.5	5.2	1.2	2.3	1.3	0.3	0.0	0.0	5.0	0.0	1.1
CASTILE	9.0	5	8	4.3	14.0	4.3	8.7	0.9	0.2	2.5	0.0	2.5	0.0	1.0
KENNEBEC	3.5	8	9	3.0	59.9	8.4	32.0	2.8	16.6	17.5	2.5	10.0	30.0	2.6
KEUKA GOLD	5.0	3	6	6.3	5.9	1.0	2.6	1.3	1.0	0.0	0.0	5.0	0.0	1.5
NY143	4.3	3	8	7.0	4.8	2.3	1.7	0.6	0.1	0.0	0.0	0.0	0.0	0.4
NY149	3.5	1	8	5.5	3.4	0.5	2.0	0.0	0.9	2.5	0.0	32.5	0.0	1.3
SNOWDEN	5.5	1	6	3.6	7.4	2.5	3.5	1.0	0.4	7.5	0.0	45.0	7.5	1.4
Average:	5	3	7	5.1	12.7	2.5	6.2	1.8	2.3	6.7	0.2	12.8	3.3	1.3
Maximum:	9	8	9	7.0	59.9	8.4	32.0	4.1	16.6	25.0	2.5	45.0	30.0	2.6
Minimum:	3	1	6	3.0	3.4	0.4	1.4	0.0	0.1	0.0	0.0	0.0	0.0	0.4

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

<sup>2</sup>Based 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 - 2011.**

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% 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	328	265	100	4	30	56	9	2	95	64	5.9	5.8	86
AF2574-1	434	257	97	6	29	49	11	4	90	61	7.7	5.8	74
E105-16	410	340	128	7	39	48	5	1	92	53	8.8	4.9	67
GENESEE	358	280	106	5	36	52	6	1	94	58	6.9	5.4	65
KATAHDIN	322	273	103	4	37	55	3	0	96	59	6.2	5.4	68
LAMOKA (CU-PB)	394	324	122	4	33	51	9	3	93	60	7.5	5.5	83
LAMOKA (NE-1031)	394	326	123	5	41	48	5	1	94	53	8.1	5.1	81
NY140	434	364	138	4	26	53	15	2	95	69	7.3	6.2	78
NY148	479	415	157	6	39	52	4	0	94	56	9.9	5.1	85
SNOWDEN	443	373	141	4	39	50	5	1	94	55	8.9	5.2	81
WANETA (CU-PB)	333	298	113	6	41	50	3	0	93	52	7.2	4.7	79
WANETA (NE-1031)	342	312	118	4	29	59	8	0	96	67	6.2	5.8	78
Average:	389	319	120	5	35	52	7	1	94	59	7.5	5.4	77
Maximum:	479	415	157	7	41	59	15	4	96	69	9.9	6.2	86
Minimum:	322	257	97	4	26	48	3	0	90	52	5.9	4.7	65
Waller-Duncan LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

<sup>1</sup>Tuber 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 10

Maturity Ratings: Aug 23

Vinekill Date: Sep 6

Harvest Date: Sep 21

**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 - 2011.**

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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	2	6	4.3	13.4	3.3	5.3	3.8	1.0	5.0	0.0	2.5	0.0	1.5
AF2574-1	5.8	3	6	3.5	30.6	4.9	19.4	4.9	1.3	0.0	0.0	20.0	0.0	2.4
E105-16	6.8	2	6	4.8	9.0	5.6	2.0	1.4	0.0	0.0	0.0	10.0	0.0	2.0
GENESEE	6.0	3	8	6.9	16.2	8.2	5.2	2.0	0.8	0.0	0.0	20.0	0.0	0.5
KATAHDIN	3.5	3	8	4.8	11.2	6.7	2.3	1.6	0.6	0.0	0.0	17.5	0.0	1.0
LAMOKA (CU-PB)	5.5	3	6	5.1	10.5	4.4	4.4	1.5	0.2	0.0	0.0	2.5	0.0	1.8
LAMOKA (NE-1031)	5.0	3	6	4.9	10.4	3.8	4.2	1.8	0.6	0.0	0.0	2.5	0.0	2.0
NY140	6.8	5	8	6.0	10.7	5.8	4.5	0.5	0.0	5.0	0.0	10.0	0.0	0.5
NY148	6.8	2	6	5.0	7.8	5.7	0.8	1.0	0.3	0.0	0.0	0.0	0.0	2.0
SNOWDEN	6.0	2	6	3.3	10.3	3.8	3.7	2.4	0.4	2.5	0.0	27.5	0.0	1.0
WANETA (CU-PB)	4.3	3	8	6.1	3.5	2.1	0.5	0.8	0.2	0.0	0.0	0.0	0.0	1.5
WANETA (NE-1031)	4.3	3	8	6.1	4.2	2.6	1.1	0.3	0.2	5.0	0.0	0.0	0.0	1.6
Average:	5	3	7	5.1	11.5	4.7	4.4	1.8	0.5	1.5	0.0	9.4	0.0	1.5
Maximum:	7	5	8	6.9	30.6	8.2	19.4	4.9	1.3	5.0	0.0	27.5	0.0	2.4
Minimum:	4	2	6	3.3	3.5	2.1	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.5

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

<sup>2</sup>Based 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-skinned variety trial grown at Freeville, New York - 2011.**

(\* Note: trial consisted of two replications per entry except those lines denotes by an "\*" which had one replication)

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% 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.)	
A99331-2RY	446	303	110	18	62	20	1	0	82	21	14.1	3.3	69
AC99329-7PW/Y	319	227	83	8	42	45	3	2	90	48	7.4	4.5	69
AF4387-8 *	337	164	60	3	13	32	29	22	75	61	4.1	8.5	65
AF4408-3 *	370	295	108	1	16	65	9	9	90	74	5.3	7.3	66
AF4408-5 *	304	284	104	3	53	39	6	0	97	44	6.5	4.9	70
AF4540-2 *	241	135	49	35	59	6	0	0	65	6	9.8	2.6	58
AF4540-3 *	244	184	67	15	57	28	0	0	85	28	7.1	3.6	58
AF4543-2 *	206	142	52	25	72	2	0	0	75	2	6.5	3.3	62
AF4543-3 *	246	195	71	15	76	9	0	0	85	9	7.9	3.2	57
AF4545-1 *	475	368	134	13	54	33	0	0	87	33	12.7	3.9	60
AF4547-1 *	244	216	79	7	67	26	0	0	93	26	6.9	3.7	68
AF4550-2 *	177	148	54	10	67	23	0	0	90	23	5.1	3.6	64
AF4565-1 *	231	177	65	16	68	16	0	0	84	16	7.1	3.4	61
AF4565-2 *	306	226	82	17	59	21	4	0	83	24	8.5	3.8	73
AF4566-4 *	319	260	95	5	54	39	2	0	95	41	7.2	4.6	67
AF4587-2 *	258	220	80	8	58	34	0	0	92	34	6.5	4.1	55
AF4593-1 *	240	194	71	7	45	46	2	0	93	48	5.7	4.4	58
AF4594-1 *	354	309	113	5	55	40	0	0	95	40	7.6	4.9	60
AF4659-12 *	413	171	62	47	51	2	0	0	53	2	17.0	2.5	63
AOTX01178-1R	363	265	97	3	20	43	25	9	89	68	5.4	7.0	68
AOTX91861-4R	242	195	71	4	37	42	14	2	94	57	4.9	5.1	62
ATTX98453-6R	228	175	64	4	25	47	21	3	93	68	4.0	6.0	71
B13-1	256	209	76	12	62	26	0	0	88	26	6.8	3.8	59
B2152-17	233	151	55	30	62	8	0	0	70	8	9.2	2.6	71
B2676-2	167	125	46	17	72	10	0	0	83	10	5.7	3.0	80
B2756-7	148	95	35	30	56	14	0	0	70	14	5.4	2.8	73
B2818-1	97	29	10	71	29	0	0	0	29	0	5.3	1.9	69
B2844-12 *	99	60	22	35	65	0	0	0	65	0	4.1	2.5	63
B2863-7 *	191	158	58	7	56	30	6	0	93	37	4.6	4.3	68
B2864-14 *	92	61	22	30	55	15	0	0	70	15	3.6	2.7	59
B2873-1 *	130	64	23	23	74	3	0	0	77	3	5.0	2.7	66
BCO01306-2	219	167	61	15	65	21	0	0	85	21	6.9	3.3	75
BNC240-1	298	237	86	10	68	19	2	0	90	21	8.2	3.8	72
BNC244-10	280	173	63	35	56	9	0	0	65	9	11.4	2.5	82
BNC244-17	213	140	51	31	65	4	0	0	69	4	9.0	2.4	87
BNC261-1	142	77	28	44	54	2	0	0	56	2	6.8	2.2	80

**Upstate New York Table 10 (continued). Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the red-skinned variety trial grown at Freeville, New York - 2011.**

(\* Note: trial consisted of two replications per entry except those lines denotes by an "\*" which had one replication)

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% 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.)		
BTX2332-1R	300	266	97	5	47	46	2	0	95	47	6.5	4.8	65	
CHIEFTAIN	305	274	100	4	43	47	5	0	96	52	6.5	4.8	65	
CO00291-5R	258	208	76	11	41	45	3	0	89	48	6.0	4.4	62	
CO01399-10P/Y	426	289	105	10	43	41	5	1	89	46	10.1	4.4	58	
CO99076-6R	185	146	53	8	50	38	1	3	89	40	4.5	4.3	64	
COTX94216-1R	208	171	62	8	46	42	3	2	91	45	5.1	4.2	61	
COTX94218-1R	294	202	74	17	43	34	6	0	83	40	7.6	4.0	71	
DARK RED NORLAND	196	152	56	9	69	22	0	0	91	22	5.4	3.7	60	
H52-1	144	91	33	4	46	39	9	3	93	48	2.9	5.3	63	
H73-1	244	181	66	13	61	26	0	0	87	26	6.8	3.7	64	
H90-4	277	201	73	22	51	25	1	0	78	26	9.6	3.5	68	
H91-1	334	131	48	5	47	42	3	2	93	46	7.1	4.9	67	
H122-4	254	217	79	1	28	55	12	3	96	67	4.4	6.1	58	
NORDONNA	163	119	44	14	57	27	2	0	86	28	5.3	3.2	63	
NY136	275	233	85	5	42	44	8	1	94	52	5.4	5.3	64	
NY144	376	265	97	17	54	27	1	0	83	28	11.3	3.5	61	
PETER WILCOX (B181)	189	140	51	18	75	7	0	0	82	7	6.5	3.0	71	
PURPLE 5	163	145	53	7	65	23	5	0	93	28	4.2	4.0	72	
RED MARIA (NY129)	304	241	88	20	41	33	6	0	80	39	8.5	4.3	67	
RED SUNSET	151	99	36	21	67	13	0	0	79	13	5.1	3.0	60	
W6002-1R	258	214	78	15	58	26	1	0	85	27	7.7	3.4	58	
W6511-1R	342	211	77	30	65	5	0	0	70	5	12.7	2.8	77	
Average:	255	186	68	16	52	26	3	1	83	30	7.0	4.0	66	
Maximum:	475	368	134	71	76	65	29	22	97	74	17.0	8.5	87	
Minimum:	92	29	10	1	2	0	0	0	29	0	2.9	1.9	55	
Waller-Duncan														
LSD (k=100)	xx	xx									xx	xx	xx	
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)	

<sup>1</sup>Tuber 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 12

Maturity Ratings: Aug 10

Vinekill Date: Sep 7

Harvest Date: Sep 19

**Upstate New York Table 11. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the red-skinned variety trial grown at Freeville, New York - 2011.**

(\* Note: trial consisted of two replications per entry except those lines denotes by an "\*" which had one replication)

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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.	
A99331-2RY	7.0	2	8	4.0	14.8	1.9	11.4	1.1	0.4	0.0	0.0	20.0	0.0	0.0
AC99329-7PW/Y	7.5	1	7	6.0	18.3	3.3	13.3	1.7	0.0	0.0	0.0	15.0	15.0	1.0
AF4387-8 *	8.0	3	8	6.5	26.0	11.3	7.2	7.6	0.0	20.0	0.0	10.0	0.0	1.0
AF4408-3 *	8.0	3	8	6.0	9.9	2.0	3.8	3.0	1.1	0.0	0.0	0.0	0.0	0.0
AF4408-5 *	6.0	3	8	6.0	3.2	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AF4540-2 *	2.0	1	8	5.5	9.0	2.2	5.0	1.8	0.0	0.0	0.0	0.0	10.0	1.0
AF4540-3 *	4.0	1	8	6.0	9.4	0.0	2.5	7.0	0.0	0.0	0.0	0.0	0.0	1.0
AF4543-2 *	1.0	1	8	6.5	5.5	0.0	4.5	1.0	0.0	0.0	0.0	10.0	0.0	0.0
AF4543-3 *	2.0	3	8	5.0	6.0	0.7	3.6	1.7	0.0	0.0	0.0	10.0	0.0	0.0
AF4545-1 *	8.0	3	8	7.5	9.8	1.7	7.2	0.8	0.0	0.0	0.0	0.0	0.0	1.5
AF4547-1 *	3.0	1	7	5.0	4.5	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0
AF4550-2 *	1.0	2	8	6.0	6.0	0.0	3.8	2.2	0.0	0.0	0.0	0.0	0.0	2.0
AF4565-1 *	3.0	2	8	5.0	7.7	0.0	7.4	0.0	0.3	0.0	0.0	0.0	10.0	2.0
AF4565-2 *	8.0	2	8	5.5	8.7	2.5	3.7	2.4	0.0	0.0	0.0	0.0	0.0	1.0
AF4566-4 *	4.0	2	8	6.0	13.7	0.0	9.5	3.2	0.9	0.0	0.0	0.0	0.0	0.0
AF4587-2 *	3.0	1	8	7.0	7.0	0.5	2.5	4.0	0.0	0.0	0.0	0.0	30.0	0.5
AF4593-1 *	3.0	2	7	4.0	12.3	0.0	8.9	3.4	0.0	0.0	0.0	20.0	0.0	1.0
AF4594-1 *	5.0	3	6	4.0	8.1	0.0	5.0	1.4	1.7	0.0	0.0	0.0	0.0	1.0
AF4659-12 *	8.0	7	8	4.0	11.3	4.4	5.4	0.3	1.2	0.0	0.0	0.0	0.0	0.0
AOTX01178-1R	7.5	1	7	4.5	15.6	6.4	1.8	6.8	0.7	0.0	0.0	15.0	0.0	1.0
AOTX91861-4R	3.5	3	8	6.5	13.7	1.8	4.8	7.2	0.0	0.0	0.0	20.0	0.0	1.0
ATTX98453-6R	5.0	2	7	6.5	16.5	1.5	2.6	3.7	8.7	0.0	0.0	5.0	0.0	2.0
B13-1	2.5	3	8	5.3	10.6	0.0	8.2	1.8	0.6	0.0	0.0	10.0	0.0	2.3
B2152-17	3.0	1	8	5.0	5.7	0.5	2.9	1.8	0.5	0.0	0.0	0.0	0.0	1.5
B2676-2	2.5	1	8	6.0	6.9	0.0	5.2	0.0	1.7	0.0	0.0	0.0	0.0	0.5
B2756-7	2.5	3	8	6.0	6.9	0.0	3.1	3.9	0.0	0.0	0.0	10.0	0.0	1.5
B2818-1	1.0	1	8	5.0	1.8	0.0	1.2	0.6	0.0	0.0	0.0	0.0	0.0	1.0
B2844-12 *	1.0	3	8	6.0	4.6	1.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0	1.0
B2863-7 *	4.0	3	8	6.0	10.2	0.0	4.8	5.4	0.0	0.0	0.0	30.0	0.0	1.5
B2864-14 *	1.0	1	8	6.0	4.6	0.0	2.7	1.9	0.0	0.0	10.0	10.0	10.0	1.0
B2873-1 *	1.0	1	8	5.0	27.8	0.0	2.5	25.3	0.0	0.0	0.0	20.0	0.0	2.5
BCO01306-2	3.5	1	8	6.0	10.2	0.0	8.3	1.9	0.0	0.0	0.0	0.0	0.0	2.5
BNC240-1	3.5	4	5	4.0	10.1	0.2	4.3	5.0	0.6	0.0	0.0	0.0	0.0	2.3
BNC244-10	6.5	3	5	4.0	7.4	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BNC244-17	4.0	1	5	3.0	5.1	0.0	4.0	1.1	0.0	0.0	0.0	0.0	5.0	0.0
BNC261-1	3.0	1	6	4.0	1.9	0.6	0.5	0.8	0.0	0.0	0.0	10.0	0.0	0.0

**Upstate New York Table 11 (continued). Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the red-skinned variety trial grown at Freeville, New York - 2011.**

(\* Note: trial consisted of two replications per entry except those lines denotes by an "\*" which had one replication)

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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.	
BTX2332-1R	4.5	1	5	5.5	6.5	0.0	4.3	1.4	0.9	0.0	0.0	5.0	0.0	1.3
CHIEFTAIN	4.0	1	7	4.5	5.7	0.5	3.0	2.2	0.0	0.0	0.0	10.0	0.0	1.5
CO00291-5R	8.0	1	8	6.5	8.4	1.6	5.2	1.4	0.2	15.0	0.0	0.0	0.0	2.8
CO01399-10P/Y	7.5	2	5	3.0	23.2	0.0	21.8	1.4	0.0	0.0	0.0	10.0	5.0	2.3
CO99076-6R	3.5	3	8	6.3	11.2	0.0	2.9	7.0	1.3	0.0	0.0	15.0	5.0	1.8
COTX94216-1R	4.5	3	7	5.0	8.5	0.7	7.4	0.4	0.0	0.0	0.0	5.0	15.0	2.3
COTX94218-1R	7.5	3	8	6.3	14.5	3.4	4.2	5.9	1.1	0.0	0.0	15.0	0.0	2.8
DARK RED NORLAND	2.5	2	8	4.5	13.4	0.0	3.3	10.1	0.0	0.0	0.0	0.0	0.0	1.5
H52-1	4.0	8	8	3.5	28.7	0.0	19.2	8.3	1.2	0.0	0.0	0.0	0.0	0.0
H73-1	5.0	1	8	6.0	12.6	0.0	8.6	4.0	0.0	5.0	0.0	15.0	0.0	3.5
H90-4	5.0	1	5	5.0	4.5	2.0	1.0	1.6	0.0	0.0	0.0	15.0	5.0	1.5
H91-1	7.0	3	7	6.5	53.4	0.6	7.2	45.6	0.0	0.0	0.0	10.0	10.0	0.0
H122-4	4.5	4	6	3.0	10.5	1.1	5.2	1.0	3.1	0.0	0.0	5.0	0.0	1.5
NORDONNA	4.5	1	8	5.0	12.9	1.4	10.4	1.1	0.0	0.0	0.0	15.0	0.0	1.3
NY136	6.0	5	8	6.8	9.9	1.5	7.2	0.7	0.5	0.0	0.0	5.0	0.0	1.5
NY144	6.0	2	7	5.3	12.7	0.5	10.1	2.0	0.2	0.0	0.0	25.0	0.0	1.0
PETER WILCOX (B1816- PURPLE 5	2.5 3.0	3 2	7 8	5.0 4.0	8.4 4.9	0.0 1.5	5.6 2.1	2.8 1.3	0.0 0.0	0.0 0.0	0.0 0.0	5.0 5.0	0.0 0.0	1.5 2.0
RED MARIA (NY129)	7.0	1	5	5.5	4.0	0.0	2.9	1.1	0.0	0.0	0.0	0.0	0.0	1.0
RED SUNSET	2.0	3	8	5.0	14.4	0.0	12.6	1.5	0.3	0.0	0.0	5.0	0.0	1.5
W6002-1R	5.5	3	5	5.0	3.5	0.9	1.5	0.0	1.2	0.0	0.0	5.0	0.0	1.8
W6511-1R	6.5	4	8	6.5	8.4	0.4	7.8	0.2	0.0	0.0	0.0	5.0	0.0	2.5
Average:	4	2	7	5.3	10.9	1.0	5.7	3.6	0.5	0.7	0.2	6.7	2.1	1.2
Maximum:	8	8	8	7.5	53.4	11.3	21.8	45.6	8.7	20.0	10.0	30.0	30.0	3.5
Minimum:	1	1	5	3.0	1.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

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



**Upstate New York Table 14. 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 "G" and "H" clone trial grown at Freeville, New York - 2011.**

\*\*\* all entries with four replications except for lines denoted by \*\*\* which had three replications.

Genotype Variety or Clone	Total	Mkt. Yield		Size Distribution <sup>1</sup>					Size Distrib. (%)		Mean Tuber		Spec. Grav.
	Yield	Cwt/A	% of Std.	(% of total yield)					1-7/8"	2-1/2"	#/ft.	wt.(oz.)	
	Cwt/A			1	2	3	4	5	to 4"	to 4 "			
ANDOVER	183	152	61	5	50	44	1	0	95	45	4.3	4.4	77
ANDOVER-GH2	324	270	108	5	26	58	8	3	92	66	5.9	5.8	78
ATLANTIC	293	250	100	5	37	54	4	1	94	57	5.9	5.2	87
G20-31	204	150	60	9	61	30	0	0	91	30	5.1	4.1	77
G20-41	220	182	73	9	70	22	0	0	91	22	6.2	3.7	79
G20-55 ***	191	138	55	7	47	42	3	1	92	45	4.1	4.9	76
G70-3	185	143	57	10	63	26	1	0	90	27	4.9	3.9	63
G73-1	304	229	92	9	38	48	4	1	90	52	7.2	4.4	56
G87-3	207	165	66	10	58	32	1	0	90	33	5.5	3.9	74
H4-1	148	98	39	25	72	3	0	0	75	3	5.7	2.7	66
H6-3	296	217	87	13	58	29	0	0	87	29	8.7	3.5	72
H15-5	314	255	102	7	40	50	3	0	93	53	6.8	4.7	75
H15-6	294	228	91	10	47	41	2	0	90	43	7.4	4.2	79
H15-9	261	220	88	7	48	44	2	0	93	45	6.2	4.4	75
H15-17 ***	442	364	146	4	25	58	12	2	95	70	7.9	5.9	79
H23-16	230	190	76	7	45	45	3	0	93	48	5.2	4.5	78
H25-2	241	189	76	10	61	28	0	0	90	28	6.5	3.8	79
H25-4	334	263	105	8	48	40	5	0	92	44	7.9	4.4	82
H25-5	214	177	71	9	37	50	3	0	91	54	5.1	4.3	77
H63-1	212	164	66	9	57	34	0	0	91	34	5.6	3.9	78
H85-2	182	110	44	32	65	3	0	0	68	3	7.3	2.6	73
MARCY	295	248	99	6	37	50	6	1	93	55	6.0	5.1	74
SNOWDEN	340	284	114	6	47	44	3	0	94	47	7.8	4.5	80
Average:	257	204	82	10	49	38	3	0	90	41	6.2	4.3	75
Maximum:	442	364	146	32	72	58	12	3	95	70	8.7	5.9	87
Minimum:	148	98	39	4	25	3	0	0	68	3	4.1	2.6	56
Waller-Duncan													
LSD (k=100)	xx	xx									xx	xx	xx
C.V. (%)	(xx)	(xx)									(xx)	(xx)	(xx)

<sup>1</sup>Tuber 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 18

Vinekill Date: Sep 14

Harvest Date: Sep 26

**Upstate New York Table 15. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the advanced Cornell "G" and "H" clone trial grown at Freeville, New York - 2011.**

\*\*\* all entries with four replications except for lines denoted by \*\*\* which had three replications.

Genotype Variety or Clone	Plant <sup>1</sup> Mat. At Vinekill	Tuber Attributes <sup>1</sup>			External Tuber Defects (%)					Int. Tuber Defects (%) <sup>2</sup>				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	1.5	3	6	5.5	12.0	0.5	7.2	2.7	1.6	0.0	0.0	5.0	0.0	1.3
ANDOVER-GH2	6.0	3	6	5.4	8.9	2.7	4.3	1.1	0.7	17.5	0.0	20.0	0.0	1.5
ATLANTIC	4.0	2	6	4.4	8.7	0.7	5.2	2.7	0.1	5.0	0.0	22.5	2.5	1.3
G20-31	6.0	3	6	5.0	16.6	2.9	12.2	1.1	0.4	0.0	0.0	12.5	0.0	2.0
G20-41	4.8	2	6	5.0	8.6	1.7	5.5	0.9	0.5	0.0	0.0	5.0	5.0	0.6
G20-55 ***	4.0	7	8	4.0	19.7	0.4	12.7	6.6	0.0	0.0	0.0	20.0	0.0	2.0
G70-3	2.3	5	9	6.5	13.7	0.3	11.9	0.7	0.8	0.0	0.0	50.0	0.0	0.4
G73-1	3.5	1	8	6.5	15.3	7.5	2.4	2.3	3.0	0.0	2.5	45.0	5.0	1.8
G87-3	4.3	2	7	6.0	11.0	2.0	5.3	1.0	2.7	35.0	0.0	10.0	2.5	1.5
H4-1	1.0	1	8	5.5	8.7	0.8	5.8	1.4	0.7	0.0	0.0	7.5	5.0	1.0
H6-3	3.5	3	8	3.5	14.4	1.7	9.5	1.2	2.0	10.0	0.0	25.0	2.5	2.8
H15-5	6.0	2	6	5.0	13.5	8.7	4.1	0.6	0.1	20.0	2.5	20.0	0.0	1.8
H15-6	5.0	1	6	4.8	13.2	4.1	3.5	5.2	0.3	0.0	0.0	20.0	0.0	1.0
H15-9	4.5	3	6	6.0	8.6	2.6	5.3	0.2	0.5	5.0	0.0	17.5	0.0	0.5
H15-17 ***	7.7	3	6	5.7	12.2	6.8	4.5	0.4	0.5	3.3	0.0	43.3	0.0	1.5
H23-16	3.0	1	8	6.3	10.9	2.3	4.5	1.8	2.3	15.0	0.0	22.5	0.0	1.0
H25-2	5.8	3	6	3.1	11.2	1.1	8.7	1.0	0.3	7.5	2.5	12.5	0.0	1.9
H25-4	6.5	3	7	3.3	13.9	1.2	9.5	3.0	0.2	40.0	0.0	12.5	0.0	2.0
H25-5	5.5	1	8	7.0	8.6	3.2	3.9	1.3	0.2	0.0	5.0	22.5	0.0	1.0
H63-1	2.3	1	8	6.3	14.9	1.0	10.9	1.1	1.8	0.0	0.0	17.5	0.0	0.6
H85-2	2.8	3	9	8.0	7.3	0.3	4.0	2.9	0.1	0.0	0.0	10.0	0.0	0.6
MARCY	5.3	1	6	4.1	9.1	2.8	5.4	0.2	0.7	5.0	0.0	27.5	0.0	0.5
SNOWDEN	4.8	2	6	3.5	10.7	2.9	5.6	1.5	0.7	2.5	0.0	52.5	0.0	1.0
Average:	4	2	7	5.2	11.8	2.5	6.6	1.8	0.9	7.2	0.5	21.8	1.0	1.3
Maximum:	8	7	9	8.0	19.7	8.7	12.7	6.6	3.0	40.0	5.0	52.5	5.0	2.8
Minimum:	1	1	6	3.1	7.3	0.3	2.4	0.2	0.0	0.0	0.0	5.0	0.0	0.4

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

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

**Upstate New York Table 28. 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 - 2011.**

Variety or Clone	Total Yield		Mkt. Yield		Size Distribution <sup>1</sup> (% of total yield)				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
	Cwt/A		Cwt/A		1	2	3	4	#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
	Yield	% of	Std.	% of															
A99331-2RY *	366	160	57	40	57	2	0	11.8	3.2	7	9	0	0	0	0	0	0	69	
AC99329-7PW/Y	364	266	95	18	71	11	0	10.4	3.6	6	0	0	3	0	0	10	0	74	
B2152-17 *	381	242	87	31	65	4	0	13.9	2.9	3	1	0	1	0	0	10	0	68	
B2676-2	318	183	65	31	66	3	0	11.2	3.0	4	7	0	0	0	0	0	0	75	
B2756-7 *	131	84	30	21	66	12	0	3.6	3.8	14	1	0	0	30	0	0	0	70	
BNC261-1	268	69	25	69	31	0	0	14.2	2.0	3	1	1	1	0	0	0	0	82	
CHIEFTAIN	381	279	100	9	69	20	1	8.6	4.6	9	3	5	0	5	0	15	0	68	
CO00291-5R	176	111	40	25	74	1	0	5.8	3.2	9	1	2	1	5	0	0	0	58	
CO01399-10P/Y	373	162	58	32	61	6	1	12.5	3.1	1	18	3	0	0	0	0	0	53	
CO99076-6R	146	80	29	19	67	14	0	3.5	4.3	24	2	1	0	0	0	5	0	68	
DARK RED NORLAND	362	256	92	20	77	3	0	11.2	3.4	7	2	0	0	5	0	0	0	60	
H52-1 *	140	87	31	8	62	30	0	4.3	3.4	7	14	5	4	0	0	0	0	64	
H73-1	257	179	64	12	80	8	0	9.4	2.9	3	3	8	0	0	0	25	5	55	
H90-4 *	312	88	31	68	32	0	0	17.6	1.8	2	2	0	0	0	0	0	0	76	
H91-1 *	410	252	90	15	60	25	0	17.2	2.5	12	3	8	0	0	0	10	0	67	
MSQ425-4YSPL *	366	245	88	31	67	2	0	13.6	2.8	1	2	0	0	0	0	0	0	73	
NY136	515	406	145	14	59	27	1	11.5	4.6	6	2	0	0	5	0	5	0	68	
NY144	347	212	76	28	62	11	0	12.8	2.8	4	5	1	1	0	0	0	0	62	
RED MARIA	430	370	132	8	72	20	0	9.3	4.8	2	0	4	1	15	0	5	5	67	
W6002-1R	424	311	112	19	70	11	0	12.2	3.6	4	3	1	0	0	0	10	0	55	
W6511-1R	424	122	44	41	54	5	0	16.8	2.6	9	16	4	0	0	0	0	0	73	
Average:	328	198	71	27	63	10	0	11.0	3.3	7	5	2	1	3	0	5	0	67	
Maximum:	515	406	145	69	80	30	1	17.6	4.8	24	18	8	4	30	0	25	5	82	
Minimum:	131	69	25	8	31	0	0	3.5	1.8	1	0	0	0	0	0	0	0	53	

<sup>1</sup>Tuber 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 7

Harvest Date: October 6

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

Vinekill: 1 pt./a Reglone

Irrigation: none

Other: 1 qt./a Vydate CLV, 12.8 oz./a Quadris, 6 oz./a Ranman, and 12.8 oz./a Advise

\* Note: This trial had two replications, except there was only one plot each for seven entries denoted by "\*\*".

**Upstate New York Table 29. 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 - 2011.**

Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% of total yield)				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
ATLANTIC	494	423	100	6	66	28	0	10.0	5.2	8	0	0	1	25	0	0	0	86
A00286-3Y *	504	285	67	20	68	11	0	14.0	3.8	9	10	4	1	0	0	0	0	66
AF0338-17	478	356	84	11	52	37	1	10.7	4.7	10	1	1	1	0	0	0	0	77
CAROLA	386	236	56	24	71	4	0	11.4	3.5	7	8	0	0	0	0	5	0	74
E105-16	529	413	98	13	70	18	0	13.4	4.1	8	1	0	0	0	0	0	0	65
G4-2	480	153	36	34	49	17	0	13.5	3.9	8	15	11	0	0	0	0	0	66
G70-3	451	324	77	20	73	7	0	13.3	3.5	7	2	0	0	0	0	15	0	68
G73-1 *	541	344	81	14	57	29	0	12.1	4.6	21	0	0	2	0	0	0	0	60
MSQ440-2 *	340	266	63	14	66	19	0	8.6	4.1	5	2	0	0	0	0	10	0	65
NY141	463	314	74	13	65	21	1	10.5	4.6	13	3	0	2	5	0	0	0	74
NY143	433	286	68	7	54	36	3	7.8	5.7	19	0	4	1	0	0	0	0	66
NY149	383	291	69	16	75	10	0	11.0	3.6	6	1	0	0	45	0	5	0	72
NY150	239	25	6	82	18	0	0	16.5	1.5	6	1	0	0	0	0	0	0	79
WANETA	366	281	66	9	64	25	3	7.7	5.0	12	1	0	0	10	0	0	0	70
Average:	435	286	67	20	61	19	1	11.5	4.1	10	3	2	1	6	0	3	0	70
Maximum:	541	423	100	82	75	37	3	16.5	5.7	21	15	11	2	45	0	15	0	86
Minimum:	239	25	6	6	18	0	0	7.7	1.5	5	0	0	0	0	0	0	0	60

<sup>1</sup>Tuber 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 7

Harvest Date: October 6

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

Vinekill: 1 pt./a Reglone

Irrigation: none

Other: 1 qt./a Vydate CLV, 12.8 oz./a Quadris, 6 oz./a Ranman, and 12.8 oz./a Advise

\* Note: This trial had two replications, except there was only one plot each of A00286-3Y, G73-1 and MSQ440-2.

**Upstate New York Table 30. 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 - 2011.**

Variety or Clone	Total Yield	Mkt. Yield		Size Distribution <sup>1</sup> (% 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	336	309	100	6	61	34	0	6.9	5.3	1	2	1	0	20	0	0	0	89
B1992-106	288	231	75	8	70	20	3	6.1	5.2	6	1	2	0	60	0	0	0	81
E105-16 *	309	256	83	15	67	18	0	8.8	3.9	2	1	0	0	0	0	30	0	67
G20-31	296	243	79	15	56	28	0	8.5	3.9	2	0	0	0	0	0	0	5	78
G20-41	332	281	91	13	75	12	0	9.3	4.0	1	1	0	0	0	0	0	0	80
G20-55	282	235	76	11	74	13	2	6.8	4.6	1	2	0	0	5	0	0	0	77
G87-3	309	274	89	10	76	14	0	7.7	4.5	1	1	0	0	0	5	0	0	90
LAMOKA	317	251	81	11	76	13	0	8.1	4.3	5	2	3	0	0	0	0	0	84
NY140 *	366	325	105	8	79	12	0	9.7	4.2	2	1	0	0	30	10	0	0	80
NY145	330	237	77	27	73	0	0	12.4	2.9	1	0	0	0	0	0	0	0	85
NY148	379	328	106	10	66	24	0	9.2	4.5	3	1	0	0	0	0	0	0	87
SNOWDEN	313	279	90	9	69	22	0	7.8	4.4	2	0	0	0	55	0	0	0	86
WANETA	329	289	93	5	61	32	2	6.5	5.6	2	3	0	0	0	0	0	0	78
Average:	322	272	88	11	69	19	1	8.3	4.4	2	1	1	0	13	1	2	0	82
Maximum:	379	328	106	27	79	34	3	12.4	5.6	6	3	3	0	60	10	30	5	90
Minimum:	282	231	75	5	56	0	0	6.1	2.9	1	0	0	0	0	0	0	0	67

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

Plant Date: June 16

Vinekill Dates: September 20 and 25

Harvest Date: November 2

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

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

Irrigation: 3 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 E105-16 and NY140.

**Upstate New York Table 31. 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 Gainesville, New York - 2011.**

Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% of total yield)				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
ATLANTIC	406	359	100	7	65	28	1	8.6	4.9	2	2	0	0	5	0	0	0	86
B1992-106	338	274	76	10	65	23	2	7.0	5.1	6	1	0	0	5	0	15	0	78
E105-16 *	246	173	48	16	68	14	2	6.2	4.1	9	0	2	0	0	0	10	0	70
G20-31	318	275	77	8	80	11	1	7.0	4.8	2	2	0	1	10	0	0	0	79
G20-41	291	239	67	11	77	12	1	7.3	4.1	4	2	1	0	0	0	0	0	81
G20-55	338	287	80	6	67	25	2	6.4	5.5	5	1	1	0	0	0	15	0	83
G87-3	349	293	82	13	79	8	0	9.0	4.0	3	0	0	0	20	0	5	0	80
LAMOKA	403	343	96	9	74	17	0	9.3	4.5	4	1	1	0	0	0	5	0	83
NY140 *	487	389	108	8	61	30	1	10.2	5.0	10	1	0	0	0	10	20	0	76
NY145	329	209	58	32	64	3	0	13.4	2.5	3	1	1	0	5	0	10	0	82
NY148	454	387	108	7	64	25	3	9.5	5.0	3	1	0	0	0	0	0	0	83
SNOWDEN	404	348	97	12	71	18	0	11.0	3.8	2	0	0	0	0	0	25	0	84
WANETA	375	331	92	6	68	26	1	6.4	6.6	3	0	1	0	5	0	5	0	85
Average:	364	301	84	11	69	18	1	8.6	4.6	4	1	1	0	4	1	8	0	81
Maximum:	487	389	108	32	80	30	3	13.4	6.6	10	2	2	1	20	10	25	0	86
Minimum:	246	173	48	6	61	3	0	6.2	2.5	2	0	0	0	0	0	0	0	70

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

Plant Date: June 3

Vinekill Dates: September 16 and 21

Harvest Date: October 7

Fertilizer: 114 N-171 P-114 K-3.6 MG-77 S-0.7 B at planting  
plus 82 N at hilling

Vinekill: 2 pt. Diquat per application

Irrigation: approx. 6 inches

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 E105-16 and NY140.

**Data from Riverhead, Long Island Trials**  
**Sandra Menasha and Joe Siczka**

Long Island Table 2. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of Adv. Cornell white-skinned dones grown at Riverhead, N.Y. - 2011

Clone	Total		Marketable Yield		Size Distribution (%)					Size Distribution		Specific <sup>1</sup> Gravity
	Yield cwt/A	cwt/A	percentage of standard						2 to 4 in.	2.5 to 4 in.		
				<2"	2.5"	3.25"	4"	>4"				
<b>Season-119 days</b>												
Reba	366	336	100	3	24	68	5	0	97	73	63	
Andover	351	322	96	2	18	77	3	0	98	80	70	
Marcy	449	420	125	2	18	74	7	0	98	80	66	
Norwis	361	335	100	2	14	74	9	1	97	83	60	
Salem	366	321	96	5	25	62	7	0	95	69	<59	
NY 140	462	423	126	2	24	70	3	0	98	73	66	
NY 141	420	370	110	4	23	65	8	0	95	73	66	
NY 143 (NYB38-40)	338	301	90	3	30	67	0	0	97	67	<59	
NY 148 (E106-4)	386	354	106	6	43	50	1	0	94	51	75	
G20-55	326	293	87	2	24	70	3	0	98	74	69	
G70-3	409	358	107	8	48	43	1	0	92	44	60	
G73-1	442	388	116	4	24	63	9	0	96	72	<59	
<i>Fisher's Protected</i>												
LSD (0.05)	(42)	(46)									(2)	
Augustus*	327	252	75	12	63	25	0	0	88	25	67	
Ervol*	304	269	102	2	19	73	6	0	98	79	62	

Planted on 4/22/11, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 8/19/11, harvested on 9

<sup>1</sup> -1.0 is excluded from specific gravity readings.

Long Island Table 3. Maturity, tuber shape, and internal and external defects of Advanced Cornell white-skinned dones at Riverhead, N.Y. - 2011

Clone	Maturity <sup>1</sup>		Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	on 8/17/2010	Shape	Appear- ance	Total	Sun- burn	Mis- shapen	Growth cracks	Other <sup>2</sup>	Hollow heart	Brown center	Internal Necrosis			
											Sl.	Mod.	Sev.	
<b>Season-119 days</b>														
Reba	1	O-R	7	5	2	1	1	1	23	0	0	0	0	
Andover	1	R-O	7	6	2	1	3	0	30	0	3	0	0	
Marcy	2	O-R	6	4	2	1	0	1	50	0	0	0	0	
Norwis	1	R-O	7	3	3	0	1	1	18	0	3	0	0	
Salem	1	O-R	7	7	3	1	2	2	5	0	0	0	0	
NY 140	2	O-R	7	6	3	1	1	0	13	0	0	0	0	
NY 141	1	O-R	7	2	4	2	1	1	28	0	0	0	0	
NY 143 (NYB38-40)	1	O-R	7	1	2	0	6	0	8	0	0	0	0	
NY 148 (E106-4)	1	R	5	2	1	1	0	0	3	0	10	0	0	
G20-55	1	O-R	7	8	2	0	3	2	10	0	0	0	0	
G70-3	1	O-R	8	4	2	1	1	1	0	0	8	5	0	
G73-1	1	R-O	8	9	6	1	1	0	0	0	3	0	0	
Augustus*	1	O-R	6	13	4	6	3	0	15	0	10	0	0	
Ervol*	1	R-O	7	10	1	2	5	2	10	0	0	0	0	

<sup>1</sup> -See rating system outlined in the text.

<sup>2</sup> -Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U 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 Cornell and Maine white-skinned dones grown at Riverhead, N.Y. - 2011

Clone	Total	Marketable Yield		Size Distribution (%)					Size Distribution		
	Yield cwt/A	cwt/A	percentage of standard	<2"	2 to 2.5"	2.5 to 3.25"	3.25 to 4"	> 4"	2 to 4 in.	2.5 to 4 in.	Specific <sup>1</sup> Gravity
Season-119 days											
Reba	380	352	100	3	27	55	14	0	97	69	64
AF4013-3	369	331	94	7	44	47	1	0	93	48	72
AF4047-2	319	297	84	3	16	71	9	1	96	80	60
AF4130-7	358	331	94	3	22	66	9	0	97	75	72
AF4157-6	346	281	80	5	33	60	1	0	95	62	76
AF4203-4	286	253	72	2	16	70	13	0	98	82	69
AF4220-4	436	387	110	4	30	62	4	0	96	65	66
AF4222-4	361	305	87	4	23	61	11	1	95	72	70
AF4227-4	281	255	72	6	30	63	1	0	94	64	75
AF4236-1	317	280	80	8	43	47	2	0	92	49	64
G1-11	127	36	10	67	33	0	0	0	33	0	<59
G4-2	424	346	98	15	65	19	0	0	85	20	60
LSD (0.05)	(36)	(37)									(2)

Planted on 4/22/11, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 8/19/11, harvested on 9/15/11

<sup>1</sup>-1.0 is excluded from specific gravity readings.

Long Island Table 5. Maturity, tuber shape, and internal and external defects of Cornell and Maine white-skinned dones at Riverhead, N.Y. - 2011

Clone	Maturity <sup>1</sup> on	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage					
	8/17/2011	Shape	Appearance	Total	sunburn	Misshapen	Growth cracks	Other <sup>2</sup>	Hollow heart	Brown center	Internal Necrosis			
Season-119 days												Sl.	Mod.	Sev.
Reba	1	O-R	7	4	3	0	1	0	25	0	0	0	0	
AF4013-3	1	O-R	8	3	2	0	0	0	0	0	0	0	0	
AF4047-2	1	R-O	6	3	1	0	2	0	28	3	3	0	0	
AF4130-7	2	O-R	7	5	2	2	0	0	43	0	0	0	0	
AF4157-6	1	O-R	7	14	2	1	10	1	15	0	8	0	0	
AF4203-4	1	O-R	7	10	3	1	6	0	3	0	0	0	0	
AF4220-4	1	O-R	8	7	4	1	1	1	0	5	8	5	0	
AF4222-4	1	R-O	7	11	6	4	0	1	0	0	38	15	3	
AF4227-4	1	R-O	6	4	1	2	1	0	0	0	0	0	0	
AF4236-1	1	R-O	7	4	2	1	0	0	5	0	0	0	0	
G1-11	1	O-L	6	12	2	9	1	0	0	0	0	0	0	
G4-2	1	O	7	4	2	1	1	0	3	0	3	5	0	

<sup>1</sup>-See rating system outlined in the text.

<sup>2</sup>-Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U grade. Mechanical defects, however, were not scored.

Long Island Table 6. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of NE 10 white-skinned clones grown at Riverhead, N.Y. - 2011.

Clone	Total	Marketable Yield		Size Distribution (%)					Size Distribution		Specific <sup>1</sup> Gravity
	Yield cwt/A	cwt/A	percentage of standard	<2"	2.5"	3.25"	4"	>4"	2 to 4 in	2.5 to 4 in	
Season-119 days											
Atlantic	377	333	100	3	17	61	18	1	96	80	82
Joma	316	254	76	7	53	39	1	0	93	40	65
Katahdin	276	249	75	5	36	54	4	0	95	58	64
Superior	265	239	72	6	35	56	4	0	94	60	64
AF3001-6	299	256	77	8	67	25	0	0	92	25	72
AF0038-17	322	301	90	3	16	73	8	0	97	81	73
BNC182-5	298	278	83	4	25	61	11	0	96	71	69
NYE 106-4	346	323	97	5	36	55	4	0	95	59	79
B2879-1	268	249	75	2	18	68	12	0	98	80	68
LSD (0.05)	(38)	(34)									(3)

Planted on 4/22/11, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 8/19/11, harvested on 9

<sup>1</sup>-10 is excluded from specific gravity readings.

Long Island Table 7. Maturity, tuber shape, and internal and external defects of NE 1031 white-skinned clones grown at Riverhead, N.Y. - 2011.

Clone	Maturity <sup>1</sup>	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	on 8/17/2011	Shape	Appear- ance	Total	Sun- burn	Mis- shaper	Growth cracks	Other <sup>2</sup>	Hollow heart	Brown center	Internal Necrosis Sl. Mod. Sev.		
Season-119 days													
Atlantic	1	R-O	6	8	3	2	2	1	43	3	3	5	0
Joma	1	O-L	6	14	6	5	1	1	3	0	5	0	0
Katahdin	1	O-R	7	5	3	0	1	1	20	0	0	5	0
Superior	1	O-R	6	4	2	2	0	1	15	0	0	0	0
AF3001-6	2	O-L	6	7	2	4	0	1	10	0	0	0	0
AF0038-17	1	R-O	6	4	1	1	1	0	15	0	0	0	0
BNC182-5	2	R	7	3	1	0	0	2	13	3	0	3	0
NYE 106-4	3	R	6	1	1	1	0	0	0	0	8	0	0
B2879-1	1	R-O	7	5	3	1	1	0	3	0	0	0	0

<sup>1</sup>-See rating system outlined in the text

<sup>2</sup>-Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U grade, primary defects listed in (). Mechanical defects, however, were not scored.

Long Island Table 8. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of red-skinned dones grown at Riverhead, N.Y. - 2011

Clone	Total	Marketable Yield		Size Distribution (%)					Size Distribution		Specific <sup>1</sup> Gravity
	Yield cwt/A	cwt/A	percentage of standard	<2"	2 to 2.5"	2.5 to 3.25"	3.25 to 4"	>4"	2 to 4 in	2.5 to 4 in	
Season-119 days											
Chieftain	369	306	100	6	34	57	4	0	94	60	61
Dk Red Norland	287	249	81	6	42	51	2	0	94	53	60
Modoc	348	314	102	6	43	51	1	0	94	51	59
Red Maria	437	412	134	2	18	63	17	0	98	80	59
BC001306-2	209	164	53	21	68	11	0	0	79	11	65
B2152-17	236	196	64	13	55	31	1	0	87	32	64
B2676-2	317	269	88	7	48	44	1	0	93	45	74
B2756-7	196	152	50	12	56	32	0	0	88	32	68
<i>Fisher's Protected</i>											
LSD (0.05)	(85)	(79)									(2)

Planted on 4/27/09, fertilizer rate was 100-200-200/A plus 60 lb N/A sidedressed, vine killed on 9/7/09, harvested on 9/24/09

<sup>1</sup>-1.0 is excluded from specific gravity readings.

Long Island Table 9. Maturity, tuber shape, and internal and external defects of red-skinned dones grown at Riverhead, N.Y. - 2011

Clone	Maturity <sup>1</sup>	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	on 8/3/2011	Shape	Appearance	Total	Sun-burn	Mis-shape	Growth cracks	Other <sup>2</sup>	Hollow heart	Brown center	Internal Necrosis Sl. Mod. Sev.		
Season-119 days													
Chieftain	4	R-O	6	12	2	2	7	1	0	0	3	0	0
Dk Red Norland	1	O-R	6	8	2	1	5	0	10	0	0	0	0
Modoc	1	R-O	7	4	3	0	1	0	8	0	0	0	0
Red Maria	6	R	7	4	2	0	1	0	3	0	0	0	0
BC001306-2	1	R-O	7	1	0	0	0	0	3	0	0	0	0
B2152-17	1	R-O	6	5	2	1	0	1	0	0	0	0	0
B2676-2	2	O-R	6	9	3	3	2	1	0	0	0	0	0
B2756-7	1	O-R	6	12	1	2	8	1	0	0	0	0	0

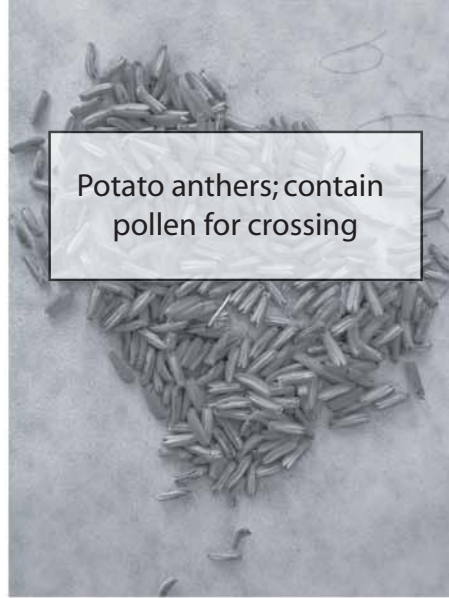
<sup>1</sup>-See rating system outlined in the text.

<sup>2</sup>-Other includes defects such as rhizoctonia, prominent lenticels, pink eye, decay and other defects scorable against a U. grade. Mechanical defects, however, were not scored.



Small potatoes, as sold in the UK

(sunglasses provide sense of scale)



Potato anthers; contain pollen for crossing

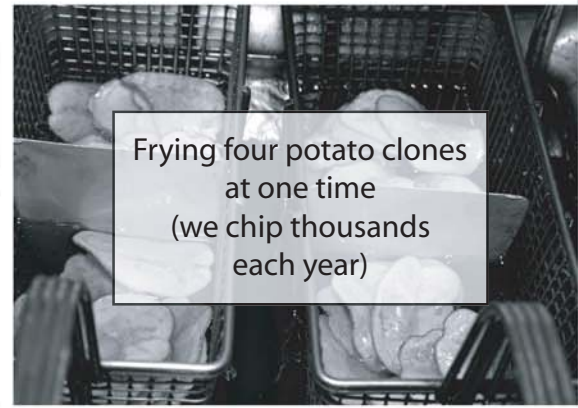


One of our seed plots on Mount Pleasant

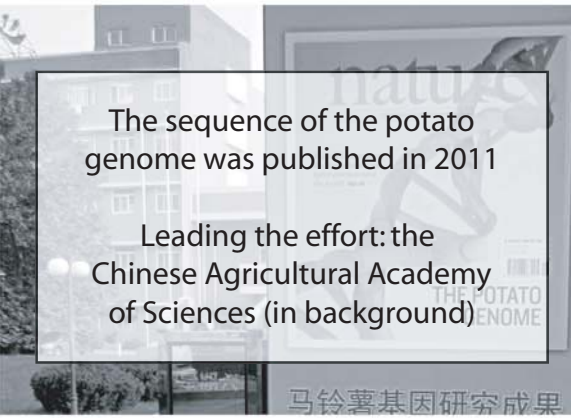


We harvest small seed plots into onion bags

Potato Show & Tell  
8 December 2011



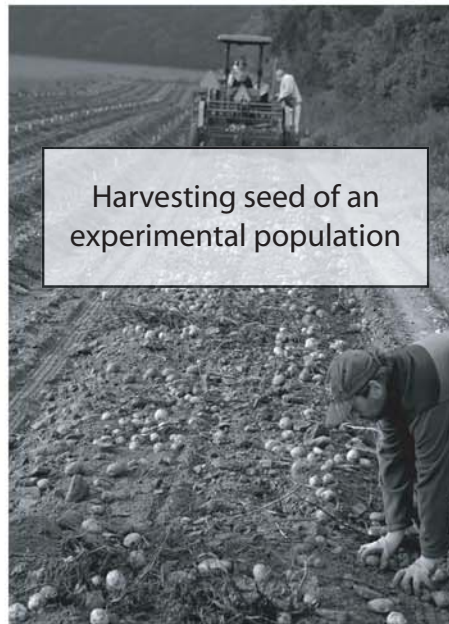
Frying four potato clones at one time (we chip thousands each year)



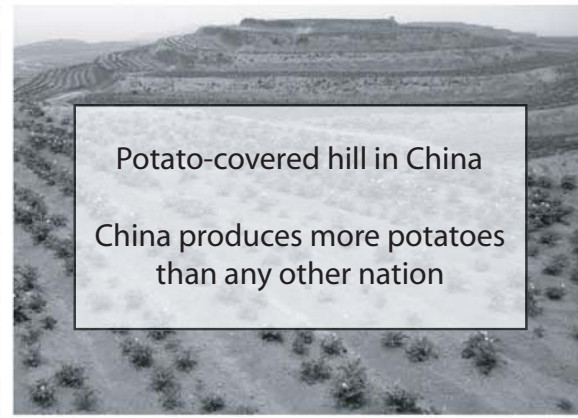
The sequence of the potato genome was published in 2011

Leading the effort: the Chinese Agricultural Academy of Sciences (in background)

马铃薯基因组研究成果



Harvesting seed of an experimental population



Potato-covered hill in China  
China produces more potatoes than any other nation



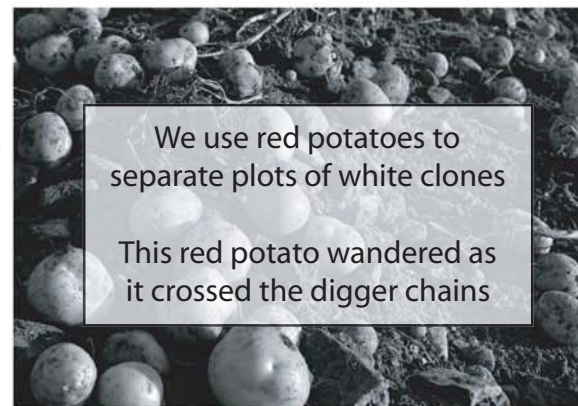
Potato plantlets in tissue culture



劲爽浓情  
Intense & Stimulating

飘香麻辣锅味  
Numb & Spicy Hot Pot Flavor

There are many interesting potato chip flavors in China



We use red potatoes to separate plots of white clones  
This red potato wandered as it crossed the digger chains



Harvesting a trial at McCormick Farms



Potato seedlings