



Potato Show & Tell, 9 December 2016

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**Description of Advanced Selections From Cornell Breeding Program**  
**Based on Cornell trials in 2015 and prior years**  
**Last updated: 2 December 2016**

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

- In eleven Tompkins County trials over five years, marketable yields averaged 84% of Atlantic.
- Wayne County (muck soil) yield was 67% of Atlantic in 2011, 114% of Eva in 2015, and 100% of Eva in 2016.
- Yield on Long Island was 83% of Yukon Gold in 2011.
- Yield in PA was 118% of Atlantic in 2011 (1 trial) and 92% of Atlantic in 2015 (2 trials).

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. Low levels of hollow heart have been observed. Specific gravity has averaged 0.012 less than Atlantic (11 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 17 Tompkins County trials over the past seven years, yields of tubers between 1 and 1.875 inches averaged 167 cwt/acre, while yields of tubers between 1.875 and 2.5 inches in diameter averaged 149 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 400 cwt/acre.
- Yield in Wayne County in 2014 was 128, 181 and 20 cwt/acre for the less than 2 inch, 2 to 3 inch, and greater than 3 inch size categories, respectively. Yield for the same size categories in a short 2015 season were 110, 35 and 0 cwt/acre. Yield in 2016 was 82, 18 and 0 cwt/acre, respectively.
- Yield on Long Island in 2014 was 63, 207 and 21 cwt/acre for the less than 2 inch, 2 to 2.5 inch, and greater than 2.5 inch size categories, respectively. Yield in 2015 was 75, 155 and 20 cwt/acre for the same size categories.
- Yield in PA in 2013 averaged 143, 185 and 43 cwt/acre for the less than 1.875 inch, 1.875 to 2.5 inch, and greater than 2.5 inch size categories, respectively (2 trials). Yield in 2014 was 114, 159 and 93 cwt/acre for the same size categories. Yield in 2015 averaged 144, 150 and 26 cwt/acre (2 trials).

Few pickouts (mostly misshapes) or internal defects have been observed. Specific gravity has averaged 0.009 less than Atlantic (15 trials). Tubers do not darken or slough appreciably after boiling, and retain attractive appearance after long term storage. Very little skinning when harvested early (end of July). Tuber dormancy is about 2 weeks longer than Atlantic. Intermediate reaction to common scab. Resistant to potato virus Y. Exhibited some resistance to late blight in PA in 2012, 2013 and 2014. Resistant to race Ro1 of the golden nematode and may have some resistance against race Ro2 as well.

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

- In 13 Tompkins County trials over the past seven years, marketable yields averaged 104% of Atlantic.
- Yield in Wayne County was 114% of Atlantic in 2014, 116% of Eva in 2015, and 106% of Eva in 2016.
- Yield on Long Island was 116% of Reba in 2011, 118% in 2012, 114% in 2014, 110% in 2015, and 121% of Reba in 2016.
- Yield in PA was 117% of Atlantic in 2011 (1 trial), 114% in 2012 (3 trials), 81% in 2014 (2 trials), and 105% of Atlantic in 2015 (1 trial).

In general, low levels of pickouts (mostly growth cracks) or internal defects (brown center) have been observed, although 23% brown center was observed in one trial in 2014. Specific gravity is low and has averaged 0.023 less than Atlantic (13 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.

**NY152 (H15-5) = B38-14 x Marcy (2006).** Late season chipstock, excellent chip color.

- In 11 Tompkins County trials over the past six years, marketable yields averaged 101% 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, 133% in 2014, and 98% in 2015.
- Yield on Long Island was 164% of Reba in 2014.

Low levels of pickouts (growth cracks) and varying levels of hollow heart have been observed. Specific gravity has averaged 0.008 less than Atlantic (16 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). Chip color averaged 3.3 versus 3.7 for Snowden in 2012, 3.0 versus 4.7 for Snowden in 2013, 3.7 versus 4.0 for Snowden in 2014, and 3.2 vs 4.2 for Snowden in 2015. Moderate to good resistance to common scab. Tuber dormancy is about 4 weeks longer than Atlantic. May be resistant to potato virus Y. Susceptible to race Ro1 of the golden nematode.

**NY154 (H15-17) = B38-14 x Marcy (2006).** Late season chipstock, decent chip color.

- In 10 Tompkins County trials over the past six years, marketable yields averaged 116% of Atlantic.
- Yield in PA was 91% of Atlantic in 2011 (1 trial), considerably better than Atlantic (176%; too good to be true) in 2014 (two trials), and 82% of Atlantic in 2015 (1 trial).
- In trials in Wyoming and Steuben Counties, yield averaged 122% of Atlantic in 2012, 150% in 2014, and 103% of Atlantic in 2015.
- Yield on Long Island was 125% of Atlantic in 2014 and 131% of Atlantic in 2016.

Low levels of pickouts (knobs) or internal defects (hollow heart) have been observed. Specific gravity has averaged 0.007 less than Atlantic (15 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). Chip color averaged 3.0 versus 3.7 for Snowden in 2012, 3.0 versus 4.7 in 2013, 3.7 versus 4.0 in 2014, and 4.2 versus 4.2 for Snowden in 2014. Good resistance to common scab. Tuber dormancy is comparable to Atlantic. Tested as moderately resistant to late blight in PA trials in 2014 and 2015. Susceptible to race Ro1 of the golden nematode.

**NY155 (H122-4) = NY136 x Nordonna (2006).** Early maturing, pink-skinned tablestock.

- In nine Tompkins County trials over the past six years, marketable yields averaged 105% of Chieftain.
- Yield in Wayne County was 84% of Atlantic in 2014, 104% of Chieftain in 2015, and 103% of Chieftain in 2016.
- Yield on Long Island was 76% of Chieftain in 2012 and 151% of Reba in 2014.
- Yield in PA was 115% of Chieftain in 2011 (2 trials).

Tubers are uniform, large (6.0 ounce average, 4 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 (hollow heart, internal necrosis and brown center) 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. Susceptible to the golden nematode.

**NY156 (J104-3) = White Pearl x Marcy (2007).** Late maturity chipstock. Outstanding chip color.

NY156 had considerable virus in 2014. We will resume testing in several years, once clean seed becomes available.

- In three Tompkins County trials over the past three years, marketable yields averaged 87% of Atlantic.

Low levels of pickouts (secondary growth) or internal defects (internal necrosis) have been observed. Specific gravity has averaged 0.008 less than Atlantic (3 trials). Chip color from 44F storage in December, January and February (2012 crop season) averaged 2.0 compared to 4.0 for Snowden (lower is better). Chip color from the 2013 crop averaged 2.0 compared to 5.7 for Snowden in the same trial. Chip color from the 2014 crop averaged 2.3 compared to 4.0 for Snowden. Moderately resistant to common scab. Tuber dormancy is similar to Atlantic. Susceptible to race Ro1 of the golden nematode.

**NY157 (J105-10) = White Pearl x NY115 (2007).** Mid-season chipstock.

- In nine Tompkins County trials over the past five years, marketable yields averaged 92% of Atlantic.
- In trials in Wyoming and Steuben Counties, yield averaged 100% of Atlantic in 2014, 87% of Atlantic in 2015, and 112% in 2016.
- On Long Island, yield was 114% of Reba in 2014, 88% of Reba in 2015, and 105% of Atlantic in 2016.
- Yield in Pennsylvania was 102% of Atlantic in 2015 (1 trial).

Low levels of pickouts (knobs, growth cracks) or internal defects (internal necrosis) have been observed. Specific gravity has averaged 0.006 less than Atlantic (15 trials). Chip color from 44F storage in December, January and February (2012 crop season) averaged 4.0 compared to 4.0 for Snowden (lower is better). Chip color averaged 3.7 vs 5.7 for Snowden in 2013, 3.0 versus 4.0 in 2014, and 3.2 vs 4.2 in 2015. Moderately resistant to common scab. Tuber dormancy is similar to Atlantic. Resistant to race Ro1 of the golden nematode.

**NY158 (K28-7) = Snowden x E48-2 (2008).** Late maturity chipstock.

- In seven Tompkins County trials over the past four years, marketable yields averaged 109% of Atlantic.
- In trials in Wyoming and Steuben Counties, yield averaged 114% of Atlantic in 2014 and 97% of Atlantic in 2015.

Low levels of pickouts (growth cracks, knobs) have been observed. Hollow heart (5 to 10%) is often observed. Specific gravity has averaged 0.003 less than Atlantic (12 trials). Chip color from 44F storage in December, January and February (2013 crop season) averaged 3.0 compared to 4.3 for Snowden (lower is better). Chip color averaged 3.3 vs 4.0 for Snowden in 2014 and 2.5 vs 4.2 in 2015. Intermediate reaction to common scab. Resistant to potato virus Y. Tuber dormancy is about two weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

**NY159 (K100-3) = B13-1 x Chieftain (2008).** Mid-late season, red tablestock with smooth skin. Known informally as 'Electric Red'.

- In eight Tompkins County trials over the past four years, marketable yields averaged 92% of Chieftain.
- Yield in Wayne County was 112% of Chieftain in 2014, 51% of Chieftain in 2015, and 81% in 2016.
- Yield in PA was 73% of Chieftain in 2015.

Tubers are round to oblong in shape with attractive red color and smooth skin. Low levels of pickouts (growth cracks) or internal defects (internal necrosis) have been observed in most trials, but 67% of tubers displayed severe internal discoloration in a PA trial in 2016. Moderate resistance to common scab. Tubers do not darken but do slough slightly after boiling. Tuber dormancy is one to two weeks longer than Atlantic. Susceptible to the golden nematode.

**NY160 (L27-2) = D32-4 x NY150 (2009).** Early-mid season, pink-skinned tablestock.

This clone had a lot of virus in 2015 and will resume testing in a few years, once we have clean seed available again.

- In four Tompkins County trials over the past two years, marketable yields averaged 83% of Chieftain.
- Yield in Wayne County was 84% of Chieftain in 2014 and 50% of Chieftain in 2015.

Tubers are relatively small, with smooth, pink skin. Very few pickouts or internal defects have been observed. Moderate resistance to common scab. Tuber dormancy is two weeks shorter than Atlantic. Susceptible to the golden nematode.



**NY161 (L29-3) = Daisy Gold x C24-1 (2009).** Mid-late season yellow-fleshed tablestock with purple splashes on the skin. Known informally as 'Violetta'.

- In five Tompkins County trials over the past three years, marketable yields averaged 112% of Atlantic. In another Tompkins County trial, yield was 90% of Chieftain.
- Yield in Wayne County was 154% of Atlantic in 2014, 76% of Chieftain in 2015, and 88% of Eva in 2016.
- Yield on Long Island was 120% of Yukon Gold in 2016.

Tubers have smooth skin with purple splashes around the eyes and pleasing yellow flesh. Low levels of growth cracks and hollow heart are typically observed. Moderate resistance to common scab. Tuber dormancy is two weeks longer than Atlantic. Susceptible to the golden nematode.

**NY162 (K31-4) = E106-2 x E48-2 (2008).** Late season chipstock.

- In eight Tompkins County trials over the past four years, marketable yields averaged 95% of Atlantic.
- In trials in Wyoming and Steuben Counties, yield averaged 121% of Atlantic in 2014, and 97% of Atlantic in 2015, and 104% in 2016.

Tubers are round to oblong with moderately textured skin. Low levels of pickouts (misshapes, growth cracks, knobs) have been observed. Some hollow heart (average of 3% across eight trials) has also been seen. Specific gravity has averaged 0.005 less than Atlantic (14 trials). Chip color from 44F storage in December, January and February (2013 crop season) averaged 3.3 compared to 4.3 for Snowden (lower is better). Chip color averaged 3.7 vs 4.7 for Snowden in 2014 and 3.5 vs 4.2 in 2015. Intermediate reaction to common scab. Tuber dormancy is about two weeks longer than Atlantic. Resistant to race Ro1 of the golden nematode.

**L7-2 = E50-8 x E48-2 (2009).** Mid-late season chipstock.

- In six Tompkins County trials over the past three years, marketable yields averaged 95% of Atlantic.
- In trials in Wyoming and Steuben Counties, yield averaged 84% of Atlantic in 2016.
- On Long Island yield was 123% of Reba in 2016.

Tubers are round to oblong with lightly netted skin. Low levels of growth cracks and knobs have been observed. No hollow heart, brown center or internal necrosis has yet been seen in NY. Specific gravity has averaged 0.003 less than Atlantic (8 trials). Chip color from 44F storage in December, January and February (2014 crop season) averaged 3.7 compared to 4.3 for Snowden (lower is better). Chip color averaged 3.2 vs 3.8 for Snowden in 2015. Moderate resistance to common scab. Tuber dormancy is about one week longer than Atlantic. Resistant to race Ro1 of the golden nematode.

**L26-6 = D32-4 x C100-2 (2009).** Red tablestock with smooth skin.

- In six Tompkins County trials over the past three years, marketable yields averaged 87% of Chieftain.
- Yield in Wayne County was 66% of Chieftain in 2014, 45% of Chieftain in the shortened season of 2015, and 70% in 2016.
- Yield on Long Island was 96% of Chieftain in 2016.

Tubers are round to oblong with bright red color and smooth skin. Low levels of growth cracks and knobs have been observed, along with infrequent brown center. Slight heat necrosis was observed on Long Island in 2016. Moderate resistance to common scab. Tuber dormancy is one week longer than Atlantic. Susceptible to the golden nematode.

## 2016 Summary of Yield Trials

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

	Ellis Hollow		Freeville			County		
	Adv+Int Trial	Red Trial	Advanced Trial	Intermed. Trial	Red Trial	Wayne Marion	Steuben Arkport	Wyoming Castile
Atlantic	<b>100</b>		<b>100</b>	<b>100</b>			<b>100</b>	<b>100</b>
Snowden	130		104	111			110	92
Superior	82							
Eva	93					<b>100</b>		
Lamoka	107			108			160	115
Yukon Gold	90		106			82		
NY149	74		86			100		
NY150	61*		66*			29*		
NY151	99		113			118		
NY152	87		101					
NY154	115		124					
NY157	93		95				134	89
NY158	124		126					
NY161	85		109			89		
NY162	103		97				109	101
K27-3	157		132				171	106
L7-2	85		99				79	89
L8-12	131		104				213	83
M7-4	90			82				
M8-5	124			108				
M15-3	75			79				
M18-2	80			87				
Chieftain		<b>100</b>			<b>100</b>	<b>100</b>		
Nordonna		111			104			
D.R. Norland		77			53	94		
NY155		161			76	103		
NY159		98			64	73		
L26-6		129			66	70		

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

### 2016 Summary of Specific Gravities

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

	Ellis Hollow	Freeville		County	
	Adv/Intern	Advanced	Intermed.	Steuben	Wyoming
	Trial	Trial	Trial	Arkport	Castile
Atlantic	<b>1.078</b>	<b>1.083</b>	<b>1.084</b>	<b>1.086</b>	<b>1.091</b>
Snowden	-2	-2	-6	-1	-4
Superior	-6				
Eva	-12		-14		
Lamoka	-7		-4	+1	+1
Yukon Gold	-3	-5			
NY149	-8	-9			
NY150	-7	-5			
NY151	-16	-19			
NY152	-8	-4			
NY154	-11	-7			
NY157	-4	-2		-2	-10
NY158	-7	-4			
NY161	-13	-13			
NY162	+1	0		-3	-4
K27-3	-9	0		-6	-2
L7-2	-2	-3		+1	-1
L8-12	-7	-1		+3	+1
M7-4	-6		-8		
M8-5	-6		-6		
M15-3	+3		+1		
M18-2	0		+1		

**Results from Cornell Breeding Program Trials**

**Walter De Jong and Robert Plaisted**

## 2016 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 3, harvested September 20. Vine kill applied September 2.

	cwt/acre		%	pickout		% internal defects			appear.	specific
	>1 7/8"	>2 1/2"	>2 1/2"	cwt/A	type	HHT	IN	BC	score	gravity
Atlantic	289	143	49	2	k	0	15	0	3.0	1.078
Daisy Gold	230	74	32	30	k	0	0	0	2.6	1.064
Eva	269	173	64	2	k	0	8	0	3.4	1.066
German Butterball	122	10	8	7	k	0	30	0	3.1	1.066
Keuka Gold	278	154	55	5	k	0	0	0	3.4	1.065
Lamoka	310	185	60	1	k	0	0	0	3.1	1.071
Reba	292	187	64	0	-	0	0	0	2.8	1.068
Snowden	376	164	43	0	-	0	15	0	2.8	1.076
Superior	237	93	39	1	-	0	3	0	2.6	1.072
Waneta	322	243	75	2	gc	3	0	0	3.4	1.072
Yukon Gold	260	155	60	0	-	0	3	0	3.0	1.075
NY149	213	62	29	1	k	0	0	0	3.1	1.070
NY150	51**	1	2	0	-	0	0	0	3.1	1.071
NY151	286	172	60	2	k	0	0	0	3.7	1.062
NY152	252	71	28	0	-	0	3	0	3.5	1.070
NY154	333	165	49	5	k	0	0	0	3.1	1.067
NY157	269	127	47	2	k	0	0	0	3.2	1.074
NY158	359	162	45	3	k	0	0	0	3.0	1.071
NY161	246	50	20	0	-	0	0	0	3.3	1.065
NY162	297	154	52	2	k	0	0	0	3.3	1.079
K27-1	277	136	49	0	-	3	0	0	3.5	1.077
K27-3	454	268	59	3	gc	0	0	0	2.8	1.069
L1-7	232	100	43	8	k	0	0	0	3.2	1.069
L2-12	185	42	23	1	gc	0	0	0	3.3	1.077
L7-2	244	80	33	0	-	0	0	0	3.1	1.076
L8-12	380	222	59	0	-	0	0	0	3.2	1.071
L17-3	162	26	16	0	-	0	0	0	3.5	1.082
L30-5	238	40	17	7	k	0	0	0	3.3	1.071
M7-4 (3)	260	53	21	3	k	0	0	0	3.3	1.072
M7-6 (3)	200	41	21	0	-	0	0	0	3.3	1.078
M8-5 (3)	358	146	41	1	k	0	0	0	3.1	1.072
M15-3 (3)	216	92	43	0	-	0	0	0	2.9	1.081
M15-5 (3)	242	71	29	0	-	0	0	0	3.1	1.072
M18-2 (3)	231	60	26	0	-	0	0	0	3.4	1.078
M102-3 (3)	232	51	22	2	k	0	0	0	3.0	1.072

\*\*NY150 also produced an additional 149 cwt/acre of tubers less than 1.875 inches in diameter

## 2016 First Stage Yield Trial, Ellis Hollow

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

3 Replicates

Planted May 4, harvested September 21. Vine kill applied September 2.

	cwt/acre		% >2 1/2"	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"		cwt/A	type	HHT	IN	BC		
Andover	156	32	21	0	-	0	0	0	3.1	1.078
Atlantic	241	121	50	0	-	0	23	0	3.0	1.070
Eva	204	103	51	2	k	0	0	0	3.4	1.066
Lamoka	273	140	51	2	k	0	0	0	3.1	1.073
Reba	203	82	40	0	-	0	0	0	2.9	1.071
Snowden	244	81	33	1	k	0	10	0	2.8	1.070
N5-3	138	8	6	5	k	0	0	0	2.9	1.076
N6-2	204	29	14	0	-	0	0	0	2.8	1.072
N6-16	155	19	12	0	-	0	0	0	3.1	1.081
N11-4	177	26	15	0	-	0	0	0	3.3	1.071
N14-3	195	63	32	10	k	0	0	0	3.0	1.068
N16-10	242	91	38	2	k	0	0	0	2.9	1.071
N16-11	267	100	38	2	k	0	0	0	3.0	1.068
N16-18	177	33	19	20	k	0	0	0	3.0	1.069
N22-1	89	8	9	0	-	0	3	0	3.1	1.080
N24-2	189	59	31	0	-	0	0	0	3.0	1.080
N25-1	243	68	28	3	k	0	0	0	3.2	1.065
N25-2	178	35	20	5	k	0	0	0	2.8	1.061
N25-3	168	20	12	0	-	0	0	0	3.3	1.075
N25-5	148	43	29	1	k	0	0	0	2.5	1.066
N25-8	157	18	12	0	-	0	0	0	3.3	1.075
N35-3	164	20	12	2	k	0	3	0	3.0	<1.060
N35-9	242	81	34	1	k	0	0	0	3.2	<1.060
N37-5	186	33	18	0	-	0	0	0	3.3	1.071
N39-1	212	55	26	7	k	0	3	0	3.1	1.071
N40-1	185	100	54	0	-	0	0	0	3.5	1.078
N40-3	291	172	59	9	gc	0	13	0	2.8	1.065
N40-7	246	71	29	0	-	0	0	0	3.3	1.075
N40-8	159	24	15	1	k	0	3	0	3.2	1.079
N40-9	213	52	24	1	k	0	0	0	2.9	1.074
N44-7	206	113	55	8	gc	0	0	0	3.2	1.069
N45-1	166	93	56	4	gc	0	0	0	3.2	1.077
N50-1	200	30	15	0	-	0	0	0	3.1	1.077
N51-4	156	64	41	0	-	0	0	0	3.3	1.079
N52-5	277	102	37	10	gc	0	13	0	2.9	1.069

### 2016 Red Trial, Ellis Hollow

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

3 replicates (unless indicated otherwise in parentheses)

Planted May 3, harvested September 21. First vine kill applied September 2.

	cwt/acre		%	pickout		% internal defects			appear. score	specific gravity
	>1 7/8"	>2 1/2"		>2 1/2"	cwt/A	type	HHT	IN		
Chieftain	247	110	44	5	k	0	20	0	3.1	1.061
Nordonna	274	106	39	17	k	0	0	0	3.0	<1.060
Norland	189	45	24	1	k	0	0	0	3.1	<1.060
Strawberry Paw	307	187	61	10	k	0	0	0	3.1	<1.060
NY155	397	209	53	6	k	0	0	0	3.4	<1.060
NY159	241	91	38	3	k	0	13	0	3.3	<1.060
L26-6	318	156	49	0	-	0	0	0	3.2	1.063



## 2015 Crop Season Chip Color Scores - University Trials

44F Storage

Average of two locations (Ellis Hollow and Freeville)

	VISUAL SCORES			
	DEC	JAN	FEB	Average 3 MONTHS
SNOWDEN	4.0	4.0	4.5	4.2
WANETA	3.0	3.0	3.0	3.0
LAMOKA	3.0	2.0	3.0	2.7
NY152	3.0	3.0	3.5	3.2
NY154	4.5	4.0	4.0	4.2
NY157	3.5	3.0	3.0	3.2
NY158	3.0	2.0	2.5	2.5
NY162	4.0	2.0	3.5	3.2
L7-2	3.0	3.5	3.0	3.2
L8-12	3.0	2.0	3.0	2.7

VISUAL CHIP SCALE: 1 - 10

1 = best

4 = marginal

5 and over = not acceptable

Samples were not reconditioned before chipping

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

Out of 44F storage: 2012 - 2015 crop seasons.

Reconditioned 0-1 weeks at room temperature

	VISUAL SCORES			
	(4 YEARS, 1 LOCATION = Ellis Hollow)			
	DEC	JAN	FEB	AVG
Snowden	4.5	4.0	4.0	4.2
Waneta	3.5	2.8	3.8	3.4
Lamoka	3.0	2.8	3.5	3.1
NY152	3.5	3.0	3.5	3.3
NY154	4.0	3.2	3.2	3.5
NY157	3.8	3.5	3.5	3.6

VISUAL CHIP SCALE: 1 - 10

1 = best

4 = marginal

5 and over = not acceptable



## 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.

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
<b>Round whites:</b>											
Andover		1		3	3	3	3		4	4	3
Atlantic	0	0	0	0	0	0	0	0	0	0	0
Eva		6		7	8						
Lamoka		0		3	0	1	1	1	2	3	-1
Lehigh								3	3	3	3
Reba		2		4		5	5	4	6	7	5
Snowden	0	0		2	2	2	2	1	4	2	0
Superior								2			
Waneta	9	6		10	7	8	8	6	8	7	5
Yukon Gold	2				0	1					
NY140		4	5	7	6	6	7	5	6	6	5
NY141	4	0	4	3	2	2	2	2	3	3	1
NY148		0	0	0	1	0	0	0			
NY149	2				0	2	1				
NY150	3	3	3	2	2	2	2				
NY151	2	0	0	1	1	0					
NY152	5	2	4	3	5						
NY154	-2	-1	0	-1	3						
NY156		0	1	2							
NY157	-2	-1	0	2							
NY158	3	2	2								
NY161	3	1									
NY162	5	0	1								
L7-2	1										
<b>Reds and purples:</b>											
Chieftain		0	0	2	1	2	1	1	0	2	2
Norland DR		-4		-1				-3	-3		-2
Nordonna		-2	0	2	0	1	2	0	0	1	1
Red Maria		1	3	3	4	5	3	3	4	4	1
NY155		1	2	3	2						
NY159		1	2								
NY160		-2									
L26-6		-1									
Ad. Blue		0	0	-2					2	2	1
Ad. Red		2							2	1	5

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**Data from Freeville and Upstate County Farm Trials**  
**Walter De Jong and Don Halseth**

**Advanced Clone Yield Trial, Freeville NY, 2016. Page 1 of 2.**

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

3 Replicates

Planted May 10, harvested September 22. First vine kill applied September 5.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution ( % of total yield )					Size Distrib. (%)		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4 "	
Atlantic	420	399	100	4	40	56	0	0	96	56	1.083
Snowden	446	414	104	7	51	40	1	0	93	42	1.081
Reba	449	440	110	2	32	63	3	0	98	66	1.073
Daisy Gold	430	291	73	10	60	30	0	0	90	30	1.071
German Butterball	386	215	54	32	66	3	0	0	68	3	1.081
Keuka Gold	404	389	97	3	23	63	11	0	97	74	1.072
Yukon Gold	441	425	106	2	23	57	17	0	98	75	1.078
NY149	389	342	86	11	62	26	0	0	89	26	1.074
NY150	268	88	22	66	33	0	0	0	34	0	1.078
NY151	484	450	113	4	26	60	9	0	96	69	1.064
NY152	461	405	101	12	62	26	0	0	88	26	1.079
NY154	521	496	124	4	29	59	7	0	96	67	1.076
NY157	405	381	95	5	42	53	1	0	95	54	1.081
NY158	531	503	126	4	35	46	15	0	96	62	1.079
NY161	535	437	109	17	61	22	0	0	83	22	1.070
NY162	407	386	97	4	38	58	0	0	96	58	1.083
K27-1	324	292	73	10	55	35	0	0	90	35	1.083
K27-3	552	526	132	3	28	60	9	0	97	69	1.083
L1-7	452	434	109	3	42	55	0	0	97	55	1.074
L2-12	294	258	64	11	67	22	0	0	89	22	1.086
L7-2	434	394	99	7	68	25	0	0	93	25	1.080
L8-12	429	416	104	3	25	66	6	0	97	72	1.082
L17-3	325	280	70	15	66	19	0	0	85	19	1.087
L30-5	360	253	63	28	60	12	0	0	72	12	1.075

Tuber size classes:

1 = under 1.875 inches diameter, 2 = 1.875 to 2.5, 3 = 2.5 to 3.25, 4 = 3.25 to 4, 5 = over 4 inches diameter

Advanced Clone Yield Trial, Freeville NY, 2016. Page 2 of 2.

Genotype Variety or Clone	Tuber Attributes			External Tuber Defects (%)			Int. Tuber Defects (%)			
	Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Mis- shapen	Growth Cracks	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.
Atlantic	3.0	5.0	3.5	0.7	0.4	0.3	10	0	0	13
Snowden	3.0	5.0	3.0	0.3	0.3	0.0	7	0	0	3
Reba	3.3	5.0	3.0	0.3	0.3	0.0	3	0	0	0
Daisy Gold	6.0	6.0	3.5	23.1	20.4	2.8	7	3	0	0
German Butterball	6.0	5.0	3.2	13.6	13.5	0.1	0	0	0	53
Keuka Gold	3.0	5.0	3.5	0.4	0.1	0.3	0	0	0	20
Yukon Gold	3.0	5.7	3.3	1.5	0.0	1.5	17	0	0	0
NY149	3.0	5.0	3.5	1.1	1.0	0.1	0	0	0	0
NY150	3.0	7.0	3.5	1.6	1.6	0.0	0	0	0	0
NY151	3.0	6.0	3.5	2.7	2.1	0.6	0	3	0	0
NY152	2.7	5.0	3.3	0.6	0.6	0.0	0	0	0	0
NY154	3.3	5.0	3.5	1.0	0.7	0.3	0	0	0	20
NY157	3.0	5.0	3.2	2.0	1.5	0.5	7	0	0	0
NY158	3.3	5.0	3.0	1.8	1.5	0.4	10	0	0	0
NY161	3.0	5.0	3.3	1.7	1.4	0.3	0	0	0	0
NY162	3.7	5.0	3.3	1.8	1.8	0.0	0	0	0	0
K27-1	2.0	5.0	3.2	0.9	0.8	0.1	3	0	0	0
K27-3	3.0	5.0	3.2	1.7	0.9	0.8	10	0	0	0
L1-7	3.3	5.7	3.1	1.2	0.2	1.0	0	3	0	0
L2-12	3.0	5.3	3.3	1.1	0.4	0.7	3	0	0	0
L7-2	3.0	5.7	3.3	2.3	1.8	0.5	0	0	0	0
L8-12	3.0	5.0	3.0	0.0	0.0	0.0	7	0	0	0
L17-3	3.0	5.0	3.5	0.2	0.0	0.2	0	0	0	0
L30-5	5.0	5.7	3.5	1.8	1.7	0.1	0	0	0	3

Tuber shape 1 = round, 2 = mostly round, 3 = round to oblong, 4 = mostly oblong, 5 = oblong, 6 = oblong to long, 7 = long

Skin texture 5 = netted, 6 = slight net, 7 = medium smooth, 8 = smooth, 9 = very smooth

Tuber appearance 2 = ugly, 3 = OK, 4 = nice



**Intermediate Clone Yield Trial, Freeville NY, 2016. Page 1 of 2.**

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

3 Replicates

Planted May 10, harvested September 25. First vine kill applied September 5.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> ( % of total yield )					Size Distrib. (%)		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4 "	
Atlantic	215	195	100	10	59	32	0	0	90	32	1.084
Snowden	254	217	111	14	70	15	0	0	86	15	1.078
Eva	223	215	110	3	54	42	0	0	97	42	1.070
Lamoka	245	210	108	14	55	30	0	0	86	30	1.080
Waneta	272	258	132	4	46	49	0	0	96	49	1.078
M7-4	235	160	82	28	67	5	0	0	72	5	1.076
M7-6	189	141	72	25	71	4	0	0	75	4	1.084
M8-5	267	211	108	20	68	11	0	0	80	11	1.078
M15-3	255	197	101	23	65	12	0	0	77	12	1.085
M15-5	201	153	79	24	66	10	0	0	76	10	1.083
M18-2	220	170	87	24	63	13	1	0	76	13	1.085
M102-3	221	167	86	24	68	8	0	0	76	8	1.078

Tuber size classes:

1 = under 1.875 inches diameter, 2 = 1.875 to 2.5, 3 = 2.5 to 3.25, 4 = 3.25 to 4, 5 = over 4 inches diameter

**Intermediate Clone Yield Trial, Freeville NY, 2016. Page 2 of 2.**

Genotype Variety or Clone	Tuber Attributes			External Tuber Defects (%)			Int. Tuber Defects (%)			
	Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Mis- shapen	Growth Cracks	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.
Atlantic	3	5	3.5	0.0	0.0	0.0	0	0	0	13
Snowden	2	5	3.0	0.3	0.3	0.0	0	0	13	0
Eva	3	6	3.9	0.1	0.1	0.0	0	0	3	0
Lamoka	3	6	3.4	1.0	1.0	0.0	0	0	3	0
Waneta	3	6	3.5	0.8	0.8	0.0	0	0	0	0
M7-4	3	5	3.5	6.0	6.0	0.0	0	0	10	0
M7-6	2	5	3.3	0.0	0.0	0.0	0	0	3	0
M8-5	3	5	3.4	0.4	0.4	0.0	0	0	0	0
M15-3	2	5	3.3	0.7	0.7	0.0	0	0	0	0
M15-5	3	6	3.2	0.6	0.4	0.2	0	0	3	0
M18-2	3	6	3.0	0.6	0.0	0.6	0	0	0	0
M102-3	2	5	3.2	0.8	0.4	0.5	0	0	10	0

Tuber shape 1 = round, 2 = mostly round, 3 = round to oblong, 4 = mostly oblong, 5 = oblong, 6 = oblong to long, 7 = long

Skin texture 5 = netted, 6 = slight net, 7 = medium smooth, 8 = smooth, 9 = very smooth

Tuber appearance 2 = ugly, 3 = OK, 4 = nice

**First Year Clone Yield Trial, Freeville NY, 2016. Page 1 of 2.**

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

3 Replicates

Planted May 11, harvested September 26. First vine kill applied September 5.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> (% of total yield)					Size Distrib. (%)		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4"	
Atlantic	330	315	100	5	47	46	2	0	95	48	1.088
Snowden	384	357	113	7	57	34	2	0	93	36	1.081
Reba	338	328	104	3	41	50	6	0	97	56	1.075
Eva	278	271	86	2	47	51	1	0	98	51	1.073
Lamoka	321	302	96	7	50	40	3	0	93	43	1.082
Waneta	332	315	100	3	25	56	15	1	96	71	1.078
Superior	246	226	72	7	49	41	3	0	93	44	1.078
N5-3	303	226	72	23	68	9	0	0	77	9	1.087
N6-2	469	412	131	12	53	33	2	0	88	35	1.075
N6-16	246	201	64	17	63	18	1	0	83	19	1.087
N11-4	319	283	90	11	63	24	3	0	89	27	1.081
N14-3	389	365	116	6	43	46	5	0	94	51	1.081
N16-10	310	290	92	5	55	39	1	0	95	40	1.084
N16-11	397	349	111	11	55	32	1	0	89	33	1.076
N16-18	293	205	65	28	63	9	0	0	72	9	1.080
N22-1	228	185	59	17	62	21	0	0	83	21	1.079
N24-2	263	240	76	10	61	28	1	0	90	29	1.088
N25-1	318	275	87	11	56	33	0	0	89	33	1.074
N25-2	327	284	90	13	66	22	0	0	87	22	1.071
N25-3	238	189	60	21	71	8	0	0	79	8	1.084
N25-5	238	205	65	13	62	24	0	0	87	25	1.076
N25-8	262	222	70	15	59	24	2	0	85	26	1.079
N35-3	398	313	100	19	56	24	0	0	81	24	1.068
N35-9	413	366	116	10	48	41	1	0	90	42	1.070
N37-5	348	289	92	19	61	20	0	0	81	20	1.077
N39-1	289	239	76	19	57	24	0	0	81	24	1.077
N40-1	261	249	79	2	39	57	2	0	98	59	1.088
N40-3	305	289	92	3	28	56	12	1	96	68	1.080
N40-7	398	375	119	5	56	40	0	0	95	40	1.082
N40-8	285	232	74	18	64	18	0	0	82	18	1.086
N40-9	291	269	86	6	48	44	2	0	94	46	1.082
N44-7	294	271	86	3	33	56	8	0	97	64	1.085
N45-1	251	233	74	4	40	52	5	0	96	57	1.085
N50-1	319	259	82	20	72	8	0	0	80	9	1.081
N51-4	215	206	65	3	46	45	6	0	97	51	1.085
N52-5	335	288	91	8	58	32	1	0	92	33	1.082

Tuber size classes:

1 = under 1.875 inches diameter, 2 = 1.875 to 2.5, 3 = 2.5 to 3.25, 4 = 3.25 to 4, 5 = over 4 inches diameter

Genotype Variety or Clone	Tuber Attributes			External Tuber Defects (%)			Int. Tuber Defects (%)			
	Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Mis- shapen	Growth Cracks	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.
Atlantic	3	5	3.5	0.0	0.0	0.0	0	0	3	17
Snowden	2	5	3.0	0.2	0.1	0.1	0	0	17	3
Reba	3	5	3.0	0.0	0.0	0.0	0	0	0	0
Eva	3	6	3.8	0.7	0.6	0.1	0	3	0	0
Lamoka	3	5	3.5	0.3	0.3	0.0	0	0	0	0
Waneta	4	5	3.4	1.6	0.0	1.6	0	0	3	0
Superior	3	5	3.0	1.5	1.5	0.0	0	0	10	0
N5-3	7	5	3.6	2.9	2.9	0.0	0	0	0	3
N6-2	3	6	3.0	0.4	0.4	0.0	0	0	7	0
N6-16	2	5	3.5	0.8	0.8	0.0	0	0	0	0
N11-4	3	5	3.4	0.4	0.0	0.4	7	0	0	0
N14-3	3	5	3.0	0.5	0.5	0.0	0	0	47	0
N16-10	4	6	3.5	1.0	1.0	0.0	0	0	0	0
N16-11	3	5	3.4	1.0	1.0	0.0	0	0	10	27
N16-18	4	5	3.5	3.5	3.5	0.0	3	0	3	0
N22-1	4	6	3.5	1.7	1.7	0.0	0	0	0	30
N24-2	3	6	3.3	0.8	0.8	0.0	0	0	0	0
N25-1	4	6	3.4	2.3	0.2	2.1	0	0	10	7
N25-2	3	6	3.4	0.1	0.1	0.0	0	0	10	0
N25-3	3	6	3.5	0.0	0.0	0.0	0	0	0	0
N25-5	3	6	3.4	0.9	0.9	0.0	0	0	0	0
N25-8	2	5	3.4	2.1	1.6	0.5	0	0	0	0
N35-3	3	8	3.5	2.7	2.7	0.0	0	0	7	0
N35-9	3	6	3.3	1.6	1.6	0.0	0	0	0	17
N37-5	4	5	3.5	0.3	0.1	0.2	0	0	0	0
N39-1	2	5	3.2	0.5	0.5	0.0	0	0	0	50
N40-1	2	6	3.3	2.1	1.9	0.2	0	0	3	0
N40-3	2	5	3.0	1.1	0.5	0.6	0	0	0	0
N40-7	2	5	3.5	1.3	1.0	0.3	0	0	0	0
N40-8	3	6	3.5	0.2	0.2	0.0	0	0	0	0
N40-9	3	5	3.5	1.5	1.3	0.3	0	0	0	3
N44-7	3	6	3.3	4.0	2.0	2.0	0	0	0	3
N45-1	3	5	3.2	3.6	2.0	1.6	0	0	0	0
N50-1	4	5	3.5	0.1	0.1	0.0	0	0	0	0
N51-4	3	5	3.5	0.6	0.6	0.0	0	0	0	0
N52-5	2	5	3.2	5.8	5.3	0.5	0	0	0	0

Tuber shape 1 = round, 2 = mostly round, 3 = round to oblong, 4 = mostly oblong, 5 = oblong, 6 = oblong to long, 7 = 1  
Skin texture 5 = netted, 6 = slight net, 7 = medium smooth, 8 = smooth, 9 = very smooth  
Tuber appearance 2 = ugly, 3 = OK, 4 = nice

**Red Clone Yield Trial, Freeville NY, 2016. Page 1 of 2.**

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

3 Replicates

Planted May 12, harvested September 24. First vine kill applied September 5.

Genotype Variety or Clone	Total Yield Cwt/A	Mkt. Yield		Size Distribution <sup>1</sup> ( % of total yield )					Size Distrib. (%)		Spec. Grav.
		Cwt/A	% of Std.	1	2	3	4	5	1-7/8" to 4"	2-1/2" to 4 "	
Chieftain	310	284	100	8	47	45	0	0	92	45	1.071
Nordonna	343	297	104	8	48	42	2	0	92	44	1.068
NY155	238	217	76	8	48	44	1	0	92	45	1.061
Norland	179	151	53	16	64	20	0	0	84	20	1.066
NY159	207	180	64	12	47	40	0	0	88	40	1.063
L26-6	221	188	66	15	58	27	0	0	85	27	1.070

Tuber size classes:

1 = under 1.875 inches diameter, 2 = 1.875 to 2.5, 3 = 2.5 to 3.25, 4 = 3.25 to 4, 5 = over 4 inches diameter

**Red Clone Yield Trial, Freeville NY, 2016. Page 2 of 2.**

Genotype Variety or Clone	Tuber Attributes			External Tuber Defects (%)			Int. Tuber Defects (%)			
	Tuber Shape	Skin Text.	Tuber Appear.	Total Defects	Mis- shapen	Growth Cracks	Holl. Heart	Brn. Center	Vasc. Disc.	Int. Nec.
Chieftain	3.0	6.0	3.5	0.5	0.5	0.0	0	0	0	23
Nordonna	3.0	7.0	3.5	5.5	5.5	0.0	0	0	0	0
NY155	4.0	7.0	3.5	1.9	1.9	0.0	0	0	3	0
Norland	3.0	6.7	3.5	0.0	0.0	0.0	0	0	0	0
NY159	3.0	7.0	3.3	0.6	0.6	0.0	0	0	0	0
L26-6	3.0	6.3	3.5	0.0	0.0	0.0	0	3	0	0

Tuber shape 1 = round, 2 = mostly round, 3 = round to oblong, 4 = mostly oblong, 5 = oblong, 6 = oblong to long, 7 = long

Skin texture 5 = netted, 6 = slight net, 7 = medium smooth, 8 = smooth, 9 = very smooth

Tuber appearance 2 = ugly, 3 = OK, 4 = nice

**Upstate New York Table 1. 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 - 2016.**

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	
CHIEFTAIN	368	259	100	9	77	14	0	8.7	4.4	20	0	0	0	0	0	0	0	1.074
L26-6	308	201	78	19	71	10	0	9.6	3.3	10	5	0	0	0	0	10	0	1.066
NORLAND	364	254	98	11	75	14	0	9.8	3.9	16	1	3	0	0	0	0	0	1.063
NY155	380	278	107	4	63	30	3	6.3	6.4	17	2	0	0	0	0	5	0	1.062
NY159	297	210	81	12	74	14	0	8.2	3.8	11	5	2	0	0	0	0	0	1.061
Average:	343	241	93	11	72	16	1	8.5	4.4	15	3	1	0	0	0	3	0	1.065
Maximum:	380	278	107	19	77	30	3	9.8	6.4	20	5	3	0	0	0	10	0	1.074
Minimum:	297	201	78	4	63	10	0	6.3	3.3	10	0	0	0	0	0	0	0	1.061

<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 20

Harvest Date: November 2

Fertilizer: 89 N-90 P-240 K lbs. per acre on June 2

Vinekill: 1 pt./a Reglone + crop oil

Irrigation: none

Fertilizer: Taskforce 2 qt/acre on Aug 9 and Nutrimag 2 gal/acre on Aug 22

**Upstate New York Table 2. 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 - 2016.**

Variety or Clone	Total Yield	Mkt. Yield		Size Distribution <sup>1</sup>				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Specific Gravity
	Cwt/A	Cwt/A	% of Std.	(% of total yield)				#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC	
				1	2	3	4											
ANDOVER	239	158	59	13	72	14	0	6.9	3.6	13	3	4	0	5	0	0	0	1.084
DAISY GOLD	302	200	75	12	81	6	0	8.6	3.7	8	11	2	0	0	0	0	0	1.088
ENVOL	201	135	51	21	77	1	0	7.2	2.9	10	1	0	0	0	0	0	0	1.071
EVA	308	267	100	7	67	27	0	6.9	4.7	6	0	0	0	0	0	10	0	1.080
GERMAN BUTTERBALL	209	85	32	55	45	0	0	10.1	2.2	3	2	0	0	0	0	5	10	1.079
KEUKA GOLD	320	275	103	6	64	30	0	8.0	4.2	7	1	0	0	0	0	5	0	1.083
L30-5	262	190	71	20	80	0	0	10.8	2.8	5	3	1	0	0	0	0	0	1.085
NADINE	259	54	20	32	68	0	0	11.0	2.4	32	15	1	0	5	0	10	5	1.059
N22-1	199	128	48	22	75	4	0	6.9	3.0	16	0	0	0	0	0	0	0	1.088
N35-3	171	72	27	47	50	3	0	8.2	2.2	12	0	0	0	0	0	20	0	1.075
N35-9	283	144	54	27	70	3	0	11.5	2.6	22	0	0	0	0	0	0	0	1.078
NY149	338	256	96	15	79	6	1	10.5	3.3	9	1	0	0	0	0	15	0	1.080
NY150	87	13	5	82	18	0	0	7.3	1.2	2	2	0	0	0	0	0	0	NA
NY151	376	283	106	8	55	34	2	8.7	4.5	14	0	0	0	0	0	5	0	1.065
NY161	377	235	88	18	80	2	0	13.2	3.0	5	1	13	0	0	0	0	0	1.080
PARELLA	257	121	45	24	73	3	0	8.2	3.3	9	16	4	0	0	0	0	0	1.075
REBA	261	180	67	12	63	22	3	6.7	4.0	14	1	1	0	0	0	5	0	1.078
SIFRA	360	253	95	17	77	6	0	10.4	3.7	11	1	0	0	0	0	0	0	1.082
YUKON GOLD	267	165	62	3	50	38	10	4.9	5.7	25	0	0	0	5	0	5	0	1.079
Average:	267	169	63	23	66	10	1	9	3	12	3	1	0	1	0	4	1	1.078
Maximum:	377	283	106	82	81	38	10	13	5.7	32	16	13	0	5	0	20	10	1.088
Minimum:	87	13	5	3	18	0	0	5	1.2	2	0	0	0	0	0	0	0	1.059

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 20

Harvest Date: November 2

Fertilizer: 89 N-90 P-240 K lbs. per acre on June 2

Vinekill: 1 pt./a Reglone + crop oil

Irrigation: none

Fertilizer: Taskforce 2 qt/acre on Aug 9 and Nutrimag 2 gal/acre on Aug 22



**Upstate New York Table 3. 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 - 2016.**

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	226	208	100	7	70	23	0	4.7	5.3	0	0	0	0	0	0	0	55	1.086
CO03243-3W	379	335	161	7	68	25	0	8.8	4.7	4	1	0	0	0	0	0	20	1.081
K27-1	139	97	47	28	70	2	0	5.6	2.8	1	0	0	0	0	0	0	0	1.085
K27-3	401	344	165	10	62	28	0	10.1	4.3	3	1	1	0	20	0	0	5	1.080
LAMOKA	360	314	151	6	66	28	0	7.8	5.1	5	1	1	0	0	0	0	0	1.087
L2-12	126	101	49	20	76	4	0	4.7	3.0	1	0	0	0	0	0	0	0	1.085
L7-2	206	164	79	25	68	7	0	6.5	3.3	0	1	0	0	0	0	0	0	1.087
L8-12	481	433	208	4	51	45	0	8.8	6.1	2	3	0	0	0	0	0	5	1.089
MANISTEE	272	236	113	11	64	24	1	7.2	4.0	2	1	1	0	0	0	0	0	1.082
NY157	339	275	132	9	71	19	1	8.0	4.7	1	7	1	0	0	0	0	0	1.084
NY162	262	224	108	8	74	17	1	6.5	4.4	1	5	0	0	0	0	0	0	1.083
SNOWDEN	268	226	109	11	74	14	0	8.0	3.7	1	3	0	0	0	0	30	5	1.085
Average:	288	246	118	12	68	20	0	7.2	4.3	2	2	0	0	2	0	3	8	1.084
Maximum:	481	433	208	28	76	45	1	10.1	6.1	5	7	1	0	20	0	30	55	1.089
Minimum:	126	97	47	4	51	2	0	4.7	2.8	0	0	0	0	0	0	0	0	1.080

<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: May 25

Fertilizer: 128N - 256P- 128K - 4S - 4Zn - 0.24B lbs. per acre

Top dressed with 200 lbs Calcium Amonium Nitrate per acre (54 lb N and 16 lb CA)

Applied in furrow: 7 oz. Quadris and 2.67 oz. Platinum

Vinekill Dates: September 15 and 20

Vinekill: 1 pt./a Reglone + crop oil

Harvest Date: October 11

Irrigation: 2 applications of 1 inch each

36" bed width by 8" within row spacing

**Upstate New York Table 4. 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 Castile, New York - 2016.**

Variety or Clone	Total Yield	Mkt. Yield		Size Distribution <sup>1</sup>				Mean Tuber		Percent External Tuber Defects				Percent Internal Tuber Defects				Scab Rating	Spec. Grav.
	Cwt/A	Cwt/A	% of Std.	1	2	3	4	#/ft	wt(oz)	SUN	KNB	GC	ROT	HH	BC	VD	NEC		
ATLANTIC	330	316	100	4	77	19	0	7.0	4.9	0	0	0	0	5	0	35	0	4.7	1.091
CO03243-3W	349	322	102	4	69	27	0	6.6	5.5	2	0	2	0	20	0	30	0	4.3	1.089
K27-1	280	263	83	5	79	17	0	6.4	4.6	1	1	0	0	0	0	15	0	4.4	1.085
K27-3	376	327	104	10	84	6	0	9.8	4.0	2	0	1	1	0	0	30	0	4.4	1.089
LAMOKA	372	359	113	3	70	27	0	6.7	5.8	1	0	0	0	0	0	25	0	3.1	1.092
L2-12	222	196	62	8	83	8	0	5.7	4.0	1	2	1	1	10	0	20	0	4.8	1.084
L7-2	304	281	89	7	90	3	0	9.3	3.4	0	0	0	0	0	0	25	0	3.8	1.090
L8-12	275	259	82	3	61	36	0	5.2	5.5	1	1	0	0	0	0	15	0	4.6	1.093
MANISTEE	279	248	79	4	60	35	1	6.5	4.6	3	0	3	0	0	0	20	0	4.6	1.082
NY157	299	280	88	5	78	17	0	6.7	4.6	0	1	0	0	0	0	30	0	3.9	1.081
NY162	339	316	100	4	71	25	1	6.5	5.4	1	2	0	0	0	0	35	0	4.0	1.087
SNOWDEN	319	292	92	9	86	5	0	9.3	3.6	0	0	0	0	5	0	90	10	4.9	1.087
Average:	312	288	91	5	76	19	0	7.1	4.7	1	1	1	0	3	0	31	1	4.3	1.087
Maximum:	376	359	113	10	90	36	1	9.8	5.8	3	2	3	1	20	0	90	10	5.0	1.093
Minimum:	222	196	62	3	60	3	0	5.2	3.4	0	0	0	0	0	0	15	0	3.1	1.081

<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: May 20

Fertilizer: 188N - 80P- 92K - 12Mg-17S-1.2Zn-41Ca lbs. per acre

Other: 1 qt./a Double Nickel and 3 pt./a Vydate in furrow

Vinekill Dates: September 22 & September 28

Vinekill: 2 pt./a Reglone and LI-700 (2x)

Harvest Date: October 19

Irrigation: 5" through center pivot  
34" bed width by 8" within row spacing

Scab rating: 1 = none, 5 = extremely bad pitted scab

**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 advanced Cornell white-skinned clones grown at Riverhead, N.Y. - 2016.

Clone	Total	Marketable Yield		Size Distribution (%)					Size Distribution		Specific <sup>1</sup> Gravity
	Yield cwt/A	cwt/A	percentage of standard	< 2"	2 - 2.5"	2.5 - 3.25"	3.25 - 4"	> 4"	2 to 4 in.	2.5 to 4 in.	
<b>Season-125 days</b>											
Reba	473	427	100	4	31	59	5	1	96	64	67
Marcy	520	500	117	1	14	62	22	1	98	84	71
Norwis	351	319	75	4	20	61	14	2	94	75	65
Salem	475	429	101	4	31	56	8	1	95	64	65
Superior	401	375	88	5	35	56	4	0	95	60	66
Envol	454	300	70	2	19	61	17	1	97	78	65
Waneta	401	368	86	4	30	57	9	0	96	66	65
NY140	555	520	122	1	14	60	24	1	98	84	66
NY141	499	450	106	5	29	56	9	1	94	65	68
NY151	582	517	121	3	22	62	12	0	97	75	65
L2-12	394	373	87	4	28	57	11	0	96	68	70
L7-2	550	525	123	2	26	64	8	0	98	72	71
M102-3	474	456	107	3	28	65	4	0	97	69	69
<i>Fisher's Protected</i>											
<i>LSD (0.05)</i>											

Planted on 4/20/16, fertilizer rate was 176-176-192/A, vine killed on 8/23/16, harvested on 10/6/2016.

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

Long Island Table . Maturity, tuber shape, and internal and external defects of advanced Cornell white-skinned clones grown at Riverhead, N.Y. - 2016.

Clone	Maturity <sup>1</sup>	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	on 8/11/2016	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-125 days</b>													
Reba	5	R-O	8	6	2	0	0	3	0	3	3	0	0
Marcy	8	R-O	7	2	1	0	0	0	8	0	0	0	0
Norwis	5	R-O	7	4	1	1	0	2	18	0	25	8	0
Salem	4	O-R	8	5	2	1	0	1	0	0	3	0	0
Superior	2	R-O	7	2	1	1	0	0	0	0	0	0	0
Envol	2	R-O	7	32	1	4	1	25	13	13	0	0	0
Waneta	7	R-O	8	4	2	0	0	2	0	0	0	0	0
NY140	7	R-O	8	4	4	0	0	0	0	0	0	0	0
NY141	6	R-O	8	4	3	1	0	1	0	10	0	0	0
NY151	5	R-O	9	8	7	0	0	0	0	8	8	3	0
L2-12	2	R-O	8	1	1	0	0	0	0	0	0	0	0
L7-2	6	R	8	2	1	0	0	0	0	0	0	0	0
M102-3	7	R	7	1	0	0	0	0	5	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.S.

No. 1 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 NE1231 white-skinned clones grown at Riverhead, N.Y. - 2016.

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.	
<b>Season-125 days</b>											
Atlantic	441	411	100	2	17	64	17	0	98	81	75
Katahdin	388	342	83	6	36	57	2	0	94	58	65
Kennebec	462	421	103	3	30	61	5	0	97	67	65
Superior	398	380	93	3	28	61	7	0	97	69	66
AF4138-8	462	434	106	5	36	57	2	0	95	59	65
AF4648-2	390	358	87	5	37	57	1	0	95	58	72
AF5040-8	443	407	99	6	40	52	2	0	94	54	76
AF5280-5	540	500	122	4	25	62	9	0	96	71	67
B3005-7	359	318	77	10	51	38	1	0	90	39	69
BNC364-1	491	446	109	3	33	60	4	0	97	64	72
NY154	576	537	131	3	28	68	1	0	97	69	69
NY157	460	429	105	5	37	53	5	0	95	58	69
<i>Fisher's Protected</i>											
<i>LSD (0.05)</i>											

Planted on 4/20/16, fertilizer rate was 176-176-192/A, vine killed on 8/23/16, harvested on 9/22/16.

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

Long Island Table 7. Maturity, tuber shape, and internal and external defects of NE1231 white-skinned clones grown at Riverhead, N.Y. - 2016.

Clone	Maturity <sup>1</sup> on	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	8/11/2016	Shape	Appearance	Total	Sun-burn	Mis-shapen	Growth cracks	Other <sup>2</sup>	Hollow heart	Brown center	Internal Necrosis		
											Sl.	Mod.	Sev.
<b>Season-125 days</b>													
Atlantic	6	R	7	5	2	1	1	1	15	13	28	10	0
Katahdin	4	R-O	6	6	2	0	0	4	0	15	13	0	0
Kennebec	5	O-R	6	6	2	2	1	1	0	3	0	3	0
Superior	1	R-O	7	2	0	1	0	0	0	5	0	0	0
AF4138-8	3	R-O	7	1	0	0	0	1	0	3	5	0	0
AF4648-2	4	R-O	7	3	2	0	0	1	0	0	0	0	0
AF5040-8	3	R-O	8	2	1	0	0	2	0	0	3	0	0
AF5280-5	2	R-O	7	4	2	1	0	0	0	0	0	0	0
B3005-7	1	R-O	7	2	0	1	0	0	0	0	0	0	0
BNC364-1	3	O-R	7	6	1	1	2	3	3	0	0	0	0
NY154	5	R-O	8	4	2	0	0	1	3	5	0	3	0
NY157	4	R	8	1	1	0	0	0	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.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 yellow-skinned clones grown at Riverhead, N.Y. - 2016.

Clone	Total	Marketable Yield		Size Distribution (%)					Size Distribution		Specific <sup>1</sup>
	Yield		percentage	2 to	2.5 to	3.25 to	4"	> 4"	2 to	2.5 to	
	cwt/A	cwt/A	of standard	< 2"	2.5"	3.25"	4"	> 4"	4 in.	4 in.	Gravity
<b>Season-125 days</b>											
Yukon Gold	351	306	100	4	25	62	9	0	96	71	66
Yukon Gem	521	479	156	4	44	51	0	0	96	52	50
Augusta	388	321	105	11	55	33	1	0	89	33	66
McBride	400	372	121	3	22	56	17	2	95	73	65
Natascha	447	377	123	12	67	21	0	0	88	21	50
Satina	554	471	154	7	39	51	3	0	93	54	65
Vivaldi	469	426	139	7	42	49	2	0	93	51	65
NY161	423	366	120	12	52	34	2	0	88	36	65
L30-5	452	408	133	8	46	47	0	0	92	47	67
AF5215-2	338	264	86	20	68	12	0	0	80	12	65
<i>Fisher's Protected</i>											
<i>LSD (0.05)</i>											

Planted on 4/20/16, fertilizer rate was 176-176-192/A, vine killed on 8/23/16, harvested on 9/27/16.

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

Long Island Table 9. Maturity, tuber shape, and internal and external defects of yellow-skinned clones grown at Riverhead, N.Y. - 2016.

Clone	Maturity <sup>1</sup>	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	on		Appear-	Sun-	Mis-	Growth		Hollow	Brown	Internal Necrosis			
	8/11/2016	Shape	ance	Total	burn	shapen	cracks	Other <sup>2</sup>	heart	center	Sl.	Mod.	Sev.
<b>Season-125 days</b>													
Yukon Gold	1	R-O	7	9	2	1	0	6	3	0	5	8	0
Yukon Gem	1	R-O	7	4	0	2	0	2	5	20	0	0	0
Augusta	3	R-O	6	7	1	5	0	0	0	0	28	0	0
McBride	4	R-O	7	2	0	0	0	1	0	0	20	0	0
Natascha	4	O-R	8	4	2	2	0	0	5	0	0	0	0
Satina	7	R-O	6	8	1	6	0	1	0	15	25	0	0
Vivaldi	4	O-R	8	3	1	0	0	1	0	0	0	0	0
NY161	4	R-O	8	2	1	1	1	0	3	0	3	0	0
L30-5	5	O-R	6	2	0	2	0	0	0	3	0	0	0
AF5215-2	1	R	7	3	0	2	0	1	10	8	0	0	3

<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.S.

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

Long Island Table 10. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of Red and Purple-skinned clones grown at Riverhead, N.Y. - 2016.

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.	
<b>Season-124 days</b>											
Chieftain	501	466	100	5	34	58	3	0	95	61	65
DR Norland	383	348	75	5	41	52	1	0	95	53	65
Peter Wilcox	348	318	68	7	52	41	0	0	93	41	65
Raspberry	226	151	32	28	71	1	0	0	71	1	65
Purple Soul	277	256	55	4	33	56	7	0	96	63	65
AF4659-12	218	84	18	54	46	0	0	0	46	0	65
AF4985-1	364	324	69	3	29	65	3	0	97	68	65
BNC244-10	379	335	72	11	50	38	1	0	89	39	74
NY159	419	383	82	5	38	56	2	0	95	57	65
L26-6	482	448	96	3	28	61	7	0	96	68	65
M22-6	497	465	100	4	34	59	3	0	96	62	72
MSV235-2PY	289	229	49	16	64	20	0	0	84	20	70
B3148-12	419	370	79	9	46	45	1	0	91	45	65
B3148-14	374	351	75	4	24	65	8	0	96	73	65
B2152-17	304	262	56	13	56	31	0	0	87	31	66
BNC201-1	323	295	63	7	41	51	1	0	93	52	71
B2873-1	262	244	52	5	36	53	7	0	95	59	65
BNC320-2	356	310	66	12	64	24	0	0	88	24	69
<i>Fisher's Protected</i>											
<i>LSD (0.05)</i>											

Planted on 4/20/16, fertilizer rate was 176-176-192/A, vine killed on 8/23/16, harvested on 9/28/16.

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

Long Island Table 11. Maturity, tuber shape, and internal and external defects of Red and Purple-skinned clones grown at Riverhead, N.Y. - 2016.

Clone	Maturity <sup>1</sup>	Tuber Data <sup>1</sup>		Tuber Defects (%)					Percentage				
	on	Shape	Appear- ance	Total	Sun- burn	Mis- shapen	Growth cracks	Other <sup>2</sup>	Hollow heart	Brown center	Internal Necrosis		
	8/11/2016										Sl.	Mod.	Sev.
<b>Season-124 days</b>													
Chieftain	6	R-O	6	2	1	1	0	1	0	0	10	0	0
DR Norland	0	R-O	7	4	1	0	2	0	0	0	3	0	0
Peter Wilcox	1	R-O	7	2	1	0	1	0	0	0	0	0	0
Raspberry	2	O	8	6	0	0	1	5	0	0	5	0	0
Purple Soul	1	R-O	8	3	1	1	1	1	0	0	0	0	0
AF4659-12	6	O	7	15	3	12	0	0	0	0	0	0	0
AF4985-1	1	R-O	7	8	3	2	3	0	3	0	0	0	0
BNC244-10	3	R	8	1	0	1	0	0	0	0	0	0	0
NY159	3	R-O	7	4	0	2	0	1	0	0	5	0	0
L26-6	2	R-O	7	4	1	1	1	1	0	3	8	0	0
M22-6	6	R-O	6	3	1	0	0	1	3	0	0	0	0
MSV235-2PY	0	R-O	8	5	0	1	1	3	0	0	0	0	0
B3148-12	4	R-O	7	3	1	1	0	1	0	0	0	0	0
B3148-14	2	R-O	6	3	1	1	1	1	0	0	0	0	0
B2152-17	1	R	7	1	1	0	0	0	0	0	0	0	0
BNC201-1	2	R	7	2	1	1	0	0	0	0	0	0	0
B2873-1	0	R-O	6	2	0	0	1	1	0	0	0	0	0
BNC320-2	1	R	7	1	0	0	0	0	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.S.													
No. 1 grade. Mechanical defects, however, were not scored.													





McCormick Farms crew planting 'Lamoka' in Wyoming County