Florida Potato Variety Trial Report, 2013

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FLORIDA POTATO VARIETY TRIAL REPORT, 2013

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PHOTOGRAPH

Cover photo: Cowpen Branch Research Farm April 18, 2013. Lincoln Zotarelli.

ACKNOWLEDGEMENTS

Many talented and dedicated people assisted in these experiments during the potato season of 2013. The variety evaluation team is indebted to Doug Gergela and Dana Burhans for their hard work and technical expertise, and to Scott Taylor, Bart Herrington, Hugh Burnham, Thaddus Merricks, and Dorothy Tennenberg for their hard work. Without the commitment and effort from these individuals, the variety evaluation program would not be possible.

SPECIAL ACKNOWLEDGEMENT

In this edition of the Potato Variety Trial we would like to recognize the important contributions of Mr. Doug Gergela to the University of Florida Potato Variety Program. For more than 8 years, Doug conducted and maintained the Regional Potato Breeding Program. One very important accomplishment of this program resulted from Doug's knowledge and expertise on selection of potato varieties for Florida conditions. Mr. Gergela was responsible for the selection of a new potato clone, during the breeding process nominated "B-1992-106" as part of the USDA-ARS Beltsville Potato Breeding Program led by Dr. Haynes. This new potato clone has been performing very well under Florida climate conditions due to its high yield potential and resistance to internal heat necrosis. The clone was released in 2012, and Doug's suggested name was "Elkton", which is the name of a town in the Hastings area, the heart of potato production in Florida.

We thank Doug for everything he has done for the Potato Industry in Florida and for the University of Florida.

Photo: Doug Gergela during the potato variety selection in Presque Isle, ME. September 13, 2011.

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CHAPTER 1. INTRODUCTION

General Potato Production Information

Potato clones were obtained from university, government, and industry breeding programs. Clones progress through the evaluation program following the track described in the Potato Variety Evaluation Flowchart (Figure 1, page 10).

Potatoes (*Solanum tuberosum* L.) in the Tri-County Agricultural Area (TCAA) around Hastings, Florida are grown in 60-foot wide beds consisting of sixteen rows. Rows are raised with a between row spacing of 40 inches (center to center). The research plots were irrigated with seepage irrigation. A clay layer underlies the topsoil at a depth of three to five feet in the TCAA. In this system, the perched water table depth is managed by water flow into irrigation canals spaced between beds. Potato beds were irrigated continuously over the season except after a rain event.

Variety trials, unless noted, were conducted at the University of Florida/IFAS Partnership for Water Agricultural and Community Sustainability at Hastings, FL research and demonstration farm. PWACS is part of the University of Florida/IFAS network of research and demonstration farms located around the state to conduct research on important horticultural crops. The soil at the field site is classified as Ellzey fine sand (sandy, siliceous, hyperthermic Arenic Ochraqualf; sand 90-95%, < 2.5% clay, < 5% silt).

Potatoes were planted following a sorghum/sudan grass summer cover crop (*Sorghum bicolor* (L.) Moench x *S. arundinaceum* (Desv.) Stapf var. SX17, Dekalb). Cover crop was incorporated into the potato beds in October, 2011. Potato beds were fumigated with Pic-Clor 60, 11 gal/A (1,3-dichloropropene 39%, and chloropicrin 59.4%) in late December 2011. Potato seed pieces were dusted with fungicide (Maxim) prior to planting. Admire Pro (8.7 oz/A), Quadris,(10.4 oz/A), and Vydate C-LV (68 oz/A) were applied in a banded spray in the furrow after planting but before the seed was covered with soil. Dual Magnum (16 oz/A) and TriCor DF (8 oz/A) was broadcast sprayed at "boarding off" for weed control. Fungicides and insecticides were applied on a schedule during the season based on IPM practices. Fresh market tablestock variety plots were vine-killed by chemical desiccation with glufosinate-ammonium (Rely 280, 21 oz/A)

Fertilizer (50-100-150, granular) was incur porated into the beds prior to planting, unless otherwise noted. Two side-dress fertilizer applications (75-0-125, granular and 75-0-0, granular) were made in all trials during the season, unless otherwise noted. Side-dress application dates were February 8, 16, and 29, and March 5 and 19, 2012.

Potato seed pieces were hand cut (approx. 2.5 oz) and hand planted on an 8-inch within row spacing unless otherwise noted. Plant growth characteristics were rated during the season following the descriptions listed in Table 1 (page 10). Plant type was rated at full flower approximately 60 days after planting. No growth enhancers or chemicals to enhance skin color were used in any trial unless otherwise noted.

Plots were harvested with a single-row, commercial potato harvester. Potatoes were graded using commercial grading equipment. Culls were removed and remaining potatoes were separated into six size classes and weighed. Specific gravity was measured on a random 20-tuber sample from each plot using the weight-in-air/weight-in-water method. A random sample was rated for external appearance characteristics. External tuber quality characteristics were rated following the descriptions in Table 2 (page 11). A second 20-tuber sample was collected and each tuber cut into fourths and rated for hollow heart (HH), brown rot (BR), corky ringspot (CRS), internal heat necrosis (IHN), and brown center (BC). BC was rated as light, moderate, or heavy if the cut pieces displayed the respective defects.

Sub-samples of potatoes from the USPB/SFA and Chipping trial were shipped to Utz Quality Foods and Wise Foods, Inc. respectively. Chips were prepared following the procedures outlined in the Snack Food Association Chipping Potato Handbook (1995). Chips fried by Wise utilized a 1-5 rating scale. Chips fried by Utz utilized the Hunter Lab rating scale. Chip visual scores are presented in their respective chapters.

Seasonal Weather and Growing Conditions

Overall growing conditions for the 2013 growing season were rated as fair. Yields in all trials were lower than expected. Only seven days saw temperatures at or below freezing, and there were only two freezing events from the planting dates forward. Rainfall was below average in February, March and April. However, early May the FAWN weather station registered 9.6”rainfall in 3 days, which compromised the tuber quality of several trials. In addition, temperatures were above normal in March, April and May, which added stress to the vines and reduced the bulking of many clones. Also, the high air temperatures contributed to high soil temperatures, which, when combined with late season rainfall, caused many tubers to break down and rot prior to harvest.

Production

There were no major changes to the production system in 2013.

FIGURE 1. POTATO VARIETY PROGRAM EVALUATION FLOWCHART

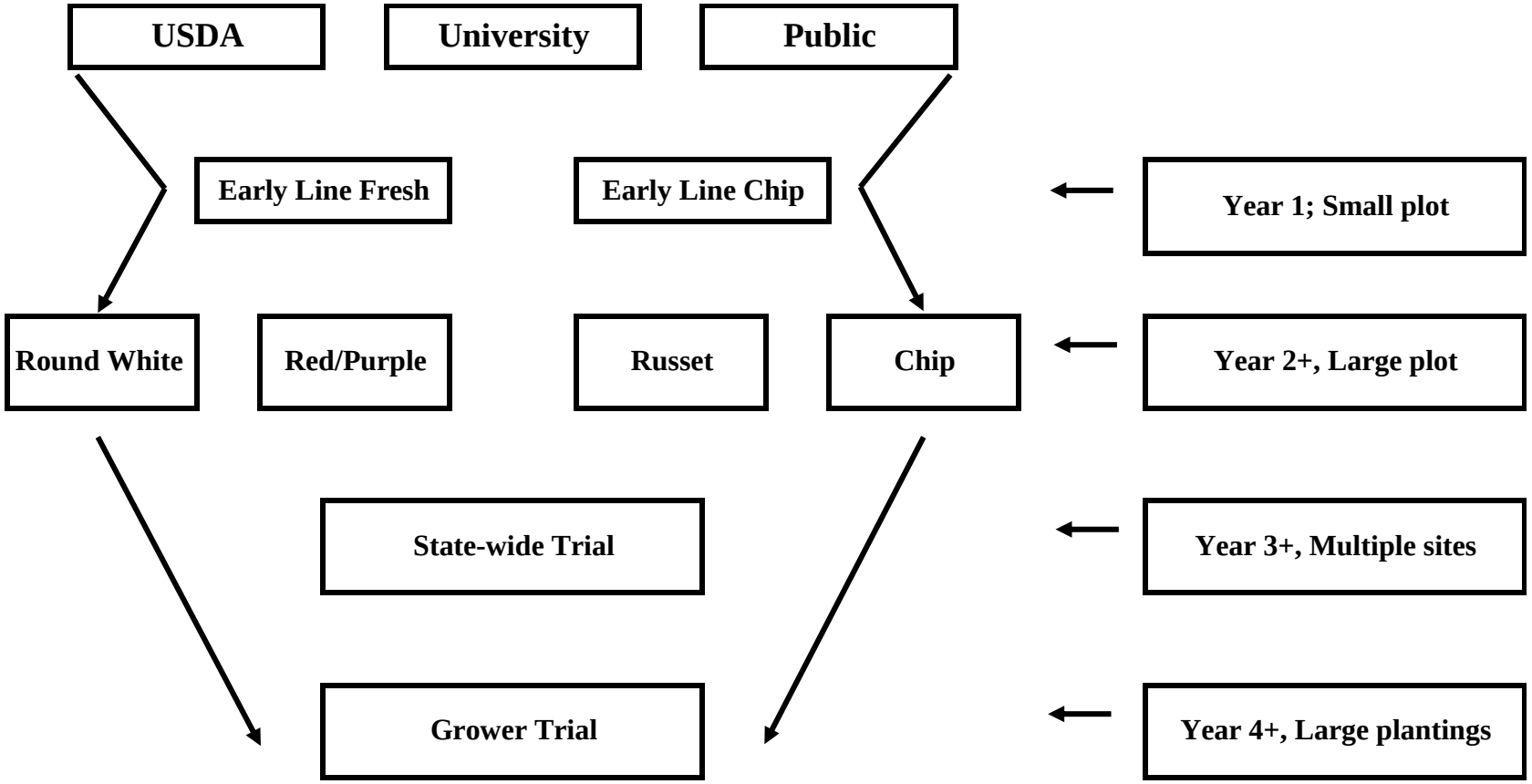

TABLE 1. PLANT GROWTH CHARACTERISTICS

Rating	Early Vigor (plant height)	Vine Type	Vine Maturity at Harvest/Vine Kill
1	no emergence	decumbent – poor	dead
2	leaves in rosette	decumbent – fair	+-
3	plants < 2 in	decumbent – good	yellow and dying
4	plants 2 to 4 in	spreading – poor	+-
5	plants 4 to 6 in	spreading – fair	moderately senesced
6	plants 6 to 8 in	spreading – good	+-
7	plants 8 to 10 in	upright – poor	starting to senesce
8	plants 10 to 12 in	upright – fair	+-
9	plants > 12 in	upright – good	green and vigorous

Adapted from Sisson and Porter, 2002.

TABLE 2. INTERNAL AND EXTERNAL POTATO TUBER CHARACTERISTICS

Rating	Internal Flesh Color	Skin Color	Skin Texture	Tuber Shape	Eye Depth	Overall Appearance
1	White	Purple	Partial Russet	Round	Very Deep	Very Poor
2	Cream	Red	Heavy Russet	Mostly Round	+-	+-
3	Light Yellow	Pink	Mod. Russet	Round to Oblong	Deep	Poor
4	Medium Yellow	Dark Brown	Light Russet	Mostly Oblong	+-	+-
5	Dark Yellow	Brown	Netted	Oblong	Intermediate	Fair
6	Pink	Tan	Slightly Netted	Oblong to Long	+-	+-
7	Red	Buff	Mod. Smooth	Mostly Long	Shallow	Good
8	Blue	White	Smooth	Long	+-	+-
9	Purple	Cream	Very Smooth	Cylindrical	Very Shallow	Excellent

Adapted from Sisson and Porter, 2002.

CHAPTER 2.
USDA 2nd YEAR VARIETY TRIAL, 2013

General Comments

A goal of the 2nd year USDA trial is to continue evaluating new clones for production potential in Florida. The entries in this trial were selected from an early generation clone trial conducted in 2012.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 16, 2013
Vine Kill Dates	N/A
Harvest Date	April 30, 2013
Season Length	104 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	11 (Standard: Atlantic)
Number of Clones	89
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	1
Plot Size	16 ft (4.9 m)

Production Facts

Early Vigor Ratings	na
Highest Total Yield	B3038-3 (339 cwt/acre or 37.9 T/ha)
Highest Marketable Yield	Satina (305 cwt/acre or 34.1 T/ha)
Best Appearance Rating	Snowden, AF0338-17, B2952-9, B2993-5, B3004-2, B3005-6, B3032-10, BNC323-1, BNC362-1, BNC365-3, BNC369-4 (7, good)

Table 3. Production facts for USDA 2nd year potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Atlantic	285	251	100	2	4	66	15	13	0	94	28	1.072
Fabula	225	189	75	1	7	74	10	7	0	91	18	1.055
Goldrush	284	241	96	3	11	74	7	6	0	87	13	1.058
Harley Blackwell	309	270	107	2	7	58	12	21	0	91	33	1.075
LaChipper	255	193	77	5	12	63	11	9	0	83	20	1.066
Peter Wilcox	289	217	86	4	20	76	0	0	0	76	0	1.066
Red LaSoda	217	200	80	2	3	59	14	22	0	95	36	1.059
Satina	332	305	121	1	5	62	12	20	0	94	32	1.056
Snowden	273	229	91	2	8	75	10	4	0	89	14	1.075
Vivaldi	284	211	84	3	21	67	6	4	0	77	10	1.059
Yukon Gold	191	165	66	2	10	65	23	0	0	88	23	1.076
AF0338-17	239	208	83	3	10	67	14	6	0	87	20	1.072
B2930-5	234	171	68	5	18	67	6	4	0	76	10	1.058
B2950-3	266	209	83	3	18	67	12	0	0	79	12	1.070
B2951-4	333	237	94	3	24	65	7	0	0	73	7	1.067
B2951-5	205	149	59	4	24	65	4	4	0	73	8	1.078
B2951-7	262	227	90	3	11	58	26	2	0	87	29	1.074
B2952-1	179	142	57	4	12	67	12	4	0	84	16	1.073
B2952-4	250	179	71	5	21	74	0	0	0	74	0	1.075
B2952-9	247	207	83	2	10	65	14	9	0	88	23	1.069

Table 3 (cont'd). Production facts for USDA 2nd year potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B2954-20	269	212	84	4	9	67	9	11	0	87	20	1.069
B2956-4	293	243	97	2	6	43	23	26	0	93	49	1.052
B2960-8	280	177	70	10	27	60	4	0	0	64	4	1.063
B2993-1	194	140	56	4	17	79	0	0	0	79	0	1.065
B2993-3	185	113	45	6	29	66	0	0	0	66	0	1.065
B2993-5	220	183	73	3	13	84	0	0	0	84	0	1.065
B2998-1	239	209	83	3	10	75	12	0	0	88	12	1.073
B2999-4	248	171	68	4	27	63	3	3	0	69	6	1.077
B3002-4	201	84	33	13	45	42	0	0	0	42	0	1.064
B3002-5	185	140	56	3	20	78	0	0	0	78	0	1.068
B3003-10	243	78	31	6	60	34	0	0	0	34	0	1.072
B3004-2	283	191	76	5	24	67	4	0	0	71	4	1.069
B3005-1	243	187	74	6	15	71	9	0	0	79	9	1.072
B3005-2	159	95	38	9	31	60	0	0	0	60	0	1.071
B3005-3	172	129	51	4	17	79	0	0	0	79	0	1.078
B3005-4	183	117	46	5	28	68	0	0	0	68	0	1.068
B3005-5	205	166	66	3	14	73	10	0	0	83	10	1.071
B3005-6	215	202	80	1	5	60	20	13	0	94	34	1.070
B3005-7	287	246	98	2	11	79	6	2	0	87	8	1.073
B3012-4	238	130	52	5	38	56	0	0	0	56	0	1.072

Table 3 (cont'd). Production facts for USDA 2nd year potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B3013-1	202	145	58	4	21	71	2	3	0	76	5	1.075
B3014-3	213	180	71	3	8	85	5	0	0	90	5	1.065
B3015-1	204	131	52	3	33	64	0	0	0	64	0	1.072
B3015-2	231	135	54	7	35	58	0	0	0	58	0	1.073
B3016-2	254	215	86	3	11	86	0	0	0	86	0	1.063
B3019-1	199	99	39	10	39	51	0	0	0	51	0	1.067
B3019-2	193	116	46	8	32	60	0	0	0	60	0	1.069
B3019-3	244	218	87	1	8	71	7	13	0	91	20	1.061
B3019-4	259	189	75	4	16	74	6	0	0	79	6	1.061
B3019-6	235	187	74	4	16	71	6	3	0	80	9	1.069
B3032-3	229	120	48	9	38	50	3	0	0	53	3	1.069
B3032-5	227	132	53	10	31	58	0	0	0	58	0	1.073
B3032-6	213	122	48	8	35	57	0	0	0	57	0	1.069
B3032-10	201	118	47	7	34	59	0	0	0	59	0	1.074
B3034-7	235	190	76	2	10	62	25	0	0	88	25	1.060
B3034-10	200	143	57	6	18	63	10	4	0	76	13	1.063
B3038-3	339	199	79	5	35	60	0	0	0	60	0	1.068
B3042-1	262	230	92	2	3	81	11	2	0	94	14	1.082
B3042-2	280	232	92	4	11	64	15	6	0	85	21	1.075
B3042-4	206	128	51	5	29	65	0	0	0	65	0	1.079

Table 3 (cont'd). Production facts for USDA 2nd year potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
B3044-1	146	100	40	4	20	68	8	0	0	75	8	1.075
B3044-2	181	87	35	10	40	50	0	0	0	50	0	1.082
B3044-3	189	106	42	8	35	57	0	0	0	57	0	1.083
BNC306-2	143	119	47	3	11	81	0	5	0	85	5	1.072
BNC311-4	271	221	88	2	8	73	8	9	0	90	17	1.069
BNC311-18	233	179	71	2	10	73	14	0	0	88	14	1.071
BNC313-3	205	108	43	6	38	55	0	0	0	55	0	1.078
BNC322-1	233	182	72	3	15	68	13	0	0	81	13	1.058
BNC322-2	229	199	79	2	10	64	16	7	0	88	24	1.058
BNC323-1	219	168	67	6	18	74	3	0	0	77	3	1.058
BNC353-3	231	172	68	3	11	74	11	0	0	86	11	1.059
BNC362-1	247	216	86	2	9	76	12	0	0	89	12	1.072
BNC362-2	225	154	61	4	27	69	0	0	0	69	0	1.070
BNC363-1	268	217	86	3	15	80	2	0	0	82	2	1.058
BNC363-6	321	289	115	1	8	51	21	19	0	91	40	1.062
BNC363-12	300	264	105	2	8	75	13	2	0	90	15	1.067
BNC365-3	302	239	95	4	15	67	14	0	0	81	14	1.068
BNC365-4	262	160	64	7	32	62	0	0	0	62	0	1.066
BNC367-1	247	156	62	8	29	63	0	0	0	63	0	1.071
BNC369-2	327	295	117	2	7	66	11	13	0	90	24	1.064

Table 3 (cont'd). Production facts for USDA 2nd year potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
BNC369-4	258	217	86	2	6	67	23	3	0	92	25	1.063
BNC369-5	244	197	78	4	15	76	5	0	0	81	5	1.068
BNC369-6	292	264	105	1	7	47	30	15	0	92	15	1.063
BNC369-7	309	213	85	5	25	70	0	0	0	70	0	1.067
BNC369-8	239	218	87	2	7	67	17	7	0	91	7	1.062
BNC370-1	286	255	101	3	7	79	9	2	0	90	2	1.066
BNC370-2	236	198	79	2	11	55	20	12	0	87	12	1.067
BNC370-3	287	263	105	1	6	60	21	11	0	93	11	1.074
BNC370-4	265	241	96	2	7	69	19	3	0	91	3	1.072
BNC371-1	235	194	77	3	6	54	29	7	0	91	7	1.070
BNC372-3	251	179	71	4	21	69	5	0	0	74	0	1.079
BNC378-2	273	217	86	3	12	61	11	12	0	84	12	1.061
BNC378-3	257	204	81	3	9	42	28	18	0	88	18	1.066
BNC398-1	264	205	82	2	8	22	28	40	0	90	40	1.062
BTD0237-1	228	170	68	3	21	76	0	0	0	76	0	1.068
BTD0238-1	229	164	65	4	24	72	0	0	0	72	0	1.068
BTD0238-2	233	177	71	3	21	70	4	2	0	76	2	1.073
BTD0239-1	200	150	60	3	22	69	6	0	0	75	0	1.068
BTD0272-3	203	154	61	6	18	76	0	0	0	76	0	1.077
BTD0272-18	224	153	61	5	23	72	0	0	0	72	0	1.074

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 4. Plant growth and tuber characteristics of USDA 2nd year potato selections.

	Plant Growth Characteristics[1]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]	Tuber Comments
Atlantic	96	na	6	7	6	
Fabula	67	na	5-8	6	5	
Goldrush	71	na	9	5	6	
Harley Blackwell	79	na	8-5	6	6	
LaChipper	58	na	5-8	7	5	
Peter Wilcox	58	na	5-8	6	6	
Red LaSoda	54	na	5	4	5	
Satina	75	na	8-5	7	6	
Snowden	96	na	9-6	7	7	
Vivaldi	88	na	5-8	5	6	
Yukon Gold	67	na	8-5	4	6	
AF0338-17	79	na	5	7	7	
B2930-5	79	na	5	7	5	
B2950-3	67	na	6-9	7	6	
B2951-4	79	na	9-6	8-9	6	
B2951-5	75	na	8-5	7	5	
B2951-7	75	na	5-8	5	6	
B2952-1	79	na	5-8	6	5	
B2952-4	83	na	6	5	6	
B2952-9	83	na	5	5	7	nice

Table 4 (cont'd). Plant growth and tuber characteristics of USDA 2nd year potato selections.

	Plant Growth Characteristics[1]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]	Tuber Comments
B2954-20	75	na	5	6	6	
B2956-4	79	na	5	6	4	
B2960-8	83	na	5	9	4	
B2993-1	71	na	5	3	4	
B2993-3	75	na	5-2	5	4	
B2993-5	83	na	5	4	7	
B2998-1	83	na	6	6	4	
B2999-4	96	na	5	7	6	
B3002-4	83	na	4-2	5	6	
B3002-5	88	na	5	5	6	
B3003-10	92	na	5	7	5	
B3004-2	79	na	5	7	7	nice
B3005-1	83	na	5	6	5	
B3005-2	83	na	4	6	5	
B3005-3	71	na	5	6	6	
B3005-4	75	na	5	5	5	
B3005-5	79	na	6	5	6	
B3005-6	79	na	5	6	7	nice
B3005-7	79	na	6-9	6	5	
B3012-4	75	na	5	4	6	

Table 4 (cont'd). Plant growth and tuber characteristics of USDA 2nd year potato selections.

	Plant Growth Characteristics[1]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]	Tuber Comments
B3013-1	79	na	5	6	5	
B3014-3	83	na	5	6	6	
B3015-1	83	na	8-5	6	6	
B3015-2	88	na	5-8	7	6	
B3016-2	88	na	5	6	5	
B3019-1	79	na	5-8	5	5	
B3019-2	88	na	5	5	5	
B3019-3	79	na	5	6	5	
B3019-4	79	na	6	8	5	
B3019-6	79	na	5	6	5	
B3032-3	71	na	6	6	6	
B3032-5	83	na	6-9	5	6	
B3032-6	79	na	5	5	6	
B3032-10	79	na	5	5	7	nice
B3034-7	88	na	5	5	4	
B3034-10	88	na	5	3	4	
B3038-3	79	na	9-6	5	4	
B3042-1	75	na	5-8	5	5	
B3042-2	88	na	6-9	6	4	
B3042-4	88	na	5-8	3	4	

Table 4 (cont'd). Plant growth and tuber characteristics of USDA 2nd year potato selections.

	Plant Growth Characteristics[1]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]	Tuber Comments
B3044-1	88	na	5	4	5	
B3044-2	83	na	5-8	5	4	
B3044-3	83	na	6-9	3	4	
BNC306-2	92	na	5	4	6	
BNC311-4	88	na	6	6	5	nice size
BNC311-18	83	na	5	6	6	
BNC313-3	92	na	5	5	5	
BNC322-1	83	na	8-5	6	6	
BNC322-2	100	na	5-8	6	6	
BNC323-1	96	na	8-5	4	7	nice color
BNC353-3	96	na	5	3	4	
BNC362-1	96	na	6	5	7	
BNC362-2	96	na	6	4	4	
BNC363-1	96	na	5-8	6	6	
BNC363-6	100	na	6-9	8	6	
BNC363-12	100	na	6	8	5	
BNC365-3	88	na	6	8	7	nice shape
BNC365-4	88	na	5	6	6	
BNC367-1	96	na	6	5	6	
BNC369-2	96	na	6-9	8	5	

Table 4 (cont'd). Plant growth and tuber characteristics of USDA 2nd year potato selections.

	Plant Growth Characteristics[1]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]	Tuber Comments
BNC369-4	79	na	5-8	6	7	nice shape
BNC369-5	88	na	5-8	8	5	
BNC369-6	88	na	6	6	5	
BNC369-7	79	na	6	7	6	
BNC369-8	83	na	5	7	5	
BNC370-1	100	na	8-5	6	6	
BNC370-2	100	na	5	6	6	
BNC370-3	100	na	6-9	7	5	
BNC370-4	88	na	8-5	8	6	
BNC371-1	96	na	6-9	7	6	
BNC372-3	83	na	6	7	5	
BNC378-2	96	na	6-9	7	5	
BNC378-3	79	na	8-5	8	5	
BNC398-1	79	na	6	8	5	
BTD0237-1	83	na	5	4	5	
BTD0238-1	100	na	6-9	4	5	
BTD0238-2	100	na	5	5	5	
BTD0239-1	83	na	5-8	5	5	
BTD0272-3	83	na	8-5	6	5	
BTD0272-18	92	na	5	7	5	

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 5. External and internal defects of USDA 2nd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	0	1	5	0	6	0	0	0	0	0	0	0
Fabula	3	0	5	0	8	0	0	0	0	0	0	0
Goldrush	0	0	2	0	2	0	0	0	0	0	0	0
Harley Blackwell	0	0	2	2	4	0	0	0	0	0	0	0
LaChipper	0	9	0	0	9	0	0	0	0	0	0	0
Peter Wilcox	1	0	0	0	1	0	0	0	0	0	0	0
Red LaSoda	3	0	0	0	3	0	0	0	0	0	0	0
Satina	2	0	0	0	2	0	0	0	0	0	0	0
Snowden	1	1	4	0	6	0	0	0	0	0	0	0
Vivaldi	0	1	2	0	3	0	0	0	0	0	0	0
Yukon Gold	2	0	0	0	2	0	0	0	0	0	0	0
AF0338-17	0	0	0	0	0	0	0	0	0	0	0	0
B2930-5	0	2	2	0	5	0	0	0	0	0	0	0
B2950-3	0	0	0	0	0	0	0	0	0	0	0	0
B2951-4	0	2	1	0	2	0	0	0	0	0	0	0
B2951-5	0	0	0	0	0	0	0	0	0	0	0	0
B2951-7	0	0	0	0	0	10	0	0	0	30	0	10
B2952-1	0	2	3	0	5	0	0	0	0	0	0	0
B2952-4	0	3	0	0	3	0	0	0	0	0	0	0
B2952-9	0	0	3	2	4	0	0	0	0	0	0	0

Table 5 (cont'd). External and internal defects of USDA 2nd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B2954-20	3	2	4	0	9	10	0	20	0	0	0	0
B2956-4	0	0	8	2	10	0	0	0	0	0	0	0
B2960-8	0	0	1	0	1	0	0	0	0	0	0	0
B2993-1	3	0	6	0	9	0	0	0	0	0	0	0
B2993-3	1	2	4	0	7	0	0	0	0	0	0	0
B2993-5	1	0	0	0	1	0	0	0	0	0	0	0
B2998-1	0	0	0	0	0	0	0	0	0	0	0	0
B2999-4	0	0	0	0	0	0	0	0	0	0	0	0
B3002-4	0	0	0	0	0	0	0	0	0	0	0	0
B3002-5	0	0	2	0	2	0	0	0	0	0	0	0
B3003-10	1	3	1	0	5	0	0	0	0	10	0	0
B3004-2	0	3	2	0	5	0	0	0	0	0	0	0
B3005-1	0	1	2	0	3	0	0	0	0	0	0	0
B3005-2	0	0	0	0	0	0	0	0	0	0	0	0
B3005-3	0	0	5	0	5	0	0	0	0	0	0	0
B3005-4	5	0	0	0	5	0	0	0	10	0	0	0
B3005-5	1	0	1	0	2	0	0	0	0	0	0	0
B3005-6	0	0	0	0	0	0	0	10	0	0	0	0
B3005-7	0	0	1	0	1	0	0	0	0	0	0	0
B3012-4	3	0	0	0	3	0	0	0	0	0	0	0

Table 5 (cont'd). External and internal defects of USDA 2nd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3013-1	0	4	1	0	5	0	0	0	0	0	0	0
B3014-3	0	1	4	0	6	0	0	0	0	0	0	0
B3015-1	0	0	0	0	0	0	0	0	0	0	0	0
B3015-2	0	0	0	0	0	0	0	0	0	0	0	0
B3016-2	0	0	2	0	2	0	0	0	0	0	0	0
B3019-1	3	0	0	0	3	0	0	0	0	0	0	0
B3019-2	0	0	0	0	0	0	0	0	0	0	0	0
B3019-3	0	0	2	0	2	0	0	0	0	0	0	0
B3019-4	2	3	4	0	8	0	0	0	0	0	0	0
B3019-6	0	0	1	0	1	0	0	0	0	0	0	0
B3032-3	0	0	1	0	1	0	0	0	0	0	0	0
B3032-5	0	0	0	0	0	0	0	0	0	0	0	0
B3032-6	0	0	0	0	0	0	0	0	0	0	0	0
B3032-10	0	0	0	0	0	0	0	0	0	0	0	0
B3034-7	8	0	0	0	8	0	0	0	0	0	0	0
B3034-10	6	0	0	0	6	0	0	0	0	0	0	0
B3038-3	0	2	0	0	2	0	0	0	0	0	0	0
B3042-1	2	3	2	0	7	0	0	0	0	0	0	0
B3042-2	2	0	0	0	2	0	0	0	0	0	0	0
B3042-4	2	2	0	0	5	0	0	0	0	0	0	0

Table 5 (cont'd). External and internal defects of USDA 2nd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3044-1	9	0	0	0	9	0	0	30	0	0	10	0
B3044-2	2	2	0	0	4	0	0	20	0	0	0	0
B3044-3	3	0	0	0	3	0	0	0	0	0	0	0
BNC306-2	0	3	0	0	3	0	0	0	0	0	0	0
BNC311-4	10	0	0	0	10	0	0	0	0	0	0	0
BNC311-18	12	0	0	0	12	0	0	0	0	0	0	0
BNC313-3	0	4	0	0	4	0	0	0	0	50	10	0
BNC322-1	0	3	0	1	4	0	0	0	0	0	0	0
BNC322-2	1	0	0	0	1	0	0	0	0	10	0	0
BNC323-1	0	0	0	0	0	0	0	0	0	10	0	0
BNC353-3	4	9	0	0	13	0	0	0	0	0	0	0
BNC362-1	0	1	0	0	1	0	0	0	0	0	0	0
BNC362-2	0	0	1	0	1	0	0	0	0	0	0	0
BNC363-1	0	0	1	0	1	0	0	0	0	10	0	0
BNC363-6	1	0	0	0	1	0	0	0	0	0	0	0
BNC363-12	0	0	1	0	1	0	0	0	0	20	0	0
BNC365-3	0	0	2	0	2	0	0	0	0	0	0	0
BNC365-4	0	0	1	0	1	0	0	0	0	0	0	0
BNC367-1	0	0	0	0	0	0	0	0	0	0	0	0
BNC369-2	0	0	0	0	0	10	0	0	0	10	0	0

Table 5 (cont'd). External and internal defects of USDA 2nd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
BNC369-4	0	4	5	0	9	0	0	0	0	0	0	0
BNC369-5	0	0	0	0	0	0	0	0	0	0	0	0
BNC369-6	2	0	0	0	2	0	0	0	0	30	0	0
BNC369-7	0	0	1	0	1	0	0	0	0	0	0	0
BNC369-8	0	0	0	0	0	0	0	0	0	10	0	0
BNC370-1	0	0	1	0	1	0	0	0	0	0	0	0
BNC370-2	0	2	2	0	4	0	0	0	0	0	0	0
BNC370-3	0	0	1	0	1	0	0	0	0	0	0	0
BNC370-4	0	0	0	0	0	0	0	0	0	0	0	0
BNC371-1	3	3	3	0	9	0	0	0	0	10	0	0
BNC372-3	4	0	0	0	4	0	0	0	0	0	0	10
BNC378-2	2	0	4	0	6	0	0	0	0	0	0	0
BNC378-3	2	2	5	1	10	0	0	0	0	20	10	0
BNC398-1	12	0	1	0	13	0	0	0	0	20	0	0
BTD0237-1	1	0	0	0	1	0	0	0	0	0	0	0
BTD0238-1	0	0	0	0	0	0	0	0	0	0	0	0
BTD0238-2	0	0	0	0	0	0	0	0	0	0	0	0
BTD0239-1	0	0	0	0	0	0	0	0	0	0	0	0
BTD0272-3	0	0	0	0	0	0	0	0	0	0	0	0
BTD0272-18	0	2	3	0	5	0	0	0	0	0	10	0

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 3. USDA 3rd YEAR VARIETY TRIAL, 2013

General Comments

A goal of the 3rd year USDA trial is to continue evaluating new clones for production potential in Florida. The entries in this trial were selected from the 2nd year clone trial conducted in 2012.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 25, 2013
Vine Kill Dates	na
Harvest Date	May 13, 2013
Season Length	108 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	12 (Standard: Atlantic)
Number of Clones	26
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	1
Plot Size	16 ft (4.9 m)

Production Facts

Early Vigor Ratings	na
Highest Total Yield	BNC307-7 (479 cwt/acre or 53.6 T/ha)
Highest Marketable Yield	BNC307-7 (411 cwt/acre or 46.0 T/ha)
Best Appearance Rating	Elkton, Harley Blackwell, LaChipper, Satina, Snowden, B2947-7, B2947-8, B2948-1, B2950-2, B2967-5, B2968-3, BNC309-5 (7, good)

Table 6. Production statistics for USDA 3rd Year potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Atlantic	340	312	100	1	3	53	34	9	0	96	43	1.068
Elkton	418	381	122	2	6	54	15	24	0	93	39	1.065
Fabula	350	284	91	0	4	59	19	17	0	95	36	1.050
Goldrush	376	264	85	3	15	68	12	2	0	82	14	1.059
Harley Blackwell	386	360	115	1	5	50	22	23	0	94	44	1.070
LaChipper	379	330	106	2	9	65	12	12	0	89	24	1.068
Peter Wilcox	451	377	121	2	11	77	4	6	0	87	10	1.064
Red LaSoda	271	223	72	3	3	74	13	8	0	94	21	1.056
Satina	432	396	127	1	3	57	12	26	0	96	39	1.055
Snowden	341	309	99	0	8	86	6	0	0	92	6	1.072
Vivaldi	370	293	94	1	16	77	6	0	0	83	6	1.056
Yukon Gold	269	243	78	1	4	59	29	8	0	96	37	1.075
AF0338-17	340	308	99	1	6	59	23	11	0	93	34	1.075
B2890-11	298	254	81	1	2	58	28	9	0	96	38	1.063
B2928-6	328	261	84	2	17	81	0	0	0	81	0	1.067
B2947-7	313	279	89	1	10	75	15	0	0	89	15	1.078
B2947-8	415	364	117	1	10	83	6	0	0	89	6	1.060
B2948-1	449	373	120	1	2	45	12	36	5	93	48	1.069
B2950-2	404	336	108	1	11	82	6	0	0	88	6	1.067
B2950-9	407	303	97	2	21	76	1	0	0	77	1	1.071

Table 6 (cont'd). Production statistics for USDA 3rd year potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B2951-8	393	321	103	1	6	73	11	8	0	92	19	1.073
B2952-6	409	278	89	4	22	74	1	0	0	75	1	1.066
B2952-7	361	249	80	4	18	71	7	0	0	78	7	1.062
B2952-13	354	272	87	3	9	71	10	6	0	87	16	1.068
B2954-11	399	379	122	1	3	43	21	33	0	96	54	1.064
B2958-6	308	249	80	5	9	52	20	14	0	86	34	1.054
B2967-5	454	391	125	2	4	54	18	22	0	94	40	1.062
B2968-3	358	298	95	2	9	52	31	6	0	89	37	1.070
B2971-2	365	319	102	2	7	69	19	3	0	91	22	1.060
BNC304-1	324	272	87	1	8	85	2	4	0	91	5	1.065
BNC306-3	350	304	97	2	11	70	9	7	0	87	16	1.060
BNC307-7	479	411	132	2	7	67	13	11	0	91	24	1.066
BNC309-5	345	301	97	2	7	65	15	10	0	91	26	1.060
BNC314-6	313	255	82	4	12	84	0	0	0	84	0	1.059
BNC314-8	321	271	87	2	13	81	3	0	0	84	3	1.058
BNC316-1	427	384	123	2	6	75	13	3	0	92	16	1.051
BNC320-2	391	328	105	2	12	76	7	4	0	86	11	1.057
BNC326-14	375	325	104	2	7	68	24	0	0	91	24	1.061

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 7. Plant growth and tuber characteristics of USDA 3rd year potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]
Atlantic	88	na	5-8	6	6
Elkton	88	na	9-6	6	7
Fabula	79	na	5	6	5
Goldrush	100	na	9	6	6
Harley Blackwell	88	na	8-5	6	7
LaChipper	92	na	8-5	4	7
Peter Wilcox	88	na	9-6	6	6
Red LaSoda	63	na	5	5	6
Satina	96	na	8-5	5	7
Snowden	100	na	8-5	6	7
Vivaldi	96	na	8-5	3	6
Yukon Gold	92	na	5-8	4	6
AF0338-17	96	na	5	6	6
B2890-11	92	na	5	4	6
B2928-6	100	na	5	4	6
B2947-7	96	na	9	6	7
B2947-8	100	na	9	4	7
B2948-1	100	na	9-6	4	7
B2950-2	100	na	9	8	7
B2950-9	96	na	6	6	6

Table 7 (cont'd). Plant growth and tuber characteristics of USDA 3rd year potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]
B2951-8	96	na	9-6	4	6
B2952-6	100	na	9-6	4	6
B2952-7	100	na	6	3	6
B2952-13	92	na	9	6	6
B2954-11	96	na	5	5	6
B2958-6	100	na	4	4	6
B2967-5	100	na	5	6	7
B2968-3	83	na	5-8	7	7
B2971-2	88	na	5	5	5
BNC304-1	88	na	8-5	7	6
BNC306-3	88	na	5-8	4	5
BNC307-7	83	na	9-6	8	6
BNC309-5	100	na	5	6	7
BNC314-6	83	na	5	5	6
BNC314-8	100	na	5-2	5	6
BNC316-1	92	na	4-7	6	5
BNC320-2	96	na	5-8	5	6
BNC326-14	92	na	5-8	6	6

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 8. External and internal defects of USDA 3rd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	3	0	2	0	5	0	0	0	0	0	0	0
Elkton	2	0	0	0	2	0	0	0	0	0	0	0
Fabula	3	1	9	1	15	0	0	0	0	0	0	0
Goldrush	0	2	7	5	14	0	0	0	0	0	0	0
Harley Blackwell	0	0	1	0	1	0	0	0	0	0	0	0
LaChipper	0	0	2	1	2	10	0	0	0	10	0	0
Peter Wilcox	0	0	3	1	4	0	0	0	0	0	0	0
Red LaSoda	0	8	3	2	13	0	0	0	0	0	0	0
Satina	1	1	2	1	4	0	0	0	10	0	0	0
Snowden	0	0	2	0	2	0	0	0	0	0	0	0
Vivaldi	0	0	3	2	4	0	0	0	0	0	0	0
Yukon Gold	0	0	5	1	6	0	0	0	0	0	0	0
AF0338-17	0	0	2	1	3	0	0	0	0	0	0	0
B2890-11	0	3	7	2	11	0	0	0	0	0	0	0
B2928-6	0	2	0	0	2	0	0	0	0	0	0	0
B2947-7	0	0	0	0	0	0	0	0	0	10	0	0
B2947-8	0	0	1	0	1	0	0	0	0	0	0	0
B2948-1	1	0	9	0	10	0	0	0	0	0	0	0
B2950-2	0	0	5	1	5	0	0	0	0	0	0	0
B2950-9	0	0	4	0	4	0	0	0	0	0	0	0

Table 8 (cont'd). External and internal defects of USDA 3rd year potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B2951-8	0	0	11	1	12	0	0	0	0	0	0	0
B2952-6	0	0	9	0	9	0	0	0	0	0	0	0
B2952-7	0	7	5	0	11	10	0	0	0	0	0	0
B2952-13	0	0	8	4	12	0	0	0	0	0	0	0
B2954-11	0	0	1	0	1	0	0	0	0	0	0	0
B2958-6	0	0	4	2	6	0	0	0	0	10	0	0
B2967-5	1	0	7	0	9	0	0	0	0	0	0	0
B2968-3	0	0	6	1	6	0	0	0	0	0	0	0
B2971-2	0	0	5	0	5	0	0	0	0	0	0	0
BNC304-1	0	2	6	0	7	0	0	0	0	10	0	0
BNC306-3	0	0	0	0	0	0	0	0	0	0	0	0
BNC307-7	0	2	3	0	6	0	0	0	0	0	0	0
BNC309-5	0	0	4	1	4	0	0	0	0	0	0	0
BNC314-6	0	0	2	1	2	0	20	0	0	0	0	0
BNC314-8	0	0	0	0	0	0	0	10	0	0	0	0
BNC316-1	1	0	1	0	2	0	0	0	0	0	0	0
BNC320-2	0	0	3	0	3	0	0	0	0	0	0	0
BNC326-14	0	1	3	1	5	0	0	0	0	0	0	0

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 4. FRESH MARKET POTATO VARIETY TRIAL, 2013

General Comments

A goal of the fresh market variety trial is to identify a round white potato that has better quality and production characteristics than the "standard" LaChipper, and promising new russet varieties. Identification of "specialty" potatoes that expand the varieties produced in Florida is also a priority. Established varieties were included to provide a baseline for comparison with the numbered clones.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 22, 2013
Vine Kill Dates	April 25 & 30, 2013
Harvest Dates	May 13, 2013
Season Length	93 days planting to vine kill; 111 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	13 (Standard: LaChipper)
Number of Clones	11
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	LaChipper (172 cwt/acre or 19.2 T/ha)
Highest Marketable Yield	LaChipper (125 cwt/acre or 14.0 T/ha)
Best Appearance Rating	French Fingerling and B2893-2 (7.0, good)

Table 9. Production statistics of Fresh Market Tablestock potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
LaChipper	172	125	100	5	16	64	7	9	0	80	16	1.053
Adora	108	76	61	6	18	64	12	1	0	76	12	1.046
Ambra	107	81	65	6	13	77	4	1	0	81	4	1.045
Envol	99	76	60	5	16	72	7	0	0	79	7	1.057
Fabula	136	106	85	2	9	77	11	0	0	89	11	1.044
French Fingerling	91	12	10	28	62	10	0	0	0	10	0	1.052
Goldrush	132	89	71	8	23	60	9	0	0	69	9	1.047
Katahdin	126	81	65	6	21	69	1	2	0	72	4	1.052
Marcy	147	118	94	5	12	70	5	7	1	81	12	1.053
Satina	170	123	99	3	8	67	7	14	0	89	22	1.047
Sifra	135	92	73	8	21	68	2	2	0	72	4	1.041
Vivaldi	134	79	64	6	34	60	0	0	0	60	0	1.050
Yukon Gold	62	46	37	9	26	57	9	0	0	65	9	1.059
AF0338-17	99	70	56	5	13	78	5	0	0	83	5	1.055
B2820-3	137	92	74	4	25	65	3	2	0	71	5	1.049
B2820-4	129	75	60	10	34	55	1	0	0	56	1	1.055
B2827-13	118	71	57	7	26	67	0	0	0	67	0	1.053
B2827-7	117	70	56	4	15	73	8	0	0	81	8	1.047
B2869-28	139	96	77	6	18	66	9	1	0	76	10	1.058
B2872-16	157	109	87	2	7	63	18	10	0	91	28	1.047
B2876-7	131	77	62	5	20	75	0	0	0	75	0	1.056
B2893-2	168	123	98	5	20	64	8	3	0	75	11	1.053
W6703-1Y	117	84	67	6	19	62	8	5	0	75	13	1.056
W6703-5Y	105	75	60	5	22	66	3	4	0	73	7	1.042
MSD[3]	5	19		7	10	4	4	4	ns			ns
P Value	*0.0098*	*0.0018*		*<.0001*	*<.0001*	*<.0001*	*0.3175*	*<.0001*	*0.4716*			*0.9785*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 10. Plant growth and tuber characteristics of Fresh Market Tablestock potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
LaChipper	76	na	5	7.0	1.0	7.0	6.0	3.0	3.0	6.0
Adora	69	na	5-8	6.8	2.5	7.0	7.0	3.0	3.0	6.0
Ambra	69	na	5	7.3	3.0	7.0	7.0	3.0	5.0	6.0
Envol	67	na	7-4	7.5	1.0	7.0	6.0	3.0	4.0	5.0
Fabula	66	na	7-4	8.0	3.0	7.0	6.0	4.0	3.0	5.0
French Fingerling	63	na	7-4	7.0	3.0	3.0	7.0	crescent	4.0	7.0
Goldrush	69	na	8-5	7.8	1.0	4.0	4.0	6.0	4.0	6.0
Katahdin	68	na	5-8	7.5	1.0	7.0	7.0	3.0	5.0	6.0
Marcy	70	na	8-5	8.5	1.0	6.0	5.0	3.0	6.0	6.0
Satina	85	na	8-5	7.0	4.0	7.0	6.0	3.0	4.0	6.0
Sifra	60	na	8-5	9.0	1.0	7.0	6.0	3.0	0.6	5.0
Vivaldi	68	na	8-5	7.5	4.0	7.0	6.0	6.0	7.0	6.0
Yukon Gold	40	na	7	7.8	4.0	7.0	7.0	3.0	5.0	5.0
AF0338-17	69	na	5-8	8.0	1.0	7.0	7.0	3.0	6.0	6.0
B2820-3	73	na	8-5	7.0	2.0	7.0	6.0	3.0	7.0	5.0
B2820-4	79	na	5-8	6.8	2.0	7.0	7.0	3.0	5.0	5.0
B2827-13	80	na	5	7.3	1.0	7.0	6.0	3.0	6.0	5.0
B2827-7	71	na	5	6.5	1.0	7.0	6.0	3.0	6.0	5.0
B2869-28	67	na	8-5	7.8	1.0	7.0	7.0	3.0	6.0	6.0
B2872-16	68	na	5-8	7.5	1.0	6.0	6.0	3.0	3.0	5.0
B2876-7	77	na	5	6.8	1.0	7.0	7.0	4.0	7.0	5.0
B2893-2	79	na	5-8	8.0	1.0	7.0	7.0	2.0	4.0	7.0
W6703-1Y	67	na	8-5	8.8	3.0	7.0	6.0	3.0	5.0	6.0
W6703-5Y	63	na	8-5	8.8	4.0	7.0	6.0	3.0	6.0	6.0

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 11. External and internal defects of Fresh Market Tablestock potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
LaChipper	4	3	5	1	13	2.5	0.0	0.0	5.0	0.0	0.0	0.0
Adora	0	2	4	6	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ambra	0	0	6	8	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Envol	0	0	4	2	6	0.0	0.0	2.5	0.0	0.0	0.0	0.0
Fabula	1	1	10	2	13	0.0	0.0	2.5	0.0	0.0	0.0	0.0
French Fingerling	0	0	1	3	4	0.0	0.0	2.5	0.0	0.0	0.0	0.0
Goldrush	1	0	2	1	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Katahdin	0	0	13	1	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Marcy	0	0	6	2	8	5.0	0.0	0.0	2.5	5.0	5.0	0.0
Satina	1	3	13	2	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sifra	1	0	3	2	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vivaldi	0	0	9	0	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yukon Gold	0	0	2	8	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AF0338-17	4	0	10	0	15	0.0	0.0	0.0	2.5	0.0	0.0	0.0
B2820-3	1	2	9	1	12	0.0	0.0	0.0	0.0	0.0	2.5	0.0
B2820-4	1	0	3	1	5	0.0	0.0	0.0	7.5	2.5	0.0	2.5
B2827-13	4	2	11	1	16	0.0	0.0	0.0	2.5	0.0	2.5	2.5
B2827-7	10	1	12	6	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B2869-28	4	0	9	2	15	0.0	0.0	0.0	0.0	2.5	0.0	0.0
B2872-16	5	0	17	3	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B2876-7	5	3	12	2	23	0.0	0.0	5.0	0.0	0.0	10.0	0.0
B2893-2	3	1	3	0	7	7.5	0.0	0.0	2.5	2.5	0.0	0.0
W6703-1Y	1	1	3	0	5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
W6703-5Y	0	0	4	1	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MSD[3]	ns	ns	ns	19	ns	ns	ns	ns	ns	ns	ns	ns
P Value	*0.6343*	*0.7236*	*0.0610*	*0.0190*	*0.2325*	*0.4950*	*0.9972*	*0.4458*	*1.0000*	*0.7509*	*0.9922*	*0.2270*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 4. RED AND PURPLE POTATO VARIETY TRIAL, 2013

General Comments

A goal of the red/purple-skinned Fresh Market Potato Variety trial is to identify a red or purple potato that has better quality and production characteristics than the "standard" Red LaSoda. Identification of "specialty" potatoes that expand the varieties produced in Florida is also a priority. Established varieties were included to provide a baseline for comparison with the numbered clones.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 22, 2013
Vine Kill Dates	April 25 & 30, 2013
Harvest Date	May 14, 2013
Season Length	93 days planting to vine kill; 112 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	6 (Standard: Red LaSoda)
Number of Clones	9
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	Peter Wilcox (216 cwt/acre or 24.2 T/ha)
Highest Marketable Yield	Peter Wilcox (158 cwt/acre or 17.7 T/ha)
Best Appearance Rating	French Fingerling (7.0, good)

Table 12. Production statistics for Red and Purple-Skinned Fresh Market potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Red LaSoda	154	114	100	3	6	75	12	5	0	91	17	1.052
All Blue	175	69	60	7	53	39	0	0	0	39	0	1.062
Dark Red Norland	161	108	95	4	15	70	12	0	0	81	12	1.054
French Fingerling	137	33	29	12	62	26	0	0	0	26	0	1.055
Peter Wilcox	216	158	139	5	16	77	2	0	0	79	2	1.056
Peter Wilcox	188	132	116	3	16	74	6	0	0	80	6	1.058
B2538-5	166	127	112	3	8	84	3	1	0	89	4	1.055
B2863-7	126	86	75	5	18	73	2	2	0	77	4	1.059
B2864-14	91	51	45	7	22	68	3	0	0	71	3	1.050
B2873-1	158	111	98	5	16	70	10	0	0	80	10	1.061
NC201-1	84	36	31	10	44	46	0	0	0	46	0	1.050
NC293-7	111	59	52	10	34	56	0	0	0	56	0	1.053
W6002-1R	140	72	63	5	27	60	6	2	0	68	8	1.053
W6511-1R	151	88	77	9	32	57	3	0	0	60	3	1.061
W8405-1R	149	89	79	7	31	62	0	0	0	62	0	1.058
MSD[3]	28	29		4	9	10	11	4	ns			0.004
P Value	*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*0.0296*	*0.0511*	*ns*			*<.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 13. Plant growth and tuber characteristics of Red and Purple-Skinned Fresh Market potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Red LaSoda	64	na	5-8	6.8	1.0	2.0	7.0	3.0	3.0	6.0
All Blue	89	na	5-8	7.8	9-1	1.0	7.0	3.0	5.0	6.0
Dark Red Norland	81	na	5	5.5	1.0	2.0	6.0	3.0	5.0	5.0
French Fingerling	83	na	8-5	7.0	3.0	3.0	7.0	crescent	5.0	7.0
Peter Wilcox	84	na	5-8	7.8	4.0	1.0	7.0	4.0	6.0	5.0
Peter Wilcox	89	na	5-8	7.0	4.0	1.0	7.0	3.0	5.0	5.0
B2538-5	85	na	5	6.5	1.0	1.0	8.0	4.0	4.0	6.0
B2863-7	91	na	8-5	6.8	1.0	2.0	6.0	3.0	4.0	5.0
B2864-14	79	na	7-4	5.0	1.0	2.0	6.0	2.0	4.0	5.0
B2873-1	88	na	5	5.0	1.0	1.0	5.0	2.0	5.0	5.0
NC201-1	79	na	4	5.3	4.0	1.0	7.0	4.0	6.0	5.0
NC293-7	70	na	4.5	6.0	1.0	1.0	6.0	4.0	6.0	6.0
W6002-1R	85	na	5	6.3	1.0	2.0	5.0	3.0	6.0	5.0
W6511-1R	76	na	8	8.3	1.0	2.0	7.0	3.0	5.0	6.0
W8405-1R	79	na	8-5	7.3	1.0	2.0	6.0	4.0	4.0	5.0

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 14. External and internal defects of Red and Purple-Skinned Fresh Market potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Red LaSoda	4	0	12	4	21	0	0	0	0	3	0	0
All Blue	0	0	0	1	2	0	0	0	0	0	0	0
Dark Red Norland	1	2	8	7	18	0	0	3	0	0	0	0
French Fingerling	0	2	7	1	10	0	0	0	0	0	0	0
Peter Wilcox	2	1	6	0	9	0	0	3	0	0	0	0
Peter Wilcox	0	4	7	0	12	0	0	0	0	0	0	0
B2538-5	2	1	10	1	14	0	0	3	0	0	0	0
B2863-7	0	1	7	4	13	0	0	0	0	0	0	0
B2864-14	1	1	5	18	24	0	0	8	5	0	0	0
B2873-1	1	0	11	1	13	0	0	0	0	3	0	0
NC201-1	0	0	9	7	16	0	0	0	0	0	0	0
NC293-7	1	4	2	4	10	0	0	3	0	0	0	0
W6002-1R	1	0	3	20	24	0	0	0	3	3	0	0
W6511-1R	0	1	1	0	3	0	0	3	0	0	0	0
W8405-1R	0	1	3	1	5	0	0	4	0	0	0	0
MSD[3]	ns	ns	10	5	11	ns	ns	ns	ns	ns	ns	ns
P Value	*0.3844*	*0.1522*	*0.0470*	*<.0001*	*0.0007*	*ns*	*0.4452*	*0.4452*	*0.5406*	*0.5935*	*ns*	*ns*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 6. USDA EARLY GENERATION STUDY, 2013

General Comments

In the past, many selections from the USDA Breeding Program may have been eliminated by the breeder before they have had an opportunity to be evaluated in Florida. This study has been set up to evaluate the most early selections from the USDA Beltsville, MD breeding program. These clones are also evaluated in North Carolina, New Jersey, New York and Maine. Clones that performed the best at each location are then compared and kept for further evaluation.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 22, 2013
Vine Kill Dates	N/A
Harvest Dates	May 6 & 7, 2013
Season Length	104 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	Seepage

Experimental Design

Number of Varieties	14 (Standard: Atlantic)
Number of Clones	341
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (102 cm)
Replications	1
Plot Size	5.3 ft (1.6 m)

Production Statistics- Based over all sites

Early Vigor Ratings	N/A
Highest Total Yield	BNC363-6 (610 cwt/acre or 68.3 T/ha)
Highest Marketable Yield	BNC364-2 (440 cwt/acre or 49.2 T/ha)

Table 15. Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
Atlantic	201	56	100	4	65	21	9	0	0	30	9	1.065
Adora	121	104	187	7	7	58	29	0	0	86	29	na
AF0338-17	254	187	336	4	11	85	0	0	0	85	0	1.063
Beacon Chipper	227	195	350	3	4	83	0	10	0	93	10	1.065
Elkton	378	328	588	2	10	65	4	19	0	87	23	1.063
Fabula	255	243	436	0	2	78	21	0	0	98	21	1.044
Goldrush	283	224	402	3	17	80	0	0	0	80	0	1.050
Harley Blackwell	388	321	575	2	10	78	4	6	0	88	10	1.066
LaChipper	318	263	473	2	15	83	0	0	0	83	0	1.061
Peter Wilcox	226	135	242	3	37	60	0	0	0	60	0	1.058
Red LaSoda	143	104	186	18	2	51	11	18	0	80	29	na
Sifra	203	165	296	4	12	84	0	0	0	84	0	1.051
Vivaldi	282	202	363	4	15	81	0	0	0	81	0	1.054
Yukon Gold	62	39	70	9	23	69	0	0	0	69	0	na
B3059-1	339	247	442	2	20	78	0	0	0	78	0	1.056
B3060-1	159	118	212	3	23	74	0	0	0	74	0	1.061
B3068-1	316	218	391	4	26	70	0	0	0	70	0	1.055
B3068-2	359	261	469	5	19	76	0	0	0	76	0	1.058
B3069-1	331	274	491	3	11	68	17	0	0	86	17	1.046
B3069-2	124	47	85	8	54	38	0	0	0	38	0	1.047

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3070-1	327	214	383	9	25	65	0	0	0	65	0	na
B3070-2	168	89	159	12	35	53	0	0	0	53	0	1.062
B3070-3	126	100	179	12	9	65	14	0	0	79	14	1.060
B3070-5	82	16	29	21	59	20	0	0	0	20	0	na
B3070-6	63	31	56	39	11	50	0	0	0	50	0	na
B3070-7	72	15	27	24	56	20	0	0	0	20	0	na
B3074-1	132	95	171	13	15	72	0	0	0	72	0	1.057
B3074-2	92	56	101	12	27	61	0	0	0	61	0	na
B3074-3	171	127	228	3	4	93	0	0	0	93	0	1.043
B3074-4	129	63	113	12	36	52	0	0	0	52	0	na
B3074-5	109	78	140	7	22	71	0	0	0	71	0	na
B3074-6	76	32	57	17	28	56	0	0	0	56	0	na
B3074-7	92	66	118	6	22	72	0	0	0	72	0	na
B3074-8	120	75	135	7	16	77	0	0	0	77	0	na
B3074-10	215	127	227	6	27	67	0	0	0	67	0	1.052
B3075-1	132	99	178	11	14	75	0	0	0	75	0	1.060
B3075-2	143	96	172	7	26	67	0	0	0	67	0	1.050
B3075-3	147	98	176	6	21	74	0	0	0	74	0	1.051
B3075-4	169	83	149	13	38	49	0	0	0	49	0	na
B3075-5	110	83	150	4	21	75	0	0	0	75	0	1.050

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3075-6	199	90	161	12	43	45	0	0	0	45	0	1.048
B3076-1	100	35	62	22	43	34	0	0	0	34	0	na
B3076-2	81	44	79	13	15	72	0	0	0	72	0	na
B3078-1	88	31	55	9	55	36	0	0	0	36	0	na
B3078-2	122	91	163	9	13	78	0	0	0	78	0	na
B3078-3	127	60	107	7	46	47	0	0	0	47	0	1.053
B3078-4	161	99	177	9	24	67	0	0	0	67	0	1.043
B3079-1	147	81	146	3	21	64	12	0	0	76	12	1.044
B3080-1	160	133	239	4	7	89	0	0	0	89	0	1.049
B3080-2	139	102	183	9	14	77	0	0	0	77	0	1.056
B3082-1	62	25	45	17	43	40	0	0	0	40	0	na
B3082-2	89	61	110	4	27	69	0	0	0	69	0	na
B3082-3	65	36	65	5	39	55	0	0	0	55	0	na
B3082-5	37	21	37	7	38	55	0	0	0	55	0	na
B3082-6	107	40	72	8	54	37	0	0	0	37	0	na
B3082-7	163	133	238	3	11	85	0	0	0	85	0	1.063
B3082-8	159	118	212	4	22	74	0	0	0	74	0	1.063
B3082-9	128	89	159	2	25	73	0	0	0	73	0	na
B3082-10	31	12	21	22	40	38	0	0	0	38	0	na
B3082-11	156	102	182	6	25	69	0	0	0	69	0	na

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3082-12	92	21	37	13	65	23	0	0	0	23	0	na
B3082-13	46	25	44	11	36	53	0	0	0	53	0	na
B3082-14	96	64	115	10	24	67	0	0	0	67	0	na
B3082-15	127	51	92	16	44	40	0	0	0	40	0	na
B3082-16	128	90	162	5	24	71	0	0	0	71	0	na
B3082-17	173	81	146	13	34	53	0	0	0	53	0	1.056
B3082-18	149	93	166	6	31	62	0	0	0	62	0	na
B3082-19	170	64	114	13	50	38	0	0	0	38	0	1.058
B3082-20	120	65	116	15	32	54	0	0	0	54	0	na
B3082-21	125	36	65	14	57	29	0	0	0	29	0	na
B3082-22	181	85	153	10	42	48	0	0	0	48	0	1.062
B3083-1	229	131	235	4	9	30	34	24	0	88	58	1.062
B3083-2	314	247	443	4	4	43	28	20	0	92	48	1.061
B3083-4	306	237	425	1	1	79	19	0	0	98	19	1.055
B3083-5	292	253	455	3	10	87	0	0	0	87	0	1.057
B3083-6	278	252	453	3	6	57	34	0	0	91	34	1.064
B3083-7	355	315	565	3	5	39	25	28	0	92	53	1.054
B3083-8	334	255	458	4	16	73	0	8	0	80	8	1.064
B3083-9	271	231	414	3	6	91	0	0	0	91	0	1.069
B3083-10	337	298	535	3	2	67	6	22	0	95	28	1.057

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B3083-11	351	301	540	1	4	38	8	48	0	94	56	1.060
B3083-13	265	205	368	3	4	48	45	0	0	93	45	1.061
B3083-14	297	263	473	2	2	36	8	51	0	95	51	1.058
B3084-1	239	150	270	4	11	85	0	0	0	85	0	1.059
B3084-2	181	135	242	7	15	63	15	0	0	78	0	1.056
B3084-3	259	211	379	2	16	81	0	0	0	81	0	1.054
B3084-5	233	86	154	17	46	37	0	0	0	37	0	1.065
B3084-6	205	137	245	4	26	70	0	0	0	70	0	1.060
B3085-1	338	281	504	2	10	88	0	0	0	88	0	1.061
B3085-2	288	207	372	2	4	94	0	0	0	94	0	1.050
B3085-3	337	244	438	3	23	74	0	0	0	74	0	1.058
B3085-4	332	260	466	3	15	82	0	0	0	82	0	1.063
B3085-5	318	251	450	2	19	79	0	0	0	79	0	1.059
B3086-4	264	105	188	16	44	40	0	0	0	40	0	1.053
B3086-5	234	134	240	8	35	57	0	0	0	57	0	1.051
B3086-8	330	195	350	10	31	55	4	0	0	59	0	1.060
B3086-9	240	163	293	7	22	71	0	0	0	71	0	1.054
B3088-3	298	237	425	3	11	60	14	13	0	86	13	1.057
B3088-4	217	184	330	4	11	85	0	0	0	85	0	1.048
B3088-5	171	137	245	4	7	56	18	15	0	88	15	1.051

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3088-6	127	76	137	9	24	67	0	0	0	67	0	1.054
B3088-7	135	69	124	8	33	59	0	0	0	59	0	na
B3088-8	308	281	504	3	4	43	17	33	0	93	33	1.041
B3088-9	184	138	247	5	21	75	0	0	0	75	0	1.056
B3088-11	256	177	318	3	23	74	0	0	0	74	0	1.055
B3091-1	223	136	244	4	25	71	0	0	0	71	0	1.063
B3091-2	272	169	303	7	16	77	0	0	0	77	0	1.061
B3091-3	257	193	347	3	13	66	18	0	0	84	0	1.062
B3091-4	282	247	443	2	10	75	8	5	0	88	5	1.056
B3091-5	277	141	252	2	13	61	25	0	0	85	0	1.057
B3091-6	198	159	285	6	14	80	0	0	0	80	0	1.067
B3091-7	285	210	376	5	21	75	0	0	0	75	0	1.056
B3092-1	273	224	402	2	14	84	0	0	0	84	0	1.054
B3092-2	259	214	383	4	13	82	0	0	0	82	0	1.062
B3093-3	216	161	289	4	22	75	0	0	0	75	0	1.053
B3093-4	243	202	362	3	6	65	6	19	0	90	19	1.047
B3093-6	240	221	396	1	7	92	0	0	0	92	0	1.056
B3093-7	198	121	218	15	18	66	0	0	0	66	0	1.049
B3093-8	181	162	291	2	6	59	23	10	0	92	10	1.047
B3093-11	265	179	321	5	5	79	0	10	0	89	10	1.045

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3093-12	260	213	381	1	12	87	0	0	0	87	0	1.050
B3094-1	206	141	252	8	24	68	0	0	0	68	0	1.054
B3094-2	172	133	238	0	12	88	0	0	0	88	0	1.050
B3094-4	219	182	327	2	11	87	0	0	0	87	0	1.047
B3094-5	222	196	351	2	9	89	0	0	0	89	0	1.051
B3095-1	258	224	402	1	8	83	8	0	0	91	0	1.053
B3095-2	190	165	296	4	10	87	0	0	0	87	0	1.054
B3095-3	161	98	175	4	19	77	0	0	0	77	0	1.054
B3095-4	239	212	380	2	3	94	0	0	0	94	0	1.057
B3095-5	256	195	350	3	13	71	12	0	0	83	0	1.048
B3095-6	260	195	350	2	15	84	0	0	0	84	0	1.055
B3095-7	222	130	233	6	16	78	0	0	0	78	0	1.058
B3095-8	220	179	320	1	9	59	21	10	0	90	10	1.053
B3095-9	147	123	221	4	12	84	0	0	0	84	0	1.051
B3095-10	157	93	167	2	35	63	0	0	0	63	0	1.053
B3095-11	189	155	278	2	9	89	0	0	0	89	0	1.054
B3095-12	149	137	246	1	7	92	0	0	0	92	0	1.056
B3095-13	194	173	311	1	10	61	28	0	0	89	0	1.052
B3096-1	169	114	205	6	5	89	0	0	0	89	0	1.049
B3097-3	206	140	251	8	14	78	0	0	0	78	0	1.057

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3097-4	220	189	340	1	7	92	0	0	0	92	0	1.062
B3097-5	143	90	162	5	32	63	0	0	0	63	0	1.054
B3097-6	218	170	305	1	11	51	37	0	0	88	0	1.060
B3097-7	302	241	432	7	9	71	12	0	0	84	0	1.053
B3099-1	219	125	224	11	23	66	0	0	0	66	0	1.067
B3100-1	336	224	402	5	10	59	26	0	0	85	0	1.065
B3100-2	315	241	433	4	7	72	17	0	0	89	0	1.063
B3100-3	376	313	561	2	11	38	15	34	0	86	34	1.057
B3100-4	339	266	477	2	10	87	0	0	0	87	0	1.055
B3100-5	326	264	474	3	16	49	32	0	0	81	0	1.062
B3100-6	210	181	326	6	5	75	14	0	0	89	0	1.054
B3100-7	348	245	439	3	19	78	0	0	0	78	0	1.062
B3100-8	204	121	217	8	27	64	0	0	0	64	0	1.055
B3100-9	332	301	540	2	5	55	26	12	0	93	12	1.061
B3100-10	324	235	422	7	16	78	0	0	0	78	0	1.058
B3100-13	279	227	407	1	13	80	6	0	0	86	0	1.061
B3101-1	352	287	516	1	12	58	15	14	0	87	14	1.060
B3101-2	292	205	367	4	13	83	0	0	0	83	0	1.063
B3101-4	245	208	373	1	5	81	13	0	0	94	0	1.055
B3101-8	199	155	279	1	14	76	9	0	0	85	0	1.058

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B3101-9	233	169	303	1	14	65	20	0	0	85	0	1.065
B3101-10	321	240	430	6	2	55	16	21	0	92	21	1.068
B3103-1	271	211	379	3	15	76	6	0	0	82	0	1.053
B3103-4	214	131	235	7	17	75	0	0	0	75	0	1.056
B3106-7	169	94	169	7	27	66	0	0	0	66	0	1.054
B3106-10	196	164	294	4	13	83	0	0	0	83	0	1.057
B3106-11	269	181	326	5	14	81	0	0	0	81	0	1.054
B3106-12	179	93	166	6	38	56	0	0	0	56	0	1.054
B3107-1	319	256	459	4	12	84	0	0	0	84	0	1.071
B3107-2	268	183	329	3	17	67	13	0	0	81	0	1.063
B3107-4	266	236	423	1	9	74	16	0	0	90	0	1.060
B3107-5	264	191	343	3	22	68	7	0	0	75	0	1.062
B3107-6	194	123	220	9	25	66	0	0	0	66	0	1.060
B3107-7	278	204	365	2	17	73	8	0	0	81	0	1.055
B3107-8	222	112	201	15	35	50	0	0	0	50	0	1.058
B3116-1	340	261	469	5	16	80	0	0	0	80	0	1.062
B3116-2	274	209	374	2	18	80	0	0	0	80	0	1.053
B3116-3	226	166	298	5	17	78	0	0	0	78	0	1.055
B3116-4	216	121	217	11	30	59	0	0	0	59	0	1.054
B3116-6	177	132	236	4	11	85	0	0	0	85	0	1.048

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3116-7	270	165	296	5	33	63	0	0	0	63	0	1.052
B3116-8	281	193	346	7	23	70	0	0	0	70	0	1.053
B3116-9	275	164	294	8	11	73	8	0	0	81	0	1.045
B3116-10	266	162	291	6	30	64	0	0	0	64	0	1.040
B3116-11	225	156	280	7	18	75	0	0	0	75	0	1.061
B3116-12	184	136	243	11	15	74	0	0	0	74	0	1.048
B3116-14	219	108	194	8	32	60	0	0	0	60	0	1.051
B3116-15	189	117	211	4	30	65	0	0	0	65	0	1.052
B3116-16	116	40	72	11	54	34	0	0	0	34	0	na
B3116-17	224	135	242	5	31	64	0	0	0	64	0	1.052
B3117-1	349	268	481	3	17	65	14	0	0	79	0	1.049
B3117-2	158	83	150	5	39	56	0	0	0	56	0	1.049
B3117-3	247	160	288	4	17	63	16	0	0	79	0	1.055
B3117-4	213	136	244	6	26	63	5	0	0	68	0	1.047
B3118-1	289	127	227	17	38	45	0	0	0	45	0	1.058
B3118-2	189	117	210	9	26	65	0	0	0	65	0	1.052
B3118-3	253	191	343	4	19	77	0	0	0	77	0	1.067
B3119-1	286	203	365	1	9	58	7	26	0	90	26	1.047
B3120-1	204	167	300	5	11	77	7	0	0	84	0	1.058
B3120-2	204	155	279	3	21	76	0	0	0	76	0	1.057

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3121-1	209	98	176	4	39	56	0	0	0	56	0	1.055
B3121-2	202	97	174	18	30	52	0	0	0	52	0	1.051
B3121-3	273	154	277	5	30	65	0	0	0	65	0	1.046
B3122-1	227	172	309	6	18	76	0	0	0	76	0	1.058
B3122-2	203	80	144	12	43	45	0	0	0	45	0	1.056
B3123-1	190	146	263	6	17	77	0	0	0	77	0	1.061
B3124-1	247	163	292	3	18	78	0	0	0	78	0	1.062
B3124-2	334	218	391	6	26	68	0	0	0	68	0	1.056
B3124-3	354	181	326	4	35	61	0	0	0	61	0	1.055
B3124-4	205	149	267	4	18	78	0	0	0	78	0	1.054
B3124-5	349	301	541	3	9	88	0	0	0	88	0	1.058
B3124-6	272	171	307	4	23	59	6	8	0	73	8	1.059
B3124-7	281	65	117	10	65	25	0	0	0	25	0	1.053
B3125-1	261	194	349	4	10	86	0	0	0	86	0	1.054
B3125-2	204	110	198	7	35	58	0	0	0	58	0	1.067
B3125-3	266	155	278	7	20	74	0	0	0	74	0	1.055
B3125-4	348	298	535	4	7	47	21	21	0	89	21	1.056
B3126-1	259	144	259	12	31	57	0	0	0	57	0	1.068
B3126-2	240	136	244	4	18	70	9	0	0	79	0	1.053
B3126-3	355	273	489	1	19	80	0	0	0	80	0	1.059

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3126-4	325	229	411	3	20	77	0	0	0	77	0	1.067
B3127-1	166	43	78	16	58	26	0	0	0	26	0	na
B3127-2	165	117	210	7	23	71	0	0	0	71	0	1.056
B3127-3	173	50	89	22	50	29	0	0	0	29	0	na
B3127-4	135	64	89	19	31	50	0	0	0	50	0	na
B3127-5	221	153	274	9	16	67	0	8	0	75	8	1.057
B3127-6	177	96	173	12	33	54	0	0	0	54	0	1.057
B3127-7	218	140	250	7	29	64	0	0	0	64	0	1.060
B3127-8	213	114	205	9	34	57	0	0	0	57	0	1.063
B3127-9	189	88	158	11	28	61	0	0	0	61	0	1.064
B3127-10	212	82	148	9	47	44	0	0	0	44	0	1.060
B3127-13	200	51	92	26	49	26	0	0	0	26	0	1.062
B3127-14	245	107	191	12	42	46	0	0	0	46	0	1.062
B3128-1	184	88	158	6	39	55	0	0	0	55	0	1.053
B3128-2	251	203	364	3	11	72	14	0	0	86	0	1.050
B3128-3	185	69	123	13	47	40	0	0	0	40	0	1.049
B3128-4	169	38	69	18	33	49	0	0	0	49	0	na
B3128-5	160	118	212	8	11	82	0	0	0	82	0	1.062
B3128-6	111	64	114	10	26	65	0	0	0	65	0	na
B3128-7	227	161	289	7	16	78	0	0	0	78	0	1.056

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3134-3	107	44	80	11	42	47	0	0	0	47	0	na
B3134-4	129	68	121	10	30	60	0	0	0	60	0	na
B3134-5	124	60	108	14	37	49	0	0	0	49	0	na
B3134-6	213	152	273	5	24	71	0	0	0	71	0	1.051
B3134-7	186	113	203	3	22	75	0	0	0	75	0	1.061
B3134-8	127	49	88	11	44	45	0	0	0	45	0	na
B3134-9	234	169	303	5	17	78	0	0	0	78	0	1.050
B3134-10	204	144	258	5	18	77	0	0	0	77	0	1.051
B3134-11	183	116	208	8	23	69	0	0	0	69	0	1.060
B3134-12	192	117	210	6	27	66	0	0	0	66	0	1.050
B3134-13	244	168	301	5	12	83	0	0	0	83	0	1.048
B3134-14	117	72	128	9	28	64	0	0	0	64	0	na
B3135-1	256	126	226	13	38	49	0	0	0	49	0	1.053
B3135-2	205	144	258	2	27	70	0	0	0	70	0	1.057
B3135-3	245	89	159	19	42	38	0	0	0	38	0	1.059
B3135-4	231	184	330	5	12	83	0	0	0	83	0	1.053
B3135-5	256	194	348	3	17	80	0	0	0	80	0	1.059
B3135-6	172	43	77	21	54	25	0	0	0	25	0	1.055
B3135-8	184	98	176	10	33	57	0	0	0	57	0	1.056
B3135-9	189	82	147	11	46	43	0	0	0	43	0	1.052

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3135-10	152	88	158	8	34	58	0	0	0	58	0	1.062
B3135-11	190	118	212	3	27	71	0	0	0	71	0	1.050
B3135-12	184	100	179	11	29	60	0	0	0	60	0	1.490
B3135-13	180	113	203	8	27	65	0	0	0	65	0	1.055
B3135-14	215	145	260	7	23	70	0	0	0	70	0	1.052
B3136-1	150	103	184	8	23	68	0	0	0	68	0	1.051
B3136-2	180	96	173	7	35	58	0	0	0	58	0	1.056
B3136-3	228	168	302	5	17	77	0	0	0	77	0	1.058
B3136-4	220	135	242	10	24	66	0	0	0	66	0	1.052
B3136-5	177	92	165	11	36	53	0	0	0	53	0	1.044
B3136-6	199	128	230	10	26	65	0	0	0	65	0	1.053
B3137-1	140	49	88	16	48	36	0	0	0	36	0	na
B3137-2	207	128	230	8	27	65	0	0	0	65	0	1.043
B3137-3	225	188	338	2	10	88	0	0	0	88	0	1.055
B3137-4	236	191	342	6	7	80	7	0	0	87	7	1.038
B3137-5	181	122	219	6	19	75	0	0	0	75	0	1.040
B3137-6	188	109	196	8	30	51	11	0	0	63	11	1.047
B3137-7	179	107	192	9	26	65	0	0	0	65	0	1.045
B3137-8	170	38	69	17	61	23	0	0	0	23	0	1.054
B3137-9	195	87	156	8	46	45	0	0	0	45	0	1.057

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B3137-10	162	88	158	12	34	54	0	0	0	54	0	1.052
B3137-11	230	162	291	6	22	72	0	0	0	72	0	1.044
B3137-12	210	82	148	27	34	39	0	0	0	39	0	1.052
B3137-13	201	136	244	10	16	74	0	0	0	74	0	1.046
B3137-14	225	99	178	8	48	44	0	0	0	44	0	1.056
B3138-3	144	65	116	8	21	71	0	0	0	71	0	na
B3138-5	189	88	158	11	36	53	0	0	0	53	0	1.050
B3138-7	140	40	72	24	47	29	0	0	0	29	0	na
B3138-8	145	49	88	21	45	34	0	0	0	34	0	1.049
B3138-9	194	107	191	16	29	55	0	0	0	55	0	1.054
B3138-10	154	88	158	8	33	59	0	0	0	59	0	1.058
B3138-11	219	108	195	8	38	53	0	0	0	53	0	1.052
B3138-12	156	109	196	7	23	70	0	0	0	70	0	1.044
B3138-13	165	54	97	14	53	33	0	0	0	33	0	1.048
B3138-14	178	77	139	16	38	47	0	0	0	47	0	1.056
B3138-15	168	100	179	6	22	72	0	0	0	72	0	1.052
B3139-1	261	188	337	4	22	52	7	15	0	74	22	1.052
B3139-2	159	57	102	9	50	41	0	0	0	41	0	1.053
B3140-1	266	201	360	0	13	87	0	0	0	87	0	1.053
B3140-2	167	110	197	11	21	68	0	0	0	68	0	1.056

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
B3140-3	199	140	250	4	20	76	0	0	0	76	0	1.051
B3141-1	287	216	388	4	8	52	37	0	0	89	37	1.062
B3142-4	179	88	158	5	41	41	13	0	0	54	13	1.061
B3142-5	190	147	264	9	12	79	0	0	0	79	0	1.064
B3143-1	168	97	174	7	25	68	0	0	0	68	0	1.060
B3144-2	109	58	104	3	41	56	0	0	0	56	0	na
B3144-3	277	235	421	2	8	90	0	0	0	90	0	1.053
B3144-4	236	184	331	5	17	78	0	0	0	78	0	1.060
B3144-7	156	123	221	4	11	85	0	0	0	85	0	1.046
B3144-8	224	129	232	3	23	74	0	0	0	74	0	1.056
B3144-9	229	143	256	7	15	78	0	0	0	78	0	1.047
B3144-10	279	187	336	2	14	85	0	0	0	85	0	1.050
B3145-1	156	103	184	4	27	69	0	0	0	69	0	1.048
NC399-1	196	172	308	2	11	76	0	11	0	87	11	1.053
NC402-1	165	55	99	6	32	62	0	0	0	62	0	1.055
NC408-1	195	139	249	3	19	78	0	0	0	78	0	1.056
NC409-1	266	156	280	6	10	84	0	0	0	84	0	1.058
NC418-1	220	119	213	7	0	93	0	0	0	93	0	na
NC420-1	180	112	202	9	29	62	0	0	0	62	0	1.063
NC420-2	244	165	296	3	18	78	0	0	0	78	0	1.056

Table 15 (cont'd). Production statistics for USDA Early Genereation Study potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
NC420-3	233	175	313	4	21	75	0	0	0	75	0	1.053
NC420-4	168	153	274	2	7	91	0	0	0	91	0	1.052
NC420-5	266	151	272	7	32	61	0	0	0	61	0	1.050
NC420-6	302	252	453	2	5	85	0	8	0	93	8	1.053
NC421-1	243	194	348	5	13	82	0	0	0	82	0	1.051
NC421-2	198	143	256	6	21	73	0	0	0	73	0	1.054
NC421-4	169	97	173	8	19	73	0	0	0	73	0	1.052
NC426-1	135	103	184	7	17	76	0	0	0	76	0	na
NC426-2	210	171	307	2	7	91	0	0	0	91	0	1.059
NC428-1	223	180	322	2	17	80	0	0	0	80	0	1.051
NC428-2	160	85	153	8	38	53	0	0	0	53	0	1.054
NC428-3	158	110	197	7	12	81	0	0	0	81	0	na
NC429-1	212	141	252	7	22	71	0	0	0	71	0	1.062
NC430-1	227	176	316	5	17	78	0	0	0	78	0	1.044
NC430-2	207	144	258	4	22	73	0	0	0	73	0	1.049

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 16. Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
Atlantic	75	na	8-5	7	6
Adora	88	na	5	5	6
AF0338-17	63	na	5-8	6	6
Beacon Chipper	63	na	5	8	6
Elkton	75	na	6-9	7	7
Fabula	75	na	8-5	6	7
Goldrush	75	na	6-9	6	7
Harley Blackwell	88	na	8-5	5	6
LaChipper	75	na	6	5	6
Peter Wilcox	50	na	5-8	8	6
Red LaSoda	38	na	8-5	5	6
Sifra	88	na	8	7	6
Vivaldi	75	na	8	5	6
Yukon Gold	38	na	7-4	2	5
B3059-1	75	na	8-5	6	keep
B3060-1	63	na	9	9	drop
B3068-1	75	na	9-6	6	keep
B3068-2	88	na	5-8	6	keep
B3069-1	88	na	5	5	keep
B3069-2	63	na	5-8	7	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3070-1	100	na	8-5	6	drop
B3070-2	63	na	5	6	drop
B3070-3	100	na	4-7	7	drop
B3070-5	38	na	5	6	drop
B3070-6	75	na	7	8	drop
B3070-7	100	na	7-4	6	drop
B3074-1	63	na	5-8	5	drop
B3074-2	75	na	5-8	6	drop
B3074-3	75	na	8-5	5	drop
B3074-4	63	na	7-4	3/6	drop
B3074-5	50	na	4-7	7	drop
B3074-6	63	na	7-4	7	drop
B3074-7	75	na	8	6	drop
B3074-8	63	na	8-5	6	drop
B3074-10	63	na	8	4	drop
B3075-1	75	na	5	9	drop
B3075-2	75	na	8-5	7	drop
B3075-3	63	na	8-5	6	drop
B3075-4	63	na	5-8	6	drop
B3075-5	50	na	8-5	6	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3075-6	75	na	5	7	drop
B3076-1	75	na	8	8	drop
B3076-2	50	na	7	7	drop
B3078-1	38	na	9-6	6	drop
B3078-2	88	na	5	6	drop
B3078-3	75	na	7	5	drop
B3078-4	88	na	5	5	drop
B3079-1	63	na	7-4	6	drop
B3080-1	63	na	7-4	5	drop
B3080-2	63	na	8-5	6	drop
B3082-1	38	na	7	8	drop
B3082-2	75	na	8	7	drop
B3082-3	38	na	8	8	drop
B3082-5	50	na	7	9	drop
B3082-6	63	na	7-4	7	drop
B3082-7	63	na	5-8	7	keep
B3082-8	75	na	5	5	drop
B3082-9	63	na	8-5	6	drop
B3082-10	50	na	8	9	drop
B3082-11	75	na	5	6	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3082-12	100	na	7	9	keep
B3082-13	75	na	8	9	drop
B3082-14	88	na	8-5	9	drop
B3082-15	100	na	8-5	7	drop
B3082-16	75	na	8	8	drop
B3082-17	63	na	8-5	7	drop
B3082-18	88	na	5	7	drop
B3082-19	88	na	8	6	drop
B3082-20	75	na	9	7	drop
B3082-21	88	na	8-5	7	drop
B3082-22	75	na	8-5	7	keep, Pretty
B3083-1	88	na	5-8	7	drop
B3083-2	100	na	5-8	7	keep, large tubers
B3083-4	100	na	5-8	7	keep
B3083-5	100	na	6-9	4	keep
B3083-6	100	na	5	5	keep
B3083-7	100	na	5	5	keep
B3083-8	88	na	8-5	5	keep
B3083-9	88	na	5-8	5	keep
B3083-10	88	na	5-8	6	keep

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3083-11	88	na	8-5	5	keep
B3083-13	100	na	8-5	6	keep
B3083-14	100	na	5-8	6	keep
B3084-1	100	na	8-5	5	drop
B3084-2	88	na	5-8	6	drop
B3084-3	100	na	9-6	7	keep
B3084-5	88	na	8-5	6	drop
B3084-6	100	na	5	5	drop
B3085-1	100	na	6-9	6	keep
B3085-2	100	na	5-8	5	keep
B3085-3	100	na	8-5	5	keep
B3085-4	100	na	9-6	6	keep
B3085-5	100	na	8-5	6	drop
B3086-4	100	na	9-6	6	drop
B3086-5	88	na	5-8	7	drop
B3086-8	100	na	5-8	8	keep
B3086-9	113	na	5	6	drop
B3088-3	100	na	5	4	keep
B3088-4	100	na	5-8	4	drop
B3088-5	75	na	5	3	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3088-6	75	na	4	3	drop
B3088-7	88	na	4	1	drop
B3088-8	100	na	5	6	keep
B3088-9	88	na	8-5	5	drop
B3088-11	100	na	5	5	drop
B3091-1	88	na	8-5	6	drop
B3091-2	100	na	5-8	5	drop
B3091-3	88	na	8-5	6	drop
B3091-4	100	na	5	5	keep
B3091-5	75	na	5-8	4	drop
B3091-6	100	na	5-8	4	drop
B3091-7	75	na	6-9	5	keep
B3092-1	75	na	8-5	6	drop
B3092-2	88	na	8-5	4	drop
B3093-3	75	na	5	4	drop
B3093-4	88	na	5	4	drop
B3093-6	100	na	5-8	5	drop
B3093-7	88	na	5-8	4	drop
B3093-8	75	na	5-8	4	drop
B3093-11	88	na	5-8	4	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3093-12	100	na	6	4	drop
B3094-1	63	na	5-8	4	drop
B3094-2	75	na	4-7	4	drop
B3094-4	100	na	5	4	drop
B3094-5	75	na	5	5	drop
B3095-1	100	na	5-8	5	drop
B3095-2	100	na	5	5	drop
B3095-3	88	na	5	6	drop
B3095-4	75	na	5	4	drop
B3095-5	88	na	6-9	5	drop
B3095-6	88	na	5-8	5	drop
B3095-7	88	na	5	5	drop
B3095-8	100	na	5-8	6	drop
B3095-9	75	na	5	7	drop
B3095-10	75	na	8-5	7	drop
B3095-11	63	na	8-5	8	drop
B3095-12	63	na	5-8	7	drop
B3095-13	75	na	6	7	drop
B3096-1	88	na	8-5	6	drop
B3097-3	63	na	5	6	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3097-4	100	na	5	5	drop
B3097-5	88	na	5	5	drop
B3097-6	88	na	4	5	drop
B3097-7	75	na	5	6	keep
B3099-1	88	na	5	5	drop
B3100-1	75	na	5-8	7	keep
B3100-2	88	na	5	5	drop
B3100-3	88	na	5-8	5	keep
B3100-4	88	na	5	6	drop
B3100-5	100	na	5	6	keep
B3100-6	88	na	8-5	5	drop
B3100-7	75	na	5	5	keep
B3100-8	75	na	4	5	drop
B3100-9	113	na	5-8	5	drop
B3100-10	75	na	8-5	5	keep
B3100-13	88	na	5	4	keep
B3101-1	75	na	8-5	5	drop
B3101-2	100	na	5-8	5	drop
B3101-4	100	na	5-8	5	drop
B3101-8	88	na	4-7	5	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3101-9	75	na	5	6	drop
B3101-10	100	na	5	6	keep
B3103-1	100	na	5	6	drop
B3103-4	88	na	5-8	5	drop
B3106-7	100	na	4-7	5	drop
B3106-10	75	na	5	5	drop
B3106-11	88	na	5-8	5	drop
B3106-12	75	na	4	5	drop
B3107-1	100	na	5-8	5	keep
B3107-2	75	na	5-8	5	keep
B3107-4	75	na	4-7	6	keep
B3107-5	88	na	8-5	5	drop
B3107-6	88	na	5	5	drop
B3107-7	75	na	5-8	5	drop
B3107-8	75	na	5-8	5	drop
B3116-1	75	na	8-5	6	drop
B3116-2	88	na	8-5	6	drop
B3116-3	88	na	4-7	6	drop
B3116-4	88	na	5-8	5	drop
B3116-6	75	na	8-5	6	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3116-7	100	na	5	7	drop
B3116-8	100	na	8-5	5	drop
B3116-9	63	na	8-5	6	drop
B3116-10	88	na	8-5	5	drop
B3116-11	88	na	4	5	drop
B3116-12	88	na	5	5	drop
B3116-14	100	na	8-5	5	drop
B3116-15	75	na	8-5	5	drop
B3116-16	88	na	7-4	5	drop
B3116-17	75	na	8-5	5	drop
B3117-1	100	na	8-5	5	drop
B3117-2	50	na	8-5	6	drop
B3117-3	88	na	5	6	drop
B3117-4	100	na	8-5	5	drop
B3118-1	75	na	8-5	5	drop
B3118-2	75	na	8-5	6	drop
B3118-3	75	na	5-8	5	drop
B3119-1	100	na	5-8	6	drop
B3120-1	75	na	5	6	keep, Netted red
B3120-2	100	na	5-8	2	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3121-1	100	na	5-8	3	drop
B3121-2	88	na	8-5	8	drop
B3121-3	100	na	8-5	3	drop
B3122-1	75	na	5	4	drop
B3122-2	75	na	7	8	drop
B3123-1	88	na	4	5	drop
B3124-1	75	na	8-5	6	drop
B3124-2	63	na	5	6	drop
B3124-3	100	na	5-8	5	drop
B3124-4	88	na	7-4	5	keep
B3124-5	63	na	5-8	4	drop
B3124-6	88	na	5	4	drop
B3124-7	75	na	6-9	6	drop
B3125-1	100	na	5-8	5	drop
B3125-2	100	na	5-8	3	drop
B3125-3	100	na	5-8	5	drop, Netted purple
B3125-4	100	na	9-6	7	drop
B3126-1	100	na	8-5	5	drop
B3126-2	100	na	8-5	4	drop
B3126-3	100	na	5-8	5	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3126-4	100	na	8-5	6	drop
B3127-1	100	na	5	3	drop
B3127-2	88	na	5	3	drop
B3127-3	100	na	5	3	drop
B3127-4	75	na	7-4	3	drop
B3127-5	100	na	5-8	3	drop
B3127-6	63	na	4	2	drop
B3127-7	100	na	5	5	drop
B3127-8	100	na	5	5	drop
B3127-9	75	na	5	4	drop
B3127-10	88	na	5-8	4	drop
B3127-13	63	na	5-8	4	drop
B3127-14	100	na	5	4	drop
B3128-1	100	na	5	4	drop
B3128-2	100	na	5-8	5	drop
B3128-3	100	na	8-5	2	drop
B3128-4	100	na	5-8	5	drop
B3128-5	100	na	7-4	5	drop
B3128-6	88	na	7-4	5	drop
B3128-7	100	na	5-8	4	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3128-8	100	na	5	3	drop
B3128-9	100	na	8-5	5	drop, Netted pink
B3128-10	88	na	5-8	3	drop
B3128-11	100	na	5-8	5	drop
B3129-1	100	na	4-7	2	drop
B3130-1	100	na	4	3	drop
B3130-2	75	na	5-8	5	drop
B3130-4	88	na	5-8	5	drop
B3130-5	88	na	5	2	drop
B3130-6	88	na	5	1	drop
B3131-1	100	na	4-7	2	drop
B3131-2	100	na	4-7	3	drop
B3131-3	75	na	5	4	drop
B3133-1	75	na	4-7	2	drop
B3133-2	88	na	4	1	drop
B3133-3	88	na	4	4	drop
B3133-4	100	na	5-8	2	drop
B3133-5	88	na	8-5	2	drop
B3134-1	88	na	8-5	5	drop
B3134-2	75	na	7-4	2	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3134-3	75	na	7-4	2	drop
B3134-4	75	na	5	1	drop
B3134-5	100	na	7-4	1	drop
B3134-6	100	na	7-4	2	drop
B3134-7	88	na	8-5	2	drop
B3134-8	75	na	4-7	4	drop
B3134-9	88	na	5-8	2	drop
B3134-10	88	na	5-8	3	drop
B3134-11	88	na	5-8	1	drop
B3134-12	88	na	4	2	drop
B3134-13	88	na	5-8	2	drop
B3134-14	88	na	5	2	drop
B3135-1	100	na	5-2	3	drop
B3135-2	88	na	5	3	drop
B3135-3	88	na	5	4	drop
B3135-4	63	na	5	4	drop
B3135-5	88	na	5-8	4	drop
B3135-6	75	na	4-7	1	drop
B3135-8	88	na	5-2	2	drop
B3135-9	88	na	5-2	2	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3135-10	100	na	4	1	drop
B3135-11	100	na	4-1	2	drop
B3135-12	88	na	5	2	drop
B3135-13	100	na	4	1	drop
B3135-14	100	na	4-7	2	drop
B3136-1	100	na	5	2	drop
B3136-2	100	na	5	2	drop
B3136-3	100	na	5	4	drop
B3136-4	88	na	5-8	5	drop
B3136-5	100	na	5-2	3	drop
B3136-6	100	na	5-2	2	drop
B3137-1	88	na	5-8	1	drop
B3137-2	100	na	5-8	2	drop
B3137-3	100	na	5-8	2	drop
B3137-4	100	na	4-7	2	drop
B3137-5	100	na	7-4	2	drop
B3137-6	100	na	4-7	1	drop
B3137-7	100	na	5-8	1	drop
B3137-8	88	na	5-8	1	drop
B3137-9	75	na	5-8	3	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3137-10	100	na	4	2	drop
B3137-11	100	na	5	1	drop
B3137-12	100	na	5	1	drop
B3137-13	100	na	5-8	1	drop
B3137-14	100	na	5	1	drop
B3138-3	88	na	7-4	2	drop
B3138-5	100	na	5-2	2	drop
B3138-7	88	na	7-4	1	drop
B3138-8	100	na	5	2	drop
B3138-9	100	na	5-8	1	drop
B3138-10	100	na	5	1	drop
B3138-11	88	na	5	1	drop
B3138-12	100	na	5-8	6	drop
B3138-13	100	na	5	2	drop
B3138-14	100	na	5-8	2	drop
B3138-15	100	na	5-8	2	drop
B3139-1	100	na	8-5	2	drop
B3139-2	100	na	5-8	1	drop
B3140-1	100	na	9-6	5	drop
B3140-2	88	na	8-5	3	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
B3140-3	88	na	8-5	3	drop
B3141-1	100	na	8-5	4	keep
B3142-4	100	na	5	3	drop
B3142-5	100	na	5	3	drop
B3143-1	100	na	5-8	1	drop
B3144-2	63	na	8	6	drop
B3144-3	88	na	5-8	3	keep
B3144-4	100	na	8-5	3	keep
B3144-7	63	na	8	8	drop
B3144-8	100	na	5-8	5	drop
B3144-9	100	na	5-8	5	drop
B3144-10	100	na	9-6	7	drop
B3145-1	88	na	8	6	drop
NC399-1	100	na	5-8	5	keep
NC402-1	100	na	5-8	2	drop
NC408-1	88	na	8-5	4	drop
NC409-1	100	na	5-8	5	drop
NC418-1	100	na	5	3	drop
NC420-1	100	na	5	3	drop
NC420-2	88	na	5-8	5	drop

Table 16 (cont'd). Plant growth and tuber characteristics of USDA Early Genereation Study potato selections

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Comments
NC420-3	100	na	6-9	5	drop
NC420-4	88	na	9-6	8	drop
NC420-5	100	na	5-8	5	drop
NC420-6	100	na	5-8	5	keep, very pretty
NC421-1	100	na	5	2	keep
NC421-2	88	na	8-5	2	keep
NC421-4	88	na	7-4	5	drop
NC426-1	50	na	8	7	drop
NC426-2	100	na	5-8	2	drop
NC428-1	100	na	8-5	3	drop
NC428-2	88	na	5	2	drop
NC428-3	100	na	8	6	drop
NC429-1	100	na	6	5	keep
NC430-1	100	na	5	4	keep
NC430-2	88	na	5	3	keep

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 17. External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	0	0	9	0	9	0	0	0	0	20	0	0
Adora	0	0	0	0	0	na	na	na	na	na	na	na
AF0338-17	0	0	9	4	13	0	0	0	0	0	0	0
Beacon Chipper	0	0	8	0	8	0	0	0	0	0	0	0
Elkton	0	0	1	0	1	0	0	0	0	0	0	0
Fabula	0	0	3	0	3	0	0	0	0	20	0	0
Goldrush	0	1	0	0	1	0	0	0	0	0	0	0
Harley Blackwell	4	0	2	0	6	0	0	0	0	0	0	0
LaChipper	0	0	0	0	0	0	0	0	0	0	0	0
Peter Wilcox	0	0	0	0	0	0	0	0	0	0	0	0
Red LaSoda	0	0	10	0	10	0	0	0	0	0	0	0
Sifra	0	0	3	0	3	0	0	0	0	0	0	0
Vivaldi	0	0	12	0	12	0	0	0	0	0	0	0
Yukon Gold	9	0	0	0	9	na	na	na	na	na	na	na
B3059-1	0	6	0	0	6	0	0	0	0	0	0	0
B3060-1	0	0	0	0	0	0	0	0	0	0	0	0
B3068-1	0	2	0	0	2	0	0	0	0	0	0	0
B3068-2	0	0	4	0	4	0	0	0	0	0	0	0
B3069-1	0	0	4	0	4	0	0	0	0	0	0	0
B3069-2	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3070-1	0	0	0	0	0	na	na	na	na	na	na	na
B3070-2	0	0	0	0	0	0	0	0	0	0	0	0
B3070-3	0	0	0	0	0	0	0	0	0	0	0	0
B3070-5	0	0	0	0	0	0	0	0	0	0	0	0
B3070-6	0	0	0	0	0	na	na	na	na	na	na	na
B3070-7	0	0	0	0	0	na	na	na	na	na	na	na
B3074-1	0	0	0	0	0	0	0	0	0	0	0	0
B3074-2	0	0	0	0	0	0	0	0	0	0	0	0
B3074-3	20	0	0	0	20	0	0	0	0	0	0	0
B3074-4	0	6	0	0	6	0	0	0	0	0	20	0
B3074-5	0	0	0	0	0	0	0	0	0	0	0	0
B3074-6	26	0	0	0	26	na	na	na	na	na	na	na
B3074-7	0	0	0	0	0	0	0	0	0	0	0	0
B3074-8	0	0	0	19	19	0	0	0	0	0	0	0
B3074-10	7	0	5	0	12	0	0	0	0	20	0	0
B3075-1	0	0	0	0	0	0	0	0	0	0	0	0
B3075-2	0	0	0	0	0	0	0	0	0	0	20	0
B3075-3	0	0	9	0	9	0	0	0	0	0	0	0
B3075-4	0	0	0	0	0	0	0	0	0	0	0	0
B3075-5	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3075-6	0	0	0	0	0	0	0	0	0	0	0	0
B3076-1	0	0	0	0	0	0	0	20	0	0	0	0
B3076-2	20	0	4	0	24	na	na	na	na	na	na	na
B3078-1	0	4	0	0	4	0	0	0	0	0	0	0
B3078-2	0	0	0	4	4	0	0	0	0	0	0	0
B3078-3	0	0	0	0	0	0	0	0	0	0	0	0
B3078-4	0	8	0	0	8	0	0	0	0	0	0	0
B3079-1	17	0	3	7	27	0	0	40	0	0	0	0
B3080-1	0	0	0	6	6	0	0	0	0	0	0	0
B3080-2	0	0	0	5	5	0	0	0	0	0	0	0
B3082-1	0	0	0	0	0	na	na	na	na	na	na	na
B3082-2	0	0	0	0	0	0	0	0	0	0	0	0
B3082-3	0	0	0	0	0	na	na	na	na	na	na	na
B3082-5	0	0	0	0	0	na	na	na	na	na	na	na
B3082-6	0	0	0	0	0	na	na	na	na	na	na	na
B3082-7	0	0	5	0	5	0	0	0	0	0	0	0
B3082-8	0	0	0	0	0	0	0	0	0	0	0	0
B3082-9	0	0	5	0	5	0	0	0	0	0	0	0
B3082-10	0	0	0	0	0	na	na	na	na	na	na	na
B3082-11	0	0	6	0	6	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3082-12	0	0	0	0	0	0	0	0	0	0	0	0
B3082-13	0	0	0	0	0	na	na	na	na	na	na	na
B3082-14	0	0	0	0	0	na	na	na	na	na	na	na
B3082-15	0	0	0	0	0	0	0	0	0	0	0	0
B3082-16	0	0	0	0	0	0	0	0	0	0	0	0
B3082-17	0	0	11	0	11	0	0	0	0	0	0	0
B3082-18	0	0	0	0	0	0	0	0	0	0	0	0
B3082-19	0	0	0	0	0	0	0	0	0	0	0	0
B3082-20	0	0	0	0	0	0	0	0	0	0	0	0
B3082-21	0	0	0	0	0	0	0	0	0	0	0	0
B3082-22	0	0	0	3	3	0	0	0	0	0	0	0
B3083-1	16	0	18	0	35	0	0	0	0	0	0	0
B3083-2	4	0	11	0	14	0	0	0	0	0	0	0
B3083-4	0	0	21	0	21	0	0	0	0	0	0	0
B3083-5	0	0	0	0	0	0	0	0	0	0	0	0
B3083-6	0	0	0	0	0	0	0	0	0	0	0	0
B3083-7	0	0	4	0	4	0	0	0	0	0	0	0
B3083-8	0	0	5	0	5	0	0	0	0	0	0	0
B3083-9	0	0	7	0	7	0	0	0	0	0	0	0
B3083-10	0	0	7	0	7	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3083-11	0	0	9	0	9	0	0	0	0	20	0	0
B3083-13	9	0	5	2	16	0	0	0	0	0	0	0
B3083-14	5	0	2	0	7	0	0	0	0	0	0	0
B3084-1	0	0	4	21	26	0	0	0	0	0	0	0
B3084-2	0	0	5	0	5	0	0	0	0	0	0	0
B3084-3	0	0	0	0	0	0	0	0	0	0	0	0
B3084-5	0	0	0	0	0	0	0	0	0	0	0	0
B3084-6	0	0	5	0	5	0	0	0	0	0	0	0
B3085-1	0	0	6	0	6	0	0	0	0	0	0	0
B3085-2	0	7	17	0	24	0	0	0	0	0	0	0
B3085-3	0	0	2	0	2	0	0	0	0	0	0	0
B3085-4	0	0	4	0	4	0	0	0	0	0	0	0
B3085-5	0	0	0	0	0	0	0	0	0	0	0	0
B3086-4	0	0	0	0	0	0	0	0	0	0	0	0
B3086-5	0	0	0	0	0	0	0	0	0	0	0	0
B3086-8	0	0	0	0	0	0	0	0	0	0	0	0
B3086-9	4	0	0	0	4	0	0	20	0	20	0	0
B3088-3	0	0	8	0	8	0	0	0	0	0	0	0
B3088-4	0	0	0	0	0	20	0	0	0	0	0	0
B3088-5	0	0	0	10	10	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3088-6	0	0	11	0	11	0	0	0	0	0	0	0
B3088-7	4	0	5	4	13	0	0	0	0	0	0	0
B3088-8	0	0	2	0	2	20	0	0	0	0	0	0
B3088-9	0	0	0	0	0	0	0	0	0	0	0	0
B3088-11	3	0	3	0	6	0	0	0	0	0	0	0
B3091-1	5	9	0	0	14	0	0	0	0	0	0	0
B3091-2	13	2	4	0	19	0	0	0	0	0	0	0
B3091-3	11	0	0	0	11	0	0	0	0	0	0	0
B3091-4	0	0	0	0	0	0	0	0	0	0	0	0
B3091-5	38	0	3	0	40	0	0	0	0	0	0	0
B3091-6	0	0	0	0	0	0	0	0	0	0	0	0
B3091-7	0	2	0	0	2	0	0	0	0	0	0	0
B3092-1	0	0	2	0	2	0	0	0	0	0	0	0
B3092-2	0	0	0	0	0	0	0	0	0	0	0	0
B3093-3	0	0	0	0	0	0	0	0	0	0	0	0
B3093-4	3	0	6	0	8	0	0	0	0	0	0	0
B3093-6	0	0	0	0	0	0	0	0	0	20	0	0
B3093-7	0	0	8	0	8	0	0	0	0	0	0	0
B3093-8	3	0	0	0	3	0	0	0	0	0	20	20
B3093-11	3	21	0	0	24	0	0	40	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3093-12	0	4	2	0	6	0	0	0	0	20	0	0
B3094-1	0	0	0	0	0	0	0	0	0	0	0	0
B3094-2	10	2	0	0	12	0	0	0	0	0	0	0
B3094-4	0	0	5	0	5	0	0	0	0	20	0	0
B3094-5	0	0	2	0	2	0	0	0	0	20	0	0
B3095-1	0	0	4	0	4	0	0	0	0	0	0	0
B3095-2	0	0	0	0	0	0	0	0	0	0	0	0
B3095-3	17	0	5	0	21	0	0	0	0	0	0	0
B3095-4	0	0	6	0	6	0	0	0	0	0	0	0
B3095-5	7	0	2	0	8	0	0	0	0	0	0	0
B3095-6	3	2	6	0	10	0	0	0	0	0	0	0
B3095-7	0	18	7	0	25	0	0	0	0	0	0	0
B3095-8	10	0	0	0	10	0	0	0	0	0	0	0
B3095-9	0	0	0	0	0	0	0	0	0	0	0	0
B3095-10	0	0	6	0	6	0	0	0	0	0	0	0
B3095-11	3	0	5	0	8	0	0	0	0	0	0	0
B3095-12	0	0	0	0	0	0	0	0	0	0	0	0
B3095-13	0	0	0	0	0	0	0	0	0	0	0	0
B3096-1	12	0	12	0	24	0	0	0	0	0	0	0
B3097-3	0	12	0	0	12	0	0	0	0	0	40	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3097-4	0	4	2	0	7	0	0	0	0	0	20	0
B3097-5	0	0	0	0	0	0	0	0	0	0	0	0
B3097-6	0	0	12	0	12	0	0	0	0	0	0	0
B3097-7	0	0	5	0	5	0	0	0	0	0	0	0
B3099-1	6	0	7	0	13	0	0	20	0	0	0	0
B3100-1	2	0	20	0	21	0	0	0	0	0	0	0
B3100-2	0	0	14	0	14	0	0	0	0	0	0	0
B3100-3	0	0	4	0	4	0	0	0	0	0	0	0
B3100-4	0	0	10	0	10	0	0	0	0	20	0	0
B3100-5	0	0	0	0	0	0	0	0	0	20	0	0
B3100-6	0	0	3	0	3	0	0	0	0	20	0	0
B3100-7	0	10	0	0	10	0	0	0	0	0	0	0
B3100-8	0	0	5	3	8	20	0	0	0	0	0	0
B3100-9	0	0	3	0	3	0	0	0	0	20	0	20
B3100-10	0	0	6	0	6	0	0	0	0	0	0	0
B3100-13	0	0	5	0	5	0	0	0	0	20	0	0
B3101-1	3	2	2	0	6	0	0	0	0	20	20	20
B3101-2	12	4	0	0	16	0	0	0	0	0	0	0
B3101-4	0	0	10	0	10	0	0	0	0	20	0	0
B3101-8	2	0	0	5	8	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3101-9	0	0	15	0	15	0	0	0	0	0	0	0
B3101-10	7	6	6	0	19	0	0	0	0	0	0	0
B3103-1	0	0	5	0	5	0	0	20	0	0	0	0
B3103-4	0	0	19	0	19	0	0	0	0	0	0	0
B3106-7	0	0	9	7	16	0	0	0	0	0	0	0
B3106-10	0	0	0	0	0	0	0	0	0	0	0	0
B3106-11	5	0	12	0	17	0	0	0	0	0	0	0
B3106-12	0	6	2	0	8	0	0	0	0	0	0	0
B3107-1	0	0	5	0	5	0	0	0	0	0	0	0
B3107-2	0	0	15	0	15	0	0	0	0	0	0	0
B3107-4	0	0	1	0	1	0	0	0	0	0	0	0
B3107-5	0	0	4	0	4	0	0	0	0	40	0	0
B3107-6	0	5	0	0	5	0	0	0	0	0	0	0
B3107-7	0	0	9	0	9	0	0	0	0	0	0	0
B3107-8	0	0	0	0	0	0	0	0	0	0	0	0
B3116-1	0	0	4	0	4	0	0	0	0	0	0	0
B3116-2	0	0	5	0	5	0	0	0	0	20	0	0
B3116-3	0	4	2	0	6	0	0	0	0	0	0	0
B3116-4	0	0	3	3	6	0	0	40	0	0	0	0
B3116-6	7	0	5	0	12	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3116-7	0	0	2	0	2	0	0	0	0	20	0	0
B3116-8	0	0	2	0	2	0	0	0	0	0	0	0
B3116-9	9	0	17	0	26	0	0	0	0	0	0	0
B3116-10	0	5	0	0	5	0	0	0	0	0	0	0
B3116-11	0	0	8	0	8	0	0	0	0	0	0	0
B3116-12	0	0	0	0	0	0	0	20	0	20	0	0
B3116-14	0	0	18	0	18	0	0	0	0	0	0	0
B3116-15	0	0	5	0	5	0	0	0	0	0	0	0
B3116-16	0	0	0	0	0	0	0	0	0	0	0	0
B3116-17	3	0	3	0	6	0	0	0	0	0	0	0
B3117-1	0	2	1	0	3	0	0	0	0	0	0	0
B3117-2	0	0	6	0	6	0	0	0	0	0	0	0
B3117-3	0	6	12	0	18	0	0	0	0	0	0	0
B3117-4	0	0	0	6	6	0	0	0	0	0	0	0
B3118-1	0	2	2	0	4	0	0	0	0	0	0	0
B3118-2	0	0	5	0	5	0	0	0	0	0	0	0
B3118-3	0	0	0	2	2	0	0	0	0	0	0	0
B3119-1	0	0	10	11	21	0	0	0	0	0	0	0
B3120-1	3	0	0	0	3	0	0	0	0	20	0	0
B3120-2	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3121-1	0	5	0	12	17	0	0	0	0	0	0	0
B3121-2	0	7	0	0	7	0	0	0	0	0	0	0
B3121-3	0	0	14	0	14	0	0	0	0	0	0	0
B3122-1	0	0	0	0	0	0	0	0	0	0	40	0
B3122-2	0	6	3	3	12	0	0	0	0	0	0	0
B3123-1	0	0	0	0	0	0	0	0	0	0	0	0
B3124-1	0	5	0	10	16	0	0	0	0	0	0	0
B3124-2	0	0	0	4	4	0	0	0	0	0	0	0
B3124-3	0	16	0	0	16	0	0	0	0	0	20	20
B3124-4	0	0	0	7	7	0	0	0	0	0	0	0
B3124-5	0	0	2	0	2	0	0	0	0	0	0	0
B3124-6	0	0	2	11	14	0	0	0	0	0	20	0
B3124-7	0	6	0	2	8	0	0	0	0	0	0	0
B3125-1	0	0	12	2	14	0	0	20	0	0	0	0
B3125-2	0	0	0	7	7	0	0	0	0	0	40	0
B3125-3	0	0	7	14	21	0	0	20	0	20	0	0
B3125-4	4	0	0	0	4	0	0	0	0	0	0	0
B3126-1	0	0	0	2	2	0	0	0	0	0	0	0
B3126-2	19	0	8	0	28	0	0	0	0	0	0	0
B3126-3	3	0	0	1	4	0	0	0	0	20	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3126-4	6	0	2	0	8	0	0	0	0	20	0	0
B3127-1	0	0	0	0	0	0	0	20	0	0	0	0
B3127-2	0	0	0	0	0	0	0	0	0	20	0	0
B3127-3	0	0	0	0	0	0	0	0	0	40	0	0
B3127-4	0	0	4	0	4	0	0	0	0	0	0	0
B3127-5	3	0	0	5	8	0	0	20	0	20	20	0
B3127-6	0	0	0	0	0	0	0	0	0	0	0	0
B3127-7	0	0	0	0	0	0	0	0	0	20	0	0
B3127-8	0	0	0	6	6	0	0	0	0	0	0	0
B3127-9	5	0	0	19	24	0	0	0	0	0	0	0
B3127-10	0	0	5	6	11	0	0	0	0	0	0	0
B3127-13	0	0	0	0	0	0	0	0	0	40	0	0
B3127-14	0	0	0	6	6	0	0	20	0	0	20	0
B3128-1	0	0	0	13	13	0	0	20	0	20	0	0
B3128-2	0	0	6	0	6	0	0	0	0	0	0	0
B3128-3	0	0	9	0	9	0	0	20	0	0	0	0
B3128-4	40	0	0	14	54	na	na	na	na	na	na	na
B3128-5	6	0	0	3	10	0	0	20	0	0	0	0
B3128-6	12	0	0	0	12	0	0	20	0	0	0	0
B3128-7	8	0	0	0	8	0	0	0	0	20	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3128-8	4	0	2	10	17	0	0	0	0	0	0	0
B3128-9	0	0	0	4	4	0	0	20	0	20	0	0
B3128-10	0	7	0	0	7	0	0	40	0	0	0	0
B3128-11	0	0	0	5	5	0	0	0	0	0	0	0
B3129-1	0	0	3	0	3	0	0	0	0	0	0	0
B3130-1	3	0	0	0	3	0	0	20	0	0	0	0
B3130-2	0	0	10	0	10	0	0	0	0	0	0	0
B3130-4	0	0	0	0	0	0	0	0	0	0	0	0
B3130-5	0	0	16	0	16	0	0	0	0	0	0	0
B3130-6	0	0	0	0	0	0	0	0	0	0	0	0
B3131-1	0	0	0	0	0	0	0	0	0	0	0	0
B3131-2	0	0	0	0	0	0	0	0	0	0	0	0
B3131-3	0	0	0	0	0	0	0	20	0	0	0	0
B3133-1	4	0	0	3	8	0	0	0	0	0	0	0
B3133-2	0	0	0	0	0	0	0	20	0	0	0	0
B3133-3	3	0	3	0	6	0	0	0	0	0	0	0
B3133-4	0	0	0	0	0	0	0	0	0	0	0	0
B3133-5	5	0	0	0	5	0	0	0	0	0	0	0
B3134-1	7	0	4	0	11	0	0	0	0	0	0	0
B3134-2	0	0	0	0	0	0	0	0	0	0	0	20

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3134-3	6	0	5	0	12	0	0	0	0	0	0	0
B3134-4	0	0	13	0	13	0	0	0	0	40	0	20
B3134-5	0	0	0	0	0	0	0	40	0	0	0	0
B3134-6	0	0	0	0	0	0	0	0	0	0	0	0
B3134-7	14	0	3	3	19	0	0	0	0	0	0	0
B3134-8	5	0	0	10	15	0	0	20	0	0	0	0
B3134-9	0	0	7	0	7	0	0	0	0	0	0	0
B3134-10	6	0	3	0	9	0	0	0	0	20	0	40
B3134-11	0	0	6	3	9	0	0	0	0	0	0	0
B3134-12	0	0	4	4	8	0	0	40	0	0	0	0
B3134-13	8	0	3	6	17	0	0	0	0	0	0	0
B3134-14	0	0	0	4	4	0	0	0	0	0	0	0
B3135-1	0	0	0	0	0	0	0	0	0	0	0	0
B3135-2	0	0	0	0	0	0	0	0	0	0	0	0
B3135-3	0	0	0	6	6	0	0	20	0	0	0	0
B3135-4	0	0	3	2	4	0	0	0	0	0	0	0
B3135-5	2	0	4	0	6	0	0	0	0	0	0	0
B3135-6	0	0	0	0	0	0	0	40	0	0	0	0
B3135-8	0	0	0	7	7	0	0	20	0	0	0	0
B3135-9	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3135-10	0	0	0	0	0	0	0	0	0	0	0	0
B3135-11	0	4	0	9	12	0	0	60	0	0	0	0
B3135-12	0	0	10	0	10	0	0	0	0	0	0	20
B3135-13	3	0	0	0	3	0	0	0	0	0	20	0
B3135-14	0	0	3	0	3	0	0	0	0	20	0	0
B3136-1	0	0	0	0	0	0	0	0	0	0	0	0
B3136-2	4	0	2	0	7	0	0	0	0	20	40	20
B3136-3	0	4	0	0	4	0	0	0	0	0	20	20
B3136-4	0	5	2	0	7	0	0	0	0	0	0	0
B3136-5	0	0	3	0	3	0	0	0	0	0	0	0
B3136-6	0	0	0	0	0	0	0	20	0	20	0	20
B3137-1	0	0	0	2	2	0	0	20	0	0	0	0
B3137-2	5	0	0	0	5	0	0	0	0	0	0	0
B3137-3	0	0	5	0	5	0	0	20	0	0	0	0
B3137-4	0	4	3	0	7	0	0	0	20	60	20	0
B3137-5	10	0	0	0	10	0	0	0	0	0	0	0
B3137-6	0	0	8	0	8	0	0	0	0	0	0	0
B3137-7	0	0	8	0	8	0	0	0	0	0	0	0
B3137-8	0	0	0	0	0	0	0	0	0	0	0	0
B3137-9	0	0	2	0	2	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3137-10	0	0	0	0	0	0	0	0	0	0	0	0
B3137-11	0	0	2	0	2	0	0	0	0	20	20	0
B3137-12	0	0	0	0	0	0	0	0	0	0	0	0
B3137-13	0	0	9	0	9	0	0	0	0	0	0	0
B3137-14	0	0	0	0	0	0	0	0	0	20	0	20
B3138-3	27	0	10	0	37	0	0	0	0	0	0	0
B3138-5	0	0	0	13	13	0	0	0	0	0	0	0
B3138-7	0	0	0	3	3	0	0	0	0	0	0	0
B3138-8	0	0	0	0	0	0	0	0	0	0	0	0
B3138-9	0	0	0	0	0	0	0	0	0	0	0	0
B3138-10	0	0	0	3	3	0	0	0	0	0	0	0
B3138-11	0	2	0	5	7	0	0	0	0	0	0	0
B3138-12	0	0	0	0	0	0	0	0	0	0	0	0
B3138-13	0	0	0	0	0	0	0	0	0	0	0	0
B3138-14	0	0	0	7	7	0	0	0	0	0	0	0
B3138-15	0	0	0	18	18	0	0	0	0	20	0	0
B3139-1	0	0	3	0	3	0	0	20	0	0	0	0
B3139-2	0	0	13	0	13	0	0	0	0	0	0	0
B3140-1	0	6	7	0	14	0	0	0	0	0	0	0
B3140-2	0	0	2	0	2	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
B3140-3	0	0	8	0	8	0	0	0	0	0	0	0
B3141-1	2	0	10	2	15	0	0	0	0	0	20	0
B3142-4	5	0	4	0	9	0	0	20	0	0	0	0
B3142-5	0	0	2	0	2	0	0	20	0	0	0	0
B3143-1	0	0	15	0	15	0	0	0	0	0	0	0
B3144-2	0	0	5	0	5	0	0	0	0	0	0	0
B3144-3	0	0	4	2	6	20	0	0	0	0	0	0
B3144-4	0	0	0	0	0	0	0	0	0	0	0	0
B3144-7	7	0	0	0	7	0	0	0	0	0	0	0
B3144-8	2	0	20	0	22	0	0	20	0	0	0	0
B3144-9	9	0	7	4	20	0	0	0	0	0	0	0
B3144-10	0	4	16	0	21	0	0	0	0	0	0	0
B3145-1	5	0	0	0	5	0	0	0	0	0	0	0
NC399-1	0	0	0	0	0	0	0	0	0	0	0	0
NC402-1	25	0	21	0	46	0	0	0	0	0	0	0
NC408-1	0	0	5	4	9	0	0	20	0	0	0	20
NC409-1	16	7	8	0	30	0	0	40	0	0	0	0
NC418-1	4	0	8	30	42	0	0	20	0	40	20	0
NC420-1	0	0	0	0	0	0	0	0	0	0	0	0
NC420-2	0	3	10	0	14	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of USDA Early Genereation Study potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
NC420-3	0	0	0	0	0	0	0	0	0	0	0	100
NC420-4	0	0	0	0	0	0	0	20	0	0	0	0
NC420-5	0	0	4	2	7	0	0	0	0	40	40	20
NC420-6	0	0	2	9	10	0	0	0	0	40	40	20
NC421-1	0	0	2	0	2	0	0	0	0	0	0	0
NC421-2	0	0	2	0	2	0	0	40	0	0	0	0
NC421-4	0	0	7	15	22	0	0	0	0	0	0	20
NC426-1	0	0	0	0	0	0	0	0	0	0	0	0
NC426-2	0	0	10	0	10	0	0	0	0	0	0	0
NC428-1	0	0	0	0	0	0	0	0	0	0	0	0
NC428-2	0	0	0	0	0	0	0	0	0	0	0	0
NC428-3	0	6	0	8	13	0	0	0	0	0	0	0
NC429-1	0	0	7	0	7	0	0	0	0	0	0	0
NC430-1	0	0	0	0	0	0	0	0	0	0	0	0
NC430-2	0	0	6	0	6	0	0	0	0	0	0	0

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 7. UNIV. OF MAINE ADVANCED-LINE TRIAL, 2013

General Comments

A goal of the University of Maine advanced line potato variety trial is to continue gathering data on these advanced potato selections for potential Florida production. The chipping "standard" Atlantic was included to provide a baseline for comparison with the numbered clones.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 16, 2013
Vine Kill Dates	N/A
Harvest Dates	May 2, 2013
Season Length	106 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	6 (Standard: Atlantic)
Number of Clones	36
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	16 ft (4.9 m)

Production Statistics- Based over all sites

Early Vigor Ratings	N/A
Highest Total Yield	AF4430-1 (329 cwt or 36.8 T/ha)
Highest Marketable Yield	AF4430-1 (288 cwt or 32.2 T/ha)

Table 18. Production facts for University of Maine advanced potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	274	244	100	1	6	65	12	15	0	93	27	1.074
Elkton	306	275	113	1	6	53	16	23	1	92	39	1.068
Goldrush	287	258	106	1	9	70	15	5	0	90	20	1.061
H. Blackwell	259	234	96	1	7	69	17	6	0	92	22	1.072
Marcy	284	250	102	1	7	63	15	12	2	89	27	1.062
Snowden	192	164	67	1	8	70	10	11	0	91	21	1.073
AF0338-17	233	203	83	1	9	62	14	13	1	88	26	1.068
AF4138-8	261	227	93	2	10	66	14	9	0	88	22	1.058
AF4157-6	260	218	89	2	12	82	4	0	0	86	4	1.071
AF4220-4	262	222	91	2	11	76	7	3	0	86	10	1.060
AF4227-2	254	210	86	2	11	78	8	1	0	87	8	1.056
AF4320-17	209	171	70	2	14	73	9	2	0	83	10	1.069
AF4342-3	303	275	112	1	8	85	5	1	0	90	6	1.067
AF4347-1	261	217	89	2	12	71	9	7	0	87	16	1.062
AF4376-3	262	243	100	1	6	60	16	17	0	93	33	1.061
AF4386-16	308	264	108	2	11	70	11	5	0	86	16	1.076
AF4421-4	261	213	87	3	15	70	8	5	0	82	13	1.065
AF4430-1	329	288	118	2	7	65	18	7	0	91	25	1.051
AF4442-4	214	181	74	3	13	71	12	2	0	85	14	1.065
AF4445-3	159	103	42	5	24	67	3	0	0	70	3	1.066

Table 18 (cont'd). Production facts for University of Maine advanced potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
AF4454-3	237	154	63	4	23	71	1	1	0	73	2	1.052
AF4463-8	221	183	75	3	13	78	5	1	1	83	5	1.054
AF4532-8	218	169	69	3	17	72	5	3	0	80	8	1.068
AF4532-9	185	132	54	4	25	68	2	2	0	71	3	1.074
AF4550-2	179	154	63	3	12	71	8	5	0	85	14	1.067
AF4552-5	294	265	109	2	5	56	16	20	1	92	36	1.070
AF4565-1	275	225	92	2	14	81	2	1	0	84	3	1.187
AF4566-4	194	155	63	4	16	65	9	7	0	81	15	1.064
AF4573-2	266	211	86	2	15	66	10	7	0	83	17	1.069
AF4614-2	213	195	80	1	6	69	14	10	0	93	24	1.061
AF4640-1	276	238	98	2	10	66	16	5	0	88	22	1.064
AF4730-2	182	151	62	3	14	75	5	3	0	84	9	1.062
AF4815-1	220	168	69	2	19	66	8	4	0	79	13	1.056
AF4845-3	201	149	61	3	18	72	5	1	1	78	6	1.053
AF4852-2	308	258	106	2	10	72	11	4	0	88	15	1.053
AF4852-4	291	226	93	3	16	58	20	4	0	82	24	1.055
AF4914-4	285	232	95	3	10	57	18	12	1	87	30	1.060
AF4950-2	320	284	116	1	10	67	16	5	0	89	22	1.062
AF4953-2	241	205	84	1	11	73	6	9	0	88	15	1.065
AF4953-6	264	239	98	1	9	64	18	8	0	90	26	1.068
AF4963-5	319	280	115	2	9	65	14	9	0	89	23	1.051
AF4985-1	286	236	97	2	13	79	4	2	0	85	6	1.058
MSD[3]	56	55		2	6	14	10	9	ns			ns
P Value	*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.6635*			*0.4113*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 19. Plant growth and tuber characteristics of University of Maine advanced potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearnace
Atlantic	88	na	5-8	6.8	7.0
Elkton	82	na	9-6	7.0	7.0
Goldrush	93	na	9-6	5.5	6.0
H. Blackwell	79	na	5-8	5.3	7.0
Marcy	91	na	8-5	7.0	6.0
Snowden	79	na	8-5	7.0	6.0
AF0338-17	89	na	5-8	7.0	7.0
AF4138-8	91	na	5-8	5.8	7.0
AF4157-6	84	na	6-9	6.3	6.0
AF4220-4	89	na	5-8	4.5	7.0
AF4227-2	88	na	8-5	5.3	6.0
AF4320-17	81	na	5-8	6.5	5.0
AF4342-3	91	na	9-6	7.8	5.0
AF4347-1	88	na	8-5	6.3	5.0
AF4376-3	93	na	6	6.5	7.0
AF4386-16	80	na	9-6	7.3	5.0
AF4421-4	82	na	5-8	5.3	5.0
AF4430-1	76	na	8-5	7.0	5.0
AF4442-4	86	na	5-8	6.8	5.0
AF4445-3	69	na	8	8.0	5.0

Table 19 (cont'd). Plant growth and tuber characteristics of University of Maine advanced potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearnace
AF4454-3	65	na	5-8	8.5	6.0
AF4463-8	72	na	7.3	8.8	5.0
AF4532-8	93	na	5-8	5.3	6.0
AF4532-9	83	na	8	7.0	6.0
AF4550-2	93	na	5	3.0	6.0
AF4552-5	79	na	8-5	6.8	6.0
AF4565-1	97	na	5-8	3.8	5.0
AF4566-4	83	na	5-8	3.5	7.0
AF4573-2	80	na	8-5	6.0	6.0
AF4614-2	82	na	8-5	5.5	7.0
AF4640-1	81	na	5-8	6.8	6.0
AF4730-2	77	na	5-8	6.5	7.0
AF4815-1	79	na	5	5.5	5.0
AF4845-3	76	na	7-4	5.0	6.0
AF4852-2	92	na	5-8	5.8	7.0
AF4852-4	74	na	8-5	6.3	7.0
AF4914-4	84	na	8-5	8.0	6.0
AF4950-2	95	na	6	5.3	6.0
AF4953-2	84	na	9-6	6.0	5.0
AF4953-6	93	na	9-6	6.7	6.0
AF4963-5	97	na	5	4.0	5.0
AF4985-1	80	na	9-6	7.0	6.0

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 20. External and internal defects of of University of Maine advanced potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	1	1	1	0	4	3	0	0	0	0	0	0
Elkton	0	0	2	0	2	0	0	0	0	0	0	0
Goldrush	0	0	0	0	0	0	0	0	0	0	0	0
H. Blackwell	1	0	0	0	1	0	0	0	0	0	0	0
Marcy	0	1	0	0	2	3	0	5	0	5	0	0
Snowden	0	1	4	0	6	3	0	0	3	0	0	0
AF0338-17	0	1	1	0	1	5	0	0	0	0	0	0
AF4138-8	0	0	1	0	1	0	0	0	0	0	0	0
AF4157-6	0	1	1	0	3	0	0	3	0	3	0	0
AF4220-4	1	0	1	0	2	0	0	0	0	0	0	0
AF4227-2	0	1	3	0	5	0	0	0	0	5	0	0
AF4320-17	3	0	0	0	4	3	0	0	0	0	0	0
AF4342-3	0	0	0	0	0	0	0	0	0	0	0	0
AF4347-1	3	0	0	1	4	0	0	0	0	0	0	0
AF4376-3	0	0	0	0	0	0	0	0	0	0	0	0
AF4386-16	1	0	0	0	1	0	0	0	0	0	0	0
AF4421-4	1	0	0	0	1	0	0	0	0	3	0	0
AF4430-1	4	0	1	0	5	0	0	3	0	0	0	0
AF4442-4	0	1	3	0	5	0	0	0	0	0	0	0
AF4445-3	7	0	0	0	7	0	0	0	0	0	0	0

Table 20 (cont'd). External and internal defects of of University of Maine advanced potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
AF4454-3	8	0	4	0	13	0	0	0	0	0	0	0
AF4463-8	0	0	2	0	2	0	0	0	0	0	0	0
AF4532-8	0	1	1	2	3	0	0	0	0	0	0	0
AF4532-9	1	0	1	0	2	0	0	3	0	0	0	0
AF4550-2	0	1	0	0	1	0	0	0	0	0	0	0
AF4552-5	0	0	2	0	2	0	0	0	0	0	0	0
AF4565-1	0	1	0	1	2	0	0	0	0	3	0	0
AF4566-4	1	1	0	0	2	0	0	0	0	0	3	0
AF4573-2	1	4	1	0	5	0	0	10	0	3	3	0
AF4614-2	0	1	1	0	2	0	0	0	0	0	0	0
AF4640-1	0	1	1	0	2	0	0	0	0	0	0	0
AF4730-2	1	0	0	0	1	0	0	0	0	0	0	0
AF4815-1	1	2	0	0	4	0	0	8	0	0	0	0
AF4845-3	4	1	1	1	6	0	0	0	0	0	0	0
AF4852-2	3	1	1	0	4	0	0	5	0	0	0	0
AF4852-4	2	2	1	0	5	0	0	0	0	0	0	0
AF4914-4	0	5	1	0	7	0	0	0	0	0	0	0
AF4950-2	0	0	0	0	0	3	0	0	0	0	0	0
AF4953-2	0	0	3	0	3	0	0	0	0	3	0	0
AF4953-6	0	0	0	0	0	0	0	0	0	0	0	0
AF4963-5	1	0	0	0	1	0	0	0	0	0	0	0
AF4985-1	3	0	0	1	4	0	0	0	0	0	0	0
MSD[3]	3	2	2	ns	4	ns	ns	ns	ns	5	ns	ns
P Value	*<.0001*	*<.0001*	*<.0001*	*0.4335*	*<.0001*	*0.6660*	*0.0816*	*0.0819*	*0.4830*	*0.0471*	*0.4830*	*ns*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 8. UNIVERSITY OF MAINE EARLY LINE , 2013

General Comments

A goal of this University of Maine potato variety trial is to continue gathering data on early-line potato selections for potential Florida production.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 16, 2013
Vine Kill Dates	N/A
Harvest Date	April 30, 2013
Season Length	104 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	8 (Standard: Atlantic)
Number of Clones	66
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	1
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	AF5281-4 (355 cwt or 39.7 T/ha)
Highest Marketable Yield	AF5280-5 (321 cwt or 35.9 T/ha)

Table 21. Production facts for University of Maine Early-Line potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Atlantic	219	188	100	1	9	68	11	12	0	90	23	1.066
Harley Blackwell	207	179	95	3	8	55	18	16	0	89	34	1.071
Fabula	159	129	69	1	14	61	14	11	0	85	24	1.054
Goldrush	209	165	88	2	18	64	12	5	0	80	16	1.054
LaChipper	136	118	63	4	8	79	3	6	0	88	9	1.063
Satina	151	131	70	2	9	59	27	3	0	89	30	1.055
Snowden	231	193	103	1	10	63	8	17	0	88	25	1.068
Yukon Gold	178	131	70	4	13	75	4	5	0	84	9	1.070
AF0338-17	199	156	83	1	13	61	8	18	0	86	25	1.066
AF5025-2	98	40	21	14	45	41	0	0	0	41	0	1.056
AF5031-7	162	115	61	4	15	70	3	8	0	81	11	1.066
AF5033-1	208	200	106	0	4	56	18	22	0	96	40	1.066
AF5033-11	214	190	101	2	9	77	10	2	0	89	12	1.066
AF5037-2	170	143	76	3	13	81	3	0	0	84	3	1.073
AF5038-1	213	147	78	2	8	85	6	0	0	90	6	1.065
AF5039-17	163	134	71	2	10	82	3	4	0	88	7	1.060
AF5040-4	251	211	112	1	3	35	23	39	0	96	61	1.058
AF5040-8	281	249	132	1	7	71	12	10	0	93	22	1.069
AF5042-8	208	171	91	2	13	53	29	3	0	85	32	1.063
AF5044-21	250	174	93	4	26	68	2	0	0	70	2	1.068

Table 21 (cont'd). Production facts for University of Maine Early-Line potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF5048-1	168	90	48	1	42	57	0	0	0	57	0	1.062
AF5050-13	289	246	131	2	7	83	6	2	0	91	8	1.065
AF5050-5	220	166	88	1	19	67	0	13	0	80	13	1.065
AF5060-27	305	252	134	1	15	76	2	6	0	84	8	1.065
AF5068-3	210	177	94	2	10	60	18	10	0	88	28	1.068
AF5071-2	217	128	68	6	35	59	0	0	0	59	0	1.064
AF5072-1	229	185	98	3	17	81	0	0	0	81	0	1.059
AF5072-4	250	195	104	1	18	71	9	0	0	80	9	1.067
AF5084-1	207	177	94	3	7	68	10	12	0	90	22	1.062
AF5086-4	259	215	114	1	12	84	3	0	0	87	3	1.600
AF5090-6	212	148	79	3	25	72	0	0	0	72	0	1.056
AF5091-8	288	213	113	3	19	69	9	0	0	78	9	1.059
AF5131-2	231	179	95	2	13	73	10	2	0	85	12	1.059
AF5138-2	225	191	102	2	10	46	18	24	0	89	43	1.066
AF5140-1	232	204	109	2	5	49	14	30	0	92	44	1.066
AF5141-6	164	135	72	4	12	47	11	25	0	84	37	1.065
AF5142-1	277	180	96	4	30	55	6	4	0	65	10	1.066
AF5142-3	174	145	77	2	15	80	3	0	0	83	3	1.070
AF5144-7	183	152	81	1	16	59	8	16	0	83	24	1.057
AF5147-9	221	157	84	4	25	60	5	6	0	71	11	1.061

Table 21 (cont'd). Production facts for University of Maine Early-Line potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF5150-1	300	213	114	3	26	66	2	3	0	71	5	1.057
AF5153-11	223	160	85	3	15	60	13	9	0	82	22	1.064
AF5160-7	192	148	79	3	17	73	3	4	0	80	7	1.062
AF5164-19	200	107	57	4	38	58	0	0	0	58	0	1.063
AF5166-2	157	119	63	2	19	74	5	0	0	80	5	1.071
AF5168-3	220	143	76	5	29	64	3	0	0	67	3	1.064
AF5179-4	117	81	43	4	25	71	0	0	0	71	0	1.068
AF5181-8	194	115	61	7	32	62	0	0	0	62	0	1.072
AF5189-3	304	210	112	3	27	64	6	0	0	70	6	1.060
AF5193-1	222	201	107	2	6	59	24	8	0	91	32	1.070
AF5202-1	247	152	81	7	31	62	0	0	0	62	0	1.063
AF5203-7	195	121	65	3	31	67	0	0	0	67	0	1.058
AF5215-2	180	74	39	14	45	42	0	0	0	42	0	1.063
AF5243-2	179	128	68	7	20	67	6	0	0	73	6	1.058
AF5245-1	264	171	91	4	28	67	2	0	0	68	2	1.072
AF5274-6	180	128	68	5	24	68	0	3	0	71	3	1.057
AF5275-1	181	100	53	11	31	55	3	0	0	58	3	1.061
AF5276-2	193	108	58	5	35	61	0	0	0	61	0	1.061
AF5278-3	139	89	47	3	32	61	4	0	0	65	4	1.064
AF5280-1	262	218	116	2	8	52	32	5	0	90	38	1.059

Table 21 (cont'd). Production facts for University of Maine Early-Line potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF5280-2	224	132	70	4	27	66	3	0	0	69	3	1.069
AF5280-5	352	321	171	1	7	65	21	6	0	92	27	1.060
AF5281-4	355	307	163	1	9	78	7	5	0	90	12	1.077
AF5283-1	179	139	74	3	20	78	0	0	0	78	0	1.052
AF5286-2	281	211	112	4	18	74	2	2	0	78	4	1.073
AF5289-2	226	167	89	1	16	71	7	5	0	83	12	1.060
AF5292-4	238	178	95	3	19	69	8	0	0	78	8	1.068
AF5301-2	180	112	60	8	30	62	0	0	0	62	0	1.075
AF5305-3	223	138	74	4	33	56	3	3	0	63	7	1.066
AF5306-4	88	49	26	6	37	58	0	0	0	58	0	1.056
AF5312-2	215	133	71	5	33	55	0	7	0	62	7	1.056
AF5345-1	275	199	106	5	20	70	5	0	0	74	5	1.065
AF5356-3	200	128	68	4	31	65	0	0	0	65	0	1.055
AF5358-1	266	177	94	4	30	67	0	0	0	67	0	1.068

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 22. Plant growth and tuber characteristics of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance
Atlantic	67	na	8-5	7	5
Harley Blackwell	50	na	7-4	7-8	5
Fabula	54	na	7-4	9	5
Goldrush	67	na	5-8	6-7	5
LaChipper	33	na	5-8	7-8	3
Satina	50	na	8-5	8-7	4
Snowden	88	na	6	7	6
Yukon Gold	88	na	5	5	5
AF0338-17	92	na	5	7	5
AF5025-2	46	na	8	9	5
AF5031-7	88	na	5	5	5
AF5033-1	79	na	7-4	7	6
AF5033-11	71	na	5	5	6
AF5037-2	88	na	8-5	6	6
AF5038-1	71	na	5-8	7	5
AF5039-17	67	na	7-4	5	5
AF5040-4	67	na	8-5	7	7
AF5040-8	67	na	5	6	6
AF5042-8	88	na	5-8	5	5
AF5044-21	92	na	6	5	5

Table 22 (cont'd). Plant growth and tuber characteristics of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance
AF5048-1	88	na	8-5	6	4
AF5050-13	92	na	6-9	6	7
AF5050-5	83	na	8-5	8	7
AF5060-27	92	na	9	7	6
AF5068-3	79	na	8-5	7	6
AF5071-2	83	na	8-5	6	5
AF5072-1	88	na	8	6	6
AF5072-4	88	na	8-5	5	6
AF5084-1	67	na	8-5	6	5
AF5086-4	88	na	5	6	5
AF5090-6	67	na	9-6	8-5	5
AF5091-8	79	na	6	5	4
AF5131-2	79	na	8	7	5
AF5138-2	58	na	8-5	9	5
AF5140-1	88	na	5-8	5	5
AF5141-6	50	na	7-4	8-9	6
AF5142-1	75	na	8-5	6	6
AF5142-3	79	na	7-4	6	6
AF5144-7	83	na	8-5	6	6
AF5147-9	79	na	8-5	7	5

Table 22 (cont'd). Plant growth and tuber characteristics of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance
AF5150-1	88	na	6-9	5	5
AF5153-11	71	na	5-8	6	5
AF5160-7	83	na	5-8	5	5
AF5164-19	79	na	8-5	6	5
AF5166-2	67	na	7-4	6	6
AF5168-3	71	na	5	5	5
AF5179-4	96	na	9	8-7	5
AF5181-8	71	na	5-8	6	5
AF5189-3	92	na	5-8	7	6
AF5193-1	83	na	5	6	5
AF5202-1	92	na	8-5	5	5
AF5203-7	79	na	8-5	6	5
AF5215-2	71	na	8-5	7	6
AF5243-2	71	na	5	5	3
AF5245-1	83	na	5	6	6
AF5274-6	96	na	5	5	4
AF5275-1	83	na	8	7	5
AF5276-2	96	na	5-8	4	5
AF5278-3	92	na	5	4	4
AF5280-1	100	na	9-6	7	6

Table 22 (cont'd). Plant growth and tuber characteristics of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance
AF5280-2	79	na	8-5	6	4
AF5280-5	100	na	9-6	6	5
AF5281-4	100	na	8-5	5	5
AF5283-1	92	na	5	4	6
AF5286-2	92	na	5	7	5
AF5289-2	75	na	7-4	7	5
AF5292-4	79	na	8-5	7	5
AF5301-2	75	na	8-5	7	5
AF5305-3	75	na	8	9	5
AF5306-4	42	na	8	9	5
AF5312-2	42	na	8-5	7	5
AF5345-1	100	na	5-8	5	6
AF5356-3	83	na	7-4	6	4
AF5358-1	83	na	5-8	5	5

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 23. External and internal defects of University of Maine Early-Line potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	3	0	0	2	5	0	0	0	0	10	10	0
Harley Blackwell	0	0	2	1	3	10	0	0	10	0	0	0
Fabula	5	0	0	0	5	0	0	0	0	10	0	0
Goldrush	0	2	0	0	2	0	0	0	0	0	0	0
LaChipper	0	0	2	0	2	0	0	0	0	0	10	0
Satina	0	2	0	0	2	0	0	0	0	0	10	0
Snowden	0	0	6	0	6	0	0	0	0	10	0	0
Yukon Gold	0	6	6	0	12	0	0	0	0	0	0	0
AF0338-17	5	4	0	0	9	0	0	0	0	0	0	0
AF5025-2	0	0	0	0	0	0	0	0	0	10	10	40
AF5031-7	2	0	8	2	12	0	0	0	0	10	0	0
AF5033-1	0	0	0	0	0	0	0	0	0	0	0	0
AF5033-11	0	0	0	0	0	0	0	0	0	0	0	0
AF5037-2	0	0	0	0	0	0	0	0	0	0	0	0
AF5038-1	19	2	2	0	23	0	0	0	0	0	0	0
AF5039-17	0	2	5	0	7	0	0	0	0	0	0	0
AF5040-4	3	0	8	1	12	0	0	0	0	0	0	10
AF5040-8	0	3	0	1	4	0	0	0	0	0	0	0
AF5042-8	0	0	4	0	4	0	0	0	0	0	0	0
AF5044-21	0	0	0	0	0	0	0	0	0	0	0	0

Table 23 (cont'd). External and internal defects of University of Maine Early-Line potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
AF5048-1	5	0	1	0	6	0	0	0	0	0	0	0
AF5050-13	0	1	6	0	7	0	0	0	0	0	0	0
AF5050-5	0	0	6	0	6	0	0	10	10	0	0	0
AF5060-27	0	0	1	0	1	0	0	0	0	10	0	0
AF5068-3	0	0	5	0	5	0	0	0	0	0	0	0
AF5071-2	0	0	0	0	0	0	0	0	0	0	0	0
AF5072-1	0	0	0	0	0	0	0	0	0	0	0	0
AF5072-4	1	2	0	0	3	0	0	0	0	0	0	0
AF5084-1	0	0	4	1	5	0	0	0	0	0	10	0
AF5086-4	4	0	1	0	5	0	0	0	0	0	0	0
AF5090-6	0	3	1	0	4	0	0	0	0	0	0	0
AF5091-8	0	5	0	0	5	0	0	0	0	0	0	0
AF5131-2	3	6	0	0	9	0	0	0	0	0	10	0
AF5138-2	1	0	3	0	4	0	0	0	0	0	0	0
AF5140-1	4	1	0	0	5	0	0	0	10	0	0	0
AF5141-6	0	0	2	0	2	0	0	0	0	0	0	0
AF5142-1	0	0	1	0	1	0	0	0	0	0	0	0
AF5142-3	0	0	0	0	0	0	0	0	0	0	0	0
AF5144-7	0	0	0	0	0	0	0	0	0	0	0	0
AF5147-9	0	0	0	0	0	0	0	0	0	0	0	0

Table 23 (cont'd). External and internal defects of University of Maine Early-Line potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
AF5150-1	0	0	0	0	0	0	0	0	0	0	0	0
AF5153-11	12	0	0	0	12	0	0	0	0	0	0	0
AF5160-7	2	1	0	0	3	0	0	0	0	0	0	0
AF5164-19	0	2	5	0	7	0	0	0	0	0	0	0
AF5166-2	2	4	0	0	5	10	0	0	0	0	0	0
AF5168-3	1	2	0	0	3	0	0	0	0	0	0	0
AF5179-4	0	3	0	0	3	0	0	0	0	0	0	0
AF5181-8	0	0	4	0	4	0	0	0	0	0	0	0
AF5189-3	0	0	1	0	1	0	0	0	0	0	0	0
AF5193-1	0	1	0	0	1	0	0	0	0	0	0	0
AF5202-1	0	0	0	1	1	20	0	0	0	20	10	0
AF5203-7	5	0	2	0	7	0	0	0	0	0	0	0
AF5215-2	0	2	0	0	2	0	0	0	0	0	0	0
AF5243-2	0	0	2	0	2	0	0	0	0	0	0	0
AF5245-1	3	1	0	2	5	0	0	0	0	0	0	0
AF5274-6	0	0	0	0	0	0	0	0	0	0	0	0
AF5275-1	0	0	0	5	5	0	0	10	0	0	0	0
AF5276-2	4	1	0	3	8	0	0	30	0	0	0	0
AF5278-3	0	0	2	0	2	0	0	0	0	0	0	0
AF5280-1	1	4	2	0	7	0	0	0	0	0	0	0

Table 23 (cont'd). External and internal defects of University of Maine Early-Line potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
AF5280-2	3	11	1	0	15	0	0	0	0	0	0	0
AF5280-5	0	0	1	0	1	0	0	0	0	10	0	0
AF5281-4	0	1	3	0	4	0	0	0	0	0	0	0
AF5283-1	0	0	0	0	0	0	0	0	0	0	0	0
AF5286-2	4	0	0	0	4	0	0	0	0	10	0	0
AF5289-2	8	3	0	0	11	0	0	0	0	0	0	10
AF5292-4	0	4	0	0	4	0	0	0	0	0	10	30
AF5301-2	0	0	0	0	0	0	0	0	0	0	0	0
AF5305-3	0	1	1	0	1	0	0	0	0	0	0	0
AF5306-4	0	0	3	0	3	0	0	0	0	0	0	0
AF5312-2	0	0	0	0	0	0	0	0	0	0	0	0
AF5345-1	0	3	0	0	3	0	0	10	10	0	0	0
AF5356-3	0	1	0	0	1	0	0	0	0	0	0	0
AF5358-1	0	0	0	0	0	0	0	0	0	0	0	0

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 9. UNIVERSITY OF MAINE EARLY GENERATION, 2013

General Comments

The University of Maine Early Generation gives us an opportunity to look at the newest breeding clones for the first time. The plot size is limited to 8 hills, as seed supply is limited. This trial only evaluated red and purple-skinned clones.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 16, 2013
Vine Kill Dates	April 25, 2013
Harvest Date	May 13, 2013
Season Length	99 days planting to vine kill; 117 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	7 (Standard: Red LaSoda)
Number of Clones	41
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	1
Plot Size	5.3 ft (2.5 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	Chieftain (433 cwt or 48.5 T/ha)

Table 24. Production statistics for the University of Maine Early Generation potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
Red LaSoda	151	100	100	2	10	62	27	0	0	89	27	1.052
Atlantic	232	152	152	0	5	60	25	10	0	95	35	1.064
All Blue	239	123	123	6	39	55	0	0	0	55	0	1.061
Chieftain	433	294	295	1	13	69	8	9	0	86	17	1.055
Dark Red Norland	214	171	171	4	6	90	0	0	0	90	0	1.057
Dark Red Norland	246	133	133	5	28	51	17	0	0	67	17	1.063
Peter Wilcox	284	204	205	4	17	67	11	0	0	78	11	1.051
AAF07152-4	137	40	40	4	52	44	0	0	0	44	0	1.055
AAF07254-1	158	94	95	3	32	65	0	0	0	65	0	na
AF5375-3	187	75	76	7	51	42	0	0	0	42	0	na
AF5377-1	na	na	na	na	na	na	na	na	na	na	na	na
AF5378-1	192	87	88	10	31	51	9	0	0	59	9	na
AF5380-2	272	226	227	0	2	51	47	0	0	98	47	1.053
AF5412-1	237	173	174	0	20	80	0	0	0	80	0	1.056
AF5414-1	209	108	109	6	37	57	0	0	0	57	0	1.059
AF5441-2	150	110	110	3	21	76	0	0	0	76	0	1.060
AF5441-3	125	54	54	4	41	56	0	0	0	56	0	1.053
NDAF092239CB-2	115	80	81	8	11	82	0	0	0	82	0	1.054
NDAF092241C-3	332	263	264	1	15	83	0	0	0	83	0	1.062
NDAF092274b-2	272	207	208	0	5	87	0	8	0	95	8	1.052
NDAF092283B-2	306	208	208	0	5	40	18	37	0	95	55	1.054
NDAF092309C-1	172	111	111	6	28	66	0	0	0	66	0	1.061
NDAF102545B-2	109	11	11	17	73	11	0	0	0	11	0	1.061
NDAF102546B-2	227	173	173	3	11	86	0	0	0	86	0	1.054

Table 24 (cont'd). Production statistics for the University of Maine Early Generation potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
NDAF102566B-6	220	137	138	0	1	66	32	0	0	99	32	1.049
NDAF102567B-2	142	68	68	7	18	74	0	0	0	74	0	1.058
NDAF102569C-1	174	113	113	4	7	79	9	0	0	88	9	1.056
NDAF102569C-2	106	55	55	7	30	63	0	0	0	63	0	1.063
NDAF102573-1	68	29	29	6	48	46	0	0	0	46	0	1.062
NDAF102573-2	74	49	49	12	23	66	0	0	0	66	0	na
NDAF102573-3	140	98	99	7	8	85	0	0	0	85	0	1.063
NDAF102574-1	125	69	69	8	23	69	0	0	0	69	0	1.051
NDAF102574-3	191	119	120	3	5	92	0	0	0	92	0	1.053
NDAF102575B-1	207	126	126	0	6	94	0	0	0	94	0	1.050
NDAF102575B-3	251	202	203	1	13	86	0	0	0	86	0	1.057
NDAF102575B-5	208	115	116	8	29	64	0	0	0	64	0	1.063
NDAF102575B-6	214	136	137	6	5	69	20	0	0	88	20	1.055
NDAF102575B-7	269	196	197	3	20	68	9	0	0	77	9	1.055
NDAF102576B-1	na	na	na	na	na	na	na	na	na	na	na	na
NDAF102576B-4	na	na	na	na	na	na	na	na	na	na	na	na
NDAF102579C-2	269	176	176	2	10	67	6	15	0	88	22	1.051
WAF10104R-4	240	218	219	2	1	66	31	0	0	97	31	1.060
WAF10114R-3	306	242	243	1	6	46	29	18	0	93	47	1.066
WAF10209R-6	296	232	233	1	0	61	29	8	0	99	37	1.055
WAF10209R-8	257	165	165	6	5	63	8	17	0	88	25	1.055
W6002-1R	189	158	158	1	6	76	16	0	0	92	16	1.051
W6511-1R	285	172	173	4	18	79	0	0	0	79	0	1.063
W8405-1R	256	151	151	4	23	65	8	0	0	73	8	1.059

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 25. Plant growth and tuber characteristics of the University of Maine Early Generation potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	APP
Red LaSoda	63	na	5-8	8	5
Atlantic	100	na	8-5	7	6
All Blue	88	na	8-5	8	5
Chieftain	63	na	8	8	5
Dark Red Norland	100	na	5	6	5
Dark Red Norland	75	na	5	6	5
Peter Wilcox	75	na	5-8	7	5
AAF07152-4	63	na	5-8	7	5
AAF07254-1	100	na	5	6	5
AF5375-3	100	na	6 -9	6	5
AF5377-1	100	na	6-9	7	na
AF5378-1	100	na	6	5	5
AF5380-2	100	na	6-9	7	6
AF5412-1	100	na	5	7	6
AF5414-1	100	na	6	6	5
AF5441-2	100	na	5-8	5	5
AF5441-3	88	na	4-1	5	5
NDAF092239CB-2	88	na	5	5	6
NDAF092241C-3	88	na	5	7	6
NDAF092274b-2	100	na	5-8	7	6
NDAF092283B-2	88	na	6-9	7	5
NDAF092309C-1	88	na	4-7	6	5
NDAF102545B-2	100	na	4-7	5	5
NDAF102546B-2	88	na	5	6	5

Table 25 (cont'd). Plant growth and tuber characteristics of the University of Maine Early Generation potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	APP
NDAF102566B-6	88	na	5	8	5
NDAF102567B-2	88	na	8	5	5
NDAF102569C-1	100	na	5	6	5
NDAF102569C-2	75	na	7-4	5	5
NDAF102573-1	88	na	7-4	3	6
NDAF102573-2	88	na	7	5	5
NDAF102573-3	100	na	7-4	5	5
NDAF102574-1	100	na	8-5	5	5
NDAF102574-3	100	na	5-8	8	5
NDAF102575B-1	88	na	6	6	5
NDAF102575B-3	100	na	5-2	6	5
NDAF102575B-5	88	na	5-8	5	7
NDAF102575B-6	88	na	5-8	5	5
NDAF102575B-7	100	na	5	5	6
NDAF102576B-1	100	na	8-5	7	na
NDAF102576B-4	88	na	6-9	5	na
NDAF102579C-2	88	na	6-9	7	5
WAF10104R-4	100	na	9-6	6	5
WAF10114R-3	100	na	5-8	6	5
WAF10209R-6	88	na	8-5	6	7
WAF10209R-8	100	na	5-8	5	6
W6002-1R	100	na	4	5	5
W6511-1R	100	na	8-5	8	5
W8405-1R	100	na	5-8	6	5

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 26. External and internal defects of the University of Maine Early Generation potato selections.

	% External Tuber Defects					% Internal Defects[2]							
	Growth	Mis-	Sun-	Rotten	Total							Brown Center	
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN		L	M	H
Red LaSoda	6	0	0	19	25	na	na	na	na	na	na	na	na
Atlantic	7	0	24	0	31	na	na	na	na	na	na	na	na
All Blue	0	0	5	2	7	na	na	na	na	na	na	na	na
Chieftain	8	4	7	3	21	na	na	na	na	na	na	na	na
Dark Red Norland	0	0	11	0	11	na	na	na	na	na	na	na	na
Dark Red Norland	0	6	14	0	20	na	na	na	na	na	na	na	na
Peter Wilcox	0	0	3	5	8	na	na	na	na	na	na	na	na
AAF07152-4	0	0	11	23	34	na	na	na	na	na	na	na	na
AAF07254-1	0	6	0	3	8	na	na	na	na	na	na	na	na
AF5375-3	0	4	0	0	4	na	na	na	na	na	na	na	na
AF5377-1	0	0	0	0	0	na	na	na	na	na	na	na	na
AF5378-1	0	10	5	8	24	na	na	na	na	na	na	na	na
AF5380-2	16	0	0	0	16	na	na	na	na	na	na	na	na
AF5412-1	0	4	0	5	9	na	na	na	na	na	na	na	na
AF5414-1	0	0	0	9	9	na	na	na	na	na	na	na	na
AF5441-2	0	0	4	0	4	na	na	na	na	na	na	na	na
AF5441-3	0	0	9	13	22	na	na	na	na	na	na	na	na
NDAF092239CB-2	0	0	15	0	15	na	na	na	na	na	na	na	na
NDAF092241C-3	0	0	5	0	5	na	na	na	na	na	na	na	na
NDAF092274b-2	0	0	17	2	20	na	na	na	na	na	na	na	na
NDAF092283B-2	9	0	20	0	28	na	na	na	na	na	na	na	na
NDAF092309C-1	0	0	2	0	2	na	na	na	na	na	na	na	na
NDAF102545B-2	0	5	0	0	5	na	na	na	na	na	na	na	na
NDAF102546B-2	0	0	12	0	12	na	na	na	na	na	na	na	na

Table 26 (cont'd). External and internal defects of the University of Maine Early Generation potato selections.

	% External Tuber Defects					% Internal Defects[2]							
	Growth	Mis-	Sun-	Rotten	Total						Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN		L	M	H
NDAF102566B-6	0	0	17	20	37	na	na	na	na	na	na	na	na
NDAF102567B-2	14	0	0	22	36	na	na	na	na	na	na	na	na
NDAF102569C-1	0	3	3	21	27	na	na	na	na	na	na	na	na
NDAF102569C-2	0	0	13	4	17	na	na	na	na	na	na	na	na
NDAF102573-1	7	0	0	0	7	na	na	na	na	na	na	na	na
NDAF102573-2	0	0	0	0	0	na	na	na	na	na	na	na	na
NDAF102573-3	0	0	9	8	18	na	na	na	na	na	na	na	na
NDAF102574-1	6	0	0	15	21	na	na	na	na	na	na	na	na
NDAF102574-3	28	0	0	4	32	na	na	na	na	na	na	na	na
NDAF102575B-1	4	0	31	0	35	na	na	na	na	na	na	na	na
NDAF102575B-3	0	0	6	0	6	na	na	na	na	na	na	na	na
NDAF102575B-5	0	0	4	9	13	na	na	na	na	na	na	na	na
NDAF102575B-6	10	0	0	18	28	na	na	na	na	na	na	na	na
NDAF102575B-7	0	0	3	2	6	na	na	na	na	na	na	na	na
NDAF102576B-1	na	na	na	na	na	na	na	na	na	na	na	na	na
NDAF102576B-4	na	na	na	na	na	na	na	na	na	na	na	na	na
NDAF102579C-2	3	0	9	13	26	na	na	na	na	na	na	na	na
WAF10104R-4	0	0	0	6	6	na	na	na	na	na	na	na	na
WAF10114R-3	5	0	10	0	15	na	na	na	na	na	na	na	na
WAF10209R-6	0	0	6	14	21	na	na	na	na	na	na	na	na
WAF10209R-8	0	0	13	15	28	na	na	na	na	na	na	na	na
W6002-1R	0	0	9	0	9	na	na	na	na	na	na	na	na
W6511-1R	0	17	0	6	23	na	na	na	na	na	na	na	na
W8405-1R	0	7	4	8	19	na	na	na	na	na	na	na	na

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 10. NATIONAL CHIP PROCESSING TRIAL, 2013

General Comments

In the past, many selections from breeding programs may have been eliminated before they have had an opportunity to be evaluated in many locations. This study has been set up to evaluate the earliest selections from public breeding programs. These selections are also evaluated in several other locations across the United States. Clones that performed the best at multiple locations are then compared and kept for further evaluation. This trial is supported by the United States Potato Board.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	February 1, 2013
Vine Kill Dates	N/A
Harvest Date	May 20, 2013
Season Length	108 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	6 (Standard: Atlantic)
Number of Clones	215
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	1 & 2
Plot Size	10 ft (3.3 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	W2324-1 (314 cwt or 35.1 T/ha)
Highest Marketable Yield	W2324-1 (265 cwt or 29.7 T/ha)

Table 27. Production statistics for the USPB National Chip Processing Trial potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	184	52	100	5	9	86	0	0	0	86	0	1.056
Elkton	209	104	200	3	15	59	24	0	0	82	24	1.058
Harley Blackwell	185	85	164	14	32	55	0	0	0	55	0	1.057
Marcy	153	85	164	7	25	68	0	0	0	68	0	1.056
Snowden	125	66	128	10	36	55	0	0	0	55	0	1.057
Beacon Chipper	143	85	164	5	17	78	0	0	0	78	0	1.065
B2842-1	132	39	76	26	40	34	0	0	0	34	0	1.058
B2869-15	178	112	216	3	27	70	0	0	0	70	0	1.058
B2869-20	198	127	244	6	21	68	4	0	0	73	4	1.062
B2869-25	111	55	106	5	37	58	0	0	0	58	0	1.062
B2869-29	199	101	194	6	32	62	0	0	0	62	0	1.059
B2883-11	180	73	141	11	41	48	0	0	0	48	0	1.060
B2895-8	192	66	127	8	48	44	0	0	0	44	0	1.060
B2904-2	256	171	329	6	10	84	0	0	0	84	0	1.056
B2936-2	197	33	64	25	56	19	0	0	0	19	0	1.062
B2947-4	187	93	179	6	32	62	0	0	0	62	0	1.060
B2947-8	225	129	247	6	26	67	0	0	0	67	0	1.054
B2950-2	216	51	99	8	30	62	0	0	0	62	0	na
B2950-3	272	163	313	5	16	79	0	0	0	79	0	1.055
B2951-5	230	133	255	5	7	88	0	0	0	88	0	1.069
B2960-4	244	102	195	5	13	82	0	0	0	82	0	1.055
BNC311-4	230	73	141	4	15	81	0	0	0	81	0	1.057
BNC313-3	173	115	221	4	21	75	0	0	0	75	0	1.063
BNC317-8	212	134	258	6	26	67	0	0	0	67	0	1.061

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
ATTX07042-3W	219	137	264	4	25	71	0	0	0	71	0	1.058
COTX09089-1Ru	274	211	407	2	7	91	0	0	0	91	0	1.057
NDTX060700C-1W	165	33	64	16	63	22	0	0	0	22	0	1.062
NDTX071109C-1W	274	185	355	5	9	75	11	0	0	86	11	1.050
NDTX071217CB-1W/Y	208	105	201	7	32	61	0	0	0	61	0	1.059
NDTX081644CAB-2W	240	88	168	10	44	46	0	0	0	46	0	1.057
NDTX081648CB-13W	306	209	402	2	17	80	0	0	0	80	0	1.056
NDTX081648CB-1W	283	174	335	2	7	81	10	0	0	91	10	1.057
NDTX081648CB-2W	290	153	295	1	18	77	4	0	0	81	4	1.052
NDTX081648CB-4W	243	77	149	6	22	72	0	0	0	72	0	1.053
NDTX091908AB-2W	268	148	285	7	25	68	0	0	0	68	0	1.059
TX09396-1W	276	199	383	0	2	69	29	0	0	98	29	1.066
AF4736-10	163	98	188	3	9	81	6	0	0	88	6	1.057
AF4740-1	237	178	343	1	3	96	0	0	0	96	0	1.063
AF4747-5	189	147	282	2	4	95	0	0	0	95	0	1.059
AF4971-3	244	178	342	2	10	88	0	0	0	88	0	1.058
AF4975-3	200	72	138	5	10	85	0	0	0	85	0	1.060
AF5038-1	161	95	182	1	18	73	8	0	0	81	8	1.057
AF5038-6	286	134	258	2	22	76	0	0	0	76	0	1.056
AF5040-8	218	90	172	7	22	71	0	0	0	71	0	1.064
AF5081-4	262	168	322	1	4	95	0	0	0	95	0	1.064
AF5138-2	246	167	321	1	10	79	0	11	0	89	11	1.063
AF5142-3	249	162	312	3	9	87	0	0	0	87	0	1.055
AF5286-2	209	124	239	3	17	81	0	0	0	81	0	1.062

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
AF5320-1	231	170	328	6	17	78	0	0	0	78	0	1.060
AF5152-2	213	91	175	1	15	84	0	0	0	84	0	1.059
AF5152-3	200	111	214	2	10	87	0	0	0	87	0	1.057
NC0349-3	211	114	220	3	6	73	17	0	0	90	17	1.063
NC182-5	237	164	315	8	19	73	0	0	0	73	0	1.064
NC268-1	167	92	177	5	29	66	0	0	0	66	0	1.062
NCB2833-7	174	97	186	5	20	74	0	0	0	74	0	1.058
MST094-1	150	84	162	2	26	71	0	0	0	71	0	1.065
MST154-3	198	120	231	5	19	76	0	0	0	76	0	1.056
MST191-2Y	226	69	133	9	23	68	0	0	0	68	0	1.058
MST229-1	156	90	173	7	22	72	0	0	0	72	0	1.058
MST441-1	174	72	139	3	33	64	0	0	0	64	0	1.057
MST443-1	154	56	108	8	35	57	0	0	0	57	0	1.058
MST458-4	86	59	114	3	3	94	0	0	0	94	0	1.061
MSU245-1	206	50	95	4	16	80	0	0	0	80	0	na
MSV030-4	168	95	183	3	30	67	0	0	0	67	0	1.067
MSV241-2	209	153	294	3	9	89	0	0	0	89	0	1.067
MSV301-2	191	68	131	4	20	75	0	0	0	75	0	1.061
MSV358-3	77	29	55	10	23	67	0	0	0	67	0	na
MSV380-1	182	101	194	4	18	78	0	0	0	78	0	1.057
MSV394-3	105	42	81	16	29	55	0	0	0	55	0	1.054
MSV498-1	246	170	327	3	22	75	0	0	0	75	0	1.049
MSV505-02	135	79	153	2	14	84	0	0	0	84	0	1.058
MSW068-4	203	129	247	1	10	89	0	0	0	89	0	1.055

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
MSW075-1	147	64	123	3	35	62	0	0	0	62	0	1.050
MSW123-3	207	134	258	8	15	78	0	0	0	78	0	1.052
MSW252-2	160	79	152	7	37	57	0	0	0	57	0	1.058
MSW259-6	227	147	283	4	6	90	0	0	0	90	0	1.054
MSW293-1	175	102	196	6	26	68	0	0	0	68	0	1.060
MSW299-2	115	16	31	22	61	17	0	0	0	17	0	na
MSW326-6	110	0	0	14	86	0	0	0	0	0	0	na
MSW360-18	207	140	270	7	17	76	0	0	0	76	0	1.060
MSW450-1	126	30	57	9	23	68	0	0	0	68	0	na
MSW474-1	132	29	56	15	60	25	0	0	0	25	0	na
MSW485-2	231	125	241	6	34	60	0	0	0	60	0	1.053
MSW500-4	87	34	65	7	36	58	0	0	0	58	0	na
MSW501-2	124	44	84	17	45	38	0	0	0	38	0	1.064
MSW501-5	243	156	301	2	6	91	0	0	0	91	0	1.055
MSW509-5	211	139	268	3	12	86	0	0	0	86	0	1.055
A01143-3C	241	156	299	6	23	71	0	0	0	71	0	1.057
A00206-1C	200	135	260	4	11	85	0	0	0	85	0	1.053
NYWJ11-5	277	209	401	3	10	87	0	0	0	87	0	1.070
NYWJ2-4	242	159	307	2	8	91	0	0	0	91	0	1.057
W9570-1	185	136	262	1	3	96	0	0	0	96	0	1.060
W9577-6Y	277	180	346	2	17	81	0	0	0	81	0	1.054
W9200-7	202	145	279	2	6	92	0	0	0	92	0	1.054
W9202-2	237	170	327	2	9	89	0	0	0	89	0	1.061
W9225-1	180	102	196	2	30	68	0	0	0	68	0	1.059

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
W9285-3Y	225	137	263	5	18	71	6	0	0	77	0	1.056
MN07160WB-01	170	97	186	5	33	61	0	0	0	61	0	1.051
MN07161WB-01	83	39	75	7	40	52	0	0	0	52	0	na
MN08025BW-01	129	75	145	7	27	66	0	0	0	66	0	1.056
MN08101BW-01	104	76	145	2	19	79	0	0	0	79	0	1.049
MN09041BB-01	205	161	309	2	4	87	6	0	0	94	0	1.064
MN09059BB-01	100	47	90	5	33	63	0	0	0	63	0	1.058
AF4157-6	160	74	143	3	29	68	0	0	0	68	0	1.060
AF4157-6	157	97	187	5	17	78	0	0	0	78	0	1.058
AF4386-16	201	102	196	2	13	85	0	0	0	85	0	1.060
AF4386-16	195	95	183	8	26	66	0	0	0	66	0	1.060
AF4552-5	203	62	119	3	15	82	0	0	0	82	0	1.055
AF4552-5	161	96	184	5	20	76	0	0	0	76	0	1.058
AF4573-2	240	94	181	3	28	69	0	0	0	69	0	1.058
AF4573-2	209	67	129	8	35	57	0	0	0	57	0	1.052
AF4648-2	209	158	304	4	6	91	0	0	0	91	0	1.056
AF4648-2	138	76	146	9	16	75	0	0	0	75	0	1.047
MSK061-4	130	86	165	4	18	78	0	0	0	78	0	1.054
MSK061-4	183	73	140	6	37	56	0	0	0	56	0	1.052
MSL292-A	164	88	170	3	7	90	0	0	0	90	0	1.058
MSL292-A	76	30	0	12	36	52	0	0	0	52	0	na
MSM246-B	208	119	228	5	10	85	0	0	0	85	0	1.060
MSM246-B	178	87	0	4	16	81	0	0	0	81	0	1.064
MSN190-2	184	69	133	3	26	71	0	0	0	71	0	1.066

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
MSN190-2	138	57	111	6	26	67	0	0	0	67	0	1.071
MSQ086-3	204	92	177	3	20	77	0	0	0	77	0	1.055
MSQ086-3	150	90	173	5	18	77	0	0	0	77	0	1.061
MSQ089-1	243	120	230	2	8	90	0	0	0	90	0	1.056
MSQ089-1	107	49	95	9	14	77	0	0	0	77	0	na
MSR057-4	216	93	178	3	8	89	0	0	0	89	0	1.052
MSR057-4	152	103	197	4	11	85	0	0	0	85	0	1.057
MSR058-1	244	159	306	3	27	70	0	0	0	70	0	1.058
MSR058-1	128	81	155	9	21	70	0	0	0	70	0	1.059
MSR061-1	274	104	200	4	5	91	0	0	0	91	0	1.064
MSR061-1	162	97	186	4	24	71	0	0	0	71	0	1.069
MSR127-2	251	183	351	2	7	91	0	0	0	91	0	1.059
MSR127-2	180	114	220	5	13	82	0	0	0	82	0	1.061
MSR128-4Y	134	32	62	10	18	71	0	0	0	71	0	na
MSR128-4Y	109	39	74	10	49	41	0	0	0	41	0	na
MSR157-1Y	218	131	252	6	23	72	0	0	0	72	0	1.054
MSR157-1Y	202	117	224	4	21	74	0	0	0	74	0	1.059
MSR169-8Y	187	108	207	5	18	77	0	0	0	77	0	1.064
MSR169-8Y	130	87	167	3	30	68	0	0	0	68	0	1.062
MSS428-2	272	183	353	3	9	88	0	0	0	88	0	1.061
MSS428-2	209	148	285	4	12	84	0	0	0	84	0	1.066
MST096-2Y	180	92	177	5	13	82	0	0	0	82	0	1.056
MST096-2Y	112	68	131	4	25	71	0	0	0	71	0	na
MST184-3	217	165	317	4	8	88	0	0	0	88	0	1.063

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
MST184-3	137	90	173	6	22	72	0	0	0	72	0	1.061
MST186-1Y	183	117	226	5	19	76	0	0	0	76	0	1.053
MST186-1Y	98	33	63	15	50	35	0	0	0	35	0	na
MST412-3	229	108	208	5	18	76	0	0	0	76	0	1.049
MST412-3	227	131	253	5	15	80	0	0	0	80	0	1.060
MSL007-B	131	68	131	6	32	62	0	0	0	62	0	1.053
MSL007-B	160	76	145	3	21	75	0	0	0	75	0	1.056
H15-5	221	89	172	4	25	71	0	0	0	71	0	1.052
H15-5	290	139	267	1	18	76	5	0	0	81	0	1.060
H25-4	223	120	230	2	16	82	0	0	0	82	0	1.058
H25-4	269	168	322	2	19	79	0	0	0	79	0	1.060
J2-29	166	70	135	8	34	58	0	0	0	58	0	1.057
J2-29	207	145	279	2	13	85	0	0	0	85	0	1.063
J104-3	265	218	419	2	6	71	21	0	0	92	0	1.052
J104-3	273	213	410	1	12	87	0	0	0	87	0	1.058
J105-10	173	64	122	6	27	67	0	0	0	67	0	1.051
J105-10	243	106	204	3	29	67	0	0	0	67	0	1.060
J107-5	163	82	157	4	26	69	0	0	0	69	0	1.054
J107-5	180	88	169	7	27	57	9	0	0	66	0	1.062
J112-2	212	107	206	5	22	73	0	0	0	73	0	1.060
J112-2	253	147	283	4	17	79	0	0	0	79	0	1.065
AC05153-1W	145	70	134	9	13	78	0	0	0	78	0	1.057
AC05153-1W	205	113	218	3	16	81	0	0	0	81	0	1.058
CO05061-6W	174	123	237	3	12	84	0	0	0	84	0	1.054

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
CO05061-6W	195	119	230	2	21	77	0	0	0	77	0	1.056
AC00206-2W	268	191	367	1	9	90	0	0	0	90	0	1.060
AC00206-2W	291	234	449	3	11	86	0	0	0	86	0	1.060
AC03452-2W	230	113	217	3	9	88	0	0	0	88	0	1.044
AC03452-2W	301	205	394	2	13	65	15	0	5	80	5	1.048
AC03433-1W	212	126	243	2	10	88	0	0	0	88	0	1.063
AC03433-1W	252	157	301	3	7	60	19	12	0	90	12	1.059
CO02024-9W	181	103	198	6	21	73	0	0	0	73	0	1.056
CO02024-9W	215	111	214	9	34	57	0	0	0	57	0	1.056
CO02033-1W	208	110	212	3	10	87	0	0	0	87	0	1.059
CO02033-1W	242	152	293	3	12	84	0	0	0	84	0	1.061
Snowden	236	133	256	2	10	88	0	0	0	88	0	1.060
Snowden	309	250	481	0	6	94	0	0	0	94	0	1.061
W9322-2	133	51	99	5	16	79	0	0	0	79	0	na
W9322-2	243	168	323	2	5	64	25	6	0	94	6	1.053
Atlantic	233	148	284	1	6	86	7	0	0	92	0	1.058
Atlantic	269	85	164	3	16	69	0	12	0	81	12	1.061
W9313-2	175	97	187	5	23	72	0	0	0	72	0	1.056
W9313-2	271	194	374	1	9	66	23	0	0	90	0	1.065
W10670-3	141	67	130	12	30	58	0	0	0	58	0	1.064
W10670-3	235	132	254	4	14	63	18	0	0	81	0	1.063
A-32	144	101	194	5	8	88	0	0	0	88	0	1.065
A-32	233	183	353	2	7	90	0	0	0	90	0	1.069
W9200-13	231	120	230	5	35	60	0	0	0	60	0	1.054

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
W9200-13	221	128	247	5	24	71	0	0	0	71	0	1.058
W5955-1	199	120	232	3	6	90	0	0	0	90	0	1.053
W5955-1	259	122	235	3	17	80	0	0	0	80	0	1.057
W9306-1	251	153	293	10	12	78	0	0	0	78	0	1.057
W9306-1	172	102	196	4	30	67	0	0	0	67	0	1.056
W2324-1	258	199	383	0	6	85	8	0	0	93	0	1.054
W2324-1	314	265	510	2	8	79	11	0	0	90	0	1.057
W8822-1	228	162	312	0	11	78	11	0	0	89	0	1.061
W8822-1	307	229	441	3	15	82	0	0	0	82	0	1.065
W8822-2	232	117	226	7	26	68	0	0	0	68	0	1.061
W8822-2	208	134	258	3	28	69	0	0	0	69	0	1.062
W8822-3	137	65	124	0	11	89	0	0	0	89	0	1.065
W8822-3	242	186	357	1	13	76	10	0	0	86	0	1.071
W8867-5	188	110	212	6	20	74	0	0	0	74	0	1.051
W8867-5	264	194	374	2	8	79	11	0	0	89	0	1.054
W8867-7	198	75	145	7	43	51	0	0	0	51	0	1.053
W8867-7	230	102	195	8	24	68	0	0	0	68	0	1.058
W9252-7	186	107	205	2	27	71	0	0	0	71	0	1.060
W9252-7	250	159	306	2	20	71	7	0	0	77	0	1.065
C118	124	38	74	8	47	44	0	0	0	44	0	na
C118	165	92	177	5	32	63	0	0	0	63	0	1.067
MN03339-4	56	37	71	6	21	72	0	0	0	72	0	na
MN03339-4	157	60	115	4	32	64	0	0	0	64	0	1.060
MN07151WB-01	47	7	14	25	59	16	0	0	0	16	0	na

Table 27 (cont'd). Production statistics for the USPB National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
MN07151WB-01	175	49	93	9	43	48	0	0	0	48	0	1.067
MN07152WB-01	83	33	64	2	37	61	0	0	0	61	0	na
MN07152WB-01	79	37	71	7	20	73	0	0	0	73	0	na
MN07159WB-01	64	13	25	16	63	21	0	0	0	21	0	na
MN07159WB-01	90	31	59	15	44	40	0	0	0	40	0	na
MN08102BW-01	64	23	45	18	44	39	0	0	0	39	0	na
MN08102BW-01	108	57	110	8	21	71	0	0	0	71	0	1.049
MN09029BW-01	124	49	94	7	26	66	0	0	0	66	0	1.053
MN09029BW-01	126	63	94	3	14	83	0	0	0	83	0	1.056

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 28. Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
Atlantic	100	na	8-5	1	1	2	3	5	1	3	
Elkton	87	na	5-8	1	1	2-3	3	6	2	2	
Harley Blackwell	60	na	7-4	3	1	2	3	5	2	3	
Marcy	20	na	7	3	1	2	3	5	1	2	
Snowden	47	na	8	5	1	1	3	6	2	1	
Beacon Chipper	73	na	7	3	1	2	3	5	2	2	
B2842-1	87	na	8-5	2	2	1	3	5	2	2	VD
B2869-15	87	na	5	3	1	2	3	3	2	1	
B2869-20	80	na	8-5	2	1	1-2	3	5	2	3	VD
B2869-25	93	na	5-8	1	1	1	3	6	1	1	
B2869-29	80	na	5-8	2	1	2	3	5	3	2	VD
B2883-11	80	na	8-5	2	1	2-3	3	5	1	2	
B2895-8	100	na	8-5	1	1	2	3	5	1	3	
B2904-2	100	na	5-8	2	1	2	2	6	1	1	VD
B2936-2	87	na	8-5	2	2	2	3	6	1	1	very yellow
B2947-4	80	na	8-5	2	1	2	3	6	1	2	
B2947-8	93	na	5	2	1	2	3	5	na	na	
B2950-2	100	na	5-8	1	1	2-3	3	3	1	2	
B2950-3	100	na	5	1	1	2	3	5	1	2	
B2951-5	100	na	5	1	1	2	2	7	1	1	
B2960-4	100	na	5-8	2	1	2	3	5	1	2	
BNC311-4	100	na	5	1	1	2	3	5	2	3	
BNC313-3	100	na	8-5	2	2	3	3	5	1	2	
BNC317-8	100	na	5-2	1	1	1-2	2	7	1	1	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
ATTX07042-3W	100	na	5	1	2	2	2	7	1	0	
COTX09089-1Ru	87	na	5-8	2	1	4	2	6	2	2	VD
NDTX060700C-1W	93	na	5	2	1	3	3	6	1	0	
NDTX071109C-1W	100	na	5	1	1	1	2	7	1	1	
NDTX071217CB-1W/Y	100	na	8-5	2	2	2	3	5	1	0	
NDTX081644CAB-2W	100	na	9-6	1	1	1	3	6	1	1	
NDTX081648CB-13W	100	na	5-8	2	1	2	2	7	1	1	
NDTX081648CB-1W	87	na	9-6	1	1	2-3	2	6	1	2	
NDTX081648CB-2W	100	na	5-8	2	1	2-3	3	5	1	2	
NDTX081648CB-4W	80	na	8	1	1	1	3	4	1	1	slight VD
NDTX091908AB-2W	93	na	8	3	1	2-3	3	5	1	1	
TX09396-1W	80	na	5-8	2	1	2	3	5	2	2	
AF4736-10	87	na	8-5	2	1	2	3	3	1	2	
AF4740-1	100	na	5-8	2	1	2-3	2	6	2	3	slight VD
AF4747-5	100	na	8	2	2	2	3	3	2	2	
AF4971-3	100	na	5-8	2	1	2	2	6	2	2	
AF4975-3	87	na	5	1	1	2	3	6	1	0	
AF5038-1	87	na	7-4	3	1	2-3	3	3	1	2	
AF5038-6	93	na	5	2	1	2	2	6	2	3	
AF5040-8	100	na	5	1	2	2	3	5	1	1	
AF5081-4	93	na	5-8	2	2	2	3	3	1	0	yellow
AF5138-2	100	na	8-5	3	1	1	2	6	2	2	VD
AF5142-3	93	na	8	1	1	2-3	2	6	1	3	
AF5286-2	100	na	5	1	1	2	3	3	1	1	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
AF5320-1	93	na	8-5	2	1	2	2	6	2	1	
AF5152-2	100	na	5	1	1	2	3	5	1	2	
AF5152-3	100	na	8-5	1	1	2-3	2	6	1	3	
NC0349-3	100	na	8-5	2	1	2	3	5	1	1	
NC182-5	100	na	5-8	3	1	2	2	6	1	0	
NC268-1	100	na	5	2	1	1-2	3	5	1	3	
NCB2833-7	100	na	5	2	1	2	3	3	1	1	
MST094-1	100	na	5	1	1	1-2	3	5	1	1	
MST154-3	73	na	7-4	3	3	1-2	3	5	1	2	very yellow
MST191-2Y	100	na	5-8	1	2	2	3	5	1	2	
MST229-1	87	na	4-1	3	3	1-2	3	5	1	2	
MST441-1	100	na	5-8	1	1	1-2	3	5	1	2	
MST443-1	100	na	8-5	2	3	2	3	3	2	2	
MST458-4	47	na	7	3	1	2	3	5	1	3	
MSU245-1	93	na	5-8	1	1	2	3	4	1	1	
MSV030-4	100	na	6-9	2	1	2	3	5	2	3	VD
MSV241-2	100	na	5-8	1	1	2	2	6	1	1	
MSV301-2	100	na	5-8	1	1	1-2	3	5	1	3	
MSV358-3	100	na	5-8	2	1	2	3	5	2	2	
MSV380-1	87	na	8	2	1	2	3	5	1	2	
MSV394-3	100	na	8-5	2	2	2	3	5	2	3	
MSV498-1	100	na	6	2	1	1-2	2	6	2	2	
MSV505-02	80	na	8-5	2	1	1	3	6	1	1	
MSW068-4	93	na	5-8	2	1	1-2	3	5	1	1	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
MSW075-1	87	na	8-5	2	1	1-2	3	6	1	1	
MSW123-3	73	na	8-5	3	1	1	3	5	2	3	severe VD
MSW252-2	80	na	5-8	3	1	1	3	5	2	2	VD
MSW259-6	73	na	8-5	4	1	2	3	5	2	1	
MSW293-1	73	na	8	3	1	2	2	6	1	2	
MSW299-2	107	na	5-8	2	1	1	3	5	1	1	
MSW326-6	80	na	8-5	2	1	2-3	3	5	1	3	
MSW360-18	53	na	8	4	1	1-2	2	5	1	2	
MSW450-1	47	na	9-6	2	1	2	4	3	2	2	VD
MSW474-1	87	na	4	2	1	1-2	3	5	1	0	
MSW485-2	93	na	5-8	2	1	2	2	6	1	2	
MSW500-4	67	na	4	1	1	3	3	5	1	2	
MSW501-2	67	na	8-5	3	1	2	3	5	3	2	
MSW501-5	93	na	8	3	1	3-4	3	6	1	1	
MSW509-5	100	na	5	1	1	1-2	2	6	1	2	slight VD
A01143-3C	73	na	5-8	1	1	2	3	5	1	1	
A00206-1C	93	na	5-8	2	1	1-2	3	7	2	2	
NYWJ11-5	80	na	8	3	2	1-2	1	7	1	0	
NYWJ2-4	80	na	8	3	1	1	2	5	1	1	
W9570-1	73	na	9	3	1	1-2	3	5	1	0	
W9577-6Y	73	na	8-5	3	3	1	2	6	2	2	
W9200-7	73	na	8-5	2	1	2	2	6	2	1	
W9202-2	100	na	6-9	2	1	2	3	5	1	1	
W9225-1	100	na	5	1	1	1-2	3	5	1	1	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
W9285-3Y	53	na	9-6	1	2	1	2	6	1	0	
MN07160WB-01	47	na	5	2	2	1	2	6	1	1	
MN07161WB-01	80	na	7	1	1	2	4	3	2	2	
MN08025BW-01	93	na	4	1	1	2	3	5	1	2	
MN08101BW-01	73	na	8	2	1	2	3	6	2	2	VD
MN09041BB-01	67	na	5	4	1	1-2	2	7	1	2	
MN09059BB-01	80	na	5	1	1	1-2	3	6	1	3	
AF4157-6	93	na	5-8	1	1	2	4	3	1	1	
AF4157-6	100	na	5-2	1	1	2	3	6	1	2	
AF4386-16	87	na	8-5	3	1	2-3	4	3	1	2	slight VD
AF4386-16	100	na	9	1	1	1	3	5	1	2	
AF4552-5	100	na	8-5	1	1	1	4	3	1	3	
AF4552-5	67	na	8-5	1	1	1-2	3	3	2	3	
AF4573-2	100	na	5-8	2	1	2-3	4	3	2	25	severe VD
AF4573-2	100	na	9-6	2	1	1-2	3	3	2	4	
AF4648-2	100	na	8-5	2	1	2	3	5	2	1	
AF4648-2	100	na	5	3	1	2	3	5	1	1	
MSK061-4	100	na	8-5	3	1	2	3	5	2	2	VD
MSK061-4	87	na	8	2	1	1-2	3	4	2	2	
MSL292-A	20	na	7	4	1	1-2	4	3	1	2	
MSL292-A	47	na	8	6	1	1	3	5	2	2	
MSM246-B	100	na	8-5	2	1	1	3	3	1	1	
MSM246-B	87	na	8	2	1	1-2	3	5	2	2	
MSN190-2	100	na	5-8	1	1	1	3	6	1	0	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
MSN190-2	67	na	8-5	2	1	1-2	3	5	2	2	
MSQ086-3	100	na	5	1	1	2	3	5	2	3	
MSQ086-3	80	na	7-4	3	1	2	3	5	2	3	
MSQ089-1	120	na	5	1	1	1	2	6	1	3	
MSQ089-1	53	na	7-4	5	1	2	3	5	2	3	VD
MSR057-4	100	na	5-8	1	1	2	3	5	2	2	
MSR057-4	73	na	5-8	2	1	2	3	5	1	2	
MSR058-1	100	na	8-5	3	1	2	2	5	2	2	
MSR058-1	53	na	7-4	3	1	2-3	3	5	2	2	
MSR061-1	100	na	8-5	2	4	1	3	5	2	3	
MSR061-1	53	na	7-4	3	1	2	2	6	2	2	
MSR127-2	93	na	9-6	2	1	2-3	2	6	1	1	
MSR127-2	67	na	5-8	3	1	2	2	6	2	3	
MSR128-4Y	100	na	5-8	2	2	2	4	5	1	2	
MSR128-4Y	27	na	4-7	3	2	2	3	5	2	3	
MSR157-1Y	73	na	5-8	2	2	3	3	3	1	3	
MSR157-1Y	80	na	8-5	3	3	2-3	2	6	3	3	VD
MSR169-8Y	73	na	8-5	3	2	2	3	5	1	0	
MSR169-8Y	67	na	7-4	3	2	2	2	6	1	0	
MSS428-2	87	na	8-5	4	1	1	3	6	1	0	
MSS428-2	80	na	7-4	4	1	2	2	6	1	1	
MST096-2Y	80	na	8-5	2	3	2	4	2	2	2	
MST096-2Y	60	na	7-4	3	2	1	3	5	1	2	
MST184-3	80	na	5-8	4	1	2	2	7	1	2	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
MST184-3	60	na	8	4	1	2	3	5	2	2	
MST186-1Y	80	na	8	3	3	2	3	5	2	2	yellow
MST186-1Y	53	na	8	0	3	2	3	4	1	1	
MST412-3	93	na	8-5	3	1	2	4	3	1	0	
MST412-3	60	na	8	3	1	1-2	3	5	2	2	
MSL007-B	87	na	8-5	2	2	2	3	6	2	2	
MSL007-B	93	na	5	1	2	2-3	3	5	1	2	
H15-5	93	na	5-8	2	1	3	3	5	2	1	
H15-5	93	na	5	2	1	2-3	3	5	2	1	
H25-4	100	na	9-6	2	1	2	3	5	1	1	
H25-4	80	na	6-9	2	1	2-3	3	3	1	2	
J2-29	100	na	5	2	1	1	3	6	1	1	
J2-29	87	na	5-8	2	1	1	3	3	2	2	
J104-3	87	na	8-5	2	1	1-2	1	7	2	3	
J104-3	100	na	9-6	3	1	2	2	6	1	0	
J105-10	100	na	8-5	1	1	2	3	6	2	1	
J105-10	93	na	6	2	1	2-3	3	5	1	0	
J107-5	100	na	8-5	2	1	2	3	5	2	3	
J107-5	100	na	5	2	1	1-2	3	4	1	0	
J112-2	100	na	5-8	1	1	2	3	6	1	1	
J112-2	100	na	5-8	1	1	2-3	3	5	1	2	
AC05153-1W	93	na	5	1	1	2	3	6	2	2	
AC05153-1W	100	na	5	1	1	1-2	3	5	1	1	
CO05061-6W	93	na	8-5	2	1	1	2	6	1	2	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
CO05061-6W	100	na	5	1	1	1-2	2	6	2	2	VD
AC00206-2W	87	na	8-5	3	1	1	3	7	2	1	HH
AC00206-2W	93	na	6-9	3	1	2	1	7	1	0	1 HH
AC03452-2W	93	na	8-5	2	1	1-2	3	4	2	3	VD
AC03452-2W	93	na	5-8	2	1	1-2	2	6	1	2	
AC03433-1W	87	na	7-4	3	1	2	3	3	2	2	slight VD
AC03433-1W	93	na	8-5	3	1	2	3	4	2	3	
CO02024-9W	67	na	8-5	3	1	2	3	6	2	2	
CO02024-9W	100	na	5	2	1	2	3	5	1	2	
CO02033-1W	67	na	8-5	3	1	2-3	3	5	2	2	
CO02033-1W	100	na	9-6	2	1	2-3	3	5	2	1	
Snowden	100	na	8-5	2	1	2	2	7	2	3	
Snowden	87	na	5-8	2	2	2-3	2	6	1	2	
W9322-2	93	na	8-5	2	na	na	na	na	2	2	VD
W9322-2	93	na	5-8	2	1	2	2	6	2	3	
Atlantic	100	na	8-5	2	1	2	2	6	1	3	
Atlantic	100	na	9-6	1	1	2	3	6	2	3	
W9313-2	93	na	5-8	1	1	1	2	6	1	1	
W9313-2	87	na	6-9	1	1	1-2	2	6	2	3	
W10670-3	100	na	5-2	1	1	2	3	6	1	1	
W10670-3	87	na	5-2	1	1	1-2	2	5	1	2	
A-32	93	na	5-8	3	1	2	3	5	1	0	
A-32	100	na	5-8	5	1	3	1	7	1	1	
W9200-13	93	na	9-6	1	1	2-3	3	5	1	2	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
W9200-13	100	na	9-6	1	1	3	2	5	1	3	
W5955-1	100	na	7	1	1	2	3	5	1	2	
W5955-1	100	na	9-6	1	1	2	2	5	1	2	
W9306-1	87	na	8-5	2	1	1-2	2	5	1	2	
W9306-1	100	na	5-8	2	1	2	2	6	2	3	VD
W2324-1	100	na	5-8	2	1	2	2	6	1	2	
W2324-1	100	na	4-7	2	1	2	2	6	2	3	
W8822-1	100	na	9-6	1	2	2-3	2	5	2	3	
W8822-1	87	na	6-9	2	2	2-3	2	6	1	0	
W8822-2	93	na	8-5	2	2	1-2	3	5	2	2	
W8822-2	87	na	6-9	2	2	2	2	6	2	2	
W8822-3	100	na	5	2	2	1	3	4	2	1	
W8822-3	93	na	5-8	2	2	2	2	7	2	2	
W8867-5	93	na	5-8	1	1	2-3	3	5	1	2	
W8867-5	73	na	8-5	2	1	2-3	3	5	1	2	
W8867-7	100	na	8-5	2	1	2	3	3	1	1	
W8867-7	80	na	5-8	3	1	2	3	6	na	na	
W9252-7	60	na	7	3	1	2-3	3	6	1	2	
W9252-7	47	na	8	3	1	2	2	5	1	2	slight VD
C118	100	na	5	1	2	2-3	3	3	2	1	
C118	100	na	8-5	2	2	2-3	3	5	1	2	
MN03339-4	80	na	5	1	2	2	3	4	1	2	
MN03339-4	100	na	7-4	2	1	2	3	5	1	1	
MN07151WB-01	100	na	4-7	1	na	na	na	na	1	1	

Table 28 (cont'd). Plant growth and tuber characteristics of the USPB National Chip Processing Trial potato selections

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	TS	Merit	APP	Chip 1-5	Bethke SED	Tuber Comments
MN07151WB-01	87	na	5-8	2	1	2	3	5	1	2	
MN07152WB-01	100	na	7-4	1	1	2	3	5	1	2	
MN07152WB-01	87	na	7-4	1	na	na	na	na	2	2	
MN07159WB-01	93	na	5-8	1	1	1	3	6	1	1	
MN07159WB-01	93	na	5-8	2	1	2	3	5	1	1	
MN08102BW-01	87	na	7-4	1	1	2	3	5	1	0	
MN08102BW-01	87	na	8-5	1	1	2	3	6	1	1	
MN09029BW-01	100	na	5	2	1	1-2	3	4	2	3	VD
MN09029BW-01	80	na	8-5	2	1	1	3	5	1	2	

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 29. External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	0	0	7	60	67	na	na	na	na	na	na	na
Elkton	0	0	0	39	39	0	0	0	0	0	0	0
Harley Blackwell	0	0	1	14	15	0	0	0	0	0	0	0
Marcy	0	0	3	15	18	0	0	0	0	0	0	0
Snowden	0	0	0	3	3	0	0	0	0	0	0	0
Beacon Chipper	0	0	12	11	24	0	0	0	0	0	0	0
B2842-1	0	2	2	8	12	0	0	0	0	0	0	0
B2869-15	0	0	3	7	10	0	0	0	0	0	0	0
B2869-20	1	2	0	9	12	0	0	0	0	0	0	0
B2869-25	0	0	3	12	15	0	0	0	0	0	0	0
B2869-29	0	0	2	16	18	0	0	0	0	0	0	0
B2883-11	0	0	6	9	16	0	0	0	0	0	0	0
B2895-8	0	0	1	20	22	0	0	0	0	0	0	0
B2904-2	0	0	0	21	21	0	0	0	0	0	0	0
B2936-2	0	0	0	10	10	0	0	0	0	0	0	0
B2947-4	0	0	0	19	19	0	0	0	0	0	0	0
B2947-8	0	0	0	15	15	0	0	0	0	0	0	0
B2950-2	0	0	8	53	61	na	na	na	na	na	na	na
B2950-3	0	0	3	22	24	0	0	0	0	0	0	0
B2951-5	0	0	5	29	35	0	0	10	40	0	0	0
B2960-4	2	0	7	40	49	0	0	0	0	0	0	0
BNC311-4	7	0	8	46	61	na	na	na	na	na	na	na
BNC313-3	0	0	0	11	11	0	0	0	0	0	0	0
BNC317-8	0	0	6	0	6	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
ATTX07042-3W	5	0	5	1	12	0	0	0	0	0	0	0
COTX09089-1Ru	1	0	7	8	16	0	0	0	0	0	11	0
NDTX060700C-1W	0	0	5	1	6	0	0	0	0	0	0	0
NDTX071109C-1W	0	0	6	16	22	0	0	0	0	0	0	0
NDTX071217CB-1W/Y	6	0	4	8	17	0	0	0	0	0	0	0
NDTX081644CAB-2W	11	0	7	4	21	0	0	0	0	0	0	0
NDTX081648CB-13W	0	0	5	10	15	0	0	0	0	0	0	0
NDTX081648CB-1W	9	0	0	23	32	0	0	0	0	0	0	0
NDTX081648CB-2W	0	0	0	35	35	0	0	0	0	10	10	0
NDTX081648CB-4W	0	0	6	50	56	na	na	na	na	na	na	na
NDTX091908AB-2W	0	0	0	19	19	0	0	0	0	0	0	0
TX09396-1W	0	0	4	22	26	0	0	0	0	0	0	0
AF4736-10	0	0	20	12	31	na	na	na	na	na	na	na
AF4740-1	0	0	6	16	22	0	0	0	0	0	0	0
AF4747-5	0	2	5	11	18	0	0	0	0	0	0	0
AF4971-3	0	0	7	10	17	0	0	0	0	0	0	0
AF4975-3	0	0	1	57	58	na	na	na	na	na	na	na
AF5038-1	10	4	12	2	28	0	0	0	0	0	0	0
AF5038-6	0	0	0	38	38	0	0	0	0	0	0	0
AF5040-8	0	0	3	40	42	0	0	0	10	0	0	0
AF5081-4	8	0	0	25	33	10	0	0	0	0	0	0
AF5138-2	0	4	17	3	24	0	0	0	0	0	0	0
AF5142-3	0	0	3	23	25	0	0	0	10	0	0	0
AF5286-2	0	3	7	16	26	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
AF5320-1	2	1	1	1	5	0	0	0	0	0	0	0
AF5152-2	0	0	0	49	49	0	0	0	0	0	0	0
AF5152-3	0	0	0	36	36	0	0	0	0	0	0	0
NC0349-3	0	0	4	36	40	0	0	0	0	0	0	0
NC182-5	0	0	4	2	6	0	0	0	0	0	0	0
NC268-1	2	0	0	14	17	0	0	10	0	0	0	0
NCB2833-7	3	0	4	19	25	0	0	30	0	0	0	0
MST094-1	0	0	3	18	21	0	0	30	0	0	0	0
MST154-3	0	0	4	16	20	0	0	0	0	0	0	0
MST191-2Y	0	0	2	53	55	0	0	0	0	0	0	0
MST229-1	0	0	2	17	19	0	0	0	0	0	0	0
MST441-1	0	3	14	18	35	0	0	0	0	0	0	0
MST443-1	0	6	0	30	36	0	0	0	0	0	0	0
MST458-4	0	5	3	18	26	na	na	na	na	na	na	na
MSU245-1	0	0	6	64	70	na	na	na	na	na	na	na
MSV030-4	0	3	0	13	15	0	0	0	0	0	0	0
MSV241-2	0	0	4	14	17	0	0	0	0	0	0	0
MSV301-2	0	0	2	51	53	na	na	na	na	na	na	na
MSV358-3	0	0	0	45	45	na	na	na	na	na	na	na
MSV380-1	0	1	4	23	28	0	0	0	0	0	0	0
MSV394-3	3	0	5	19	27	0	0	0	0	0	0	0
MSV498-1	0	0	2	6	8	0	0	0	0	0	0	0
MSV505-02	0	4	5	21	30	0	0	0	0	0	0	0
MSW068-4	0	0	3	26	29	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
MSW075-1	2	0	8	20	30	0	0	0	0	0	0	0
MSW123-3	0	0	2	14	17	0	0	0	0	0	0	0
MSW252-2	0	0	5	8	13	0	0	0	0	0	0	0
MSW259-6	2	0	4	22	28	0	0	0	0	0	0	0
MSW293-1	3	0	9	3	14	0	0	0	0	0	0	0
MSW299-2	0	0	0	20	20	0	0	0	0	0	0	0
MSW326-6	2	0	6	5	13	0	0	0	0	0	0	0
MSW360-18	0	0	2	8	10	0	0	0	0	0	0	0
MSW450-1	11	0	13	41	65	na	na	na	na	na	na	na
MSW474-1	0	0	5	8	13	0	0	0	0	0	0	0
MSW485-2	0	2	6	1	10	0	0	0	0	0	0	0
MSW500-4	0	5	8	19	32	na	na	na	na	na	na	na
MSW501-2	0	0	2	5	7	0	0	0	0	0	0	0
MSW501-5	0	0	20	10	30	0	0	0	0	0	0	0
MSW509-5	0	0	21	2	23	0	0	0	0	0	0	0
A01143-3C	0	0	0	10	10	0	0	0	0	0	0	0
A00206-1C	2	1	8	8	20	0	0	0	0	0	0	0
NYWJ11-5	0	0	8	6	14	0	0	0	0	0	0	0
NYWJ2-4	0	0	10	17	27	0	0	0	0	0	0	0
W9570-1	0	4	11	8	23	0	0	0	0	0	0	0
W9577-6Y	0	0	5	14	19	0	0	0	0	0	0	0
W9200-7	4	0	7	10	22	0	0	0	0	0	0	0
W9202-2	4	2	13	0	19	0	0	0	10	0	0	0
W9225-1	2	0	8	6	17	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
W9285-3Y	2	0	6	13	21	0	0	0	0	0	0	0
MN07160WB-01	0	0	7	0	7	0	0	0	0	0	0	0
MN07161WB-01	0	0	5	6	11	0	0	0	70	0	0	0
MN08025BW-01	0	8	3	0	11	0	0	0	0	0	0	0
MN08101BW-01	0	0	8	0	8	0	0	0	0	0	0	0
MN09041BB-01	0	0	13	4	16	0	0	0	0	0	0	0
MN09059BB-01	0	0	10	15	25	0	0	0	0	0	0	0
AF4157-6	0	0	7	24	32	0	0	0	0	0	0	0
AF4157-6	0	0	5	15	20	0	0	0	0	0	0	0
AF4386-16	0	0	7	33	40	0	0	0	0	0	0	0
AF4386-16	2	0	5	20	26	0	0	0	0	0	0	0
AF4552-5	0	0	8	54	63	na	na	na	na	na	na	na
AF4552-5	0	0	7	14	22	0	0	0	0	0	0	0
AF4573-2	2	3	2	36	43	0	0	0	0	0	0	0
AF4573-2	2	2	0	40	44	0	0	0	0	0	0	0
AF4648-2	0	0	2	15	17	0	0	0	0	0	0	0
AF4648-2	0	4	0	23	26	na	na	na	na	na	na	na
MSK061-4	0	0	13	2	15	0	0	0	0	0	0	0
MSK061-4	0	0	2	28	29	0	0	0	0	0	0	0
MSL292-A	2	0	18	20	40	0	0	0	0	0	0	0
MSL292-A	6	0	15	3	23	na	na	na	na	na	na	na
MSM246-B	0	0	6	27	33	0	0	0	0	10	0	0
MSM246-B	19	0	21	0	40	0	0	0	0	0	0	0
MSN190-2	0	0	2	46	47	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
MSN190-2	4	0	5	29	38	na	na	na	na	na	na	na
MSQ086-3	0	2	6	34	41	0	0	0	0	0	0	0
MSQ086-3	0	0	9	13	22	0	0	0	0	0	0	0
MSQ089-1	0	0	9	36	45	0	0	0	0	0	0	0
MSQ089-1	4	0	17	19	40	na	na	na	na	na	na	na
MSR057-4	0	0	10	42	52	0	0	0	0	0	0	0
MSR057-4	0	0	7	14	21	0	0	0	0	0	0	0
MSR058-1	0	1	5	1	7	0	0	0	0	0	0	0
MSR058-1	0	0	4	6	9	0	0	0	0	0	0	0
MSR061-1	0	2	5	51	58	0	0	0	0	0	0	0
MSR061-1	0	0	0	16	16	0	0	0	0	0	0	0
MSR127-2	1	0	4	15	20	0	0	0	0	0	0	0
MSR127-2	0	0	10	13	23	0	0	0	0	0	0	0
MSR128-4Y	36	3	10	16	66	na	na	na	na	na	na	na
MSR128-4Y	7	6	0	0	13	0	0	0	0	0	0	0
MSR157-1Y	0	0	4	12	16	0	0	0	0	0	0	0
MSR157-1Y	0	0	16	6	22	0	0	0	0	0	0	0
MSR169-8Y	0	0	5	19	25	0	0	0	0	0	0	0
MSR169-8Y	0	0	2	0	2	0	0	0	0	0	0	0
MSS428-2	0	0	11	12	23	0	0	0	0	0	0	0
MSS428-2	0	0	6	9	15	0	0	0	0	0	0	0
MST096-2Y	0	0	16	21	37	0	0	0	0	0	0	0
MST096-2Y	0	0	10	5	14	0	0	0	0	0	0	0
MST184-3	3	0	5	5	13	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
MST184-3	0	0	5	3	9	0	0	0	0	0	0	0
MST186-1Y	0	0	3	12	15	0	0	0	0	0	0	0
MST186-1Y	0	0	0	5	5	0	0	0	0	0	0	0
MST412-3	3	0	3	33	38	0	0	0	0	0	0	0
MST412-3	25	0	0	2	28	0	0	0	0	0	0	0
MSL007-B	0	0	4	12	16	0	0	0	0	0	0	0
MSL007-B	0	0	6	31	38	0	0	0	0	0	0	0
H15-5	0	0	5	38	43	0	0	0	0	0	0	0
H15-5	0	0	6	34	41	0	0	10	10	0	0	0
H25-4	0	0	4	30	34	0	0	0	0	0	0	0
H25-4	0	0	7	14	21	0	0	0	0	0	0	0
J2-29	0	0	9	18	27	0	0	0	0	0	0	0
J2-29	0	0	13	4	17	0	0	40	0	0	0	0
J104-3	0	0	2	8	11	0	0	0	0	0	0	0
J104-3	0	0	10	0	10	0	0	0	0	0	0	0
J105-10	0	0	6	39	45	0	0	0	0	0	0	0
J105-10	1	1	7	26	35	0	0	10	10	0	0	0
J107-5	0	0	8	20	28	0	0	0	0	0	0	0
J107-5	0	0	9	17	26	0	0	10	0	0	0	0
J112-2	0	0	0	31	31	0	0	0	0	0	0	0
J112-2	2	0	15	9	26	0	0	0	0	0	0	0
AC05153-1W	0	0	7	32	38	0	0	0	0	0	0	0
AC05153-1W	0	0	18	14	32	0	0	10	10	0	0	0
CO05061-6W	0	0	5	11	16	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
CO05061-6W	0	0	12	8	20	0	0	0	0	0	0	0
AC00206-2W	1	3	12	4	21	10	0	0	10	0	0	0
AC00206-2W	0	0	5	1	7	20	0	0	0	20	0	0
AC03452-2W	0	1	5	38	44	0	0	0	10	0	0	0
AC03452-2W	2	0	10	3	15	0	0	0	0	20	0	0
AC03433-1W	7	2	21	2	32	0	0	0	0	0	0	0
AC03433-1W	3	1	16	10	31	0	0	0	10	0	0	0
CO02024-9W	0	0	9	13	22	0	0	0	0	0	0	0
CO02024-9W	0	0	7	2	9	0	0	0	0	0	0	0
CO02033-1W	9	7	19	4	39	0	0	0	0	0	0	0
CO02033-1W	7	3	11	5	25	0	0	0	20	0	0	0
Snowden	0	0	28	9	36	0	0	0	0	0	0	0
Snowden	1	0	8	4	14	0	0	0	10	0	0	0
W9322-2	17	0	17	17	51	0	0	0	0	0	0	0
W9322-2	14	0	7	5	26	0	0	0	0	0	0	0
Atlantic	8	0	8	16	31	0	0	0	0	0	0	0
Atlantic	2	0	20	39	61	0	0	0	0	10	0	0
W9313-2	0	0	2	21	23	0	0	0	0	0	0	0
W9313-2	0	0	9	11	20	0	0	10	0	0	0	0
W10670-3	0	0	3	14	17	0	0	0	10	0	0	0
W10670-3	0	0	11	20	31	0	0	0	0	0	0	0
A-32	0	6	6	8	20	0	0	0	0	0	0	0
A-32	0	0	10	3	13	0	0	0	0	0	0	0
W9200-13	0	0	6	7	13	0	0	0	0	0	0	0

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
W9200-13	0	0	8	10	18	0	0	0	0	0	0	0
W5955-1	0	0	6	27	33	0	0	0	0	0	0	0
W5955-1	0	0	19	21	41	0	0	0	0	0	0	0
W9306-1	2	0	11	9	22	0	0	0	0	0	0	0
W9306-1	7	0	2	3	11	0	0	0	0	0	0	0
W2324-1	0	0	4	13	17	0	0	0	0	0	0	0
W2324-1	0	2	2	3	7	0	0	10	0	0	0	0
W8822-1	0	0	6	13	20	0	0	0	0	0	0	0
W8822-1	0	0	4	5	9	0	0	0	0	0	0	0
W8822-2	0	1	0	24	25	0	0	0	0	0	0	0
W8822-2	2	0	1	4	6	0	0	0	0	0	0	0
W8822-3	0	0	6	41	47	na	na	na	na	na	na	na
W8822-3	0	0	5	6	11	0	0	0	0	0	0	0
W8867-5	0	2	3	16	21	0	0	0	0	0	0	0
W8867-5	0	2	8	8	18	0	0	30	0	0	0	0
W8867-7	0	0	7	18	25	0	0	0	10	0	0	0
W8867-7	2	0	10	23	35	0	0	0	0	0	0	0
W9252-7	0	0	9	11	20	0	0	0	0	0	0	0
W9252-7	0	0	11	6	18	0	0	0	0	0	0	0
C118	0	0	0	30	30	na	na	na	na	na	na	na
C118	0	0	3	9	12	0	0	0	20	0	0	0
MN03339-4	0	0	4	5	8	na	na	na	na	na	na	na
MN03339-4	0	0	20	20	40	0	0	0	10	0	0	0
MN07151WB-01	0	0	0	9	9	na	na	na	na	na	na	na

Table 29 (cont'd). External and internal defects of the USPB National Chip Processing Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
MN07151WB-01	0	0	11	31	42	0	0	20	0	0	0	0
MN07152WB-01	0	0	5	29	34	na	na	na	na	na	na	na
MN07152WB-01	0	0	4	32	36	0	0	0	0	0	0	0
MN07159WB-01	0	6	0	0	6	na	na	na	na	na	na	na
MN07159WB-01	0	0	10	6	16	0	0	0	10	0	0	0
MN08102BW-01	0	0	0	5	5	na	na	na	na	na	na	na
MN08102BW-01	0	0	9	16	25	na	na	na	na	na	na	na
MN09029BW-01	0	0	7	33	40	na	na	na	na	na	na	na
MN09029BW-01	0	0	4	36	40	na	na	na	na	na	na	na

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 11. CHIPPING POTATO VARIETY TRIAL, 2013

General Comments

A goal of the Chipping Potato Variety trial is to identify a short-season processing potato variety with better production and quality characteristics than the "standard" Atlantic.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 25, 2013
Harvest Date	May 14, 2013
Season Length	109 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	6 (Standard: Atlantic)
Number of Clones	12
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	BNC266-6 (426 cwt or 47.7 T/ha)
Highest Marketable Yield	BNC266-6 (396 cwt or 44.3 T/ha)
Highest Specific Gravity	B2832-12 (1.075)

Table 30. Production statistics for the USDA Chipping Variety Trial potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	328	296	100	1	6	67	14	12	0	94	26	1.070
Beacon Chipper	284	251	85	1	4	53	24	17	0	95	42	1.069
Elkton	359	333	112	0	3	39	25	32	0	96	57	1.067
Harley Blackwell	364	330	111	1	7	60	19	13	0	92	32	1.066
Marcy	364	337	114	1	4	47	28	20	0	95	48	1.064
Snowden	354	316	107	1	5	68	20	6	0	94	26	1.069
AF0338-17	308	279	94	1	7	59	15	18	0	92	33	1.066
B2737-2	330	295	100	2	8	63	19	9	0	91	28	1.065
B2832-12	288	256	87	1	5	64	18	11	1	94	29	1.075
B2834-8	250	233	79	1	3	46	26	25	0	96	50	1.068
B2842-1	399	323	109	3	13	66	11	6	0	83	17	1.072
B2869-25	236	198	67	2	12	81	4	1	0	86	5	1.072
B2869-29	285	245	83	1	8	76	10	5	0	90	14	1.074
B2895-2	324	283	96	1	7	68	20	4	0	92	24	1.063
B2904-2	364	329	111	1	5	59	23	12	0	94	35	1.068
BNC177-5	394	353	119	2	6	49	20	24	0	93	44	1.069
BNC202-3	381	342	115	1	5	51	24	18	0	94	43	1.071
BNC266-6	426	396	134	1	4	42	26	27	0	95	53	1.072
MSD[3]	39	38		1	3	11	8	10	ns			0.004
P Value	*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<0001*	*0.4736*			*<.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 31. Plant growth and tuber characteristics of the USDA Chipping Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	92	na	9-6	4.5	2	6	5	3	5	6
Beacon Chipper	99	na	8-5	4.8	1	6	5	3	4	5
Elkton	97	na	6-9	3.5	1	6	5	3	6	6
Harley Blackwell	94	na	8-5	3.8	1	6	5	2	4	6
Marcy	91	na	9-6	4.3	1	5	5	3	7	6
Snowden	97	na	9-6	4.3	1	6	5	3	6	6
AF0338-17	97	na	5-8	4.3	1	7	5	3	4	6
B2737-2	100	na	8-5	5.0	1	7	5	3	6	6
B2832-12	97	na	5-8	2.8	1	6	5	3	6	5
B2834-8	97	na	5	4.3	1	6	5	3	4	6
B2842-1	99	na	9-6	4.3	2.5	6	5	3	3	5
B2869-25	97	na	5-2	4.5	1	6	5	3	6	5
B2869-29	96	na	5	3.5	1	8	6	3	5	6
B2895-2	96	na	8-5	2.8	1	7	5	3	3	6
B2904-2	97	na	8-5	4.0	1	6	5	3	6	7
BNC177-5	93	na	6-	3.8	1	6	5	3	7	7
BNC202-3	98	na	9-6	3.3	3	6	5	3	7	6
BNC266-6	97	na	9-6	4.8	2	6	5	3	5	6

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 32. External and internal defects of the USDA Chipping Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
											Brown Center	
Clone	Growth Cracks	Mis-shapen	Sun-burned	Rotten & misc.	Total Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	0	0	3	0	4	0	0	0	0	0	0	0
Beacon Chipper	1	0	5	1	7	0	0	3	0	0	0	0
Elkton	1	0	2	1	4	0	0	0	0	0	0	0
Harley Blackwell	0	0	2	0	2	0	0	0	0	0	0	0
Marcy	0	0	3	0	3	3	0	0	0	5	0	0
Snowden	0	0	5	0	5	0	0	0	3	0	0	0
AF0338-17	0	0	1	0	2	3	0	0	0	0	0	0
B2737-2	0	0	1	0	1	0	0	0	0	0	0	0
B2832-12	0	0	3	1	5	0	0	0	0	0	0	0
B2834-8	0	0	3	0	3	0	0	0	0	3	0	0
B2842-1	0	0	3	1	4	0	0	0	0	0	0	0
B2869-25	0	0	2	0	3	0	0	0	0	0	0	0
B2869-29	2	0	2	0	5	0	0	0	0	0	0	0
B2895-2	0	0	4	1	5	0	0	0	0	0	0	0
B2904-2	0	0	3	0	4	0	0	0	0	0	0	0
BNC177-5	0	0	3	0	3	0	0	0	3	0	0	0
BNC202-3	0	2	1	1	4	0	0	0	0	0	0	0
BNC266-6	0	0	2	0	3	5	0	0	0	0	0	0
MSD[3]	1	1	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
P Value	*0.0160*	*0.0052*	*0.3315*	*0.0534*	*0.2006*	*0.5561*	*0.4736*	*0.4736*	*0.5528*	*0.5368*	*ns*	*ns*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 12. USPB/SNACK FOOD ASSOCIATION POTATO VARIETY TRIAL, 2013

General Comments

A goal of the Snack Food Association trial is to identify a short-season processing potato variety with better production and quality characteristics than the "standards" Atlantic and Snowden. Potatoes were fried and chip scores are noted in Table 31. This trial is supported by the United States Potato Board.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 25, 2013
Harvest Date	May 13, 2013
Season Length	108 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	3 (Standard: Atlantic)
Number of Clones	15
Within Row Spacing	Approx. 8 in (20.3 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	Single 250 ft row (76.2 m) planted for each variety. Four, 20 ft (6.1 m) plots harvested from each row to determine production and quality statistics.

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	Harley Blackwell (360 cwt or 40.3 TM/ha)
Highest Marketable Yield	Harley Blackwell (321 cwt or 35.9 TM/ha)
Highest Specific Gravity	AF4157-6 (1.077)

Table 33. Production facts for USPB/SFA potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Atlantic	339	278	100	0	3	61	20	15	0	96	35	1.073
Snowden	355	311	112	1	6	66	18	9	0	93	27	1.072
Harley Blackwell	360	321	116	1	7	64	18	9	0	91	27	1.071
A01143-3C	355	301	108	2	12	80	5	1	0	86	6	1.068
AF0338-17	332	288	103	1	5	60	19	15	0	93	33	1.066
AF4157-6	332	293	105	2	9	86	4	0	0	90	4	1.077
CO00197-3W	277	221	80	3	11	74	7	5	0	85	11	1.070
CO02321-4W	279	231	83	1	7	44	24	22	1	90	46	1.074
CO03243-3W	318	291	105	1	3	49	25	22	0	96	47	1.064
MSL007-B	239	181	65	2	16	78	2	1	0	81	3	1.063
MSL292-A	297	246	88	1	9	77	10	2	0	89	12	1.069
MSQ086-3	325	240	86	3	11	54	15	16	0	86	32	1.063
NY140	334	269	97	1	6	60	17	15	1	92	32	1.065
NY148	354	306	110	2	9	72	13	5	0	89	17	1.068
W4980-1	349	308	111	1	5	63	18	12	1	93	30	1.069
W5955-1	346	294	106	2	6	62	20	11	0	93	30	1.065
W6483-5	237	181	65	1	6	51	21	19	2	91	40	1.061
W6609-3	315	275	99	1	7	61	19	11	0	91	30	1.076
MSD	37	37		1	3	9	10	7	ns			0.002
P Value	*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.5920*			*<.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 34. Plant growth and tuber characteristics of USPB/SFA potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	83	na	7	4	2	6	5	3	5	6
Snowden	77	na	7	5	1	6	5	3	4	6
Harley Blackwell	83	na	6	4	1	6	5	3	4	5
A01143-3C	86	na	4	3	2	7	6	3	6	5
AF0338-17	87	na	5	4	1	6	5	3	6	6
AF4157-6	85	na	6	4	1	6	6	3	5	6
CO00197-3W	69	na	5	3	1	7	6	3	3	5
CO02321-4W	76	na	7	5	1	7	6	3	3	6
CO03243-3W	76	na	6	3	1	6	5	3	5	7
MSL007-B	84	na	7	6	1	6	5	3	5	6
MSL292-A	42	na	8	6	1	6	5	3	3	5
MSQ086-3	80	na	7	5	1	7	6	3	4	5
NY140	81	na	6	4	1	7	6	4	5	5
NY148	83	na	6	4	2	6	5	3	6	5
W4980-1	85	na	5	3	1	6	5	3	5	6
W5955-1	93	na	6	4	1	6	5	3	3	6
W6483-5	80	na	4	3	2	6	6	3	5	7
W6609-3	86	na	7	5	1	6	5	3	6	7

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 35. External and internal defects of USPB/SFA potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	4	2	8	0	15	0	0	0	8	0	0	0
Snowden	0	0	5	0	5	0	0	0	0	0	0	0
Harley Blackwell	0	0	2	0	2	0	0	0	0	0	0	0
A01143-3C	1	0	0	0	2	0	0	0	0	3	0	0
AF0338-17	0	1	6	0	7	0	0	0	0	0	0	0
AF4157-6	0	0	1	0	2	0	0	0	0	0	3	0
CO00197-3W	0	1	3	1	6	0	0	0	3	0	0	0
CO02321-4W	0	1	7	0	8	0	0	5	0	0	0	0
CO03243-3W	0	0	4	0	5	0	0	0	5	0	0	0
MSL007-B	0	0	7	0	7	0	0	3	0	3	0	0
MSL292-A	0	0	6	1	7	0	0	0	0	0	0	0
MSQ086-3	0	1	13	0	14	0	0	0	0	0	0	0
NY140	0	1	13	0	14	0	0	0	0	0	0	0
NY148	0	0	3	0	3	0	0	0	0	3	0	0
W4980-1	0	0	5	0	5	0	0	0	0	0	0	0
W5955-1	1	1	5	1	8	0	0	0	3	0	0	0
W6483-5	0	3	12	2	16	0	0	0	3	0	0	0
W6609-3	1	0	3	0	4	0	0	0	0	0	0	0
MSD	1	1	3	2	4	ns	ns	ns	ns	ns	ns	ns
P Value	*<.0001*	*<.0001*	*<.0001*	*0.0070*	*<.0001*	*ns*	*0.4736*	*0.4736*	*0.6850*	*0.5837*	*0.4736*	*ns*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

CHAPTER 13. NE1231 REGIONAL PROJECT POTATO VARIETY TRIAL, 2013

General Comments

The NE1231 Regional Project is a multi-state potato evaluation program developed to identify and evaluate new and advanced potato clones. The production, adaptation, and performance stability of new potato clones is documented under a wide range of geographic, climatic, soil, and cultural conditions. The University of Maine produces and supplies all cooperators with similar seed.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 28, 2013
Vine Kill Dates	May 9, 2013
Harvest Date	June 3, 2013
Season Length	101 days planting to vine kill; 126 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	12 (Standard: Atlantic)
Number of Clones	11
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	BNC182-5 (243 cwt/acre or 27.2 MT/ha)
Highest Marketable Yield	NY148 (157 cwt/acre or 17.6 MT/ha)
Highest Specific Gravity	Yukon Gold and NY148 (1.056)
Best Overall Appearance	AF0338-17, BNC182-5, and NY150 (7.0, good)

Table 36. Production statistics for the NE1231 Variety Trial potato selections.

	Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	198	112	100	2	9	68	13	8	0	90	22	1.052
Chieftain	229	151	134	3	14	79	3	1	0	83	3	1.044
Classic Russet	139	86	77	2	23	74	1	0	0	75	1	1.049
Dakota Crisp	192	113	101	2	11	82	5	0	0	87	5	1.047
Dakota Trailblazer	163	61	54	4	28	68	0	0	0	68	0	1.048
Dark Red Norland	114	58	52	3	19	74	2	2	0	78	4	1.043
Katahdin	199	127	113	2	12	77	6	2	0	85	8	1.050
Kennebec	56	8	7	26	38	32	5	0	0	36	5	1.051
Rochdale Gold-Doree	157	83	74	4	12	49	23	13	0	84	36	1.052
Snowden	184	94	84	5	22	69	4	0	0	73	4	1.054
Superior	88	36	32	3	42	51	4	0	0	55	4	1.055
Yukon Gold	116	43	39	3	17	73	7	0	0	80	7	1.056
AF0338-17	225	131	116	3	9	69	14	6	0	88	19	1.050
AF3362-1	155	59	53	2	38	55	3	1	0	59	5	1.047
AF4013-3	147	53	47	6	34	56	4	0	0	60	4	1.053
AF4124-4	108	41	37	5	30	66	0	0	0	66	0	1.049
AF4124-7	139	53	47	5	19	72	4	0	0	76	4	1.052
AF4138-8	207	115	103	4	21	72	4	0	0	76	4	1.042
AF4157-6	152	83	74	16	19	64	1	0	0	65	1	1.053
AF4320-17	143	60	53	8	38	53	1	0	0	54	1	1.051
BNC182-5	243	148	131	3	12	72	10	2	0	84	13	1.045
NY148 (NYE106-4)	239	157	140	3	16	70	10	1	0	80	10	1.056
NY150 (NYF52-1)	179	27	24	27	59	14	0	0	0	14	0	1.055
MSD[3]	77	68		12	17	20	9	5	ns			0.004
P Value	*<.0001*	*<.0001*		*0.0002*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*ns*			*<0.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 37. Plant growth and tuber characteristics of the NE1231 Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	78	na	8-5	6.5	2	6	5	3	5	6
Chieftain	91	na	8	5.5	2	3	6	3	3	5
Classic Russet	80	na	7	6.3	2	5	3	4	7	5
Dakota Crisp	91	na	8-5	5.5	1	7	6	3	5	5
Dakota Trailblazer	92	na	8-5	6.5	2	5	4	4	4	4
Dark Red Norland	78	na	5-8	2.3	2	3	6	3	6	3
Katahdin	89	na	5-8	4.3	2	7	6	3	3	5
Kennebec	74	na	7.5	6.8	2	7	7	3	3	3
Rochdale Gold-Doree	83	na	8-5	5.0	4	7	6	2	6	5
Snowden	74	na	9-6	6.0	1	6.5	5	2	5	6
Superior	84	na	8-5	6.3	2	7	5	3	4	5
Yukon Gold	79	na	7-4	4.5	4	7	7	3	5	5
AF0338-17	83	na	5-8	6.0	1	7	5	3	5	7
AF3362-1	94	na	8-5	3.5	1	6	4	6	4	5
AF4013-3	90	na	5-8	5.3	4	7	7	3	4	6
AF4124-4	98	na	8	5.5	1	6	5	4	6	5
AF4124-7	89	na	7	6.3	1	6	3	3	6	5
AF4138-8	86	na	5-8	3.5	1	8	6	3	4	6
AF4157-6	93	na	5-8	5.5	2	7	6	3	4	6
AF4320-17	77	na	8-5	6.0	1	6	3	4	6	6
BNC182-5	85	na	5-8	5.8	2	7	5	2	5	7
NY148 (NYE106-4)	83	na	5-8	5.5	2	7	5	3	6	6
NY150 (NYF52-1)	80	na	5	5.5	1	8	8	2	5	7

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 38. External and internal defects of the NE1231 Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	3	0	5	35	42	0	0	0	0	0	0	0
Chieftain	0	0	5	22	28	0	0	0	0	0	0	0
Classic Russet	3	0	6	20	29	0	0	0	0	0	0	0
Dakota Crisp	0	1	10	22	32	0	0	0	0	0	0	0
Dakota Trailblazer	1	2	4	41	49	0	0	0	0	0	0	0
Dark Red Norland	0	0	11	30	41	0	0	0	0	0	0	0
Katahdin	0	0	7	19	26	0	0	0	0	0	0	0
Kennebec	1	2	20	49	71	0	0	0	0	0	0	0
Rochdale Gold-Doree	0	0	7	32	39	0	0	0	0	0	0	0
Snowden	0	0	5	37	42	0	0	0	0	0	0	0
Superior	0	0	4	48	52	0	0	0	0	0	0	0
Yukon Gold	0	0	5	48	53	0	0	0	0	0	0	0
AF0338-17	1	2	3	31	37	0	0	0	0	0	0	0
AF3362-1	0	0	8	34	42	0	0	0	0	0	0	0
AF4013-3	0	0	5	37	42	0	0	0	0	0	0	0
AF4124-4	0	4	5	33	42	0	0	0	0	0	0	0
AF4124-7	0	12	5	33	50	0	0	0	0	0	0	0
AF4138-8	0	1	6	20	26	0	0	3	0	0	0	0
AF4157-6	0	0	3	27	30	0	0	0	0	0	0	0
AF4320-17	1	1	0	30	32	0	0	0	0	0	0	0
BNC182-5	0	0	4	24	28	0	0	0	0	0	0	0
NY148 (NYE106-4)	0	0	4	16	21	0	0	0	0	0	0	0
NY150 (NYF52-1)	0	0	2	14	16	0	0	0	0	0	0	0
MSD[3]	ns	4	9	23	21	ns	ns	ns	ns	ns	ns	ns
P Value	*0.2880*	*<0.0001*	*0.0140*	*0.0041*	*<.0001*	*ns*	*0.4768*	*0.5768*	*ns*	*ns*	*ns*	*ns*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 14. HZPC VARIETY TRIAL, 2013

General Comments

A goal of the HZPC potato trial is to identify new varieties and clones that perform well under Florida growing conditions.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 28, 2013
Vine Kill Dates	May 9, 2013
Harvest Date	May 28, 2013
Season Length	101 days planting to vine kill; 120 days planting to harvest
Fertilizer Program	preplant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	28 (Standard: Yukon Gold)
Number of Clones	44
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	2 replication observational trial
Plot Size	16 ft (4.8 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	HZC 97-185 (253 cwt/A or 28.3 MT/ha)
Highest Marketable Yield	HZC 97-185 (138 cwt/A or 15.4 MT/ha)

Table 39. Production statistics for the HZPC Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
Yukon Gold	136	45	100	6	18	72	4	0	0	76	4	1.053
Adora	156	65	144	4	20	74	2	0	0	76	2	1.046
Annabelle	96	8	18	14	74	12	0	0	0	12	0	1.044
Atlantic	218	66	147	4	10	78	4	3	0	86	7	1.058
Carrera	182	46	102	4	24	66	6	0	0	72	6	1.040
Cecile	170	15	33	10	77	12	0	0	0	12	0	1.045
Challenger	211	112	251	6	31	63	0	0	0	63	0	1.050
Chopin	89	15	34	28	35	37	0	0	0	37	0	1.051
Ciklamen	178	46	104	11	62	27	0	0	0	27	0	1.056
Dione	149	76	169	4	29	68	0	0	0	68	0	1.046
Elkton	172	111	248	13	26	32	18	10	0	60	28	1.051
Fabula	187	94	210	4	14	72	5	5	0	82	10	1.039
Harley Blackwell	220	126	280	3	17	71	8	1	0	81	9	1.055
Innovator	125	33	75	6	33	61	0	0	0	61	0	1.051
Ivory Russet	110	40	89	8	46	46	0	0	0	46	0	1.057
Marcy	165	72	160	8	18	63	8	3	0	74	11	1.052
Marilyn	111	12	26	22	65	13	0	0	0	13	0	1.043
Mozart	163	62	139	5	25	70	0	0	0	70	0	1.047
Opera	134	49	110	6	26	66	2	0	0	68	2	1.057
Parella	124	50	112	7	26	67	0	0	0	67	0	1.045

Table 39 (cont'd). Production statistics for the HZPC Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Red LaSoda	195	56	124	5	14	76	4	0	0	80	4	1.045
Satina	211	68	151	3	13	69	16	0	0	84	16	1.045
Sifra	156	40	90	17	36	45	2	0	0	47	2	1.045
Smart	151	44	98	10	54	36	0	0	0	36	0	1.049
Snowbird	155	55	123	6	19	73	3	0	0	76	3	1.052
Sylvana	133	38	84	7	14	71	8	0	0	79	8	1.041
Taurus	194	81	181	8	38	52	2	0	0	54	2	1.057
Vivaldi	142	43	96	11	39	49	0	0	0	49	0	1.047
HZ-00-1036	105	59	132	20	30	41	8	1	0	50	10	1.046
HZ-97-185	253	138	308	4	21	76	0	0	0	76	0	1.052
HZ-99-482	127	44	99	16	50	33	1	0	0	34	1	1.053
HZC 01-6087	98	15	33	3	32	65	0	0	0	65	0	1.055
HZC 04-6029	217	91	202	4	12	79	5	0	0	84	5	1.047
HZC 04-6037	113	7	15	22	70	8	0	0	0	8	0	1.047
HZC 05-6026	108	34	75	9	52	38	0	0	0	38	0	1.045
HZC 05-6054	175	46	102	9	18	73	0	0	0	73	0	1.049
HZC 05-6067	162	50	111	14	46	40	0	0	0	40	0	1.054
HZC 06-6039	124	35	78	30	26	45	0	0	0	45	0	1.045
HZC 06-6068	166	55	123	6	15	72	7	0	0	79	7	1.042
HZC 06-6077	154	45	101	9	27	64	0	0	0	64	0	1.035

Table 39 (cont'd). Production statistics for the HZPC Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
HZC 06-6082	129	13	29	15	73	12	0	0	0	12	0	1.047
HZC 06-6090	150	49	110	8	24	66	2	0	0	68	2	1.046
HZC 06-6109	94	35	79	25	37	34	4	0	0	38	4	1.045
HZC 06-6117	153	62	138	6	32	63	0	0	0	63	0	1.046
HZC 07-6009	119	57	127	3	18	70	9	0	0	79	9	1.053
HZC 07-6032	99	36	79	8	51	38	3	0	0	41	3	1.056
HZC 07-6035	177	66	147	6	33	59	2	0	0	61	2	1.045
HZC 07-6039	114	47	104	12	40	47	1	0	0	48	1	1.046
HZC 07-6040	123	44	97	13	36	50	1	0	0	52	1	1.046
HZC 07-6043	176	82	182	3	30	66	0	0	0	66	0	1.043
HZC 07-6045	135	41	91	5	50	45	0	0	0	45	0	1.047
HZC 07-6047	178	69	155	8	39	53	0	0	0	53	0	1.036
HZC 07-6049	131	54	119	5	32	63	0	0	0	63	0	1.039
HZC 07-6056	128	26	59	16	67	17	0	0	0	17	0	1.048
HZC 07-6061	140	29	64	10	47	43	0	0	0	43	0	1.043
HZC 07-6071	125	28	62	11	21	57	11	0	0	68	11	1.036
HZC 07-6072	62	11	25	11	48	41	0	0	0	41	0	1.042
HZC 07-6077	124	36	79	7	17	75	0	0	0	75	0	1.043
HZC 07-6083	73	3	6	29	65	6	0	0	0	6	0	1.047
HZC 07-6086	125	46	102	7	38	55	0	0	0	55	0	1.045

Table 39 (cont'd). Production statistics for the HZPC Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C	B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
HZC 07-6091	137	53	119	9	21	70	0	0	0	70	0	1.051
HZC 07-6093	104	29	65	12	29	60	0	0	0	60	0	1.048
HZC 07-6099	200	90	201	5	30	64	1	0	0	65	1	1.040
HZC 07-6101	110	24	53	17	56	27	0	0	0	27	0	1.044
HZC 07-6104	117	20	44	11	68	21	0	0	0	21	0	1.041
HZC 07-6111	130	64	142	7	37	54	2	0	0	56	2	1.044
HZC 07-6112	155	59	132	15	42	42	2	0	0	43	2	1.045
HZC 07-6137	117	31	70	14	51	35	0	0	0	35	0	1.042
HZC 07-6150	195	74	166	7	34	59	0	0	0	59	0	1.048
HZC 07-6154	188	64	143	6	36	57	0	0	0	57	0	1.046
HZC 07-6155	192	75	167	7	33	59	1	0	0	60	1	1.042
HZC 07-6157	202	79	176	7	25	68	0	0	0	68	0	1.049
MSD[3]	101	85		21	16	22	19	9	ns			0.004
P Value	*0.0190*	*0.0207*		*0.0746*	*<.0001*	*<.0001*	*0.0030*	*0.1239*	*ns*			*<.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 40. Plant growth and tuber characteristics of the HZPC Variety Trial potato selections

	Plant Growth Characteristics[1]			
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity
Yukon Gold	54	na	8	6.3
Adora	82	na	5-8	6.0
Annabelle	83	na	5	5.0
Atlantic	89	na	5	5.0
Carrera	83	na	5-8	4.7
Cecile	90	na	5	4.0
Challenger	83	na	4	6.7
Chopin	85	na	7	5.3
Ciklamen	71	na	7	6.3
Dione	85	na	8	5.3
Elkton	69	na	7	6.7
Fabula	78	na	8-5	4.7
Harley Blackwell	96	na	5-8	4.7
Innovator	94	na	8	6.0
Ivory Russet	83	na	8	4.3
Marcy	85	na	7	6.3
Marilyn	93	na	8	5.0
Mozart	74	na	8	6.3
Opera	81	na	8-5	5.0
Parella	88	na	5	3.0

Table 40 (cont'd). Plant growth and tuber characteristics of the HZPC Variety Trial potato selections

	Plant Growth Characteristics[1]			
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity
Red LaSoda	86	na	8	4.7
Satina	88	na	8-5	6.0
Sifra	81	na	8	7.7
Smart	86	na	5	4.7
Snowbird	97	na	8	6.7
Sylvana	86	na	8	5.0
Taurus	78	na	8.5	6.7
Vivaldi	71	na	8	6.3
HZ-00-1036	57	na	5	5.7
HZ-97-185	94	na	5	5.0
HZ-99-482	82	na	5-8	6.0
HZC 01-6087	75	na	8-5	4.3
HZC 04-6029	85	na	5	5.3
HZC 04-6037	86	na	5-8	6.7
HZC 05-6026	82	na	8-5	4.7
HZC 05-6054	76	na	8	4.3
HZC 05-6067	82	na	8	6.0
HZC 06-6039	75	na	7	4.0
HZC 06-6068	76	na	5	4.3
HZC 06-6077	82	na	5	5.0

Table 40 (cont'd). Plant growth and tuber characteristics of the HZPC Variety Trial potato selections

	Plant Growth Characteristics[1]			
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity
HZC 06-6082	89	na	6	5.7
HZC 06-6090	82	na	8	6.0
HZC 06-6109	56	na	5	5.0
HZC 06-6117	92	na	8-5	4.7
HZC 07-6009	58	na	5	4.7
HZC 07-6032	81	na	8	4.7
HZC 07-6035	97	na	5	5.0
HZC 07-6039	83	na	5	3.7
HZC 07-6040	90	na	5	3.3
HZC 07-6043	97	na	5	3.0
HZC 07-6045	90	na	8-5	2.0
HZC 07-6047	93	na	5	4.3
HZC 07-6049	79	na	7	4.7
HZC 07-6056	83	na	5	3.7
HZC 07-6061	74	na	8-5	4.3
HZC 07-6071	92	na	5-8	4.3
HZC 07-6072	68	na	7	7.0
HZC 07-6077	81	na	8	4.3
HZC 07-6083	83	na	4	4.0
HZC 07-6086	94	na	6	3.7

Table 40 (cont'd). Plant growth and tuber characteristics of the HZPC Variety Trial potato selections

	Plant Growth Characteristics[1]			
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity
HZC 07-6091	92	na	8-5	5.0
HZC 07-6093	93	na	5	4.7
HZC 07-6099	90	na	5	2.3
HZC 07-6101	90	na	8-5	3.0
HZC 07-6104	85	na	5	6.7
HZC 07-6111	76	na	7	5.3
HZC 07-6112	74	na	5	6.7
HZC 07-6137	86	na	7	4.3
HZC 07-6150	90	na	5	3.0
HZC 07-6154	100	na	5	3.3
HZC 07-6155	86	na	5-8	4.0
HZC 07-6157	83	na	5	4.7

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 41. External and internal defects of the HZPC Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Yukon Gold	0	3	7	48	58	0	0	0	0	0	0	0
Adora	0	1	4	40	45	0	0	0	0	0	0	0
Annabelle	0	1	3	28	31	0	0	0	0	0	0	0
Atlantic	1	0	8	55	65	0	0	0	0	0	0	0
Carrera	1	3	4	57	65	0	0	0	0	0	0	0
Cecile	0	0	5	19	24	0	0	0	0	0	0	0
Challenger	0	0	5	12	16	0	0	0	0	0	0	0
Chopin	0	0	0	63	63	0	0	0	0	0	0	0
Ciklamen	0	0	1	11	12	0	0	0	0	0	0	0
Dione	1	1	11	17	29	0	0	0	0	0	0	0
Elkton	0	0	0	21	22	0	0	0	0	0	0	0
Fabula	1	2	3	37	42	0	0	0	0	0	0	0
Harley Blackwell	0	0	4	32	35	3	0	0	0	0	0	0
Innovator	2	4	12	41	58	0	0	0	0	0	0	0
Ivory Russet	0	2	1	30	32	0	0	0	0	0	0	0
Marcy	0	0	6	40	47	0	0	0	0	0	0	0
Marilyn	0	1	3	10	13	0	0	0	0	0	0	0
Mozart	1	1	7	38	46	0	0	0	3	0	0	0
Opera	1	0	7	38	46	0	0	0	0	0	0	0
Parella	0	4	1	34	39	0	0	0	0	0	0	0

Table 41 (cont'd). External and internal defects of the HZPC Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Red LaSoda	0	1	9	54	64	0	0	0	0	0	0	0
Satina	1	2	10	48	62	0	0	0	0	0	0	0
Sifra	0	4	5	44	53	0	0	0	0	0	0	0
Smart	0	0	1	25	25	0	0	0	0	0	0	0
Snowbird	0	2	11	41	55	0	0	0	0	0	0	0
Sylvana	6	2	6	50	65	0	0	0	0	0	0	0
Taurus	1	1	5	17	24	0	0	0	0	0	0	0
Vivaldi	0	0	4	36	40	0	0	0	0	0	0	0
HZ-00-1036	0	0	2	40	43	0	0	0	0	3	0	0
HZ-97-185	0	2	2	26	30	0	0	0	0	0	0	0
HZ-99-482	0	0	4	11	15	0	0	0	0	0	0	0
HZC 01-6087	14	0	15	46	75	na	na	na	na	na	na	na
HZC 04-6029	5	0	8	37	50	0	0	0	0	0	0	0
HZC 04-6037	0	0	0	31	32	0	0	0	0	0	0	0
HZC 05-6026	0	0	6	24	30	0	0	0	0	0	0	0
HZC 05-6054	0	0	7	58	65	0	0	0	0	0	0	0
HZC 05-6067	0	2	1	19	23	0	0	0	0	0	0	0
HZC 06-6039	0	0	4	61	64	0	0	0	0	5	0	0
HZC 06-6068	5	1	6	45	58	0	0	0	0	0	0	0
HZC 06-6077	0	1	1	51	54	0	0	0	0	0	0	0

Table 41 (cont'd). External and internal defects of the HZPC Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
HZC 06-6082	0	10	0	7	17	0	0	0	0	0	0	0
HZC 06-6090	0	1	4	47	51	0	0	0	0	0	0	0
HZC 06-6109	0	0	4	29	33	0	0	0	0	0	0	0
HZC 06-6117	0	1	3	31	35	0	0	0	0	0	0	0
HZC 07-6009	0	4	11	29	44	0	0	0	0	0	0	0
HZC 07-6032	0	0	12	20	33	0	0	0	0	0	0	0
HZC 07-6035	0	1	1	38	40	0	0	0	0	3	0	0
HZC 07-6039	1	0	7	20	28	0	0	0	0	0	0	0
HZC 07-6040	1	0	2	39	42	0	0	0	0	0	0	0
HZC 07-6043	0	0	5	27	32	0	0	0	0	0	0	0
HZC 07-6045	5	1	11	15	32	0	0	0	0	0	0	0
HZC 07-6047	0	0	7	27	34	0	0	0	0	0	0	0
HZC 07-6049	1	2	9	30	43	0	0	0	0	0	0	0
HZC 07-6056	0	0	2	13	16	0	0	0	0	0	0	0
HZC 07-6061	0	0	13	38	51	0	0	0	0	0	0	0
HZC 07-6071	1	0	10	60	71	0	0	0	0	0	0	0
HZC 07-6072	0	2	3	51	55	0	0	0	0	0	0	0
HZC 07-6077	2	13	7	40	62	0	0	0	0	0	0	0
HZC 07-6083	0	0	6	14	20	0	0	0	0	0	0	0
HZC 07-6086	0	1	8	27	35	0	0	0	0	0	0	0

Table 41 (cont'd). External and internal defects of the HZPC Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
HZC 07-6091	2	0	3	42	47	0	0	0	0	0	0	0
HZC 07-6093	5	0	7	41	53	0	0	0	0	0	0	0
HZC 07-6099	1	0	15	18	33	0	0	0	0	0	0	0
HZC 07-6101	0	0	4	14	18	0	0	0	0	0	0	0
HZC 07-6104	0	4	4	18	26	0	0	0	0	0	0	0
HZC 07-6111	0	0	4	24	29	0	0	0	0	0	0	0
HZC 07-6112	0	5	4	33	43	0	0	0	0	0	0	0
HZC 07-6137	0	0	2	29	32	0	0	0	0	0	0	0
HZC 07-6150	0	1	3	34	38	0	0	0	0	0	0	0
HZC 07-6154	0	0	7	33	40	0	0	0	0	0	0	0
HZC 07-6155	0	0	2	35	37	0	0	0	0	0	0	0
HZC 07-6157	0	1	8	33	41	0	0	0	0	0	0	0
MSD[3]	ns	4	ns	3	3	ns	ns	ns	ns	ns	ns	ns
P Value	*0.0588*	*0.0002*	*0.4460*	*<.0001*	*<.0001*	*0.5211*	*ns*	*ns*	*0.5345*	*ns*	*ns*	*ns*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 15. REAL POTATOES VARIETY TRIAL, 2013

General Comments

A goal of the REAL Potato Variety trial is to identify a short-season tablestock potato variety with better production and quality characteristics.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	February 12, 2013
Vine Kill Date	May 16, 2013
Harvest Date	June 3, 2013
Season Length	93 days planting to vine kill, 111 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	17 (Standard: Atlantic)
Number of Clones	5
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	Kikko (393 cwt or 44.0 T/ha)
Highest Marketable Yield	Marcy (215 cwt or 24.1 T/ha)
Highest Appearance Rating	Lanorma, Marcy, and RP98453 (7.0, good)

Table 42. Production statistics for the REAL Potato Variety Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
LaChipper	239	59	100	5	19	73	0	3	0	76	3	1.056
Argos	335	37	62	8	15	69	8	0	0	77	8	1.041
Bettina	320	98	166	4	27	66	3	0	0	69	3	1.055
Dark Red Chieftain	173	47	80	7	37	56	0	0	0	56	0	1.052
Dark Red Norland	249	69	116	4	21	73	2	0	0	75	2	1.055
Emma	233	44	75	8	19	54	13	6	0	73	19	1.056
Envol	288	171	290	2	9	81	7	2	0	89	8	1.060
Harley Blackwell	297	159	269	4	12	74	7	3	0	85	10	1.066
Kikko	393	118	200	3	14	79	3	1	0	83	4	1.049
Lanorma	269	134	227	5	10	83	3	0	0	85	3	1.052
Marcy	345	215	364	2	6	77	14	2	0	93	16	1.062
Nadine	221	62	105	4	23	70	3	0	0	73	3	1.044
Nectar	353	149	251	2	18	79	1	0	0	81	1	1.056
Peter Wilcox	267	162	275	2	21	75	2	0	0	77	2	1.060
Satina	385	61	104	5	11	73	10	0	0	84	10	1.048
Sunrise	262	69	117	4	13	73	5	4	0	83	10	1.057
Yukon Gold	196	45	76	4	9	79	8	0	0	87	8	1.063
AF0338-17	212	59	99	4	17	75	4	0	0	79	4	1.064
BTX2103	71	12	20	20	55	25	0	0	0	25	0	1.054
RP2332	182	49	82	3	13	83	0	0	0	83	0	1.051
RP549R	262	142	241	1	3	87	4	6	0	96	9	1.059
RP98453	140	56	95	4	21	74	0	0	0	74	0	1.060
MSD[3]	65	54		8	9	12	8	8	ns			0.003
P Value	*<.0001*	*<.0001*		*0.3035*	*<.0001*	*0.0002*	*0.0019*	*0.3906*	*ns*			*<.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 43. Plant growth and tuber characteristics of the REAL Potato Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
LaChipper	95	na	9-6	1.5	1	8	7	3	3	6
Argos	90	na	8-5	4.5	2	7	7	4	6	5
Bettina	80	na	9-6	4.3	4	7	6	3	6	6
Dark Red Chieftain	88	na	7.5	3.3	1	2	6	2	5	6
Dark Red Norland	93	na	4-1	1.3	2	2	6	3	4	5
Emma	92	na	8-5	2.8	3	7	7	3	6	5
Envol	91	na	7-4	1.8	1	7	6	3	4	6
Harley Blackwell	94	na	9-6	3.5	1	6	5	2	3	6
Kikko	91	na	9-6	6.3	3	7	7	3	4	5
Lanorma	73	na	9-6	5.8	3	8	7	4	5	7
Marcy	92	na	8.5	5.0	1	6	5	4	5	7
Nadine	59	na	7	4.8	1	7	6	3	6	5
Nectar	89	na	9-6	6.3	3	7	6	4	5	6
Peter Wilcox	86	na	6-9	4.0	4	1	6	4	5	6
Satina	97	na	9-6	3.3	3	6	6	3	4	5
Sunrise	92	na	8-5	4.3	3	7	7	3	5	6
Yukon Gold	84	na	7	1.5	5	7	6	3	5	5
AF0338-17	98	na	5-8	4.5	1	6	5	2	4	6
BTX2103	13	na	7.5	8.0	4	2	7	2	6	5
RP2332	75	na	8.5	4.0	2	2	6	3	6	5
RP549R	92	na	9	7.0	1	5	3	4	4	6
RP98453	63	na	7	6.5	1	2	6	2	5	7

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 44. External and internal defects of the REAL Potato Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
LaChipper	0	0	3	64	67	0	0	0	0	0	0	0
Argos	0	1	5	80	86	0	0	0	0	0	0	0
Bettina	0	0	5	52	57	0	0	0	0	0	0	0
Dark Red Chieftain	0	0	0	61	62	0	0	0	0	0	0	0
Dark Red Norland	0	0	3	61	64	0	0	0	0	0	0	0
Emma	0	0	2	73	75	0	0	0	5	0	0	0
Envol	0	0	3	31	33	0	0	0	0	3	0	0
Harley Blackwell	0	0	3	36	38	0	0	0	0	0	0	0
Kikko	1	0	6	58	64	0	0	0	3	0	0	0
Lanorma	0	0	1	48	49	0	0	0	0	0	0	0
Marcy	0	0	6	28	34	0	0	0	0	5	0	0
Nadine	1	0	6	56	63	0	0	0	0	0	3	0
Nectar	0	0	3	45	48	0	0	0	0	0	3	0
Peter Wilcox	0	0	1	19	21	0	0	0	3	0	0	3
Satina	0	0	2	80	81	0	0	0	0	0	0	0
Sunrise	1	0	6	62	69	3	0	0	3	0	5	3
Yukon Gold	0	0	8	68	75	0	0	0	0	0	0	0
AF0338-17	0	0	2	64	65	0	0	0	0	0	0	0
BTX2103	0	0	0	41	41	0	0	0	0	0	0	0
RP2332	0	0	3	65	68	0	0	0	0	0	0	0
RP549R	0	0	5	38	43	0	0	0	0	0	0	0
RP98453	0	0	0	47	47	0	0	0	0	0	0	0
MSD[3]	ns	ns	ns	15	15	ns	ns	ns	ns	ns	ns	ns
P Value	*0.0735*	*0.5076*	*0.0590*	*<.0001*	*<.0001*	*0.4718*	*ns*	*ns*	*0.4718*	*0.4718*	*0.5602*	*0.5562*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

CHAPTER 16. CANADIAN INDUSTRIANS VARIETY TRIAL, 2013

General Comments

A goal of the Canadian Industries potato variety trial is to identify varieties and clones that will perform well under Florida growing conditions.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 30, 2013
Harvest Date	May 16, 2013
Season Length	106 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-100 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	12 (Standard: Atlantic)
Number of Clones	4
Within Row Spacing	8 in (20 cm)
Between Row Spacing	40 in (102 cm)
Replications	4
Plot Size	8 ft (2.4 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	Atlantic (330 cwt or 36.9 T/ha)
Highest Marketable Yield	Atlantic (265 cwt or 29.7 T/ha)
Highest Appearance Rating	AR2012-02 (7.0, good)

Table 45. Production Statistics for Canadian Industries Variety Trial potato selections.

	Total	Marketable Yield[1]		Size						Size Class		
	Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	330	265	100	3	7	67	16	8	0	90	24	1.065
Adora	114	89	33	4	9	76	11	0	0	87	11	1.047
Altitude	155	98	37	6	20	71	3	0	0	74	3	1.057
Ambra	125	82	31	9	12	66	13	0	0	79	13	1.044
Faubla	231	187	71	5	8	60	14	14	0	88	28	1.046
LaChipper	258	192	73	5	14	68	10	3	0	81	13	1.055
Peribonka	73	22	8	10	52	38	0	0	0	38	0	na
Red LaSoda	131	101	38	4	7	66	19	4	0	89	23	1.050
Roselys	53	34	13	12	25	63	0	0	0	63	0	na
Sifra	280	229	87	4	11	68	15	1	0	85	17	1.052
Vivaldi	188	98	37	7	25	68	0	0	0	68	0	1.050
Yukon gold	136	82	31	8	22	57	14	0	0	70	14	1.058
AR2012-02	239	199	75	4	12	69	12	3	0	84	15	1.055
AR2012-09	134	17	6	28	60	12	0	0	0	12	0	1.053
AR2012-12	227	156	59	7	19	55	17	3	0	75	19	1.058
STP 00-10	231	140	53	5	22	71	2	0	0	73	2	1.051
MSD[3]	63	69		6	10	19	17	8	ns			0.002
P Value	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.0261*	*0.0074*	*ns*	*<.0001*	*<.0001*	*<.0001*

[1]Marketable Yield: size classes A1 to A3.

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

Table 46. Plant growth and tuber characteristics of Canadian Industries Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	88	na	6-9	4.0	2	5	5	3	5	6
Adora	69	na	5-8	2.8	3	7	6	3	4	5
Altitude	71	na	8-5	4.8	2	7	6	4	4	5
Ambra	56	na	5-8	3.0	3	7	6	3	4	5
Faubla	69	na	7-4	2.8	3	6	6	4	3	5
LaChipper	73	na	9-6	2.8	1	7	7	3	3	6
Peribonka	44	na	8	3.3	1	5	3	4	5	4
Red LaSoda	54	na	8-5	1.3	1	2	7	3	3	5
Roselys	15	na	7.5	7.5	na	na	na	na	na	na
Sifra	71	na	9-6	6.0	2	6	5	3	4	5
Vivaldi	69	na	8-5	5.0	3	7	6	4	4	5
Yukon gold	48	na	5-8	3.5	3	5	6	3	6	5
AR2012-02	85	na	5-8	2.3	2	6	5	3	5	7
AR2012-09	65	na	5	2.3	2	3	6	3	5	6
AR2012-12	71	na	5-8	4.8	3	7	6	3	6	5
STP 00-10	88	na	8-5	3.8	1	7	6	4	5	5

[1]See rating system outlined in Table 1 (page 10).

[2]See rating system outlined in Table 2 (page 11).

Table 47. External and internal defects of Canadian Industries Variety Trial potato selections.

	% External Tuber Defects					% Internal Defects[2]						
	Growth	Mis-	Sun-	Rotten	Total					Brown Center		
Clone	Cracks	shapen	burned	& misc.	Culls[1]	HH	BR	CRS	IHN	L	M	H
Atlantic	3	0	7	1	12	3	0	0	0	8	3	3
Adora	0	1	0	11	12	0	0	0	0	0	0	0
Altitude	1	4	5	5	16	0	0	0	0	3	0	0
Ambra	0	1	2	23	26	0	0	0	3	0	0	0
Faubla	1	0	1	10	12	0	0	0	0	0	0	0
LaChipper	3	4	3	3	13	0	0	0	0	3	3	0
Peribonka	3	4	0	11	17	0	0	0	3	0	0	0
Red LaSoda	0	0	1	14	15	0	0	0	0	5	5	0
Roselys	4	0	0	0	4	0	0	0	15	0	0	0
Sifra	1	2	1	1	4	0	0	0	0	0	0	0
Vivaldi	0	0	5	17	21	0	0	0	0	0	0	0
Yukon gold	2	0	3	21	26	0	0	0	0	5	3	0
AR2012-02	0	0	1	2	3	0	0	0	0	0	0	0
AR2012-09	0	1	0	1	2	3	0	0	0	0	3	0
AR2012-12	1	1	1	13	16	0	0	0	0	5	3	0
STP 00-10	1	1	5	12	19	0	0	0	0	0	0	0
MSD[3]	ns	ns	4	ns	ns	ns	ns	ns	10	6	7	3
P Value	*0.1503*	*0.1280*	*0.0053*	*0.0744*	*0.0513*	*0.5629*	*ns*	*ns*	*0.0216*	*0.2141*	*0.4718*	*0.4685*

[1]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[2]Percent tubers; HH, hollow heart; BR, brown rot; CRS, corky ring spot; IHN, internal heat necrosis.

Brown Center: L = Light, M = Moderate, H = Heavy

[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.

APPENDIX 1. POTATO SEASON WEATHER DATA FOR NORTH FLORIDA, 2013

Weather data obtained from the Florida Automated Weather Network (FAWN). FAWN provides up-to-date weather information through a system of automated weather stations distributed throughout the state of Florida. An automated FAWN weather station is located at the University of Florida/IFAS PWACS Research and Demonstration farm in Hastings, FL. Current and historical weather data can be obtained for many sites in Florida including Hastings at the FAWN website: http://fawn.ifas.ufl.edu/

Table 48. Daily rainfall amounts (inches) at the UF/IFAS Hastings Demonstration Unit Research Farm at Hastings, FL Jan 1 - June 30, 2013.

Day	January	February	March	April	May	June
1	0.00	0.00	0.00	0.03	0.02	0.30
2	0.00	0.00	0.00	0.00	3.66	0.26
3	0.03	0.00	0.00	0.57	4.40	0.67
4	0.00	0.00	0.00	0.01	1.55	0.18
5	0.00	0.00	0.00	0.18	0.01	0.20
6	0.00	0.03	0.00	0.01	0.00	0.81
7	0.00	0.14	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.86
10	0.00	0.00	0.00	0.00	0.00	0.09
11	0.00	0.00	0.00	0.00	0.02	0.01
12	0.00	0.00	0.05	0.00	0.01	0.00
13	0.00	0.06	0.00	0.00	0.00	0.00
14	0.00	0.04	0.00	2.46	0.00	1.08
15	0.00	0.01	0.00	0.00	0.00	0.01
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.03	0.00	0.04	0.00	0.00	0.36
18	0.00	0.00	0.04	0.00	0.17	0.00
19	0.00	0.00	0.00	0.02	0.09	0.00
20	0.00	0.00	0.41	0.61	0.00	0.05
21	0.00	0.00	0.01	0.12	0.02	0.07
22	0.00	0.00	0.00	0.01	1.95	1.21
23	0.00	0.00	1.56	0.00	0.00	0.01
24	0.00	0.00	0.11	0.00	0.00	0.01
25	0.00	0.03	0.00	0.00	0.00	0.00
26	0.00	0.40	0.00	0.00	0.00	0.02
27	0.00	0.00	0.00	0.00	0.00	0.01
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00		0.00	0.92	0.00	0.01
30	0.00		0.00	0.01	0.04	0.03
31	0.05		0.00		0.00	
Total	0.11	0.71	2.22	4.95	11.94	6.25

Table 49. Daily Maximum and Minimum Temperatures (^{o}F) at the UF/IFAS Hastings Demonstration Unit Research Farm at Hastings, FL Jan 1 - June 30, 2013.

	January		February		March		April		May		June	
Day	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	76	48	68	34	62	48	82	58	77	65	84	71
2	78	54	67	37	57	39	77	54	71	68	85	70
3	63	52	67	34	49	33	80	53	70	67	90	72
4	62	50	67	33	64	30	75	66	73	65	83	72
5	67	44	72	42	75	38	67	56	75	61	83	72
6	73	55	68	57	65	46	68	55	72	57	81	73
7	66	49	79	63	64	37	75	56	75	52	88	72
8	74	60	73	56	70	37	79	53	80	56	91	71
9	79	65	67	47	68	40	82	58	83	59	86	70
10	79	62	73	46	73	46	80	57	87	59	90	74
11	82	56	82	55	78	50	88	69	87	66	90	73
12	81	58	83	60	72	55	84	72	84	66	94	72
13	80	53	77	64	71	44	80	57	77	56	94	74
14	80	56	64	51	59	38	78	55	77	51	89	72
15	81	60	66	44	71	34	84	63	82	52	84	74
16	79	60	60	44	79	40	80	64	83	58	84	74
17	77	47	52	30	77	44	78	63	85	60	92	75
18	61	41	62	26	79	60	83	63	86	63	92	72
19	68	53	79	41	81	59	88	71	86	69	93	72
20	70	50	67	48	70	53	73	53	85	69	91	73
21	71	49	72	44	66	44	71	55	85	67	87	72
22	61	41	84	59	66	42	67	62	82	65	86	71
23	63	34	84	66	72	54	72	56	88	67	88	71
24	73	40	72	62	80	66	81	54	88	66	88	72
25	74	49	75	61	66	52	85	58	80	60	90	72
26	74	43	77	62	56	42	79	62	81	57	91	71
27	72	53	68	56	60	36	79	60	81	57	92	71
28	78	57	72	47	67	36	80	63	83	60	91	76
29	80	56			71	38	84	62	85	66	88	76
30	83	65			77	41	83	65	85	71	91	74
31	72	39			81	53			84	70		
AVG.	73	52	71	49	69	44	79	60	81	62	88	72

APPENDIX 2. AVERAGE YEARLY POTATO PRODUCTION STATISTICS FOR POTATOES PRODUCED AT THE UF/IFAS PWACS HASTINGS FARM.

Table 50. Average production statistics for all selections in the Chipping Potato Variety Trial grown at the UF/IFAS Hastings Demonstration Unit Research Farm in each year.

	Total	Marketable Yield[1]						
	Yield		% of	Specific	Total			
Year	(cwt/A)	(cwt/A)	standard	Gravity	Culls[2]	HH[3]	IHN[3]	APP[4]
2001	287	250	84	1.076	*na*	1	1	5.6
2002	267	242	85	1.071	13	0	1	5.8
2003	427	362	87	1.076	3	4	1	5.8
2004	349	278	85	1.083	2	2	1	5.9
2005	308	254	89	1.077	2	0	1	5.8
2006	431	373	100	1.083	5	2	2	5.4
2007	403	345	102	1.080	1	0	0	6.6
2008	351	268	92	1.081	4	1	4	5.5
2009	384	295	85	1.062	14	1	0	5.2
2010	409	271	90	1.067	6	8	2	na
2011	327	251	90	1.075	6	0	3	5.9
2012	382	336	84	1.081	3	1	1	6.2
2013	336	300	101	1.069	4	1	0	5.9

Table 51. Average production statistics for all selections in the Fresh Market Potato Variety Trial grown at the UF/IFAS Hastings Demonstration Unit Research Farm in each year.

	Total	Marketable Yield[1]						
	Yield		% of	Specific	Total			
Year	(cwt/A)	(cwt/A)	standard	Gravity	Culls[2]	HH[3]	IHN[3]	APP[4]
2001	289	254	84	1.070	*na*	0	2	4.8
2002	227	186	82	1.069	21	0	0	5.5
2003	439	363	112	1.065	6	1	0	6.1
2004	353	233	96	1.072	5	1	1	5.5
2005	271	196	78	1.063	3	0	0	5.6
2006	293	236	87	1.066	9	0	0	5.2
2007	332	280	96	1.068	2	0	0	5.9
2008	238	165	111	1.073	2	0	0	5.7
2009	362	247	97	1.060	19	0	0	6.0
2010	294	182	79	1.060	12	0	0	5.9
2011	385	252	89	1.061	12	2	2	5.6
2012	322	230	95	1.061	16	1	1	5.6
2013	126	85	68	1.050	12	1	1	5.7

Table 52. Average production statistics for all selections in the Red and Purple-Skinned Potato Variety Trial grown at the UF/IFAS Hastings Demonstration Unit Research Farm in each year.

	Total Yield	Marketable Yield[1]		Specific	Total			
Year	(cwt/A)	(cwt/A)	% of standard	Gravity	Culls[2]	HH[3]	IHN[3]	APP[4]
2001	221	195	70	1.071	*na*	0	0	5.9
2002	269	233	68	1.065	11	1	1	5.6
2003	453	376	90	1.064	4	1	1	6.0
2004	333	227	70	1.072	2	1	0	5.9
2005	276	213	71	1.064	3	0	0	5.4
2006	330	272	68	1.065	3	0	0	5.7
2007	313	223	68	1.062	1	0	0	5.9
2008	190	93	48	1.069	2	0	0	6.4
2009	290	197	58	1.061	17	0	1	5.5
2010	269	146	62	1.056	6	2	1	6.2
2011	275	146	90	1.062	19	0	0	5.8
2012	225	131	104	1.058	23	0	1	5.9
2013	147	89	78	1.056	13	0	1	5.5

[1]Marketable Yield: size classes A1 to A3.

[2]Percent of Total Yield. Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.

[3]Percent tubers; HH, hollow heart; IHN, internal heat necrosis.

[4]See rating system outlined in Table 2 (page 11).

APPENDIX 3. POTATO SELECTIONS EVALUATED IN 2013

Potato Selection	Page No.	Potato Selection	Page No.
B3075-6	45	B3083-7	45
B3076-1	45	B3083-8	45
B3076-2	45	B3083-9	45
B3078-1	45	B3084-1	45
B3078-2	45	B3084-2	45
B3078-3	45	B3084-3	45
B3078-4	45	B3084-5	45
B3079-1	45	B3084-6	45
B3080-1	45	B3085-1	45
B3080-2	45	B3085-2	45
B3082-1	45	B3085-3	45
B3082-10	45	B3085-4	45
B3082-11	45	B3085-5	45
B3082-12	45	B3086-4	45
B3082-13	45	B3086-5	45
B3082-14	45	B3086-8	45
B3082-15	45	B3086-9	45
B3082-16	45	B3088-11	45
B3082-17	45	B3088-3	45
B3082-18	45	B3088-4	45
B3082-19	45	B3088-5	45
B3082-2	45	B3088-6	45
B3082-20	45	B3088-7	45
B3082-21	45	B3088-8	45
B3082-22	45	B3088-9	45
B3082-3	45	B3091-1	45
B3082-5	45	B3091-2	45
B3082-6	45	B3091-3	45
B3082-7	45	B3091-4	45
B3082-8	45	B3091-5	45
B3082-9	45	B3091-6	45
B3083-1	45	B3091-7	45
B3083-10	45	B3092-1	45
B3083-11	45	B3092-2	45
B3083-13	45	B3093-11	45
B3083-14	45	B3093-12	45
B3083-2	45	B3093-3	45
B3083-4	45	B3093-4	45
B3083-5	45	B3093-6	45
B3083-6	45	B3093-7	45

Potato Selection	Page No.	Potato Selection	Page No.
B3093-8	45	B3101-8	45
B3094-1	45	B3101-9	45
B3094-2	45	B3103-1	45
B3094-4	45	B3103-4	45
B3094-5	45	B3106-10	45
B3095-1	45	B3106-11	45
B3095-10	45	B3106-12	45
B3095-11	45	B3106-7	45
B3095-12	45	B3107-1	45
B3095-13	45	B3107-2	45
B3095-2	45	B3107-4	45
B3095-3	45	B3107-5	45
B3095-4	45	B3107-6	45
B3095-5	45	B3107-7	45
B3095-6	45	B3107-8	45
B3095-7	45	B3116-1	45
B3095-8	45	B3116-10	45
B3095-9	45	B3116-11	45
B3096-1	45	B3116-12	45
B3097-3	45	B3116-14	45
B3097-4	45	B3116-15	45
B3097-5	45	B3116-16	45
B3097-6	45	B3116-17	45
B3097-7	45	B3116-2	45
B3099-1	45	B3116-3	45
B3100-1	45	B3116-4	45
B3100-10	45	B3116-6	45
B3100-13	45	B3116-7	45
B3100-2	45	B3116-8	45
B3100-3	45	B3116-9	45
B3100-4	45	B3117-1	45
B3100-5	45	B3117-2	45
B3100-6	45	B3117-3	45
B3100-7	45	B3117-4	45
B3100-8	45	B3118-1	45
B3100-9	45	B3118-2	45
B3101-1	45	B3118-3	45
B3101-10	45	B3119-1	45
B3101-2	45	B3120-1	45
B3101-4	45	B3120-2	45

Potato Selection	Page No.	Potato Selection	Page No.
B3121-1	45	B3128-6	45
B3121-2	45	B3128-7	45
B3121-3	45	B3128-8	45
B3122-1	45	B3128-9	45
B3122-2	45	B3129-1	45
B3123-1	45	B3130-1	45
B3124-1	45	B3130-2	45
B3124-2	45	B3130-4	45
B3124-3	45	B3130-5	45
B3124-4	45	B3130-6	45
B3124-5	45	B3131-1	45
B3124-6	45	B3131-2	45
B3124-7	45	B3131-3	45
B3125-1	45	B3133-1	45
B3125-2	45	B3133-2	45
B3125-3	45	B3133-3	45
B3125-4	45	B3133-4	45
B3126-1	45	B3133-5	45
B3126-2	45	B3134-1	45
B3126-3	45	B3134-10	45
B3126-4	45	B3134-11	45
B3127-1	45	B3134-12	45
B3127-10	45	B3134-13	45
B3127-13	45	B3134-14	45
B3127-14	45	B3134-2	45
B3127-2	45	B3134-3	45
B3127-3	45	B3134-4	45
B3127-4	45	B3134-5	45
B3127-5	45	B3134-6	45
B3127-6	45	B3134-7	45
B3127-7	45	B3134-8	45
B3127-8	45	B3134-9	45
B3127-9	45	B3135-1	45
B3128-1	45	B3135-10	45
B3128-10	45	B3135-11	45
B3128-11	45	B3135-12	45
B3128-2	45	B3135-13	45
B3128-3	45	B3135-14	45
B3128-4	45	B3135-2	45
B3128-5	45	B3135-3	45