Florida Potato Variety Trial Report, 2012

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FLORIDA POTATO VARIETY TRIAL REPORT, 2012

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PHOTOGRAPH

Cover photo courtesy of Dr. Guilherme B. Buck, former Postdoctoral Research Associate, Horticultural Sciences, University of Florida.

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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 9).

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 incorporated 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, depending on the trial.

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 2012 growing season were rated as fair. Yields in all trials were lower than expected. 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. 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 2012.

FIGURE 1. POTATO VARIETY PROGRAM EVALUATION FLOWCHART

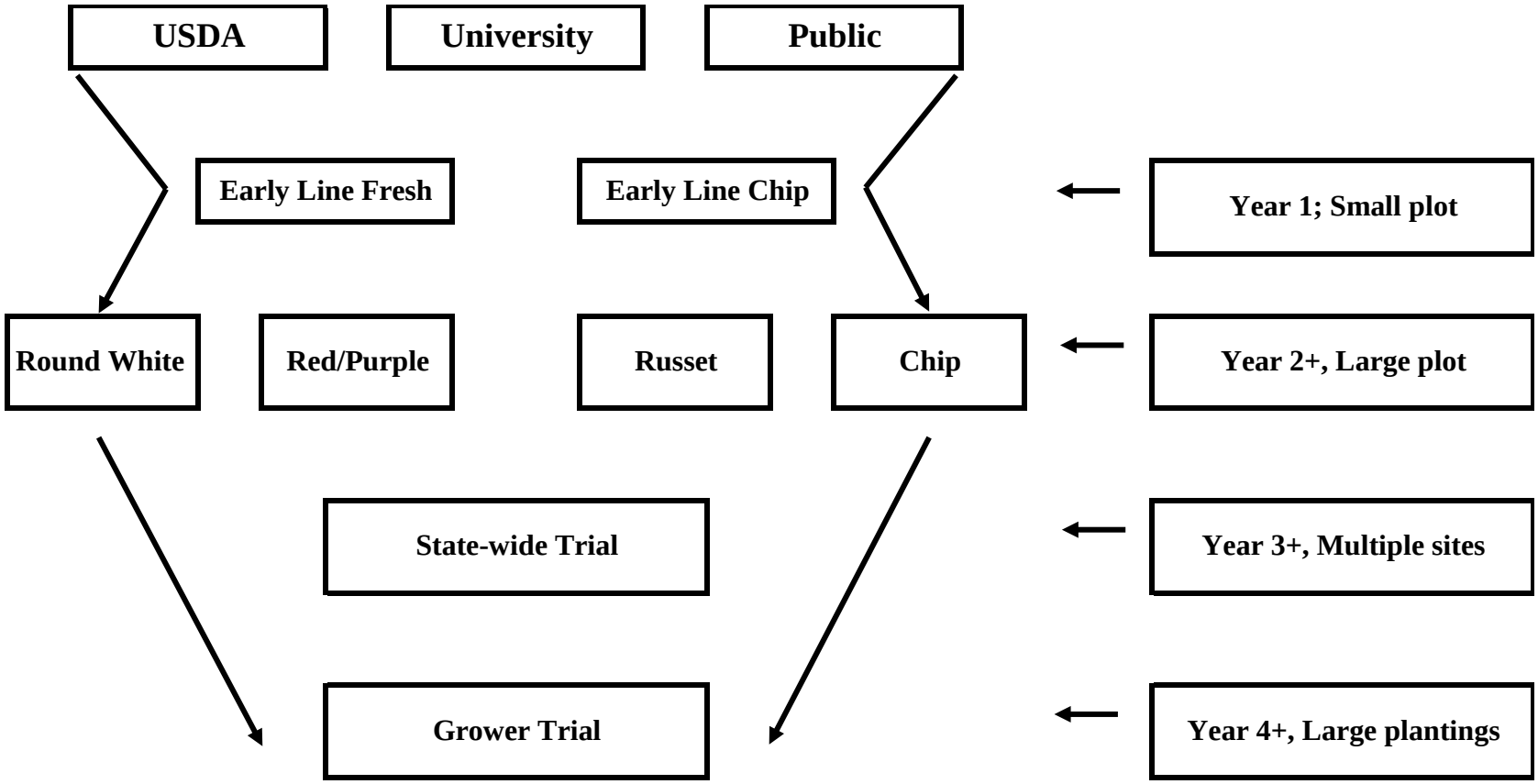

TABLE 1. PLANT GROWTH CHARACTERISTICS

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, 2012

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 2011.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 26, 2012
Vine Kill Dates	April 26, 2012
Harvest Date	May 14, 2012
Season Length	101 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	12 (Standard: Atlantic)
Number of Clones	60
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	43 days after planting
Highest Total Yield	BNC310-6 (476 cwt/acre or 53.3 T/ha)
Highest Marketable Yield	B2971-2 (348 cwt/acre or 38.9 T/ha)
Best Appearance Rating	Atlantic, Peter Wilcox, AF0338-17, B2928-11, B2947-8, B2948-1, B2950-9, B2951-8, B2952-3, B2952-6, B2954-11, B2960-2, B2960-4, B2967-5, B2968-3, BNC304-1, BNC308-3, BNC309-5, BNC314-8, BNC316-1, BNC318-1, BNC320-2, BNC326-7, BNC326-14 (7, good)

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

		Total	Marketable Yield[1]		Size						Size Class		
		Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	Seed Source	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	MFX	351	254	100	1	4	50	41	0	4	91	41	1.075
Adora	HZPC	306	248	98	3	10	61	24	3	0	87	26	1.051
Augusta	HZPC	247	169	66	3	16	61	20	0	0	81	20	1.060
Harley Blackwell	MFX	377	263	104	3	8	54	16	20	0	89	35	1.067
LaChipper	MFX	366	237	93	2	6	44	29	18	0	92	48	1.067
Natascha	Hanse	353	187	74	3	18	78	0	0	0	78	0	1.060
Peter Wilcox	MFX	328	240	94	2	8	70	12	8	0	90	20	1.066
Red LaSoda	MFX	229	76	30	3	10	46	21	20	0	87	41	1.054
Satina	MFX	378	254	100	2	7	45	26	20	0	91	46	1.053
Toscana	Hanse	405	229	90	3	17	73	7	0	0	80	7	1.056
Vivaldi	HZPC	414	183	72	2	14	70	14	0	0	84	14	1.055
Yukon Gold	MFX	145	55	22	2	11	57	30	0	0	87	30	1.061
AF0338-17	UM	314	184	73	2	6	48	23	21	0	92	44	1.065
B2926-5	USDA	214	94	37	2	10	52	30	6	0	88	36	1.052
B2928-6	USDA	347	244	96	2	15	74	9	0	0	83	9	1.064
B2928-9	USDA	291	190	75	2	6	68	16	8	0	93	25	1.055
B2928-11	USDA	143	91	36	5	9	66	15	5	0	86	20	1.058
B2935-2	USDA	297	129	51	14	29	41	12	4	0	57	16	1.054
B2935-3	USDA	289	173	68	6	15	55	14	10	0	78	23	1.066
B2936-2	USDA	408	246	97	7	24	66	2	0	0	68	2	1.077
B2938-8	USDA	247	125	49	8	35	56	0	0	0	56	0	1.067
B2947-3	USDA	228	166	65	2	5	46	30	17	0	94	47	1.063
B2947-7	USDA	350	256	101	2	11	64	17	7	0	88	23	1.074
B2947-8	USDA	349	262	103	4	11	71	7	7	0	85	14	1.066

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	Seed Source	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
B2948-1	USDA	365	292	115	1	4	41	35	19	0	95	53	1.070
B2950-2	USDA	337	206	81	4	15	70	10	2	0	82	12	1.068
B2950-9	USDA	391	289	114	2	18	73	2	4	0	80	6	1.073
B2951-8	USDA	369	273	108	1	8	51	24	16	0	91	40	1.069
B2952-3	USDA	261	156	61	6	28	61	5	0	0	66	5	1.066
B2952-6	USDA	337	227	89	6	21	70	1	2	0	73	3	1.066
B2952-7	USDA	375	252	99	4	19	70	6	2	0	77	7	1.065
B2952-13	USDA	368	213	84	3	11	57	15	14	0	86	29	1.063
B2953-3	USDA	312	192	76	2	19	71	7	0	0	78	7	1.063
B2954-11	USDA	358	291	115	2	4	40	24	29	0	94	53	1.072
B2958-2	USDA	289	200	79	3	5	38	31	19	5	88	49	1.068
B2958-6	USDA	245	152	60	3	12	43	20	21	0	84	41	1.057
B2958-12	USDA	244	129	51	2	10	63	9	17	0	88	26	1.064
B2958-18	USDA	254	88	35	4	12	61	19	5	0	85	23	1.059
B2960-2	USDA	310	186	73	3	26	71	0	0	0	71	0	1.072
B2960-4	USDA	341	221	87	1	9	60	22	8	0	90	29	1.070
B2967-5	USDA	334	287	113	2	8	62	12	16	0	90	28	1.065
B2967-6	USDA	246	183	72	2	16	68	15	0	0	83	15	1.067
B2968-3	USDA	346	260	102	2	8	38	24	28	0	90	52	1.071
B2971-2	USDA	402	348	137	1	7	50	21	21	0	92	42	1.060
B2971-3	USDA	188	157	62	2	10	68	15	5	0	87	19	1.063
BNC304-1	USDA	386	292	115	1	12	75	6	6	0	88	12	1.053
BNC304-2	USDA	340	228	90	3	14	75	7	0	0	83	7	1.067
BNC304-3	USDA	363	136	54	3	8	69	15	5	0	89	20	1.068

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

Clone	Seed Source	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
BNC306-3	USDA	271	194	76	3	14	83	0	0	0	83	0	1.065
BNC307-7	USDA	418	269	106	3	10	49	16	22	0	87	38	1.066
BNC308-3	USDA	394	273	107	2	16	64	7	11	0	82	18	1.069
BNC309-5	USDA	426	337	133	2	8	46	15	28	0	90	43	1.076
BNC310-5	USDA	337	249	98	4	7	59	18	11	0	89	29	1.066
BNC310-6	USDA	476	130	51	10	12	47	18	13	0	77	31	1.052
BNC311-10	USDA	274	128	50	4	7	36	21	31	0	89	53	1.069
BNC312-5	USDA	230	95	37	5	12	32	25	25	0	83	50	1.059
BNC312-6	USDA	271	192	76	3	8	69	14	6	0	89	20	1.072
BNC313-4	USDA	302	146	57	3	14	77	6	0	0	83	6	1.055
BNC314-5	USDA	214	78	31	7	33	60	0	0	0	60	0	1.060
BNC314-6	USDA	262	142	56	4	29	61	6	0	0	67	6	1.071
BNC314-8	USDA	245	148	58	2	15	80	3	0	0	83	3	1.069
BNC316-1	USDA	293	187	74	2	4	87	7	0	0	94	7	1.059
BNC318-1	USDA	299	155	61	7	22	58	3	10	0	71	13	1.072
BNC318-2	USDA	360	216	85	3	7	52	29	9	0	90	38	1.076
BNC318-4	USDA	211	171	67	2	8	68	15	7	0	90	22	1.064
BNC318-5	USDA	303	213	84	1	8	57	20	15	0	91	34	1.070
BNC318-7	USDA	229	131	51	2	10	34	19	34	0	87	53	1.065
BNC318-9	USDA	197	135	53	3	15	49	15	18	0	82	34	1.063
BNC320-2	USDA	351	249	98	1	13	75	8	4	0	86	12	1.061
BNC326-2	USDA	319	228	90	2	5	43	23	26	0	93	50	1.072
BNC326-7	USDA	227	111	44	5	17	74	4	0	0	78	4	1.064
BNC326-14	USDA	379	243	96	1	6	79	11	3	0	94	14	1.063

[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	92	6	9-6	7	7	very nice
Adora	71	5	8-5	6	5	nothing fancy
Augusta	83	6	5-8	5	6	okay
Harley Blackwell	88	6	9-6	6	6	decent
La Chipper	79	5	9-6	7	6	decent
Natascha	79	5	9-6	6	5	nothing fancy
Peter Wilcox	75	6	8-5	7	7	very nice
Red LaSoda	50	4	8	8	na	low yield
Satina	67	6	8	9	5	misshapen
Toscana	71	5	9-6	8	5	nothing fancy
Vivaldi	79	6	8	7	5	lenticels
Yukon Gold	42	5	7	7	na	low yield
AF0338-17	58	5	8-5	8	7	very nice
B2926-5	71	5	7	7	5	fair
B2928-6	67	5	8	8	6	very dark skin
B2928-9	79	6	8-5	7	5	ugly color
B2928-11	71	4	8-7	7	7	low yield
B2935-2	92	6	9	7	5	light skin color
B2935-3	92	4	5	9	5	too netted
B2936-2	83	6	9-6	8	5	russeted skin
B2938-8	92	5	8	5	6	too netted
B2947-3	71	3	na	9	6	decent
B2947-7	96	4	8	7	6	decent
B2947-8	83	4	8	7	7	nice shape

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
B2948-1	92	5	8	7	7	nice size and shape
B2950-2	79	5	8-9	8	5	lenticels
B2950-9	100	6	9-6	7	7	nice size and shape
B2951-8	92	6	8	7	7	attractive
B2952-3	83	6	8-7	5	7	bright skin
B2952-6	71	5	8	7	7	nice shape and skin
B2952-7	71	5	8	7	5	too many shapes
B2952-13	88	5	8-9	7	5	too many shapes
B2953-3	92	6	8	6	5	too many shapes
B2954-11	92	6	8	7	7	nice size and shape
B2958-2	79	4	8	6	5	too many shapes
B2958-6	63	5	7	6	6	okay
B2958-12	58	4	7	7	na	low yield
B2958-18	88	5	8	7	na	low yield
B2960-2	88	5	8-5	7	7	attractive
B2960-4	92	6	7-4	7	7	nice size and shape
B2967-5	63	6	8	7	7	nice size and shape
B2967-6	83	6	8	5	6	decent
B2968-3	75	5	8	7	7	nice size and shape
B2971-2	88	5	8-5	7	5	lenticels/big tubers
B2971-3	71	4	8	6	5	too many shapes
BNC304-1	100	6	8	8	7	nice size and color
BNC304-2	83	5	8	6	6	light skin color
BNC304-3	88	5	8	8	5	misshapen

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
BNC306-3	100	5	9	6	6	very dark skin
BNC307-7	83	5	9	7	6	decent size tubers
BNC308-3	71	5	9-6	7	7	nice shape
BNC309-5	88	5	8	8	7	nice size and shape
BNC310-5	92	6	8	6	6	light skin color
BNC310-6	42	4	7	8	6	light skin color
BNC311-10	54	4	8	9	6	low yield
BNC312-5	63	4	7	9	na	low yield
BNC312-6	92	5	8	6	6	decent
BNC313-4	83	6	8	6	6	dark purple skin
BNC314-5	100	5	8	4	6	light skin color
BNC314-6	88	5	9	5	6	small tubers
BNC314-8	83	5	8	7	7	nice dark purple skin
BNC316-1	63	4	7	9	7	nice purple skin
BNC318-1	54	4	7	9	7	nice shape
BNC318-2	96	5	8-9	9	6	decent
BNC318-4	71	4	7	7	6	okay
BNC318-5	88	5	8-7	7	6	okay
BNC318-7	58	3	7	9	na	low yield
BNC318-9	50	4	7	9	na	low yield
BNC320-2	92	5	9	7	7	nice purple skin
BNC326-2	88	5	8	8	6	okay
BNC326-7	67	3	na	9	7	nice shape/low yield
BNC326-14	75	5	8-7	8	7	nice size and shape

[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	5	0	5	12	21	0	0	0	5	0	0	0
Adora	0	0	1	6	7	0	0	0	0	0	0	0
Augusta	6	0	5	5	16	0	0	0	5	0	0	0
Harley Blackwell	0	0	1	21	22	0	0	0	5	0	0	0
La Chipper	1	5	2	21	29	0	0	0	0	0	0	0
Natascha	0	0	7	25	32	0	0	0	0	0	0	0
Peter Wilcox	1	1	5	13	19	5	0	0	0	0	0	0
Red LaSoda	4	0	14	44	62	0	0	0	0	5	0	0
Satina	0	0	0	26	26	0	0	0	5	15	0	0
Toscana	0	0	3	27	29	0	0	0	0	0	0	0
Vivaldi	0	0	5	43	48	0	0	0	0	0	0	0
Yukon Gold	6	0	8	42	56	0	0	0	0	0	0	0
AF0338-17	1	0	13	23	37	0	0	0	0	0	0	0
B2926-5	3	1	3	43	50	0	0	0	0	0	0	5
B2928-6	5	0	2	9	15	0	0	0	0	0	0	0
B2928-9	6	0	0	23	29	0	0	0	0	0	0	0
B2928-11	3	0	1	21	25	0	0	0	0	0	0	0
B2935-2	0	0	15	9	24	0	0	0	30	0	0	0
B2935-3	0	0	0	24	24	0	0	0	0	0	0	0
B2936-2	0	0	3	9	12	0	0	0	0	0	0	5
B2938-8	0	0	1	9	10	0	0	0	0	5	0	0
B2947-3	0	0	0	22	22	0	0	0	0	0	0	5
B2947-7	1	0	6	9	17	0	0	0	0	5	0	0
B2947-8	0	0	5	7	12	0	0	0	10	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
B2948-1	1	0	5	10	16	0	0	0	0	0	0	0
B2950-2	0	0	4	22	25	0	0	0	0	0	0	0
B2950-9	0	0	1	6	7	0	0	0	0	0	0	0
B2951-8	4	0	6	9	19	15	0	0	0	30	0	0
B2952-3	1	1	1	8	10	0	0	0	0	0	0	0
B2952-6	0	3	3	2	8	0	0	0	0	5	0	0
B2952-7	0	1	2	9	13	0	0	0	0	0	0	0
B2952-13	0	0	9	24	33	5	0	0	0	0	10	0
B2953-3	0	0	5	17	22	0	0	0	0	0	5	0
B2954-11	1	0	7	5	13	0	0	0	0	0	0	0
B2958-2	0	0	4	18	21	0	0	0	0	0	0	0
B2958-6	1	0	7	18	26	5	0	0	0	0	0	0
B2958-12	0	0	4	36	40	0	0	0	0	0	0	0
B2958-18	10	0	5	44	59	0	0	0	0	0	0	0
B2960-2	0	0	5	11	16	0	0	0	0	0	0	0
B2960-4	2	0	1	24	28	0	0	0	0	0	0	0
B2967-5	2	0	3	0	5	0	0	0	5	0	0	0
B2967-6	0	1	2	7	10	0	0	0	0	0	0	0
B2968-3	2	2	4	9	16	0	0	0	0	0	0	0
B2971-2	0	0	1	5	6	10	0	0	0	0	0	0
B2971-3	0	0	1	3	4	0	0	0	0	0	0	0
BNC304-1	0	0	0	13	13	0	0	5	10	0	0	0
BNC304-2	0	4	4	11	19	0	0	0	0	0	0	0
BNC304-3	5	1	27	26	58	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
BNC306-3	1	0	0	13	14	0	0	0	0	0	0	0
BNC307-7	4	0	14	8	26	10	0	0	0	10	0	0
BNC308-3	1	3	4	7	15	0	0	0	0	0	0	0
BNC309-5	0	0	7	5	12	0	0	0	0	0	0	0
BNC310-5	0	0	3	13	16	0	0	0	0	0	0	0
BNC310-6	1	1	62	0	65	0	0	0	0	0	0	0
BNC311-10	19	0	6	23	48	0	0	0	0	0	0	0
BNC312-5	10	0	16	25	50	0	0	0	0	0	0	0
BNC312-6	0	0	13	7	20	0	0	0	0	0	0	0
BNC313-4	0	0	1	40	42	0	0	0	0	0	0	0
BNC314-5	0	0	4	36	40	0	0	0	0	0	0	0
BNC314-6	1	0	4	14	19	0	0	0	0	0	0	0
BNC314-8	0	0	5	22	27	0	0	0	0	0	0	0
BNC316-1	0	0	0	32	32	0	0	0	5	0	0	0
BNC318-1	0	0	9	18	27	0	0	0	0	0	0	0
BNC318-2	8	0	13	12	33	5	0	0	0	0	0	0
BNC318-4	0	0	2	8	11	0	0	0	0	0	0	0
BNC318-5	0	0	0	23	23	5	0	0	0	0	0	0
BNC318-7	0	0	0	35	35	0	0	0	0	0	0	0
BNC318-9	0	0	3	15	17	10	0	0	0	0	0	0
BNC320-2	0	3	0	15	18	0	0	0	0	0	0	0
BNC326-2	0	0	0	23	23	0	0	0	0	0	0	0
BNC326-7	0	0	6	31	37	0	0	0	0	0	0	0
BNC326-14	0	0	4	27	31	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 3. FRESH MARKET POTATO VARIETY TRIAL, 2012

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 20, 2012
Vine Kill Dates	April 18, 2012
Harvest Dates	May 9-10, 2012
Season Length	89 days planting to vine kill; 110-111 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-64 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	19 (Standard: LaChipper)
Number of Clones	19
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	40 days after planting
Highest Total Yield	Merlin (485 cwt/acre or 54.3 T/ha)
Highest Marketable Yield	Merlin (359 cwt/acre or 40.2 T/ha)
Best Appearance Rating	LaChipper, Adora, Lanorma, B2879-82, B2893-2 (7.0, good)

Table 6. Production facts for Fresh Market Tablestock potato selections.

Clone	Seed Source	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
La Chipper	MFX	329	243	100	2	11	51	14	22	1	86	35	1.061
AC Vigor	Canada	266	189	78	4	19	76	2	0	0	77	2	1.065
Adora	HZPC	323	267	110	2	10	78	7	3	0	88	10	1.055
Augusta	MFX	290	190	78	3	17	73	6	1	0	80	7	1.065
Bonus	Canada	366	244	100	3	23	75	0	0	0	75	0	1.071
Chopin	HZPC	306	171	70	4	19	70	4	4	0	77	8	1.057
Emma	Real	351	258	106	2	14	67	17	0	0	84	17	1.061
Fabula	HZPC	216	149	61	2	9	53	24	12	0	89	36	1.044
Katahdin	MFX	310	224	92	2	12	71	15	1	0	86	16	1.064
Lanorma	Real	370	277	114	1	14	79	5	1	0	85	6	1.056
Marcy	MFX	342	285	118	1	5	57	22	16	0	95	38	1.062
Merlin	Real	485	359	148	1	6	45	21	27	0	93	47	1.051
Nadine	Real	348	241	99	3	17	77	2	0	0	80	2	1.047
Nectar	Real	394	269	111	3	21	74	2	0	0	76	2	1.057
Satina	MFX	361	286	118	1	8	52	21	16	1	89	37	1.053
Snowbird	HZPC	263	177	73	3	7	53	27	11	0	90	38	1.061
Tebina	Real	441	291	120	3	21	69	6	1	0	75	7	1.061
Vivaldi	HZPC	393	285	118	3	14	74	6	2	0	83	9	1.062
Yukon Gold	MFX	275	179	74	2	9	48	28	12	0	89	41	1.066
AF0338-17	UM	328	250	103	1	4	58	28	8	1	94	36	1.069

Table 6 (cont'd). Production facts for Fresh Market Tablestock 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
B2820-3	USDA	367	268	110	2	10	70	13	5	0	87	18	1.057
B2827-7	USDA	299	225	93	1	5	70	18	5	0	94	23	1.054
B2827-9	USDA	311	213	88	2	11	73	14	0	0	87	14	1.062
B2832-18	USDA	300	244	101	2	12	72	14	0	0	86	14	1.075
B2832-21	USDA	368	265	109	3	12	51	26	9	0	86	35	1.069
B2833-23	USDA	221	159	65	3	13	70	10	4	0	84	14	1.072
B2834-14	USDA	344	264	109	2	19	71	8	0	0	79	8	1.069
B2858-1	USDA	277	103	42	5	46	50	0	0	0	50	0	1.061
B2872-16	USDA	401	271	112	1	3	41	28	27	1	95	55	1.058
B2879-163	USDA	279	201	83	2	9	65	13	10	0	89	24	1.054
B2879-82	USDA	353	281	116	2	11	58	22	7	0	87	29	1.061
B2883-19	USDA	335	250	103	2	11	72	15	1	0	87	16	1.067
B2883-20	USDA	220	129	53	5	26	69	0	0	0	69	0	1.072
B2883-23	USDA	54	24	10	12	14	33	28	7	5	68	35	1.058
B2886-3	USDA	332	269	111	1	9	61	22	7	0	90	29	1.061
B2893-2	USDA	365	263	108	2	9	64	21	4	0	89	25	1.067
B2902-4	USDA	318	243	100	3	9	55	23	9	0	88	32	1.067
HZ97-185	HZPC	348	245	101	2	22	76	0	0	0	76	0	1.061
MSD[3]		58	66		1.6	5.3	14.7	12.1	10.1	ns	6.2	12.4	0.003
P Value		*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.5115*	*<.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 Waller-Duncan's K-ratio t Test.

Table 7. 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
La Chipper	78	4.8	9-6	6.5	1	8	7	3	3	7
AC Vigor	81	5.0	6.3	6.3	4	7	7	3	5	6
Adora	90	5.3	8-5	3.5	1	7	8	3	4	7
Augusta	83	5.5	5	5.8	5	7	7	4	4	6
Bonus	97	5.5	9-6	6.3	2	7	6	3	4	5
Chopin	67	4.8	7.7	7.0	2	7	8	4	5	5
Emma	81	5.0	8-5	7.0	2	7	7	3	4	6
Fabula	51	3.5	7	8.5	2	7	7	3	4	5
Katahdin	60	4.0	8-5	7.8	1	7	7	3	4	5
Lanorma	78	4.8	8-5	7.3	2	8	8	4	6	7
Marcy	71	4.0	7.8	8.5	1	7	5	3	4	5
Merlin	65	5.3	9-6	6.8	1	7	6	4	6	5
Nadine	78	5.0	7.8	6.5	1	7	6	3	6	5
Nectar	94	5.8	8-5	6.0	3	7	8	4	4	6
Satina	84	4.8	8-5	7.0	4	7	7	3	5	6
Snowbird	76	4.3	8	7.3	2	8	7	3	5	5
Tebina	90	5.5	9-6	7.5	2	7	6	4	5	5
Vivaldi	98	5.3	8-5	5.8	4	7	7	4	5	5
Yukon Gold	85	3.8	7	9.0	4	7	6	3	4	5
AF0338-17	90	5.5	8-5	7.0	1	6	5	3	5	6

Table 7 (cont'd). 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
B2820-3	91	4.5	8-5	5.8	2	7	7	3	6	6
B2827-7	83	5.3	8-5	5.8	1	7	7	4	4	4
B2827-9	63	3.8	8	8.8	1	7	7	3	5	5
B2832-18	93	5.0	8.5	7.0	1	7	6	3	5	4
B2832-21	85	5.0	9-6	7.3	1	7	6	2	5	6
B2833-23	74	4.0	7.5	6.5	1	7	7	3	5	6
B2834-14	84	4.5	8-5	6.8	1	7	6	3	3	5
B2858-1	92	5.0	5-8	5.8	1	8	7	6	4	5
B2872-16	74	4.8	8-5	7.3	1	7	7	3	3	5
B2879-163	70	4.5	6.8	7.5	1	7	7	3	4	6
B2879-82	95	5.3	6-9	6.3	2	8	6	3	3	7
B2883-19	75	5.0	7.5	7.3	1	7	6	4	5	6
B2883-20	70	4.0	7.3	8.3	1	7	6	3	5	6
B2883-23	10	2.0	na	9.0	na	na	na	na	na	na
B2886-3	66	5.0	7.3	7.3	1	6	6	5	5	6
B2893-2	91	5.3	9-6	7.5	1	8	8	7	4	7
B2902-4	85	4.8	8	7.0	1	7	7	6	4	5
HZ97-185	92	5.5	8-5	6.3	5	7	6	4	5	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 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
La Chipper	3	3	2	7	15	1	0	0	11	1	0	0
AC Vigor	0	0	5	3	8	0	0	0	0	0	0	0
Adora	2	1	2	2	7	1	0	1	3	3	0	0
Augusta	3	0	12	4	20	0	0	0	1	0	1	0
Bonus	1	6	3	1	10	0	0	0	1	0	0	0
Chopin	0	0	5	24	28	0	0	0	0	3	0	0
Emma	0	0	5	6	12	0	0	0	0	1	0	0
Fabula	9	1	6	10	27	0	0	0	0	0	0	0
Katahdin	3	0	10	4	17	0	0	0	3	0	0	0
Lanorma	1	0	3	8	12	0	0	0	0	1	0	0
Marcy	0	2	4	6	12	0	1	0	0	0	0	0
Merlin	5	0	6	8	20	1	0	0	4	9	0	0
Nadine	2	0	3	8	14	0	0	0	0	0	0	0
Nectar	0	0	1	8	10	0	0	1	1	0	0	0
Satina	0	1	6	5	12	0	0	0	4	11	1	1
Snowbird	1	1	10	16	28	0	0	0	5	1	0	0
Tebina	1	0	10	2	13	3	0	0	0	0	0	0
Vivaldi	0	0	7	5	12	0	0	0	0	0	1	0
Yukon Gold	1	0	6	20	27	0	0	0	0	1	0	0
AF0338-17	0	0	4	15	19	5	0	0	0	0	0	0

Table 8 (cont'd). External and internal defects of Fresh Market Tablestock 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
B2820-3	0	1	5	10	17	0	0	0	3	3	0	0
B2827-7	1	0	6	13	20	0	0	0	0	1	0	0
B2827-9	0	0	5	16	22	0	0	0	3	0	0	0
B2832-18	0	0	1	4	5	1	0	0	0	0	0	0
B2832-21	0	1	6	11	19	0	0	21	4	0	1	0
B2833-23	2	1	3	10	15	1	0	0	0	0	0	0
B2834-14	0	0	2	1	3	0	0	0	0	0	0	0
B2858-1	0	0	14	10	25	0	0	0	0	0	0	0
B2872-16	3	0	14	12	29	0	0	0	0	0	1	0
B2879-163	2	1	3	13	19	1	0	0	0	1	1	1
B2879-82	0	1	4	3	8	31	0	0	0	10	0	0
B2883-19	0	0	7	8	15	1	0	0	3	4	0	0
B2883-20	0	1	5	10	17	0	0	0	0	0	0	0
B2883-23	0	3	10	21	34	0	0	0	0	0	0	0
B2886-3	1	1	2	6	10	0	0	0	0	0	0	0
B2893-2	10	0	8	1	19	1	0	0	0	6	3	1
B2902-4	1	0	6	6	13	0	0	0	0	3	1	0
HZ97-185	0	1	4	3	8	1	0	0	0	3	0	0
MSD[3]	5.3	ns	5.5	6.7	11.9	6.4	ns	11.8	ns	6.5	ns	ns
P Value	*0.0008*	*0.1999*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.5091*	*0.0357*	*0.3341*	*0.0006*	*0.3852*	*0.5812*

[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 Waller-Duncan's K-ratio t Test.

Chapter 4. Red And Purple Potato Variety Trial, 2012

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 20, 2012
Vine Kill Dates	April 18, 2012
Harvest Date	May 14, 2012
Season Length	89 days planting to vine kill; 115 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	5 (Standard: Red LaSoda)
Number of Clones	15
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	40 days after planting
Highest Total Yield	BNC244-17 (322 cwt/acre or 36.0 T/ha)
Highest Marketable Yield	BNC244-17 (199 cwt/acre or 22.3 T/ha)
Best Appearance Rating	Dark Red Chieftain, French Fingerling, B2538-5 (7.0, good)

Table 9. Production facts for Red and Purple-skinned potato selections.

Clone	Seed Source	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	MFX	250	126	100	2	9	50	15	24	0	90	40	1.053
Dark Red Chieftain	Real	206	136	108	4	17	59	14	6	0	79	20	1.054
Dark Red Norland	USDA	194	108	86	5	17	75	4	0	0	78	4	1.057
French Fingerling[4]	MFX	185	24	19	11	74	15	0	0	0	15	0	1.060
Peter Wilcox	USDA	235	147	116	4	22	69	6	0	0	75	6	1.057
AF4543-2	UM	215	127	101	5	26	66	1	2	0	69	3	1.052
AF4543-3	UM	209	124	99	3	26	68	3	0	0	71	3	1.053
AF4547-1	UM	295	170	135	4	22	65	8	0	0	74	8	1.062
AF4550-2	UM	181	109	86	3	16	75	5	1	0	81	6	1.062
AF4565-1	UM	215	114	91	4	24	68	2	1	0	72	4	1.059
AF4566-4	UM	242	159	126	3	15	67	12	3	0	82	15	1.063
AF4593-1	UM	217	132	105	3	17	67	4	8	1	79	12	1.055
AF4594-1	UM	152	75	59	6	20	59	15	0	0	74	15	1.048
B2538-5	USDA	282	182	144	2	10	80	8	0	0	88	8	1.060
B2756-7	USDA	266	163	129	3	19	77	1	0	0	78	1	1.061
B2844-3	USDA	196	93	74	3	20	68	7	2	0	77	9	1.059
B2873-1	USDA	243	160	127	4	13	62	15	6	0	84	22	1.059
B2874-1	USDA	243	153	121	5	20	67	8	0	0	75	8	1.062
BCO01044-2	USDA	155	115	91	3	18	80	0	0	0	80	0	1.056
BNC244-17	USDA	322	199	158	7	27	64	2	0	0	66	2	1.070
MSD[3]		60	53		2.7	8.5	11.8	13.7	7.9	ns	9.6	10.4	0.003
P Value		*<.0001*	*0.0004*		*0.0046*	*0.0002*	*0.0002*	*0.0264*	*<.0001*	*0.4743*	*0.0001*	*<.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 Waller-Duncan's K-ratio t Test.

[4]Not included in statistical analysis.

Table 10. Plant growth and tuber characteristics of Red and Purple-skinned 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	74	5.3	8-5	7.0	1	3	7	3	3	6
Dark Red Chieftain	80	5.3	7-4	6.3	1	2	6	3	5	7
Dark Red Norland	68	4.5	7.3	7.0	2	2	7	3	4	6
French Fingerling	70	4.8	7-4	7.0	4	salmon	7	crescent	4	7
Peter Wilcox	71	4.0	7	8.8	5	1	6	3	3	5
AF4543-2	81	5.0	8-5	6.0	1	2	7	3	3	6
AF4543-3	82	5.0	8-5	5.5	1	2	7	3	3	5
AF4547-1	90	5.0	6-9	6.8	4	3	6	3	4	5
AF4550-2	78	4.8	7.8	6.5	2	1	7	3	6	6
AF4565-1	73	5.0	8	7.3	2	2	7	3	5	5
AF4566-4	86	4.8	9-6	5.8	1	2	7	3	5	6
AF4593-1	75	4.5	8	6.8	1	2	8	3	4	6
AF4594-1	75	4.8	8	6.8	1	2	7	3	6	5
B2538-5	70	4.0	7.7	8.5	2	1	7	4	4	7
B2756-7	74	4.0	7.8	8.3	4	2	7	3	4	6
B2844-3	90	4.8	8-5	5.5	1	2	7	3	4	6
B2873-1	68	5.0	8-5	6.3	1	1	6	3	6	5
B2874-1	55	4.8	8	8.0	2	2	6	3	4	6
BCO01044-2	82	3.8	7.3	8.0	9-1	1	5	3	4	6
BNC244-17	80	4.8	6-9	8.0	9-3	1	5	3	3	6

[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 Red and Purple-skinned 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
Red LaSoda	16	0	12	16	44	0	0	0	1	0	4	1
Dark Red Chieftain	1	0	2	14	17	0	0	0	0	0	0	0
Dark Red Norland	2	0	7	23	32	0	0	0	0	0	0	0
French Fingerling[4]	0	0	4	7	12	0	0	0	0	3	0	0
Peter Wilcox	2	1	4	9	16	0	1	0	0	0	0	1
AF4543-2	0	0	7	10	17	0	0	0	1	0	0	0
AF4543-3	0	0	4	13	17	0	0	0	1	0	0	0
AF4547-1	7	0	5	9	21	1	0	0	0	0	0	0
AF4550-2	0	0	4	23	27	0	0	1	0	0	1	0
AF4565-1	1	0	9	19	29	0	0	0	5	1	0	0
AF4566-4	2	1	5	14	21	0	0	0	1	1	0	0
AF4593-1	0	0	5	18	22	0	0	0	0	0	0	0
AF4594-1	0	1	18	18	37	0	0	0	0	0	0	0
B2538-5	6	1	4	18	28	0	0	0	0	0	0	0
B2756-7	2	1	9	9	21	0	0	0	1	0	0	0
B2844-3	15	0	8	14	37	0	1	3	0	0	3	1
B2873-1	9	2	5	5	21	0	0	0	0	1	0	0
B2874-1	0	1	11	8	20	0	4	0	1	4	1	1
BCO01044-2	2	0	0	5	8	0	0	0	0	0	0	0
BNC244-17	1	0	1	4	7	0	0	0	0	0	0	1
MSD[3]	6.8	ns	7.2	8.6	10.7	ns	ns	ns	ns	2.0	ns	ns
P Value	*<.0001*	*0.7143*	*0.0006*	*<.0001*	*<.0001*	*0.4743*	*0.4743*	*0.4743*	*0.6866*	*0.0014*	*0.0517*	*0.7506*

[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

[4]Not included in statistical analysis.

CHAPTER 5. USDA EARLY GENERATION STUDY, 2012

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 26, 2012
Vine Kill Dates	April 26, 2012
Harvest Dates	June 4, 2012
Season Length	91 days planting to vine kill; 130 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	Seepage

Experimental Design

Number of Varieties	10 (Standard: Atlantic)
Number of Clones	226
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	42 days after planting
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 12. Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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	MFX	473	369	100	0	3	51	15	30	0	97	45	1.073
Adora	HZPC	332	231	63	1	18	80	0	0	0	80	0	1.053
Augusta	MFX	381	298	81	1	6	77	16	0	0	93	16	1.068
Fabula	HZPC	329	225	61	0	0	62	0	38	0	100	38	1.049
Harley Blackwell	MFX	140	63	17	11	26	26	0	37	0	63	37	1.067
LaChipper	MFX	230	161	44	2	7	52	39	0	0	91	39	1.066
Peter Wilcox	MFX	301	128	35	2	47	72	0	0	0	72	0	1.066
Red LaSoda	MFX	169	21	6	8	56	36	0	0	0	36	0	na
Vivaldi	HZPC	395	253	69	0	13	71	16	0	0	87	0	1.056
Yukon Gold	MFX	244	127	34	2	12	63	0	22	0	86	22	1.070
AF0338-17	UM	290	212	57	0	5	50	45	0	0	95	45	1.068
B2981-1	USDA	377	313	85	1	11	88	0	0	0	88	0	1.062
B2981-2	USDA	62	0	0	100	0	0	0	0	0	0	0	na
B2981-3	USDA	325	289	78	1	10	89	0	0	0	89	0	1.069
B2981-4	USDA	376	258	70	3	19	78	0	0	0	78	0	1.069
B2981-5	USDA	251	201	55	4	5	49	42	0	0	91	42	1.076
B2981-6	USDA	262	196	53	2	19	79	0	0	0	79	0	1.076
B2981-7	USDA	368	326	89	0	5	43	52	0	0	95	52	1.067
B2982-1	USDA	359	221	60	5	6	89	0	0	0	89	0	1.069
B2982-2	USDA	232	158	43	1	22	77	0	0	0	77	0	1.077
B2982-3	USDA	157	122	33	3	6	92	0	0	0	92	0	1.066
B2982-4	USDA	249	140	38	8	9	22	61	0	0	83	61	1.054
B2982-5	USDA	330	259	70	1	5	35	39	19	0	94	59	1.064
B2982-6	USDA	372	238	65	0	4	52	44	0	0	96	44	1.060

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
B2982-7	USDA	277	229	62	3	8	88	0	0	0	88	0	1.073
B2992-1	USDA	246	215	58	0	4	96	0	0	0	96	0	1.071
B2993-1	USDA	451	277	75	2	11	87	0	0	0	87	0	1.074
B2993-2	USDA	268	215	58	1	4	66	21	8	0	95	29	1.071
B2993-3	USDA	388	315	85	0	10	64	26	0	0	90	26	1.070
B2993-5	USDA	441	413	112	0	2	70	28	0	0	98	28	1.070
B2993-6	USDA	291	236	64	2	7	56	35	0	0	91	35	1.072
B2994-1	USDA	300	239	65	0	5	37	57	0	0	95	57	1.073
B2996-1	USDA	253	77	21	0	13	37	50	0	0	87	50	1.072
B2996-2	USDA	299	207	56	0	4	72	24	0	0	96	24	1.064
B2996-3	USDA	228	125	34	2	9	89	0	0	0	89	0	1.070
B2997-1	USDA	287	204	55	3	14	74	9	0	0	84	9	1.070
B2998-1	USDA	415	317	86	7	3	51	16	23	0	90	39	1.077
B2998-2	USDA	422	323	88	3	5	67	25	0	0	93	25	1.075
B2998-3	USDA	283	217	59	5	11	84	0	0	0	84	0	1.070
B2998-4	USDA	285	186	50	5	11	84	0	0	0	84	0	1.065
B2999-1	USDA	179	61	16	13	21	66	0	0	0	66	0	1.056
B2999-2	USDA	320	174	47	5	21	75	0	0	0	75	0	1.070
B2999-3	USDA	240	105	28	7	28	65	0	0	0	65	0	1.071
B2999-4	USDA	351	299	81	2	8	68	22	0	0	90	22	1.072
B2999-5	USDA	283	267	72	2	2	69	20	7	0	96	27	1.071
B2999-6	USDA	249	177	48	7	15	79	0	0	0	79	0	1.071
B3000-1	USDA	314	260	70	1	2	63	34	0	0	97	34	1.072
B3000-2	USDA	237	197	53	1	5	93	0	0	0	93	0	1.065

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
B3000-3	USDA	287	217	59	1	9	51	38	0	0	90	38	1.057
B3000-4	USDA	308	243	66	2	2	75	22	0	0	96	22	1.056
B3002-1	USDA	451	212	57	0	2	27	14	57	0	97	70	1.072
B3002-2	USDA	197	152	41	0	8	57	35	0	0	92	35	1.060
B3002-3	USDA	220	170	46	4	11	65	20	0	0	85	20	1.071
B3002-4	USDA	375	238	64	13	18	68	0	0	0	68	0	1.066
B3002-5	USDA	394	325	88	1	11	88	0	0	0	88	0	1.070
B3003-1	USDA	202	106	29	9	31	60	0	0	0	60	0	1.079
B3003-2	USDA	238	209	57	0	5	59	36	0	0	95	36	1.059
B3003-3	USDA	178	95	26	0	5	95	0	0	0	95	0	1.065
B3003-4	USDA	78	42	11	4	33	63	0	0	0	63	0	1.069
B3003-5	USDA	280	190	52	3	25	68	4	0	0	72	4	1.073
B3003-7	USDA	384	286	78	1	21	78	0	0	0	78	0	1.072
B3003-8	USDA	339	249	67	1	20	79	0	0	0	79	0	1.073
B3003-9	USDA	283	205	56	3	8	73	17	0	0	90	17	1.062
B3003-10	USDA	411	283	77	4	24	72	0	0	0	72	0	1.075
B3004-1	USDA	347	261	71	0	4	46	19	31	0	96	50	1.063
B3004-2	USDA	526	391	106	3	13	53	31	0	0	84	31	1.065
B3004-3	USDA	114	73	20	6	17	77	0	0	0	77	0	1.069
B3004-4	USDA	341	234	64	7	13	63	13	5	0	81	17	1.071
B3005-1	USDA	434	356	96	1	5	78	16	0	0	94	16	1.077
B3005-2	USDA	419	325	88	2	21	78	0	0	0	78	0	1.073
B3005-3	USDA	400	254	69	3	14	83	0	0	0	83	0	1.077
B3005-4	USDA	447	294	80	6	23	70	0	0	0	70	0	1.073

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
B3005-5	USDA	403	313	85	1	8	91	0	0	0	91	0	1.073
B3005-6	USDA	398	223	60	7	7	20	66	0	0	86	66	1.070
B3005-7	USDA	468	335	91	2	16	83	0	0	0	83	0	1.072
B3005-8	USDA	279	256	69	1	7	92	0	0	0	92	0	1.083
B3005-9	USDA	424	312	85	1	12	72	15	0	0	87	15	1.076
B3006-1	USDA	288	251	68	1	5	46	48	0	0	95	48	1.060
B3009-1	USDA	370	267	72	0	18	82	0	0	0	82	0	1.074
B3009-2	USDA	409	173	47	6	50	43	0	0	0	43	0	1.083
B3009-4	USDA	245	177	48	5	21	73	0	0	0	73	0	1.074
B3010-2	USDA	389	352	95	1	1	41	52	6	0	98	58	1.071
B3012-1	USDA	375	186	50	8	37	55	0	0	0	55	0	1.066
B3012-2	USDA	274	168	45	1	15	77	7	0	0	84	7	1.062
B3012-3	USDA	345	247	67	1	19	51	29	0	0	80	29	1.071
B3012-4	USDA	371	287	78	2	20	78	0	0	0	78	0	1.078
B3012-5	USDA	317	63	17	12	42	46	0	0	0	46	0	1.063
B3012-6	USDA	324	240	65	4	21	75	0	0	0	75	0	1.076
B3012-7	USDA	393	269	73	3	23	74	0	0	0	74	0	1.075
B3013-1	USDA	464	396	107	2	10	72	16	0	0	88	0	1.080
B3013-2	USDA	247	159	43	6	26	68	0	0	0	68	0	1.080
B3013-3	USDA	293	245	66	0	12	88	0	0	0	88	0	1.067
B3014-1	USDA	333	236	64	3	20	77	0	0	0	77	0	1.078
B3014-2	USDA	230	0	0	9	91	0	0	0	0	0	0	1.074
B3014-3	USDA	482	429	116	0	4	67	28	0	0	96	0	1.070
B3014-4	USDA	405	266	72	5	24	71	0	0	0	71	0	1.064

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
B3014-5	USDA	241	165	45	3	15	82	0	0	0	82	0	1.076
B3015-1	USDA	412	376	102	1	8	73	18	0	0	91	0	1.076
B3015-2	USDA	431	341	92	4	17	79	0	0	0	79	0	1.078
B3016-1	USDA	323	259	70	0	8	73	18	0	0	92	0	1.079
B3016-2	USDA	363	296	80	2	7	54	37	0	0	91	0	1.065
B3018-1	USDA	508	413	112	3	9	77	12	0	0	88	0	1.074
B3019-1	USDA	428	266	72	5	33	62	0	0	0	62	0	1.071
B3019-2	USDA	386	255	69	2	9	57	32	0	0	89	0	1.067
B3019-3	USDA	486	427	116	1	9	90	0	0	0	90	0	1.060
B3019-4	USDA	387	344	93	0	2	81	0	17	0	98	17	1.059
B3019-6	USDA	407	369	100	0	7	77	3	13	0	94	13	1.072
B3020-1	USDA	na	na	na	na	na	na	na	na	na	na	na	na
B3021-1	USDA	na	na	na	na	na	na	na	na	na	na	na	na
B3021-2	USDA	409	368	100	1	9	80	10	0	0	90	0	1.067
B3023-1	USDA	489	383	104	2	15	83	0	0	0	83	0	1.073
B3023-2	USDA	214	98	27	9	45	46	0	0	0	46	0	1.070
B3029-1	USDA	212	114	31	8	29	63	0	0	0	63	0	1.068
B3032-1	USDA	374	224	61	3	8	49	17	24	0	89	24	1.063
B3032-2	USDA	473	292	79	5	22	73	0	0	0	73	0	1.070
B3032-3	USDA	505	357	97	5	17	62	16	0	0	78	0	1.069
B3032-4	USDA	354	81	22	19	54	27	0	0	0	27	0	1.072
B3032-5	USDA	413	320	87	5	12	63	20	0	0	83	0	1.066
B3032-6	USDA	554	369	100	4	23	67	6	0	0	73	0	1.073
B3032-7	USDA	440	288	0	7	24	60	10	0	0	70	0	1.075

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
B3032-8	USDA	405	177	48	11	31	59	0	0	0	59	0	1.061
B3032-9	USDA	86	0	0	17	83	0	0	0	0	0	0	na
B3032-10	USDA	479	299	81	8	17	75	0	0	0	75	0	1.070
B3034-1	USDA	211	86	23	13	32	56	0	0	0	56	0	1.066
B3034-2	USDA	232	108	29	18	9	36	37	0	0	73	0	1.060
B3034-4	USDA	124	65	18	6	27	66	0	0	0	66	0	1.054
B3034-5	USDA	445	306	83	3	11	86	0	0	0	86	0	1.062
B3034-6	USDA	283	124	34	10	14	76	0	0	0	76	0	1.061
B3034-7	USDA	392	190	52	9	20	58	13	0	0	70	0	1.062
B3034-8	USDA	206	126	34	6	4	90	0	0	0	90	0	1.060
B3034-9	USDA	313	123	33	6	37	57	0	0	0	57	0	1.061
B3034-10	USDA	413	245	66	3	14	52	0	32	0	84	32	1.054
B3034-11	USDA	275	139	38	6	17	77	0	0	0	77	0	1.056
B3034-12	USDA	303	123	33	9	45	46	0	0	0	46	0	1.061
B3036-1	USDA	408	128	35	14	55	32	0	0	0	32	0	1.068
B3037-2	USDA	325	147	40	11	43	46	0	0	0	46	0	1.064
B3038-2	USDA	422	213	58	9	29	56	0	6	0	62	6	1.061
B3038-3	USDA	433	296	80	5	15	69	11	0	0	80	0	1.063
B3041-1	USDA	106	77	21	3	20	76	0	0	0	76	0	1.065
B3042-1	USDA	550	358	97	4	11	65	20	0	0	85	0	1.073
B3042-2	USDA	509	332	90	4	14	65	8	9	0	82	9	1.077
B3042-3	USDA	424	131	36	8	58	34	0	0	0	34	0	1.081
B3042-4	USDA	374	229	62	4	23	66	6	0	0	73	0	1.075
B3042-5	USDA	415	279	76	3	18	78	0	0	0	78	0	1.084

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
B3044-1	USDA	261	156	42	5	16	80	0	0	0	80	0	1.075
B3044-2	USDA	397	218	59	5	36	59	0	0	0	59	0	1.086
B3044-3	USDA	382	218	59	10	26	64	0	0	0	64	0	1.079
B3048-1	USDA	389	201	54	3	19	67	0	11	0	78	11	1.067
B3050-1	USDA	449	212	57	2	14	66	0	18	0	84	18	1.075
BNC352-1	USDA	426	196	53	5	38	57	0	0	0	57	0	1.069
BNC353-1	USDA	331	223	60	3	6	82	0	8	0	91	8	1.061
BNC353-2	USDA	469	387	105	0	1	68	21	10	0	99	10	1.070
BNC353-3	USDA	438	207	56	4	15	56	14	12	0	82	12	1.061
BNC354-1	USDA	308	183	50	2	13	30	55	0	0	85	0	1.059
BNC355-1	USDA	386	318	86	0	3	76	21	0	0	97	0	1.082
BNC360-1	USDA	231	100	27	3	5	52	17	23	0	93	23	1.061
BNC360-2	USDA	422	284	77	4	13	71	13	0	0	83	0	1.079
BNC362-1	USDA	387	333	90	2	9	67	17	5	0	89	5	1.079
BNC362-2	USDA	534	368	100	2	17	80	0	0	0	80	0	1.075
BNC363-1	USDA	474	352	95	3	11	75	0	11	0	86	11	1.061
BNC363-2	USDA	431	347	94	1	6	93	0	0	0	93	0	1.070
BNC363-3	USDA	496	333	90	3	9	39	15	33	0	88	33	1.065
BNC363-4	USDA	286	99	27	7	27	65	0	0	0	65	0	1.070
BNC363-5	USDA	434	301	82	5	23	72	0	0	0	72	0	1.063
BNC363-6	USDA	610	438	119	1	12	70	18	0	0	87	0	1.067
BNC363-7	USDA	460	306	83	5	3	34	0	49	9	83	59	1.060
BNC363-8	USDA	466	255	69	2	4	49	23	21	0	93	21	1.066
BNC363-9	USDA	468	336	91	1	6	29	36	28	0	93	28	1.066

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
BNC363-10	USDA	403	239	65	4	9	30	15	42	0	87	42	1.056
BNC363-11	USDA	445	332	90	1	9	53	18	18	0	89	18	1.070
BNC363-12	USDA	525	392	106	1	0	20	7	72	0	99	72	1.061
BNC364-1	USDA	353	198	54	1	12	88	0	0	0	88	0	1.072
BNC364-2	USDA	537	440	119	1	5	78	0	16	0	94	16	1.072
BNC365-1	USDA	480	333	90	4	16	22	34	24	0	80	24	1.071
BNC365-2	USDA	509	407	110	3	7	54	26	10	0	90	10	1.069
BNC365-3	USDA	446	301	82	3	14	61	21	0	0	83	0	1.065
BNC365-4	USDA	352	144	39	8	33	59	0	0	0	59	0	1.062
BNC366-1	USDA	337	198	54	1	19	79	0	0	0	79	0	1.072
BNC367-1	USDA	443	314	85	5	18	77	0	0	0	77	0	1.077
BNC368-1	USDA	264	126	34	6	30	52	13	0	0	65	0	1.080
BNC369-1	USDA	406	200	54	4	43	52	0	0	0	52	0	1.074
BNC369-2	USDA	564	368	100	3	14	27	22	34	0	83	34	1.071
BNC369-3	USDA	193	108	29	4	8	48	40	0	0	88	0	1.062
BNC369-4	USDA	474	331	90	2	7	37	40	15	0	91	15	1.065
BNC369-5	USDA	405	267	72	2	13	85	0	0	0	85	0	1.068
BNC369-6	USDA	419	263	71	2	9	54	20	14	0	89	14	1.068
BNC369-7	USDA	511	394	107	3	11	86	0	0	0	86	0	1.069
BNC369-8	USDA	515	425	115	1	4	58	37	0	0	95	0	1.066
BNC369-9	USDA	281	74	20	0	25	76	0	0	0	76	0	1.061
BNC370-1	USDA	492	369	100	2	16	60	22	0	0	82	0	1.066
BNC370-2	USDA	546	419	114	2	10	56	10	21	0	87	21	1.071
BNC370-3	USDA	494	320	87	3	22	74	0	0	0	74	0	1.073

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
BNC370-4	USDA	469	409	111	1	4	47	24	23	0	95	23	1.073
BNC371-1	USDA	483	437	118	0	3	30	43	25	0	97	25	1.076
BNC371-2	USDA	427	289	78	1	16	59	24	0	0	83	0	1.072
BNC372-3	USDA	513	357	97	3	11	86	0	0	0	86	0	1.084
BNC373-1	USDA	402	246	67	4	22	74	0	0	0	74	0	1.073
BNC373-2	USDA	537	415	113	2	13	69	17	0	0	86	0	1.071
BNC375-1	USDA	417	188	51	0	35	45	10	10	0	65	10	1.062
BNC378-1	USDA	491	340	92	5	18	51	26	0	0	77	0	1.072
BNC378-2	USDA	397	247	67	1	13	64	0	22	0	86	22	1.063
BNC378-3	USDA	380	256	70	3	10	65	10	12	0	88	12	1.067
BNC398-1	USDA	515	243	66	1	13	13	8	66	0	87	66	1.062
BTD0225-1	USDA	392	269	73	3	10	63	9	15	0	88	15	1.072
BTD0234-1	USDA	328	111	30	4	2	94	0	0	0	94	0	1.054
BTD0234-2	USDA	276	130	35	7	34	59	0	0	0	59	0	1.056
BTD0237-1	USDA	430	290	79	3	25	71	0	0	0	71	0	1.072
BTD0238-1	USDA	353	251	68	0	17	82	0	0	0	82	0	1.069
BTD0238-2	USDA	459	360	98	2	13	85	0	0	0	85	0	1.070
BTD0239-1	USDA	522	376	102	4	15	74	7	0	0	81	0	1.072
BTD0265-1	USDA	292	149	41	3	12	52	33	0	0	85	0	1.057
BTD0265-2	USDA	432	279	76	3	23	74	0	0	0	74	0	1.068
BTD0265-5	USDA	341	176	48	2	24	64	0	10	0	74	10	1.068
BTD0265-6	USDA	277	174	47	2	10	88	0	0	0	88	0	1.064
BTD0265-7	USDA	406	252	68	1	17	82	0	0	0	82	0	1.061
BTD0270-1	USDA	320	214	58	3	13	42	33	8	0	83	8	1.062

Table 12 (cont'd). Production facts for USDA Early Generation potato selections.

Clone	Seed Source	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
BTD0271-1	USDA	247	50	14	5	72	22	0	0	0	22	0	1.072
BTD0271-2	USDA	376	269	73	2	9	88	0	0	0	88	0	1.069
BTD0272-1	USDA	411	264	72	0	6	69	0	24	0	94	24	1.071
BTD0272-2	USDA	403	263	71	5	21	75	0	0	0	75	0	1.079
BTD0272-3	USDA	439	299	81	3	23	74	0	0	0	74	0	1.079
BTD0272-5	USDA	352	185	50	5	35	60	0	0	0	60	0	1.062
BTD0272-7	USDA	378	217	59	1	28	71	0	0	0	71	0	1.068
BTD0272-8	USDA	491	316	86	0	20	70	9	0	0	79	0	1.071
BTD0272-9	USDA	331	157	43	5	35	60	0	0	0	60	0	1.076
BTD0272-14	USDA	297	72	19	19	46	35	0	0	0	35	0	1.061
BTD0272-15	USDA	397	226	61	3	21	53	23	0	0	76	0	1.069
BTD0272-17	USDA	404	241	61	5	19	77	0	0	0	77	0	1.074
BTD0272-18	USDA	463	323	87	2	12	86	0	0	0	86	0	1.075
BTD0272-19	USDA	482	371	101	1	17	73	10	0	0	82	0	1.068
BTD0273-1	USDA	355	146	40	10	33	58	0	0	0	58	0	1.071
BDT0004-1	USDA	265	189	51	1	13	87	0	0	0	87	0	1.066
BDT0005-1	USDA	413	41	11	3	85	12	0	0	0	12	0	1.066
BDT0005-2	USDA	219	72	19	8	37	55	0	0	0	55	0	1.061
BD985-A	USDA	223	153	41	6	11	83	0	0	0	83	0	1.056
BD986-A	USDA	466	243	66	5	23	73	0	0	0	73	0	1.071

[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 13. Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	100	7	9-6	7	2	6	5	3	5	6
Adora	100	5	8-5	4	3	7	6	6	3	4
Augusta	88	5	5-8	5	5	7	7	3	4	6
Fabula	50	4	7	9	3	7	6	4	4	5
Harley Blackwell	100	5	8-5	7	1	6	5	3	5	6
LaChipper	100	5	6-9	5	1	7	7	3	3	6
Peter Wilcox	75	6	8-5	6	4	1	6	4	4	6
Red LaSoda	50	5	8	5	1	2	7	3	3	6
Vivaldi	88	6	8	5	3.5	7	6	4	4	5
Yukon Gold	75	6	7	7	4	7	7	3	5	5
AF0338-17	100	5	8-5	7	1	7	5	3	5	6
B2981-1	100	5	8	6	4	1	6	4	4	5
B2981-2	25	1	na	9	na	na	na	na	na	na
B2981-3	100	5	7	7	1	6	5	3	5	6
B2981-4	100	6	5	8	1	7	6	4	6	6
B2981-5	100	6	8	7	1	7	6	3	5	5
B2981-6	75	5	8	7	1	6	6	4	5	6
B2981-7	88	5	7	7	1	6	5	4	3	5
B2982-1	100	5	8	7	1	7	6	4	4	5
B2982-2	100	5	7	6	1	6	6	3	4	4
B2982-3	38	4	na	9	1	6	5	4	5	5
B2982-4	63	5	7	9	1	7	6	3	4	4
B2982-5	50	5	7	8	1	7	7	4	5	6
B2982-6	88	5	7	9	1	6	5	3	5	5

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
B2982-7	75	4	8	7	1	7	7	3	5	5
B2992-1	100	5	5	6	2	6	5	3	4	5
B2993-1	100	7	8	6	1	7	6	4	5	5
B2993-2	100	5	8	6	1	7	6	3	5	5
B2993-3	100	6	5	6	2	6	5	4	5	6
B2993-5	100	5	8	7	2	6	5	5	5	6
B2993-6	100	6	8	6	1	6	5	3	5	5
B2994-1	100	5	8	7	2	6	5	3	6	5
B2996-1	63	4	7	9	1	6	6	3	4	4
B2996-2	100	6	8	7	2.5	7	6	3	4	6
B2996-3	75	6	8-5	6	1	6	5	3	4	5
B2997-1	100	6	8	7	2	7	7	4	5	6
B2998-1	100	6	8-5	8	1	7	6	4	5	4
B2998-2	100	6	9-6	7	1	7	6	4	5	5
B2998-3	88	5	8	6	2.5	7	6	4	5	5
B2998-4	75	6	8	7	1	7	7	3	3	4
B2999-1	38	1	na	9	1	7	7	4	4	5
B2999-2	100	6	9-6	9	5	7	6	4	3	4
B2999-3	88	6	8-5	7	5	6	5	4	4	5
B2999-4	88	6	8	9	1	6	5	3	6	6
B2999-5	75	5	7	8	1	6	5	3	5	6
B2999-6	63	5	7	9	1	6	5	3	4	5
B3000-1	100	5	8	7	1	7	6	3	6	6
B3000-2	100	4	8	6	1	7	6	4	7	6

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
B3000-3	63	3	7	8	1	6	6	3	5	5
B3000-4	63	3	7	9	1	6	6	3	4	6
B3002-1	100	6	8	8	1	6	5	3	5	4
B3002-2	38	4	7	8	1	6	5	3	6	5
B3002-3	88	5	8	8	1	7	6	4	5	5
B3002-4	88	6	8	7	1	7	6	3	7	6
B3002-5	100	6	8	7	1	6	5	3	6	6
B3003-1	63	4	7	8	2	7	7	3	5	6
B3003-2	75	4	7	8	2	7	6	3	5	5
B3003-3	88	4	7	8	2	6	5	3	4	5
B3003-4	50	5	7	9	2	7	6	4	6	5
B3003-5	88	4	7	8	1	7	6	3	4	5
B3003-7	100	6	8	8	2	7	6	4	5	5
B3003-8	100	6	8	8	2	7	6	3	6	6
B3003-9	100	5	7	7	2	6	6	3	5	5
B3003-10	100	5	8-5	7	1	7	6	4	5	4
B3004-1	100	5	9-6	7	2	7	6	4	4	5
B3004-2	100	5	9	7	1	6	5	3	3	5
B3004-3	100	5	8-5	5	2	7	6	4	4	4
B3004-4	88	5	8	8	1	6	6	3	3	4
B3005-1	100	5	5-8	6	1	7	6	4	5	5
B3005-2	100	5	8-5	5	1	7	7	3	5	6
B3005-3	100	6	9-6	5	1	7	6	3	3	6
B3005-4	100	5	9-6	6	1	7	6	3	5	5

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
B3005-5	100	6	6-9	5	1	6	5	4	5	6
B3005-6	88	5	8	7	1	6	5	3	5	5
B3005-7	88	5	8	7	1	7	6	3	4	6
B3005-8	75	5	8	6	1	7	6	4	5	5
B3005-9	88	5	9	8	1	7	7	4	6	4
B3006-1	88	5	8	6	2	7	7	3	6	6
B3009-1	88	4	8	7	2	7	6	4	6	5
B3009-2	100	5	8	7	2	6	6	3	5	6
B3009-4	100	6	7	8	1	6	5	3	5	6
B3010-2	100	6	8	7	1	6	5	3	4	6
B3012-1	63	4	7	9	2	6	6	4	7	6
B3012-2	100	4	7	7	1	7	6	3	5	5
B3012-3	100	5	8	7	1	6	5	3	5	6
B3012-4	100	6	8-5	6	2	7	6	4	4	6
B3012-5	100	5	7	8	1	6	6	3	3	5
B3012-6	100	4	8	7	1	7	6	3	6	5
B3012-7	100	4	8	7	1	7	6	4	4	6
B3013-1	100	6	8	7	1	6	5	2	5	6
B3013-2	100	6	8	7	3	7	6	3	5	6
B3013-3	100	6	8	7	3	7	6	3	6	6
B3014-1	88	6	5	7	1	6	6	3	7	6
B3014-2	75	5	8	6	1	7	6	5	4	4
B3014-3	100	6	5-8	7	1	6	5	4	4	5
B3014-4	88	5	8	7	1	7	6	4	5	4

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
B3014-5	100	5	8	7	1	6	5	3	3	4
B3015-1	100	5	8	7	1	6	5	3	6	6
B3015-2	100	5	8	7	2	6	5	3	5	6
B3016-1	88	5	8	8	2	7	6	3	4	4
B3016-2	63	4	8-7	9	1	7	6	3	4	5
B3018-1	88	5	8	8	1	7	6	3	6	6
B3019-1	100	5	8	7	1	6	5	3	6	6
B3019-2	88	5	7	9	2	7	6	3	6	5
B3019-3	100	5	8	7	1	7	6	3	4	5
B3019-4	63	4	7	9	2	7	6	4	6	5
B3019-6	100	5	5-8	7	1	7	6	3	4	5
B3020-1	88	4	7	7	na	na	na	na	na	na
B3021-1	100	5	9	7	na	na	na	na	na	na
B3021-2	100	5	8	8	2	7	6	3	5	6
B3023-1	100	5	5-8	7	1	6	5	3	4	5
B3023-2	100	5	8	7	1	7	6	4	5	5
B3029-1	100	4	8	7	2	2	6	3	7	6
B3032-1	88	4	8	7	5	6	5.5	3	5	6
B3032-2	100	6	9-6	7	5	3-7	6	3	5	6
B3032-3	100	6	8-5	7	5	6	5	3	6	5
B3032-4	100	4	8	9	5	7	6	3	5	5
B3032-5	100	6	9	7	5	6	5	3	5	6
B3032-6	100	6	9-6	7	4	7	6	3	5	6
B3032-7	100	5	8-5	8	5	7	6	3	7	6

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
B3032-8	100	5	8	7	5	3-7	6	3	4	5
B3032-9	100	6	8-5	7	4	7	6	3	5	5
B3032-10	100	5	6-9	7	5	7	6	3	5	6
B3034-1	88	6	8-5	3	6	2	6	3	7	6
B3034-2	88	4	8-9	7	6.5	2	7	3	4	4
B3034-4	88	5	8	6	6	2	5	4	5	3
B3034-5	88	5	5-8	5	6	2	5	4	6	5
B3034-6	100	6	5-8	5	1	2	6	3	4	5
B3034-7	100	6	8-5	4	1	2	6	3	4	4
B3034-8	88	5	8	4	6	2	6	3	5	4
B3034-9	100	5	8	5	1	2	6	3	5	5
B3034-10	100	6	8-5	3	2	2	5	2	5	4
B3034-11	88	5	8	6	6.5	2	6	4	4	4
B3034-12	88	5	5	4	6	2	5.5	4	5	4
B3036-1	88	5	8-5	6	3	3	6	4	3	6
B3037-2	63	5	8	7	3	7	6	3	5	5
B3038-2	75	5	5	6	6	2	5	4	3	4
B3038-3	75	5	8	7	6	2	5	3	3	4
B3041-1	63	5	7	7	4	3	6	4	3	5
B3042-1	100	6	8-9	8	3	7	6	4	3	5
B3042-2	100	6	9-6	7	1	7	6	3	5	5
B3042-3	100	6	9-6	7	2	7	6	5	6	6
B3042-4	100	6	8-5	6	3	7	6	4	6	5
B3042-5	100	6	9-6	6	3	7	6	3	7	5

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
B3044-1	88	5	5	7	3	6	5	3	5	5
B3044-2	100	6	9	7	2.5	7	6	3	4	5
B3044-3	100	6	6	6	3	7	6	4	5	5
B3048-1	100	5	8-9	5	1	6	4.5	5	4	5
B3050-1	88	6	9	7	1	5	2	4	6	6
BNC352-1	100	5	8	7	3.5	7	6	6	5	5
BNC353-1	88	6	8	7	3.5	3	5	4	3	5
BNC353-2	88	6	8	7	1	3	6	4	6	5
BNC353-3	88	5	8	7	1	3	6	5	2	5
BNC354-1	88	5	8	7	4	1	7	4	6	4
BNC355-1	100	5	8	7	1	6	5	3	5	6
BNC360-1	88	6	9	6	1	6	6	4	3	5
BNC360-2	100	6	5-4	5	1	5	3	6	5	6
BNC362-1	100	6	8	7	1	6	5	3	5	6
BNC362-2	100	6	9-6	6	1	6	5	4	6	5
BNC363-1	100	6	5-8	7	1	7	6	3	4	5
BNC363-2	100	6	8	8	1	6	6	3	6	6
BNC363-3	100	5	8	9	1	6	6	3	4	6
BNC363-4	75	4	8	7	1	6	5.5	3	3	4
BNC363-5	88	5	5-8	7	1	7	6	3	3	5
BNC363-6	88	5	9-6	8	1	7	6	3	3	5
BNC363-7	50	5	8	9	2	7	6	3	5	4
BNC363-8	88	5	9	8	1	6	5	3	4	5
BNC363-9	75	4	8	8	1	6	5	3	5	6.5

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
BNC363-10	88	4	5	7	1	7	6	3	4	5
BNC363-11	100	5	8-5	7	1	6	5	3	5	6
BNC363-12	75	5	5	9	1	6	5.5	3	5	6
BNC364-1	63	4	8	8	2	7	6	4	6	5
BNC364-2	88	5	5-8	9	1	6	5	4	5	5
BNC365-1	88	6	9-6	8	1	6	5	3	3	6
BNC365-2	88	5	8-5	8	1	7	6	3	5	5
BNC365-3	75	5	8	9	1	6	5	3	5	6
BNC365-4	63	4	7	8	1	6	5	3	4	6
BNC366-1	88	4	8-5	7	1	7	5.5	3	6	5
BNC367-1	100	6	9-6	7	1	6	5.5	3	5	5
BNC368-1	100	5	9	9	2	6	5	3	4	5
BNC369-1	88	5	5-8	7	1	7	6	3	3	5
BNC369-2	100	6	9-6	7	1	7	6	3	3	6
BNC369-3	100	5	8	6	1	6	5.5	3	5	5
BNC369-4	88	5	8	7	2	7	6	3	4	6
BNC369-5	100	5	8	8	1	6	6	4	4	5
BNC369-6	100	5	8	7	1	7	6	3	3	5
BNC369-7	100	5	6-9	7	1	6	5.5	3	4	6
BNC369-8	88	5	9-6	7	1	6	5.5	3	4	5
BNC369-9	100	5	8	8	1	6	5	2	5	5
BNC370-1	100	6	8-5	7	1	7	6	3	4	6
BNC370-2	100	6	8-5	7	1	6	5	3	4	6
BNC370-3	100	6	6-9	7	1	6	5	3	3	5

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
BNC370-4	100	5	8	8	1	7	6	3	4	6
BNC371-1	100	6	5-6	7	2	6	5.5	3	5	6
BNC371-2	75	5	8	9	1	7	6	3	4	5
BNC372-3	100	5	9	6	2	6	6	3	5	5
BNC373-1	100	5	8-5	8	2	7	6	3	5	5
BNC373-2	88	5	8-5	9	2	6	6	3	4	5
BNC375-1	100	6	5-6	6	1	7	6	4	5	5
BNC378-1	100	5	5	8	2	6	5.5	3	5	4
BNC378-2	88	5	8	7	1	7	5.5	3	5	4
BNC378-3	100	4	7	8	1	6	6	3	6	5
BNC398-1	100	5	8-5	7	1	6	5	2	5	6
BTD0225-1	88	5	8-5	8	2	5	5	3	4	5
BTD0234-1	100	5	8	8	1	1	6	4	3	5
BTD0234-2	100	6	4	2	1	2	6	4	5	5
BTD0237-1	100	6	5-4	5	1	1	6	4	5	5
BTD0238-1	100	6	5-4	4	1	1	6	4	7	5
BTD0238-2	100	6	5-8	6	1	1	7	4	7	6
BTD0239-1	100	6	8-5	7	1	1	7	4	6	6
BTD0265-1	100	4	7	8	2	6	5.5	4	5	4
BTD0265-2	100	5	8-5	8	1	6	5	6	4	5
BTD0265-5	88	5	8	8	1	7	6	4	4	3
BTD0265-6	100	5	8	7	2	7	6	3	5	6
BTD0265-7	100	5	5-8	6	2	6	6	3	5	5
BTD0270-1	100	6	5-4	5	2	7	6	4	4	5

Table 13 (cont'd). Plant growth and tuber characteristics of USDA Early Generation potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
BTD0271-1	100	5	8	7	1	7	6	4	4	5
BTD0271-2	100	6	8	6	3.5	7	6	4	6	5
BTD0272-1	100	6	8-9	7	1	6	5.5	4	4	5
BTD0272-2	100	6	9-6	8	2	6	5	3	7	5
BTD0272-3	100	5	9	7	2	6	5	3	7	6
BTD0272-5	75	4	7	7	4	2	6	3	4	5
BTD0272-7	63	4	8	9	1	6	5	3	5	5
BTD0272-8	88	6	8-5	7	2	7	6	4	4	4
BTD0272-9	100	4	8-9	9	1	6	5	3	6	5
BTD0272-14	63	4	5	7	4	2	6	3	5	5
BTD0272-15	88	5	8-5	7	2	6	5	3	5	5
BTD0272-17	75	4	8	7	1	6	5	4	5	5
BTD0272-18	100	6	8-9	7	1	6	5	4	6	6
BTD0272-19	100	5	9	9	1	6	5	4	4	5
BTD0273-1	100	5	8-5	7	1	7	7	4	6	5
BDT0004-1	100	5	8	7	1	3	6	4	6	5
BDT0005-1	100	5	5	7	1	7	6	4	6	5
BDT0005-2	88	5	8	7	1	3-7	5	5	4	3
BD985-A	100	5	6	5	1	2	7	3	6	5
BD986-A	100	5	8-5	7	3	7	6	4	6	5

[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 USDA Early Generation 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	6	13	19	0	0	0	0	0	0	0
Adora	0	0	0	14	14	0	0	0	0	0	0	0
Augusta	0	0	5	10	16	0	0	0	0	0	0	0
Fabula	3	0	0	29	32	0	0	0	0	0	0	0
Harley Blackwell	0	0	11	18	29	0	0	0	0	0	0	0
LaChipper	0	0	0	23	23	0	0	0	0	0	0	0
Peter Wilcox	0	0	5	13	17	0	0	0	0	0	0	0
Red LaSoda	24	0	0	42	66	na	na	na	na	na	na	na
Vivaldi	0	0	3	22	26	0	0	0	0	0	0	0
Yukon Gold	0	0	13	26	39	0	0	0	0	0	20	0
AF0338-17	0	0	2	21	23	0	0	0	0	0	0	0
B2981-1	3	0	0	3	6	0	0	0	0	0	0	0
B2981-2	0	0	0	98	98	na	na	na	na	na	na	na
B2981-3	0	0	0	0	0	0	0	0	0	0	0	0
B2981-4	0	0	11	1	12	0	0	0	0	0	0	0
B2981-5	0	0	10	2	12	0	0	0	0	0	20	0
B2981-6	0	0	0	5	5	0	0	0	0	0	0	0
B2981-7	0	0	7	0	7	20	0	0	0	0	0	0
B2982-1	0	19	0	12	31	0	0	0	0	0	0	0
B2982-2	0	10	2	0	12	0	0	0	0	0	0	0
B2982-3	0	0	0	15	15	0	0	0	0	0	0	0
B2982-4	3	0	15	14	32	20	0	0	0	0	0	0
B2982-5	6	0	6	4	16	0	0	0	0	0	0	0
B2982-6	0	10	21	2	33	0	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA Early Generation 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
B2982-7	0	0	6	0	6	0	0	0	0	0	0	0
B2992-1	0	0	9	0	9	0	0	0	0	0	0	0
B2993-1	6	2	19	2	29	0	0	0	0	0	0	0
B2993-2	4	0	4	8	15	0	0	0	0	0	0	0
B2993-3	3	0	4	3	10	0	0	0	0	0	0	0
B2993-5	0	0	0	4	4	0	0	0	0	0	0	0
B2993-6	0	0	0	11	11	0	0	0	0	0	0	0
B2994-1	16	0	0	0	16	0	0	0	0	0	0	0
B2996-1	2	0	42	22	65	20	0	0	0	20	0	0
B2996-2	0	0	16	13	28	0	0	0	0	0	0	0
B2996-3	0	0	20	18	38	0	0	0	0	0	0	0
B2997-1	0	0	15	0	15	0	0	0	0	0	0	0
B2998-1	0	0	8	7	15	20	0	0	0	0	0	0
B2998-2	2	0	8	7	17	0	0	0	0	0	0	0
B2998-3	0	0	0	9	9	0	0	0	0	0	0	0
B2998-4	0	8	2	11	22	0	0	0	0	0	0	0
B2999-1	0	0	19	30	48	0	0	0	0	0	0	0
B2999-2	0	0	14	13	27	0	0	0	0	0	0	0
B2999-3	0	0	12	21	33	0	0	0	0	0	0	0
B2999-4	0	0	0	5	5	0	0	0	0	0	0	0
B2999-5	0	0	0	2	2	0	0	0	0	0	0	0
B2999-6	3	0	0	7	10	0	0	0	0	0	0	0
B3000-1	0	0	4	11	15	0	0	0	0	0	0	0
B3000-2	0	0	1	10	11	0	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA 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
B3000-3	0	0	3	12	15	0	0	0	0	0	0	0
B3000-4	3	0	10	5	18	0	0	0	0	0	0	0
B3002-1	42	0	4	5	52	20	0	0	0	0	0	0
B3002-2	0	0	16	0	16	0	0	0	0	0	0	0
B3002-3	10	0	0	0	10	0	0	0	0	0	0	0
B3002-4	0	0	7	0	7	0	0	0	0	0	0	0
B3002-5	0	0	2	4	6	0	0	0	0	0	0	0
B3003-1	0	0	9	5	13	0	0	0	0	0	0	0
B3003-2	0	0	8	0	8	0	0	0	0	0	0	0
B3003-3	9	0	25	10	44	0	0	0	0	0	0	0
B3003-4	0	0	9	6	15	0	0	0	0	0	0	0
B3003-5	0	0	2	3	5	0	0	0	0	0	0	0
B3003-7	0	0	0	4	4	0	0	0	0	0	0	0
B3003-8	0	0	0	7	7	0	0	0	0	0	0	0
B3003-9	6	0	6	8	19	0	0	0	0	0	0	0
B3003-10	0	0	0	4	4	0	0	0	0	0	0	0
B3004-1	0	0	15	7	22	0	0	0	0	0	0	0
B3004-2	0	1	8	3	12	0	0	0	0	0	0	0
B3004-3	0	0	7	10	17	0	0	0	0	0	20	20
B3004-4	0	0	15	0	15	0	0	0	0	0	0	0
B3005-1	0	0	0	12	12	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	8	15	23	0	0	0	0	0	0	0
B3005-4	2	0	4	1	7	0	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA 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
B3005-5	0	0	9	6	15	0	0	0	0	0	0	0
B3005-6	0	0	3	31	35	0	0	0	0	0	0	0
B3005-7	0	0	0	13	13	0	0	0	0	0	0	0
B3005-8	0	0	0	0	0	0	0	0	0	0	0	0
B3005-9	0	0	0	15	15	0	0	0	0	0	0	0
B3006-1	0	0	0	8	8	0	0	0	0	0	0	0
B3009-1	1	0	0	10	12	0	0	0	0	0	0	0
B3009-2	0	0	1	1	3	0	0	0	0	0	0	0
B3009-4	0	0	1	0	1	0	0	0	0	0	0	0
B3010-2	0	0	8	0	8	20	0	0	0	20	0	0
B3012-1	0	0	7	3	10	0	0	0	0	0	0	0
B3012-2	3	0	12	12	27	0	0	0	0	0	0	0
B3012-3	0	0	3	7	11	0	0	0	0	0	0	20
B3012-4	0	0	1	0	1	0	0	0	0	0	0	0
B3012-5	50	0	1	6	57	0	0	0	0	0	0	0
B3012-6	0	0	2	0	2	0	0	0	0	0	0	0
B3012-7	0	0	2	6	8	0	0	0	0	0	20	0
B3013-1	0	0	0	3	3	0	0	0	0	0	0	0
B3013-2	0	0	0	5	5	0	0	0	0	0	0	0
B3013-3	0	0	0	5	5	0	0	0	0	0	0	0
B3014-1	0	0	6	1	7	0	0	0	0	0	0	0
B3014-2	0	0	0	7	7	0	0	0	0	0	0	0
B3014-3	0	0	0	7	7	0	0	0	0	0	0	0
B3014-4	0	0	0	7	7	0	0	0	0	0	0	20

Table 14 (cont'd). External and internal defects of USDA 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
B3014-5	5	0	5	7	16	0	0	0	0	20	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
B3016-1	0	0	10	2	13	0	0	0	0	0	0	0
B3016-2	0	0	3	7	10	0	0	0	0	0	0	0
B3018-1	0	0	8	0	8	0	0	0	20	0	0	0
B3019-1	0	0	0	0	0	0	0	0	0	0	0	0
B3019-2	0	0	9	16	26	0	0	0	0	0	0	0
B3019-3	0	0	0	3	3	0	0	0	0	0	0	0
B3019-4	0	0	6	3	9	0	0	0	0	0	0	0
B3019-6	0	0	2	1	3	0	0	0	0	0	0	0
B3020-1	na	na	na	na	na	na	na	na	na	na	na	na
B3021-1	na	na	na	na	na	na	na	na	na	na	na	na
B3021-2	0	0	0	0	0	0	0	0	0	20	0	80
B3023-1	0	0	6	0	6	0	0	0	0	0	0	0
B3023-2	0	0	0	0	0	0	0	0	0	0	0	0
B3029-1	0	0	1	14	15	0	0	0	0	0	0	0
B3032-1	0	0	18	15	33	0	0	0	0	0	0	0
B3032-2	0	0	9	6	15	0	0	0	0	0	0	0
B3032-3	0	0	0	9	9	0	0	0	0	0	0	0
B3032-4	0	0	0	16	16	0	0	0	0	0	0	0
B3032-5	0	0	0	7	7	0	0	0	0	0	0	0
B3032-6	0	0	0	9	9	0	0	0	0	0	0	0
B3032-7	0	0	0	6	6	0	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA 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
B3032-8	0	0	0	26	26	0	0	0	0	0	0	0
B3032-9	0	0	0	33	33	0	0	0	0	0	0	0
B3032-10	0	0	0	17	17	0	0	0	0	0	0	0
B3034-1	0	0	0	27	27	0	0	0	0	0	0	0
B3034-2	0	0	0	37	37	0	0	0	0	0	0	0
B3034-4	0	0	0	22	22	0	0	0	0	0	0	0
B3034-5	0	0	0	20	20	20	0	0	0	0	0	0
B3034-6	0	0	0	42	42	0	0	0	0	0	0	0
B3034-7	0	0	0	31	31	0	0	0	0	0	0	0
B3034-8	0	0	0	32	32	0	0	0	0	0	0	0
B3034-9	0	0	4	27	31	0	0	0	0	0	0	0
B3034-10	0	0	0	29	29	0	0	0	0	0	0	0
B3034-11	0	0	0	34	34	0	0	0	0	0	0	0
B3034-12	0	0	0	12	12	0	0	0	0	0	0	0
B3036-1	0	0	0	1	1	0	0	0	0	0	0	0
B3037-2	0	0	0	2	2	0	0	0	0	0	0	0
B3038-2	0	0	0	18	18	0	0	0	0	0	0	0
B3038-3	0	0	0	15	15	0	0	0	0	0	0	0
B3041-1	0	0	0	5	5	0	0	0	0	0	0	0
B3042-1	0	0	9	15	24	0	0	0	0	0	0	0
B3042-2	0	0	4	16	20	0	0	0	0	0	0	0
B3042-3	0	0	0	9	9	0	0	0	0	0	0	0
B3042-4	4	0	2	10	16	0	0	0	0	0	0	0
B3042-5	4	0	1	9	14	0	0	0	0	0	20	0

Table 14 (cont'd). External and internal defects of USDA 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
B3044-1	0	0	5	20	25	0	0	0	0	0	0	0
B3044-2	0	0	0	7	7	0	0	0	0	0	0	0
B3044-3	4	0	0	7	11	0	0	0	0	0	0	0
B3048-1	6	0	13	15	34	0	0	0	0	0	0	0
B3050-1	18	0	7	19	44	0	0	0	0	0	0	0
BNC352-1	0	0	9	10	19	0	0	0	0	0	0	0
BNC353-1	0	0	0	26	26	0	0	0	0	0	0	0
BNC353-2	0	0	0	17	17	0	0	0	0	0	0	0
BNC353-3	4	0	0	38	42	0	0	0	0	0	0	0
BNC354-1	0	0	8	22	30	0	0	0	0	0	0	0
BNC355-1	0	0	12	3	15	20	0	0	0	0	0	0
BNC360-1	0	0	0	54	54	0	0	0	0	0	0	0
BNC360-2	1	0	5	13	19	20	0	0	0	0	0	0
BNC362-1	0	0	0	3	3	0	0	0	0	0	0	0
BNC362-2	0	0	0	14	14	0	0	0	0	0	0	0
BNC363-1	0	0	5	9	14	0	0	0	0	0	0	0
BNC363-2	0	0	2	12	14	0	0	0	40	0	0	0
BNC363-3	0	0	13	11	23	20	0	0	0	0	20	40
BNC363-4	0	0	13	35	47	0	0	0	0	0	0	0
BNC363-5	0	0	0	3	3	0	0	0	0	0	0	0
BNC363-6	0	0	1	17	18	0	0	0	0	0	0	0
BNC363-7	0	0	0	20	20	40	0	0	0	0	0	0
BNC363-8	0	0	0	41	41	20	0	0	0	0	0	0
BNC363-9	0	0	0	23	23	20	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA 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
BNC363-10	0	0	10	22	32	0	0	0	0	0	0	0
BNC363-11	0	0	0	17	17	20	0	0	0	0	40	0
BNC363-12	0	0	0	24	24	0	0	0	0	0	0	0
BNC364-1	0	0	29	7	36	0	0	0	0	0	0	0
BNC364-2	0	0	3	10	13	20	0	0	0	0	0	0
BNC365-1	0	0	0	13	13	20	0	0	0	0	0	0
BNC365-2	0	0	0	12	12	0	0	0	0	0	0	0
BNC365-3	3	0	5	11	18	0	0	0	0	0	0	0
BNC365-4	0	0	0	30	30	0	0	0	0	0	0	0
BNC366-1	0	0	0	26	26	0	0	0	0	0	0	0
BNC367-1	0	0	1	6	8	0	0	0	0	0	0	0
BNC368-1	0	0	14	12	27	0	0	0	0	0	0	0
BNC369-1	0	0	0	6	6	0	0	0	0	0	0	0
BNC369-2	0	0	6	16	22	0	0	0	0	20	0	0
BNC369-3	0	0	8	28	36	20	0	0	0	0	0	0
BNC369-4	0	0	0	24	24	0	0	0	0	0	0	0
BNC369-5	2	0	8	11	22	0	0	0	0	0	0	0
BNC369-6	0	0	4	25	29	0	0	0	0	0	0	0
BNC369-7	0	0	4	7	10	0	0	0	0	0	0	0
BNC369-8	0	0	0	13	13	0	0	0	0	0	0	0
BNC369-9	0	0	7	58	65	0	0	0	0	0	0	0
BNC370-1	0	0	0	8	8	0	0	0	0	0	0	0
BNC370-2	0	0	1	11	12	0	0	0	0	0	0	0
BNC370-3	0	0	5	8	13	0	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA 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
BNC370-4	0	0	0	8	8	0	0	0	0	0	0	0
BNC371-1	0	0	4	3	7	0	0	0	0	0	0	0
BNC371-2	0	0	5	13	18	0	0	0	0	0	0	0
BNC372-3	0	0	0	19	19	0	0	0	0	0	0	0
BNC373-1	0	0	0	18	18	0	0	0	0	0	0	0
BNC373-2	0	0	9	1	10	0	0	0	0	0	0	0
BNC375-1	0	0	9	22	30	0	0	0	0	0	0	0
BNC378-1	0	0	7	3	10	20	0	0	0	0	0	0
BNC378-2	4	0	7	17	28	0	0	0	0	0	0	0
BNC378-3	4	0	12	7	23	0	0	0	0	0	0	0
BNC398-1	4	0	33	9	46	0	0	0	0	0	0	0
BTD0225-1	3	0	12	7	22	0	0	0	0	0	0	0
BTD0234-1	6	7	0	52	64	0	0	0	0	0	0	0
BTD0234-2	0	0	3	17	20	0	0	0	0	0	0	0
BTD0237-1	3	0	0	2	6	0	0	0	0	0	0	0
BTD0238-1	0	0	0	14	14	0	0	0	0	0	0	0
BTD0238-2	2	0	0	5	7	0	0	0	0	0	0	0
BTD0239-1	0	0	0	11	11	0	0	0	0	0	0	0
BTD0265-1	6	0	0	34	40	0	0	0	0	20	60	0
BTD0265-2	0	0	3	10	13	0	0	0	20	0	0	0
BTD0265-5	0	0	0	30	30	0	0	0	0	0	0	0
BTD0265-6	0	0	0	28	28	0	0	0	0	0	0	0
BTD0265-7	5	0	0	19	24	0	0	0	0	0	0	0
BTD0270-1	0	0	0	20	20	20	0	0	0	0	0	0

Table 14 (cont'd). External and internal defects of USDA 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
BTD0271-1	0	0	0	10	10	0	0	0	0	0	0	0
BTD0271-2	0	0	13	6	19	0	0	0	0	0	0	0
BTD0272-1	0	0	13	18	31	0	0	0	0	0	0	0
BTD0272-2	0	0	0	13	13	0	0	0	20	0	0	0
BTD0272-3	0	0	1	7	8	0	0	0	0	0	0	0
BTD0272-5	0	0	0	12	12	0	0	0	0	0	0	0
BTD0272-7	0	0	6	13	19	0	0	0	0	20	0	0
BTD0272-8	3	0	4	11	19	0	0	0	0	0	20	0
BTD0272-9	0	0	2	19	21	0	0	0	0	0	0	0
BTD0272-14	6	0	4	20	31	0	0	0	0	0	0	0
BTD0272-15	0	0	0	25	25	0	0	0	20	20	40	20
BTD0272-17	3	0	8	12	22	0	0	0	0	0	0	0
BTD0272-18	8	0	3	8	19	0	0	0	0	0	0	0
BTD0272-19	0	0	5	2	6	0	0	0	0	0	0	0
BTD0273-1	0	0	3	26	29	0	0	0	0	0	0	0
BDT0004-1	0	0	2	16	18	0	0	0	0	0	0	0
BDT0005-1	0	0	0	17	17	0	0	0	0	0	0	0
BDT0005-2	6	0	7	28	41	0	0	0	0	0	0	0
BD985-A	0	0	0	17	17	0	0	0	0	0	0	0
BD986-A	0	0	0	28	28	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 6. Univ. Of Maine Advanced-Line Trial, 2012

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 20, 2012
Vine Kill Dates	N/A
Harvest Dates	April 30, 2012
Season Length	101 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	1 (Standard: Atlantic)
Number of Clones	41
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	40 days after planting
Highest Total Yield	AF4227-2 (449 cwt or 50.2 T/ha)
Highest Marketable Yield	Atlantic (416 cwt or 46.5 T/ha)

Table 15. Production facts for University of Maine Advanced potato selections.

Clone	Seed Source	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	MFX	447	416	100	0	3	42	31	24	0	97	55	1.084
AF4320-17	UM	359	259	62	2	16	82	0	1	0	83	1	1.073
AF0338-17	UM	435	394	95	1	5	63	18	12	0	94	31	1.076
AF4013-3	UM	383	312	75	2	13	72	12	1	0	85	13	1.081
AF4125-1	UM	416	383	92	1	5	51	25	18	0	94	43	1.076
AF4130-7	UM	357	308	74	1	6	37	26	30	0	93	56	1.076
AF4138-8	UM	396	360	87	1	6	60	21	12	0	93	33	1.060
AF4147-1	UM	414	358	86	2	10	77	8	4	0	89	12	1.079
AF4157-6	UM	382	319	77	1	7	82	7	3	0	92	11	1.081
AF4220-4	UM	369	328	79	1	6	43	24	26	1	92	49	1.070
AF4222-5	UM	274	224	54	3	9	70	12	7	0	89	19	1.065
AF4227-2	UM	449	396	95	1	7	68	14	10	0	92	24	1.066
AF4329-7	UM	407	334	80	2	11	74	12	0	0	87	13	1.068
AF4342-3	UM	363	300	72	2	8	65	13	12	0	90	25	1.077
AF4347-1	UM	418	368	88	1	5	75	14	6	0	95	19	1.066
AF4363-5	UM	351	324	78	1	5	55	22	18	0	94	39	1.075
AF4386-16	UM	396	317	76	2	16	60	16	6	0	82	22	1.083
AF4421-2	UM	350	250	60	3	14	63	10	10	0	83	20	1.076
AF4421-4	UM	416	363	87	2	7	67	13	9	1	90	22	1.072
AF4437-1	UM	308	196	47	2	15	75	7	0	0	83	7	1.073

Table 15 (cont'd). Production facts for University of Maine Advanced potato selections.

Clone	Seed Source	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
AF4437-5	UM	386	315	76	2	9	85	4	0	0	89	4	1.079
AF4441-8	UM	353	308	74	2	10	76	8	4	0	88	12	1.070
AF4449-2	UM	431	356	85	1	5	49	22	23	1	94	45	1.078
AF4454-3	UM	229	140	34	2	10	55	20	12	2	87	32	1.058
AF4463-7	UM	342	272	65	1	9	71	15	4	0	90	19	1.065
AF4463-8	UM	306	266	64	1	5	52	21	20	0	93	42	1.060
AF4518-1	UM	398	312	75	2	13	79	3	3	0	85	6	1.078
AF4521-1	UM	400	349	84	0	3	38	34	25	0	96	58	1.074
AF4532-8	UM	383	311	75	2	11	82	4	1	0	87	5	1.070
AF4532-9	UM	313	251	60	2	16	81	1	0	0	82	1	1.079
AF4538-3	UM	323	222	53	3	19	74	2	1	0	77	3	1.063
AF4614-2	UM	359	327	78	1	5	62	25	7	0	94	32	1.064
MSD[3]		62	60		1	4	13	11	10	ns	5	12	0.003
P Value		*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.6106*	*<.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 Waller Duncan's K-ratio t Test.

Table 16. Plant growth and tuber characteristics of University of Maine Advanced potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	94	5.8	9-6	5.5	na	6	5	3	4	7
AF4320-17	91	5.0	9-6	4.0	na	5	4	4	5	6
AF0338-17	92	5.8	9-6	5.3	na	6	5	3	4	7
AF4013-3	89	5.3	9-6	5.5	na	7	6	3	4	7
AF4125-1	88	4.8	8.7	5.8	na	7	5	3	6	6
AF4130-7	57	4.0	7.8	7.5	na	6	5	3	3	6
AF4138-8	68	5.0	8	4.8	na	7	6	3	5	7
AF4147-1	94	6.0	9-6	4.5	na	6	5	3	4	6
AF4157-6	71	4.8	8	5.8	na	7	5	3	5	6
AF4220-4	72	5.0	7	5.0	na	7	5	3	7	5
AF4222-5	52	4.3	7	6.3	na	4	2	5	6	5
AF4227-2	93	5.5	6-9	4.0	na	7	5	3	6	6
AF4329-7	91	4.8	8.3	5.0	na	5	4	4	5	5
AF4342-3	55	4.0	8.3	6.5	na	5	4	4	3	5
AF4347-1	96	4.8	8.8	4.3	na	4	3	6	5	5
AF4363-5	65	4.5	7.8	6.0	na	7	6	4	6	7
AF4386-16	78	4.5	8.7	5.3	na	6	5	3	5	6
AF4421-2	80	5.0	8.3	5.0	na	6	5	3	6	6
AF4421-4	93	5.8	9-6	4.5	na	6	5	3	6	6
AF4437-1	58	1.8	na	7.8	na	6	6	3	7	7

Table 16 (cont'd). Plant growth and tuber characteristics of University of Maine Advanced potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
AF4437-5	65	3.5	7.5	6.5	na	7	6	4	7	7
AF4441-8	71	3.5	7	6.0	na	7	6	3	5	7
AF4449-2	82	5.0	9-6	6.0	na	6	6	3	4	5
AF4454-3	40	3.3	na	6.3	na	6	5	4	5	6
AF4463-7	63	2.8	na	6.5	na	7	6	3	6	7
AF4463-8	55	2.8	na	7.3	na	7	6	3	5	6
AF4518-1	78	5.8	9-6	5.0	na	6	6	3	7	6
AF4521-1	88	5.0	8	5.0	na	6	6	3	6	6
AF4532-8	97	5.0	9	2.8	na	4	2	6	6	5
AF4532-9	60	3.5	7.5	4.8	na	5	3	5	7	6
AF4538-3	84	5.5	9-6	3.3	na	4	2	5	7	7
AF4614-2	93	5.0	8	4.5	na	7	6	3	6	7

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

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

Table 17 (cont'd). External and internal defects 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	0	2	0	4	1	0	0	0	0	0	0
AF4320-17	2	8	2	0	12	0	0	0	0	1	0	0
AF0338-17	0	0	4	0	4	1	0	0	0	0	0	0
AF4013-3	0	2	1	1	4	0	0	0	0	1	0	0
AF4125-1	0	0	2	0	2	1	0	0	0	6	1	0
AF4130-7	0	2	5	0	7	4	0	0	0	1	0	0
AF4138-8	0	0	2	0	2	0	0	0	0	0	0	0
AF4147-1	0	0	1	0	3	0	0	0	0	1	0	0
AF4157-6	6	1	1	1	10	0	0	0	0	0	0	0
AF4220-4	0	0	4	0	4	0	0	0	4	3	0	0
AF4222-5	0	1	7	0	8	0	0	0	8	4	0	0
AF4227-2	0	1	3	0	4	15	0	0	0	4	1	0
AF4329-7	1	3	2	0	6	0	0	0	0	1	0	0
AF4342-3	0	10	2	0	12	0	0	0	0	0	0	0
AF4347-1	1	2	4	0	7	0	0	0	0	0	0	0
AF4363-5	1	0	1	0	2	0	0	0	0	0	0	0
AF4386-16	1	0	1	0	2	0	0	0	1	1	0	0
AF4421-2	9	0	5	0	14	0	0	0	0	0	0	0
AF4421-4	0	0	2	0	3	0	0	0	1	0	0	0
AF4437-1	21	1	2	4	28	0	0	0	0	0	0	0

Table 17 (cont'd). External and internal defects of University of Maine Advanced 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
AF4437-5	6	2	1	0	9	0	0	0	1	3	0	0
AF4441-8	0	0	1	0	1	0	0	0	0	0	0	0
AF4449-2	1	3	8	0	12	0	0	0	0	0	0	0
AF4454-3	22	3	6	0	32	3	0	0	1	0	0	0
AF4463-7	9	1	2	0	12	0	0	0	0	0	0	0
AF4463-8	1	0	4	2	7	0	0	0	0	0	0	0
AF4518-1	5	0	3	0	8	1	0	0	0	0	0	0
AF4521-1	2	0	8	0	9	0	0	0	0	1	0	0
AF4532-8	0	1	5	1	7	0	0	0	0	0	0	0
AF4532-9	1	0	1	0	2	0	0	0	0	0	0	0
AF4538-3	10	0	0	2	13	0	0	0	0	0	0	0
AF4614-2	0	0	2	1	4	0	0	0	0	4	0	0
MSD[3]	5	3	3	3	8	2	ns	ns	ns	ns	ns	ns
P Value	*<.0001*	*<.0001*	*<.0001*	*0.0315*	*<.0001*	*<.0001*	*	*	*0.6039*	*0.0919*	*0.5390*	*

[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 Waller Duncan's K-ratio t Test.

Chapter 7. University Of Maine Early Line , 2012

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 20, 2012
Vine Kill Dates	N/A
Harvest Date	April 30, 2012
Season Length	101 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	9 (Standard: Atlantic)
Number of Clones	71
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	40 days after planting
Highest Total Yield	AF4950-2 (502 cwt or 56.2 T/ha)
Highest Marketable Yield	AF4914-4 (451 cwt or 50.5 T/ha)

Table 18. Production facts for University of Maine Early-Line potato selections.

Clone	Seed Source	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	MFX	464	420	100	1	7	69	17	6	0	93	23	1.073
Adora	HZPC	262	214	51	3	13	76	2	6	0	84	8	1.056
Chopin	HZPC	258	151	36	4	31	64	2	0	0	66	2	1.063
Fabula	HZPC	284	223	53	1	7	56	14	22	0	92	35	1.056
Harley Blackwell	MFX	281	229	55	2	15	63	15	4	0	83	19	1.073
LaChipper	MFX	339	311	74	2	6	68	12	13	0	92	25	1.067
Snowbird	HZPC	271	225	54	3	8	78	9	2	0	88	11	1.067
Vivaldi	HZPC	372	288	69	3	17	75	5	0	0	80	5	1.061
Yukon Gold	MFX	245	203	48	1	15	63	15	5	0	84	21	1.073
AF0338-17	UM	346	311	74	0	8	74	14	3	0	92	17	1.071
AF4720-17	UM	251	202	48	3	13	79	2	2	0	84	5	1.076
AF4723-2	UM	321	281	67	2	9	66	19	5	0	90	24	1.072
AF4728-2	UM	309	252	60	1	10	76	6	8	0	89	14	1.077
AF4730-2	UM	368	325	77	2	10	74	5	9	0	88	14	1.066
AF4733-1	UM	323	277	66	1	10	86	4	0	0	90	4	1.069
AF4736-10	UM	343	336	80	0	2	39	39	19	0	98	59	1.082
AF4736-5	UM	202	191	45	1	2	55	31	13	0	98	43	1.080
AF4739-7	UM	340	288	69	2	9	65	22	2	0	89	24	1.071
AF4740-1	UM	330	304	72	1	2	52	31	14	0	97	45	1.076
AF4740-4	UM	290	238	57	1	13	81	5	0	0	86	5	1.080
AF4745-9	UM	248	199	47	2	12	75	4	7	0	86	11	1.073
AF4746-7	UM	231	200	48	2	9	38	31	20	0	89	51	1.070
AF4747-18	UM	191	142	34	2	16	73	8	0	0	81	8	1.073
AF4747-5	UM	225	163	39	3	13	60	11	13	0	84	23	1.071

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

Clone	Seed Source	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
AF4747-7	UM	347	317	76	0	4	62	12	21	0	96	33	1.078
AF4749-14	UM	355	172	41	4	47	49	0	0	0	49	0	1.072
AF4749-23	UM	267	166	39	3	20	68	5	3	0	77	9	1.075
AF4749-5	UM	244	185	44	2	7	59	17	15	0	91	32	1.080
AF4749-7	UM	228	120	29	5	29	50	4	12	0	67	16	1.058
AF4754-1	UM	223	149	36	2	10	71	10	7	0	88	18	1.070
AF4769-1	UM	126	86	20	4	24	44	28	0	0	72	28	1.057
AF4788-1	UM	267	215	51	2	11	72	12	3	0	87	15	1.075
AF4788-8	UM	214	128	30	6	29	65	0	0	0	65	0	1.066
AF4805-1	UM	377	315	75	2	12	69	10	7	0	86	17	1.074
AF4815-1	UM	262	214	51	2	14	80	4	0	0	84	4	1.059
AF4831-2	UM	355	247	59	3	24	45	28	0	0	73	28	1.061
AF4831-3	UM	299	263	63	0	7	63	22	8	0	93	29	1.058
AF4834-2	UM	325	239	57	4	21	62	11	2	0	75	14	1.058
AF4835-2	UM	356	300	72	3	10	87	0	0	0	87	0	1.062
AF4838-1	UM	311	249	59	1	10	72	16	0	0	89	16	1.074
AF4840-1	UM	323	264	63	1	11	67	15	6	0	89	21	1.078
AF4841-1	UM	324	260	62	2	15	75	2	7	0	84	9	1.065
AF4842-2	UM	337	280	67	1	7	70	16	6	0	92	23	1.054
AF4845-3	UM	358	266	63	3	11	72	10	6	0	87	15	1.059
AF4852-2	UM	446	400	95	2	5	67	17	11	0	94	27	1.063
AF4852-4	UM	375	321	76	2	6	53	18	21	0	92	39	1.067
AF4855-1	UM	311	265	63	2	9	71	18	0	0	89	18	1.077
AF4874-3	UM	391	253	60	2	31	67	0	0	0	67	0	1.072

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

Clone	Seed Source	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
AF4880-1	UM	348	314	75	2	6	85	7	0	0	92	7	1.075
AF4882-3	UM	403	363	87	1	8	89	2	0	0	91	2	1.076
AF4887-2	UM	458	370	88	3	14	75	5	3	0	83	8	1.065
AF4891-4	UM	359	263	63	3	22	75	0	0	0	75	0	1.073
AF4914-4	UM	492	451	107	1	6	56	26	11	0	93	37	1.063
AF4917-3	UM	440	386	92	1	9	69	17	4	0	90	21	1.069
AF4917-4	UM	459	407	97	1	7	65	12	14	0	91	26	1.073
AF4920-3	UM	375	337	80	2	8	80	7	3	0	90	10	1.073
AF4927-2	UM	486	408	97	2	8	71	9	10	0	91	19	1.073
AF4947-1	UM	434	278	66	1	8	45	29	18	0	91	47	1.073
AF4947-6	UM	302	235	56	1	20	79	0	0	0	79	0	1.063
AF4948-10	UM	401	324	77	2	16	77	6	0	0	82	6	1.063
AF4950-1	UM	383	284	68	2	22	75	1	0	0	76	1	1.079
AF4950-2	UM	502	430	102	2	8	84	6	0	0	90	6	1.071
AF4953-2	UM	450	398	95	1	8	88	4	0	0	92	4	1.074
AF4957-5	UM	331	247	59	2	23	76	0	0	0	76	0	1.069
AF4963-4	UM	276	230	55	2	11	76	9	2	0	87	11	1.057
AF4963-5	UM	415	346	82	2	4	53	15	26	0	94	42	1.055
AF4963-9	UM	310	260	62	2	8	52	25	13	0	90	38	1.053
AF4965-2	UM	368	333	79	1	6	50	23	20	0	93	43	1.068
AF4971-3	UM	314	284	68	1	5	65	22	7	0	94	29	1.076
AF4974-2	UM	226	186	44	3	14	76	4	3	0	83	7	1.086
AF4975-3	UM	346	319	76	1	4	55	20	19	0	95	40	1.081
AF4975-4	UM	273	230	55	1	6	65	12	12	3	89	24	1.077

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

Clone	Seed Source	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
AF4977-3	UM	273	240	57	1	9	70	17	2	0	89	19	1.083
AF4983-1	UM	227	190	45	1	8	53	13	20	5	86	33	1.060
AF4985-1	UM	184	150	36	3	10	72	8	7	0	87	15	1.061
AF4989-1	UM	394	329	78	2	12	70	10	6	0	86	16	1.071
AF4999-1	UM	437	378	90	3	9	78	7	2	0	88	9	1.069
AF4999-2	UM	341	281	67	2	11	75	9	2	0	86	11	1.075
AF5012-1	UM	321	255	61	3	8	58	25	6	0	89	31	1.061
AF5175-2	UM	266	204	49	3	15	73	9	0	0	83	9	1.062

[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 19. Plant growth characteristics and tuber appearance of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]
Atlantic	96	6	9-6	5	7
Adora	71	4	8-5	5	5
Chopin	63	2	7	5	5
Fabula	71	3	7	6	5
Harley Blackwell	88	5	8	5	7
LaChipper	75	5	9	3	7
Snowbird	75	4	7	6	5
Vivaldi	71	4	7	4	5
Yukon Gold	79	5	8	2	6
AF0338-17	79	5	8-5	6	6
AF4720-17	67	5	7	5	5
AF4723-2	88	5	8	6	7
AF4728-2	58	3	7	7	6
AF4730-2	88	5	7	6	7
AF4733-1	92	5	7	6	6
AF4736-10	92	5	8	6	6
AF4736-5	71	4	na	6	6
AF4739-7	83	5	9	5	6
AF4740-1	33	5	8	6	6
AF4740-4	92	5	8-5	5	5
AF4745-9	75	5	7	6	6
AF4746-7	50	2	7	7	5
AF4747-18	79	2	7	7	6
AF4747-5	58	2	7	7	5

Table 19 (cont'd). Plant growth characteristics and tuber appearance of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]
AF4747-7	67	3	7	7	6
AF4749-14	75	5	8	6	6
AF4749-23	58	3	na	7	5
AF4749-5	67	4	na	7	5
AF4749-7	79	3	na	8	na
AF4754-1	75	4	7	6	na
AF4769-1	33	1	na	9	na
AF4788-1	67	3	7	7	5
AF4788-8	63	3	7	6	5
AF4805-1	63	5	7	6	5
AF4815-1	75	4	7	6	5
AF4831-2	92	5	9	3	6
AF4831-3	75	4	7	4	6
AF4834-2	88	5	9-6	2	7
AF4835-2	83	5	8	4	6
AF4838-1	67	5	7	6	5
AF4840-1	75	3	7	7	5
AF4841-1	63	4	7	5	6
AF4842-2	67	4	7	6	5
AF4845-3	67	4	7	5	5
AF4852-2	71	4	7	6	6
AF4852-4	42	5	7	6	5
AF4855-1	88	5	8	6	5
AF4874-3	96	5	9-6	4	6

Table 19 (cont'd). Plant growth characteristics and tuber appearance of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]
AF4880-1	88	4	9	5	5
AF4882-3	83	5	9	5	5
AF4887-2	83	5	9-6	6	5
AF4891-4	88	5	9	7	5
AF4914-4	83	5	8	6	6
AF4917-3	54	5	8-5	5	5
AF4917-4	88	5	7	6	5
AF4920-3	71	4	7	6	5
AF4927-2	92	5	9-6	5	5
AF4947-1	75	4	8	5	5
AF4947-6	88	5	7	5	5
AF4948-10	92	3	7	7	5
AF4950-1	54	5	8	6	6
AF4950-2	88	6	9	5	6
AF4953-2	79	4	7	5	5
AF4957-5	88	3	7	5	5
AF4963-4	75	4	7	4	5
AF4963-5	79	5	7	4	6
AF4963-9	88	5	7	4	5
AF4965-2	83	5	8-5	5	5
AF4971-3	67	5	7	6	6
AF4974-2	63	3	7	6	5
AF4975-3	63	5	7	6	5
AF4975-4	79	5	7	6	5

Table 19 (cont'd). Plant growth characteristics and tuber appearance of University of Maine Early-Line potato selections.

	Plant Growth Characteristics[1]				
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Tuber Appearance[2]
AF4977-3	63	1	7	6	5
AF4983-1	25	1	na	7	5
AF4985-1	33	1	na	6	5
AF4989-1	92	4	7	5	5
AF4999-1	83	5	8-5	5	5
AF4999-2	83	4	8	6	5
AF5012-1	67	5	7	5	5
AF5175-2	96	4	7	4	5

[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 University of Maine Early-Line 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	2	0	2	5	0	0	0	5	0	0
Adora	0	0	2	1	3	5	0	0	0	0	0	0
Chopin	2	0	5	3	11	0	0	0	0	0	0	0
Fabula	3	7	1	3	14	0	0	0	0	0	0	0
Harley Blackwell	0	0	0	1	1	0	0	0	0	0	0	0
LaChipper	0	0	1	0	1	0	0	0	0	0	0	0
Snowbird	0	0	5	1	6	0	0	0	0	0	0	0
Vivaldi	0	0	1	2	3	0	0	0	0	0	0	0
Yukon Gold	0	0	0	1	1	0	0	0	0	0	0	0
AF0338-17	0	1	0	0	2	0	0	0	0	0	0	0
AF4720-17	0	1	3	0	4	0	0	0	0	0	0	0
AF4723-2	0	0	2	1	3	0	0	0	0	15	0	0
AF4728-2	0	2	7	0	9	0	0	0	0	0	0	0
AF4730-2	0	0	0	0	0	0	0	0	0	0	0	0
AF4733-1	1	0	3	0	4	0	0	0	0	0	0	0
AF4736-10	0	0	0	0	0	0	0	0	0	10	0	0
AF4736-5	0	1	2	0	3	0	0	0	10	5	0	0
AF4739-7	0	0	5	0	5	0	0	0	0	0	0	0
AF4740-1	1	0	5	0	5	0	0	0	0	0	0	0
AF4740-4	1	0	4	0	5	0	0	0	0	0	0	0
AF4745-9	0	0	6	1	7	0	0	0	0	0	0	0
AF4746-7	1	0	0	2	2	5	0	0	5	0	0	0
AF4747-18	0	0	8	1	8	0	0	0	0	0	0	0
AF4747-5	0	11	2	0	13	5	0	0	5	10	0	0

Table 20 (cont'd). External and internal defects of University of Maine Early-Line 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
AF4747-7	1	1	3	0	4	10	0	0	0	10	0	5
AF4749-14	0	0	1	0	1	0	0	0	0	0	0	0
AF4749-23	0	9	11	0	20	0	0	0	0	0	0	0
AF4749-5	0	13	1	3	17	0	0	0	0	0	0	0
AF4749-7	0	17	4	0	21	0	0	0	0	0	0	0
AF4754-1	2	2	17	3	24	0	0	0	0	5	0	0
AF4769-1	3	0	3	0	6	0	0	0	0	0	0	0
AF4788-1	0	1	5	1	7	0	0	0	0	0	0	0
AF4788-8	0	5	1	3	8	0	0	0	0	0	0	0
AF4805-1	0	1	1	0	2	5	0	0	0	0	0	0
AF4815-1	0	0	0	3	3	0	0	0	0	0	0	0
AF4831-2	0	0	1	4	4	0	0	0	0	0	0	0
AF4831-3	0	0	4	1	5	0	0	0	0	0	0	0
AF4834-2	0	0	1	2	2	0	0	0	0	0	0	0
AF4835-2	1	0	1	1	2	0	0	0	0	0	0	0
AF4838-1	5	1	4	0	9	0	0	0	0	0	0	0
AF4840-1	3	1	2	1	8	0	0	0	5	0	0	0
AF4841-1	0	1	2	1	4	0	0	0	0	0	0	0
AF4842-2	3	3	2	3	10	0	0	0	0	0	0	0
AF4845-3	6	0	6	2	14	0	0	0	0	0	0	0
AF4852-2	4	0	0	0	4	0	0	0	0	0	0	0
AF4852-4	7	0	1	0	7	0	0	0	0	0	0	0
AF4855-1	5	0	0	0	5	0	0	0	0	0	0	0
AF4874-3	1	0	2	1	4	0	0	0	0	0	0	0

Table 20 (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
AF4880-1	1	0	0	1	2	0	0	0	5	0	0	0
AF4882-3	0	0	1	0	1	0	0	0	0	0	0	0
AF4887-2	0	1	1	0	2	0	0	0	0	0	0	0
AF4891-4	0	2	1	0	3	0	0	0	0	0	0	0
AF4914-4	0	1	0	0	2	0	0	0	0	0	0	0
AF4917-3	0	0	2	0	2	0	0	0	0	5	0	0
AF4917-4	0	2	1	0	3	0	0	0	5	0	0	0
AF4920-3	0	0	0	0	0	0	0	0	5	0	0	0
AF4927-2	0	5	2	0	8	0	0	0	0	0	0	0
AF4947-1	7	9	12	2	30	0	0	0	0	0	0	0
AF4947-6	0	2	0	0	2	0	0	0	0	0	0	0
AF4948-10	0	0	2	0	2	5	0	0	0	5	0	0
AF4950-1	0	0	2	0	2	0	0	0	0	0	0	0
AF4950-2	0	0	5	0	5	0	0	0	0	0	0	0
AF4953-2	0	0	3	0	3	0	0	0	0	0	0	0
AF4957-5	0	0	1	0	1	0	0	0	0	10	0	0
AF4963-4	0	0	4	0	4	5	0	0	0	0	0	0
AF4963-5	7	4	1	0	11	0	0	0	0	0	0	0
AF4963-9	7	0	0	0	7	0	0	0	0	0	0	0
AF4965-2	0	0	3	0	3	0	0	0	0	10	15	0
AF4971-3	0	0	4	0	4	0	0	0	0	5	0	0
AF4974-2	0	0	1	0	1	0	0	0	0	21	5	0
AF4975-3	1	2	0	0	3	0	0	0	0	0	0	0
AF4975-4	0	4	1	0	5	0	0	0	0	20	5	0

Table 20 (cont'd). External and internal defects of University of Maine Early-Line 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
AF4977-3	2	0	0	0	2	0	0	0	0	0	0	0
AF4983-1	0	0	3	0	3	0	0	0	0	0	0	0
AF4985-1	1	0	5	0	6	0	0	0	0	0	0	0
AF4989-1	1	0	3	0	3	0	0	0	0	0	0	0
AF4999-1	0	0	1	0	1	0	0	0	0	0	0	0
AF4999-2	1	0	2	1	5	0	0	0	0	0	0	0
AF5012-1	3	1	7	1	11	0	0	0	0	0	0	0
AF5175-2	2	0	6	0	7	0	0	0	5	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 8. University Of Maine Early Generation, 2012

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 20, 2012
Vine Kill Dates	April 18, 2012
Harvest Date	May 14, 2012
Season Length	89 days planting to vine kill; 115 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 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	45
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	40 days after planting
Highest Total Yield	AF5131-2 (396 cwt or 44.3 T/ha)

Table 21. Production facts for University of Maine Early Generation Red and Purple-skinned potato selections.

Clone	Seed Source	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	MFX	367	213	100	2	3	46	0	48	0	94	48	1.054
Adirondack Blue	MFX	130	61	28	0	13	87	0	0	0	87	0	1.054
Chieftain	UM	309	151	71	1	10	88	0	0	0	88	0	1.049
Dark Red Cheiftain	Real	176	132	62	2	2	33	35	28	0	96	63	1.051
Dark Red Norland	UM	290	127	60	7	10	74	9	0	0	83	9	1.058
Peter Wilcox	MFX	387	281	132	3	12	68	17	0	0	85	17	1.062
AF5036-2	UM	183	55	26	7	47	46	0	0	0	46	0	1.052
AF5041-1	UM	263	99	47	0	8	51	26	15	0	92	41	1.052
AF5041-5	UM	269	154	72	4	6	51	39	0	0	90	39	1.049
AF5041-6	UM	183	71	33	6	19	61	14	0	0	75	14	1.055
AF5079-3	UM	105	44	21	17	33	51	0	0	0	51	0	1.045
AF5122-5	UM	140	68	32	7	23	70	0	0	0	70	0	1.059
AF5123-1	UM	220	80	38	16	30	54	0	0	0	54	0	1.055
AF5123-4	UM	199	66	31	3	33	64	0	0	0	64	0	1.055
AF5123-8	UM	245	98	46	9	21	38	32	0	0	70	32	1.059
AF5126-5	UM	108	32	15	5	9	86	0	0	0	86	0	na
AF5129-4	UM	216	143	67	3	18	72	7	0	0	79	7	1.059
AF5131-2	UM	396	159	75	3	7	58	21	10	0	90	31	1.058
AF5131-5	UM	130	50	24	7	0	93	0	0	0	93	0	na
AF5139-2	UM	333	146	69	7	5	76	12	0	0	88	12	1.056
AF5154-1	UM	236	125	59	4	21	55	20	0	0	75	20	1.058
AF5154-2	UM	158	56	26	0	20	33	47	0	0	80	47	na
AF5157-1	UM	178	87	41	11	11	66	12	0	0	77	12	1.059
AF5157-3	UM	176	66	31	9	10	52	30	0	0	82	30	1.056
AF5158-2	UM	175	23	11	4	32	64	0	0	0	64	0	na
AF5160-4	UM	208	61	29	4	19	77	0	0	0	77	0	1.063
AF5160-7	UM	314	215	101	2	13	58	14	14	0	86	28	1.060
AF5245-1	UM	390	255	120	2	24	65	9	0	0	74	9	1.069

Table 21 (cont'd). Production facts for University of Maine Early Generation Red and Purple-skinned potato selections.

Clone	Seed Source	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
AF5272-6	UM	285	167	78	6	19	69	6	0	0	74	6	1.053
AF5272-7	UM	241	169	79	2	10	83	6	0	0	89	6	1.052
AF5273-1	UM	334	167	78	5	12	62	21	0	0	83	21	1.065
AF5274-1	UM	122	60	28	7	30	63	0	0	0	63	0	1.055
AF5274-3	UM	240	89	42	11	23	66	0	0	0	66	0	1.057
AF5274-6	UM	267	138	65	6	33	62	0	0	0	62	0	1.060
AF5274-7	UM	29	0	0	44	56	0	0	0	0	0	0	na
AF5275-1	UM	210	72	34	10	39	36	15	0	0	51	15	1.059
AF5275-3	UM	179	83	39	11	35	54	0	0	0	54	0	1.050
AF5276-2	UM	304	205	96	3	19	72	6	0	0	78	6	1.058
AF5278-3	UM	229	181	85	4	9	81	6	0	0	87	6	1.065
AF5283-1	UM	323	197	93	2	13	72	13	0	0	85	13	1.059
AF5283-3	UM	244	170	80	4	15	75	6	0	0	80	6	1.055
AF5293-2	UM	166	68	32	4	11	85	0	0	0	85	0	1.044
AF5295-1	UM	188	121	57	6	8	86	0	0	0	86	0	1.049
AF5295-3	UM	98	21	10	20	7	73	0	0	0	73	0	na
AF5340-1	UM	148	41	19	11	26	63	0	0	0	63	0	1.055
AF5344-1	UM	214	87	41	8	37	56	0	0	0	56	0	1.052
AF5346-1	UM	233	111	52	10	33	57	0	0	0	57	0	1.054
AF5348-3	UM	65	19	9	16	18	23	44	0	0	67	44	na
AF5353-1	UM	194	108	50	5	24	70	0	0	0	70	0	1.058
AF5353-2	UM	272	136	64	10	33	57	0	0	0	57	0	1.060
AF5364-1	UM	75	26	12	0	24	76	0	0	0	76	0	na

[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 Generation Red and Purple-skinned 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	100	6	9-6	7	1	2	7	3	3	5
Adirondack Blue	38	4	7	7	na	na	na	na	na	na
Chieftain	88	3	8	9	1	3	6	4	4	6
Dark Red Cheiftain	63	4	7	7	1	2	6	3	5	4
Dark Red Norland	63	6	8	7	2	3	6	4	4	5
Peter Wilcox	75	3	8	9	5	1	6	4	4	6
AF5036-2	88	4	7	7	1	3	6	3	4	5
AF5041-1	75	4	8	8	2	3	7	na	2	4
AF5041-5	88	5	8	6	2	3	6	3	3	5
AF5041-6	100	5	8	7	1	2	7	3	4	5
AF5079-3	88	4	7	6	2	1	7	6	6	5
AF5122-5	75	5	8	7	2	3	6	3	5	5
AF5123-1	75	5	7	7	1	2	7	3	6	5
AF5123-4	75	4	7	7	2	3	7	4	6	5
AF5123-8	50	6	7	7	2	3	7	4	5	5
AF5126-5	75	6	8	8	na	na	na	na	na	na
AF5129-4	75	4	7	8	2	2	6	3	6	4
AF5131-2	75	3	8	9	2	2	6	na	3	5
AF5131-5	63	3	8	9	na	na	na	na	na	na
AF5139-2	75	3	7	9	2	2	6	4	4	5
AF5154-1	63	3	8	8	1	2	7	3	4	5
AF5154-2	50	4	8	7	na	na	na	na	na	na
AF5157-1	50	2	7	8	1	2	7	4	3	4
AF5157-3	75	4	8	7	na	na	na	na	na	na
AF5158-2	63	2	8	8	na	na	na	na	na	na
AF5160-4	75	4	8	7	2	2	7	3	3	5
AF5160-7	100	6	9-6	8	2	2	7	4	2	7
AF5245-1	75	6	9-6	8	2	1	6	3	4	7

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

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
AF5272-6	75	5	8	7	1	2	7	3	5	6
AF5272-7	38	5	9	6	2	3	8	4	6	5
AF5273-1	88	5	9-6	8	2	3	7	na	6	4
AF5274-1	75	5	8	6	2	3	6	3	4	5
AF5274-3	100	5	9	7	2	2	6	3	4	7
AF5274-6	88	5	8	7	1	2	6	3	na	5
AF5274-7	100	4	7	6	na	na	na	na	na	na
AF5275-1	63	4	8	8	2	2	7	3	3	7
AF5275-3	100	4	4	6	2	3	7	3	4	6
AF5276-2	100	5	5	4	1	2	7	3	4	6
AF5278-3	88	5	5	5	1	2	7	4	5	6
AF5283-1	100	5	9	5	2	3	6	4	4	5
AF5283-3	75	5	8	5	2	3	6	4	5	5
AF5293-2	100	1	7	8	2	3	7	4	5	5
AF5295-1	100	3	7	7	1	2	7	3	5	6
AF5295-3	88	2	7	7	na	na	na	na	na	na
AF5340-1	88	4	8	7	3	2	7	4	4	5
AF5344-1	100	4	7	7	2	2	6	4	6	6
AF5346-1	75	4	7	7	2	2	6	3	6	6
AF5348-3	75	4	7	7	na	na	na	na	na	na
AF5353-1	100	4	9	7	2	2	7	4	4	4
AF5353-2	100	5	9	7	2	2	7	3	6	6
AF5364-1	75	2	7	7	na	na	na	na	na	na

[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 Generation Red and Purple-skinned 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
Red LaSoda	13	0	0	26	38	0	0	0	0	0	0	0
Adirondack Blue	0	0	4	42	46	na	na	na	na	na	na	na
Chieftain	9	0	14	22	45	0	0	0	0	0	0	0
Dark Red Cheiftain	5	0	0	17	22	0	0	0	0	0	0	0
Dark Red Norland	4	0	13	31	47	0	0	0	0	0	0	0
Peter Wilcox	0	0	5	9	14	0	0	0	0	0	0	0
AF5036-2	0	0	4	31	34	0	0	0	0	0	0	0
AF5041-1	4	0	16	40	59	0	0	0	0	0	0	0
AF5041-5	3	0	13	21	36	0	0	0	0	0	0	0
AF5041-6	0	0	3	46	49	0	0	0	0	0	0	0
AF5079-3	0	0	0	17	17	0	0	0	0	0	0	0
AF5122-5	0	0	3	29	31	0	0	0	0	0	0	0
AF5123-1	2	0	0	31	33	0	0	0	0	0	0	0
AF5123-4	1	0	0	47	49	0	0	0	0	0	0	0
AF5123-8	0	0	0	43	43	0	0	0	0	0	0	0
AF5126-5	0	0	0	65	65	na	na	na	na	na	na	na
AF5129-4	0	0	13	3	16	0	0	0	0	0	0	0
AF5131-2	0	0	27	28	55	0	0	0	0	0	0	20
AF5131-5	0	0	7	51	58	na	na	na	na	na	na	na
AF5139-2	0	0	13	37	50	0	0	0	0	0	0	0
AF5154-1	5	0	4	20	29	0	0	0	0	0	0	0
AF5154-2	0	0	6	50	56	na	na	na	na	na	na	na
AF5157-1	0	0	0	36	36	0	0	0	0	0	0	0
AF5157-3	12	0	6	36	54	na	na	na	na	na	na	na
AF5158-2	47	0	0	32	79	na	na	na	na	na	na	na
AF5160-4	13	0	0	49	62	0	0	0	0	0	0	0
AF5160-7	5	0	0	16	20	0	0	0	0	0	0	0
AF5245-1	0	0	2	9	11	0	0	0	0	0	0	0

Table 23 (cont'd). External and internal defects of University of Maine Early Generation Red and Purple-skinned 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
AF5272-6	0	0	7	14	21	0	0	0	0	0	0	0
AF5272-7	0	0	0	21	21	0	0	0	0	0	0	0
AF5273-1	0	0	13	27	40	0	0	0	0	0	0	0
AF5274-1	0	0	3	19	22	0	0	0	0	0	0	0
AF5274-3	6	0	11	27	44	0	0	0	0	0	0	0
AF5274-6	0	0	2	14	16	0	0	0	0	0	0	0
AF5274-7	0	0	0	85	85	na	na	na	na	na	na	na
AF5275-1	0	0	0	34	34	0	0	0	0	0	0	0
AF5275-3	0	0	0	14	14	0	0	0	0	0	0	0
AF5276-2	3	0	5	6	13	0	0	0	0	0	0	0
AF5278-3	0	0	4	5	9	0	0	0	0	0	0	0
AF5283-1	3	0	1	24	28	0	0	0	0	0	0	0
AF5283-3	0	0	10	3	13	0	0	0	0	0	0	0
AF5293-2	18	0	4	30	52	0	0	0	0	0	0	0
AF5295-1	0	0	0	25	25	0	0	0	0	0	0	0
AF5295-3	46	0	9	16	70	na	na	na	na	na	na	na
AF5340-1	8	0	18	29	56	0	0	0	0	0	0	0
AF5344-1	0	0	18	9	27	0	0	0	0	0	0	0
AF5346-1	0	0	0	16	16	0	0	0	0	0	0	0
AF5348-3	0	0	6	50	56	na	na	na	na	na	na	na
AF5353-1	0	0	0	21	21	0	0	0	0	0	0	0
AF5353-2	0	0	3	10	13	0	0	0	0	0	0	0
AF5364-1	0	0	0	54	54	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 9. NATIONAL CHIP PROCESSING TRIAL, 2012

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 7, 2012
Vine Kill Dates	N/A
Harvest Date	May 20, 2012
Season Length	103 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	6 (Standard: Atlantic)
Number of Clones	168
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	36 days after planting
Highest Total Yield	MSR159-02 (373 cwt or 41.7 T/ha)
Highest Marketable Yield	MSR159-02 (316 cwt or 35.4 T/ha)

Table 24. Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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	MFX	252	108	100	2	6	76	15	0	0	91	15	1.074
Harley Blackwell	MFX	210	110	102	4	30	62	4	0	0	66	4	1.067
Marcy	MFX	255	151	141	3	15	82	0	0	0	82	0	1.068
Snowden	MFX	249	163	151	2	24	74	0	0	0	74	0	1.068
NY148 (E106-4)	Cornell-NY	218	132	123	6	31	63	0	0	0	63	0	1.074
NY148 (E106-4)	Cornell-NY	177	88	81	5	34	60	0	0	0	60	0	1.070
NYH15-17	Cornell-NY	198	131	122	5	25	70	0	0	0	70	0	1.068
NYH15-17	Cornell-NY	194	98	91	1	35	64	0	0	0	64	0	1.066
NYH15-5	Cornell-NY	203	107	100	3	31	67	0	0	0	67	0	1.066
NYH15-5	Cornell-NY	225	138	128	4	18	69	10	0	0	79	10	1.067
NYH23-16	Cornell-NY	154	76	70	4	33	62	0	0	0	62	0	1.061
NYH23-16	Cornell-NY	121	56	52	5	36	59	0	0	0	59	0	1.066
NYH25-4	Cornell-NY	174	99	92	0	25	75	0	0	0	75	0	1.070
NYH25-4	Cornell-NY	187	88	81	3	19	78	0	0	0	78	0	1.067
NYJ100-5	Cornell-NY	150	76	70	10	38	52	0	0	0	52	0	1.073
NYJ103-1	Cornell-NY	136	72	67	1	32	60	7	0	0	67	7	1.061
NYJ104-3	Cornell-NY	310	251	233	1	6	67	7	18	0	92	25	1.067
NYJ105-10	Cornell-NY	218	144	134	3	14	79	5	0	0	84	5	1.062
NYJ107-5	Cornell-NY	129	68	63	8	37	55	0	0	0	55	0	1.066
NYJ112-2	Cornell-NY	244	130	121	3	36	61	0	0	0	61	0	1.071
NYJ112-8	Cornell-NY	162	113	105	3	9	88	0	0	0	88	0	1.067
NYJ112-9	Cornell-NY	187	49	45	4	61	35	0	0	0	35	0	1.064
NYJ15-7	Cornell-NY	203	161	150	2	14	63	21	0	0	84	21	1.065
NYJ17-6	Cornell-NY	176	106	99	3	30	67	0	0	0	67	0	1.063

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
NYJ2-15	Cornell-NY	82	52	48	7	12	81	0	0	0	81	0	1.075
NYJ2-2	Cornell-NY	169	97	90	4	18	70	0	7	0	77	7	1.065
NYJ2-21	Cornell-NY	89	70	65	7	11	75	7	0	0	83	7	1.069
NYJ2-27	Cornell-NY	191	110	102	5	36	59	0	0	0	59	0	1.070
NYJ2-29	Cornell-NY	206	170	158	1	9	83	7	0	0	90	7	1.071
NYJ4-3	Cornell-NY	232	163	151	5	19	77	0	0	0	77	0	1.074
NYJ5-2	Cornell-NY	162	62	58	10	32	43	15	0	0	58	15	1.066
AC00206-2W	CSU-CO	246	178	166	2	22	76	0	0	0	76	0	1.070
AC00206-2W	CSU-CO	199	87	80	6	47	47	0	0	0	47	0	1.071
AC01151-5W	CSU-CO	256	165	153	7	20	69	4	0	0	73	4	1.058
AC01151-5W	CSU-CO	154	27	25	14	64	23	0	0	0	23	0	1.063
AC03433-1W	CSU-CO	177	135	125	0	14	86	0	0	0	86	0	1.059
AC03433-1W	CSU-CO	136	62	58	4	32	64	0	0	0	64	0	1.063
AC03452-2W	CSU-CO	266	163	152	5	11	69	10	5	0	84	16	1.053
AC03452-2W	CSU-CO	170	119	111	5	12	83	0	0	0	83	0	1.056
AC05153-1W	CSU-CO	160	95	88	5	18	61	17	0	0	78	17	1.065
AC05153-1W	CSU-CO	117	35	33	11	40	49	0	0	0	49	0	1.064
CO00270-7W	CSU-CO	170	103	96	4	25	71	0	0	0	71	0	1.063
CO00270-7W	CSU-CO	89	27	25	9	49	42	0	0	0	42	0	1.054
CO02024-9W	CSU-CO	150	36	34	5	63	33	0	0	0	33	0	1.063
CO02024-9W	CSU-CO	112	26	24	9	64	27	0	0	0	27	0	1.064
CO02024-9W	CSU-CO	192	107	99	5	39	56	0	0	0	56	0	1.064
CO02024-9W	CSU-CO	188	96	89	2	41	56	0	0	0	56	0	1.066
CO03243-3W	CSU-CO	193	117	108	3	18	75	4	0	0	79	4	1.060

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
CO03243-3W	CSU-CO	174	87	81	8	22	70	0	0	0	70	0	1.057
CO05061-2P	CSU-CO	159	59	54	10	48	42	0	0	0	42	0	1.059
CO05061-2P	CSU-CO	106	18	16	17	63	20	0	0	0	20	0	1.056
CO05061-6W	CSU-CO	147	58	54	11	40	50	0	0	0	50	0	1.055
CO05061-6W	CSU-CO	110	37	34	10	51	39	0	0	0	39	0	1.049
CO05061-7W	CSU-CO	141	58	54	7	40	52	0	0	0	52	0	1.063
CO05061-7W	CSU-CO	94	50	46	10	26	65	0	0	0	65	0	1.065
AC00180-2W	CSU-CO	134	0	0	27	73	0	0	0	0	0	0	1.063
AC00180-2W	CSU-CO	127	0	0	28	72	0	0	0	0	0	0	1.057
MSH228-6	MSU-MI	229	138	128	3	24	72	0	0	0	72	0	1.053
MSH228-6	MSU-MI	168	96	89	6	34	57	3	0	0	60	3	1.051
MSK061-4	MSU-MI	158	71	66	4	51	45	0	0	0	45	0	1.064
MSK061-4	MSU-MI	132	51	47	9	52	39	0	0	0	39	0	1.066
MSL007-B	MSU-MI	171	84	78	4	43	53	0	0	0	53	0	1.058
MSL007-B	MSU-MI	119	0	0	16	84	0	0	0	0	0	0	1.065
MSL292-A	MSU-MI	194	128	118	3	26	71	0	0	0	71	0	1.064
MSL292-A	MSU-MI	138	85	79	4	29	68	0	0	0	68	0	1.062
MSM246-B	MSU-MI	200	129	120	2	13	58	8	20	0	86	28	1.061
MSM246-B	MSU-MI	95	25	23	6	41	53	0	0	0	53	0	1.067
MSP239-1	MSU-MI	213	44	41	4	73	23	0	0	0	23	0	1.065
MSP270-1	MSU-MI	127	72	67	5	36	59	0	0	0	59	0	1.055
MSQ035-3	MSU-MI	113	50	47	3	46	50	0	0	0	50	0	1.064
MSQ035-3	MSU-MI	94	40	37	7	50	43	0	0	0	43	0	1.068
MSQ086-3	MSU-MI	102	57	53	9	30	51	10	0	0	61	10	1.057

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
MSQ086-3	MSU-MI	134	48	44	11	50	38	0	0	0	38	0	1.065
MSQ089-1	MSU-MI	150	64	60	4	40	50	6	0	0	56	6	1.060
MSQ089-1	MSU-MI	76	30	28	5	46	50	0	0	0	50	0	1.057
MSQ492-2	MSU-MI	201	133	123	3	29	68	0	0	0	68	0	1.067
MSR036-5	MSU-MI	234	188	174	1	11	88	0	0	0	88	0	1.072
MSR036-5	MSU-MI	150	76	70	4	27	69	0	0	0	69	0	1.065
MSR054-7	MSU-MI	95	41	38	0	34	66	0	0	0	66	0	1.060
MSR054-7	MSU-MI	77	59	55	3	18	79	0	0	0	79	0	1.053
MSR058-1	MSU-MI	191	112	104	4	33	63	0	0	0	63	0	1.064
MSR058-1	MSU-MI	160	109	101	3	29	64	4	0	0	68	4	1.066
MSR093-4	MSU-MI	229	128	118	3	35	53	3	5	0	62	5	1.064
MSR127-2	MSU-MI	230	164	152	3	19	78	0	0	0	78	0	1.065
MSR127-2	MSU-MI	140	99	92	3	21	77	0	0	0	77	0	1.062
MSR128-4Y	MSU-MI	152	38	35	16	59	26	0	0	0	26	0	1.060
MSR128-4Y	MSU-MI	86	0	0	19	81	0	0	0	0	0	0	1.061
MSR148-4	MSU-MI	209	96	89	7	35	58	0	0	0	58	0	1.052
MSR148-4	MSU-MI	110	65	61	11	8	82	0	0	0	82	0	1.055
MSR157-1Y	MSU-MI	136	48	44	3	29	68	0	0	0	68	0	1.062
MSR157-1Y	MSU-MI	89	51	47	5	22	73	0	0	0	73	0	1.067
MSR159-02	MSU-MI	373	316	294	1	9	59	11	20	0	90	20	1.072
MSR159-02	MSU-MI	269	174	161	2	19	66	13	0	0	79	0	1.064
MSR169-8Y	MSU-MI	273	238	221	1	6	73	20	0	0	93	0	1.062
MSR169-8Y	MSU-MI	133	72	67	2	36	61	0	0	0	61	0	1.063
MSS108-1	MSU-MI	148	49	45	11	48	41	0	0	0	41	0	1.063

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
MSS165-2Y	MSU-MI	175	77	72	6	50	44	0	0	0	44	0	1.072
MSS165-2Y	MSU-MI	177	66	61	6	55	39	0	0	0	39	0	1.071
MSS206-2	MSU-MI	179	133	123	4	15	61	7	13	0	81	13	1.061
MSS297-3	MSU-MI	192	124	115	4	29	67	0	0	0	67	0	1.068
MSS297-3	MSU-MI	153	78	72	4	44	53	0	0	0	53	0	1.063
MSS428-2	MSU-MI	182	97	90	7	37	56	0	0	0	56	0	1.067
MSS934-4	MSU-MI	244	167	155	2	15	65	6	11	0	83	11	1.063
MST096-2Y	MSU-MI	126	66	61	5	41	53	0	0	0	53	0	1.059
MST117-3Y	MSU-MI	144	28	26	18	61	20	0	0	0	20	0	1.063
MST184-3	MSU-MI	157	97	91	4	16	80	0	0	0	80	0	1.065
MST186-1Y	MSU-MI	236	130	121	3	39	58	0	0	0	58	0	1.058
MST229-1	MSU-MI	151	94	88	7	21	72	0	0	0	72	0	1.064
MST412-3	MSU-MI	159	79	73	3	9	89	0	0	0	89	0	1.053
MST458-04	MSU-MI	33	26	24	0	15	85	0	0	0	85	0	1.054
MSW293-1	MSU-MI	118	56	52	7	38	55	0	0	0	55	0	1.064
MSP516-A	MSU-MI	na	na	na	na	na	na	na	na	na	na	na	na
ND028792B-8	NDSU	na	na	na	na	na	na	na	na	na	na	na	na
ND060838C-3	NDSU	195	94	87	10	36	53	0	0	0	53	0	1.062
ND060839C-7	NDSU	204	103	96	6	39	55	0	0	0	55	0	1.058
ND071091C-2	NDSU	199	109	101	6	37	57	0	0	0	57	0	1.074
ND071215CB-1	NDSU	202	165	0	2	8	71	8	11	0	90	11	1.063
ND071282CB-2	NDSU	61	17	16	16	52	32	0	0	0	32	0	1.066
ND071369b-6	NDSU	174	70	0	8	43	50	0	0	0	50	0	1.067
ND071401CB-1	NDSU	145	76	70	8	11	81	0	0	0	81	0	1.059

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
ND8316-1	NDSU	309	196	182	4	12	76	8	0	0	83	0	1.062
ND8316-2	NDSU	248	175	162	3	16	70	11	0	0	81	0	1.064
AF4130-7	U of ME	139	79	73	6	11	83	0	0	0	83	0	1.079
AF4130-7	U of ME	102	58	54	3	37	60	0	0	0	60	0	1.078
AF4147-1	U of ME	187	109	101	5	27	68	0	0	0	68	0	1.064
AF4147-1	U of ME	147	39	36	10	62	27	0	0	0	27	0	1.057
AF4157-6	U of ME	222	180	167	0	13	87	0	0	0	87	0	1.070
AF4157-6	U of ME	140	83	77	6	28	65	0	0	0	65	0	1.066
AF4386-16	U of ME	294	188	175	4	17	79	0	0	0	79	0	1.072
AF4421-4	U of ME	149	79	74	7	21	72	0	0	0	72	0	1.064
AF4437-1	U of ME	128	49	46	11	33	56	0	0	0	56	0	1.069
AF4437-5	U of ME	185	106	99	4	30	67	0	0	0	67	0	1.068
AF4441-8	U of ME	150	109	101	4	18	78	0	0	0	78	0	1.063
AF4442-4	U of ME	90	48	44	8	32	60	0	0	0	60	0	1.062
AF4518-1	U of ME	174	76	70	5	50	45	0	0	0	45	0	1.064
AF4521-1	U of ME	55	0	0	6	94	0	0	0	0	0	0	1.064
AF4521-1	U of ME	49	0	0	14	86	0	0	0	0	0	0	na
AF4552-5	U of ME	144	87	81	5	14	81	0	0	0	81	0	1.068
AF4573-2	U of ME	210	147	137	4	22	74	0	0	0	74	0	1.072
AF4640-1	U of ME	151	62	58	7	42	50	0	0	0	50	0	1.065
AF4648-2	U of ME	166	116	107	5	15	66	14	0	0	80	0	1.069
AF4648-2	U of ME	108	16	15	4	73	23	0	0	0	23	0	na
AF4725-14	U of ME	68	37	35	7	29	64	0	0	0	64	0	1.061
AF4736-10	U of ME	197	130	121	2	8	58	32	0	0	90	0	1.068

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
AF4736-5	U of ME	159	98	91	3	3	93	0	0	0	93	0	1.070
AF4740-1	U of ME	158	123	114	3	9	81	0	7	0	88	7	1.068
AF4740-4	U of ME	119	55	51	4	34	63	0	0	0	63	0	1.062
AF4746-7	U of ME	87	31	29	8	25	67	0	0	0	67	0	1.069
AF4747-5	U of ME	141	97	90	3	27	71	0	0	0	71	0	1.073
AF4747-7	U of ME	142	97	91	5	3	92	0	0	0	92	0	1.069
AF4965-2	U of ME	68	24	22	15	41	44	0	0	0	44	0	1.058
AF4971-3	U of ME	115	49	46	8	36	56	0	0	0	56	0	1.065
AF4975-3	U of ME	73	22	20	8	54	38	0	0	0	38	0	1.070
AF4975-4	U of ME	77	19	18	21	15	64	0	0	0	64	0	na
AF4977-3	U of ME	107	56	52	8	19	64	9	0	0	73	0	1.069
AF4421-2	U of ME	74	15	14	25	47	29	0	0	0	29	0	1.062
AF4728-2	U of ME	291	253	235	1	7	51	22	13	5	87	19	1.073
AF4745-9	U of ME	25	0	0	10	90	0	0	0	0	0	0	na
A00206-1C	USDA-ID	35	9	8	23	44	33	0	0	0	33	0	na
A01143-3C	USDA-ID	181	93	86	7	32	61	0	0	0	61	0	1.060
A01143-3C	USDA-ID	134	39	36	11	49	40	0	0	0	40	0	1.062
A03440-2C	USDA-ID	250	176	164	1	18	80	0	0	0	80	0	1.056
A07117-2C	USDA-ID	101	36	33	5	50	45	0	0	0	45	0	1.058
NDA081453CAB-2C	USDA-ID	149	76	70	10	32	58	0	0	0	58	0	1.076
A-024	UW-WI	114	46	42	14	43	42	0	0	0	42	0	1.069
A-028	UW-WI	121	66	62	4	21	75	0	0	0	75	0	1.068
A-039	UW-WI	117	93	86	4	17	74	5	0	0	79	0	1.064
A-32	UW-WI	178	147	136	3	12	85	0	0	0	85	0	1.072

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
B-028	UW-WI	166	66	61	3	24	73	0	0	0	73	0	1.065
B-032	UW-WI	119	66	62	7	28	64	0	0	0	64	0	1.062
B-153	UW-WI	128	28	26	7	66	27	0	0	0	27	0	1.077
B-163	UW-WI	100	0	0	20	80	0	0	0	0	0	0	1.063
B-166	UW-WI	162	95	88	6	14	81	0	0	0	81	0	1.070
B-190	UW-WI	114	69	64	4	26	70	0	0	0	70	0	1.069
B-212	UW-WI	39	0	0	7	93	0	0	0	0	0	0	1.062
B-227	UW-WI	163	52	48	6	25	69	0	0	0	69	0	1.073
B-258	UW-WI	97	35	33	12	48	40	0	0	0	40	0	1.062
B-26	UW-WI	89	35	33	9	43	48	0	0	0	48	0	1.069
B-27	UW-WI	91	36	33	8	44	48	0	0	0	48	0	1.068
B-280	UW-WI	130	57	53	11	44	46	0	0	0	46	0	1.068
B-282	UW-WI	116	55	51	11	35	54	0	0	0	54	0	1.068
B-290	UW-WI	65	19	18	14	54	32	0	0	0	32	0	1.063
B-290	UW-WI	143	36	33	5	58	37	0	0	0	37	0	1.065
B-56	UW-WI	153	86	80	5	35	60	0	0	0	60	0	1.057
B-70	UW-WI	38	0	0	13	87	0	0	0	0	0	0	1.071
B-89	UW-WI	74	37	34	3	18	79	0	0	0	79	0	1.066
C-10	UW-WI	122	71	66	9	14	77	0	0	0	77	0	1.064
C-112	UW-WI	71	24	22	13	29	58	0	0	0	58	0	1.063
C-118	UW-WI	105	43	40	10	45	45	0	0	0	45	0	1.070
C-156	UW-WI	143	126	117	2	5	66	19	8	0	93	8	1.065
C-156	UW-WI	167	135	125	2	10	88	0	0	0	88	0	1.069
C-27	UW-WI	92	55	51	8	25	67	0	0	0	67	0	1.052

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
MegaChip	UW-WI	201	173	161	2	6	64	11	17	0	91	17	1.064
MegaChip	UW-WI	147	124	116	2	5	93	0	0	0	93	0	1.071
B-89-9	UW-WI	74	35	32	3	10	87	0	0	0	87	0	1.061
B-89-9	UW-WI	110	67	62	3	13	84	0	0	0	84	0	1.070
W10670-3	UW-WI	131	57	53	20	27	53	0	0	0	53	0	1.069
W10675-1	UW-WI	79	17	16	30	32	38	0	0	0	38	0	na
W2324-1	UW-WI	200	155	144	3	12	72	13	0	0	86	0	1.073
W2324-1	UW-WI	180	118	109	2	17	65	17	0	0	81	0	1.072
W8539-2Y	UW-WI	79	29	27	19	32	49	0	0	0	49	0	na
W8539-2Y	UW-WI	86	0	0	14	86	0	0	0	0	0	0	na
W8615-5	UW-WI	142	61	57	8	48	44	0	0	0	44	0	1.056
W8615-5	UW-WI	177	108	101	0	24	76	0	0	0	76	0	1.063
W8822-1	UW-WI	113	47	43	7	46	47	0	0	0	47	0	1.062
W8822-1	UW-WI	117	43	40	3	44	54	0	0	0	54	0	1.071
W8822-2	UW-WI	132	71	66	11	33	56	0	0	0	56	0	1.074
W8822-2	UW-WI	156	100	93	2	30	68	0	0	0	68	0	1.076
W8822-3	UW-WI	64	41	38	5	30	64	0	0	0	64	0	1.077
W8822-3	UW-WI	71	32	29	8	33	60	0	0	0	60	0	1.081
W8832-1Y	UW-WI	193	0	0	16	84	0	0	0	0	0	0	1.068
W8832-1Y	UW-WI	118	0	0	2	98	0	0	0	0	0	0	1.070
W8867-5	UW-WI	131	76	70	6	26	69	0	0	0	69	0	1.067
W8867-5	UW-WI	135	47	44	4	42	54	0	0	0	54	0	1.069
W8867-7	UW-WI	119	79	74	4	22	74	0	0	0	74	0	1.070
W8867-7	UW-WI	68	43	40	6	12	49	0	33	0	82	33	na

Table 24 (cont'd). Production facts for USPB National Chip Processing Trial potato selections.

Clone	Seed Source	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
W8875-2	UW-WI	164	123	114	4	13	83	0	0	0	83	0	1.072
W9184-1	UW-WI	72	57	53	5	7	88	0	0	0	88	0	1.062
W9200-13	UW-WI	163	80	75	8	37	55	0	0	0	55	0	1.067
W9252-7	UW-WI	89	72	67	4	14	75	7	0	0	82	0	1.066
W9281-14	UW-WI	112	40	37	14	42	43	0	0	0	43	0	1.065
W9301-5	UW-WI	92	37	34	11	19	55	14	0	0	70	0	1.061
W9304-2	UW-WI	125	53	49	10	45	45	0	0	0	45	0	1.070
W9306-1	UW-WI	162	122	49	4	13	83	0	0	0	83	0	1.063
W9313-2	UW-WI	215	179	166	1	10	82	7	0	0	88	0	1.070
W9322-2	UW-WI	118	38	35	0	14	58	11	17	0	86	17	1.057
W9636-5	UW-WI	102	78	73	1	13	85	0	0	0	85	0	1.066
W9636-5	UW-WI	117	45	42	2	34	64	0	0	0	64	0	1.066
Atlantic	UW-WI	160	67	62	5	18	57	9	11	0	77	11	1.069
Atlantic	UW-WI	195	81	75	3	15	82	0	0	0	82	0	1.070
W6609-3	UW-WI	166	88	82	2	6	92	0	0	0	92	0	1.070
W6609-3	UW-WI	162	76	71	0	34	66	0	0	0	66	0	1.071

[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 USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
Atlantic	100	5	9-6	1	1	1	6	2	1
Harley Blackwell	80	5	7	1	1	2	7	2	1.5
Marcy	87	4	7	2	1	4	5	2	1
Snowden	100	5	9	1	1	2	7	2	1.5
NY148 (E106-4)	87	6	7	1	1	2	6	2	1
NY148 (E106-4)	100	6	8	1	1	2	5	3	1
NYH15-17	87	5	8	1	1	4	5	3	1
NYH15-17	100	5	8	1	1	4	5	3	1
NYH15-5	100	5	8	1	1	2	5	2	1
NYH15-5	93	5	7-4	1	1	2	4	3	1
NYH23-16	100	5	7	1	1	2	4	3	1.5
NYH23-16	100	5	7	1	1	2	4	4	1.5
NYH25-4	73	4	8-7	3	1	2	4	3	1
NYH25-4	87	4	7	1	1	2	4	4	1.5
NYJ100-5	100	3	-	5	1	3	5	4	1
NYJ103-1	87	4	7	1	1	3	5	4	1.5
NYJ104-3	93	4	9	2	1	2	7	1	1.5
NYJ105-10	87	4	8	1	1	2	5	3	1.5
NYJ107-5	80	4	7	2	1	2	6	4	1.5
NYJ112-2	100	5	8	1	1	3	6	2	1
NYJ112-8	80	4	7	2	1	2	5	4	1.5
NYJ112-9	100	5	9	1	1	3	4	4	1
NYJ15-7	100	4	7	2	1	2	6	2	1.5
NYJ17-6	93	5	7	1	1	2	5	4	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
NYJ2-15	93	4	8	1	1	2	5	4	1.5
NYJ2-2	53	4	7	5	1	2	5	3	1.5
NYJ2-21	40	2	-	8	1	3	4	4	1
NYJ2-27	60	4	7	3	1	2-3	6	2	1
NYJ2-29	93	4	7	3	1	1-2	5	2	1
NYJ4-3	87	5	8	2	1	2	6	2	1.5
NYJ5-2	93	4	7	1	1	2	4	4	1.5
AC00206-2W	100	5	8	1	1	2	6	2	1.5
AC00206-2W	100	5	8	1	1	2	7	2	1.5
AC01151-5W	67	4	7	1	1	2	5	3	1.5
AC01151-5W	73	4	7	1	1	1-2	6	2	1.5
AC03433-1W	93	5	7	2	1	2	5	3	1
AC03433-1W	100	4	7	2	1	1-2	5	3	1
AC03452-2W	93	6	7	2	1	2	6	2	1.5
AC03452-2W	93	6	7	1	1	2	5	2	1.5
AC05153-1W	87	4	7	1	1	2	5	4	1
AC05153-1W	73	4	7	1	1	2	5	4	1
CO00270-7W	87	5	7	1	1	2	6	4	1
CO00270-7W	73	4	7	1	1	2	6	2	1.5
CO02024-9W	100	5	8	1	1	2	4	3	1.5
CO02024-9W	93	5	8-9	1	1	2	5	4	1
CO02024-9W	100	5	9	1	1	3	5	3	1
CO02024-9W	100	5	9	1	1	3	5	2	1.5
CO03243-3W	93	5	7	1	1	2	6	2	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
CO03243-3W	100	5	8	2	1	2	7	2	1.5
CO05061-2P	100	5	8	1	1	2	5	4	1.0
CO05061-2P	80	6	8	1	1	2	5	3	1.5
CO05061-6W	87	5	8	1	1	2	4	3	1.5
CO05061-6W	73	5	8	1	1	2	5	4	1
CO05061-7W	100	6	8-5	1	1	2	4	4	1
CO05061-7W	100	6	8	1	1	2	4	3	1.5
AC00180-2W	100	5	8	1	1	3	7	3	1
AC00180-2W	100	5	9	1	1	2	5	3	1
MSH228-6	100	5	8	1	1	1	5	2	1.5
MSH228-6	100	5	8-9	1	1	1-2	5	3	1.5
MSK061-4	100	4	7	1	1	2-3	7	2	1.5
MSK061-4	93	5	7	1	1	2-3	6	2	1
MSL007-B	80	4	8	1	1	3	6	2	1
MSL007-B	87	4	4	1	1	2	6	4	1
MSL292-A	60	3	7	2	1	1-2	6	2	1
MSL292-A	80	3	7	1	1	2	5	3	1
MSM246-B	100	5	7	1	1	2	3	4	1
MSM246-B	100	5	7	1	1	2	4	3	na
MSP239-1	100	5	7	1	1	2	7	2	1
MSP270-1	73	3	7	3	1	1-2	6	2	1
MSQ035-3	100	5	7	1	1	2	7	4	1.5
MSQ035-3	93	4	7	1	1	2	6	3	1
MSQ086-3	100	5	7	1	1	2	5	3	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
MSQ086-3	100	6	7	1	1	2	6	4	1.5
MSQ089-1	93	6	7-4	1	1	2	5	3	1
MSQ089-1	100	5	7	1	1	2	4	4	1.5
MSQ492-2	93	5	7	1	1	1-2	6	2	1
MSR036-5	100	6	7-4	5	1	2-3	5	3	1
MSR036-5	100	5	7	1	na	na	na	na	1.5
MSR054-7	100	6	7-4	1	1	3	3	4	1
MSR054-7	87	5	7	1	1	3	5	3	1.5
MSR058-1	93	5	7-4	1	1	3	5	3	1.5
MSR058-1	93	4	7	2	1	1-2	7	2	1.5
MSR093-4	93	5	7	3	1	2-3	5	2	1.5
MSR127-2	100	6	7-4	2	1	2-3	6	2	1
MSR127-2	100	4	7	1	1	3	5	3	1.5
MSR128-4Y	100	5	7	1	2	2	6	2	1
MSR128-4Y	100	5	7	1	2	2	5	4	1
MSR148-4	100	5	8-5	1	1	2	4	3	1.5
MSR148-4	100	5	7	1	1	2	4	3	1.5
MSR157-1Y	87	5	7-4	1	1	2	4	4	1
MSR157-1Y	87	5	7	1	1	2-3	6	4	1
MSR159-02	100	6	5-8	4	1	2	6	2	1
MSR159-02	100	6	7	2	1	2	6	1	1.5
MSR169-8Y	87	4	7	2	1	2	7	2	1
MSR169-8Y	93	4	7	1	1	2	7	1	1.5
MSS108-1	93	5	7	1	2	2	6	4	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
MSS165-2Y	93	6	5-8	1	1	2	6	2	1
MSS165-2Y	100	6	8-5	1	1	2	6	3	1
MSS206-2	100	5	7	1	1	2	6	1	1
MSS297-3	100	5	8	1	1	2	6	3	1
MSS297-3	100	4	7	1	na	na	na	na	1.5
MSS428-2	100	6	8	1	1	2	6	3	1
MSS934-4	100	5	8	1	1	1-2	7	2	1
MST096-2Y	100	4	7	1	2	2	6	2	1
MST117-3Y	100	5	8	1	2	2	6	2	2
MST184-3	80	6	7	1	1	2	6	2	1.5
MST186-1Y	100	4	8	1	2	2-3	6	2	1
MST229-1	100	4	7	1	2	2	6	2	1
MST412-3	87	5	7	1	1	2	6	4	na
MST458-04	7	1	-	8	1	2	4	4	1
MSW293-1	100	5	8	1	1	2-3	6	3	na
MSP516-A	93	5	7	2	na	na	na	na	na
ND028792B-8	100	5	8	1	na	na	na	na	na
ND060838C-3	100	5	7-4	1	1	1-2	4	3	1
ND060839C-7	100	5	9	1	1	3	6	2	1.5
ND071091C-2	100	5	8	1	1	2-3	5	3	1
ND071215CB-1	87	5	7	2	1	3	5	2	1
ND071282CB-2	100	4	8	1	1	2	5	4	1.5
ND071369b-6	100	6	9-6	1	1	2-3	6	3	1
ND071401CB-1	87	4	8	1	1	1-2	5	4	1.5

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
ND8316-1	100	5	7	2	1	1	5	2	1
ND8316-2	93	4	7	2	1	1-2	5	2	1.5
AF4130-7	60	3	-	7	1	2	4	4	1.5
AF4130-7	47	3	-	6	1	2	5	4	1.5
AF4147-1	93	6	8	1	1	2	7	3	1.5
AF4147-1	100	5	8	1	1	2	6	2	1
AF4157-6	100	4	7	1	1	2	6	3	1
AF4157-6	100	4	7	1	1	1-2	7	1	1.5
AF4386-16	100	5	9	2	1	1-2	6	2	1.5
AF4421-4	100	5	9	1	1	2	6	3	1
AF4437-1	87	3	7	1	1	2	5	4	1
AF4437-5	93	4	8	1	1	2-3	6	2	1.5
AF4441-8	93	4	7	1	1	1-2	7	2	1
AF4442-4	93	5	7	1	1	3	5	4	1
AF4518-1	93	5	7-4	1	1	2	6	2	1
AF4521-1	93	5	7	1	1	2-3	5	4	1
AF4521-1	100	4	7	1	1	2-3	5	4	1
AF4552-5	80	5	7	1	1	1-2	5	3	1
AF4573-2	80	6	7	5	1	3	4	3	1
AF4640-1	100	5	8	1	1	2-3	5	3	1.5
AF4648-2	100	4	7	1	1	3	5	4	1
AF4648-2	100	4	8	1	1	1-2	6	3	1.5
AF4725-14	100	5	7	1	1	2	5	4	1.5
AF4736-10	87	5	8	1	1	1-2	5	3	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
AF4736-5	100	4	7	3	1	2	5	3	1
AF4740-1	100	4	7	1	1	1-2	6	2	1.5
AF4740-4	100	5	7	1	1	2-3	6	3	1
AF4746-7	73	5	7	2	1	2	5	4	1
AF4747-5	47	4	7	5	1	1-2	6	3	1
AF4747-7	87	4	7	1	1	2	6	4	1.5
AF4965-2	100	6	8	1	1	2	5	4	1
AF4971-3	100	5	8	1	1	3	5	4	1
AF4975-3	100	5	8	1	1	2	6	4	1
AF4975-4	100	5	7	1	1	1	5	4	1
AF4977-3	93	4	7	1	1	2	5	4	na
AF4421-2	100	5	7	1	1	2	5	4	1
AF4728-2	100	4	8	7	1	1	6	2	1.5
AF4745-9	100	5	7	1	na	na	na	na	1
A00206-1C	100	5	8	1	1	2	5	4	1
A01143-3C	100	6	8	2	1	2	5	4	1
A01143-3C	100	6	8-9	1	1	1-2	5	3	2
A03440-2C	100	5	7-4	1	1	1-2	6	2	1.5
A07117-2C	100	5	9-6	1	1	2	6	3	1
NDA081453CAB-2C	100	4	8	1	1	2	7	3	1
A-024	80	4	7	1	1	1-2	6	3	1
A-028	93	4	8	1	1	1	5	3	1.5
A-039	87	4	7	2	1	1-2	6	3	1.5
A-32	93	5	8	5	na	na	na	na	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
B-028	100	6	8	1	1	1-2	5	3	1
B-032	100	6	8	1	1	1-2	6	3	1
B-153	93	3	8	2	1	2	6	3	1
B-163	100	6	8	1	1	2	5	3	1
B-166	100	5	8	2	1	1	6	3	1
B-190	93	4	8	1	1	2-3	6	3	1
B-212	87	5	7	1	1	2	5	4	1.5
B-227	100	5	8	2	1	1-2	5	4	1
B-258	93	5	8	1	1	1-2	6	3	1
B-26	100	6	8	1	1	1-2	5	4	1.5
B-27	100	5	7	1	1	2	5	4	1
B-280	100	5	8	1	1	1-2	5	3	1
B-282	93	5	7	1	1	1-2	5	3	1
B-290	100	5	7	1	1	1-2	5	3	1
B-290	100	5	8	4	1	2	5	4	1.5
B-56	100	5	8-7	1	1	2-3	5	3	1.5
B-70	93	4	7	1	1	2	5	4	1
B-89	100	4	7	1	1	2-3	5	4	1
C-10	93	4	7	1	1	2	5	3	1
C-112	100	5	8	1	1	2	5	4	1.5
C-118	100	5	8	1	1	1-2	5	3	1
C-156	73	5	7	1	1	2-3	6	2	1.5
C-156	93	5	7	1	1	2-3	6	2	1.5
C-27	100	5	8	1	1	2	5	3	1

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
MegaChip	67	4	7	4	1	2	6	2	1
MegaChip	80	4	7	1	1	1-2	6	2	1.5
B-89-9	93	4	7	1	1	2-3	5	3	1.5
B-89-9	93	4	7	1	1	3	5	4	1.5
W10670-3	87	4	7	1	1	2	5	3	1
W10675-1	100	5	7	1	na	na	na	na	1
W2324-1	87	5	7-4	1	1	1-2	6	2	1.5
W2324-1	87	5	8	1	1	2	6	3	1
W8539-2Y	80	3	7	1	3	2	4	4	1.5
W8539-2Y	73	3	7	1	2	2-3	5	4	1
W8615-5	93	5	7	1	1	2-3	5	3	1
W8615-5	80	5	7	1	1	2	6	2	1
W8822-1	93	4	7	1	2	1-2	6	3	1.5
W8822-1	93	4	8	1	2	2	5	3	1.5
W8822-2	67	3	7	1	2	2	6	3	1.5
W8822-2	67	4	7	1	1-2	2	5	3	1.5
W8822-3	27	2	-	5	1	1-2	5	4	1
W8822-3	53	2	-	1	1-2	2	5	4	1.5
W8832-1Y	100	4	7	1	3	2-3	6	3	1
W8832-1Y	93	4	7	1	3	2-3	6	3	1.5
W8867-5	60	3	7	1	1	2	5	3	1
W8867-5	73	3	7	2	1	2	5	3	1.5
W8867-7	27	3	-	8	1	2	5	3	1
W8867-7	33	5	7	5	na	na	na	na	1.5

Table 25 (cont'd). Plant growth and tuber characteristics of USPB National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]				Chip Rating
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	Flesh Color[2]	Tuber Shape[3]	Appearance[4]	Merit Rating[5]	Chip Score[6]
W8875-2	100	4	7	1	1	2	6	2	1
W9184-1	80	4	7	1	1	1-2	5	3	1.5
W9200-13	80	4	8	1	1	1-2	6	3	1.5
W9252-7	20	4	-	8	2	1-2	5	3	1
W9281-14	87	4	7	1	1	2	5	3	1
W9301-5	73	3	7	1	1	2	5	4	1.5
W9304-2	87	3	7	1	1	2-3	5	3	1.5
W9306-1	53	3	7	2	1	1-2	7	2	1.5
W9313-2	87	5	7-4	1	1	2	6	2	1
W9322-2	87	3	-	1	1	2-3	5	4	2
W9636-5	60	4	7	1	1	1-2	5	3	1.5
W9636-5	87	4	7	1	1	2-3	5	3	1
Atlantic	93	4	7	1	1	1-2	6	3	1.5
Atlantic	100	4	8	1	1	2	5	4	1
W6609-3	67	4	7	3	1	2	7	2	1
W6609-3	93	3	7	1	1	2	6	3	1

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

[2]Tuber Flesh Color Scale: 1 = white, 2 = light yellow, 3 = yellow, 4 = buff.

[3]Tuber Shape Scale: 1 = compressed, 2 = round, 3 = oval, 4 = oblong, 5 = long.

[4]Appearance: 1 = very poor, 3 = poor, 5 = fair, 7 = good, 9 = excellent.

[5]Merit Rating Scale 1-4: 1 = outstanding, 2 = keep, 3 = marginal, 4 = drop.

[6] Rated on 1-5 scale: 1 = outstanding, no blemishes and color variations, 2 = very good, minimal blemishes and color variations, 3 = good, acceptable blemishes and color variations; 4 = marginal acceptance, high levels of blemishes and color variations, 5 = not acceptable, high blemish and color variations.

Table 26. External and internal defects of 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	2	51	53	0	0	0	0	0	0	0
Harley Blackwell	0	0	0	21	21	0	0	0	0	0	0	0
Marcy	0	0	1	26	27	0	0	0	0	0	0	0
Snowden	0	0	0	11	11	0	0	0	0	0	0	0
NY148 (E106-4)	0	0	0	4	4	0	0	0	0	0	0	0
NY148 (E106-4)	0	0	0	18	18	0	0	0	0	0	0	0
NYH15-17	0	0	2	4	6	0	0	0	0	0	0	0
NYH15-17	0	0	0	21	21	0	0	0	0	0	0	0
NYH15-5	0	3	0	18	21	0	0	0	0	0	0	0
NYH15-5	0	0	5	16	22	0	0	0	0	0	0	0
NYH23-16	0	0	3	18	21	0	0	0	0	0	0	0
NYH23-16	0	0	0	22	22	0	0	0	0	0	0	0
NYH25-4	0	0	3	21	24	0	0	0	0	0	0	0
NYH25-4	0	0	0	40	40	0	0	0	0	0	0	0
NYJ100-5	0	0	0	3	3	0	0	0	0	0	0	0
NYJ103-1	0	0	0	21	21	0	0	0	0	0	0	0
NYJ104-3	0	0	0	12	12	0	0	0	0	0	0	0
NYJ105-10	0	0	0	21	21	0	0	0	0	0	0	0
NYJ107-5	0	4	0	0	4	0	0	0	0	0	0	0
NYJ112-2	0	0	0	12	12	0	0	0	0	0	0	0
NYJ112-8	0	0	0	21	21	0	0	0	0	0	0	0
NYJ112-9	0	0	0	26	26	0	0	0	0	0	0	0
NYJ15-7	0	0	0	6	6	0	0	0	0	0	0	0
NYJ17-6	0	0	0	10	10	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of USPB National Chip Processing 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
NYJ2-15	0	0	4	19	23	0	0	0	0	0	0	0
NYJ2-2	0	0	2	24	26	0	0	0	0	0	0	0
NYJ2-21	3	0	0	3	6	0	0	0	0	0	0	0
NYJ2-27	0	0	0	3	3	0	0	0	0	0	0	0
NYJ2-29	0	0	5	3	8	0	0	0	0	0	0	0
NYJ4-3	0	0	0	8	8	0	0	0	0	0	0	0
NYJ5-2	0	0	0	33	33	0	0	0	0	0	0	0
AC00206-2W	0	0	0	5	5	0	0	0	0	0	0	0
AC00206-2W	0	0	0	8	8	0	0	0	0	0	0	0
AC01151-5W	0	0	4	8	12	0	0	0	0	0	0	0
AC01151-5W	0	0	0	22	22	0	0	0	0	0	0	0
AC03433-1W	5	0	0	7	12	0	0	0	0	0	0	0
AC03433-1W	0	0	0	29	29	0	0	0	0	0	0	0
AC03452-2W	0	0	1	26	27	0	0	0	0	20	0	0
AC03452-2W	0	0	0	15	15	0	0	0	0	20	0	0
AC05153-1W	4	0	0	20	24	0	0	0	0	0	0	0
AC05153-1W	0	0	0	38	38	0	0	0	0	0	0	0
CO00270-7W	0	0	0	15	15	0	0	0	0	0	0	0
CO00270-7W	5	0	0	24	28	0	0	0	0	0	0	0
CO02024-9W	0	0	1	25	26	0	0	0	0	0	0	0
CO02024-9W	0	0	0	14	14	0	0	0	0	0	0	0
CO02024-9W	0	0	0	0	0	0	0	0	0	0	0	0
CO02024-9W	0	0	0	9	9	0	0	0	0	0	0	0
CO03243-3W	0	0	1	22	23	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of 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
CO03243-3W	0	0	3	25	29	0	0	0	0	0	0	0
CO05061-2P	0	0	0	12	12	0	0	0	0	0	0	0
CO05061-2P	0	0	0	16	16	0	0	0	0	0	0	0
CO05061-6W	0	0	0	21	21	0	0	0	0	0	0	0
CO05061-6W	0	0	0	13	13	0	0	0	0	0	0	0
CO05061-7W	3	0	0	19	22	0	0	0	0	0	0	0
CO05061-7W	0	0	0	19	19	0	0	0	0	0	0	0
AC00180-2W	0	0	0	2	2	0	0	0	0	0	0	0
AC00180-2W	0	0	0	6	6	0	0	0	0	0	0	0
MSH228-6	0	0	0	17	17	0	0	0	0	0	0	0
MSH228-6	0	0	0	5	5	0	0	0	0	0	0	0
MSK061-4	0	0	0	0	0	0	0	0	0	0	0	0
MSK061-4	0	0	0	1	1	0	0	0	0	0	0	0
MSL007-B	0	0	2	5	7	0	0	0	0	0	0	0
MSL007-B	0	0	2	5	6	0	0	0	0	0	0	0
MSL292-A	0	0	3	5	8	0	0	0	0	0	0	0
MSL292-A	0	0	3	5	8	0	0	0	0	0	0	0
MSM246-B	0	0	0	25	25	0	0	0	0	0	0	0
MSM246-B	0	0	0	50	50	0	0	0	0	0	0	0
MSP239-1	0	0	0	9	9	0	0	0	0	0	0	0
MSP270-1	0	0	0	4	4	0	0	0	0	0	0	0
MSQ035-3	3	0	3	5	11	0	0	0	0	0	0	0
MSQ035-3	0	0	0	0	0	0	0	0	0	0	0	0
MSQ086-3	0	0	0	9	9	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of 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
MSQ086-3	0	0	0	7	7	0	0	0	0	0	0	0
MSQ089-1	0	0	0	23	23	0	0	0	0	0	0	0
MSQ089-1	0	0	0	19	19	0	0	0	0	0	0	0
MSQ492-2	0	0	3	0	3	0	0	0	0	0	0	0
MSR036-5	0	0	4	5	9	0	0	0	0	0	0	0
MSR036-5	0	7	0	20	26	0	0	0	0	0	0	0
MSR054-7	0	0	0	34	34	0	0	0	0	0	0	0
MSR054-7	0	0	0	3	3	0	0	0	0	0	0	0
MSR058-1	0	0	0	6	6	0	0	0	0	0	0	0
MSR058-1	0	0	0	0	0	0	0	0	0	0	0	0
MSR093-4	0	0	1	8	10	0	0	0	0	0	0	0
MSR127-2	0	0	0	9	9	0	0	0	0	0	0	0
MSR127-2	0	0	0	8	8	0	0	0	0	0	0	0
MSR128-4Y	0	0	0	3	3	0	0	0	0	0	0	0
MSR128-4Y	0	0	0	6	6	0	0	0	0	0	0	0
MSR148-4	0	0	0	21	21	0	0	0	0	0	0	0
MSR148-4	0	0	0	27	27	0	0	0	0	0	0	0
MSR157-1Y	0	0	0	48	48	0	0	0	0	0	0	0
MSR157-1Y	0	0	0	22	22	0	0	0	0	0	0	0
MSR159-02	0	0	0	6	6	0	0	0	0	0	0	0
MSR159-02	0	0	0	19	19	0	0	0	0	0	0	0
MSR169-8Y	0	0	0	7	7	0	0	0	0	0	0	0
MSR169-8Y	0	0	0	12	12	0	0	0	0	0	0	0
MSS108-1	0	0	2	18	21	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of USPB National Chip Processing 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
MSS165-2Y	0	0	0	0	0	0	0	0	0	0	0	0
MSS165-2Y	0	0	0	4	4	0	0	0	0	0	0	0
MSS206-2	3	0	0	5	8	0	0	0	0	0	0	0
MSS297-3	0	0	0	4	4	0	0	0	0	0	0	0
MSS297-3	0	0	0	4	4	0	0	0	0	0	0	0
MSS428-2	0	0	0	4	4	0	0	0	0	0	0	0
MSS934-4	0	0	1	16	17	0	0	0	0	0	0	0
MST096-2Y	0	0	0	2	2	0	0	0	0	0	0	0
MST117-3Y	0	0	0	3	3	0	0	0	0	0	0	0
MST184-3	0	0	0	23	23	0	0	0	0	0	0	0
MST186-1Y	0	0	0	5	5	0	0	0	0	0	0	0
MST229-1	2	0	6	5	13	0	0	0	0	0	0	0
MST412-3	13	0	0	31	44	0	0	0	0	0	0	0
MST458-04	0	0	6	0	6	na	na	na	na	na	na	na
MSW293-1	0	0	2	10	12	0	0	0	0	0	0	0
MSP516-A	na	na	na	na	na	na	na	na	na	na	na	na
ND028792B-8	na	na	na	na	na	na	na	na	na	na	na	na
ND060838C-3	1	1	4	4	10	0	0	0	0	0	0	0
ND060839C-7	0	3	2	3	8	0	0	0	0	0	0	0
ND071091C-2	0	0	0	4	4	0	0	0	0	0	0	0
ND071215CB-1	0	0	0	9	9	0	0	0	0	0	0	0
ND071282CB-2	0	0	0	12	12	0	0	20	0	0	0	0
ND071369b-6	0	1	1	17	19	0	0	0	0	0	0	0
ND071401CB-1	25	0	0	11	36	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of 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
ND8316-1	2	0	8	14	24	0	0	0	0	0	0	0
ND8316-2	4	0	4	5	13	0	0	0	0	0	0	0
AF4130-7	0	0	0	32	32	0	0	0	0	0	0	0
AF4130-7	0	0	0	5	5	0	0	0	0	0	0	0
AF4147-1	0	0	0	14	14	0	0	0	0	0	0	0
AF4147-1	0	0	0	4	4	0	0	0	0	0	0	0
AF4157-6	0	0	2	5	7	0	0	0	0	0	0	0
AF4157-6	0	0	0	9	9	0	0	0	0	0	0	0
AF4386-16	0	0	0	19	19	0	0	0	0	0	0	0
AF4421-4	0	0	0	26	26	0	0	20	0	0	0	0
AF4437-1	0	0	2	30	32	0	0	0	0	0	0	0
AF4437-5	2	0	0	12	14	0	20	0	0	0	0	0
AF4441-8	0	0	0	7	7	0	0	0	0	0	0	0
AF4442-4	0	0	0	11	11	0	0	0	0	0	0	0
AF4518-1	0	0	0	3	3	0	0	0	0	0	0	0
AF4521-1	0	0	0	43	43	0	0	0	0	0	0	0
AF4521-1	0	0	0	63	63	na	na	na	na	na	na	na
AF4552-5	0	0	0	25	25	0	0	0	0	0	0	0
AF4573-2	0	2	0	2	5	0	0	0	0	0	0	0
AF4640-1	0	0	0	18	18	0	0	0	0	0	0	0
AF4648-2	0	0	0	13	13	0	0	0	0	0	0	0
AF4648-2	0	0	0	34	34	0	0	0	0	0	0	0
AF4725-14	0	0	0	14	14	0	0	0	0	0	0	0
AF4736-10	0	0	0	27	27	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of 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
AF4736-5	0	0	0	34	34	0	0	0	0	0	0	0
AF4740-1	0	0	0	12	12	0	0	0	0	0	0	0
AF4740-4	0	0	0	26	26	0	0	0	0	0	0	0
AF4746-7	0	0	0	47	47	0	0	0	0	0	0	0
AF4747-5	0	0	3	0	3	0	0	0	0	0	0	0
AF4747-7	0	0	3	22	25	0	0	0	0	0	0	0
AF4965-2	0	0	0	21	21	0	0	0	0	0	0	0
AF4971-3	0	0	0	24	24	0	0	0	0	0	0	0
AF4975-3	0	0	0	20	20	0	0	0	0	0	0	0
AF4975-4	0	0	3	58	61	na	na	na	na	na	na	na
AF4977-3	0	0	0	29	29	0	0	0	0	0	0	0
AF4421-2	0	0	13	16	30	0	0	0	0	0	0	0
AF4728-2	0	0	0	0	0	0	0	0	0	0	0	0
AF4745-9	0	0	0	58	58	na	na	na	na	na	na	na
A00206-1C	0	0	0	25	25	na	na	na	na	na	na	na
A01143-3C	0	0	0	16	16	0	0	0	0	0	0	0
A01143-3C	0	0	0	27	27	0	0	0	0	0	0	0
A03440-2C	0	0	1	11	12	0	0	0	0	0	0	0
A07117-2C	0	0	0	22	22	0	0	0	0	0	0	0
NDA081453CAB-2C	0	0	0	12	12	0	0	0	0	0	0	0
A-024	0	0	0	5	5	0	0	0	0	0	0	0
A-028	0	0	4	23	27	0	0	0	0	0	0	0
A-039	0	0	0	0	0	0	0	0	0	0	0	0
A-32	0	0	0	3	3	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of USPB National Chip Processing 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
B-028	0	0	0	46	46	0	0	0	0	0	0	0
B-032	0	0	0	13	13	0	0	0	0	0	0	0
B-153	0	0	0	19	19	0	0	0	0	0	0	0
B-163	0	0	0	7	7	0	0	0	0	0	0	0
B-166	0	0	0	27	27	0	0	0	0	0	0	0
B-190	0	0	2	12	14	0	0	0	0	0	0	0
B-212	0	0	0	7	7	0	0	0	0	0	0	0
B-227	0	0	0	54	54	0	0	0	0	0	0	0
B-258	0	0	0	9	9	0	0	0	0	0	0	0
B-26	0	0	6	12	18	0	0	0	0	0	0	0
B-27	4	0	0	14	18	0	0	0	0	0	0	0
B-280	0	0	0	4	4	0	0	0	0	0	0	0
B-282	0	0	0	13	13	0	0	0	0	0	0	0
B-290	4	0	0	4	8	0	0	0	0	20	0	0
B-290	0	0	0	31	31	0	0	0	0	0	0	0
B-56	3	0	0	3	6	0	0	0	0	0	0	0
B-70	0	0	0	18	18	0	0	0	0	0	0	0
B-89	0	0	0	37	37	0	0	0	0	0	0	0
C-10	0	0	0	25	25	0	0	0	0	0	0	0
C-112	0	0	0	42	42	0	0	0	0	0	0	0
C-118	0	0	0	9	9	0	0	0	0	0	0	0
C-156	0	0	0	5	5	0	0	0	0	0	0	0
C-156	0	0	0	9	9	0	0	0	0	0	0	0
C-27	0	0	0	11	11	0	0	0	0	0	0	0

Table 26 (cont'd). External and internal defects of 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
MegaChip	0	0	3	2	6	0	0	0	0	0	0	0
MegaChip	0	0	0	9	9	0	0	0	0	0	0	0
B-89-9	14	0	4	28	46	na	na	na	na	na	na	na
B-89-9	5	0	0	23	28	0	0	0	0	0	0	0
W10670-3	0	0	4	14	18	0	0	0	0	0	0	0
W10675-1	0	0	0	44	44	0	0	0	0	0	0	0
W2324-1	0	0	0	9	9	0	0	0	0	0	0	0
W2324-1	0	0	0	19	19	0	0	0	0	0	0	0
W8539-2Y	5	0	0	20	26	0	0	0	0	0	0	0
W8539-2Y	0	0	0	50	50	na	na	na	na	na	na	na
W8615-5	0	0	0	1	1	0	0	0	0	0	0	0
W8615-5	0	0	0	19	19	0	0	0	0	0	0	0
W8822-1	0	0	0	12	12	0	0	0	0	0	0	0
W8822-1	0	0	0	30	30	0	0	0	0	0	0	0
W8822-2	0	0	1	2	3	0	0	0	0	0	0	0
W8822-2	0	0	0	5	5	0	0	0	0	0	0	0
W8822-3	0	0	0	0	0	0	0	0	0	0	0	0
W8822-3	0	0	0	26	26	0	0	0	0	0	0	0
W8832-1Y	0	0	86	1	87	0	0	0	0	0	0	0
W8832-1Y	0	0	0	18	18	0	0	0	0	0	0	0
W8867-5	0	0	0	16	16	0	0	0	0	0	0	0
W8867-5	0	0	0	35	35	0	0	0	0	0	0	0
W8867-7	0	0	3	7	10	0	0	0	0	0	0	0
W8867-7	2	0	3	18	23	na	na	na	na	na	na	na

Table 26 (cont'd). External and internal defects of 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
W8875-2	0	0	0	10	10	0	0	0	0	0	0	0
W9184-1	0	0	0	9	9	0	0	0	0	0	0	0
W9200-13	0	0	1	9	10	0	0	0	0	0	0	0
W9252-7	0	0	0	1	1	0	0	0	0	0	0	0
W9281-14	0	0	0	17	17	0	0	0	0	0	0	0
W9301-5	0	0	6	37	43	0	0	0	0	0	0	0
W9304-2	0	0	0	6	6	0	0	0	0	0	0	0
W9306-1	0	0	1	7	9	0	0	0	0	0	0	0
W9313-2	0	0	0	6	6	0	0	0	0	0	0	0
W9322-2	0	0	2	60	62	0	0	0	0	0	0	0
W9636-5	0	0	0	10	10	0	0	0	0	0	0	0
W9636-5	4	0	0	37	40	0	0	0	0	0	0	0
Atlantic	4	0	4	38	46	0	0	0	0	0	0	0
Atlantic	0	0	2	47	49	0	0	0	0	0	0	0
W6609-3	30	0	0	12	42	0	0	0	0	0	0	0
W6609-3	11	0	0	18	29	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 10. Chipping Potato Variety Trial, 2012

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. Potatoes were fried and chip scores are noted in table 28.

Planting Information

Planting Site	PWACS - Hastings Farm, Hastings, FL
Planting Date	January 20, 2012
Harvest Date	April 30, 2012
Season Length	101 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	7 (Standard: Atlantic)
Number of Clones	27
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	40 days after planting
Highest Total Yield	BNC177-5 (458 cwt or 51.2 T/ha)
Highest Marketable Yield	B2904-2 (407 cwt or 45.5 T/ha)
Highest Specific Gravity	B2905-4 (1.089)

Table 27. Production facts for USDA Chipping potato selections.

		Total	Marketable Yield[1]		Size						Size Class		
		Yield		% of	Distribution by Class (%)[2]						Range (%)		Specific
Clone	Seed Source	(cwt/A)	(cwt/A)	standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Atlantic	MFX	426	400	100	1	3	50	18	28	0	97	46	1.084
Atlantic	USDA	400	365	91	1	3	45	29	21	1	96	50	1.082
Harley Blackwell	MFX	399	358	90	2	7	56	18	16	0	91	35	1.078
Harley Blackwell	USDA	393	349	87	2	8	56	17	18	0	91	35	1.078
Marcy	MFX	397	367	92	1	4	50	27	18	0	95	45	1.076
Snowden	MFX	382	351	88	1	5	61	19	14	0	95	34	1.078
Snowden	USDA	363	330	83	1	4	58	25	11	1	94	36	1.081
AF0338-17	UM	387	353	88	1	5	53	23	18	1	93	41	1.078
AF0338-17	UM	366	339	85	1	4	51	28	16	0	95	44	1.075
B1992-106	USDA	399	361	90	1	4	32	27	35	3	93	61	1.083
B2727-2	USDA	329	289	72	1	3	30	36	25	5	91	62	1.084
B2737-2	USDA	392	343	86	3	8	60	19	10	1	89	29	1.074
B2815-7	USDA	330	233	58	4	20	69	6	1	0	76	7	1.081
B2817-16	USDA	311	262	66	1	13	82	4	0	0	86	4	1.073
B2817-9	USDA	413	348	87	2	9	76	10	3	0	88	13	1.077
B2832-1	USDA	345	286	72	2	13	68	14	3	0	85	17	1.080
B2832-12	USDA	380	337	84	1	4	40	32	22	1	95	55	1.086
B2832-14	USDA	362	326	82	2	7	55	22	15	0	92	37	1.079
B2832-17	USDA	339	270	68	2	15	67	13	2	0	82	15	1.080
B2832-2	USDA	357	301	75	2	12	74	11	0	0	85	12	1.081
B2834-1	USDA	387	323	81	2	13	76	8	1	0	85	9	1.088
B2834-11	USDA	353	316	79	2	7	61	25	5	0	91	30	1.082
B2834-8	USDA	336	323	81	1	3	38	31	27	0	97	59	1.083
B2842-1	USDA	415	351	88	3	10	60	16	12	0	87	27	1.086

Table 27 (cont'd). Production facts for USDA Chipping potato selections.

		Total	Marketable Yield[1]		Size Distribution by Class (%)[2]						Size Class Range (%)		Specific
Clone	Seed Source	Yield (cwt/A)	(cwt/A)	% of standard	C	B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
B2869-29	USDA	350	305	76	2	9	81	6	1	0	89	8	1.087
B2895-2	USDA	367	333	83	1	5	62	17	14	0	94	31	1.077
B2904-11	USDA	435	375	94	2	10	65	21	2	0	89	24	1.079
B2904-2	USDA	446	407	102	1	6	50	25	18	0	93	43	1.081
B2905-4	USDA	376	337	84	1	6	58	19	16	0	93	35	1.089
BNC177-5	USDA	458	404	101	1	5	42	20	31	1	93	51	1.081
BNC182-5	USDA	422	381	95	1	5	52	21	20	1	93	41	1.077
BNC202-3	USDA	418	378	95	1	7	57	21	14	0	93	35	1.083
BNC202-7	USDA	337	274	69	2	9	67	16	5	0	89	21	1.084
BNC266-6	USDA	419	364	91	2	7	56	22	14	0	92	36	1.081
MSD[3]		35	38		1	3	10	10	9	3	4	10	0.003
P Value		*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.0037*	*<.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 Waller-Duncan's K-ratio t Test.

Table 28. Plant growth and tuber characteristics of USDA Chipping potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						Chip
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Rating 1-5[3]
Atlantic	96	5.5	8.3	5.5	2	6	5	3	5	6	2
Atlantic	92	4.8	8.3	6.0	2	6	5	3	5	6	1
Harley Blackwell	90	5.3	8	5.0	2	6	5	3	5	6	2
Harley Blackwell	94	4.8	7.5	5.3	2	6	5	3	5	6	2
Marcy	79	3.8	7.3	6.0	2	6	5	4	4	6	1
Snowden	94	5.0	8.5	4.3	2	6	5	3	3	6	4
Snowden	96	5.3	8.5	4.8	2	6	5	3	3	6	3
AF0338-17	94	5.5	8-5	5.5	1	7	5	3	4	7	1
AF0338-17	93	5.0	8-5	5.3	1	6	5	3	6	7	3
B1992-106	84	4.5	8.3	5.5	2	6	5	3	5	7	3
B2727-2	65	4.3	7	6.0	1	6	5	3	6	6	3
B2737-2	98	5.0	9	5.8	1	7	5	3	5	7	4
B2815-7	96	5.3	8-5	5.3	1	7	6	4	4	6	4
B2817-16	98	5.0	8	4.0	2	7	6	4	3	5	4
B2817-9	97	5.5	9-6	4.5	2	7	5	3	4	6	3
B2832-1	85	5.3	8.3	4.3	1	6	5	3	3	6	4
B2832-12	94	4.8	8.7	4.8	1	6	5	3	5	6	3
B2832-14	86	5.0	8	4.5	2	6	5	3	4	7	5
B2832-17	95	5.0	9-6	4.3	2	6	5	3	6	6	3
B2832-2	75	5.3	9-6	4.8	3	7	6	3	6	7	5
B2834-1	97	4.5	9	4.8	1	6	5	3	5	6	5
B2834-11	82	4.0	7.7	5.5	2	7	6	3	4	5	4
B2834-8	99	5.3	8-5	4.5	2	6	5	3	5	7	2
B2842-1	99	5.8	9-6	4.8	3	7	6	3	3	5	3

Table 28 (cont'd). Plant growth and tuber characteristics of USDA Chipping potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						Chip
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Rating 1-5[3]
B2869-29	99	5.5	9-6	3.8	1	7	7	3	4	7	3
B2895-2	88	4.8	7.7	5.0	2	6	5	3	4	7	3
B2904-11	95	5.5	9-6	4.8	1	7	6	2	4	7	5
B2904-2	94	5.3	9-6	4.8	1	7	5	3	4	6	4
B2905-4	94	5.3	8.7	5.3	2	6	5	3	4	6	5
BNC177-5	100	5.5	8-5	6.0	2	6	5	3	5	7	1
BNC182-5	96	5.0	8-5	5.5	1	7	6	3	5	6	3
BNC202-3	90	5.3	8.8	5.3	3	6	5	3	5	6	4
BNC202-7	97	5.3	9-6	4.3	4	6	5	3	6	6	3
BNC266-6	88	4.8	9-6	6.0	2	6	6	3	4	5	5

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

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

[3]Scale 1-5: 1 - excellent, 2 - good, 3 - usable, 4 and 5 - not usable: fried and rated by Wise Snacks, Berwick, PA

Table 29. External and internal defects of USDA Chipping 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	2	0	3	8	1	0	3	3	1	0
Atlantic	1	1	3	0	5	0	0	0	5	3	0	0
Harley Blackwell	0	0	1	0	2	0	0	0	0	0	0	0
Harley Blackwell	1	0	1	0	2	3	0	0	0	0	0	0
Marcy	0	0	2	0	3	0	0	0	3	0	0	0
Snowden	0	0	2	0	3	0	0	0	0	0	0	0
Snowden	0	1	3	0	4	1	0	0	0	1	0	0
AF0338-17	0	0	2	0	3	3	0	0	0	0	0	0
AF0338-17	1	0	1	0	2	0	0	0	0	0	0	0
B1992-106	2	1	1	0	3	0	0	0	0	0	0	0
B2727-2	0	1	3	0	4	3	0	0	0	0	0	0
B2737-2	0	0	1	0	2	0	0	0	0	0	0	0
B2815-7	0	3	4	0	7	0	0	0	5	0	0	0
B2817-16	0	1	1	0	2	0	0	3	0	0	0	0
B2817-9	0	3	2	0	5	0	0	0	0	0	0	0
B2832-1	0	0	2	0	2	1	0	0	0	0	0	0
B2832-12	0	3	3	0	6	0	0	0	0	0	0	0
B2832-14	0	0	2	0	2	0	0	0	0	0	0	0
B2832-17	0	2	1	0	3	4	0	0	1	3	0	0
B2832-2	0	0	1	0	1	4	0	0	1	4	0	0
B2834-1	0	1	1	0	2	0	0	0	0	0	0	0
B2834-11	0	1	1	0	2	0	0	0	0	0	0	0
B2834-8	0	0	1	0	1	0	0	0	0	0	0	0
B2842-1	1	0	2	0	3	0	0	0	0	0	4	0

Table 29 (cont'd). External and internal defects of USDA Chipping 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
B2869-29	0	0	1	0	2	1	0	0	0	0	0	0
B2895-2	0	1	2	0	3	0	0	0	0	0	0	0
B2904-11	0	1	2	0	3	0	0	1	1	0	0	0
B2904-2	0	0	1	0	2	1	0	0	1	0	0	0
B2905-4	0	1	3	0	4	1	0	0	0	0	0	0
BNC177-5	1	1	4	0	5	3	0	0	0	0	0	0
BNC182-5	0	1	2	0	3	1	0	0	0	0	0	0
BNC202-3	0	1	1	0	2	0	0	0	0	0	0	0
BNC202-7	5	1	3	0	8	0	0	0	0	0	0	0
BNC266-6	1	1	4	0	5	0	0	0	0	0	0	0
MSD[3]	2	2	3	ns	4	4	ns	ns	ns	3	2	ns
P Value	*0.0001*	*<.0001*	*0.0291*	*0.7468*	*0.0002*	*0.0051*	*0.4811*	*0.5264*	*0.0780*	*0.0253*	*0.0020*	*

[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 Waller-Duncan's K-ratio t Test.

CHAPTER 11. USPB/SNACK FOOD ASSOCIATION POTATO VARIETY TRIAL, 2012

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	February 1, 2012
Harvest Date	May 30, 2012
Season Length	120 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	2 (Standard: Atlantic)
Number of Clones	12
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	42 days after planting
Highest Total Yield	AF0338-17 (327 cwt or 36.6 TM/ha)
Highest Marketable Yield	AF0338-17 (262 cwt or 29.3 TM/ha)
Highest Specific Gravity	ND8305-1 (1.087)

Table 30. Production facts for USPB/SFA potato selections.

Clone	Seed Source	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	MFX	317	239	100	1	4	57	23	15	0	95	38	1.081
Snowden	MFX	325	257	107	2	12	78	7	0	0	86	7	1.072
AF0338-17	UM	327	262	109	1	7	72	21	0	0	93	21	1.074
AF4157-6	UM	276	167	70	3	15	81	1	0	0	82	1	1.077
A01143-3C	USDA-ID	307	225	94	2	20	75	3	0	0	78	4	1.069
CO00197-3W	CSU	256	178	74	3	16	74	6	1	0	80	6	1.073
CO02321-4W	CSU	237	172	72	3	13	64	15	6	0	84	21	1.075
CO00188-4W	CSU	259	179	75	4	21	71	5	0	0	75	5	1.074
MSL007-B	MSU	189	121	51	3	24	72	0	0	0	72	0	1.069
MSL292-A	MSU	294	212	89	2	11	67	12	8	0	87	20	1.071
MSQ086-3	MSU	236	178	75	2	12	76	9	1	0	86	10	1.069
MSR127-2	MSU	274	224	94	1	7	73	14	5	0	91	19	1.074
ND8304-2	NDSU	269	166	69	3	14	64	10	10	0	83	19	1.066
ND8305-1	NDSU	249	155	65	4	28	65	1	2	0	68	3	1.087
NY140	Cornell	293	180	75	2	7	61	22	8	0	91	30	1.074
NY148	Cornell	284	148	62	5	29	65	0	0	0	65	0	1.078
W6483-5	Wisconsin	262	183	76	1	6	55	24	12	0	92	37	1.066
W4980-1	Wisconsin	294	232	97	1	6	68	21	4	0	93	25	1.075
W5955-1	Wisconsin	199	140	58	3	9	72	15	3	0	89	17	1.064
W2978-3	Wisconsin	234	182	76	2	11	75	9	4	0	87	12	1.070
Average		269	190										1.073

[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 31. Plant growth and tuber characteristics of USPB/SFA potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						Chip Rating		
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Hunter Lab[3]	Defects Description	Tuber Comments
Atlantic	96	6	9	1.0	2	6	5	3	5	7	64.6	int. discoloration/ ext: green	attractive
Snowden	85	4	7	1.0	1	6	5	2	4	6	67.5	stem-end brown/ CRS	decent
AF0338-17	84	6.5	8-5	1.0	1	6	5	3	7	7	62.1	int. discoloration (rot)	attractive
AF4157-6	79	5.5	8	1.0	1	7	6	3	6	3	66.1	CRS	corky ringspot
A01143-3C	87	6	9-6	1.0	1	7	5	3	4	6	64.2	stem-end brown	decent
CO00197-3W	89	6.3	5	1.0	2	7	6	4	4	7	65.2	stem-end brown/ int. discolor.	nice size and shape
CO02321-4W	84	5.8	8	1.0	2	7	6	3	3	5	64.1	stem-end brown/ext: green	fair
CO00188-4W	82	7	8	1.0	1	7	5	3	5	7	65.5	stem-end brown/ int: rot	attractive
MSL007-B	81	4	7	1.0	1	6	5	3	6	7	68.9	int. discoloration	attractive
MSL292-A	104	6	8	1.0	2	6	5	2	5	6	63.8		okay
MSQ086-3	88	6	7	2.0	1	7	6	3	6	6	64.8	int: rot, ext: green	nice shape
MSR127-2	79	5	8-7	1.0	1	6	5	3	6	7	63.0	stem-end brown/ int: rot	attractive/a few misshapen
ND8304-2	78	4.5	7	1.0	2	7	6	3	4	5	62.7	stem-end brown	too many shapes
ND8305-1	103	5.3	8	1.0	2	7	6	3	3	5	63.3	CRS	fair
NY140	70	5.3	8	1.0	1	7	6	4	5	6	68.1	stem-end brown/ int. discolor.	nice big tubers
NY148	93	6.3	9	1.0	2	7	6	2	7	3	65.1	CRS	corky ringspot
W6483-5	75	6.3	8	1.0	1	8	7	3	6	6	66.5	int: rot, ext: green	bright skin
W4980-1	92	6	8-5	1.0	2	6	5	3	5	7	65.4		attractive
W5955-1	90	5.8	8	1.0	1	6	5	3	6	7	na	rot	attractive
W2978-3	78	5	7	1.0	1	7	6	3	6	6	66.5	CRS/ vascular brown	decent

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

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

[3]Chips fried by Utz Quality Foods, Inc. Hanover, PA

Table 32. 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	1	0	3	18	21	0	0	4	6	3	0	0
Snowden	0	0	1	6	7	0	0	10	10	1	0	1
AF0338-17	0	0	1	13	14	0	0	0	0	0	0	0
AF4157-6	2	0	0	25	27	0	0	12	0	1	0	1
A01143-3C	0	0	2	6	8	0	0	3	5	0	0	0
CO00197-3W	0	0	3	9	13	0	0	1	1	0	0	0
CO02321-4W	1	0	5	8	13	0	0	1	1	0	0	0
CO00188-4W	0	0	1	6	8	0	0	4	1	0	0	0
MSL007-B	0	0	1	10	11	0	0	4	0	0	0	0
MSL292-A	1	0	2	14	17	0	0	5	1	0	1	0
MSQ086-3	0	0	1	11	12	0	0	0	0	0	0	0
MSR127-2	1	0	2	8	10	0	0	3	1	0	0	0
ND8304-2	0	0	2	24	26	0	0	1	0	0	0	0
ND8305-1	0	0	1	7	8	0	0	6	3	0	1	0
NY140	0	0	4	29	33	0	0	1	0	0	0	0
NY148	0	0	2	18	20	0	0	11	3	0	0	0
W6483-5	2	0	1	22	24	0	0	1	0	0	0	0
W4980-1	1	0	2	12	15	0	0	0	19	3	0	0
W5955-1	0	0	2	20	22	0	0	3	0	1	0	0
W2978-3	0	0	0	10	11	0	0	14	6	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 12. NE1031 REGIONAL PROJECT POTATO VARIETY TRIAL, 2012

General Comments

The NE1031 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 20, 2012
Vine Kill Dates	April 18, 2012
Harvest Date	May 14, 2012
Season Length	89 days planting to vine kill; 115 days planting to harvest
Fertilizer Program	pre-plant, 50-100-150 lb/A; 1st side-dress, 75-0-125 lb/A; 2nd side-dress, 75-0-0 lb/A
Irrigation Program	seepage

Experimental Design

Number of Varieties	14 (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	40 days after planting
Highest Total Yield	Yukon Gem (393 cwt/acre or 44.0 MT/ha)
Highest Marketable Yield	Yukon Gem (328 cwt/acre or 36.7 MT/ha)
Highest Specific Gravity	Atlantic and Snowden (1.073)
Best Overall Appearance	Atlantic, Snowden, NY150 (7.0, good)

Table 33. Production facts for NE1031 potato selections.

Clone	Seed Source	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	UM	373	282	100	1	3	47	22	27	0	97	50	1.073
Chieftain	UM	325	217	77	3	11	75	8	3	0	86	11	1.057
Classic Russet	UM	294	220	78	2	14	77	5	2	0	84	7	1.059
Dakota Crisp	UM	343	216	76	3	9	61	17	9	2	86	26	1.066
Dakota Trialblazer	UM	384	232	82	2	16	80	2	0	0	82	2	1.065
Dark Red Norland	UM	280	168	60	3	10	76	5	5	0	87	11	1.058
Katahdin	UM	275	202	71	2	12	79	7	1	0	87	7	1.061
Kennebec	UM	234	137	48	2	14	48	22	14	0	84	36	1.062
Modoc	UM	293	190	67	4	22	74	0	1	0	75	1	1.056
Red Sunset	UM	265	172	61	4	26	70	0	0	0	70	0	1.058
Snowden	UM	345	289	102	1	9	72	13	4	1	89	17	1.073
Superior	UM	268	193	68	2	12	76	9	1	0	86	10	1.065
Yukon Gem	UM	393	328	116	1	9	76	11	3	0	90	14	1.059
Yukon Gold	UM	270	169	60	2	11	60	20	8	0	88	28	1.068
AF0338-17	UM	301	215	76	2	11	70	11	6	0	87	17	1.068
AF3362-1	UM	272	171	60	1	15	71	11	2	0	84	13	1.057

Table 33 (cont'd). Production facts for NE1031 potato selections.

Clone	Seed Source	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
AF4013-3	UM	307	189	67	4	25	69	2	0	0	71	2	1.071
AF4157-6	UM	300	224	79	2	12	83	3	0	0	86	4	1.066
AF4172-2	UM	319	212	75	2	15	69	10	3	0	82	13	1.069
B2676-2	UM	218	123	44	4	29	67	0	0	0	67	0	1.068
B2727-2	UM	284	226	80	1	4	60	24	11	0	95	35	1.070
B2756-7	UM	273	187	66	3	14	79	4	0	0	83	4	1.064
BNC182-5	UM	375	295	105	2	12	62	16	9	0	86	25	1.064
NY148	UM	366	295	104	2	12	75	11	0	0	86	11	1.069
NY150	UM	336	153	54	23	30	44	3	0	0	47	3	1.068
MSD[3]		77	88		1.8	10.9	16.2	9.8	7.7	ns	10.5	12.7	0.003
P Value		*<.0001*	*<.0001*		*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*0.5708*	*<.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 Waller Duncan's K-ratio t Test.

Table 34. Plant growth and tuber characteristics of NE1031 potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
Atlantic	85	5.0	9	7.5	2	6	5	3	5	7
Chieftain	78	5.0	7.8	8.0	1	3	6	3	4	5
Classic Russet	86	2.5	7	9.0	1	4	3	4	7	6
Dakota Crisp	84	5.8	8.3	7.0	1	7	6.5	3	6	5
Dakota Trialblazer	82	3.8	8	8.8	2	5	4	6	6	6
Dark Red Norland	91	5.8	8-5	6.3	2	2	6	3	4	5
Katahdin	76	4.5	7.8	7.3	1	7	6.5	4	4	5
Kennebec	72	3.0	7	9.0	2	7	7	4	3	5
Modoc	76	4.0	7.8	6.8	2	2	6	3	4	6
Red Sunset	92	5.0	6	5.3	2	2	7	3	4	6
Snowden	78	5.0	8.5	7.3	2	6	5	3	3	7
Superior	82	5.3	7.5	6.8	2	6	5.5	3	3	6
Yukon Gem	73	4.8	8-5	7.0	3	7	6	4	7	4
Yukon Gold	76	3.5	7.8	7.8	4	7	6	3	6	5
AF0338-17	84	5.5	8-5	8.3	2	7	5	3	6	6
AF3362-1	77	5.5	7.8	6.8	1	5	4	6	5	5

Table 34 (cont'd). Plant growth and tuber characteristics of NE1031 potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]					
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP
AF4013-3	84	5.8	8.8	7.3	4	7	6	3	5	5
AF4157-6	78	3.5	7.5	8.5	2	7	6	3	4	5
AF4172-2	77	4.8	8	7.8	2	6	6	4	3	5
B2676-2	81	4.8	8	7.3	1	2	6	3	5	5
B2727-2	68	5.0	7.7	8.8	1	6	5	3	6	5
B2756-7	81	4.8	7.7	7.3	4	2	5	3	3	5
BNC182-5	94	5.5	8-5	7.8	1	7	5	3	4	6
NY148	89	5.5	9-6	8.0	2	7	6	3	4	6
NY150	85	5.5	9-6	7.3	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 35. External and internal defects of NE1031 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	2	1	5	13	22	5	0	0	0	3	2	5
Chieftain	2	0	9	13	23	0	0	0	1	4	0	1
Classic Russet	3	2	2	7	13	0	0	0	0	0	0	1
Dakota Crisp	5	1	14	9	29	1	0	0	0	0	0	0
Dakota Trialblazer	3	0	5	20	28	0	0	0	0	0	0	0
Dark Red Norland	0	1	6	24	31	0	0	0	0	0	0	0
Katahdin	0	0	8	9	17	0	0	0	0	0	0	0
Kennebec	2	0	9	19	30	1	0	0	6	0	0	1
Modoc	2	0	3	9	13	0	0	0	0	0	0	0
Red Sunset	1	1	3	4	8	0	0	0	0	0	0	0
Snowden	0	0	2	4	6	1	0	0	0	3	0	0
Superior	1	0	7	10	18	1	0	0	0	1	0	0
Yukon Gem	1	1	1	6	8	0	0	0	0	1	3	3
Yukon Gold	2	0	7	20	29	1	0	0	0	1	1	0
AF0338-17	0	1	8	10	18	0	0	2	2	0	0	0
AF3362-1	3	5	6	12	25	0	0	0	0	2	0	0

Table 35 (cont'd). External and internal defects of NE1031 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
AF4013-3	0	0	2	11	14	0	0	0	0	0	0	0
AF4157-6	5	0	3	6	14	0	0	1	1	0	0	0
AF4172-2	0	2	10	10	21	0	0	0	0	0	0	0
B2676-2	0	1	6	10	17	0	0	0	0	0	0	0
B2727-2	0	0	6	10	16	0	0	0	0	0	0	0
B2756-7	3	1	3	15	23	0	0	0	3	0	1	0
BNC182-5	0	0	5	3	8	3	0	0	1	1	0	0
NY148	0	0	4	3	7	0	0	0	0	1	0	0
NY150	0	0	1	1	3	0	0	0	0	0	0	0
MSD[3]	3.6	ns	5.4	7.2	10.6	2.2	ns	ns	3.1	ns	ns	2.2
P Value	*0.0030*	*0.3740*	*<.0001*	*<.0001*	*<.0001*	*0.0014*	*	*0.3611*	*0.0029*	*0.7547*	*0.0894*	*0.0013*

[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 Waller Duncan's K-ratio T test.

APPENDIX 1. POTATO SEASON WEATHER DATA FOR NORTH FLORIDA, 2012

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 39. Daily rainfall amounts (inches) at the UF/IFAS Hastings Demonstration Unit Research Farm at Hastings, FL - Jan.1 - June 30, 2012.

Day	January	February	March	April	May	June
1	0.00	0.00	0.00	0.01	0.00	0.08
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.43	0.00	0.00	0.00
5	0.00	0.40	0.00	0.00	0.00	0.06
6	0.00	0.13	0.00	0.00	0.00	0.02
7	0.00	0.00	0.00	0.00	0.54	1.95
8	0.00	0.00	0.00	0.00	0.00	0.08
9	0.00	0.00	0.45	0.00	0.29	0.36
10	0.00	0.16	0.01	0.00	0.00	0.95
11	0.02	0.05	0.05	0.00	0.00	0.37
12	0.00	0.00	0.00	0.00	0.00	0.27
13	0.00	0.00	0.00	0.00	0.00	0.01
14	0.00	0.00	0.00	0.00	0.00	0.09
15	0.00	0.00	0.00	0.00	0.32	0.00
16	0.00	0.00	0.00	0.00	0.12	0.14
17	0.00	0.03	0.00	0.00	0.26	0.01
18	0.24	0.01	0.00	0.00	0.00	0.00
19	0.01	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.02	0.00	0.00
21	0.00	0.00	0.00	1.41	0.00	0.09
22	0.00	0.13	0.00	0.72	0.00	0.12
23	0.00	0.00	0.33	0.00	0.00	0.00
24	0.00	0.00	0.08	0.00	0.02	2.71
25	0.00	0.00	0.00	0.00	0.00	1.81
26	0.00	0.21	0.00	0.00	0.02	1.82
27	0.01	0.23	0.00	0.00	1.05	0.39
28	0.00	0.01	0.00	0.00	1.55	0.00
29	0.00	0.00	0.00	0.00	0.29	0.00
30	0.00		0.00	0.00	0.09	0.00
31	0.00		1.35		0.02	
Total	0.28	1.36	2.70	2.16	4.57	11.33

Table 40. Daily Maximum and Minimum Temperatures (^{o}F) at the UF/IFAS Hastings Demonstration Unit Research Farm at Hastings, FL - Jan.1 - June 30, 2012.

	January		February		March		April		May		June	
Day	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	74	49	77	53	80	62	85	61	84	64	82	71
2	61	44	79	54	81	60	88	62	85	63	89	70
3	45	28	75	52	85	60	90	64	85	62	89	65
4	55	26	76	57	75	40	88	63	88	65	92	68
5	67	29	81	55	75	35	87	65	92	63	91	72
6	70	39	75	59	70	45	80	62	94	68	88	73
7	72	43	64	53	72	58	72	55	84	68	87	72
8	76	43	70	48	79	54	76	50	85	65	79	71
9	75	48	69	48	79	58	83	52	90	66	83	74
10	72	49	77	54	68	62	84	55	79	64	87	72
11	74	58	63	41	73	64	82	55	83	59	91	70
12	75	51	47	28	75	59	73	55	81	60	90	71
13	66	45	59	27	79	54	77	55	82	61	92	72
14	57	32	76	39	81	56	78	59	86	66	85	71
15	65	31	79	60	79	56	81	58	89	67	81	71
16	69	35	79	61	80	54	82	55	78	68	82	70
17	76	44	72	62	81	55	82	56	82	65	83	70
18	63	50	74	61	80	54	86	61	79	63	84	67
19	66	40	82	60	81	54	81	65	80	64	84	65
20	76	37	59	47	80	56	84	65	84	56	85	73
21	73	50	70	46	80	60	82	65	85	63	82	74
22	77	46	75	50	82	61	76	62	90	66	86	72
23	81	60	82	65	86	58	69	53	89	63	90	73
24	81	56	86	63	82	61	72	46	88	67	80	73
25	77	55	63	48	79	56	82	46	87	69	83	75
26	82	55	64	49	78	53	89	52	91	65	83	73
27	73	50	76	60	80	51	88	58	85	68	80	67
28	70	42	75	59	81	55	87	59	83	71	89	64
29	67	39	83	58	85	57	85	63	79	72	92	67
30	64	36			85	58	84	63	90	72	93	71
31	71	41			78	61			90	70		
AVG.	70	44	73	52	79	56	82	58	85	65	86	71

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

Table 41. 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

Table 42. 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

Table 43. 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.

Year	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Specific Gravity	Total 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

[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 9).

APPENDIX 3. POTATO SELECTIONS EVALUATED IN 2012.

Potato Selection	Page No.	Potato Selection	Page No.
AC Vigor	23	AF4386-16	67,97
Adirondack Blue	89	AF4421-2	67,97
Adora	13,23,75,149	AF4421-4	67,97
Ambra	149	AF4437-1	67,97
Annabelle	149	AF4437-5	67,97
Atlantic	13,35,67,75,97,19,137,141,	AF4441-8	67,97
	149	AF4442-4	97
Augusta	13,23,35,149	AF4449-2	67
A-024	97	AF4454-3	67
A-028	97	AF4463-7	67
A-039	97	AF4463-8	67
A-32	97	AF4518-1	67,97
A00206-1C	97	AF4521-1	67,97
A01143-3C	97,137	AF4532-8	67
A03440-2C	97	AF4532-9	67
A07117-2C	97	AF4538-3	67
AC00180-2W	97	AF4543-2	31
AC00206-2W	97	AF4543-3	31
AC01151-5W	97	AF4547-1	31
AC03433-1W	97	AF4550-2	31
AC03452-2W	97	AF4552-5	97
AC05153-1W	97	AF4565-1	31
AF0338-17	13,23,35,67,75,129,137,	AF4566-4	31
	141,149	AF4573-2	97
AF3362-1	141	AF4593-1	31
AF4013-3	67,141	AF4594-1	31
AF4125-1	67	AF4614-2	67
AF4130-7	67,97	AF4640-1	97
AF4138-8	67	AF4648-2	97
AF4147-1	67,97	AF4720-17	75
AF4157-6	67,97,137,141	AF4723-2	75
AF4172-2	141	AF4725-14	97
AF4220-4	67	AF4728-2	75,97
AF4222-5	67	AF4730-2	75
AF4227-2	67	AF4733-1	75
AF4320-17	67	AF4736-5	75,97
AF4329-7	67	AF4736-10	75,97
AF4342-3	67	AF4739-7	75
AF4347-1	67	AF4740-1	75,97
AF4363-5	67	AF4740-4	75,97

Potato Selection	Page No.	Potato Selection	Page No.
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