Florida Potato Variety Trial Report, 2025

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Florida Potato Variety Trial Report, 2025

Editors

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Photograph

Cover photo: Pam Solano.

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This publication is also available online at: https://hos.ifas.ufl.edu/extension/variety-trials/

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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 (Fig.1).

Variety trials, unless noted, were conducted at the University of Florida/IFAS Hastings Agricultural Extension Center (HAEC) Research Farm in Hastings, FL. The HAEC Research Farm 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 93%, < 1% clay, < 6% silt).

The trials were conducted under conditions that represent the grower's practices for potato (*Solanum tuberosum* L.) production in the Tri-County Agricultural Area (TCAA) around Hastings, Florida. The research plots were irrigated with seepage and subsurface drip irrigation for water table management methods. For these irrigation methods, the perched water table depth is managed by water flow into irrigation furrows that evenly separate each bed for seepage and using subsurface drip tape (permanently installed at 20 inches below the surface spaced every 20 ft). Potatoes were grown in 60 feet wide beds consisting of sixteen raised rows. The spacing between rows was 40 inches (center to center). A clay layer underlies the topsoil at a depth of 3 to 5 feet in the Tri-County Agricultural Area (TCAA).

Potatoes were planted following a sorghum/sudan grass summer cover crop (variety: Sugargrazer). The cover crop was incorporated into the potato beds in October, 2024. Potato beds were fumigated with Telone II C35, 7.7 gal/A (1,3-dichloropropene 63.4%, and chloropicrin 34.7%) in December 2024. Fertilizer (4-8-4, 50 N 100 P 50 K lb/acre granular) was incorporated into the beds prior to planting.

Potato seed pieces were whole and cut tubers weighing approximately 2.5 oz and were dusted with fungicide (Maxim) prior to being planted. They were planted on an 8-inch within row spacing unless otherwise noted. Regent (3.0 oz/A), Quadris (10.4 oz/A), and Vydate C-LV (32 oz/A) were applied in a banded spray in the furrow after planting but before the seed was covered with soil. Boundary (24 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. Two side-dress fertilizer applications (8-0-8, liquid) were made around plant emergence (100 N 100 K lb/acre) and at layby (50 N 50 K lb/acre) in all trials unless otherwise noted.

Plant growth characteristics were rated during the season using the rating scale listed in Table 1. Stand count, plant vigor rating, and vine type rating were done around 40 days after planting. The vine maturity rating was done around 80 days after planting. No growth enhancers or chemicals to enhance skin color were used in any trial unless otherwise noted.

Fresh market tablestock variety plots were vine-killed by chemical desiccation with diquat dibromide (Reglone, 2 pt/A). Plots were harvested with a single-row, commercial potato

harvester. Potatoes were graded using commercial grading equipment. Culls (growth cracks, misshapen, sunburned, rotten/misc.) were removed and weighed and remaining potatoes were separated into five size classes and weighed. Specific gravity was measured on a random 10-tuber sample (less if not enough tubers available) from each plot using the weight-in-air/weight-in-water method. The sample was rated for external appearance characteristics. External tuber quality characteristics were rated using the rating scale listed in Table 2. The sample tubers were then cut into fourths and rated for hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), and brown center (BC).

Sub-samples of potatoes from the SNAC trial were shipped to Utz Quality Foods. Chips were prepared following the procedures outlined in the Snack Food Association Chipping Potato Handbook (1995).

Seasonal Weather and Growing Conditions

Daily rainfall and temperatures are reported in Appendix 1. The data was collected at a University weather station located at the UF/IFAS HAEC Research Farm. Real-time and historic weather data from the weather station can be accessed at: http://fawn.ifas.ufl.edu/ .

Growing conditions for the 2025 growing season were generally favorable. The total precipitation between planting and harvest was 15.35”. April was relatively dry, while May accounted for most of the rainfall, receiving 6.77” (Table 71). Overall air temperatures were favorable for crop development, and only one freeze event occurred prior to planting (Table 72).

Production

There were no major changes to the production system in 2025.

Figure 1. Potato Variety Program Evaluation Flowchart.

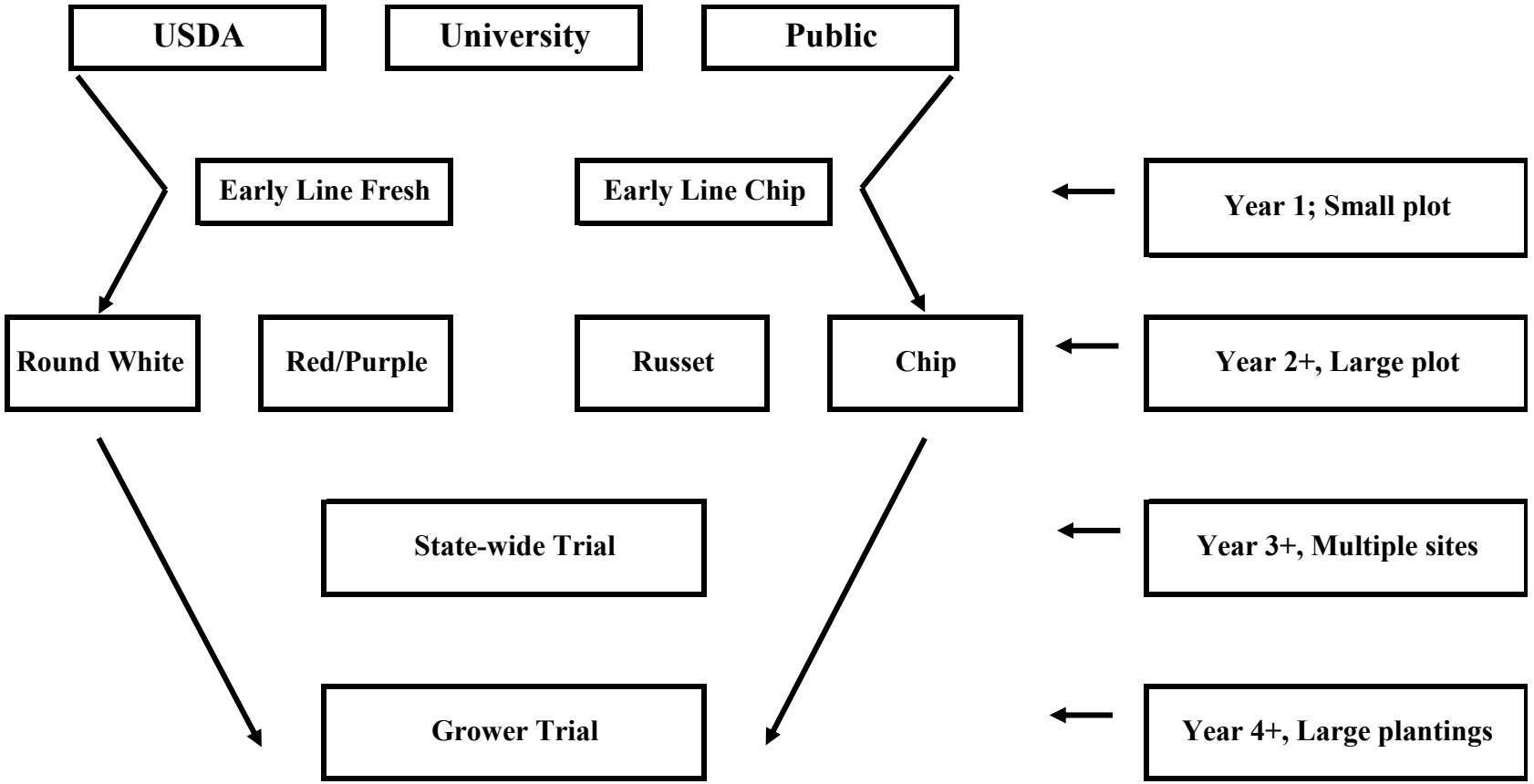

Table 1. Plant growth characteristics.

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. External and Internal 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 Potato Variety Trials

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 2024. The entries were split by market class into 3 trials: 1: chip, 2: fresh, 4. diploid.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	1: February 4, 2025, 2: February 13, 2025, 4: February 26, 2025
Vine Kill Date	1: N/A, 2: May 12, 2025, 2: N/A
Harvest Date	1: May 15, 2025, 2: May 19, 2025, 2: June 2, 2025
Season Length	1: 100 days planting to harvest, 2: 88 days planting to vine kill, 4: 96 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	1: 1 (Standard: Atlantic), 2: 1 (Standard: Little Ruby), 4: 1 (Standard: Atlantic)
Number of Clones	1: 60, 2: 25, 4: 22
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1
Plot Size	5 ft 4 in (1.6 m)

Production Statistics

Early Vigor Ratings	1: 42 DAP, 2: 40 DAP, 4: 41 DAP
Highest Total Yield	1: B3550-1 (719 cwt/A or 80.6 T/ha), 2: B3625-1 (846 cwt/A or 94.8 T/ha) 4: BD1627-1 (532 cwt/A or 59.6 T/ha)
Highest Marketable Yield	1: B3550-1 (575 cwt/A or 64.5 T/ha), 2: B3625-1 (628 cwt/A or 70.4 T/ha) 4: B23WB02-1 (312 cwt/A or 35.0 T/ha)
Best Appearance Rating	1: B3589-1 (9, excellent), 2: B3638-6, B3651-1, B23WB01-2 (8, very good) 4: B23WB02-1 (8, very good)

Table 3. Production statistics for the 2025 USDA 2nd Year Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–100 days											
B3524-1	392	255	94	30	57	13	0	0	70	13	1.073
B3524-4	627	488	179	20	66	14	0	0	80	14	1.079
B3525-5	507	433	159	15	25	61	0	0	85	61	1.077
B3525-8	449	376	138	14	28	58	0	0	86	58	1.076
B3525-12	440	360	132	16	27	57	0	0	84	57	1.079
B3526-1	563	410	150	25	52	22	0	0	75	22	1.075
B3528-1	265	151	55	40	45	15	0	0	60	15	1.087
B3529-1	395	323	118	15	41	44	0	0	85	44	1.073
B3529-4	436	378	138	8	21	71	0	0	92	71	1.076
B3530-1	382	293	107	19	21	60	0	0	81	60	1.071
B3531-2	370	231	85	31	57	12	0	0	69	12	1.060
B3534-3	680	538	197	14	25	60	0	0	86	60	1.076
B3535-1	643	553	203	13	18	69	0	0	87	69	1.062
B3536-2	484	377	138	18	31	51	0	0	82	51	1.075
B3542-2	389	310	114	15	28	52	5	0	85	57	1.066
B3542-5	331	184	67	44	44	11	0	0	56	11	1.074
B3543-5	414	278	102	30	36	34	0	0	70	34	1.068
B3543-6	377	289	106	19	53	28	0	0	81	28	1.069
B3547-1	574	473	173	18	28	54	0	0	82	54	.
B3548-5	494	380	139	16	36	48	0	0	84	48	1.062
B3548-7	572	492	180	10	21	69	0	0	90	69	1.077
B3550-1	719	575	210	16	34	50	0	0	84	50	1.057
B3551-1	373	317	116	10	24	67	0	0	90	67	1.067
B3559-1	485	401	147	11	11	78	0	0	89	78	1.063
B3561-3	339	244	89	12	13	75	0	0	88	75	1.067
B3562-3	388	311	114	20	44	36	0	0	80	36	1.079
B3563-1	425	317	116	23	58	19	0	0	77	19	1.074
B3565-3	430	213	78	51	36	14	0	0	49	14	1.077
B3567-2	235	115	42	51	49	0	0	0	49	0	1.076
B3569-1	472	392	143	17	28	55	0	0	83	55	1.065

Table 3 (cont'd). Production statistics for the 2025 USDA 2nd Year Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B3570-1	503	458	168	8	19	62	10	0	92	72	1.064
B3570-7	378	283	104	18	26	56	0	0	82	56	1.070
B3572-3	382	243	89	33	47	20	0	0	67	20	1.080
B3577-4	414	292	107	28	48	25	0	0	72	25	1.080
B3577-7	560	467	171	12	41	47	0	0	88	47	1.073
B3578-3	419	291	106	19	40	40	0	0	81	40	1.077
B3579-3	566	481	176	10	34	56	0	0	90	56	1.073
B3579-7	280	88	32	50	36	14	0	0	50	14	1.060
B3582-1	544	398	146	22	40	38	0	0	78	38	1.074
B3583-5	356	221	81	36	36	28	0	0	64	28	1.082
B3584-4	510	392	143	17	25	58	0	0	83	58	1.082
B3585-5	471	237	87	48	38	15	0	0	52	15	1.079
B3587-2	438	281	103	23	40	37	0	0	77	37	1.060
B3589-1	451	315	115	27	40	33	0	0	73	33	1.073
B3591-1	398	256	94	34	35	31	0	0	66	31	1.085
B3594-3	590	359	131	38	48	14	0	0	62	14	1.064
B3595-1	381	241	88	30	41	29	0	0	70	29	1.065
B3596-3	380	324	118	11	53	36	0	0	89	36	1.062
B3597-1	503	400	146	20	43	38	0	0	80	38	1.066
B3598-2	541	434	159	14	21	66	0	0	86	66	1.075
B3599-1	518	379	139	22	34	44	0	0	78	44	1.074
B3599-3	500	359	131	26	60	14	0	0	74	14	1.082
B3600-4	567	487	178	9	40	52	0	0	91	52	1.066
B3601-2	141	57	21	32	68	0	0	0	68	0	1.065
B3602-2	338	245	90	17	23	60	0	0	83	60	1.077
B3604-3	455	287	105	37	47	16	0	0	63	16	1.072
B3605-1	549	377	138	30	32	39	0	0	70	39	1.072
B3608-5	349	264	97	22	46	32	0	0	78	32	1.077
B3609-1	520	276	101	44	49	6	0	0	56	6	1.071
B3610-3	430	336	123	17	56	28	0	0	83	28	1.060
Atlantic	396	273	100	26	43	31	0	0	74	31	1.081

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 4. Production statistics for the 2025 USDA 2nd Year Fresh Market Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–88 days											
B3612-1	324	165	56	49	38	13	0	0	51	13	1.063
B3612-5	342	191	65	44	42	14	0	0	56	14	1.068
B3614-2	545	429	145	21	22	56	0	0	79	56	1.063
B3617-1	400	143	49	64	36	0	0	0	36	0	1.063
B3622-2	610	455	154	18	34	47	0	0	82	47	1.058
B3625-1	846	628	213	22	35	43	0	0	78	43	1.060
B3625-3	469	340	115	27	60	13	0	0	73	13	1.059
B3638-3	415	201	68	47	53	0	0	0	53	0	1.059
B3638-6	524	390	132	22	48	30	0	0	78	30	1.059
B3639-3	432	270	91	36	57	7	0	0	64	7	1.059
B3639-5	392	322	109	18	30	52	0	0	82	52	1.051
B3646-12	477	377	128	21	30	49	0	0	79	49	1.054
B3648-4	298	248	84	17	58	25	0	0	83	25	1.063
B3648-8	575	302	102	47	24	29	0	0	53	29	1.058
B3648-9	648	378	128	42	35	24	0	0	58	24	1.064
B3649-11	502	277	94	26	33	42	0	0	74	42	1.056
B3650-1	432	312	106	28	35	37	0	0	72	37	1.062
B3651-1	623	449	152	28	51	21	0	0	72	21	1.061
B3654-8	571	441	149	19	24	56	0	0	81	56	1.057
B3654-12	573	418	142	22	25	53	0	0	78	53	1.060
B3658-2	473	262	89	41	41	19	0	0	59	19	1.061
B3659-2	290	254	86	13	21	67	0	0	88	67	1.053
B3659-4	443	296	100	33	33	34	0	0	67	34	1.051
B3659-5	452	344	117	21	26	52	0	0	79	52	1.051
B23WB01-2	498	420	142	16	33	51	0	0	84	51	1.055
Little Ruby (B2152-17)	507	295	100	42	55	4	0	0	58	4	1.065

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 5. Production statistics for the 2025 USDA 2nd Year Diploid Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–96 days											
B23WB02-1	370	312	116	10	15	75	0	0	90	75	1.048
B23WB03-4	223	95	35	55	27	18	0	0	45	18	1.053
B23WB05-2	210	0	0	100	0	0	0	0	0	0	.
B23WB05-6	220	96	35	56	35	8	0	0	44	8	1.075
B23WB06-2	316	94	35	64	24	12	0	0	36	12	1.056
B23WB09-1	99	4	2	94	0	6	0	0	6	6	1.053
B23WB12-1	190	16	6	91	4	4	0	0	9	4	1.050
B23WB19-1	265	52	19	77	13	10	0	0	23	10	1.043
BD1562-1	102	0	0	100	0	0	0	0	0	0	.
BD1572-1	89	0	0	100	0	0	0	0	0	0	.
BD1578-1	99	2	1	98	2	0	0	0	2	0	1.051
BD1580-1	265	119	44	51	37	12	0	0	49	12	1.066
BD1589-1	200	21	8	89	11	0	0	0	11	0	1.058
BD1597-2	284	157	58	45	33	22	0	0	55	22	1.074
BD1598-2	487	267	99	36	45	20	0	0	64	20	1.049
BD1601-2	328	112	41	65	19	16	0	0	35	16	1.068
BD1602-1	391	162	60	54	29	16	0	0	46	16	1.064
BD1603-2	449	173	64	56	24	20	0	0	44	20	1.047
BD1607-1	239	39	15	81	19	0	0	0	19	0	1.062
BD1610-1	217	37	14	82	6	12	0	0	18	12	1.064
BD1610-2	226	77	29	63	22	14	0	0	37	14	1.057
BD1627-1	532	283	105	43	29	28	0	0	57	28	1.060
Atlantic	366	270	100	19	32	49	0	0	81	49	1.068

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 6. Plant growth and tuber characteristics for the 2025 USDA 2nd Year Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
B3524-1	100	6	9	8	1	7	7	3	8	8	1
B3524-4	100	9	9	8	1	8	7	1	8	8	1
B3525-5	88	9	6	7	1	6	7	1	8	8	1
B3525-8	100	9	9	7	1	6	7	3	7	7	1
B3525-12	100	7	9	8	1	6	8	1	8	8	1
B3526-1	100	8	9	8	2	9	7	3	8	6	1
B3528-1	100	5	9	7	1	9	7	3	8	8	1
B3529-1	100	5	9	8	1	7	8	1	7	7	1
B3529-4	100	6	9	8	2	9	8	2	7	6	1
B3530-1	88	6	9	8	1	9	8	3	7	6	1
B3531-2	100	6	9	8	1	9	7	2	7	6	2
B3534-3	100	6	9	9	1	9	8	2	8	8	1
B3535-1	100	6	9	8	1	8	8	3	8	8	2
B3536-2	100	8	9	7	1	9	7	3	9	8	1
B3542-2	100	4	9	9	1	9	7	3	7	7	2
B3542-5	100	7	9	8	1	7	7	3	9	8	1
B3543-5	100	7	9	7	1	9	7	3	8	7	1
B3543-6	100	8	9	6	1	6	7	3	9	7	1
B3547-1	100	8	9	7	1	6	8	2	8	6	1
B3548-5	100	7	9	8	1	6	7	3	7	6	1
B3548-7	100	8	9	8	1	6	7	1	9	8	1
B3550-1	100	8	9	7	1	9	8	2	8	8	1
B3551-1	100	6	9	8	1	8	8	1	9	8	1
B3559-1	100	5	9	9	1	6	6	2	8	5	1
B3561-3	100	5	9	8	1	6	7	3	9	7	2
B3562-3	100	7	6	7	1	8	8	3	7	8	3
B3563-1	100	8	9	5	1	9	8	2	8	8	1
B3565-3	100	7	9	8	2	6	7	3	8	4	3
B3567-2	88	9	6	6	1	8	8	3	9	6	1
B3569-1	100	7	9	8	1	8	8	3	8	6	1

Table 6 (cont'd). Plant growth and tuber characteristics for the 2025 USDA 2nd Year Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
B3570-1	100	7	9	7	1	7	7	3	9	7	1
B3570-7	88	9	6	6	1	7	8	3	8	8	1
B3572-3	88	9	9	5	4	6	8	3	8	7	1
B3577-4	100	7	9	7	1	9	8	3	7	7	1
B3577-7	100	6	9	9	1	8	9	1	8	8	1
B3578-3	100	9	9	6	1	6	7	3	9	5	2
B3579-3	100	5	9	8	1	8	8	1	9	8	1
B3579-7	75	4	9	9	1	6	7	1	9	5	4
B3582-1	100	7	9	8	1	6	7	3	9	8	3
B3583-5	100	6	9	7	1	6	7	3	8	8	1
B3584-4	100	8	9	7	1	9	8	1	7	8	1
B3585-5	100	6	9	7	1	6	8	2	9	6	1
B3587-2	100	6	9	7	1	8	9	3	9	8	3
B3589-1	88	5	9	7	1	6	7	1	8	9	1
B3591-1	100	9	9	7	1	9	7	3	8	7	1
B3594-3	100	8	9	8	1	8	8	3	8	7	1
B3595-1	100	5	9	7	1	6	8	4	8	7	2
B3596-3	88	9	6	6	1	2	9	3	7	7	1
B3597-1	88	8	9	7	1	7	7	3	9	8	1
B3598-2	100	6	9	7	1	7	7	3	9	7	1
B3599-1	100	4	9	9	4	6	7	3	8	6	1
B3599-3	100	7	9	8	1	7	7	4	8	7	1
B3600-4	100	5	9	9	1	9	7	4	7	6	1
B3601-2	100	5	9	9	3	6	7	3	7	7	4
B3602-2	75	6	9	8	1	7	7	3	8	6	2
B3604-3	100	8	9	6	1	9	8	3	9	6	1
B3605-1	100	9	6	7	2	9	8	3	.	8	1
B3608-5	88	4	9	9	1	9	7	3	8	7	1
B3609-1	100	8	9	7	1	9	8	3	8	7	1
B3610-3	88	7	9	7	1	8	9	4	8	8	3
Atlantic	88	7	9	7	1	8	8	3	9	8	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 8 for 5.33 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 7. Plant growth and tuber characteristics for the 2025 USDA 2nd Year Fresh Market Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
B3612-1	88	5	9	8	1	2	7	2	8	7	2
B3612-5	100	6	9	6	1	2	7	2	7	7	2
B3614-2	100	6	9	7	1	3	7	2	7	5	1
B3617-1	100	7	9	7	1	2	8	4	7	4	4
B3622-2	88	8	9	7	1	2	8	3	8	7	3
B3625-1	100	7	9	6	.	.	.	.	.	.	1
B3625-3	88	7	9	6	2	2	7	3	7	4	1
B3638-3	100	6	9	7	1	2	7	3	7	3	3
B3638-6	88	8	9	5	1	1	7	2	8	8	1
B3639-3	100	7	9	7	2	2	7	3	7	7	3
B3639-5	88	5	9	7	2	2	8	3	7	5	1
B3646-12	88	8	9	7	2	3	8	3	7	5	1
B3648-4	100	6	9	6	1	2	7	2	7	6	2
B3648-8	100	9	6	3	1	2	7	3	8	6	1
B3648-9	100	9	9	5	1	3	8	2	8	6	1
B3649-11	100	7	9	6	1	2	8	2	7	6	2
B3650-1	100	8	9	5	1	2	8	2	7	7	1
B3651-1	100	8	9	5	1	1	8	2	7	8	1
B3654-8	100	7	9	5	1	3	8	2	8	7	1
B3654-12	100	6	9	5	1	2	9	2	7	7	1
B3658-2	100	8	9	4	1	2	8	2	8	7	1
B3659-2	100	4	9	8	1	3	8	2	7	6	1
B3659-4	100	8	9	5	3	2	8	2	8	7	1
B3659-5	100	9	9	3	2	2	8	3	7	7	1
B23WB01-2	100	6	9	5	1	1	8	2	8	8	1
Little Ruby (B2152-17)	100	8	9	3	3	2	8	3	8	7	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 8 for 5.33 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 8. Plant growth and tuber characteristics for the 2025 USDA 2nd Year Diploid Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
B23WB02-1	100	9	9	3	1	1	8	3	8	8	1
B23WB03-4	100	9	9	6	1	6	6	2	7	3	4
B23WB05-2	100	9	9	4	.	.	.	.	.	.	3
B23WB05-6	100	9	5	2	4	7	8	4	8	5	3
B23WB06-2	100	9	6	5	3	6	5	1	7	7	3
B23WB09-1	100	9	5	2	4	6	5	1	7	4	4
B23WB12-1	100	9	9	7	4	7	8	2	5	5	3
B23WB19-1	88	9	6	4	9	1	8	2	8	3	3
BD1562-1	75	9	6	5	.	.	.	.	.	.	3
BD1572-1	100	9	6	5	.	.	.	.	.	.	3
BD1578-1	100	9	6	5	4	8	8	3	7	4	3
BD1580-1	100	9	8	5	3	8	8	3	5	4	3
BD1589-1	88	9	6	3	3	7	8	2	6	5	3
BD1597-2	100	9	8	1	1	2	8	2	6	5	2
BD1598-2	75	9	5	8	4	6	6	3	8	4	3
BD1601-2	100	9	5	3	3	1	8	2	8	3	3
BD1602-1	100	9	5	7	3	8	9	3	7	7	2
BD1603-2	100	9	9	5	3	8	8	3	5	4	3
BD1607-1	100	9	5	5	3	8	8	2	4	4	3
BD1610-1	88	9	6	2	3	7	8	1	5	6	3
BD1610-2	100	9	6	1	3	3	7	2	8	7	3
BD1627-1	100	9	8	4	1	6	7	2	6	7	2
Atlantic	96	9	6	3	1	6	7	3	8	7	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 8 for 5.33 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 9. External and internal defects for the 2025 USDA 2nd Year Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
B3524-1	6	0	0	0	0
B3524-4	3	0	0	0	0
B3525-5	0	0	0	0	0
B3525-8	2	0	0	0	0
B3525-12	3	0	0	0	0
B3526-1	2	0	0	0	0
B3528-1	5	0	0	0	0
B3529-1	4	0	0	0	0
B3529-4	6	0	0	0	0
B3530-1	6	0	0	0	0
B3531-2	10	0	0	0	0
B3534-3	8	0	0	0	0
B3535-1	1	10	0	0	0
B3536-2	5	0	0	0	0
B3542-2	6	10	0	0	0
B3542-5	0	0	0	0	0
B3543-5	5	0	0	0	0
B3543-6	5	0	0	0	0
B3547-1	0	0	0	0	0
B3548-5	9	0	0	0	0
B3548-7	4	0	0	0	0
B3550-1	5	0	0	0	0
B3551-1	6	0	0	0	0
B3559-1	7	0	0	0	0
B3561-3	18	0	0	0	0
B3562-3	0	0	0	10	0
B3563-1	3	0	0	0	0
B3565-3	0	0	0	10	0
B3567-2	0	0	0	0	0
B3569-1	0	0	0	0	0

Table 9 (cont'd). External and internal defects for the 2025 USDA 2nd Year Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
B3570-1	1	0	0	0	0
B3570-7	9	0	0	0	0
B3572-3	5	0	0	0	0
B3577-4	2	0	0	0	0
B3577-7	5	0	0	0	0
B3578-3	14	0	0	0	0
B3579-3	5	0	0	0	0
B3579-7	37	0	0	10	0
B3582-1	6	0	0	10	0
B3583-5	4	0	0	0	0
B3584-4	7	0	0	0	0
B3585-5	4	0	0	0	0
B3587-2	17	10	0	0	0
B3589-1	5	0	0	0	0
B3591-1	2	0	0	0	0
B3594-3	1	0	0	0	0
B3595-1	10	0	0	0	0
B3596-3	4	0	0	0	0
B3597-1	1	0	0	0	0
B3598-2	7	0	0	0	0
B3599-1	6	0	0	0	0
B3599-3	3	0	0	0	0
B3600-4	6	0	0	0	0
B3601-2	41	0	0	0	0
B3602-2	12	0	0	0	0
B3604-3	0	0	0	0	0
B3605-1	2	0	0	0	0
B3608-5	3	0	0	0	0
B3609-1	5	0	0	0	0
B3610-3	6	0	0	30	0
Atlantic	7	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Table 10. External and internal defects for the 2025 USDA 2nd Year Fresh Market Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
B3612-1	0	0	0	0	0
B3612-5	0	0	0	0	0
B3614-2	0	0	0	0	0
B3617-1	0	0	0	10	0
B3622-2	9	0	0	10	10
B3625-1	4	0	0	0	0
B3625-3	0	0	0	0	0
B3638-3	9	0	0	10	0
B3638-6	4	0	0	0	0
B3639-3	3	0	0	10	0
B3639-5	0	0	0	0	0
B3646-12	0	0	0	0	0
B3648-4	0	0	0	0	0
B3648-8	0	0	0	0	0
B3648-9	0	0	0	0	0
B3649-11	26	0	0	0	0
B3650-1	0	0	0	0	0
B3651-1	0	0	0	0	0
B3654-8	4	0	0	0	0
B3654-12	6	0	0	0	0
B3658-2	7	0	0	0	0
B3659-2	0	0	0	0	0
B3659-4	0	0	0	0	0
B3659-5	3	0	0	0	0
B23WB01-2	0	0	0	0	0
Little Ruby (B2152-17)	0	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Table 11. External and internal defects for the 2025 USDA 2nd Year Diploid Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
B23WB02-1	6	0	0	0	0
B23WB03-4	4	0	10	10	0
B23WB05-2	7	.	.	.	.
B23WB05-6	0	0	0	0	0
B23WB06-2	19	0	0	0	0
B23WB09-1	27	0	0	0	0
B23WB12-1	2	0	0	0	0
B23WB19-1	12	0	0	0	0
BD1562-1	10	.	.	.	.
BD1572-1	0	.	.	.	.
BD1578-1	0	0	0	0	0
BD1580-1	8	0	0	0	0
BD1589-1	2	0	0	0	0
BD1597-2	0	0	0	0	0
BD1598-2	15	0	0	30	0
BD1601-2	3	0	0	0	0
BD1602-1	9	0	0	0	0
BD1603-2	12	0	0	0	0
BD1607-1	11	0	0	0	0
BD1610-1	5	0	0	0	0
BD1610-2	7	0	0	0	0
BD1627-1	7	0	10	0	0
Atlantic	9	0	3	3	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 3. USDA 3rd Year Potato Variety Trials

General Comments

A goal of the 3rd year USDA trial is to continue evaluating new clones for production potential in Florida. The entries in this trial were selected from the 2nd year clone trial conducted in 2024. The entries were split by market class into 2 trials: 1: chip, 2: fresh.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	1: February 4, 2025, 2: February 13, 2025
Vine Kill Date	1: N/A, 2: May 12, 2025
Harvest Date	1: May 13, 2025, 2: May 20, 2025
Season Length	1: 98 days planting to harvest, 2: 88 days planting to vine kill
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	1: 1 (Standard: Atlantic), 2: 1 (Standard: Little Ruby)
Number of Clones	1: 19, 2: 17
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1
Plot Size	10 ft (3.1 m)

Production Statistics

Early Vigor Ratings	1: 42 DAP, 2: 40 DAP
Highest Total Yield	1: B22MSII135-1 (513 cwt/A or 57.5 T/ha), 2: Little Ruby (507 cwt/A or 56.8 T/ha)
Highest Marketable Yield	1: B22NYT13-3 (406 cwt/A or 45.5 T/ha), 2: B3504-6 (382 cwt/A or 42.8 T/ha)
Best Appearance Rating	1: Atlantic (8, very good), 2: B22AF8427-2, B3504-6 (8, very good)

Table 12. Production statistics for the 2025 USDA 3rd Year Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–98 days											
B22AF8275-1	281	160	59	36	34	25	5	0	64	30	1.078
B22AF8283-4	.	.	.	.	.	.	.	.	.	.	.
B22AF8300-4	225	113	41	47	35	18	0	0	53	18	1.078
B22AF8308-3	277	160	58	40	32	29	0	0	60	29	1.076
B22AF8335-1	352	252	92	25	26	50	0	0	75	50	1.085
B22NC2391-1	.	.	.	.	.	.	.	.	.	.	.
B22MSII040-2	343	216	79	35	32	34	0	0	65	34	1.064
B22MSII135-1	513	386	141	21	18	60	0	0	79	60	1.076
B22W002-1	416	346	127	16	22	62	0	0	84	62	1.078
B3492-2	315	257	94	18	36	46	0	0	82	46	1.089
B3494-1	456	327	120	20	30	50	0	0	80	50	1.087
B3494-3	387	312	114	17	28	55	0	0	83	55	1.074
B3499-1	472	365	134	13	23	63	0	0	87	63	1.074
B3501-2	388	296	108	18	25	58	0	0	82	58	1.076
B3501-4	436	292	107	31	28	41	0	0	69	41	1.079
B22NYU34-2	347	268	98	15	28	57	0	0	85	57	1.073
B22NYT13-3	472	406	149	6	28	66	0	0	94	66	1.078
B22NYS16-1	354	241	88	24	39	37	0	0	76	37	1.068
B22NYS36-1	361	256	94	17	29	53	0	0	83	53	1.080
Atlantic	396	273	100	26	43	31	0	0	74	31	1.081

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 13. Production statistics for the 2025 USDA 3rd Year Fresh Market Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–88 days											
B22AF8358-1	280	132	45	53	38	9	0	0	47	9	1.052
B22AF8360-1	282	190	64	31	55	14	0	0	69	14	1.055
B22AF8360-3	385	328	111	12	15	66	7	0	88	73	1.053
B22AF8370-1	273	199	67	24	36	40	0	0	76	40	1.052
B22AF8370-2	339	180	61	46	43	11	0	0	54	11	1.056
B22AF8370-5	236	138	47	40	55	5	0	0	60	5	1.054
B22AF8406-1	351	278	94	12	29	59	0	0	88	59	1.051
B22AF8409-5	372	274	93	26	41	33	0	0	74	33	1.064
B22AF8427-2	267	213	72	19	50	32	0	0	81	32	1.056
B22NC1880-3	230	75	26	67	29	4	0	0	33	4	1.068
B22NC2696-4	336	192	65	43	35	23	0	0	57	23	1.068
B22NC1964-5	145	41	14	72	26	2	0	0	28	2	1.051
B22NC2039-1	400	218	74	45	28	26	0	0	55	26	1.076
B22NC2696-2	452	341	115	25	32	43	0	0	75	43	1.068
BD1582-5	46	0	0	100	0	0	0	0	0	0	1.056
B3504-6	469	382	129	17	23	58	3	0	83	60	1.062
B3507-3	432	347	118	18	27	55	0	0	82	55	1.061
Little Ruby (B2152-17)	507	295	100	42	55	4	0	0	58	4	1.065

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 14. Plant growth and tuber characteristics for the 2025 USDA 3rd Year Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
B22AF8275-1	80	6	9	7	2	6	7	3	8	6	3
B22AF8283-4	100	7	9	8	.	.	.	.	.	.	.
B22AF8300-4	87	8	9	7	3	6	8	2	7	7	3
B22AF8308-3	100	7	9	7	2	5	8	2	9	7	2
B22AF8335-1	87	7	9	8	2	6	7	2	7	5	1
B22NC2391-1	87	9	9	6	.	.	.	.	.	.	.
B22MSII040-2	87	7	9	7	1	6	8	2	8	5	2
B22MSII135-1	80	8	9	8	1	6	8	3	7	6	1
B22W002-1	87	6	9	8	1	6	8	2	7	5	1
B3492-2	93	6	9	7	1	9	8	2	8	7	3
B3494-1	93	9	9	8	1	9	8	2	7	7	2
B3494-3	87	7	9	7	1	9	7	3	8	.	1
B3499-1	87	8	9	8	1	6	8	2	7	7	2
B3501-2	100	6	9	8	2	9	8	3	8	7	3
B3501-4	80	8	9	7	1	9	8	2	6	7	1
B22NYU34-2	87	5	9	8	2	9	8	2	7	7	1
B22NYT13-3	93	7	9	8	1	9	8	2	7	7	1
B22NYS16-1	100	6	9	8	1	6	8	2	8	7	2
B22NYS36-1	100	8	9	8	1	6	8	2	8	7	2
Atlantic	88	7	9	7	1	8	8	3	9	8	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 15 for 10 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 15. Plant growth and tuber characteristics for the 2025 USDA 3rd Year Fresh Market Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
B22AF8358-1	96	7	9	7	1	3	8	2	7	7	3
B22AF8360-1	96	7	9	5	1	2	8	3	8	7	2
B22AF8360-3	92	6	9	6	1	2	7	2	7	7	1
B22AF8370-1	100	6	9	5	1	3	9	3	7	7	2
B22AF8370-2	88	7	9	4	1	2	8	2	7	6	2
B22AF8370-5	96	7	9	4	1	3	8	3	7	6	3
B22AF8406-1	92	4	9	8	1	2	8	3	7	6	2
B22AF8409-5	100	5	9	7	1	2	8	2	8	7	1
B22AF8427-2	100	6	9	5	1	2	8	2	7	8	2
B22NC1880-3	96	5	9	6	7	2	8	3	8	6	3
B22NC2696-4	83	7	9	5	4	1	8	2	8	7	2
B22NC1964-5	92	4	9	7	1	1	8	3	7	7	3
B22NC2039-1	96	7	9	8	9	1	8	2	7	6	2
B22NC2696-2	100	8	9	7	4	1	8	2	7	6	1
BD1582-5	96	6	9	8	5	6	8	4	6	4	3
B3504-6	100	7	9	8	1	6	8	2	9	8	1
B3507-3	92	7	9	7	2	9	8	2	8	7	3
Little Ruby (B2152-17)	100	8	9	3	3	2	8	3	8	7	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 16 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 16. External and internal defects for the 2025 USDA 3rd Year Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
B22AF8275-1	11	0	0	0	0
B22AF8283-4	.	.	.	.	.
B22AF8300-4	6	0	0	0	0
B22AF8308-3	5	0	0	0	0
B22AF8335-1	5	0	0	0	0
B22NC2391-1	.	.	.	.	.
B22MSII040-2	4	0	0	0	0
B22MSII135-1	5	0	0	0	0
B22W002-1	1	0	0	0	0
B3492-2	1	0	0	10	0
B3494-1	10	0	0	0	0
B3494-3	3	0	0	0	0
B3499-1	11	0	0	0	0
B3501-2	7	0	0	10	0
B3501-4	3	0	0	0	0
B22NYU34-2	9	0	0	0	0
B22NYT13-3	8	0	0	0	0
B22NYS16-1	10	0	0	0	0
B22NYS36-1	14	0	0	0	0
Atlantic	7	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Table 17. External and internal defects for the 2025 USDA 3rd Year Fresh Market Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
B22AF8358-1	0	0	0	0	0
B22AF8360-1	2	0	0	0	0
B22AF8360-3	3	0	0	0	0
B22AF8370-1	4	0	0	0	0
B22AF8370-2	2	0	0	0	0
B22AF8370-5	3	0	0	0	0
B22AF8406-1	10	0	0	0	0
B22AF8409-5	0	0	0	0	0
B22AF8427-2	2	0	0	0	0
B22NC1880-3	0	0	0	0	0
B22NC2696-4	0	0	0	0	0
B22NC1964-5	0	0	0	0	0
B22NC2039-1	0	0	0	0	0
B22NC2696-2	0	0	0	0	0
BD1582-5	0	0	0	0	0
B3504-6	2	0	0	0	0
B3507-3	2	0	0	10	0
Little Ruby (B2152-17)	0	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 4. University of Maine Early Generation Red and Specialty Potato Variety Trials

General Comments

The University of Maine early generation red and specialty trial gives us an opportunity to look at these newest breeding clones for the first time. The entries were fresh market class.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 13, 2025
Vine Kill Date	May 12, 2025
Harvest Date	May 19, 2025
Season Length	88 days planting to vine kill
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	3 (Standard: Little Ruby)
Number of Clones	17
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1
Plot Size	5 ft 4 in (1.6 m)

Production Statistics

Early Vigor Ratings	40 DAP
Highest Total Yield	AF7682-2 (748 cwt/A or 83.9 T/ha)
Highest Marketable Yield	AF7682-2 (604 cwt/A or 67.7 T/ha)
Best Appearance Rating	2: AF7672-3, AF7689-1, AF7695-7, NDAF20198-2, Peter Wilcox, Soraya (8, very good)

Table 18. Production statistics for the 2025 University of Maine Early Generation Red and Specialty Fresh Market Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–88 days											
AF7672-2	586	269	91	54	44	2	0	0	46	2	1.056
AF7672-3	722	574	195	20	31	49	0	0	80	49	1.053
AF7674-2	529	404	137	24	58	18	0	0	76	18	1.052
AF7675-6	456	347	117	24	41	35	0	0	76	35	1.055
AF7677-3	572	407	138	26	48	26	0	0	74	26	1.063
AF7679-1	649	168	57	74	22	4	0	0	26	4	1.063
AF7679-4	448	360	122	17	36	47	0	0	83	47	1.053
AF7682-2	748	604	204	15	24	62	0	0	85	62	1.054
AF7682-5	666	528	179	17	41	42	0	0	83	42	1.059
AF7683-4	379	326	110	5	24	71	0	0	95	71	1.059
AF7684-2	535	382	129	24	39	37	0	0	76	37	1.052
AF7689-1	673	568	193	14	39	47	0	0	86	47	1.059
AF7694-8	588	443	150	24	41	35	0	0	76	35	1.059
AF7695-7	724	593	201	15	35	50	0	0	85	50	1.054
AF7789-1	406	357	121	12	34	54	0	0	88	54	1.065
AF7696-2	569	508	172	5	29	66	0	0	95	66	1.057
NDAF20198-2	528	330	112	38	43	19	0	0	62	19	1.061
Peter Wilcox (B1816-5)	590	339	115	42	36	22	0	0	58	22	1.066
Little Ruby (B2152-17)	507	295	100	42	55	4	0	0	58	4	1.065
Soraya	691	557	189	16	40	44	0	0	84	44	1.053

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 19. Plant growth and tuber characteristics for the 2025 University of Maine Early Generation Red and Specialty Fresh Market Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7672-2	88	8	6	6	1	3	8	4	7	7	1
AF7672-3	100	6	9	6	9	1	7	3	7	8	1
AF7674-2	88	6	9	7	1	3	7	3	9	7	1
AF7675-6	88	7	9	7	1	3	7	2	7	6	1
AF7677-3	63	8	9	7	6	3	8	3	7	6	1
AF7679-1	88	9	6	6	1	3	8	3	8	6	2
AF7679-4	88	5	9	8	9	1	7	2	7	6	1
AF7682-2	100	6	9	8	1	3	8	3	8	6	1
AF7682-5	100	7	9	7	1	2	8	3	8	7	2
AF7683-4	100	5	9	7	2	2	7	2	8	7	3
AF7684-2	88	8	9	7	1	2	8	3	8	7	1
AF7689-1	100	7	9	6	2	2	8	2	7	8	1
AF7694-8	100	8	6	4	2	2	8	2	7	6	1
AF7695-7	88	8	9	6	1	6	7	3	8	8	1
AF7789-1	75	4	9	8	1	6	7	2	8	7	1
AF7696-2	100	5	9	7	9	1	8	3	7	7	1
NDAF20198-2	100	8	6	5	4	9	8	2	8	8	1
Peter Wilcox (B1816-5)	100	9	9	5	4	1	8	2	8	8	1
Little Ruby (B2152-17)	100	8	9	3	3	2	8	3	8	7	-
Soraya	100	7	9	8	5	9	8	3	7	8	1

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 8 for 5.33 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 20. External and internal defects for the 2025 University of Maine Early Generation Red and Specialty Fresh Market Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7672-2	0	0	0	0	0
AF7672-3	0	0	0	0	0
AF7674-2	0	0	0	0	0
AF7675-6	0	0	0	0	0
AF7677-3	3	0	0	0	0
AF7679-1	0	0	0	0	0
AF7679-4	3	0	0	0	0
AF7682-2	6	0	0	0	0
AF7682-5	4	0	0	0	10
AF7683-4	10	0	0	10	40
AF7684-2	6	0	0	0	0
AF7689-1	2	0	0	0	0
AF7694-8	1	0	0	0	0
AF7695-7	4	0	0	0	0
AF7789-1	0	0	0	0	0
AF7696-2	6	0	0	0	0
NDAF20198-2	0	0	0	0	0
Peter Wilcox (B1816-5)	0	0	0	0	0
Little Ruby (B2152-17)	0	0	0	0	0
Soraya	4	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 5. University of Maine Early Generation Round White Potato Variety Trials

General Comments

The University of Maine early generation round white trial gives us an opportunity to look at these newest breeding clones for the first time. This trial only evaluated round white clones. The entries were chip market class.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 4, 2025
Vine Kill Date	N/A
Harvest Date	May 15, 2025
Season Length	100 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	3 (Standard: Atlantic)
Number of Clones	66
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1
Plot Size	5 ft 4 in (1.6 m)

Production Statistics

Early Vigor Ratings	42 DAP
Highest Total Yield	AF7765-1 (797 cwt/A or 89.3 T/ha)
Highest Marketable Yield	AF7765-1 (612 cwt/A or 68.6 T/ha)
Best Appearance Rating	AF7655-1, AF7658-1, AF7771-1, AF7771-2, AF7777-1, AF7777-2, AF7783-3, NDAF20187-3, Atlantic (8, very good)

Table 21. Production statistics for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–100 days											
AF7638-9	542	446	163	12	36	52	0	0	88	52	1.074
AF7641-1	467	290	106	34	40	26	0	0	66	26	1.074
AF7641-4	575	444	162	17	39	44	0	0	83	44	1.070
AF7641-5	499	390	143	14	20	66	0	0	86	66	1.083
AF7641-10	348	273	100	14	29	58	0	0	86	58	1.073
AF7644-3	458	337	123	9	34	51	6	0	91	57	1.071
AF7644-4	606	391	143	21	39	40	0	0	79	40	1.075
AF7644-5	436	339	124	20	22	57	0	0	80	57	1.080
AF7644-12	465	304	111	19	19	63	0	0	81	63	1.079
AF7648-2	438	320	117	13	15	72	0	0	87	72	1.083
AF7648-7	527	457	167	6	27	67	0	0	94	67	1.077
AF7648-10	415	327	120	17	44	39	0	0	83	39	1.087
AF7648-11	426	315	115	21	34	45	0	0	79	45	1.074
AF7648-12	395	251	92	12	25	63	0	0	88	63	1.067
AF7649-1	548	379	139	20	45	35	0	0	80	35	1.081
AF7650-4	382	265	97	26	46	28	0	0	74	28	1.069
AF7650-5	311	237	87	9	38	54	0	0	91	54	1.071
AF7652-3	331	232	85	24	53	23	0	0	76	23	1.066
AF7655-1	380	253	93	26	53	22	0	0	74	22	1.084
AF7656-1	333	229	84	25	46	29	0	0	75	29	1.081
AF7656-5	464	310	114	26	13	61	0	0	74	61	1.070
AF7657-4	394	296	108	15	27	58	0	0	85	58	1.076
AF7657-5	249	207	76	17	38	45	0	0	83	45	1.082
AF7657-7	615	523	191	12	45	43	0	0	88	43	.
AF7658-1	375	253	93	32	37	31	0	0	68	31	1.077
AF7658-5	612	477	175	14	17	69	0	0	86	69	1.066
AF7658-6	388	317	116	11	26	63	0	0	89	63	1.069
AF7661-2	333	294	108	1	9	90	0	0	99	90	1.063
AF7663-3	219	168	62	15	52	33	0	0	85	33	1.084
AF7665-1	327	282	103	11	24	66	0	0	89	66	1.070

Table 21 (cont'd). Production statistics for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF7669-3	417	354	130	9	32	59	0	0	91	59	1.066
AF7762-2	617	510	187	13	29	57	0	0	87	57	1.075
AF7762-3	339	167	61	45	39	16	0	0	55	16	1.076
AF7762-4	483	347	127	23	23	54	0	0	77	54	1.076
AF7763-2	354	248	91	27	49	24	0	0	73	24	1.074
AF7763-4	423	249	91	39	32	29	0	0	61	29	1.076
AF7763-7	439	296	108	28	27	46	0	0	72	46	1.074
AF7764-3	551	464	170	10	30	60	0	0	90	60	1.073
AF7765-1	797	612	224	20	19	61	0	0	80	61	1.077
AF7766-2	515	411	150	17	38	45	0	0	83	45	1.079
AF7766-3	459	364	133	14	14	72	0	0	86	72	1.071
AF7766-5	464	244	89	47	43	10	0	0	53	10	1.071
AF7767-2	453	376	138	15	45	40	0	0	85	40	1.076
AF7768-1	433	316	116	26	23	52	0	0	74	52	1.088
AF7768-3	640	505	185	20	30	50	0	0	80	50	1.073
AF7768-7	194	109	40	36	18	46	0	0	64	46	1.064
AF7771-1	293	249	91	15	30	55	0	0	85	55	1.074
AF7771-2	238	205	75	9	17	73	0	0	91	73	1.057
AF7772-1	425	362	132	4	12	84	0	0	96	84	1.064
AF7773-1	361	250	91	24	38	38	0	0	76	38	1.066
AF7773-2	318	246	90	16	39	45	0	0	84	45	1.074
AF7777-1	491	352	129	26	48	26	0	0	74	26	1.071
AF7777-2	467	335	123	22	36	42	0	0	78	42	1.072
AF7781-2	533	377	138	24	39	37	0	0	76	37	1.069
AF7782-6	456	280	103	38	42	20	0	0	62	20	1.066
AF7783-2	356	267	98	12	15	73	0	0	88	73	1.074
AF7783-3	362	218	80	36	50	14	0	0	64	14	1.073
AF7783-4	418	334	122	9	18	74	0	0	91	74	1.068
AF7785-1	665	575	211	8	19	69	4	0	92	73	1.071
AF7788-2	419	310	114	17	42	41	0	0	83	41	1.075

Table 21 (cont'd). Production statistics for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF7774-2	511	325	119	35	34	31	0	0	65	31	1.077
AF7774-3	562	435	159	19	20	61	0	0	81	61	1.071
NDAF20187-3	334	178	65	40	33	27	0	0	60	27	1.080
NDAF20191-2	518	389	142	21	38	40	0	0	79	40	1.072
NDAF20191-6	522	463	169	9	22	69	0	0	91	69	1.068
NDAF20209-2	307	185	68	33	66	2	0	0	68	2	1.076
Atlantic	396	273	100	26	43	31	0	0	74	31	1.081
Harley Blackwell (B0564-8)	481	385	141	15	9	76	0	0	85	76	1.078
Snowden	599	517	189	8	46	46	0	0	92	46	1.079

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 22. Plant growth and tuber characteristics for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7638-9	100	6	9	9	1	9	8	3	7	7	1
AF7641-1	100	5	9	8	1	8	8	3	9	4	1
AF7641-4	100	5	9	9	1	6	8	2	7	6	1
AF7641-5	100	8	9	7	1	9	8	3	6	6	1
AF7641-10	100	4	9	9	1	6	8	3	8	5	1
AF7644-3	100	9	9	7	1	9	8	3	7	6	2
AF7644-4	100	7	9	7	1	6	7	1	8	7	2
AF7644-5	100	5	9	8	1	8	8	1	8	7	1
AF7644-12	100	7	9	8	.	.	.	.	.	.	3
AF7648-2	100	5	9	9	1	6	8	3	8	6	2
AF7648-7	100	6	9	9	1	6	7	3	7	7	1
AF7648-10	100	6	9	7	1	8	8	2	9	6	1
AF7648-11	88	5	9	9	1	6	7	3	7	6	1
AF7648-12	100	5	9	9	1	6	7	3	8	5	2
AF7649-1	100	7	9	9	1	6	7	3	7	6	2
AF7650-4	100	4	9	8	1	6	7	3	9	6	1
AF7650-5	75	4	9	9	1	7	7	1	9	4	2
AF7652-3	100	4	9	9	1	6	7	3	8	6	1
AF7655-1	100	8	6	7	1	6	8	3	9	8	2
AF7656-1	100	6	9	7	1	7	8	2	8	7	2
AF7656-5	100	5	9	8	1	6	7	3	8	7	2
AF7657-4	100	5	9	8	1	9	8	2	7	6	2
AF7657-5	88	4	9	8	1	8	8	1	8	7	2
AF7657-7	100	9	6	7	1	8	8	3	7	6	2
AF7658-1	88	9	6	7	1	6	7	1	8	8	1
AF7658-5	88	8	9	7	1	6	7	2	7	5	1
AF7658-6	63	7	9	9	1	6	7	1	9	7	1
AF7661-2	100	2	9	9	1	7	8	2	8	6	2
AF7663-3	75	2	9	9	1	6	7	2	7	6	3
AF7665-1	88	7	9	9	1	6	7	2	8	7	1

Table 22 (cont'd). Plant growth and tuber characteristics for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7669-3	100	5	9	8	1	8	7	3	8	6	1
AF7762-2	88	8	9	8	1	6	7	2	7	7	1
AF7762-3	88	8	9	7	1	6	7	3	9	6	3
AF7762-4	100	7	9	8	1	6	7	2	7	6	1
AF7763-2	88	5	9	9	1	6	7	3	9	6	1
AF7763-4	100	8	9	8	1	6	7	2	7	6	3
AF7763-7	100	5	9	9	2	6	7	2	8	6	3
AF7764-3	100	8	9	8	1	6	7	3	8	7	1
AF7765-1	100	7	9	8	1	6	7	3	9	7	1
AF7766-2	100	7	9	9	1	6	8	2	7	6	1
AF7766-3	88	6	9	8	1	6	7	3	9	6	1
AF7766-5	100	6	9	8	6	6	7	3	8	7	1
AF7767-2	100	4	9	9	5	6	7	2	8	7	1
AF7768-1	100	7	9	8	1	9	8	2	6	6	1
AF7768-3	100	5	9	9	1	9	8	2	7	6	1
AF7768-7	88	6	9	6	1	7	7	1	6	4	3
AF7771-1	100	6	9	8	1	8	8	1	8	8	1
AF7771-2	88	6	9	8	1	7	7	3	8	8	2
AF7772-1	88	7	9	9	1	6	7	2	7	6	2
AF7773-1	88	5	9	9	1	6	7	3	8	6	1
AF7773-2	100	5	9	9	1	6	7	2	7	6	1
AF7777-1	100	7	9	9	1	9	7	3	8	8	1
AF7777-2	100	5	9	9	1	6	7	1	9	8	1
AF7781-2	88	7	9	9	1	6	7	2	9	6	3
AF7782-6	88	8	6	7	1	6	7	2	7	7	1
AF7783-2	75	7	9	8	1	7	8	2	9	7	2
AF7783-3	100	7	9	8	1	9	8	3	8	8	2
AF7783-4	63	6	9	9	1	6	8	2	8	6	2
AF7785-1	100	9	6	8	3	7	7	3	8	6	3
AF7788-2	63	8	9	9	1	6	7	3	9	5	2

Table 22 (cont'd). Plant growth and tuber characteristics for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7774-2	100	8	9	8	1	7	7	2	9	6	1
AF7774-3	100	8	9	8	1	9	7	2	7	7	1
NDAF20187-3	75	8	6	7	2	9	9	2	9	8	3
NDAF20191-2	88	6	9	8	1	8	8	1	8	6	1
NDAF20191-6	88	6	9	8	1	8	8	2	9	6	1
NDAF20209-2	100	4	9	9	1	6	7	2	7	7	3
Atlantic	88	7	9	7	1	8	8	3	9	8	-
Harley Blackwell (B0564-8)	88	9	9	7	1	7	7	3	8	6	1
Snowden	88	9	9	7	1	6	7	1	7	7	1

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 8 for 5.33 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 23. External and internal defects for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7638-9	7	0	0	0	0
AF7641-1	7	0	0	0	0
AF7641-4	7	0	0	0	0
AF7641-5	9	0	0	0	0
AF7641-10	9	0	0	0	0
AF7644-3	19	0	0	0	0
AF7644-4	18	0	0	0	0
AF7644-5	2	0	0	0	0
AF7644-12	20	0	0	10	0
AF7648-2	16	0	0	0	0
AF7648-7	8	0	0	0	0
AF7648-10	4	0	0	0	0
AF7648-11	6	0	0	0	0
AF7648-12	28	0	0	0	0
AF7649-1	14	0	0	0	0
AF7650-4	6	0	0	0	0
AF7650-5	16	0	0	0	0
AF7652-3	7	0	0	0	0
AF7655-1	10	0	0	0	0
AF7656-1	8	0	0	0	0
AF7656-5	10	0	0	0	0
AF7657-4	12	0	0	0	0
AF7657-5	0	0	0	0	0
AF7657-7	3	10	0	0	0
AF7658-1	0	0	0	0	0
AF7658-5	9	0	0	0	0
AF7658-6	8	0	0	0	0
AF7661-2	11	0	0	0	0
AF7663-3	10	0	0	0	0
AF7665-1	3	0	0	0	0

Table 23 (cont'd). External and internal defects for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7669-3	6	0	0	0	0
AF7762-2	5	0	0	0	0
AF7762-3	11	0	0	0	0
AF7762-4	6	0	0	0	0
AF7763-2	5	0	0	0	0
AF7763-4	3	0	0	10	0
AF7763-7	7	0	0	10	0
AF7764-3	6	0	0	0	0
AF7765-1	4	0	0	0	0
AF7766-2	4	0	0	0	0
AF7766-3	7	0	0	0	0
AF7766-5	0	0	0	0	0
AF7767-2	3	0	0	0	0
AF7768-1	2	0	0	0	0
AF7768-3	2	0	0	0	0
AF7768-7	12	0	0	0	0
AF7771-1	0	0	0	0	0
AF7771-2	5	0	0	0	0
AF7772-1	11	0	0	0	0
AF7773-1	9	0	0	0	0
AF7773-2	7	0	0	0	0
AF7777-1	3	0	0	0	0
AF7777-2	8	0	0	0	0
AF7781-2	7	0	0	20	0
AF7782-6	2	0	0	0	0
AF7783-2	14	0	0	0	0
AF7783-3	6	0	0	0	0
AF7783-4	12	0	0	0	0
AF7785-1	6	0	0	30	0
AF7788-2	10	0	0	0	0

Table 23 (cont'd). External and internal defects for the 2025 University of Maine Early Generation Round White Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7774-2	2	0	0	0	0
AF7774-3	4	0	0	0	0
NDAF20187-3	11	0	0	0	0
NDAF20191-2	5	0	0	0	0
NDAF20191-6	3	0	0	0	0
NDAF20209-2	11	0	0	0	0
Atlantic	7	0	0	0	0
Harley Blackwell (B0564-8)	5	0	0	0	0
Snowden	6	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 6. University of Maine Early Line Potato Variety Trials

General Comments

A goal of the University of Maine early line trial is to continue gathering data on early line potato selections for potential Florida production. The entries were split by market class into 3 trials: 1: chip, 2: fresh, 3: russet.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	1: February 4, 2025, 2: February 13, 2025, 3: February 11, 2025
Vine Kill Date	1: N/A, 2: May 12, 2025, 3: N/A
Harvest Date	1: May 13, 2025, 2: May 19, 2025, 3: May 27, 2025
Season Length	1: 98 days planting to harvest, 2: 88 days planting to vine kill, 3: 105 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	1: 1 (Standard: Atlantic), 2: 1 (Standard: Little Ruby), 3: 1 (Standard: Russet Rural)
Number of Clones	1: 37, 2: 9, 3: 9
Within Row Spacing	1, 2: 8 in (20.3 cm), 3: 10 in (25.4 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1
Plot Size	1: 10 ft (3.1 m), 2: 16 ft (4.9 m), 3: 12.5 ft (3.8 m)

Production Statistics

Early Vigor Ratings	1: 42 DAP, 2: 40 DAP, 3: 41 DAP
Highest Total Yield	1: AF7497-5 (426 cwt/A or 47.8 T/ha), 2: AF7491-6 (618 cwt/A or 69.3 T/ha), 3: AF7393-3 (298 cwt/A or 33.4 T/ha)
Highest Marketable Yield	1: AF7516-13 (297 cwt/A or 33.3 T/ha), 2: AF7491-6 (529 cwt/A or 59.3 T/ha), 3: AF7393-3 (110 cwt/A or 12.3 T/ha)
Best Appearance Rating	1: AF7471-1, AF7486-8, AF7499-3, AF7508-1, AF7520-2, AF7520-3, Atlantic (8, very good), 2: AF7544-2, AF7545-9, AF7569-1 (8, very good), 3: AF7373-5, AF7378-3, AF7379-5, AF7379-8, AF7393-3, AF7429-2 (6, very fair)

Table 24. Production statistics for the 2025 University of Maine Early Line Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–98 days											
AF7471-1	235	173	63	12	22	66	0	0	88	66	1.068
AF7474-5	366	192	70	45	29	26	0	0	55	26	1.073
AF7477-5	224	141	52	18	20	61	0	0	82	61	1.082
AF7479-2	243	154	56	23	39	38	0	0	77	38	1.072
AF7484-2	292	184	67	25	35	40	0	0	75	40	1.073
AF7484-3	306	214	78	13	37	50	0	0	87	50	1.068
AF7486-1	335	189	69	35	44	22	0	0	65	22	1.067
AF7486-6	374	268	98	20	24	56	0	0	80	56	1.069
AF7486-8	200	129	47	18	25	58	0	0	82	58	1.065
AF7488-3	269	204	75	20	43	37	0	0	80	37	1.067
AF7494-5	326	179	65	39	29	32	0	0	61	32	1.072
AF7495-3	254	105	38	52	34	13	0	0	48	13	1.081
AF7497-5	426	272	100	16	30	54	0	0	84	54	1.066
AF7499-3	262	176	64	26	45	29	0	0	74	29	1.071
AF7499-8	298	134	49	52	34	14	0	0	48	14	1.077
AF7501-9	268	187	68	21	47	32	0	0	79	32	1.069
AF7503-5	342	207	76	34	45	21	0	0	66	21	1.077
AF7504-2	216	102	37	49	20	31	0	0	51	31	1.078
AF7507-4	296	162	59	40	44	16	0	0	60	16	1.081
AF7508-1	282	99	36	57	34	8	0	0	43	8	1.065
AF7508-3	174	68	25	51	15	34	0	0	49	34	1.076
AF7511-3	250	122	44	44	20	36	0	0	56	36	1.078
AF7511-4	264	172	63	27	35	39	0	0	73	39	1.070
AF7512-4	170	90	33	41	48	11	0	0	59	11	1.078
AF7515-1	370	273	100	19	29	52	0	0	81	52	1.072
AF7516-4	394	291	107	18	46	36	0	0	82	36	1.076
AF7516-11	229	120	44	29	29	41	0	0	71	41	1.073
AF7516-13	404	297	109	18	19	63	0	0	82	63	1.074
AF7518-1	310	156	57	48	38	14	0	0	52	14	1.076
AF7520-2	183	74	27	55	33	12	0	0	45	12	1.077

Table 24 (cont'd). Production statistics for the 2025 University of Maine Early Line Chip Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF7520-3	346	240	88	21	18	61	0	0	79	61	1.078
AF7520-7	279	209	76	16	42	42	0	0	84	42	1.075
AF7520-11	233	129	47	35	38	27	0	0	65	27	1.077
AF7521-2	163	94	34	34	41	26	0	0	66	26	1.072
AAF20623-1	262	158	58	22	41	37	0	0	78	37	1.065
AF7492-1	323	165	60	41	45	14	0	0	59	14	1.078
AF7492-3	198	106	39	41	35	24	0	0	59	24	1.073
Atlantic	396	273	100	26	43	31	0	0	74	31	1.081

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 25. Production statistics for the 2025 University of Maine Early Line Fresh Market Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–88 days											
AF7491-6	618	529	179	13	29	58	0	0	87	58	1.074
AF7519-2	444	289	98	34	41	26	0	0	66	26	1.078
AF7534-5	537	402	136	23	50	27	0	0	77	27	1.052
AF7544-2	607	323	110	45	38	17	0	0	55	17	1.050
AF7545-9	529	287	97	44	45	10	0	0	56	10	1.053
AF7573-5	477	221	75	53	40	7	0	0	47	7	1.056
AF7575-3	528	360	122	30	46	24	0	0	70	24	1.051
AF7576-3	490	286	97	40	35	25	0	0	60	25	1.062
AF7569-1	431	263	89	38	38	24	0	0	62	24	1.060
Little Ruby (B2152-17)	507	295	100	42	55	4	0	0	58	4	1.065

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 26. Production statistics for the 2025 University of Maine Early Line Russet Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–105 days											
AF7373-5	219	78	166	60	28	11	0	0	40	11	1.064
AF7378-3	236	76	163	64	30	6	0	0	36	6	1.065
AF7379-5	194	52	113	61	26	13	0	0	39	13	1.067
AF7379-8	210	47	100	75	16	10	0	0	25	10	1.056
AF7393-3	298	110	235	57	34	8	0	0	43	8	1.065
AF7429-2	237	71	152	60	30	10	0	0	40	10	1.065
AF7435-6	132	62	134	47	29	24	0	0	53	24	1.035
AF7440-4	178	51	110	68	12	20	0	0	32	20	1.055
AF7468-1	230	49	105	75	16	9	0	0	25	9	1.067
Russet Rural	158	47	100	59	22	18	0	0	41	18	1.067

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 27. Plant growth and tuber characteristics for the 2025 University of Maine Early Line Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7471-1	87	7	9	9	1	6	8	2	7	8	3
AF7474-5	100	8	9	8	1	6	8	2	8	7	2
AF7477-5	80	7	9	8	1	9	8	2	7	7	4
AF7479-2	100	7	9	7	2	9	8	2	8	7	3
AF7484-2	100	8	9	8	1	6	7	2	8	7	3
AF7484-3	100	4	9	9	1	6	7	3	7	6	3
AF7486-1	100	8	9	8	1	6	7	2	7	7	3
AF7486-6	100	7	9	8	1	6	7	2	8	7	3
AF7486-8	100	6	9	8	1	6	7	3	7	8	4
AF7488-3	100	7	9	8	1	6	7	2	8	7	2
AF7494-5	100	9	9	7	2	9	8	3	8	6	4
AF7495-3	100	6	9	8	1	9	7	3	7	7	3
AF7497-5	100	6	9	8	1	6	8	2	7	7	2
AF7499-3	100	8	9	5	1	6	8	2	8	8	3
AF7499-8	93	8	9	6	1	6	8	2	8	7	4
AF7501-9	93	6	9	8	1	6	9	2	8	7	3
AF7503-5	100	6	9	8	1	6	8	2	8	7	2
AF7504-2	100	6	9	8	2	6	8	2	7	7	3
AF7507-4	100	6	9	9	1	9	8	2	7	7	2
AF7508-1	100	4	9	9	1	6	7	2	8	8	3
AF7508-3	100	9	9	7	2	6	8	2	7	7	4
AF7511-3	100	7	9	7	1	6	7	2	8	7	3
AF7511-4	100	7	9	7	1	9	8	2	9	7	3
AF7512-4	100	9	6	7	1	9	7	3	8	7	3
AF7515-1	100	5	9	8	1	9	8	2	7	7	1
AF7516-4	100	5	9	9	1	6	7	3	7	7	2
AF7516-11	93	4	9	9	1	9	8	2	7	5	4
AF7516-13	93	8	9	8	1	6	8	2	7	7	2
AF7518-1	73	5	9	9	1	6	8	2	8	7	2
AF7520-2	100	8	6	7	1	9	7	2	8	8	3

Table 27 (cont'd). Plant growth and tuber characteristics for the 2025 University of Maine Early Line Chip Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7520-3	100	7	9	8	1	6	8	2	8	8	2
AF7520-7	100	5	9	9	1	6	8	3	8	7	2
AF7520-11	93	7	9	7	1	6	8	2	7	7	3
AF7521-2	100	4	9	9	1	9	8	3	9	7	3
AAF20623-1	100	4	9	9	1	9	8	2	7	7	3
AF7492-1	100	5	9	8	1	6	7	3	7	7	3
AF7492-3	93	5	9	8	1	6	8	3	7	7	3
Atlantic	88	7	9	7	1	8	8	3	9	8	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 16 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 28. Plant growth and tuber characteristics for the 2025 University of Maine Early Line Fresh Market Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7491-6	100	7	9	6	1	9	7	2	7	6	1
AF7519-2	100	9	6	7	4	9	8	2	8	6	2
AF7534-5	100	9	6	3	1	3	8	2	8	7	3
AF7544-2	100	9	6	4	1	3	8	4	8	8	1
AF7545-9	100	9	6	4	1	2	9	3	8	8	1
AF7573-5	100	8	9	3	1	2	8	3	7	7	2
AF7575-3	100	8	9	4	1	3	8	3	8	7	1
AF7576-3	100	9	6	4	1	3	8	3	8	6	1
AF7569-1	100	9	9	5	1	3	9	2	8	8	1
Little Ruby (B2152-17)	100	8	9	3	3	2	8	3	8	7	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 16 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 29. Plant growth and tuber characteristics for the 2025 University of Maine Early Line Russet Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7373-5	100	5	9	7	1	5	4	3	7	6	2
AF7378-3	100	7	9	5	1	6	6	3	7	6	2
AF7379-5	100	5	9	8	1	5	6	3	8	6	3
AF7379-8	100	5	9	8	1	5	4	3	9	6	3
AF7393-3	100	6	9	8	1	6	7	3	8	6	2
AF7429-2	100	6	9	7	1	9	7	3	7	6	3
AF7435-6	73	4	9	8	1	6	6	3	7	4	2
AF7440-4	100	4	9	9	1	5	3	3	7	4	3
AF7468-1	100	5	9	8	2	5	3	3	7	5	2
Russet Rural	53	5	9	9	1	5	4	3	7	5	-

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 15 for 12.5 ft plot, 10 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.
Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 30. External and internal defects for the 2025 University of Maine Early Line Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7471-1	16	0	0	0	0
AF7474-5	5	0	0	0	0
AF7477-5	23	0	0	0	0
AF7479-2	18	0	0	0	0
AF7484-2	16	0	0	0	0
AF7484-3	20	0	0	0	0
AF7486-1	13	0	0	0	0
AF7486-6	11	0	0	10	0
AF7486-8	22	0	0	0	0
AF7488-3	5	0	0	0	0
AF7494-5	10	0	0	10	0
AF7495-3	13	0	0	0	0
AF7497-5	24	0	0	0	0
AF7499-3	10	0	0	0	0
AF7499-8	6	0	0	10	0
AF7501-9	12	0	0	0	0
AF7503-5	8	0	0	0	0
AF7504-2	7	0	0	0	0
AF7507-4	9	0	0	0	0
AF7508-1	18	0	0	0	0
AF7508-3	20	0	0	0	0
AF7511-3	13	0	0	0	0
AF7511-4	11	0	0	0	0
AF7512-4	10	0	0	0	0
AF7515-1	9	0	0	0	0
AF7516-4	10	0	0	0	0
AF7516-11	26	0	0	0	0
AF7516-13	10	0	0	0	0
AF7518-1	3	0	0	0	0
AF7520-2	10	0	0	0	0

Table 30 (cont'd). External and internal defects for the 2025 University of Maine Early Line Chip Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7520-3	12	0	0	0	0
AF7520-7	11	0	0	0	0
AF7520-11	14	0	0	0	0
AF7521-2	13	0	0	0	0
AAF20623-1	22	0	0	0	0
AF7492-1	14	0	0	0	0
AF7492-3	9	0	0	0	0
Atlantic	7	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Table 31. External and internal defects for the 2025 University of Maine Early Line Fresh Market Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7491-6	2	0	0	0	0
AF7519-2	2	10	0	0	0
AF7534-5	3	0	0	10	0
AF7544-2	4	0	0	0	0
AF7545-9	2	0	0	0	0
AF7573-5	2	0	0	0	0
AF7575-3	2	0	0	0	0
AF7576-3	3	0	0	0	0
AF7569-1	1	0	0	0	0
Little Ruby (B2152-17)	0	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Table 32. External and internal defects for the 2025 University of Maine Early Line Russet Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7373-5	11	0	0	0	0
AF7378-3	10	0	0	0	0
AF7379-5	31	0	0	0	0
AF7379-8	12	0	0	11	0
AF7393-3	14	0	0	0	0
AF7429-2	25	0	0	10	0
AF7435-6	11	0	0	0	0
AF7440-4	10	0	0	30	0
AF7468-1	14	0	0	0	0
Russet Rural	27	0	0	0	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 7. Potatoes USA National Chip Processing Trial

General Comments

In the past, many selections from breeding programs may have been eliminated before they 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 perform the best at multiple locations are then compared and kept for further evaluation. This trial is supported by Potatoes USA, formerly the United States Potato Board.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 5, 2025
Vine Kill Date	N/A
Harvest Date	May 13, 2025
Season Length	97 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	3 (Standard: Atlantic)
Number of Clones	147
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1 replication for Tier 1 & 2 replications for Tier 2
Plot Size	10 ft (3.1 m)

Production Statistics

Early Vigor Ratings	42 DAP
Highest Total Yield	AOR20624-1 (572 cwt/A or 64.1 T/ha)
Highest Marketable Yield	NYORX28-2 (463 cwt/A or 51.9 T/ha)
Highest Specific Gravity	NYORX28-2 (1.093)

Table 33. Production statistics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–97 days											
Atlantic	397	332	100	13	31	56	0	0	87	56	1.078
Lamoka	368	277	83	18	49	33	0	0	82	33	1.075
Snowden	398	297	89	23	33	41	2	0	77	43	1.074
Tier 1 = 1 rep											
AC16149-1W	326	199	60	31	31	38	0	0	69	38	1.079
A20614-1Cadg	458	399	120	6	13	65	17	0	94	82	1.070
A20614-4Cadg	353	203	61	42	36	22	0	0	58	22	1.069
A20614-5C	435	341	103	11	23	66	0	0	89	66	1.073
A20614-6C	407	307	92	17	27	51	5	0	83	56	1.067
A20614-10Cadg	158	96	29	28	11	61	0	0	72	61	1.063
A20624-13C	448	313	94	23	41	36	0	0	77	36	1.065
AFA7523-1Cadg	451	271	82	34	42	23	0	0	66	23	1.080
COA17197-3adg	392	300	90	20	32	46	2	0	80	48	1.060
NDA1849-4C	163	56	17	63	35	2	0	0	37	2	1.062
AF7114-12	507	401	121	18	43	39	0	0	82	39	1.077
AF7114-15	399	189	57	52	28	20	0	0	48	20	1.073
AF7131-2	492	375	113	14	38	47	0	0	86	47	1.079
AF7149-2	431	340	102	16	25	59	0	0	84	59	1.073
AF7159-2	458	356	107	21	35	44	0	0	79	44	1.080
AF7268-1	253	176	53	18	45	37	0	0	82	37	1.072
AF7277-2	316	235	71	21	45	34	0	0	79	34	1.064
AF7290-6	411	291	88	16	41	43	0	0	84	43	1.077
AF7295-1	381	151	46	57	25	18	0	0	43	18	1.068
AF7296-4	464	330	99	17	27	55	0	0	83	55	1.067
AF7298-1	439	231	69	44	32	23	0	0	56	23	1.072
AF7302-6	479	338	102	23	37	40	0	0	77	40	1.066
AF7333-7	411	329	99	15	30	55	0	0	85	55	1.076
AF7338-1	437	377	113	11	37	52	0	0	89	52	1.075
NDAF17137-5	355	192	58	45	28	27	0	0	55	27	1.069

Table 33 (cont'd). Production statistics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B21NC1188-1	324	203	61	32	44	24	0	0	68	24	1.068
B21NC1201-3	384	290	87	22	53	26	0	0	78	26	1.068
B3508-2	356	200	60	41	35	24	0	0	59	24	1.088
B3535-9	349	248	75	15	22	63	0	0	85	63	1.070
B3537-2	392	311	94	16	25	60	0	0	84	60	1.081
MSHH015-5	376	273	82	19	29	53	0	0	81	53	1.075
MSHH068-10	320	203	61	36	37	28	0	0	64	28	1.076
MSHH130-1	327	176	53	43	44	13	0	0	57	13	1.076
MSII075-1	263	151	45	27	35	37	0	0	73	37	1.073
MN21ND1835B-1	259	141	42	31	44	26	0	0	69	26	1.068
MN21ND1835B-39	329	193	58	38	42	20	0	0	62	20	1.077
MN21ND1835B-59	235	141	42	33	54	13	0	0	67	13	1.072
MN21ND1835B-73	258	121	36	53	36	10	0	0	47	10	1.062
MN21ND1835B-76	387	231	69	40	38	22	0	0	60	22	1.066
NC1110-18GS	264	130	39	48	36	16	0	0	52	16	1.082
NC1119-18GS	407	274	82	32	45	24	0	0	68	24	1.075
NC1176-4	295	228	69	11	19	70	0	0	89	70	1.071
NC1187-15	440	325	98	15	33	52	0	0	85	52	1.074
NC1189-22	454	327	99	21	26	52	0	0	79	52	1.066
NC1189-26	155	43	13	72	28	0	0	0	28	0	1.063
NC1190-1	342	183	55	45	26	29	0	0	55	29	1.083
NC1193-20	409	269	81	26	30	42	2	0	74	44	1.076
NC1194-26	284	157	47	38	27	35	0	0	62	35	1.084
NC1195-8	245	101	30	55	30	14	0	0	45	14	1.074
NC1196-14	.	.	.	.	.	.	.	.	.	.	.
NC1197-13	484	410	123	10	29	61	0	0	90	61	1.078
NC1198-10	534	406	122	20	36	44	0	0	80	44	1.068
NC1204-18	350	278	84	17	52	31	0	0	83	31	1.075
NC1205-10	253	156	47	37	45	18	0	0	63	18	1.070
NC1205-16	330	207	62	32	31	37	0	0	68	37	1.076

Table 33 (cont'd). Production statistics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
NC1207-10	421	340	102	12	38	45	4	0	88	50	1.066
ND2099-2	354	294	89	13	33	53	0	0	87	53	1.068
ND20158-2	312	114	34	63	35	2	0	0	37	2	1.074
AOR20596-5	307	228	69	21	36	34	10	0	79	44	1.080
AOR20601-1	402	288	87	24	50	26	0	0	76	26	1.074
AOR20624-1	572	451	136	19	30	52	0	0	81	52	1.073
AOR20639-1	375	256	77	30	27	43	0	0	70	43	1.077
AOR20643-9	442	361	109	9	21	64	6	0	91	70	1.080
AOR20643-11	289	199	60	26	25	49	0	0	74	49	1.079
NYORX28-2	563	463	139	11	20	65	5	0	89	70	1.093
NYORX29-2	376	221	67	32	33	34	0	0	68	34	1.073
NYORX29-5	482	389	117	14	39	46	0	0	86	46	1.072
NYORX29-6	539	367	110	27	38	35	0	0	73	35	1.067
OR201007-7	361	247	74	28	28	44	0	0	72	44	1.052
TX20004-6W/Y	356	168	50	51	16	33	0	0	49	33	1.070
TX20049-2W	164	96	29	21	41	38	0	0	79	38	1.072
TX20815-11W	350	227	68	21	19	60	0	0	79	60	1.070
TX20820-1W	126	42	13	63	18	19	0	0	37	19	1.072
TX21021-1W	292	130	39	51	29	20	0	0	49	20	1.069
TX21028-2W	165	73	22	49	45	6	0	0	51	6	1.067
TX21039-1W	76	47	14	32	4	34	29	0	68	64	1.079
TX21070-1W	121	86	26	29	24	47	0	0	71	47	1.070
TX21077-3W	51	14	4	72	22	6	0	0	28	6	1.072
TX21805-4W	62	34	10	28	35	37	0	0	72	37	1.069
TX21805-5W	68	24	7	37	27	37	0	0	63	37	1.070
W20001-7	341	203	61	38	44	19	0	0	62	19	1.071
W20001-15	392	250	75	31	40	29	0	0	69	29	1.087
W20004-26	357	230	69	30	27	43	0	0	70	43	1.088
W20005-28	333	269	81	15	31	54	0	0	85	54	1.069
W20017-28	476	351	106	12	23	59	6	0	88	65	1.069

Table 33 (cont'd). Production statistics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
W20019-1	433	313	94	22	41	37	0	0	78	37	1.078
W20022-8	330	181	54	44	41	15	0	0	56	15	1.072
W20024-1	502	422	127	10	23	67	0	0	90	67	1.068
W20031-37	348	194	58	42	39	19	0	0	58	19	1.070
W20036-8	392	294	88	22	50	27	0	0	78	27	1.061
W21052-5	396	257	77	30	39	30	0	0	70	30	1.072
W21057-1	379	130	39	63	26	12	0	0	37	12	1.075
W21057-9	403	290	87	25	41	34	0	0	75	34	1.069
W21059-1	452	277	83	35	43	22	0	0	65	22	1.069
W21059-14	472	332	100	22	34	43	0	0	78	43	1.066
W21063-3	302	200	60	29	33	39	0	0	71	39	1.059
W21064-30	460	321	96	28	38	34	0	0	72	34	1.079
W21064-39	514	379	114	20	30	50	0	0	80	50	1.067
W21066-5	274	183	55	26	51	23	0	0	74	23	1.069
W21077-4	357	295	89	12	29	60	0	0	88	60	1.067
W21077-6	496	323	97	32	41	27	0	0	68	27	1.076
W21077-7	393	239	72	35	50	16	0	0	65	16	1.070
MSBB058-1	345	282	85	12	31	57	0	0	88	57	1.075
ND13220C-3	364	212	64	40	56	5	0	0	60	5	1.086
NY174 (NYQ106-4)	405	306	92	11	28	61	0	0	89	61	1.079
NY177 (NYR107-6)	368	238	72	33	56	11	0	0	67	11	1.079
Tier 2 = 2 reps											
AFC6911-2Wadg	333	198	60	38	36	24	2	0	62	25	1.080
A15311-6Ctrv	275	194	58	20	26	54	0	0	80	54	1.072
A16150-1C	347	251	75	24	27	47	2	0	76	49	1.074
AF5933-4	485	379	114	17	26	57	0	0	83	57	1.074
AF6880-9	356	298	90	10	30	60	0	0	90	60	1.080
AF6896-1	379	274	82	20	39	41	0	0	80	41	1.078
AF6911-4	393	284	85	18	27	55	0	0	82	55	1.075
B3296-3	452	297	89	27	28	44	0	0	73	44	1.072

Table 33 (cont'd). Production statistics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
B3403-6	459	280	84	35	30	35	0	0	65	35	1.079
B3471-1	357	161	49	55	35	10	0	0	45	10	1.070
BNC811-15	436	324	97	22	34	44	0	0	78	44	1.082
MSDD244-5	352	247	74	18	32	50	0	0	82	50	1.072
MSDD247-7	278	178	54	26	39	35	0	0	74	35	1.086
MSDD247-11	311	207	62	24	26	50	0	0	76	50	1.085
MSDD376-4	472	368	111	15	27	58	0	0	85	58	1.074
MSFF038-3	359	269	81	13	37	50	0	0	87	50	1.082
MSHH018-3	287	180	54	33	33	34	0	0	67	34	1.079
MSHH018-4	353	183	55	44	41	15	0	0	56	15	1.075
MSHH034-12	455	380	114	13	20	64	3	0	87	67	1.072
MN20AF7174-1	344	291	87	8	19	68	5	0	92	73	1.073
NC821-30	353	235	71	32	37	31	0	0	68	31	1.080
NC1110-15GS	261	154	46	35	35	29	0	0	65	29	1.084
NC1127-30GS	326	122	37	61	29	10	0	0	39	10	1.072
NC1130-2GS	300	190	57	20	39	41	0	0	80	41	1.077
NY175 (NYQ29-2)	323	181	55	37	38	25	0	0	63	25	1.074
NY179 (NYR1-7)	348	257	77	21	40	39	0	0	79	39	1.072
NY180 (NYR107-11)	355	245	74	25	47	28	0	0	75	28	1.076
NY181 (NYS18-4)	300	121	36	56	36	8	0	0	44	8	1.085
NYU15-8	389	269	81	24	32	44	0	0	76	44	1.069
NYU34-3	339	220	66	27	44	28	0	0	73	28	1.076
NYV6-11	386	312	94	14	40	47	0	0	86	47	1.079
NYV119-5	380	268	81	27	43	31	0	0	73	31	1.072
NYV123-1	256	146	44	37	35	28	0	0	63	28	1.068
AOR10902-2	226	47	14	79	19	3	0	0	21	3	1.079
AOR18354-7	473	356	107	16	29	55	0	0	84	55	1.062
COTX19084-2W	202	107	32	31	46	23	0	0	69	23	1.066
NDTX2024-2W	166	24	7	85	11	4	0	0	15	4	1.078
W19023-24	419	308	93	24	32	43	0	0	76	43	1.074

Table 33 (cont'd). Production statistics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
W19027-4	488	413	124	10	20	69	1	0	90	70	1.073
W19027-51	336	263	79	17	40	43	0	0	83	43	1.073
W19031-8	332	240	72	21	41	38	0	0	79	38	1.078

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 34. Plant growth and tuber characteristics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]								
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	SFA Chip Score	SED Score	Merit
Atlantic	95	9	9	7	2	6	7	3	8	7	1.1	0.8	2
Lamoka	90	7	9	8	1	6	8	3	7	6	1.0	0.3	2
Snowden	88	8	9	7	1	6	7	2	7	7	1.0	0.3	2
Tier 1 = 1 rep													
AC16149-1W	80	9	9	7	1	6	8	2	7	6	1.0	0.0	3
A20614-1Cadg	100	7	9	9	1	9	8	2	8	8	1.0	0.0	1
A20614-4Cadg	100	7	9	8	2	6	7	2	8	8	1.0	0.0	3
A20614-5C	80	7	9	7	2	9	8	2	7	7	2.0	2.0	2
A20614-6C	60	7	9	8	1	6	7	2	7	6	1.0	0.0	2
A20614-10Cadg	33	5	9	9	1	6	7	3	8	8	1.5	0.0	4
A20624-13C	93	9	9	8	1	9	8	2	8	5	1.0	1.0	2
AFA7523-1Cadg	87	7	9	7	1	9	9	2	9	7	1.0	1.0	2
COA17197-3adg	73	7	9	7	2	9	8	2	7	7	1.0	3.0	2
NDA1849-4C	87	8	9	6	1	9	8	2	7	4	1.0	0.0	3
AF7114-12	100	8	9	7	1	9	8	2	8	7	1.0	0.0	1
AF7114-15	100	7	9	6	1	8	7	2	7	6	1.0	0.0	3
AF7131-2	80	8	9	7	1	9	7	3	7	7	1.0	0.0	2
AF7149-2	80	8	9	8	2	9	8	2	8	8	1.5	1.0	2
AF7159-2	87	9	9	8	2	6	8	2	7	8	1.0	1.0	2
AF7268-1	100	5	9	8	1	6	7	2	7	5	1.0	0.0	3
AF7277-2	73	4	9	9	1	9	8	2	7	8	1.0	0.0	3
AF7290-6	100	7	9	7	1	9	8	2	7	7	1.0	1.0	3
AF7295-1	93	8	9	7	1	9	7	3	8	8	1.0	1.0	3
AF7296-4	87	8	9	7	1	9	8	2	9	6	1.0	1.0	2
AF7298-1	100	7	9	7	1	6	7	3	8	7	1.0	0.0	3
AF7302-6	80	8	9	8	1	6	8	3	7	7	1.5	1.0	2
AF7333-7	93	7	9	7	1	6	7	3	7	8	1.0	0.0	2
AF7338-1	80	9	9	7	1	9	8	2	7	6	1.0	1.0	2
NDAF17137-5	100	9	6	6	1	9	9	2	8	8	.	.	3

Table 34 (cont'd). Plant growth and tuber characteristics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]								
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	SFA Chip Score	SED Score	Merit
B21NC1188-1	80	6	9	9	1	6	8	2	7	8	1.0	1.0	3
B21NC1201-3	100	9	9	6	2	9	8	3	8	8	1.0	0.0	2
B3508-2	100	9	9	7	1	9	8	2	8	6	1.0	0.0	3
B3535-9	80	9	9	8	2	6	7	3	9	5	1.0	1.0	3
B3537-2	80	7	9	7	1	6	7	3	8	7	1.0	0.0	2
MSHH015-5	93	9	9	7	2	9	8	2	8	5	1.0	0.0	3
MSHH068-10	100	9	9	7	1	9	9	2	8	7	1.0	0.0	3
MSHH130-1	67	9	9	7	1	9	8	3	8	5	1.0	0.0	3
MSII075-1	80	9	9	7	1	6	8	3	8	4	1.0	1.0	4
MN21ND1835B-1	100	7	9	8	3	9	8	3	8	7	1.5	2.0	4
MN21ND1835B-39	107	9	9	7	1	9	9	3	9	6	1.0	0.0	3
MN21ND1835B-59	73	6	9	8	3	9	8	2	8	7	1.0	0.0	3
MN21ND1835B-73	100	7	9	8	3	9	8	3	8	7	1.5	2.0	3
MN21ND1835B-76	100	8	9	8	3	9	8	3	7	7	1.5	0.0	3
NC1110-18GS	80	9	5	6	1	9	8	3	8	7	1.0	0.0	3
NC1119-18GS	100	9	9	8	2	6	8	2	7	7	1.5	0.0	2
NC1176-4	113	7	9	7	1	9	8	3	8	7	1.0	0.0	3
NC1187-15	100	8	6	8	1	6	7	2	7	7	1.5	1.0	2
NC1189-22	93	9	6	7	1	9	8	3	8	8	1.0	0.0	2
NC1189-26	100	7	9	7	1	9	7	3	8	7	1.0	1.0	3
NC1190-1	100	9	9	6	1	9	7	2	7	4	1.0	0.0	3
NC1193-20	100	9	9	7	1	6	7	3	8	5	1.0	0.0	3
NC1194-26	100	7	9	7	1	9	8	3	8	8	1.0	2.0	3
NC1195-8	100	9	9	6	1	9	8	2	8	7	1.5	1.0	3
NC1196-14	100	9	9	6	.	.	.	.	.	.	.	.	.
NC1197-13	73	9	6	7	2	6	8	3	7	6	1.5	0.0	1
NC1198-10	80	8	9	8	1	6	7	3	8	7	1.5	0.0	1
NC1204-18	100	8	9	7	2	6	8	3	8	7	1.0	1.0	2
NC1205-10	100	8	9	5	1	9	8	2	7	7	1.0	0.0	3
NC1205-16	100	8	9	7	2	9	7	2	8	7	1.0	0.0	3

Table 34 (cont'd). Plant growth and tuber characteristics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]								
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	SFA Chip Score	SED Score	Merit
NC1207-10	73	9	9	7	1	6	8	3	6	8	1.0	1.0	2
ND2099-2	100	6	9	7	1	9	9	2	7	7	1.0	0.0	2
ND20158-2	100	7	9	7	2	9	8	2	8	8	1.0	0.0	3
AOR20596-5	100	9	9	6	2	9	8	2	8	8	1.0	0.0	3
AOR20601-1	87	9	6	6	1	9	8	3	8	7	1.0	0.0	2
AOR20624-1	93	9	6	8	1	9	6	3	8	7	1.0	1.0	1
AOR20639-1	100	9	9	7	1	9	8	2	8	6	1.0	1.0	2
AOR20643-9	93	9	6	8	1	9	8	2	5	6	1.0	0.0	2
AOR20643-11	100	7	9	7	1	6	7	3	8	4	1.0	1.0	3
NYORX28-2	87	8	9	8	1	9	7	2	7	6	1.0	0.0	3
NYORX29-2	87	8	9	7	1	6	7	2	7	7	1.0	0.0	3
NYORX29-5	100	8	9	8	2	9	8	3	8	6	1.0	1.0	1
NYORX29-6	100	9	6	7	2	9	8	3	8	7	1.0	1.0	2
OR201007-7	100	9	9	6	1	9	8	2	8	8	1.5	2.0	3
TX20004-6W/Y	100	9	6	4	3	9	8	2	9	6	1.0	0.0	3
TX20049-2W	60	8	9	7	2	6	8	2	7	7	1.5	0.0	4
TX20815-11W	67	8	9	8	2	6	7	2	7	5	1.0	1.0	3
TX20820-1W	53	7	9	6	2	9	8	2	9	7	1.0	0.0	3
TX21021-1W	93	6	9	8	2	6	7	2	8	7	1.0	0.0	3
TX21028-2W	100	6	9	6	1	8	8	2	8	7	1.0	1.0	3
TX21039-1W	13	4	9	8	3	6	7	3	8	6	1.0	0.0	3
TX21070-1W	53	4	9	7	1	6	8	2	8	7	1.0	0.0	3
TX21077-3W	33	5	9	6	1	9	8	2	8	7	1.0	0.0	3
TX21805-4W	67	5	9	7	1	9	8	2	8	6	1.0	0.0	4
TX21805-5W	53	6	9	7	1	9	8	2	8	6	1.0	1.0	4
W20001-7	87	6	9	8	1	6	7	3	7	6	1.0	0.0	3
W20001-15	100	7	9	8	1	9	8	2	8	7	1.0	0.0	2
W20004-26	87	9	9	7	1	9	7	2	8	6	1.0	0.0	3
W20005-28	67	4	9	9	1	9	7	3	7	7	1.0	0.0	2
W20017-28	100	6	9	8	1	6	7	3	9	6	1.5	2.0	2

Table 34 (cont'd). Plant growth and tuber characteristics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]								
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	SFA Chip Score	SED Score	Merit
W20019-1	100	4	9	9	1	6	6	2	8	5	1.0	1.0	2
W20022-8	93	6	9	7	2	6	7	2	9	6	1.0	0.0	3
W20024-1	87	6	9	8	1	6	8	3	7	8	1.0	1.0	1
W20031-37	67	6	9	7	1	6	8	2	7	7	1.0	0.0	3
W20036-8	80	5	9	8	2	6	7	3	8	7	1.0	0.0	2
W21052-5	80	5	9	8	2	6	7	3	8	7	1.0	2.0	2
W21057-1	67	7	9	7	1	9	8	2	8	7	1.0	0.0	3
W21057-9	80	8	9	8	1	9	8	3	7	6	1.0	0.0	2
W21059-1	80	5	9	9	1	6	7	3	8	7	1.0	0.0	2
W21059-14	80	7	9	8	1	6	7	3	7	7	1.0	1.0	2
W21063-3	100	5	9	8	1	9	7	2	7	7	1.0	2.0	3
W21064-30	93	7	9	8	1	6	7	2	8	7	1.0	0.0	2
W21064-39	100	5	9	9	1	6	7	2	8	7	1.0	0.0	2
W21066-5	80	5	9	9	1	6	7	3	8	7	1.0	0.0	3
W21077-4	93	4	9	9	1	9	7	2	8	7	1.0	0.0	3
W21077-6	100	5	9	9	1	9	7	3	8	8	1.0	1.0	2
W21077-7	100	4	9	9	1	6	7	2	7	7	1.0	0.0	3
MSBB058-1	80	5	9	7	1	6	7	3	8	7	1.5	0.0	2
ND13220C-3	100	9	9	6	2	8	8	2	7	7	1.0	1.0	3
NY174 (NYQ106-4)	93	9	9	7	1	9	8	2	8	7	1.0	0.0	3
NY177 (NYR107-6)	93	6	9	7	1	6	8	2	8	8	1.0	0.0	3
Tier 2 = 2 reps													
AFC6911-2Wadg	90	6	9	8	2	8	8	3	6	5	1.0	0.0	3
A15311-6Ctrv	83	7	9	7	2	9	7	3	8	7	1.5	1.0	3
A16150-1C	100	6	9	8	1	8	8	3	8	7	1.0	0.0	2
AF5933-4	87	6	9	8	1	6	8	3	8	7	1.0	0.0	1
AF6880-9	93	6	9	8	1	6	7	3	7	7	1.0	0.0	2
AF6896-1	83	6	9	9	1	6	7	3	8	7	1.5	0.0	2
AF6911-4	87	6	9	9	2	8	8	2	8	8	1.0	0.0	2
B3296-3	97	8	9	8	1	8	8	3	8	7	1.5	2.0	3

Table 34 (cont'd). Plant growth and tuber characteristics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]								
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	SFA Chip Score	SED Score	Merit
B3403-6	100	9	8	7	1	6	7	2	8	7	1.0	0.0	2
B3471-1	100	9	9	7	1	8	8	3	8	8	1.0	0.0	3
BNC811-15	100	7	9	8	1	8	8	3	8	7	1.0	0.0	2
MSDD244-5	87	7	9	8	2	6	7	3	7	7	1.0	1.0	3
MSDD247-7	80	7	9	8	1	6	7	4	8	7	1.0	1.0	3
MSDD247-11	97	7	9	8	1	6	7	2	9	8	1.0	0.0	3
MSDD376-4	100	9	8	7	1	6	7	3	8	6	.	.	2
MSFF038-3	93	6	9	8	2	6	7	3	8	8	1.0	2.0	3
MSHH018-3	83	6	9	8	1	9	8	3	8	6	1.0	0.0	3
MSHH018-4	90	5	9	9	2	9	8	2	7	7	1.0	0.0	3
MSHH034-12	97	9	9	8	1	6	7	2	8	8	1.0	0.0	2
MN20AF7174-1	70	6	9	8	2	8	8	2	8	7	1.0	1.0	2
NC821-30	100	9	9	6	2	8	8	3	8	8	1.0	0.0	2
NC1110-15GS	73	8	9	8	2	9	9	3	7	6	1.0	0.0	3
NC1127-30GS	97	9	6	6	2	8	7	2	8	7	1.0	1.0	3
NC1130-2GS	67	7	9	9	2	6	7	3	7	5	1.0	1.0	3
NY175 (NYQ29-2)	83	7	9	9	2	9	8	3	8	8	1.0	0.0	3
NY179 (NYR1-7)	87	9	9	8	2	8	8	3	8	7	1.0	1.0	2
NY180 (NYR107-11)	93	9	9	7	1	9	8	3	8	7	1.5	1.0	2
NY181 (NYS18-4)	97	9	9	8	2	6	8	2	8	6	1.0	0.0	3
NYU15-8	90	6	9	9	1	8	7	3	8	8	1.0	0.0	3
NYU34-3	93	8	9	7	1	9	7	3	9	7	1.0	0.0	3
NYV6-11	87	7	9	8	1	6	7	3	7	6	1.0	0.0	2
NYV119-5	100	9	9	7	1	9	8	2	8	7	1.0	0.0	2
NYV123-1	90	9	9	6	1	9	7	2	8	8	1.0	0.0	3
AOR10902-2	97	8	9	5	2	8	8	2	7	6	1.0	0.0	3
AOR18354-7	90	8	9	8	1	6	7	3	9	8	1.0	0.0	2
COTX19084-2W	67	6	9	8	1	9	8	3	9	7	1.5	1.0	3
NDTX2024-2W	73	6	9	7	1	6	8	3	8	5	1.0	0.0	3
W19023-24	100	7	9	8	2	9	7	2	8	7	1.0	0.0	2

Table 34 (cont'd). Plant growth and tuber characteristics for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]								
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	SFA Chip Score	SED Score	Merit
W19027-4	93	7	9	8	1	6	8	3	8	8	1.0	0.0	1
W19027-51	77	6	9	8	1	6	8	3	8	8	1.0	0.0	2
W19031-8	87	6	9	8	1	9	8	3	8	7	1.0	0.0	3

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 15 for 10 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

SFA Chip Score: Snack Food Association Scale (out of the field) Ratings 1-5: 1 = no defects, exceptionally bright, 2 = excellent, bright, 3 = good, light or golden, 4 = dark defects, marginal, 5 = not acceptable.

SED Score: Stem End Defect, based on Paul Bethke's (USDA/UWisconsin - Madison) 0-5 scale: 0 = no SED, 3 = significant SED, 5 = severe SED.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 35. External and internal defects for the 2025 Potatoes USA National Chip Processing Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
	Total Culls[1]	HH	CRS	IHN	BC
Atlantic	4	0	0	0	0
Lamoka	9	0	0	0	0
Snowden	4	0	0	0	3
Tier 1 = 1 rep					
AC16149-1W	12	0	0	0	0
A20614-1Cadg	8	0	0	0	0
A20614-4Cadg	1	0	0	0	0
A20614-5C	12	0	0	0	0
A20614-6C	9	0	0	0	0
A20614-10Cadg	15	0	0	10	0
A20624-13C	9	0	0	0	0
AFA7523-1Cadg	8	0	0	0	0
COA17197-3adg	5	0	0	0	0
NDA1849-4C	8	0	0	0	0
AF7114-12	3	0	0	0	0
AF7114-15	1	0	0	0	0
AF7131-2	11	0	0	0	0
AF7149-2	6	0	0	0	0
AF7159-2	1	0	0	0	0
AF7268-1	15	0	0	0	0
AF7277-2	6	0	0	0	0
AF7290-6	16	0	0	0	0
AF7295-1	8	0	0	0	0
AF7296-4	14	0	0	0	0
AF7298-1	5	0	0	0	0
AF7302-6	8	0	0	0	0
AF7333-7	6	0	0	0	0
AF7338-1	3	0	0	0	0
NDAF17137-5	1	0	0	0	0

Table 35 (cont'd). External and internal defects for the 2025 Potatoes USA National Chip Processing Trial potato selections.

		% Internal Defects[2]			
	Total Culls[1]	HH	CRS	IHN	BC
B21NC1188-1	8	0	0	0	0
B21NC1201-3	4	0	0	0	0
B3508-2	5	0	0	0	0
B3535-9	16	0	0	0	0
B3537-2	6	0	0	0	0
MSHH015-5	11	0	0	0	0
MSHH068-10	1	0	0	0	0
MSHH130-1	5	0	0	0	0
MSII075-1	21	0	0	0	0
MN21ND1835B-1	22	0	0	20	0
MN21ND1835B-39	6	0	0	0	0
MN21ND1835B-59	11	0	0	0	0
MN21ND1835B-73	0	0	0	0	0
MN21ND1835B-76	1	0	0	0	0
NC1110-18GS	6	0	0	0	0
NC1119-18GS	2	0	0	0	0
NC1176-4	13	0	0	0	0
NC1187-15	13	0	0	0	0
NC1189-22	8	0	0	0	0
NC1189-26	2	0	0	0	0
NC1190-1	2	0	0	0	0
NC1193-20	11	0	0	0	0
NC1194-26	11	0	0	0	0
NC1195-8	7	0	0	0	0
NC1196-14	.	.	.	.	.
NC1197-13	6	0	0	0	0
NC1198-10	5	0	0	0	0
NC1204-18	4	0	0	0	0
NC1205-10	3	0	0	0	0
NC1205-16	8	0	0	0	0

Table 35 (cont'd). External and internal defects for the 2025 Potatoes USA National Chip Processing Trial potato selections.

		% Internal Defects[2]			
	Total Culls[1]	HH	CRS	IHN	BC
NC1207-10	8	0	0	0	0
ND2099-2	4	0	0	0	0
ND20158-2	0	0	0	0	0
AOR20596-5	6	0	0	0	0
AOR20601-1	6	0	0	0	0
AOR20624-1	3	0	0	0	0
AOR20639-1	2	0	0	0	0
AOR20643-9	10	0	0	0	0
AOR20643-11	7	0	0	0	0
NYORX28-2	8	0	0	10	0
NYORX29-2	13	0	0	0	0
NYORX29-5	6	0	0	0	0
NYORX29-6	6	0	0	0	0
OR201007-7	5	0	0	0	0
TX20004-6W/Y	4	0	0	0	0
TX20049-2W	26	0	0	0	10
TX20815-11W	18	0	0	0	0
TX20820-1W	11	0	0	0	0
TX21021-1W	10	0	0	0	0
TX21028-2W	13	0	0	0	0
TX21039-1W	8	.	.	.	.
TX21070-1W	0	0	0	0	0
TX21077-3W	5	.	.	.	.
TX21805-4W	24	.	.	.	.
TX21805-5W	45	.	.	.	.
W20001-7	4	0	0	0	0
W20001-15	7	0	0	0	0
W20004-26	8	0	0	0	0
W20005-28	5	0	0	0	0
W20017-28	16	0	0	0	0

Table 35 (cont'd). External and internal defects for the 2025 Potatoes USA National Chip Processing Trial potato selections.

		% Internal Defects[2]			
	Total Culls[1]	HH	CRS	IHN	BC
W20019-1	8	0	0	0	0
W20022-8	2	0	0	0	0
W20024-1	7	0	0	0	0
W20031-37	4	0	0	0	0
W20036-8	4	0	0	0	0
W21052-5	7	0	0	0	0
W21057-1	8	0	0	0	0
W21057-9	4	0	0	0	0
W21059-1	6	0	0	0	0
W21059-14	9	0	0	0	0
W21063-3	7	0	0	0	0
W21064-30	3	0	0	0	0
W21064-39	8	0	0	0	0
W21066-5	10	0	0	0	0
W21077-4	6	0	0	0	10
W21077-6	5	0	0	0	0
W21077-7	7	0	0	0	0
MSBB058-1	7	0	0	0	0
ND13220C-3	4	0	0	0	0
NY174 (NYQ106-4)	15	0	0	0	0
NY177 (NYR107-6)	3	0	0	0	0
Tier 2 = 2 reps					
AFC6911-2Wadg	4	0	0	0	0
A15311-6Ctrv	13	0	0	0	0
A16150-1C	5	0	0	0	0
AF5933-4	5	0	0	0	0
AF6880-9	7	0	0	0	0
AF6896-1	10	0	0	0	0
AF6911-4	12	0	0	0	0
B3296-3	9	0	0	0	5

Table 35 (cont'd). External and internal defects for the 2025 Potatoes USA National Chip Processing Trial potato selections.

		% Internal Defects[2]			
	Total Culls[1]	HH	CRS	IHN	BC
B3403-6	11	0	0	0	0
B3471-1	2	0	0	0	0
BNC811-15	5	0	0	0	0
MSDD244-5	13	0	0	0	0
MSDD247-7	13	0	0	0	0
MSDD247-11	13	0	0	0	0
MSDD376-4	9	0	0	0	0
MSFF038-3	13	0	0	0	0
MSHH018-3	7	0	0	0	0
MSHH018-4	9	0	0	5	0
MSHH034-12	3	0	0	5	0
MN20AF7174-1	8	0	0	0	0
NC821-30	4	0	0	0	0
NC1110-15GS	10	0	0	0	0
NC1127-30GS	4	0	0	0	0
NC1130-2GS	20	0	0	0	0
NY175 (NYQ29-2)	12	0	0	0	0
NY179 (NYR1-7)	6	0	0	0	0
NY180 (NYR107-11)	11	0	0	0	0
NY181 (NYS18-4)	7	0	0	0	0
NYU15-8	9	0	0	0	0
NYU34-3	11	0	0	0	0
NYV6-11	6	0	0	0	0
NYV119-5	4	0	0	0	0
NYV123-1	9	0	0	0	0
AOR10902-2	5	0	0	0	0
AOR18354-7	10	0	0	0	0
COTX19084-2W	23	0	0	0	0
NDTX2024-2W	5	0	0	0	0
W19023-24	2	0	0	0	0

Table 35 (cont'd). External and internal defects for the 2025 Potatoes USA National Chip Processing Trial potato selections.

		% Internal Defects[2]			
	Total Culls[1]	HH	CRS	IHN	BC
W19027-4	6	0	0	0	0
W19027-51	5	0	0	0	0
W19031-8	9	0	0	0	0

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

tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 8. Potatoes USA SNAC Potato Variety Trial

General Comments

A goal of the SNAC trial is to identify a short-season processing potato variety with better production and quality characteristics than the “standard” Atlantic. Potato samples were fried by Utz Quality Foods.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 3, 2025
Vine Kill Date	N/A
Harvest Date	May 12, 2025
Season Length	98 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	2 (Standard: Atlantic)
Number of Clones	7
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	4
Plot Size	20 ft (6.1 m) x 2

Production Statistics

Early Vigor Ratings	43 DAP
Highest Total Yield	W17066-34 (498 cwt/A or 55.8 T/ha)
Highest Marketable Yield	W17066-34 (401 cwt/A or 45.0 T/ha)
Highest Specific Gravity	AF6200-7 (1.084)

Table 36. Production statistics for the 2025 Potatoes USA SNAC Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–98 days											
AF6200-7	241	193	56	20	47	32	0	0	80	32	1.084
AF6206-5	406	317	92	19	42	40	0	0	81	40	1.074
AF6671-10	309	267	78	12	34	54	0	0	88	54	1.072
ND13220C-3	372	226	66	41	51	8	0	0	59	8	1.076
W17AF6670-1	357	284	83	17	46	37	0	0	83	37	1.072
W17066-34	498	401	117	17	39	42	1	0	83	43	1.075
NY177 (NYR107-6)	482	315	92	32	49	19	0	0	68	19	1.077
Atlantic	425	343	100	16	35	49	0	0	84	50	1.074
Snowden	401	332	97	15	40	45	0	0	85	45	1.075
MSD[3]	129	122		13	12	12	1	ns	13	12	0.008
P Value	<0.0001	0.0002		<0.0001	0.0002	<0.0001	0.0091	-	<0.0001	<0.0001	0.0022

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

Table 37. Plant growth and tuber characteristics for the 2025 Potatoes USA SNAC Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF6200-7	98	8	8	8	2	6	7	2	9	7	2
AF6206-5	99	9	8	8	1	7	7	1	9	7	2
AF6671-10	100	7	9	9	1	7	7	3	8	7	2
ND13220C-3	99	9	7	8	1	8	8	3	7	8	2
W17AF6670-1	98	9	6	7	1	7	7	3	8	7	2
W17066-34	100	9	6	8	1	6	7	3	9	8	2
NY177 (NYR107-6)	99	9	9	8	1	7	7	3	9	8	2
Atlantic	100	9	8	8	1	6	7	3	7	7	2
Snowden	100	9	9	7	1	7	7	2	7	7	1

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 30 for 20 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.
Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 38. External and internal defects for the 2025 Potatoes USA SNAC Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF6200-7	4	0	0	1	0
AF6206-5	5	0	0	8	0
AF6671-10	3	0	0	1	0
ND13220C-3	2	0	0	3	0
W17AF6670-1	4	0	0	3	0
W17066-34	4	0	0	3	0
NY177 (NYR107-6)	4	0	0	1	0
Atlantic	5	0	0	3	0
Snowden	3	0	0	0	0
MSD[3]	ns	ns	ns	ns	ns
P Value	0.4329	-	-	0.3587	-

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

Chapter 9. USDA Chipping Potato Variety Trial

General Comments

A goal of the chipping trial is to identify a short-season processing potato variety with better production and quality characteristics than the “standard” Atlantic.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 11, 2025
Vine Kill Date	N/A
Harvest Date	May 19, 2025
Season Length	97 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	Seepage

Experimental Design

Number of Varieties	4 (Standard: Atlantic)
Number of Clones	36
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	41 DAP
Highest Total Yield	B21NC1200-2 (374 cwt/A or 41.9 T/ha)
Highest Marketable Yield	AF6206-3 (254 cwt/A or 28.5 T/ha)
Highest Specific Gravity	MSGE17-2 (1.087)

Table 39. Production statistics for the 2025 USDA Chipping Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–97 days											
Sinatra	233	89	76	62	32	6	0	0	38	6	1.081
B3403-6	364	244	209	34	26	40	0	0	66	40	1.079
AF6200-4	254	147	125	36	41	23	0	0	64	23	1.081
AF6200-7	214	91	78	55	38	7	0	0	45	7	1.083
AF6206-3	340	254	217	23	31	46	0	0	77	46	1.078
AF6206-5	318	145	124	52	35	12	0	0	48	12	1.079
AF6550-2	260	127	109	50	36	14	0	0	50	14	1.075
AF6565-8	302	147	126	46	28	26	0	0	54	26	1.072
AF6601-2	198	96	82	43	38	19	0	0	57	19	1.070
AF6671-10	282	149	127	43	33	24	0	0	57	24	1.083
Atlantic	250	117	100	44	32	24	0	0	56	24	1.072
B3296-3	239	161	137	33	33	35	0	0	67	35	1.074
B3403-6	256	137	117	42	32	26	0	0	58	26	1.077
Bliss (NY163)	342	223	190	30	39	31	0	0	70	31	1.070
BNC811-15	239	93	79	61	24	15	0	0	39	15	1.074
NY174 (NYQ106-4)	312	220	187	22	33	45	0	0	78	45	1.069
NY177 (NYR107-6)	224	136	116	37	43	20	0	0	63	20	1.081
NY179 (NYR1-7)	279	117	100	53	30	18	0	0	47	18	1.061
NY180 (NYR107-11)	241	95	81	57	36	7	0	0	43	7	1.078
NY181 (NYS18-4)	238	95	81	60	30	10	0	0	40	10	1.085
Snowden	337	245	209	27	44	29	0	0	73	29	1.083
MSGA24-2	337	184	157	43	32	26	0	0	57	26	1.073
MSGB02-2	274	153	131	42	45	12	0	0	58	12	1.072
MSGB22-3	319	209	179	34	39	28	0	0	66	28	1.077
MSGC21-30	304	217	185	26	41	33	0	0	74	33	1.079
MSGD02-10	239	107	91	53	35	12	0	0	47	12	1.072
MSGE17-2	218	82	70	57	29	15	0	0	43	15	1.087
AF7153-4	300	152	130	46	39	15	0	0	54	15	1.078
AF7157-7	349	214	183	35	40	25	0	0	65	25	1.072
AF7162-3	262	149	127	40	31	28	0	0	60	28	1.067

Table 39 (cont'd). Production statistics for the 2025 USDA Chipping Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
AF7182-6	354	242	206	29	47	24	0	0	71	24	1.069
B3508-2	241	121	103	48	36	16	0	0	52	16	1.084
B3519-7	254	122	105	51	44	5	0	0	49	5	1.076
B3521-1	197	109	93	41	34	24	0	0	59	24	1.072
B3535-9	292	188	160	34	33	33	0	0	66	33	1.067
B3537-2	287	194	166	27	31	42	0	0	73	42	1.076
B21NC1188-1	293	158	135	43	39	18	0	0	57	18	1.069
B21NC1200-2	374	222	189	40	28	33	0	0	60	33	1.063
B21NC1209-1	284	164	140	38	39	23	0	0	62	23	1.073
B20NC1111-1	335	236	201	22	40	39	0	0	78	39	1.064
MSD[3]	170	172		30	24	24	ns	ns	30	24	0.015
P Value	0.0002	<0.0001		<0.0001	0.0183	<0.0001	-	-	<0.0001	<0.0001	<0.0001

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

Table 40. Plant growth and tuber characteristics for the 2025 USDA Chipping Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
Sinatra	94	6	9	7	1	7	8	3	9	6	2
B3403-6	99	8	9	6	1	6	7	2	7	7	1
AF6200-4	97	6	9	8	1	7	7	2	8	6	2
AF6200-7	100	7	9	7	1	6	7	2	9	7	2
AF6206-3	100	5	9	8	1	7	7	3	9	8	1
AF6206-5	100	8	9	7	1	7	8	2	9	5	1
AF6550-2	99	8	8	6	1	8	9	2	9	7	2
AF6565-8	100	6	9	7	1	7	8	2	8	7	3
AF6601-2	100	6	9	7	1	8	7	2	9	7	2
AF6671-10	100	5	9	7	1	7	7	2	7	7	1
Atlantic	96	7	9	7	1	6	7	3	7	6	-
B3296-3	100	5	9	7	1	8	7	2	6	6	2
B3403-6	85	6	9	7	1	6	7	1	8	7	1
Bliss (NY163)	100	5	9	7	1	7	7	3	7	7	2
BNC811-15	100	5	9	7	1	7	8	1	8	8	2
NY174 (NYQ106-4)	94	4	9	8	1	7	8	3	7	7	2
NY177 (NYR107-6)	99	4	9	7	1	7	9	3	8	7	2
NY179 (NYR1-7)	96	7	9	7	1	6	7	3	8	7	3
NY180 (NYR107-11)	99	6	9	5	1	7	8	3	8	6	2
NY181 (NYS18-4)	97	6	9	7	1	6	7	2	8	8	3
Snowden	100	7	9	7	1	6	7	2	7	7	1
MSGA24-2	100	7	9	7	1	6	7	3	8	7	1
MSGB02-2	100	6	9	7	1	6	7	3	9	8	1
MSGB22-3	99	6	9	8	1	6	7	3	9	7	1
MSGC21-30	100	5	9	8	1	6	7	2	8	6	2
MSGD02-10	96	5	9	7	1	8	8	3	8	5	1
MSGE17-2	96	5	9	8	1	6	8	2	7	6	3
AF7153-4	100	8	9	5	1	9	8	2	6	6	2
AF7157-7	99	6	9	7	1	6	8	3	7	7	1
AF7162-3	97	7	9	7	1	6	7	2	7	4	2

Table 40 (cont'd). Plant growth and tuber characteristics for the 2025 USDA Chipping Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF7182-6	100	5	9	7	1	6	8	2	8	6	2
B3508-2	94	7	9	6	1	6	8	2	8	7	1
B3519-7	99	8	9	5	2	9	8	3	8	7	3
B3521-1	99	7	9	5	1	6	8	2	8	7	2
B3535-9	99	8	9	7	1	6	8	3	9	8	2
B3537-2	97	6	9	7	1	6	6	3	8	7	1
B21NC1188-1	100	6	9	7	.	.	.	.	.	.	1
B21NC1200-2	99	7	9	6	2	9	8	3	7	6	2
B21NC1209-1	94	5	9	7	1	9	7	3	7	6	1
B20NC1111-1	99	7	9	7	1	6	8	2	8	7	3

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 16 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 41. External and internal defects for the 2025 USDA Chipping Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
Sinatra	2	0	0	0	0
B3403-6	1	0	0	0	0
AF6200-4	12	0	0	0	3
AF6200-7	9	0	0	0	3
AF6206-3	3	0	0	0	0
AF6206-5	7	0	0	0	0
AF6550-2	4	10	0	0	0
AF6565-8	10	0	0	7	7
AF6601-2	14	0	0	0	0
AF6671-10	8	0	0	0	0
Atlantic	17	10	0	3	3
B3296-3	5	0	0	13	7
B3403-6	9	0	0	0	3
Bliss (NY163)	11	0	0	0	3
BNC811-15	4	3	0	0	10
NY174 (NYQ106-4)	13	0	0	0	3
NY177 (NYR107-6)	7	0	0	7	0
NY179 (NYR1-7)	12	13	0	0	13
NY180 (NYR107-11)	7	0	0	3	3
NY181 (NYS18-4)	2	0	0	0	17
Snowden	0	0	0	0	3
MSGA24-2	6	0	0	0	0
MSGB02-2	4	0	0	0	0
MSGB22-3	5	0	0	0	3
MSGC21-30	4	0	0	3	0
MSGD02-10	7	0	0	0	0
MSGE17-2	14	0	0	7	0
AF7153-4	6	0	0	3	7
AF7157-7	6	0	0	0	0
AF7162-3	4	0	0	30	7

Table 41 (cont'd). External and internal defects for the 2025 USDA Chipping Trial potato selections.

		% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF7182-6	5	7	0	3	0
B3508-2	5	0	0	0	0
B3519-7	2	0	0	0	17
B3521-1	5	0	0	3	0
B3535-9	4	0	0	3	3
B3537-2	9	3	0	3	3
B21NC1188-1	6	0	0	0	0
B21NC1200-2	2	0	0	3	3
B21NC1209-1	7	3	0	0	0
B20NC1111-1	12	23	0	0	3
MSD[3]	15	ns	ns	ns	ns
P Value	0.0005	0.1900	-	0.5965	0.3659

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

These are pictures of the clones that have the higher marketable yields in this trial.

Chapter 10. Fresh Market, Red, And Purple Potato Variety Trial

General Comments

A goal of the fresh market, red, and purple variety trial is to identify a round white, 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	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 13, 2025
Vine Kill Date	May 13, 2025
Harvest Date	May 22, 2025 (Rep 1), May 28, 2025 (Rep 2, 3)
Season Length	89 days planting to vine kill
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	36 (Standard: Strawberry Paw)
Number of Clones	55
Within Row Spacing	8 in (20.3 cm), 2 mini clones: 6 in (15.2 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	14 ft (4.3 m)

Production Statistics

Early Vigor Ratings	40 DAP
Highest Total Yield	VDW 11-1368 (628 cwt/A or 70.4 T/ha)
Highest Marketable Yield	VDW 11-1368 (511 cwt/A or 57.3 T/ha)
Best Appearance Rating	Camelia, HZM 11-3908, Whitney, PSS17/B399/05, Little Ruby, B22AF8360-3 (9, excellent)

Table 42. Production statistics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–89 days											
AF5280-5	453	327	129	20	27	53	0	0	80	53	1.052
AF5819-2	417	290	114	28	26	46	0	0	72	46	1.059
AF6969-3	428	352	139	12	16	72	0	0	88	72	1.059
NDAF12238Y-2	488	308	121	34	28	38	0	0	66	38	1.058
WAF14096-5	505	308	122	36	24	40	0	0	64	40	1.061
AF7173-7	440	339	134	18	31	51	0	0	82	51	1.063
AF7174-3	387	279	110	27	42	31	0	0	73	31	1.057
NDAF17137-5	467	293	115	30	35	35	0	0	70	35	1.062
AF7090-9	336	170	67	42	34	23	0	0	58	23	1.052
AF7095-4	517	311	123	37	41	22	0	0	63	22	1.060
AF7108-3	403	248	98	37	34	29	0	0	63	29	1.059
AF7111-4	391	254	100	32	40	28	0	0	68	28	1.056
AF7175-1	430	222	87	46	28	25	0	0	54	25	1.069
AF7175-2	454	214	84	52	27	21	0	0	48	21	1.068
NDAF17139-5	489	333	131	25	34	40	0	0	75	40	1.059
NDAF17153-1	332	60	23	82	17	1	0	0	18	1	1.061
NDAF1821Y-3	565	431	170	19	36	45	0	0	81	45	1.055
AF7093-1	387	231	91	37	28	36	0	0	63	36	1.066
AF7307-1	433	300	118	30	40	31	0	0	70	31	1.055
AF7307-2	543	313	123	41	40	19	0	0	59	19	1.057
AF7319-5	386	245	97	36	36	28	0	0	64	28	1.060
AAF15348-1	536	389	153	23	29	47	0	0	77	47	1.061
AAF18386-3	402	287	113	28	24	48	0	0	72	48	1.060
NDAF1858Y-3	371	260	103	25	23	52	0	0	75	52	1.055
NDAF1915-1	458	323	127	29	38	33	0	0	71	33	1.061
AAF15169-3	420	260	102	34	33	32	0	0	66	32	1.059
NDAF113484B-1	245	132	52	45	39	17	0	0	55	17	1.053
Camelia	469	353	139	20	42	38	0	0	80	38	1.053
Carminelle	382	92	36	76	24	0	0	0	24	0	1.059
Fenway Red	408	268	105	31	28	41	0	0	69	41	1.058

Table 42 (cont'd). Production statistics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
HZA 13-1486	433	310	122	27	43	30	0	0	73	30	1.058
HZD 09-9222	369	259	102	23	43	34	0	0	77	34	1.058
HZD 10-4026	447	153	60	65	30	5	0	0	35	5	1.055
HZM 11-3908	452	309	122	28	32	41	0	0	72	41	1.048
VDW 11-1368	628	511	201	13	15	71	0	0	87	71	1.052
Whitney	507	334	132	33	41	26	0	0	67	26	1.052
Georgina	568	438	173	22	40	38	0	0	78	38	1.053
Malou	508	348	137	28	35	37	0	0	72	37	1.055
PSS13/041/31	471	198	78	58	30	13	0	0	42	13	1.060
PSS14/083/33	452	207	82	52	34	14	0	0	48	14	1.057
PSS16/245/6	319	40	16	87	12	0	0	0	13	0	1.057
PSS17/B399/05	265	24	10	91	8	1	0	0	9	1	1.061
B21NC1213-3	405	263	104	32	24	43	0	0	68	43	1.066
B21AF7280-3	373	206	81	44	27	29	0	0	56	29	1.073
B20NC1160-1	343	171	67	54	35	11	0	0	46	11	1.062
B20NC1163-2	263	188	74	31	43	27	0	0	69	27	1.059
BNC833-2	336	176	69	48	39	14	0	0	52	14	1.059
BNC839-5	219	126	50	39	32	29	0	0	61	29	1.048
BNC559-1	410	316	124	18	44	39	0	0	82	39	1.059
BNC917-2	464	340	134	26	49	26	0	0	74	26	1.057
BD1505-4	81	2	1	98	2	0	0	0	2	0	1.077
BNC981-1	371	298	118	15	44	42	0	0	85	42	1.064
Little Ruby (B2152-17)	195	54	21	80	17	3	0	0	20	3	1.063
Peter Wilcox (B1816-5)	422	212	84	46	37	16	0	0	54	16	1.062
Red Dawn (BNC201-1)	243	163	64	26	29	45	0	0	74	45	1.070
B22AF8360-3	605	497	196	14	15	71	0	0	86	71	1.055
B22AF8409-5	380	243	96	35	27	38	0	0	65	38	1.060
NC868-1	425	267	105	35	49	16	0	0	65	16	1.064
Acoustic	478	275	108	38	41	21	0	0	62	21	1.049
CMK2009-630-001 (MI-1)	324	189	74	34	43	22	0	0	66	22	1.064

Table 42 (cont'd). Production statistics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
MUI2015-004-003	399	235	93	32	43	25	0	0	68	25	1.052
Rock (MI-2)	378	111	44	70	27	3	0	0	30	3	1.058
Sound	482	274	108	39	48	14	0	0	61	14	1.053
4 You	419	188	74	54	37	9	0	0	46	9	1.063
Jule	344	71	28	78	21	1	0	0	22	1	1.053
Marta	525	229	90	56	33	11	0	0	44	11	1.052
Natalia	487	348	137	23	41	36	0	0	77	36	1.049
Adirondack Blue	383	270	106	27	52	21	0	0	73	21	1.056
All Blue	371	131	52	64	30	6	0	0	36	6	1.067
Bonnata	432	290	114	30	27	43	0	0	70	43	1.061
Columba	477	233	92	51	28	22	0	0	49	22	1.042
French Fingerling	375	128	50	66	32	2	0	0	34	2	1.061
Golden Globe	432	250	98	40	36	25	0	0	60	25	1.058
Goldrush	380	217	86	40	40	20	0	0	60	20	1.055
Lamoka (NY139)	393	297	117	15	37	47	0	0	85	47	1.063
Natascha	510	364	143	26	44	30	0	0	74	30	1.054
Little Ruby (B2152-17)	367	191	75	47	38	15	0	0	53	15	1.063
Red Pontiac	468	324	128	28	31	41	0	0	72	41	1.059
Satina	554	442	174	15	20	65	0	0	85	65	1.055
Soraya	509	353	139	28	38	34	0	0	72	34	1.052
Strawberry Paw (NY136)	448	254	100	41	33	26	0	0	59	26	1.058
AF6551-4	335	268	105	9	19	72	0	0	91	72	1.055
BNC559-1	409	327	129	17	49	34	0	0	83	34	1.059
BNC917-2	457	307	121	31	42	27	0	0	69	27	1.056
Chieftain	482	383	151	16	37	48	0	0	84	48	1.057
Dark Red Norland	343	195	77	40	39	21	0	0	60	21	1.056
Katahdin	247	198	78	28	41	32	0	0	72	32	1.059
Kennebec	477	341	134	25	48	28	0	0	75	28	1.066
NDAF12238Y-2	380	201	79	44	32	23	0	0	56	23	1.058
Superior	392	287	113	22	43	35	0	0	78	35	1.068

Table 42 (cont'd). Production statistics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	Total	Marketable Yield[1]									
	Yield		% of	Size Distribution by Class (%)[2]					Size Class Range (%)		Specific
Clone	(cwt/A)	(cwt/A)	standard	C & B	A1	A2	A3	A4	A1 to A3	A2 to A3	Gravity
Yukon Gold	303	225	89	23	29	48	0	0	77	48	1.064
MSD[3]	135	111		13	11	14	ns	ns	13	14	0.005
P Value	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	-	-	<0.0001	<0.0001	<0.0001

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

[3]Means separated within columns by Waller-Duncan K-ratio t Test.

Table 43. Plant growth and tuber characteristics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AF5280-5	100	7	9	7	1	8	9	3	7	8	2
AF5819-2	100	6	9	6	1	8	9	2	6	6	1
AF6969-3	100	6	9	8	1	8	9	2	8	7	3
NDAF12238Y-2	98	8	9	8	1	2	8	3	7	7	1
WAF14096-5	98	9	9	7	3	8	9	2	8	7	1
AF7173-7	100	6	9	8	1	8	8	3	7	8	2
AF7174-3	97	5	9	8	1	7	8	1	8	6	2
NDAF17137-5	100	8	9	6	1	7	8	2	7	7	2
AF7090-9	100	8	9	6	1	2	8	3	8	5	3
AF7095-4	100	8	9	8	3	8	9	3	8	8	2
AF7108-3	100	6	9	6	1	2	9	2	8	8	1
AF7111-4	100	5	9	9	3	8	9	2	8	7	1
AF7175-1	98	9	7	7	3	6	7	3	8	6	2
AF7175-2	98	9	9	7	1	7	7	2	8	7	3
NDAF17139-5	98	8	9	8	1	8	9	3	8	8	2
NDAF17153-1	100	8	8	5	1	2	9	2	8	8	3
NDAF1821Y-3	100	6	9	7	1	2	9	3	9	6	1
AF7093-1	98	7	9	6	1	2	9	1	8	8	1
AF7307-1	100	8	9	5	1	2	9	1	7	8	1
AF7307-2	98	8	9	6	1	2	9	2	9	6	3
AF7319-5	97	8	9	5	1	2	9	2	9	7	1
AAF15348-1	97	9	9	7	3	8	8	2	7	7	1
AAF18386-3	110	9	9	6	1	2	9	1	8	6	1
NDAF1858Y-3	98	6	9	5	.	2	9	1	8	7	1
NDAF1915-1	100	5	9	8	1	2	8	2	7	7	1
AAF15169-3	100	6	9	7	1	6	5	3	7	5	2
NDAF113484B-1	100	6	9	8	1	2	9	2	7	7	3
Camelia	100	6	9	7	3	8	8	3	8	9	1
Carminelle	100	8	9	6	3	3	9	6	7	7	3
Fenway Red	100	9	8	3	1	2	8	3	9	8	1

Table 43 (cont'd). Plant growth and tuber characteristics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
HZA 13-1486	100	9	9	7	1	2	8	3	9	7	1
HZD 09-9222	98	9	8	3	1	2	9	3	8	8	1
HZD 10-4026	97	7	9	7	3	7	7	3	7	7	2
HZM 11-3908	100	7	9	7	1	2	9	3	9	9	1
VDW 11-1368	98	7	9	7	1	8	9	1	7	8	2
Whitney	100	7	9	5	1	8	9	3	8	9	1
Georgina	100	9	9	7	3	8	9	3	8	8	1
Malou	98	9	9	5	3	7	8	3	7	8	1
PSS13/041/31	100	7	9	7	1	2	9	3	8	8	2
PSS14/083/33	100	6	9	6	1	2	9	2	8	8	2
PSS16/245/6	100	7	9	8	3	2	9	2	8	8	3
PSS17/B399/05	92	8	9	7	3	8	9	2	7	9	3
B21NC1213-3	100	6	9	7	1	2	8	3	9	7	1
B21AF7280-3	98	8	9	8	3	7	8	3	6	7	2
B20NC1160-1	98	7	9	5	3	8	9	3	8	8	2
B20NC1163-2	65	5	9	7	3	8	9	1	8	7	3
BNC833-2	100	7	9	6	9	1	8	3	8	6	2
BNC839-5	95	4	9	7	1	2	9	3	8	8	3
BNC559-1	97	7	9	7	1	1	9	3	8	8	1
BNC917-2	98	7	9	7	3	1	9	4	8	6	1
BD1505-4	100	5	9	7	4	2	8	3	8	5	3
BNC981-1	100	6	9	7	1	2	8	3	9	7	1
Little Ruby (B2152-17)	97	6	9	3	3	2	9	3	9	9	3
Peter Wilcox (B1816-5)	100	8	9	6	3	1	8	3	8	7	2
Red Dawn (BNC201-1)	100	5	9	8	3	2	9	2	9	8	3
B22AF8360-3	100	8	9	7	1	2	9	1	8	9	2
B22AF8409-5	97	5	9	7	1	2	9	1	8	7	1
NC868-1	100	8	9	7	6	7	7	3	8	5	1
Acoustic	100	7	9	8	3	8	9	3	8	7	1
CMK2009-630-001 (MI-1)	100	4	9	8	3	8	9	3	8	8	2

Table 43 (cont'd). Plant growth and tuber characteristics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
MUI2015-004-003	100	5	9	8	3	8	9	3	8	5	3
Rock (MI-2)	100	5	9	9	3	8	9	3	8	6	3
Sound	100	5	9	8	3	8	9	3	8	6	2
4 You	95	6	9	6	3	8	9	3	9	7	2
Jule	98	4	9	9	3	8	9	3	9	8	3
Marta	100	5	9	8	1	8	9	3	8	7	1
Natalia	98	6	9	6	2	8	9	3	9	7	2
Adirondack Blue	98	6	9	6	9	1	8	3	6	6	1
All Blue	95	6	9	7	9	1	8	3	7	7	3
Bonnata	100	7	9	8	3	8	9	3	9	8	1
Columba	98	8	8	7	3	8	9	3	9	8	1
French Fingerling	100	6	9	7	3	3	9	6	7	7	3
Golden Globe	98	8	7	5	3	8	9	3	7	8	2
Goldrush	100	7	9	7	1	5	4	3	8	8	1
Lamoka (NY139)	100	7	9	8	1	7	7	3	9	6	2
Natascha	95	7	9	7	4	7	8	3	9	8	1
Little Ruby (B2152-17)	100	6	9	5	3	2	9	3	9	9	2
Red Pontiac	100	8	9	6	1	3	8	2	7	5	1
Satina	100	8	9	8	3	8	9	2	8	7	2
Soraya	98	7	9	7	3	8	9	3	9	7	2
Strawberry Paw (NY136)	98	7	9	5	1	2	8	3	8	8	-
AF6551-4	98	5	9	8	1	7	7	1	9	7	2
BNC559-1	97	7	9	6	1	1	9	3	8	7	1
BNC917-2	98	8	9	6	3	1	8	4	8	7	1
Chieftain	100	6	9	8	1	3	8	3	8	8	2
Dark Red Norland	98	8	9	5	1	2	9	3	7	8	2
Katahdin	63	4	9	8	1	8	8	3	8	6	3
Kennebec	100	6	9	8	1	8	9	3	8	7	1
NDAF12238Y-2	98	8	9	6	1	2	9	3	8	8	2
Superior	98	6	9	8	1	8	8	2	8	8	1

Table 43 (cont'd). Production statistics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
Yukon Gold	100	6	9	5	3	8	9	3	8	7	2

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 21 (or 28) for 14 ft plot, 8 (or 6) in spacing. Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Table 44. External and internal defects for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AF5280-5	13	3	0	3	0
AF5819-2	6	0	0	0	0
AF6969-3	10	0	0	7	0
NDAF12238Y-2	4	0	0	0	0
WAF14096-5	6	0	0	0	0
AF7173-7	6	0	0	3	3
AF7174-3	6	0	0	3	0
NDAF17137-5	11	0	0	0	0
AF7090-9	21	0	0	0	0
AF7095-4	5	7	0	0	0
AF7108-3	3	0	0	0	0
AF7111-4	3	0	0	0	3
AF7175-1	4	0	0	3	3
AF7175-2	2	0	0	7	0
NDAF17139-5	10	0	0	0	0
NDAF17153-1	4	0	0	0	0
NDAF1821Y-3	6	0	0	0	0
AF7093-1	6	0	0	0	0
AF7307-1	4	3	0	0	3
AF7307-2	2	0	0	27	0
AF7319-5	2	0	0	0	0
AAF15348-1	5	0	0	0	0
AAF18386-3	2	0	0	0	0
NDAF1858Y-3	9	0	0	0	0
NDAF1915-1	3	0	0	0	0
AAF15169-3	5	0	0	3	0
NDAF113484B-1	9	0	0	0	0
Camelia	5	0	0	0	0
Carminelle	4	0	0	0	0
Fenway Red	5	0	0	0	0

Table 44 (cont'd). External and internal defects for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
HZA 13-1486	2	0	0	0	0
HZD 09-9222	9	0	0	0	0
HZD 10-4026	4	0	0	0	0
HZM 11-3908	5	0	0	0	0
VDW 11-1368	6	0	0	7	0
Whitney	2	0	0	0	0
Georgina	1	0	0	0	0
Malou	4	0	0	0	0
PSS13/041/31	3	0	0	0	0
PSS14/083/33	4	0	0	0	0
PSS16/245/6	1	0	0	0	0
PSS17/B399/05	2	0	0	3	0
B21NC1213-3	5	0	0	0	0
B21AF7280-3	3	0	0	3	3
B20NC1160-1	3	0	0	0	0
B20NC1163-2	14	0	0	5	30
BNC833-2	2	0	0	0	0
BNC839-5	6	0	0	0	0
BNC559-1	7	0	0	0	0
BNC917-2	2	0	0	0	0
BD1505-4	5	0	0	0	0
BNC981-1	6	0	0	0	0
Little Ruby (B2152-17)	1	0	0	0	0
Peter Wilcox (B1816-5)	3	0	0	0	0
Red Dawn (BNC201-1)	9	0	0	7	0
B22AF8360-3	5	0	0	0	7
B22AF8409-5	3	0	0	0	0
NC868-1	4	0	0	0	0
Acoustic	7	0	0	0	0
CMK2009-630-001 (MI-1)	11	7	0	0	0

Table 44 (cont'd). Production statistics for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
MUI2015-004-003	13	17	0	7	10
Rock (MI-2)	3	0	0	3	0
Sound	8	0	0	3	0
4 You	2	0	0	0	0
Jule	3	0	0	0	0
Marta	3	0	0	0	0
Natalia	10	3	0	0	0
Adirondack Blue	4	0	0	0	0
All Blue	3	0	0	0	0
Bonnata	5	0	0	0	0
Columba	7	0	0	0	0
French Fingerling	3	0	0	0	0
Golden Globe	6	0	0	3	0
Goldrush	6	0	0	0	0
Lamoka (NY139)	11	0	0	0	0
Natascha	4	0	0	0	0
Little Ruby (B2152-17)	2	0	0	0	0
Red Pontiac	4	0	0	0	0
Satina	7	3	0	7	23
Soraya	5	3	0	7	0
Strawberry Paw (NY136)	7	0	0	0	0
AF6551-4	12	0	0	0	0
BNC559-1	4	0	0	0	0
BNC917-2	4	0	0	0	3
Chieftain	6	3	0	0	10
Dark Red Norland	9	0	0	0	0
Katahdin	6	0	0	10	0
Kennebec	4	0	0	0	0
NDAF12238Y-2	6	0	0	0	0
Superior	6	0	0	0	0

Table 44 (cont'd). External and internal defects for the 2025 Fresh Market, Red, and Purple Variety Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
Yukon Gold	4	7	0	3	3
MSD[3]	8	6	ns	ns	10
P Value	<0.0001	<0.0001	-	0.0958	<0.0001

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

[3]Means separated within columns by Waller-Duncan K-ratio t Test.

These are pictures of the clones that have the higher marketable yields in this trial.

Chapter 11. Russet Potato Variety Trial

General Comments

The russet trial gives us an opportunity to look at these clones for production potential in Florida.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 5, 2025
Vine Kill Date	N/A
Harvest Date	May 22, 2025
Season Length	106 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	2 (Standard: Caribou Russet)
Number of Clones	14
Within Row Spacing	10 in (25.4 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	17.5 ft (5.3 m)

Production Statistics

Early Vigor Ratings	42 DAP
Highest Total Yield	AF5521-1 (407 cwt/A or 45.6 T/ha)
Highest Marketable Yield	AF5521-1 (290 cwt/A or 32.5 T/ha)
Highest Specific Gravity	AF5521-1, AF6314-12 (1.072)
Best Appearance Rating	AAF15086-5, AF6384-2 (8, very good)

Table 45. Production statistics for the 2025 Russet Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–106 days											
AAF15086-5	305	181	71	31	43	26	0	0	69	26	1.061
AAF16240-2	361	242	96	25	34	40	0	0	75	40	1.062
AAF18608-1	278	164	65	36	32	33	0	0	64	33	1.060
AF5071-2	305	107	42	63	31	6	0	0	37	6	1.070
AF5521-1	407	290	115	20	45	36	0	0	80	36	1.072
AF5707-1	301	144	57	44	38	18	0	0	56	18	1.061
AF5735-8	378	279	110	18	49	33	0	0	82	33	1.058
AF5750-16	380	149	59	57	31	12	0	0	43	12	1.063
AF6314-12	390	266	105	18	36	46	0	0	82	46	1.072
AF6340-6	375	207	82	41	39	20	0	0	59	20	1.058
AF6377-10	278	213	84	12	37	50	0	0	88	50	1.057
AF6384-2	376	257	102	27	42	31	0	0	73	31	1.063
AF6814-1	291	162	64	34	50	17	0	0	66	17	1.063
Caribou Russet (AF3362-1)	362	253	100	25	57	19	0	0	75	19	1.063
COAF16090-14	236	129	51	33	43	24	0	0	67	24	1.054
Hamlin Russet	334	252	100	16	53	31	0	0	84	31	1.068
MSD[3]	ns	181		28	23	29	ns	ns	28	29	0.009
P Value	0.0971	0.0061		<0.0001	0.0026	<0.0001	-	-	<0.0001	<0.0001	<0.0001

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

Table 46. Plant growth and tuber characteristics for the 2025 Russet Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AAF15086-5	94	6	9	8	1	6	7	3	8	8	2
AAF16240-2	100	6	9	8	3	6	7	3	8	7	2
AAF18608-1	98	4	9	9	3	6	4	3	9	7	2
AF5071-2	100	7	9	6	1	6	5	5	8	5	3
AF5521-1	100	6	9	8	1	6	5	6	7	7	2
AF5707-1	100	5	9	9	1	6	4	3	7	7	3
AF5735-8	100	4	9	9	1	6	5	3	7	7	2
AF5750-16	100	5	9	8	1	7	8	6	7	4	2
AF6314-12	100	5	9	9	1	6	7	3	7	7	2
AF6340-6	100	5	9	8	1	6	6	3	6	7	2
AF6377-10	98	4	9	9	1	6	6	5	8	7	2
AF6384-2	100	6	9	8	1	6	5	3	8	8	3
AF6814-1	100	5	9	9	1	6	7	6	9	7	3
Caribou Russet (AF3362-1)	100	8	9	7	1	6	6	6	7	7	-
COAF16090-14	94	6	9	7	1	6	4	5	8	7	4
Hamlin Russet	98	5	9	9	1	6	6	6	8	7	2

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 21 for 17.5 ft plot, 10 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 47. External and internal defects for the 2025 Russet Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AAF15086-5	13	0	0	0	0
AAF16240-2	12	0	0	0	0
AAF18608-1	9	0	0	0	0
AF5071-2	7	0	0	0	0
AF5521-1	12	0	0	3	0
AF5707-1	15	0	0	0	0
AF5735-8	12	0	0	0	0
AF5750-16	8	0	0	0	0
AF6314-12	16	0	0	3	0
AF6340-6	5	0	0	0	0
AF6377-10	13	0	0	0	0
AF6384-2	7	0	0	10	0
AF6814-1	15	0	0	0	0
Caribou Russet (AF3362-1)	9	0	0	3	0
COAF16090-14	20	0	0	0	0
Hamlin Russet	12	0	0	0	0
MSD[3]	ns	ns	ns	ns	ns
P Value	0.1478	-	-	0.5603	-

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

These are pictures of the clones that have the higher marketable yields in this trial.

Chapter 12. Real Potatoes Variety Spacing Trials

General Comments

Most of the seed for these trials were provided by Real Potatoes. The white, red, and yellow clones were tested at 2 different spacings.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 13, 2025
Vine Kill Date	May 13, 2025
Harvest Date	May 20, 2025
Season Length	89 days planting to vine kill
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	whites: 4, reds: 1, yellows: 8
Number of Clones	whites: 1, reds: 3, yellows: 3
Within Row Spacing	9 in (22.9 cm) and 11 in (27.9 cm)
Between Row Spacing	40 in (1.0 m)
Replications	2
Plot Size	15 ft (4.6 m)

Production Statistics

Early Vigor Ratings	40 DAP
Highest Total Yield	whites: 9” Chas (606 cwt/A or 67.9 T/ha), reds: 11” RP207 (405 cwt/A or 45.4 T/ha), yellows: 9” MSGG039-11Y (625 cwt/A or 70.1 T/ha)
Highest Marketable Yield	whites: 9” Chas (535 cwt/A or 60.0 T/ha), reds: 11” RP207 (298 cwt/A or 33.4 T/ha), yellows: 9” MSGG039-11Y (491 cwt/A or 55.0 T/ha)
Best Appearance Rating	N/A

Table 48. Production statistics for the 2025 Real Potatoes White Trial potato selections.

		Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Size Distribution by Class (%)[2]					Size Class Range (%)		Specific Gravity
				C & B	A1	A2	A3	A4	A1 to A3	A2 to A3	
Season–89 days											
Spacing											
9		525	418	18	35	47	0	0	82	47	1.054
11		514	414	16	33	50	1	0	84	51	1.053
MSD[3]		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
P Value		0.4750	0.3679	0.5863	0.7308	0.4028	0.5000	-	0.5863	0.2662	0.5704
Variety											
Chas (05 6556.1)		598	531	9	20	71	0	0	91	71	1.044
MSFF031-6		500	429	10	18	71	1	0	90	72	1.056
Sifra - control		588	452	20	33	47	0	0	80	47	1.059
Whitney		427	300	26	50	24	0	0	74	24	1.053
Yelda		484	367	20	48	32	0	0	80	32	1.055
MSD[3]		121	96	6	7	9	ns	ns	6	7	0.005
P Value		0.0053	0.0003	<0.0001	<0.0001	<0.0001	0.4609	-	<0.0001	<0.0001	<0.0001
S x V											
9	Chas (05 6556.1)	606	535	11	22	67	0	0	89	67	1.045
9	MSFF031-6	506	428	11	20	69	0	0	89	69	1.056
9	Sifra - control	599	450	22	35	43	0	0	78	43	1.059
9	Whitney	431	316	23	49	27	0	0	77	27	1.055
9	Yelda	481	361	22	47	31	0	0	78	31	1.056
11	Chas (05 6556.1)	590	526	7	18	75	0	0	93	75	1.043
11	MSFF031-6	494	429	9	16	72	3	0	91	75	1.057
11	Sifra - control	578	455	17	32	51	0	0	83	51	1.059
11	Whitney	423	284	28	52	20	0	0	72	20	1.052
11	Yelda	486	374	19	48	33	0	0	81	33	1.055
LSD[4]		ns	ns	ns	ns	ns	ns	ns	ns	16	ns
P Value		0.9965	0.9337	0.1550	0.3623	0.0791	0.4609	-	0.1550	0.0330	0.5985

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

[4]Means separated within columns by Fisher's Least Significant Difference (LSD) Test.

Table 49. Plant growth characteristics for the 2025 Real Potatoes White Trial potato selections.

		Plant Growth Characteristics[1]			
		% Stand	Early Vigor	Vine Type	Vine Maturity
Spacing					
9		97	6	9	7
11		99	6	9	7
Variety					
Chas (05 6556.1)		99	5	9	8
MSFF031-6		96	5	9	8
Sifra - control		99	6	9	7
Whitney		97	7	9	5
Yelda		98	6	9	8
S x V					
9	Chas (05 6556.1)	98	5	9	8
9	MSFF031-6	95	5	9	8
9	Sifra - control	98	7	9	7
9	Whitney	98	7	9	5
9	Yelda	95	6	9	8
11	Chas (05 6556.1)	100	5	9	8
11	MSFF031-6	97	5	9	8
11	Sifra - control	100	6	9	7
11	Whitney	97	7	9	5
11	Yelda	100	6	9	8

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 20 and 16 for 15 ft plot, 9 and 11 in spacing respectively.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

Table 50. External and internal defects for the 2025 Real Potatoes White Trial potato selections.

		% External Tuber Defects	% Internal Defects[2]			
		Total Culls[1]	HH	CRS	IHN	BC
Spacing						
9		4	0	0	4	0
11		5	0	0	1	0
MSD[3]		ns	ns	ns	ns	ns
P Value		0.0903	-	-	0.2048	-
Variety						
Chas (05 6556.1)		3	0	0	0	0
MSFF031-6		5	0	0	3	0
Sifra - control		4	0	0	0	0
Whitney		5	0	0	0	0
Yelda		5	0	0	10	0
MSD[3]		ns	ns	ns	5	ns
P Value		0.6991	-	-	0.0009	-
S x V						
9	Chas (05 6556.1)	1	0	0	0	0
9	MSFF031-6	5	0	0	0	0
9	Sifra - control	4	0	0	0	0
9	Whitney	4	0	0	0	0
9	Yelda	4	0	0	20	0
11	Chas (05 6556.1)	5	0	0	0	0
11	MSFF031-6	5	0	0	5	0
11	Sifra - control	5	0	0	0	0
11	Whitney	7	0	0	0	0
11	Yelda	5	0	0	0	0
LSD[4]		ns	ns	ns	10	ns
P Value		0.8842	-	-	0.0004	-

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

[4]Means separated within columns by Fisher's Least Significant Difference (LSD) Test.

Table 51. Production statistics for the 2025 Real Potatoes Red Trial potato selections.

		Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Size Distribution by Class (%)[2]					Size Class Range (%)		Specific Gravity
				C & B	A1	A2	A3	A4	A1 to A3	A2 to A3	
Season–89 days											
Spacing											
9		338	206	35	30	35	0	0	65	35	1.055
11		359	234	33	35	32	0	0	67	32	1.056
MSD[3]		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
P Value		0.1523	0.1641	0.5335	0.3783	0.7351	-	-	0.5335	0.7351	0.5000
Variety											
AG1540		343	203	36	37	27	0	0	64	27	1.057
MSHH176-2R		368	198	45	26	29	0	0	55	29	1.053
Strawberry Paw (NY136) - control		318	226	26	34	40	0	0	74	40	1.061
RP207		366	253	28	34	38	0	0	72	38	1.050
MSD[3]		ns	ns	11	ns	14	ns	ns	11	14	0.007
P Value		0.5818	0.2946	0.0035	0.0928	0.0379	-	-	0.0035	0.0379	0.0051
S x V											
9	AG1540	365	208	39	33	28	0	0	61	28	1.056
9	MSHH176-2R	375	196	46	24	30	0	0	54	30	1.052
9	Strawberry Paw (NY13	286	214	23	34	43	0	0	77	43	1.062
9	RP207	327	208	32	31	38	0	0	68	38	1.051
11	AG1540	320	199	33	41	26	0	0	67	26	1.058
11	MSHH176-2R	360	200	44	28	28	0	0	56	28	1.054
11	Strawberry Paw (NY13	349	238	29	35	36	0	0	71	36	1.061
11	RP207	405	298	24	37	39	0	0	76	39	1.050
LSD[4]		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
P Value		0.4079	0.3824	0.2556	0.7551	0.7954	-	-	0.2555	0.7954	0.7103

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

[3]Means separated within columns by Duncan's Multiple Range Test.

[4]Means separated within columns by Fisher's Least Significant Difference (LSD) Test.

Table 52. Plant growth characteristics for the 2025 Real Potatoes Red Trial potato selections.

		Plant Growth Characteristics[1]			
		% Stand	Early Vigor	Vine Type	Vine Maturity
Spacing					
9		98	6	9	6
11		98	6	9	7
MSD[3]					
P Value					
Variety					
AG1540		97	5	9	7
MSHH176-2R		99	8	9	6
Strawberry Paw (NY136) - control		97	6	9	7
RP207		98	5	9	7
MSD[3]					
P Value					
S x V					
9	AG1540	98	5	9	7
9	MSHH176-2R	98	8	9	5
9	Strawberry Paw (NY13	98	5	9	7
9	RP207	100	6	9	7
11	AG1540	97	5	9	7
11	MSHH176-2R	100	7	9	6
11	Strawberry Paw (NY13	97	6	9	6
11	RP207	97	5	9	7

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 20 and 16 for 15 ft plot, 9 and 11 in spacing respectively.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

Table 53. External and internal defects for the 2025 Real Potatoes Red Trial potato selections.

		% External Tuber Defects	% Internal Defects[2]			
		Total Culls[1]	HH	CRS	IHN	BC
Spacing						
9		5	0	0	0	0
11		4	0	0	0	0
MSD[3]		ns	ns	ns	ns	ns
P Value		0.6257	-	-	-	-
Variety						
AG1540		6	0	0	0	0
MSHH176-2R		2	0	0	0	0
Strawberry Paw (NY136) - control		4	0	0	0	0
RP207		5	0	0	0	0
MSD[3]		ns	ns	ns	ns	ns
P Value		0.2989	-	-	-	-
S x V						
9	AG1540	6	0	0	0	0
9	MSHH176-2R	3	0	0	0	0
9	Strawberry Paw (NY13	4	0	0	0	0
9	RP207	7	0	0	0	0
11	AG1540	6	0	0	0	0
11	MSHH176-2R	2	0	0	0	0
11	Strawberry Paw (NY13	4	0	0	0	0
11	RP207	3	0	0	0	0
LSD[4]		ns	ns	ns	ns	ns
P Value		0.7182	-	-	-	-

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

[4]Means separated within columns by Fisher's Least Significant Difference (LSD) Test.

Table 54. Production statistics for the 2025 Real Potatoes Yellow Trial potato selections.

		Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
Season–89 days											
Spacing											
9		451	308	34	27	39	0	0	66	39	1.056
11		442	311	33	26	40	0	0	67	41	1.056
MSD[3]		ns	3	ns	ns	ns	ns	ns	ns	ns	ns
P Value		0.5668	0.0477	0.7103	0.7767	0.2361	0.5000	-	0.7103	0.1376	0.5000
Variety											
Caledonia Phoenix		547	436	18	23	59	0	0	82	59	1.050
Columba - control		483	335	28	40	32	0	0	72	32	1.051
Decibel		415	298	25	43	32	0	0	75	32	1.055
ERA12-7237		311	37	88	10	1	0	0	12	1	1.056
MSGG039-11Y		579	447	21	33	47	0	0	79	47	1.059
RP582-98		383	186	50	30	20	0	0	50	20	1.062
Satina - control		512	447	12	22	66	0	0	88	66	1.053
Sherman		516	421	13	29	58	0	0	87	58	1.056
Tyson		450	371	14	24	63	0	0	86	63	1.059
Venus Gold		247	28	90	7	4	0	0	10	4	1.063
Vicenta		470	399	13	30	55	1	0	87	56	1.052
MSD[3]		205	171	14	16	18	ns	ns	14	18	0.006
P Value		0.0002	<0.0001	<0.0001	<0.0001	<0.0001	0.4755	-	<0.0001	<0.0001	<0.0001
S x V											
9	Caledonia Phoenix	560	433	19	22	59	0	0	81	59	1.050
9	Columba - control	491	344	28	40	33	0	0	72	33	1.051
9	Decibel	465	326	28	44	27	0	0	72	27	1.055
9	ERA12-7237	299	35	89	9	2	0	0	11	2	1.057
9	MSGG039-11Y	625	491	19	34	47	0	0	81	47	1.061
9	RP582-98	376	184	49	31	20	0	0	51	20	1.060
9	Satina - control	497	413	15	23	62	0	0	85	62	1.052
9	Sherman	516	406	14	28	58	0	0	86	58	1.057
9	Tyson	437	351	15	25	59	0	0	85	59	1.059
9	Venus Gold	265	37	88	7	6	0	0	12	6	1.061
9	Vicenta	432	366	14	31	55	0	0	86	55	1.053
11	Caledonia Phoenix	534	439	16	24	60	0	0	84	60	1.050
11	Columba - control	475	327	28	41	30	0	0	72	30	1.051
11	Decibel	364	270	23	42	36	0	0	77	36	1.055
11	ERA12-7237	322	39	88	11	1	0	0	12	1	1.056
11	MSGG039-11Y	533	404	22	31	46	0	0	78	46	1.058
11	RP582-98	390	187	51	29	19	0	0	49	19	1.065
11	Satina - control	527	481	9	21	70	0	0	91	70	1.054
11	Sherman	516	437	12	30	58	0	0	88	58	1.056
11	Tyson	463	391	12	22	66	0	0	88	66	1.059
11	Venus Gold	229	19	92	6	1	0	0	8	1	1.066
11	Vicenta	509	432	13	30	55	2	0	87	58	1.052
LSD[4]		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
P Value		0.9130	0.8652	0.9525	0.9995	0.9382	0.4755	-	0.9525	0.9359	0.2881

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

[4]Means separated within columns by Fisher's Least Significant Difference (LSD) Test.

Table 55. Plant growth characteristics for the 2025 Real Potatoes Yellow Trial potato selections.

		Plant Growth Characteristics[1]			
		% Stand	Early Vigor	Vine Type	Vine Maturity
Spacing					
9		97	6	9	7
11		99	6	9	7
Variety					
Caledonia Phoenix		100	6	9	8
Columba - control		96	7	8	5
Decibel		99	5	9	7
ERA12-7237		100	6	9	6
MSGG039-11Y		99	7	9	8
RP582-98		97	6	9	7
Satina - control		98	7	9	8
Sherman		99	6	9	8
Tyson		98	8	7	7
Venus Gold		100	5	9	7
Vicenta		94	6	9	7
S x V					
9	Caledonia Phoenix	100	6	9	8
9	Columba - control	95	7	8	5
9	Decibel	98	6	9	7
9	ERA12-7237	100	7	9	5
9	MSGG039-11Y	98	6	9	8
9	RP582-98	98	6	9	7
9	Satina - control	100	8	9	8
9	Sherman	98	7	9	8
9	Tyson	95	8	6	7
9	Venus Gold	100	5	9	8
9	Vicenta	88	6	9	7
11	Caledonia Phoenix	100	6	9	8
11	Columba - control	97	8	8	6
11	Decibel	100	5	9	8
11	ERA12-7237	100	6	9	6
11	MSGG039-11Y	100	7	9	8
11	RP582-98	97	7	9	7
11	Satina - control	97	7	9	8
11	Sherman	100	6	9	8
11	Tyson	100	8	8	7
11	Venus Gold	100	5	9	7
11	Vicenta	100	6	9	8

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 20 and 16 for 15 ft plot, 9 and 11 in spacing respectively.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

Table 56. External and internal defects for the 2025 Real Potatoes Yellow Trial potato selections.

		% External Tuber Defects	% Internal Defects[2]			
		Total Culls[1]	HH	CRS	IHN	BC
Spacing						
9		3	0	0	3	1
11		2	0	0	5	2
MSD[3]		ns	ns	ns	ns	ns
P Value		0.3341	0.5000	-	0.7422	0.5000
Variety						
Caledonia Phoenix		3	0	0	0	0
Columba - control		4	0	0	0	0
Decibel		4	3	0	18	0
ERA12-7237		1	0	0	0	0
MSGG039-11Y		3	0	0	3	10
RP582-98		2	0	0	3	0
Satina - control		1	0	0	8	3
Sherman		5	0	0	0	0
Tyson		4	0	0	0	0
Venus Gold		0	0	0	3	0
Vicenta		2	0	0	10	3
MSD[3]		3	ns	ns	ns	ns
P Value		0.0006	0.4755	-	0.3228	0.2010
S x V						
9	Caledonia Phoenix	4	0	0	0	0
9	Columba - control	4	0	0	0	0
9	Decibel	2	0	0	20	0
9	ERA12-7237	1	0	0	0	0
9	MSGG039-11Y	3	0	0	0	10
9	RP582-98	3	0	0	5	0
9	Satina - control	2	0	0	5	0
9	Sherman	8	0	0	0	0
9	Tyson	5	0	0	0	0
9	Venus Gold	0	0	0	0	0
9	Vicenta	2	0	0	5	0
11	Caledonia Phoenix	2	0	0	0	0
11	Columba - control	4	0	0	0	0
11	Decibel	5	5	0	15	0
11	ERA12-7237	0	0	0	0	0
11	MSGG039-11Y	3	0	0	5	10
11	RP582-98	1	0	0	0	0
11	Satina - control	0	0	0	10	5
11	Sherman	2	0	0	0	0
11	Tyson	4	0	0	0	0
11	Venus Gold	0	0	0	5	0
11	Vicenta	3	0	0	15	5
LSD[4]		5	ns	ns	ns	ns
P Value		0.0190	0.4755	-	0.9937	0.9968

[1]Percent of Total Yield. Total culls include the sum of sunburned, growth cracks, misshapen, and rotten/misc.
[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).
[3]Means separated within columns by Tukey's Studentized Range (HSD) Test.
[4]Means separated within columns by Fisher's Least Significant Difference (LSD) Test.

Chapter 13. University of Maine AF5521-1 Observation Spacing Trial

General Comments

The observation trial gives us an opportunity to look at this clone at 3 different spacings for production potential in Florida.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 11, 2025
Vine Kill Date	N/A
Harvest Date	May 19, 2025
Season Length	97 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	0
Number of Clones	1
Within Row Spacing	8 in (20.3 cm), 10 in (25.4 cm), 12 in (30.5 cm)
Between Row Spacing	40 in (1.0 m)
Replications	1
Plot Size	20 ft (6.1 m)

Production Statistics

Early Vigor Ratings	N/A
Highest Total Yield	12” AF5521-1 (315 cwt/A or 35.3 T/ha)
Highest Marketable Yield	12” AF5521-1 (223 cwt/A or 25.0 T/ha)
Highest Specific Gravity	8” AF5521-1 (1.077)
Best Appearance Rating	N/A

Table 57. Production statistics for the 2025 University of Maine AF5521-1 Observation Spacing Trial.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	% of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	A2 to A3	Specific Gravity
Season–97 days											
8" AF5521-1	255	166		27	52	21	0	0	73	21	1.077
10" AF5521-1	277	183		28	49	23	0	0	72	23	1.076
12" AF5521-1	315	223		18	54	27	0	0	82	27	1.070

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

Table 58. External and internal defects for the 2025 University of Maine AF5521-1 Observation Spacing Trial.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
8" AF5521-1	11	0	0	0	0
10" AF5521-1	7	0	0	0	0
12" AF5521-1	13	0	0	5	0

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

Chapter 14. SJC Early Harvest Potato Variety Trial

General Comments

The St. Johns County early harvest trial gives us an opportunity to look at these clones harvested early for production potential in Florida.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	January 29, 2025
Vine Kill Date	mowed April 18, 2025
Harvest Date	April 21, 2025
Season Length	82 days planting to vine kill
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	20 (Standard: Atlantic)
Number of Clones	0
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	43 DAP
Highest Total Yield	Barbara (387 cwt/A or 43.4 T/ha)
Highest Marketable Yield	Red Pontiac (315 cwt/A or 35.3 T/ha)
Highest Specific Gravity	Atlantic, Belle Isle (1.077)
Best Appearance Rating	Bonnata (9, excellent)

Table 59. Production statistics for the 2025 SJC Early Harvest Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–82 days											
Atlantic	302	257	100	14	39	46	0	0	86	46	1.077
Bonnata	368	209	81	43	44	14	0	0	57	14	1.067
Red Pontiac	380	315	123	17	31	51	2	0	83	52	1.060
Yukon Gold	319	267	104	16	42	42	0	0	84	42	1.076
Barbara	387	145	56	62	29	9	0	0	38	9	1.068
Belle Isle	239	105	41	56	38	6	0	0	44	6	1.077
Dorita	278	182	71	34	52	14	0	0	66	14	1.071
Gorbea	322	260	101	17	41	41	0	0	83	41	1.061
Grand Falls	227	156	61	30	55	15	0	0	70	15	1.071
Iker	296	241	94	18	46	35	0	0	82	35	1.066
Islander	244	122	48	43	51	5	0	0	57	5	1.062
Jemseg	300	247	96	17	64	19	0	0	83	19	1.070
Lamoka (NY139)	237	177	69	23	51	27	0	0	77	27	1.069
Mirton Pearl	365	291	113	19	52	29	0	0	81	30	1.070
Norwis	281	213	83	24	56	20	0	0	76	20	1.062
Serrana	198	122	47	38	49	13	0	0	62	13	1.054
Somerset	190	68	26	65	31	4	0	0	35	4	1.058
Stobrawa	267	141	55	47	47	6	0	0	53	6	1.066
Suncrisp	272	176	68	35	39	26	0	0	65	26	1.071
Ursus	302	127	50	56	38	6	0	0	44	6	1.068
MSD[3]	50	33		8	10	10	ns	ns	8	10	0.010
P Value	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	0.5078	-	<0.0001	<0.0001	0.0005

[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". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

[3]Means separated within columns by Waller-Duncan K-ratio t Test.

Table 60. Plant growth and tuber characteristics for the 2025 SJC Early Harvest Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
Atlantic	94	9	9	7	1	6	7	3	7	6	-
Bonnata	92	9	9	7	3	8	9	5	8	9	2
Red Pontiac	97	9	9	6	1	3	8	2	6	5	1
Yukon Gold	92	9	9	6	3	7	8	3	7	7	1
Barbara	93	9	9	7	3	8	9	5	6	7	2
Belle Isle	93	8	9	6	1	8	8	3	7	7	3
Dorita	89	6	9	9	1	8	8	3	7	7	2
Gorbea	88	8	9	9	1	7	8	6	8	7	1
Grand Falls	88	8	9	7	1	8	7	4	7	7	2
Iker	88	6	9	7	3	8	9	3	7	7	1
Islander	90	7	9	7	1	7	7	3	7	7	3
Jemseg	92	7	9	7	1	7	7	4	7	6	1
Lamoka (NY139)	92	8	9	8	1	7	8	3	7	6	2
Mirton Pearl	93	8	9	6	1	8	8	3	6	7	1
Norwis	96	7	9	7	1	7	8	3	7	6	2
Serrana	93	6	9	9	2	8	7	3	7	7	3
Somerset	93	5	9	8	1	7	7	3	7	6	3
Stobrawa	96	7	9	9	3	6	7	3	7	7	2
Suncrisp	89	8	9	8	1	6	8	2	6	7	2
Ursus	94	8	8	7	1	8	8	4	7	6	3

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 16 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 61. External and internal defects for the 2025 SJC Early Harvest Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
Atlantic	1	0	0	0	0
Bonnata	1	0	0	0	0
Red Pontiac	0	0	0	0	0
Yukon Gold	0	0	0	0	0
Barbara	1	0	0	0	0
Belle Isle	0	0	0	0	0
Dorita	0	0	0	0	0
Gorbea	2	0	0	0	0
Grand Falls	1	0	0	0	0
Iker	0	0	0	0	0
Islander	9	0	0	0	0
Jemseg	0	0	0	0	0
Lamoka (NY139)	4	0	0	0	0
Mirton Pearl	2	0	0	0	0
Norwis	0	0	0	0	0
Serrana	1	0	0	0	0
Somerset	0	0	0	0	0
Stobrawa	1	0	0	0	0
Suncrisp	1	0	0	0	0
Ursus	1	0	0	0	0
MSD[3]	ns	ns	ns	ns	ns
P Value	0.3166	-	-	-	-

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

[3]Means separated within columns by Waller-Duncan K-ratio t Test.

These are pictures of the clones that have the higher marketable yields in this trial.

Chapter 15. SJC Heat Stress Potato Variety Trial

General Comments

The St. Johns County heat stress trial gives us an opportunity to look at these clones harvested late for production potential in Florida.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 26, 2025
Vine Kill Date	N/A
Harvest Date	June 2, 2025
Season Length	96 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	24 (Standard: Atlantic)
Number of Clones	0
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	16 ft (4.9 m)

Production Statistics

Early Vigor Ratings	41 DAP
Highest Total Yield	Mirton Pearl (431 cwt/A or 48.3 T/ha)
Highest Marketable Yield	Mirton Pearl (320 cwt/A or 35.9 T/ha)
Highest Specific Gravity	Atlantic (1.068)
Best Appearance Rating	Rideau (8, very good)

Table 62. Production statistics for the 2025 SJC Heat Stress Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–96 days											
Atlantic	366	270	100	19	32	49	0	0	81	49	1.068
Alpha	238	154	57	26	36	38	0	0	74	38	1.058
Barbara	394	260	97	28	45	27	0	0	72	27	1.056
Belle Isle	345	212	79	36	52	12	0	0	64	12	1.056
Dorita	284	205	76	22	42	36	0	0	78	36	1.056
Gorbea	347	199	74	28	37	36	0	0	72	36	1.057
Grand Falls	152	82	30	23	23	54	0	0	77	54	1.058
Iker	353	237	88	22	39	40	0	0	78	40	1.054
Islander	275	182	67	29	47	24	0	0	71	24	1.060
Jemseg	259	183	68	21	34	45	0	0	79	45	1.062
Lamoka (NY139)	287	169	63	32	48	20	0	0	68	20	1.063
Mirton Pearl	431	320	119	19	39	42	0	0	81	42	1.061
Norwis	329	236	88	23	42	34	0	0	77	34	1.053
Reba	254	176	65	22	40	36	3	0	78	39	1.057
Serrana	344	248	92	21	52	27	0	0	79	27	1.055
Somerset	307	214	79	19	48	32	0	0	81	32	1.056
Spartan Pearl	358	272	101	14	21	65	0	0	86	65	1.059
Stobrawa	362	185	69	37	55	8	0	0	63	8	1.064
Suncrisp	314	200	74	26	31	43	0	0	74	43	1.065
Ursus	384	175	65	54	37	9	0	0	46	9	1.063
Bzura	282	58	22	79	20	0	0	0	21	0	1.063
Rideau	301	220	82	21	43	37	0	0	79	37	1.054
Tacna	167	110	41	31	56	23	0	0	79	23	1.055
Beacon Chipper	219	158	59	19	17	58	6	0	81	64	1.064
MSD[3]	136	105		13	13	20	ns	ns	14	20	0.005
P Value	0.0018	0.0004		<0.0001	<0.0001	<0.0001	0.4802	-	<0.0001	<0.0001	<0.0001

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

[3]Means separated within columns by Waller-Duncan K-ratio t Test.

Table 63. Plant growth and tuber characteristics for the 2025 SJC Heat Stress Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
Atlantic	96	9	6	3	1	6	7	3	8	7	-
Alpha	96	9	9	7	1	8	7	2	9	6	3
Barbara	96	9	6	5	3	8	9	4	6	6	2
Belle Isle	92	9	6	2	1	8	9	3	9	6	2
Dorita	93	9	9	3	1	8	8	3	7	7	2
Gorbea	96	9	9	6	1	8	9	3	7	6	3
Grand Falls	71	8	7	3	1	8	9	4	6	4	3
Iker	97	9	8	5	3	7	7	2	6	7	3
Islander	96	9	7	3	1	6	7	3	7	7	2
Jemseg	76	8	9	3	1	6	7	3	6	7	2
Lamoka (NY139)	88	9	6	6	1	7	8	3	8	6	3
Mirton Pearl	96	9	6	3	1	8	7	3	4	5	2
Norwis	96	9	8	5	2	8	8	3	7	5	1
Reba	97	9	8	4	1	7	8	3	7	7	3
Serrana	90	9	7	8	1	8	8	3	8	6	1
Somerset	96	9	8	3	1	6	7	3	8	7	2
Spartan Pearl	96	9	8	4	1	7	7	2	7	7	2
Stobrawa	96	9	7	4	3	6	8	3	6	6	2
Suncrisp	96	9	9	7	1	6	7	3	8	7	2
Ursus	96	9	7	6	1	8	8	3	6	6	3
Bzura	103	9	9	7	1	8	8	3	6	6	3
Rideau	93	9	7	5	1	2	9	3	9	8	2
Tacna	92	9	6	6	1	8	8	3	7	6	3
Beacon Chipper	98	9	9	7	1	7	7	3	7	7	3

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 16 ft plot (or 20 for 14 ft plot), 8 in spacing. Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 64. External and internal defects for the 2025 SJC Heat Stress Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
Atlantic	9	0	3	3	0
Alpha	12	13	0	0	0
Barbara	11	0	0	0	0
Belle Isle	4	0	7	3	0
Dorita	8	7	3	0	0
Gorbea	22	0	0	0	0
Grand Falls	29	0	0	3	0
Iker	16	0	0	7	0
Islander	8	3	0	0	0
Jemseg	9	0	0	0	0
Lamoka (NY139)	13	0	7	0	0
Mirton Pearl	9	0	0	7	0
Norwis	6	0	0	0	0
Reba	12	7	0	0	0
Serrana	9	0	0	0	0
Somerset	10	0	0	0	0
Spartan Pearl	12	7	0	0	0
Stobrawa	19	4	0	0	0
Suncrisp	12	7	0	0	0
Ursus	6	0	0	10	0
Bzura	2	0	0	3	0
Rideau	9	0	0	0	3
Tacna	14	0	7	3	10
Beacon Chipper	11	10	0	0	0
MSD[3]	7	ns	ns	ns	ns
P Value	<0.0001	0.1966	0.4220	0.6179	0.4839

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

[3]Means separated within columns by Waller-Duncan K-ratio t Test.

These are pictures of the clones that have the higher marketable yields in this trial.

Chapter 16. SJC Russet Potato Variety Trial

General Comments

The St. Johns County russet trial gives us an opportunity to look at these clones for production potential in Florida.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	January 29, 2025
Vine Kill Date	N/A
Harvest Date	May 15, 2025
Season Length	106 days planting to harvest
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	6 (Standard: Russet Burbank)
Number of Clones	14
Within Row Spacing	10 in (25.4 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	20 ft (6.1 m)

Production Statistics

Early Vigor Ratings	43 DAP
Highest Total Yield	Lakeview Russet (453 cwt/A or 50.8 T/ha)
Highest Marketable Yield	Lakeview Russet (403 cwt/A or 45.2 T/ha)
Highest Specific Gravity	Shepody (1.073)
Best Appearance Rating	CO15016-1RUsto, CO15070-4RU (8, very good)

Table 65. Production statistics for the 2025 SJC Russet Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–106 days											
CO15016-1RUsto	372	217	85	40	51	8	0	0	60	8	1.066
CO15070-4RU	409	130	51	68	29	2	0	0	32	2	1.068
CO16238-4RUsto	420	146	57	64	31	5	0	0	36	5	1.060
AF6340-6	419	251	98	38	46	16	0	0	62	16	1.054
AF6377-10	295	216	84	19	50	31	0	0	81	31	1.054
AF6377-12	430	354	138	15	37	48	0	0	85	48	1.065
AF6465-7	394	286	112	26	40	34	0	0	74	34	1.069
Caribou Russet (AF3362	420	339	132	16	65	19	0	0	84	19	1.061
Lakeview Russet	453	403	157	6	30	63	0	0	94	63	1.064
Russet Burbank	366	256	100	26	42	33	0	0	74	33	1.062
Russet Norkotah	338	284	111	12	43	45	0	0	88	45	1.060
Shepody	316	260	101	12	42	46	0	0	88	46	1.073
ATTX10007-1Ru	314	261	102	13	29	58	0	0	87	58	1.066
A09086-1LB	428	305	119	27	53	20	0	0	73	20	1.067
A12304-1sto	438	244	95	43	49	8	0	0	57	8	1.067
A12305-2adg	361	265	104	24	50	27	0	0	76	27	1.069
A13072-7	340	254	99	24	40	36	0	0	76	36	1.072
A13091-5	388	306	119	20	42	39	0	0	80	39	1.072
AFA5661-8	420	375	146	8	38	54	0	0	92	54	1.061
Teton Russet	362	293	114	17	28	56	0	0	83	56	1.071
MSD[3]	114	134		15	22	26	ns	ns	15	26	0.010
P Value	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	-	-	<0.0001	<0.0001	<0.0001

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

Table 66. Plant growth and tuber characteristics for the 2025 SJC Russet Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
CO15016-1RUsto	96	5	9	7	1	5	4	5	9	8	1
CO15070-4RU	100	8	9	6	1	5	4	6	8	8	3
CO16238-4RUsto	93	7	9	7	1	5	6	5	8	7	2
AF6340-6	78	5	9	7	1	6	6	6	7	6	1
AF6377-10	54	4	9	9	1	5	6	5	8	6	2
AF6377-12	76	4	9	8	1	4	3	4	8	7	1
AF6465-7	93	6	9	7	1	5	5	4	8	7	1
Caribou Russet (AF3362	89	8	9	7	1	5	5	5	7	7	1
Lakeview Russet	74	6	9	8	1	6	6	6	8	6	1
Russet Burbank	72	5	9	8	1	5	5	5	7	4	-
Russet Norkotah	100	4	9	9	1	5	4	5	8	7	2
Shepody	78	5	9	8	1	8	7	5	9	4	1
ATTX10007-1Ru	75	7	9	7	1	6	6	6	8	7	1
A09086-1LB	90	8	9	6	1	7	7	5	8	6	1
A12304-1sto	93	7	9	6	1	7	6	5	8	7	1
A12305-2adg	92	8	9	6	1	5	5	6	8	7	1
A13072-7	92	7	9	6	1	5	5	3	8	7	1
A13091-5	94	6	9	7	1	6	6	5	8	7	1
AFA5661-8	75	5	9	8	1	7	7	5	8	6	1
Teton Russet	96	7	9	6	1	5	5	6	9	7	1

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 24 for 20 ft plot, 10 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 67. External and internal defects for the 2025 SJC Russet Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
CO15016-1RUsto	2	0	0	0	0
CO15070-4RU	1	0	0	0	0
CO16238-4RUsto	4	0	0	0	0
AF6340-6	4	0	0	0	0
AF6377-10	10	0	0	0	0
AF6377-12	4	0	0	0	0
AF6465-7	2	0	0	0	0
Caribou Russet (AF3362	4	0	0	0	0
Lakeview Russet	5	0	3	0	0
Russet Burbank	8	7	0	0	0
Russet Norkotah	5	0	0	3	0
Shepody	6	0	0	0	0
ATTX10007-1Ru	4	0	0	0	0
A09086-1LB	3	0	0	0	0
A12304-1sto	3	0	0	0	0
A12305-2adg	4	0	0	0	0
A13072-7	2	0	0	0	0
A13091-5	2	0	0	0	0
AFA5661-8	3	0	0	0	0
Teton Russet	3	0	0	0	0
MSD[3]	ns	4	ns	ns	ns
P Value	0.0816	0.0001	0.4823	0.4823	-

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

These are pictures of the clones that have the higher marketable yields in this trial.

Chapter 17. SJC Red Potato Variety Trial

General Comments

The St. Johns County red trial gives us an opportunity to look at these clones for production potential in Florida.

Planting Information

Planting Site	Hastings AEC Research Farm, Hastings, FL
Planting Date	February 13, 2025
Vine Kill Date	May 12, 2025
Harvest Date	May 19, 2025
Season Length	88 days planting to vine kill
Fertilizer Program	Pre-plant, 4-8-4 (50 N 100 P 50 K lb/A granular), Side-dress, 8-0-8 (100 N 100 K emergence, 50 N 50 K layby lb/A liquid)
Irrigation Program	seepage

Experimental Design

Number of Varieties	11 (Standard: Strawberry Paw)
Number of Clones	9
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	40 in (1.0 m)
Replications	3
Plot Size	20 ft (6.1 m)

Production Statistics

Early Vigor Ratings	40 DAP
Highest Total Yield	Becca Rose (511 cwt/A or 57.3 T/ha)
Highest Marketable Yield	Becca Rose (442 cwt/A or 49.6 T/ha)
Highest Specific Gravity	Red Maria (1.064)
Best Appearance Rating	NDAF113484B-1 (9, excellent)

Table 68. Production statistics for the 2025 SJC Red Trial potato selections.

Clone	Total Yield (cwt/A)	Marketable Yield[1] (cwt/A)	Marketable Yield[1] % of standard	Size Distribution by Class (%)[2] C & B	A1	A2	A3	A4	Size Class Range (%) A1 to A3	Size Class Range (%) A2 to A3	Specific Gravity
Season–88 days											
AC11596-1Rsto	485	234	68	51	37	12	0	0	49	12	1.055
Little Ruby (B2152-17)	291	131	38	54	42	4	0	0	46	4	1.063
Strawberry Paw (NY136)	473	343	100	26	37	37	0	0	74	37	1.060
MSGG135-1R	401	167	49	58	36	6	0	0	42	6	1.059
MSHH161-6R	426	352	103	16	22	63	0	0	84	63	1.051
MSHH176-2R	390	213	62	45	28	27	0	0	55	27	1.055
Spartan Red	438	297	86	31	43	27	0	0	69	27	1.062
Chieftain	507	398	116	20	50	29	0	0	80	29	1.057
Dark Red Norland	367	242	71	33	50	17	0	0	67	17	1.059
NDAF12238Y-2	416	278	81	32	40	28	0	0	68	28	1.058
COTX15083-1R	410	261	76	36	35	29	0	0	64	29	1.052
Red Pontiac	435	344	100	19	28	53	0	0	81	53	1.060
NDTX2093-4R	263	101	29	62	33	6	0	0	38	6	1.054
NDAF113484B-1	412	275	80	31	44	25	0	0	69	25	1.054
A11582-1R	457	214	62	53	37	11	0	0	47	11	1.050
Becca Rose	511	442	129	10	27	62	0	0	90	62	1.051
Fontenot	384	311	91	18	34	48	0	0	82	48	1.063
Red Maria (NY129)	343	245	71	27	34	39	0	0	73	39	1.064
Rhine Red	335	227	66	28	35	37	0	0	72	37	1.062
Viking	343	276	80	13	38	49	0	0	87	49	1.053
MSD[3]	146	118		16	13	18	ns	ns	16	18	0.006
P Value	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	-	-	<0.0001	<0.0001	<0.0001

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

[2]Size classes: C = 0.5 to 1.5" , B = 1.5 to 1.88", A1 = 1.88 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4". Size Class Distribution calculated based on weight using the formula, Class Wt / (Total Yield Wt – Cull Wt) * 100.

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

Table 69. Plant growth and tuber characteristics for the 2025 SJC Red Trial potato selections.

	Plant Growth Characteristics[1]				Tuber Characteristics[2]						
Clone	% Stand	Early Vigor	Vine Type	Vine Maturity	IFC	SC	ST	TS	ED	APP	Merit
AC11596-1Rsto	88	8	7	6	2	2	8	3	8	7	2
Little Ruby (B2152-17)	86	6	9	4	1	2	8	2	8	7	3
Strawberry Paw (NY136)	91	7	9	5	1	2	7	2	7	7	-
MSGG135-1R	89	7	9	7	1	3	8	2	8	7	3
MSHH161-6R	94	7	9	7	1	2	7	2	7	7	1
MSHH176-2R	82	7	9	5	1	2	8	2	8	7	2
Spartan Red	82	7	9	6	1	2	7	2	7	7	1
Chieftain	86	7	9	6	1	3	7	3	7	6	1
Dark Red Norland	78	8	9	5	2	2	8	3	7	7	2
NDAF12238Y-2	88	8	8	5	1	2	8	2	8	8	2
COTX15083-1R	83	6	9	6	1	2	9	2	8	8	2
Red Pontiac	81	7	9	6	1	3	8	2	8	6	1
NDTX2093-4R	86	5	9	4	1	2	8	2	7	6	3
NDAF113484B-1	91	6	9	6	1	2	8	2	8	9	2
A11582-1R	88	6	9	5	1	2	8	3	7	8	2
Becca Rose	80	6	9	7	1	2	8	2	8	7	1
Fontenot	79	7	9	6	2	2	8	2	7	6	1
Red Maria (NY129)	57	6	9	5	1	2	8	2	6	6	2
Rhine Red	61	7	9	7	1	2	8	2	7	6	3
Viking	48	5	9	7	1	3	8	3	8	6	2

[1]Percent Stand: final stand / number of seeds planted per plot * 100 where number of seeds was 30 for 20 ft plot, 8 in spacing.
Early Vigor, Vine Type, Vine Maturity: see rating system outlined in Table 1.

[2]Internal Flesh Color (IFC), Skin Color (SC), Skin Texture (ST), Tuber Shape (TS), Eye Depth (ED), Overall Appearance (APP): see rating system outlined in Table 2.

Merit Score: 1-4 scale: 1 = outstanding, 2 = good/keep, 3 = marginal, 4 = not acceptable/drop.

Table 70. External and internal defects for the 2025 SJC Red Trial potato selections.

	% External Tuber Defects	% Internal Defects[2]			
Clone	Total Culls[1]	HH	CRS	IHN	BC
AC11596-1Rsto	1	0	0	0	0
Little Ruby (B2152-17)	1	0	0	0	0
Strawberry Paw (NY136)	2	0	0	0	0
MSGG135-1R	1	0	0	0	0
MSHH161-6R	2	0	0	0	0
MSHH176-2R	1	0	0	0	0
Spartan Red	1	0	0	0	3
Chieftain	2	0	0	0	0
Dark Red Norland	2	0	0	0	0
NDAF12238Y-2	1	0	0	0	0
COTX15083-1R	1	0	0	0	0
Red Pontiac	2	0	0	0	0
NDTX2093-4R	0	0	0	0	0
NDAF113484B-1	3	0	0	0	0
A11582-1R	1	0	0	0	0
Becca Rose	3	0	0	0	0
Fontenot	2	0	0	0	0
Red Maria (NY129)	3	0	0	0	0
Rhine Red	6	0	0	7	0
Viking	8	0	0	0	0
MSD[3]	6	ns	ns	ns	ns
P Value	0.0003	-	-	0.4823	0.4823

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

[2]Percent tubers hollow heart (HH), corky ringspot (CRS), internal heat necrosis (IHN), brown center (BC).

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

These are pictures of the clones that have the higher marketable yields in this trial.

Appendix 1. Potato Season Weather Data for Northeast Florida

Weather data was 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 Hastings AEC Research 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 71. Daily rainfall amounts (in) at the UF/IFAS Hastings AEC Research Farm between Jan. 20 and Jun. 16, 2025.

Day	January	February	March	April	May	June
1	-	0.01	0.00	0.00	0.00	0.00
2	-	0.00	0.00	0.00	0.00	0.00
3	-	0.00	0.00	0.00	0.27	0.31
4	-	0.00	0.00	0.00	0.03	0.08
5	-	0.00	0.16	0.00	0.00	0.01
6	-	0.00	0.05	0.00	0.00	0.44
7	-	0.00	0.00	0.13	1.07	0.00
8	-	0.00	0.05	0.05	0.00	0.00
9	-	0.00	0.37	0.00	1.34	0.00
10	-	0.00	0.91	0.00	0.10	0.26
11	-	0.01	0.00	0.13	0.03	0.11
12	-	0.01	0.00	0.00	1.02	0.00
13	-	0.00	0.00	0.00	0.00	0.06
14	-	0.00	0.00	0.00	0.00	1.20
15	-	0.09	0.00	0.00	0.00	0.00
16	-	0.41	0.65	0.00	0.00	0.00
17	-	0.01	0.00	0.00	0.00	-
18	-	0.00	0.00	0.00	0.00	-
19	-	0.41	0.00	0.00	0.00	-
20	0.00	0.00	0.00	0.00	0.05	-
21	0.94	0.00	0.00	0.00	0.00	-
22	0.67	0.00	0.00	0.00	0.00	-
23	0.00	0.00	0.00	0.03	0.00	-
24	0.00	0.41	0.00	0.00	0.00	-
25	0.00	0.11	0.00	0.00	0.48	-
26	0.00	0.00	0.00	0.00	0.42	-
27	0.00	0.00	0.00	0.00	0.03	-
28	0.00	0.00	0.00	0.00	1.28	-
29	0.00		0.00	0.00	0.39	-
30	0.00		0.50	0.00	0.02	-
31	0.00		0.00		0.24	
Total	1.61	1.47	2.69	0.34	6.77	2.47

Table 72. Daily maximum and minimum air temperatures (°F) at the UF/IFAS Hastings AEC Research Farm between Jan. 20 and Jun. 16, 2025.

	January		February		March		April		May		June	
Day	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	-	-	71	52	76	45	86	68	86	55	86	62
2	-	-	75	48	67	47	88	64	86	58	88	65
3	-	-	75	58	69	43	88	71	86	64	84	68
4	-	-	82	58	75	55	87	64	86	66	86	72
5	-	-	83	52	77	62	88	60	86	62	90	72
6	-	-	83	58	68	50	89	64	89	65	91	71
7	-	-	77	57	75	38	88	65	90	69	93	73
8	-	-	81	53	70	43	73	60	87	68	92	75
9	-	-	81	53	78	57	74	55	90	69	93	73
10	-	-	82	52	74	56	78	61	86	69	91	72
11	-	-	82	61	77	48	83	57	82	70	90	69
12	-	-	84	59	78	42	72	51	80	71	91	74
13	-	-	87	65	78	45	76	47	87	67	90	74
14	-	-	70	59	75	50	84	47	88	63	89	73
15	-	-	81	61	81	56	84	54	93	65	90	73
16	-	-	81	57	78	68	78	51	94	66	91	72
17	-	-	58	45	68	48	80	44	94	63	-	-
18	-	-	69	42	72	42	84	53	95	71	-	-
19	-	-	66	54	83	40	83	55	93	69	-	-
20	51	36	61	43	81	45	84	54	95	71	-	-
21	50	36	52	36	66	42	85	61	95	67	-	-
22	39	34	67	41	73	37	83	59	87	64	-	-
23	52	38	72	43	78	42	85	57	93	58	-	-
24	54	34	60	55	77	53	82	60	92	67	-	-
25	57	31	69	52	80	59	83	59	91	68	-	-
26	68	39	80	47	81	50	87	58	90	68	-	-
27	73	43	79	50	77	47	90	62	94	68	-	-
28	71	49	74	50	79	50	85	64	93	71	-	-
29	74	44			79	56	82	62	91	70	-	-
30	74	44			75	63	82	57	90	71	-	-
31	82	54			85	66			85	69	-	-
Avg.	62	40	74	52	76	50	83	58	89	66	90	71