

Chapter 6. Statewide Red-Skinned Potato Variety Trials, 2006¹

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General Comments: A goal of the statewide potato variety trial is to identify advanced potato selections for Florida production. Established varieties were included to provide a baseline for comparison.

Planting Information

Florida Statewide Red Potato Trial (Tables 15 and 16).	PSREU - Hastings Farm (PSREU), One Site in Bunnell and One Site in Hastings
Planting Dates	PSREU (2/1/06), Bunnell (1/25/06), Hastings (1/26/06)
Harvest Dates	PSREU (5/18/06), Bunnell (5/9/06), Hastings (5/8/06)
Season Length	PSREU (86), Bunnell (104), Hastings (102)
Fertilizer Program	Grower standard practices for all sites except PSREU, which is similar to the Red Variety Trial (Chapter 4).
Irrigation Program	Seepage at all sites.

Experimental Design

Number of Sites	3
Number of Selections	8
Within Row Spacing	8 in (20.3 cm)
Between Row Spacing	38-42 in (96.5-106.6 cm)
Replications	4 at each site
Plot Size	16 ft (4.9 m) single row

Production Statistics- Based over all sites

Highest Total Yield	Red LaSoda (422 cwt/acre or 47.3 MT/ha)
Highest Marketable Yield	Red LaSoda 13 (374 cwt/acre or 41.9 MT/ha)

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Table 2. Production statistics for Statewide Red-Skinned potato selections grown at various sites in Florida.

Clone	Total		Marketable							Size				Size Class		Specific Gravity
	Yield (cwt/A)	Yield ¹ (cwt/A)	C	B	Distribution by Class (%) ²			A4	Range (%)		A1 to A3	A2 to A3				
					A1	A2	A3		A1 to A3	A2 to A3						
Red LaSoda																
PSREU-Hastings	422	370	0	5	69	24	1	0	94	25	1.061					
Hastings	351	314	1	9	73	17	0	0	90	17	1.067					
Bunnell	336	296	1	10	71	16	2	0	89	18	1.064					
Red LaSoda 10																
PSREU-Hastings	388	354	1	6	74	19	1	0	94	20	1.062					
Hastings	318	275	2	11	77	9	2	0	87	10	1.065					
Bunnell	343	306	1	9	75	13	1	0	90	15	1.062					
Red LaSoda 13																
PSREU-Hastings	419	374	1	5	64	30	0	0	94	30	1.060					
Hastings	345	303	1	9	72	18	0	0	90	18	1.067					
Bunnell	368	336	1	8	69	19	3	0	92	22	1.063					
Cherry Red																
PSREU-Hastings	346	297	1	10	83	6	0	0	89	6	1.073					
Hastings	279	230	2	13	83	2	0	0	85	2	1.073					
Bunnell	277	213	1	21	77	1	0	0	78	1	1.068					
LaRouge																
SREU-Hastings	399	352	1	7	81	11	0	0	93	11	1.063					
Hastings	287	249	2	11	77	10	0	0	87	10	1.068					
Bunnell	287	239	1	13	77	9	0	0	86	9	1.064					
Red Pontiac																
PSREU-Hastings	374	322	1	7	73	16	3	0	92	18	1.062					
Hastings	355	322	1	7	61	28	3	0	92	31	1.062					
Bunnell	330	288	1	11	77	10	1	0	88	11	1.060					
NY129																
PSREU-Hastings	299	234	1	13	83	3	0	0	86	3	1.061					
Hastings	287	236	2	15	77	5	0	0	83	5	1.062					
Bunnell	321	252	1	20	77	1	0	0	78	1	1.062					
NY136																

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	Yield (cwt/A)	Yield ¹ (cwt/A)	C	B	Distribution by Class (%) ²			Range (%)			A4				
					A1	A2	A3	A1 to A3	A2 to A3						
PSREU-Hastings	341	256	2	21	72	4	1	77	5	0	77	5	1.065		
Hastings	309	246	2	19	71	6	2	79	9	0	79	9	1.071		
Bunnell	360	285	1	20	75	4	1	79	4	0	79	4	1.067		

¹Marketable Yield: size classes A1 to A3.

²Size classes: C = .5 to 1.5", B = 1.5 to 1 7/8", A1 = 1 7/8 to 2.5", A2 = 2.5 to 3.25", A3 = 3.25 to 4", A4 = >4"

Table 3. External and internal defects of Statewide Red-Skinned potato selections grown at various sites in Florida.

Clone	% External Tuber Defects					% Internal Defects ²						
	Growth Cracks	Mis-shapen	Sun-burned	Rotten & misc.	Total Culls ¹	HH	BR	CRS	IHN	L	M	H
Red LaSoda												
PSREU-Hastings	0	0	1	7	7	0	0	0	0	1	0	0
Hastings	1	0	0	0	1	0	0	0	0	0	0	0
Bunnell	0	0	0	1	1	0	0	0	0	3	0	0
Red LaSoda 10												
PSREU-Hastings	0	0	1	1	3	0	0	0	0	1	0	0
Hastings	0	0	0	0	1	0	0	0	0	0	0	0
Bunnell	0	0	0	0	1	0	0	0	0	0	0	0
Red LaSoda 13												
PSREU-Hastings	0	1	2	2	6	0	0	0	0	6	0	0
Hastings	1	0	1	1	2	0	0	0	0	5	0	0
Bunnell	0	0	0	0	1	0	0	0	0	4	0	0
Cherry Red												
PSREU-Hastings	0	0	1	3	4	0	0	0	0	0	0	0
Hastings	1	1	0	0	3	0	0	0	0	0	0	0
Bunnell	0	2	0	0	2	0	0	0	0	0	0	0
LaRouge												
PSREU-Hastings	0	0	2	3	5	1	0	0	0	6	3	0
Hastings	0	0	0	0	1	0	0	0	0	0	0	0
Bunnell	1	0	0	1	2	0	0	0	0	1	1	0
Red Pontiac												
PSREU-Hastings	0	0	1	4	6	0	0	0	0	0	0	0
Hastings	0	0	1	1	2	0	0	0	0	0	0	0
Bunnell	0	0	0	1	1	0	0	0	0	0	0	0
NY129												
PSREU-Hastings	0	0	1	7	8	0	0	0	0	0	0	0
Hastings	0	0	0	0	0	0	0	0	0	0	0	0
Bunnell	0	0	0	0	0	0	0	0	0	0	0	0
NY136												
PSREU-Hastings	0	0	1	1	2	0	0	0	0	0	0	0

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Clone	% External Tuber Defects					% Internal Defects ²						
	Growth Cracks	Mis-shapen	Sun-burned	Rotten & misc.	Total Culls ¹	HH	BR	CRS	IHN	L	M	H
Hastings	0	0	0	0	1	0	0	0	0	0	0	0
Bunnell	0	0	0	0	0	0	0	0	0	0	0	0

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

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

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