



University of Florida Potato Variety Spot Light: *Red LaSoda*¹

Chad M. Hutchinson, Doug Gergela, Tom Donovan, David Dinkins and Edsel Redden²

General Comments: Red LaSoda is the red-skinned fresh market potato standard for Florida. Red LaSoda was observed in 1949 as a deep red mutant of LaSoda in the Louisiana potato breeding program. Originally, LaSoda was a selection from a cross of Triumph and Katahdin. Red LaSoda was released by the USDA and the Louisiana Agricultural Experiment Station in 1953. It has been in trials over many seasons and at many locations in Florida including university and grower sites. Production and quality results in this highlight sheet for Red LaSoda are summarized from the Red-Skinned, Fresh-Market university trials conducted over the past eight seasons.

General Characteristics: Red LaSoda has a white to cream tuber flesh with a tuber shape of “round to oblong.” It has a smooth, red to pink-colored skin with deep to intermediate eye depth. The variety has good yield potential and a relatively low specific gravity compared to other red-skinned potato varieties adapted for Florida production (Tables 1 and 2). Two Red LaSoda selections have been evaluated in trial since 2003; Red LaSoda 10 and Red LaSoda 13. To date,

production and quality of these selections has not differed from Red LaSoda in university trials. Only Red LaSoda yield and quality are reported in this highlight sheet.

Season Length: The time from planting to vine kill is approximately 85-95 days for Red LaSoda depending on growing conditions during the season. Tuber size should be checked regularly late in the season. Plants should be vine killed when size distribution meets desired goals. The time from vine kill to harvest varies by season. At least two to three weeks should be allowed to mature and set tuber skin.

Fertilization and Growth: University trials have used approximately 200 lb N/acre. Nitrogen in the Red LaSoda crop should be managed so that it “runs out” late in the season to improve tuber maturity and skin set. It may require less nitrogen than the UF/IFAS extension general recommendation of 200 lb N/acre in heavier soils to achieve this goal. P and K should be applied based on soil tests.

Foliage develops rapidly with determinant growth resulting in early to mid-season maturity.

1. This document is HS1078, one of a series of the Horticultural Sciences Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date July 25, 2006. Visit the EDIS Web Site at <http://edis.ifas.ufl.edu>.

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Planting: Tubers should break dormancy before planting. A seed piece of 2 1/2 to 3 oz is desired for planting. Plant spacing should be 5 to 8 inches in-row with 36 to 40 inches between row. Closer in-row spacings will reduce harvested tuber size. Excessive soil moisture late in the season will degrade lenticel appearance and delay skin set.

Diseases: Red LaSoda has general disease resistance characteristics. The variety is susceptible to scab, early blight, late blight, corky ring spot, and bacterial wilt. A standard extension recommended disease control program should be followed.

Seed Source: Open variety, available through many seed sources.

Other Information: Hutchinson, C.M., E.H. Simonne, G.J. Hochmuth, D.N. Maynard, W.M. Stall, S.M. Olson, S.E. Webb, T.G. Taylor and S.A. Smith. 2006. Potato production in Florida. *In: Vegetable Production Guide for Florida*. S.M. Olson and E.H. Simonne, eds. University of Florida.

Potato Association of America variety database:
<http://www.umaine.edu/PAA/Varieties/redlasoda.htm>



Figure 1. Typical tuber skin and internal flesh color of Red LaSoda.

Table 1. Summary of production statistics and specific gravity of Red LaSoda, a red-skinned fresh market potato variety grown at the UF/IFAS research and demonstration farm in Hastings, FL.

Year	Total Yield (cwt/A)	Marketable Yield ¹ (cwt/A)	Size							Size Class		Specific Gravity
			C	B	A1	A2	A3	A4	A1 to A3	A2 to A4	culls	
			<u>Distribution by Class %²</u>							<u>Range %</u>		
1998	469	352	--	3	23	35	18	0	76	53	22	1.058
1999	396	329	--	4	64	18	1	0	83	19	13	1.053
2000	326	298	--	4	35	38	18	0	91	46	5	1.072
2001	305	279	--	3	42	42	13	0	97	55	6	1.064
2002	373	341	--	3	43	44	10	0	97	54	6	1.061
2003	495	419	--	3	37	34	20	1	92	55	7	1.059
2004	402	326	7	6	55	26	6	0	88	32	7	1.070
2005	337	299	1	7	55	34	3	0	92	37	3	1.066
Average	388	330	4	4	44	34	11	0	89	44	9	1.063

¹Marketable yield: Sum of size classes A1 to A3.

²Size classes: C = 0.5 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";
Size distribution by class: Class (wt)/(Total Yield [wt] – culls [wt])

Table 2. Yield, vine maturity, tuber characteristics, and internal tuber defects of Red LaSoda, a red-skinned fresh-market potato variety grown at the UF/IFAS research and demonstration farm in Hastings, FL.

Year	Total Yield (cwt/A)		Marketable Yield (cwt/A)	Vine Maturity ¹ (vine kill)	IFC	Tuber Characteristics ¹			Internal Defects ²					
	Yield	Yield				SC	ST	TS	ED	APP	HH	BR	CRS	IHN
1998	469	352	-	-	-	2.0	7.5	2.0	3.0	6.0	-	-	-	-
1999	396	329	-	-	-	2.0	7.0	3.0	3.0	4.0	1	0	0	0
2000	326	298	6.3	-	-	2.0	7.3	2.7	5.3	5.0	1	0	0	1
2001	305	279	5.8	1.5	1.5	2.7	7.0	2.7	5.3	3.7	0	0	0	0
2002	373	341	3.0	1.5	1.5	3.0	7.0	3.5	3.5	6.5	1	0	0	0
2003	495	419	6.0	1.7	1.7	2.7	7.3	2.7	3.7	5.7	1	0	0	4
2004	402	326	6.3	1.3	1.3	2.3	7.0	2.3	3.7	5.7	1	0	0	0
2005	337	299	5.8	1.5	1.5	2.5	6.5	3.5	4.5	5.0	0	0	0	0

¹See rating system outlined in Florida Rating Code Table (Table 3).

²Percent tuber defects. HH = hollow heart, BR = brown rot, CRS = corky ring spot, IHN = internal heat necrosis.

Table 3. Florida Rating Codes for Potato Tuber Characteristics¹

Rating Code	Vine Maturity	Tuber Characteristics											
		Internal Flesh Color	Skin Color	Skin Texture	Tuber Shape	Eye Depth	Overall Appearance	Internal Flesh Color	Skin Color	Skin Texture	Tuber Shape		
1	dead	White	Purple	Part. Russet	Round	Very Deep	Very Poor	White	Purple	Part. Russet	Round	Very Deep	Very Poor
2	+-	Cream	Red	Heavy Russet	Mostly Round	--	--	Cream	Red	Heavy Russet	Mostly Round	--	--
3	yellow and dying	Light Yellow	Pink	Mod. Russet	Round to Oblong	Deep	Poor	Light Yellow	Pink	Mod. Russet	Round to Oblong	Deep	Poor
4	+-	Medium Yellow	Dark Brown	Light Russet	Mostly Oblong	--	--	Medium Yellow	Dark Brown	Light Russet	Mostly Oblong	--	--

Table 3. Florida Rating Codes for Potato Tuber Characteristics¹

Rating Code	Vine Maturity	Tuber Characteristics							Overall Appearance
		Internal Flesh Color	Skin Color	Skin Texture	Tuber Shape	Eye Depth			
5	moderately senesced	Dark Yellow	Brown	Netted	Oblong	Intermediate		Fair	
6	+-	Pink	Tan	Slightly Netted	Oblong to Long	--	--	--	
7	starting to senesce	Red	Buff	Mod. Smooth	Mostly Long	Shallow		Good	
8	+-	Blue	White	Smooth	Long	--	--	--	
9	green and vigorous	Purple	Cream	Very Smooth	Cylindrical	Very Shallow		Excellent	

¹Based on the standard NE 1014 rating codes for plant and tuber characteristics.