

University of Florida Potato Variety Trials Spotlight: ‘Fabula’¹

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Introduction

There are several potato varieties available in the market today. Most of them have been bred or developed in production regions other than Florida. The University of Florida Potato Variety Evaluation Program screens new germplasm from public and private breeding programs and identifies the most promising cultivars for commercial potential considering broad adaptability to Florida climate and conditions and market purpose: processing, fresh-market and specialty-type varieties. Over the years, the UF/IFAS Potato Variety Program has become an important reference to vegetable growers, seed producers, processors, crop insurance agencies, and brokers looking for alternative potato varieties to explore different markets, improved characteristics, and yield. This UF/Potato Variety Trials Spotlight presents a summary of the field evaluation of tuber yield and quality performance of the potato variety ‘Fabula’ cultivated in Florida.

General Comments

‘Fabula’ is a potato variety that is commonly grown for the fresh potato market. The variety was selected from progeny of a cross between ‘Monalisa’ and ‘Hudson’. It was released in 2005 by D. Biedmond B.V. of the HZPC in the Netherlands. ‘Fabula’ demonstrates good tuber characteristics and

high yield superior to its commercial standard, ‘LaChipper’. Tuber production and quality results provided in this spotlight are summarized from various trials conducted by the UF/IFAS Hastings Agricultural Extension Center from 2001 to 2016, excluding 2009.

General Characteristics

‘Fabula’ tubers have a buff skin color with a slightly netted texture and creamy flesh color (Figure 1). According to Florida rating codes for potato tuber characteristics (Table 1), the tubers have a fair/good appearance with mostly oblong shape and eyes that are unevenly distributed with intermediate/shallow depth (Table 3). The variety has medium to long dormancy (time required for sprout emergence). This variety has high yield potential under Florida production conditions (Tables 2 and 3). On average, marketable yield is 265 cwt/acre, approximately 11% greater than the commercial standard ‘LaChipper’, with 91% of the tubers found between A1 and A3 tuber size classifications.

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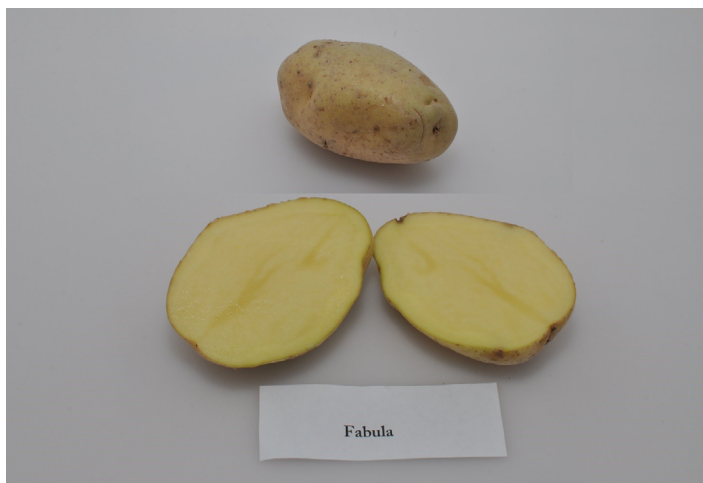


Figure 1. Typical tuber and internal fresh color of 'Fabula' potato variety.

Credits: Lincoln Zotarelli, UF/IFAS

Diseases

On average, 'Fabula' demonstrates no incidence of hollow heart, brown rot, corky ringspot, or internal heat necrosis under Florida conditions (Table 3). It is immune to potato wart (*Synchytrium endobioticum* [race 1]), resistant to golden nematode (*Globodera rostochiensis*), and exhibits moderate resistance to leaf roll virus, potato virus Y, common scab (*Streptomyces scabies*), and tuber late blight (*Phytophthora infestans*). It is moderately susceptible to potato virus X and foliage late blight. The standard UF/IFAS Extension recommended disease and weed control program described under *Potato Production* (Chapter 14 of the *Vegetable Production Handbook for Florida*, <http://edis.ifas.ufl.edu/cv131>) should be followed.

Season Length and Growth

'Fabula' is a medium-to-late-maturing variety. Under Florida conditions, the season length is 95 days on average from planting to harvesting. This depends on weather conditions during the growing season. The plants should be harvested two weeks after vine kill to improve tuber maturation and skin set. Potatoes with proper skin set maintain better skin color, lose less weight in storage, and are more resistant to bruising and soft rot. For more information about vine killing on potatoes, see *Potato Vine Killing or Desiccation* (Zotarelli et al. 2016). Late in the season, tuber size should be checked regularly to harvest tubers with desirable marketable size. Soil moisture should be managed late in the season to avoid high soil moisture conditions that cause enlarged lenticels and delayed skin set.

Fertilization

UF/IFAS trial plots are normally fertilized with 200 to 230 lb/ac of N. The first application of 100 lb/ac of N (granular) is typically incorporated in the bed prior to planting, followed by one or two side-dress fertilizer applications at emergence and/or at tuber initiation. Phosphorus and potassium applications follow the UF/IFAS guidelines described in Liu et al. (2020) and normally range between 45 to 100 lb/ac of P_2O_5 and 170 to 235 lb/ac of K_2O .

Planting

A seed piece of 2.5 to 3 oz is recommended for planting. This variety should be planted with 40 inches between rows and 8 inches between plants, at 3 to 4 inches deep. A seed rate of 2,000 to 3,000 lb/acre of seed is expected.

Other Information

For additional information on cultivation and weed and disease management, see the *Potato Production* chapter of the *Vegetable Production Handbook*, available at <https://edis.ifas.ufl.edu/cv131>.

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Table 1. Florida's rating codes for potato vine maturity and tuber characteristics.

Rating Code	Tuber Characteristics ¹						
	Vine Maturity	Internal Flesh Color	Skin Color	Skin Texture	Tuber Shape	Eye Depth	Overall Tuber Appearance
1	dead	white	purple	partial russet	round	very deep	very poor
2	+-	cream	red	heavy russet	mostly round	--	--
3	yellow and dying	light yellow	pink	moderate russet	round to oblong	deep	poor
4	+-	medium yellow	dark brown	light russet	mostly oblong	--	--
5	moderately senesced	dark yellow	brown	netted	oblong	intermediate	fair
6	+-	pink	tan	slightly netted	oblong to long	--	--
7	starting to senesce	red	buff	moderately	mostly long	shallow	good
8	+-	blue	white	smooth	long	--	--
9	green and vigorous	purple	cream	very smooth	cylindrical	very shallow	excellent

¹ Adapted from Hutchinson et al. (2003) and Sisson and Porter (2002).

Table 2. Summary of production statistics and specific gravity of 'Fabula' potato variety grown at the UF/IFAS Hastings Agricultural Extension Center, Hastings, FL from 2001 to 2016, excluding 2009.

Year	Total Yield	Marketable Yield ¹	% of STD	Standard	Size Class (Distribution by Class %) ²						Range %		Specific Gravity
					C	B	A1	A2	A3	A4	A1 to A3	Culls	
2001	242	219	72	LaChipper	0	3	31	44	23	0	97	6	1.053
2002	311	245	108	LaChipper	0	2	36	47	15	0	98	19	1.059
2003	486	417	132	LaChipper	2	3	32	37	27	0	96	11	1.056
2004	529	472	223	LaChipper	3	3	50	38	6	0	94	5	1.063
2005	361	323	129	LaChipper	1	5	59	31	4	0	94	5	1.054
2006	324	269	88	LaChipper	0	7	77	15	0	0	92	10	1.053
2007	408	381	128	LaChipper	0	6	70	22	2	0	94	1	1.052
2008	339	286	150	LaChipper	1	11	73	15	1	0	88	4	1.060
2010	244	153	82	LaChipper	2	14	83	1	0	0	84	25	1.047
2011	373	314	111	LaChipper	1	7	53	29	10	0	92	8	1.050
2012	216	149	61	LaChipper	2	9	53	24	12	0	89	27	1.044
2013	136	106	85	LaChipper	2	9	77	11	0	0	89	13	1.044
2014	324	183	126	LaChipper	3	18	71	7	1	0	79	30	1.053
2015	235	197	59	LaChipper	3	8	59	30	0	0	89	6	1.039
2016	165	128	108	LaChipper	2	10	65	12	11	0	88	11	1.048
Average	313	256	111	LaChipper	1	8	59	24	7	0	91	12	1.052

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

² Size classes: C = 0.5 to 1.5 inches, B = 1.5 to 1.86 inches, A1 = 1.86 to 2.5 inches, A2 = 2.5 to 3.25 inches, A3 = 3.25 to 4 inches, A4 >4 inches;
 Size distribution by class: Class (wt)/(Total Yield [wt] – culls [wt])

Table 3. Vine maturity, tuber characteristics, and internal tuber defects of 'Fabula' potato variety grown at the UF/IFAS Hastings Agricultural Extension Center, Hastings, FL from 2001 to 2016, excluding 2009.

Year	Vine Maturity	Tuber Characteristics ¹						Internal Tuber Defects ²			
		Internal Flesh Color	Skin Color	Skin Texture	Tuber Shape	Eye Depth	Overall Appearance	HH	BR	CRS	IHN
2001	4	2	8	7	3	5	4	0	0	0	0
2002	4	3	7	7	4	7	5	0	0	0	0
2003	6	3	7	7	4	7	7	0	0	0	0
2004	7	3	7	8	5	8	8	0	0	0	0
2005	8	3	7	6	5	7	6	0	0	0	0
2006	9	2	7	6	4	6	6	0	0	0	0
2007	9	4	7	6	3	7	6	0	0	0	0
2008	7	2	7	6	3	7	6	0	0	0	0
2010	8	3	8	7	4	5	6	0	0	0	0
2011	8	3	7	7	4	3	6	0	0	0	0
2012	9	2	7	7	3	4	5	0	0	0	0
2013	8	3	7	6	4	3	5	0	0	3	0
2014	3	2	9	7	3	5	7	0	0	3	0
2015	5	2	9	8	3	7	7	0	0	0	0
2016	6	3	9	8	4	6	7	0	0	0	0
Average	7	3	7	7	4	6	6	0	0	0	0

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

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