

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

Rodrick Z. Mwatuwa, Christian T. Christensen, Pam Solano, and Lincoln Zotarelli²

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 and Extension Center from 2001 to 2015, 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 appearance with round to oblong shape, and eyes that are unevenly distributed with intermediate 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.



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

Credits: Lincoln Zotarelli, UF/IFAS

Diseases

‘Fabula’ demonstrates no incidence of hollow heart, brown rot, corky ring spot, 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 13 of the *Vegetable*

1. This document is HS1294, one of a series of the Horticultural Sciences Department, UF/IFAS Extension. Original publication date May 2017. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

2. Rodrick Z. Mwatuwa, research assistant; Christian T. Christensen, postdoctoral research associate; Pam Solano, biological scientist; and Lincoln Zotarelli, assistant professor; Horticultural Sciences Department, UF/IFAS Extension, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county’s UF/IFAS Extension office.

U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Nick T. Place, dean for UF/IFAS Extension.

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 was 87 days on average from planting to harvesting. This depended 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* described in Zotarelli et al. (2011). 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/A of N. The first application of 100 lb/A 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. (2016) and normally range between 45 to 100 lb/A of P₂O₅ and 170 to 235 lb/A of K₂O.

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, weed and disease management see the "Potato Production" chapter of the *Vegetable Production Handbook* available at <http://edis.ifas.ufl.edu/cv131>.

References

Canadian Food Inspection Agency. Fabula. http://www.inspection.gc.ca/DAM/DAM-plants-vegetaux/STAGING/text-texte/pota_vari_fabula_1312587515433_eng.pdf accessed on 08/05/2016.

Hutchinson, C. M., J. M. White, D. M., Gergela, P. A. Solano, K. G. Haynes, R. Wenrich, and C. S. Lippi. 2003. "Performance of chip processing potato varieties in north-eastern Florida." *HortTechnology*, 13(4), 706–711.

Liu, G., E.H. Simonne, K.T. Morgan, G.J. Hochmuth, M. Ozores-Hampton, and S. Agehara. 2016. "Fertilizer management for vegetable production in Florida." In: *Vegetable Production Handbook of Florida 2016—17*. J.S. Freeman et al. (eds). Farm Media Journal. p.3–10.

Sisson, J.A. and G.A. Porter. 2002. Performance evaluations of potato clones and varieties in the northeastern states-1999. Maine Agr. For. Expt. Sta., Misc. Publ. 751.

Zotarelli, L., S. Sargent, P. Dittmar, M. Makani. 2011. *Potato Vine Killing or Desiccation*. HS181. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/hs181>

Zotarelli, L., J. P. Dittmar, P. D. Roberts, P. Stansly, H. A. Smith, and S. E. Webb. 2016. *Chapter 13. Potato Production. Vegetable Production Handbook for Florida, 2015–2016 Edition*. HS733. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/cv131>

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

Tuber Characteristics ¹							
Rating Code	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, C. M. et al. (2003) and Sisson, J. A. and G. A. 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 2015, 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
Average	323	265	111		1	8	59	25	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 2015, 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	*	*	*	*	*	6	0	0	0	0
Average	7	3	7	7	4	5	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.

*Missing data