

VEGETARIAN NEWSLETTER

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PRINT VERSION

HARLEY BLACKWELL, AN INTERNAL HEAT NECROSIS (IHN) RESISTANT CHIP POTATO VARIETY FOR FLORIDA

'Harley Blackwell' is an internal heat necrosis resistant (IHN) chip potato selection recently released by the USDA. It was tested at the University of Florida's Plant Science Research and Education Unit during five seasons from 1998 to 2003 originally under the number B0564-8. Production practices followed standard IFAS recommendations.

'Harley Blackwell' tubers have consistently been described as having a tan to buff skin color with a netted texture. Tuber flesh color is white to cream. Tuber shape is rated as 'mostly round' to 'round to oblong' with an eye depth of intermediate to shallow. Overall external tuber appearance is noted as fair to good. Harley Blackwell plant architecture is described as spreading to upright with a good canopy. Early plant vigor (size) is rated similar to 'Atlantic'. 'Harley Blackwell' and 'Atlantic' have a similar plant maturity rating. Overall, the tuber appearance, growth characteristics, and maturity rating for 'Harley Blackwell' are similar to 'Atlantic'.

Total and marketable yield of 'Harley Blackwell' averaged less than 'Atlantic' over all seasons evaluated at the PSREU-Hastings Farm (Table 1). In addition, specific gravity averaged several points lower than 'Atlantic' although still in an acceptable range for Florida chip potatoes. However, IHN, a physiological disorder that discolors the tuber flesh, is less in 'Harley Blackwell' compared to 'Atlantic'. This data were supported on commercial farm trials in 2001 in Hastings, FL. On four commercial farms, 'Atlantic' averaged 7.7% IHN compared to 0.0% IHN in 'Harley Blackwell'. Total yield for 'Harley Blackwell' and 'Atlantic' averaged 330 and 360 cwt/A, respectively (HortTechnology, 2003).

With the reduced yield but better quality of 'Harley Blackwell' compared to 'Atlantic', it is recommended that 'Atlantic' is planted to supply early contracts when yield is important and IHN is less of a problem. 'Harley Blackwell' can be planted to fill late season contracts to reduce the incidence of IHN and improve load quality.

A limited supply of 'Harley Blackwell' seed is available for the 2004 season through MFX, Presque Isle, Maine. As with all new varieties, seed should be planted on limited acreage to gain information on the variety and to reduce initial risk.

For complete production details and a list of all varieties and clones tested in 2003, visit <http://potato.ifas.ufl.edu> and click on '2003 Florida Chip and Fresh Potato Variety Trial Report'.

Table 1. Production and quality summary for 'Atlantic' and 'Harley Blackwell' (HB) tested at the University of Florida's PSREU-Hastings Farm from 1999 to 2003.

Clone	Total Yield	Marketable Yield ¹		Total Culls ²	Size Class Range (%) ³		Specific Gravity	Tuber Defects (%) ⁴		Wise Chip Rating ⁵
	(cwt/A)	(cwt/A)	% ATL	%	A1-A3	A2-A3		HH	IHN	
2003										
Atlantic	470	416	--	3	91	54	1.079	7	4	3
HB	429	372	89	2	88	50	1.074	8	0	3
2002										
Atlantic	309	284	--	4	94	47	1.077	0	4	3
HB	256	235	83	3	94	39	1.076	0	1	2
2000										
Atlantic	378	342	--	10	91	73	1.076	3	3	--
HB	290	254	74	8	88	48	1.073	0	0	--
1999										
Atlantic	398	354	--	8	89	24	1.073	0	0	--
HB	384	342	97	5	89	10	1.065	0	0	--
1998										
Atlantic	398	366	--	4	92	54	1.080	--	--	--

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HB	390	307	84	14	79	32	1.072	--	--	--
1	Marketable Yield: size classes A1 to A3									
2	Total culls include the sum of growth cracks, misshapen, sunburned and rotten/misc.									
3	Size 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"									
4	Percent tubers: HH, hollow heart; IHN, internal heat necrosis.									
5	1 = outstanding, no blemishes or color variations; 2 = very good, minimal blemishes and color variations; 3 = good, acceptable blemishes and color variations; 4 = marginal acceptance, high levels of blemishes and color variation; 5 = not acceptable, high blemish and/or color variation levels.									

(Hutchinson and White - Vegetarian 03-12)

DIVERSIFICATION IS THE KEY TO SUCCESS FOR THE LAST ZELLWOOD VEGETABLE FARM

Community Supported Agriculture, Agritourism, turfgrass sod, ornamental landscape plants, retail produce stand – five years ago none of these names could be attributed to Long & Scott Farms in Zellwood, FL. The farm was part of a group of 13 family farms producing 30,000 acres of vegetables for the wholesale market on mostly mucklands around Lake Apopka - then came the buyout. The St. John's Water Management District bought most of the farms and shut them down in an attempt to improve the water quality in the lake. Long and Scott decided not to sell since they farmed upland on sandland that did not impact the lake. They are the last remaining Zellwood vegetable farm.

They have embarked on an aggressive program to diversify and improve profitability. First came the turfgrass sod and woody ornamental additions – both placed in areas that were not the best vegetable land. This segment of the farm replaced marginal vegetable production with 350 acres of turfgrass and 5 acres of woody ornamental trees for the building and landscape market in the Orlando area.

The following season they added the Community Supported Agriculture program. Devoting about 20 acres to bio-rational production methods for this venture gave them plenty of mixed vegetables for baskets either picked up at the farm or delivered to area farmers markets. The first season had 40 subscribers from the area. They are now in their third season with 125 subscribers. The retail market was added to the mix so that subscribers could not only pick up their baskets but buy other produce also.

This fall a new adventure was added to the mix – a corn maze! Open from October through November, the "Let Freedom Ring" corn maze features a statue of liberty with stars and stripes cut into a field of corn. For information, call 352-383-6900 or visit one of the web sites below for more information on the success of Long & Scott Farm's diversification. Did I mention that this is the only place you can get authentic Zellwood sweet corn now?

www.longandscottfarms.com www.cornmaze.com www.scottszellwoodsweetcorn.com

(Tyson, ext. agt. III - Seminole County, Vegetarian 03-12)

ORGANIC FARMING RESEARCH

The Organic Farming Research Foundation was founded in 1990 to foster the improvement and widespread adaption of organic farming practices. OFRF sponsors research related to organic farming, disseminate research results and educate the public and decision makers about organic farming issues. They have just released the 2nd edition of State of the States compiled by Jane Sooby. This report documents organic farming research and extension being conducted in the U.S. land grant system. They concluded the top five organic research states from 2001 are Iowa, Ohio, Minnesota, North Carolina and West Virginia. These states were singled out because they have centralized organic research programs that are interdisciplinary, involve farmers in planning and decision making, have a systems awareness, and are committed to transitioning research acres to certified status. In 2003, Washington and New York were added to the above list of states. South Carolina, Maryland, Florida, and New Hampshire deserve recognition for their emerging organic research programs.

Additional information and facts about each state's involvement in organic farming may be obtained on line at <http://www.ofrf.org> or contact: Organic Farming Research Foundation, P.O. Box 440, Santa Cruz, CA 95061-0440, PH: 831-426-6606, FAX: 831-426-6670 or EMAIL: research@OFRF.org. A \$10 donation is requested for a copy of State of the States. The following is the information they provide for Florida.

Reproduced from the State of the State, 2nd Edition compiled by Jane Sooby (pp. 20-22)
 UNIVERSITY OF FLORIDA, 1862, GAINESVILLE
 10 acres certified, 40 acres in transition

Research, Production

1. Agronomist Johannes Scholberg is studying the use of cover crops for soil fertility and weed management in citrus production. Funded by a 2001 Organic Transitions grant, the work is being conducted on certified acreage at a new research station near Citra, the Plant

Science Research and Education Unit (<http://plantscienceunit.ifas.ufl.edu>). Ten acres of this pristine land have been certified so far, and another 40 acres are being held in reserve until needed. Scholberg's project is studying perennial peanut as a cover crop, as well as a variety of other winter and summer cover crop species. Scholberg, PH: 352-392-1811 x 230, E-MAIL: jmscholberg@ifas.ufl.edu

2. Greg Jones, a doctoral student studying under Associate Professor Kathryn Sieving of the Dept. of Wildlife Ecology and Conservation, is studying the use of organic fields by wild birds. Funded partially by OFRF, the study is a comprehensive assessment of how landscape and farm-scale factors encourage insectivory by birds in fields. Jones is assessing the effectiveness of intercropping in enhancing native bird populations and activity on organic farms. An earlier component of the study involved surveying farmers on their attitudes toward bird conservation. The results of this were published in Jacobson, S. K., K. E. Sieving, and G. A. Jones. 2003. *Attitudes and behavioral intentions of organic and conventional farmers toward wild bird conservation*. Conservation Biology 17:595-606. A 2002 version is on the web at <http://edis.ifas.ufl.edu/UW169>

The April 2002 issue of Linkages newsletter, a publication of the Center for Natural Resources, features articles on organic research, including Greg Jones' research on organic and birds: <http://cnr.ifas.ufl.edu/newsletters/Volume3/Issue10/default.htm>. Contacts: Greg Jones, PH: 352-395-5008, E-MAIL: greg.a.jones@sfcc.edu ; Kathryn Sieving, PH: 352-846-0569, E-MAIL: sievingk@wec.ufl.edu

3. Graduate student in Interdisciplinary Ecology Kristen Bowers received an OFRF grant in 2001 to study controls for the yellowmargined leaf beetle, *Microtheca ochroloma*, in organic crucifer crops. A report is pending.

4. Russell Mizell at the North Florida Research and Education Center in Quincy received a 2002 Organic Transitions Program grant for the project "Organic nursery production: development and demonstration." The project will develop and demonstrate organically-produced plants in several specialty markets and address pest management as well as marketing. This project is scheduled to run through 2005. Contact Mizell, PH: 850-875-7156, E-MAIL: rfmizell@mail.ifas.ufl.edu

5. Nematologist Robert McSorley has published scientific articles on controlling nematodes using crop rotations. He also co-authored a paper on reflective mulch in organic bean production. His on-going research program, though not always explicitly organic, is aimed at "improving non-chemical practices." Currently he is working on solarization and cover crops as alternatives to methyl bromide, and comparing rates of organic nitrogen amendments (primarily legume hays) vs. synthetic N rates to improve N recommendations for organic materials.

The articles on organic research are:

McSorley, R. 2002. Nematode and insect management in transitional agricultural systems. HortTechnology 12:597-600.

McSorley, R. 2001. Multiple cropping systems for nematode management: a review. Soil Crop Sci. Soc. Florida Proc. 60:132-142.

McSorley, R., M. Ozores-Hampton, P. A. Stansly, and J. M. Conner. 1999. Nematode management, soil fertility, and yield in organic vegetable production. Nematropica 29:205-213.

Smith, H. A., R. L. Koenig, H. J. McAuslane, and R. McSorley. 2000. Effect of silver reflective mulch and a summer squash trap crop on densities of immature *Bemisia argentifolii* (Homoptera: Aleyrodidae) on organic bean. J. Econ. Entomol. 93:726-731.

Contact McSorley, PH: 352-392-1901, E-MAIL: mcs@mail.ifas.ufl.edu

Education

The Center for Organic Agriculture (COA) opened in summer 2002 on the Gainesville campus. A 50-50 partnership between the university and industry, the center will have educational, extension, and research responsibilities in organic agriculture. The Center emphasizes interdisciplinary research and strong collaboration with the organic community. Plans include incorporating organic information into existing class curricula; organizing new courses specifically on organic issues; providing internships for students interested in organic agriculture; disseminating research-based information on organic; defining research needs as expressed by the organic farming community; and facilitating multi-disciplinary research teams to address these needs. The organic research station land near Citra provides researchers with a site on which to conduct certified organic research (see #1 under Research, Production, above). The entire project was galvanized by a SARE grant made in 2001 to Florida Organic Growers' founder Marty Mesh, "Developing a model to increase support for organic farming research at land grant institutions." Mickie Swisher, associate professor of sustainable agriculture and the statewide leader for sustainable agriculture is the Center's director. Co-director is farmer Rose Koenig. Mickie Swisher, PH: 352-392-2201 x 256, E-MAIL: MESwisher@mail.ifas.ufl.edu ; Rose Koenig, PH: 352-331-1804, EMAIL: rosiesfarm@mindspring.com

Extension

The Organic Production and Marketing Newsletter has resumed publication! Edited by J. J. Ferguson, this is a valuable resource for organic growers. <http://www.hos.ufl.edu/jfnweb/organicnl/organic.htm>

Organic gardening, extension web page, by consumer horticulture specialist Bob Black. 2002. <http://hort.ifas.ufl.edu/gt/organic-garden/organic.htm>

An article in the winter 2003 newsletter of the Center for Subtropical Agroforestry features Carl Jordan's alleycropping work in Georgia (see Research, production in Georgia). <http://www.cstaf.ifas.ufl.edu/NLw5.03.htm>

Of Note

Co-director of the Center for Organic Agriculture Rose Koenig and OMRI science director Brian Baker published an article, U.S. National Organic program standards: implications for researchers, in the Nov. 2002 edition of APSNet, the on-line journal of the American Phytopathological Society. <http://www.apsnet.org/online/feature/organic>

(White - Vegetarian 03-12)

Extension Vegetable Crops Specialists

Daniel J. Cantliffe Professor and Chairman	Mark A. Ritenour Assistant Professor, postharvest
John Duval Assistant Professor, strawberry	Steven A. Sargent Professor, postharvest
Chad Hutchinson Assistant Professor, vegetable production	Eric Simonne Assistant Professor and EDITOR, vegetable nutrition
Elizabeth M. Lamb Assistant Professor, vegetable production	William M. Stall Professor, weed science
Yuncong Li Assistant Professor, soils	James M. Stephens (retired) Professor, vegetable gardening
Donald N. Maynard (retired) Professor, varieties	Charles S. Vavrina Professor, transplants
Stephen M. Olson Professor, small farms	James M. White Associate Professor, organic farming
Rafael Munoz-Carpena Assistant Professor, hydrology	

Related Links

University of Florida
Institute of Food and Agricultural Sciences
Horticultural Sciences Department
Florida Cooperative Extension Service
North Florida Research and Education Center - Suwannee Valley
Gulf Coast Research and Education Center - Dover
UF/IFAS Postharvest



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