

NFREC NEWS



Why Invest in Agricultural Research in North Florida?

With the budgetary challenges facing the State of Florida, it may be useful to ask the question phrased above. What is the value to society from investing in agricultural research and how does a research and education center like the NFREC fit into that scheme? The discussion of this topic draws heavily from three sources listed in the literature cited section below.

If we think about the value of research purely on a rate of return basis, investment in agriculture research looks like a good investment. The average rate of return from a wide range of studies is about 50%, with public agricultural research representing only about 4% of the agricultural gross domestic product in 2001. Rate of return calculations are based mainly on the increases in productivity that are an outcome of adapting new technologies developed by research programs.

The outlook is even more positive when you realize that agriculture research can influence productivity in as little as 2 years once it is undertaken and can have a long term influence on productivity - as long as 30 years. The nature of the research determines the longevity of the impact. For example, as new varieties are bred for disease resistance, new diseases can come into an area and limit the productivity gains from those new varieties; requiring even more new varieties to be developed. The October 13th and December 15th NFREC newsletters provided good examples of this using peanut and soybean research at the Marianna and Quincy campuses of the NFREC.

In addition to productivity increases, social benefits are another consequence of agricultural research. By adapting new technologies individuals, or countries, are more competitive in their sector of agriculture. Higher productivity also moderates inflation rates by keeping the cost of food low. About 75% of the benefit from agricultural research goes to the consumer because of the lower food prices. The rest of the benefit goes to the producer. So even though agriculture is a rural activity, the major benefit goes to the populated areas of Florida...or to phrase it differently; the citizens of Miami gain much more from agriculture research than does the farmer himself. In fact the group that sees the greatest benefit from agricultural research is the poorest consumer, because the poor spend a higher portion of their income on food.

If we bring this down to the NFREC level, what is the advantage of doing research remote from the Gainesville campus? The NFREC works directly with stakeholders by reacting to their needs. The lag time that is common between research development and adaptation by stakeholders is reduced when the stakeholders are part of the research. Another way of looking at the value of the NFREC is its direct impact on the local economy. Our preliminary estimate based on 2007-08 fiscal year is that for every dollar that the state of Florida put into the NFREC for staff and expenses, the faculty and staff attracted an additional \$0.63. For the first six months of 2008-09 fiscal year that has increased to \$1.73. That is the return on the state's

(Continued on page 2)

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Inside this issue...

Why Invest in Agricultural Research in North Florida?	1
Small Farms and Alternative Enterprises Conference Coming to Florida	2
Southern Highbush Blueberries in North Florida	3
University of Florida to Host "Starting a Successful Hydroponic Business" Short Course	3
Florida Bull Test Sale Summary	4
Coming Events Calendar	4

Special points of interest:

- **March 16 - 18, 2009 - Starting a Successful Hydroponic Business**, North Florida REC - Suwannee Valley, Live Oak, FL. For more information contact Karen Hancock at 386-362-1725 x 101 or email khancock@ufl.edu.
- **June 2009 - Tractor and Implementation Short Course**, North Florida REC - Quincy, FL. For more information call 850-875-7100.
- **August 1 & 2, 2009 - Florida Small Farms & Alternative Enterprises Conference**, Osceola Heritage Park, Kissimmee, FL. For more information on educational program content contact Danielle Treadwell at 352-392-1928 or email ddtreadw@ufl.edu. For general conference information contact Mandy Stage at 352-392-5930 or email mstage@ufl.edu.

For information on other events happening around the state go to <http://calendar.ifas.ufl.edu>

investment before even looking at gains in productivity or new products. The vast majority of these additional dollars, as well as the funds supplied by the state, are put into the local economy. The money is used to pay salaries and buy supplies locally.

In summary, agricultural research at Research and Education Centers is a productive investment for the State of Florida. The research activity brings in new money from outside sources, increases the productivity and longevity of agricultural enterprises, vitalizes the local economy, benefits the consumer more than the farmer, and particularly benefits those that need help most, the poorest consumers. It sounds like something we should keep supporting even in these difficult financial times; particularly with the prospect of rising food prices. [N.B. Comerford]

Alston JM, Chan-Kang C, Marra MC, Pardey PG, Wyatt TJ. 2000. A meta-analysis of rates of return to agricultural R&D: Ex Pede Herculem? International Food Policy Research Institute Research Report 113.

Fuglie KO and Heisey PW. 2007. Economic returns to public agricultural research. USDA Economic Research Service. Economic Brief Number 10.

Langham MR. 1993. Importance of agricultural research. University of Florida Cooperative Extension Service Florida Food and Resource Economics No. 114.

Small Farms and Alternative Enterprises Conference Coming to Florida



Small farms in Florida have traditionally represented a quiet, little-known, part of the agriculture industry. Recent changes, led by new consumer demands, have triggered many diverse opportunities to direct market specialty products throughout the state. Because the small farm industry in Florida has not been highly visible, the small farmers themselves are not well described.

What is a small farm? Now for facts, the USDA defines a small farm as one that has gross annual sales of \$250,000 or less. The small farm debate traditionally has been over the value of sales versus the land area of the farm. The value of sales basis is probably more appropriate, especially for Florida. This is because very high value enterprises or products such as greenhouse ornamentals or vegetables, cut flowers, or culinary herbs can easily have a value of more than \$250,000 on less than 5 or 10 acres. Because Florida has so many opportunities for producing high value products, the classification based on gross sales value is much more appropriate. So, based on the USDA definition, 90% of the over 40,000 farms in Florida are small farms. The other common characteristic of these operations is they are family oriented farms dependent upon the family for management and labor. The USDA further classifies small farms based on the primary motivation of the family for farming. These categories include: primary income, retirement, lifestyle, or limited resources.

New consumer demands for the development of community-based food systems and specialty products such as organic, heirloom, hydroponic, grass-fed beef, pastured poultry, ethnic meats and vegetables, all provide new opportunities for small farmers to sustain a profitable enterprise.

The new opportunities are resulting in a heightened awareness of the small farm industry. A very popular website for small farmers was recently developed by the University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS) and Florida A & M University (FAMU) to provide information on a wide variety of alternative enterprises, how to get started on the small farm, and a calendar of events specifically for small farmers. The site (<http://smallfarms.ifas.ufl.edu>) receives over 70,000 hits monthly which means there are many people looking for information to start or sustain their farming venture.

Additionally, a series of regional small farms conferences are held annually through the state reaching nearly 2000 attendees in 2007. This rising demand for information has led to the organization of an even larger event to bring small farmers together. The result of these discussions between farmers, allied industry, and educators is the first ever, Florida Small Farms and Alternative Enterprises Conference, August 1-2, 2009, at the Osceola Heritage Park, Kissimmee, Florida. This event will feature a large exhibitor area, six concurrent educational sessions (including live animals in the livestock arena), lunches feature local products, and a keynote speaker. The event is being planned by individuals from throughout the industry including: farmers, marketers, researchers, Extension agents, commodity organizations, and industry leaders. The conference website is available at <http://smallfarms.ifas.ufl.edu>. This event will help farmers network with each other, learn about new methods; better organize as an industry; develop plans to improve policy; and celebrate small farms in Florida. Questions regarding conference sponsorship, or being an exhibitor, can be directed to Bob Hochmuth, Extension Agent at 386-362-1725 ext 103 or bobhoch@ufl.edu. [Bob Hochmuth]



Southern Highbush Blueberries in North Florida

A southern highbush blueberry (*Vaccinium corymbosum* L.) planting was initiated at the NFREC-Quincy during spring 2003. The experimental planting consisted of 'Bluecrisp', 'Emerald', 'Jewel', 'Millennia', 'Misty', 'O'Neal', 'Sharpblue' and 'Star'. Plants were mulched with approximately a 10 cm layer of pine bark and were supplied with drip irrigation. Overhead freeze protection was not applied. Yield per bush, berry weight, and soluble solids was measured in 2004; however, because of herbivory by crows in 2005 yields were not determined. From 2006 to 2008, yields were rated before berry ripening and before crow herbivory. During 2004, yields per bush varied between 19 g for 'Misty' and 1250 g for 'Star'. 'Emerald' and 'Star' produced a similar crop in 2006 (62-63 % of a crop) and 2007 (49-50 % of a crop). In 2008, 'Emerald' had a small crop of large berries and 'Star' had a moderate crop, although berry size was small. 'Millennia' produced a moderate crop in 2004, 2006, and 2007 and a small crop in 2008. Yield rating of 'Misty' was highest of all cultivars in 2007, but was low in 2006 and moderate in 2008. 'O'Neal' produced about 50 % of a crop from 2006-2008. 'Jewel' and 'Sharpblue' had low yield ratings during all years. Berry weights averaged at least 1.4 g in all years except 2007. Average soluble solids were higher in 2006 (13.2 °Brix), 2007 (12.0 °Brix) and 2008 (14.5 °Brix) compared to 2004 (9.8 °Brix) and 2005 (8.9 °Brix). 'Bluecrisp' had the highest soluble solids in 2006 (15.2 °Brix) and 2008 (16.3 °Brix), whereas 'Emerald' had the highest soluble solids in 2007 (13.9 °Brix). Overall berry quality was highest for 'Bluecrisp', although yield was not as high as some of the cultivars. Percentage survival ranged from 53% ('Jewel') to 100% ('Emerald'). Bush size was largest for 'Star' and 'O'Neal' and smallest for 'Sharpblue'. Overhead irrigation for freeze protection and bird control during berry ripening are highly recommended for southern highbush blueberries in north Florida. [Peter C. Andersen]

University of Florida to Host "Starting a Successful Hydroponic Business"

Short Course

The UF/IFAS North Florida Research and Education Center-Suwannee Valley (NFREC-SV) near Live Oak, FL will be holding a hydroponic short course March 16-18, 2009. The short course "Starting a Successful Hydroponic Business" will feature hands-on activities inside three greenhouses, a shade house, and an outdoor production area at the facility for two days and will also provide an optional grower tour on the third day. The topics to be covered include: planning the business and developing a marketing strategy, growing transplants, selecting hydroponic systems, soilless media choices, irrigation and fertilizer, managing pests, and the production of several crops from microgreens to herbs to cut flowers to tomatoes.

The short course is being offered in response to the tremendous increase in demand for information on using hydroponics and controlled growing systems to provide high quality locally grown products for local markets. The short course is perfect for those considering the venture or who have recently started a hydroponic business.

The facility is one of the best in the southeast for teaching hydroponic growing in an actual operating greenhouse setting. Attendees will learn firsthand by doing it themselves. The optional tour will be an exclusive visit inside two of the most successful and modern greenhouse hydroponic operations in Florida.

The cost of the short course is \$295 per person and the optional grower tour is \$50. Space is limited so sign up now. For questions call 386-362-1725 Bob Hochmuth x 103 or Wanda Laughlin x 104 or for more details go to the web at <http://smallfarms.ifas.ufl.edu>. [Bob Hochmuth]



*Happy New Year from the
faculty and staff of the
North Florida Research and
Education Centers*

*Marianna,
Quincy,
and Suwannee Valley*

Florida Bull Test Sale Summary

On January 12, 2009, Forty eight bulls were on offer at the 2008/2009 Florida Bull Test Sale located at the North Florida Research and Education center in Marianna, FL. The sale grossed \$89,500 with an average of \$1,865 per lot. Angus bulls averaged \$1,887 on 31 lots; Charolais averaged \$1,825 on 2 lots; Limflex averaged \$2,000 on 3 lots; SimAngus averaged \$1,612 on 4 lots; and, Simmental averaged \$1,863 on 8 lots. The high selling bull was lot 54, Woodlawn Point Made, selling for \$4,000. He was purchased by Reggie and Candy Tramick of Iron City, GA. The consignor was Woodlawn Farms of Clarkesville, GA.

The Florida Bull Test focuses on testing bulls on a diet that includes a high proportion of forage, targeting an average daily gain (ADG of 3 pounds of gain per day. Overall ranking for the test is based on ADG and the weight per day of age (WDA) generating an index ratio. The top performing bull and top performing Angus bull in the test was CWL Yield Grade 7172, owned by Lawler Farms of Opelika, AL. This bull indexed 128 with an ADG of 4.87 and WDA of 3.29. The top Limflex bull, SAYF Hunt 56T owned by Sayer and Sons Farm from Ambrose, GA, was ranked third overall and indexed 121 with an ADG of 4.55 and WDA of 3.14. The top Charolais bull, GDM Mr Will 7153 owned by Meadows Creek Farm from Columbia, AL, was ranked 12th overall and indexed 113 with an ADG of 4.06 and WDA of 3.11. The top SimAngus bull, CLS T157 owned by C & L Farm from Valdosta, GA, was ranked 18th overall and indexed 109 with an ADG of 3.67 and WDA of 3.26. The top Simmental bull, KSI Real Deal 85T owned by Keller's Simmental from Alma, GA, was ranked 23rd overall and indexed 105 with an ADG of 3.60 and WDA of 3.09. [Cliff Lamb]

Coming Events Calendar

January 30-February 1, 2009 - [How to Raise Heritage Turkeys on Pasture](#), Live Oak, FL. \$50 registration fee. For more information contact the American Livestock Breeds Conservancy at 919-542-5704, Questions, email mbender@albc-usa.org or visit www.albc-usa.org.

February 10, 2009 - [Tree-Based Alternative Enterprises](#), Crowley Museum & Nature Center, 16405 Myakka Rd., Sarasota, FL. \$10 registration fee, pre-registration required. For more information contact Cheryl Werner at 941-722-4521.

March 3, 2009 - [Forest Stewardship Workshop: Manage for Multiple Resources - Techniques, and Demonstrations](#), North Florida Research and Education Center - Suwannee Valley, Live Oak, FL. To register contact Karen Hancock or Laurie Osborne at 386-362-1725 x 101 or 102. For questions call Chris Demers at 352-846-2375 or email cdemers@ufl.edu.

March 16-18, 2009 - [Starting a Successful Hydroponic Business](#), North Florida Research and Education Center - Suwannee Valley, Live Oak, FL. For more information contact Karen Hancock at 386-362-1725 x 101 or email khancock@ufl.edu.

March 20-21, 2009 - [Georgia Organics 12th Annual Conference & Trade Show](#), Agnes Scott College, Decatur, GA.

March 21, 2009 - [Be a Hobby Beekeeper Short Course](#), Clay County Agriculture Center, Green Cove Springs, FL. For more information call 904-269-6355, 284-6355 or 473-3711.

June 2009 - [Tractor and Implement Short Course](#), North Florida Research and Education Center - Quincy, FL. For more information call 850-875-7100.

August 1 & 2, 2009 - [Florida Small Farms & Alternative Enterprises Conference](#), Osceola Heritage Park, Kissimmee, FL. For general conference information contact Mandy Stage at 352-392-5930 or email mstage@ufl.edu. For educational program content contact Danielle Treadwell at 352-392-1928 x or email ddtreadw@ufl.edu.

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