

# Public Investment in UF/IFAS Yields Significant **ECONOMIC BENEFITS AND JOBS**



## Agricultural Research and Extension

### \$10 IN OUTCOMES FOR EVERY \$1 INVESTED

Investments in UF/IFAS Research and Extension programs have shown significant returns that hold great promise for creating jobs and improving the economic vitality of Florida.

According to the United States Department of Agriculture, every dollar invested in U.S. agricultural research returns \$10 in benefits from increased productivity by agricultural producers and lower prices for consumers.<sup>1</sup> Agricultural research also improves environmental quality, increases food safety and enhances our health and quality of life.

The State of Florida invests approximately \$131 million annually in agricultural research and extension, which in return contributes about \$1.3 billion in economic benefits to the state, based on the 10:1 benefit-cost ratio.

## Florida Agriculture

### \$126.7 BILLION IN DIRECT OUTPUT, 1.94 MILLION JOBS

In 2009, agriculture and natural resource industries collectively generated over 1.94 million jobs in the state, \$126.7 billion in direct output (revenues), \$107 billion in value added contributions, and \$11.8 billion in business taxes to state, local and federal governments.<sup>2</sup> These industries span the market chain, including commodity production, supporting services and food distribution to consumers (FIGURE 1).

Due to Florida's subtropical climate, the specialized nature of its agriculture, and access to international ports, exports from Florida to domestic and international markets account for almost \$50 billion in revenues. As globalization continues to increase the level of market competition, as well as the influx of invasive pests and diseases, greater demands will be made on the research and extension system to maintain the gains made in agricultural productivity and to develop new technologies that can further increase competitiveness.

## New Crop Varieties

### CULTIVATING NEW MARKETS

Crop cultivar development programs supported by the Florida Agricultural Experiment Station have expanded Florida's agricultural economy dramatically. The development of new cultivation practices has increased the cold and drought tolerance and disease resistance of many of Florida's crops. For example, IFAS breeding programs have produced over 46 new blueberry varieties, accounting for over 98% of Florida's blueberry acreage. The enhanced flavor, shelf life, pest resistance and better market penetration of these varieties have increased the value of Florida's blueberry crop by 383% over the past ten years (FIGURE 2).

FIGURE 1. Economic benefits of Agriculture and Natural Resource Industries



FIGURE 2. Value of Florida blueberries, 2000-09

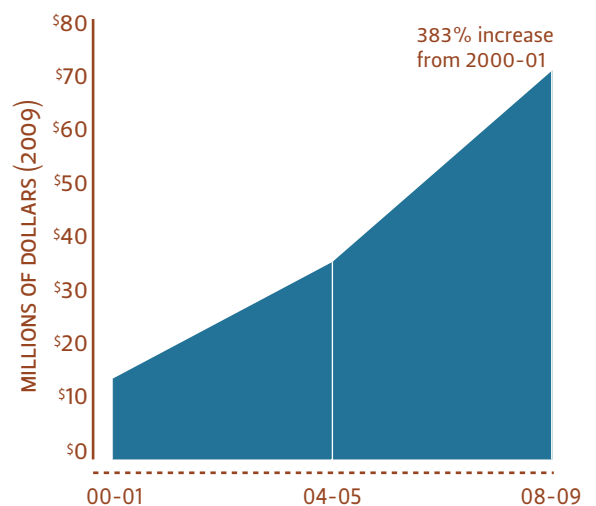
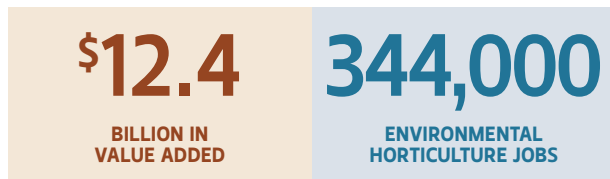


FIGURE 3. Economic benefits of Environmental Horticulture Industry



## Environmental Horticulture

### CREATING A GREENER FLORIDA

The environmental horticulture industry in Florida generates over \$12.4 billion in value added and 344,000 jobs, both directly and indirectly.<sup>3</sup> IFAS' extensive breeding and management education programs support this industry. Landscape services for commercial and institutional properties help to maintain the beauty of Florida's attractions, parks, golf and resort destinations, which draw millions of visitors to the state each year (FIGURE 3).

### FAWN

#### SAVING CROPS, SAVING WATER

Due to the sensitivity of Florida's crops to severe weather events, IFAS established the Florida Automated Weather Network (FAWN), an online weather network with 34 stations statewide. Through a variety of climate measurements and data summaries, FAWN provides tools to aid growers with cold protection, irrigation, and disease control. Since 1997, the state's investment in the IFAS FAWN system has saved between 7.6 and 38 billion gallons of water and from \$4 million to \$19 million per year by providing instantaneous weather information that has saved crops, reduced water usage for freeze protection, and reduced sinkhole potential in selected regions (FIGURE 4).

## Workforce Training

### CREATING NEW JOB OPPORTUNITIES

Working in partnership with state agencies, professional organizations and industry, UF/IFAS provides training for thousands of Florida's workers each year to help improve their skills, increase their wages and expand their job opportunities (FIGURE 5). Those who complete UF/IFAS certification programs can see their earnings increase dramatically. The average wage for a licensed pesticide applicator is 32 percent higher than for a regular landscaping worker, and companies benefit by greater profits and reduced liability. The average annual salary of a certified food service manager — required for every restaurant in Florida — is between \$14,000 and \$35,000 higher than it is for a food preparation worker or food server. Other programs educate Florida's building professionals on water and energy efficiency, wind mitigation, and sustainable landscaping. Many contractors, engineers, architects and building inspectors participate in IFAS' green building certification programs that promote healthier buildings for both on-site workers and occupants, lower building costs, and a more collaborative work environment. UF/IFAS continues to look for opportunities to contribute to Florida's prosperity through a well-trained workforce.

FIGURE 4. Impacts of Florida Automated Weather Network (FAWN)

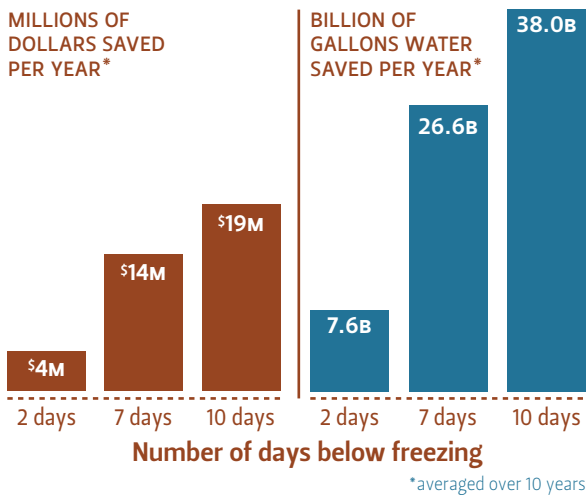


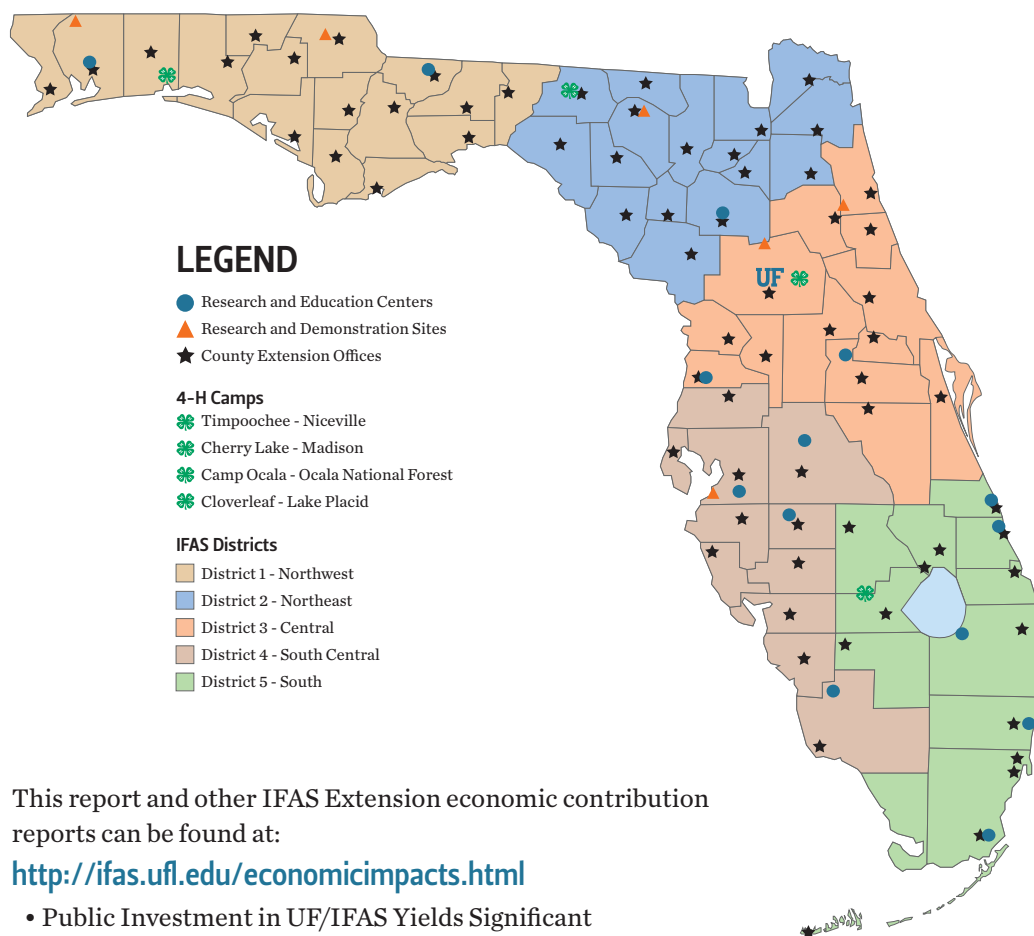
FIGURE 5. Number of people trained, 2008-10





## The Land Grant University System

The University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) is a proud part of the nation's land grant university system, a system of public institutions established by the U.S. Congress through the Morrill Act of 1862 to provide higher education to citizens of average means. The land grant mission was later expanded through federal legislation that created and helps fund the Florida Agricultural Experiment Station for the purpose of conducting research, and the Florida Cooperative Extension Service, which brings information and technology gained through research to the public. UF/IFAS and Florida A&M University deliver land grant services to the state of Florida. To fulfill its mission, UF/IFAS has 17 academic departments at the main campus in Gainesville, 13 research and education centers at 19 locations, and an extension office in each of Florida's 67 counties. Next year, UF/IFAS will join land grant institutions across the country in celebrating our 150th anniversary.



### LEGEND

- Research and Education Centers
  - ▲ Research and Demonstration Sites
  - ★ County Extension Offices
- 4-H Camps**
- ☘ Timpooshee - Niceville
  - ☘ Cherry Lake - Madison
  - ☘ Camp Ocala - Ocala National Forest
  - ☘ Cloverleaf - Lake Placid
- IFAS Districts**
- District 1 - Northwest
  - District 2 - Northeast
  - District 3 - Central
  - District 4 - South Central
  - District 5 - South

This report and other IFAS Extension economic contribution reports can be found at:

<http://ifas.ufl.edu/economicimpacts.html>

- Public Investment in UF/IFAS Yields Significant Economic Benefits and Jobs
- County Economic Impact Overview
- County and District Reports

## Sources Cited

1. Fuglies, K.O. and P.W. Helsey. 2007. Economic Returns to Public Agricultural Research (Economic Brief #10). USDA Economic Research Service. <http://www.ers.usda.gov/Publications/EB10/>
2. Hodges, A.W., M. Rahmani, and T.J. Stevens. 2011. Economic Contributions of Agriculture, Natural Resources, and Related Industries in Florida in 2009. University of Florida/IFAS Extension publication FE897. <http://edis.ifas.ufl.edu/fe897>
3. Hodges, A.W., T.J. Stevens, M. Rahmani and H. Khatchatryan. 2011. Economic Contributions of the Florida Environmental Horticulture Industry in 2010. UF/IFAS, Food and Resource Economics Dept.

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