CRITICAL ISSUE

As Florida’s economy continues to improve, the state is facing severe shortages in key occupations in science and engineering.

- Florida has the second most STEM graduates of any state in the U.S. but only 1 out of 5 eligible graduates of Florida’s high schools go on to earn college degrees.
- In fact, only 40% of all high school graduates in Florida participate in advanced science and math classes.
- A science literacy gap remains, particularly among minorities and those from low-income families.

UF/IFAS SOLUTION

Initiatives such as the 4-H Science Initiative will continue to address Florida’s critical need for more students to enter science programs.
Before You Tie The Knot

Before You Tie The Knot is a UF/IFAS Extension program that offers constructive guidance to couples as they begin their lives as a married couple. In online and face-to-face workshops, couples learn to:

- Recognize their own marriage styles and their partner’s marriage style
- Manage stress and resolve conflicts effectively
- Set goals and objectives for their relationship
- Handle finances, plan for the future, and market their bulls at a central location using best-known management techniques.

The Florida Bull Test provides seed stock producers an opportunity to develop and market their bulls at a central location using best-known management techniques. Beef cattle producers need timely and accurate information to make nutritional, reproductive, and other management decisions concerning their beef cattle. The Beef Cattle Short Course makes management decisions affecting beef cattle easier. The course provides producers with the knowledge and skills needed to manage and maintain reproduction programs that will result in higher profitability and profitability from their beef cattle.

In-service training promotes the use of water and nutrient conserving tools. BMPs include practices such as efficient monitoring activities; reducing water and nutrient runoff; and improving nutrient and water management practices. A variety of BMPs can be used to achieve water resource protection objectives. The need for protein to feed an increasing world population will stimulate the development of innovative and sustainable beef cattle production in Florida. However, external factors such as changes in the southeastern U.S. beef market can affect economic and environmental sustainability. Managing beef cattle in Florida will continue to be a challenge for producers who strive to meet environmental and economic goals.

Future Outlook

Solutions for the Next 100 Years

Critical Issue

There is an increasing need for consumers to be financially self-reliant obtain personal financial security. Florida's low-income population has increased substantially in recent years, and there is a growing need for financial literacy education to prepare low-income people for the challenges of life in the 21st century.

UF/IFAS Solution

Many Master Money Mentors assist individuals and families with becoming financially organized. The Florida Master Money Mentor (FM3M) volunteers provide one-on-one financial guidance, education, and support to low-income, minority, and ESL populations. FM3M volunteers are trained to assist clients in budgeting, establishing emergency funds, improving credit and standards of living, and managing income. FM3M volunteers also provide assistance to clients who are dealing with debt, foreclosure, rent, and utility expenses. The UF/IFAS Extension is committed to financial health education and empowers and equips Floridians to make informed decisions about their personal financial situations.

Solutions for the Next 100 Years

Florida Agriculture’s approach to water resource protection has been focused on the development and implementation of water and nutrient conserving tools. UF/IFAS Extension works with the agriculture industry, the Florida Department of Agriculture and Consumer Services (FDACS), water management districts, and the Florida legislature to improve water and nutrient management practices. UF/IFAS Extension provides research-based information to growers and helps them to develop management practices that will improve water and nutrient management practices.

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Critical Issue
Disasters from hurricanes, tornadoes, floods, and earthquakes impact our communities and cost billions of dollars annually. They are under threat of pests, wildfires, drought, and climate change. UF/IFAS Extension, Florida Sea Grant, state and federal agencies and other partner organizations work to strengthen our communities' resilience by promoting wise forest management, developing environmental education programs, and helping people develop healthy eating behaviors and increase physical activity.

UF/IFAS Solution
Smart solutions for disaster resilience to prepare for natural disasters. The book was distributed to 5,000 Florida residents, to Prepare for Natural Hazards, which provides best practices to help homeowners and communities more resilient to these impacts. Current studies predict that Florida will be significantly impacted by climate variability and change. There will be an increasing demand for information on the ways to build disaster resilience to prepare for natural disasters. Citizens of Live Oak are now meeting regularly to move disaster resilience strategies for rebuilding their community and lessening the impact of future disasters. Florida Forests generate over $20 billion annually, but they are under threat of pests, wildfires, drought, and climate change.

Related Majors
• Agricultural Operations Management
• Agriculture, Food and Resource Economics
• Built Environment and Community Futures
• Environmental Education
• Environmental Science
• Forest Resources and Conservation
• Horticultural Sciences
• Recreation, Parks and Tourism
• Sustainable Natural Resource Management

Future Outlook
• Agricultural cyberinfrastructure and information systems continue to grow with new innovations and technologies that provide new opportunities for more efficient and effective ways to communicate with the environment and their local communities by providing real-time, research-based environmental education and monitoring programs.

Successes
• 44,492 youth and adults took part in Project Learning Tree.
• Every year, over 100,000 Floridians received education through FNP.
• 130,000 Florida residents received education through ESOP.
• 1,100,000 Florida residents received education through FL-FOR.
• 91% of those attending these programs reported gaining new knowledge about Florida forests.
• 81% of students in Pasco County increased healthful choices in nutrition or physical activity.
• 85% of students in Putnam County increased their nutrition knowledge.
• 85% of students in Orange County increased their physical activity.
• 85% of students in Polk County increased physical activity due to climate variability and change.
• 2,500,000 residents were exposed to messaging through communication and events.
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**Florida Farm-to-School**

Small Farms and Alternative Enterprises include: limited access to credit and crop insurance, limited time and labor, increasing state and federal regulations, lack of distribution and processing networks serving small farms.

**Challenges facing small and medium-sized farm operators** include:

- 95% of Florida’s 44,700 farms are considered small farms according to the USDA.
- Florida has over 7,700 lakes larger than 10 acres.
- Water quality and water quantity are vital issues in all of Florida’s 67 counties.
- UF/IFAS Solution: Integrated Pest Management (IPM) uses all available methods including biological controls, cultural controls, and chemical controls to manage pests to acceptable levels. IPM can reduce the amount of pest control that farmers need to use, and can help reduce the environmental impact of pest management.

**Solutions for the Next 100 Years**

- Critical Issue
  - Fish populations have been reduced by overfishing, habitat destruction, and pollution.
  - Research has shown that you can significantly increase the survival rate of the fish when they are released.

- Successes
  - Florida State has recently increased the proportion of the program that provides free and reduced-price meals to children.
  - UF/IFAS Solution: Fish training has been provided for Extension faculty throughout Florida, Louisiana, Virginia, and North Carolina. More than a dozen types of fish have been tested. Stakeholder buy-in has greatly increased, as well as knowledge of practices.

- Future Outlook
  - Florida has a strong tradition of using small and medium-sized farms to support local economies.
  - Critical Issue
    - High mortality rates have led to restrictions on fishing for popular sport fish like Snapper, grouper, and other deep-water fish.

- Solutions for the Next 100 Years
  - Critical Issue
    - Critical Issue
    - Critical Issue
    - Critical Issue

- Successes
  - Data from LAKEWATCH monitoring has been used in 40+ peer reviewed scientific papers.
  - UF/IFAS Solution: LAKEWATCH is one of the largest lake monitoring programs in the nation. Monitoring has been used to create databases on aquatic species and an average of lake and river quality/chemistry.

- Future Outlook
  - Integrated Pest Management (IPM) uses all available methods including biological controls, cultural controls, and chemical controls to manage pests to acceptable levels. IPM can reduce the amount of pest control that farmers need to use, and can help reduce the environmental impact of pest management.

- Related Majors
  - Critical Issue
  - Critical Issue
  - Critical Issue
  - Critical Issue

- Solutions for the Next 100 Years
  - Critical Issue
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- Successes
  - UF/IFAS Solution: Florida Farm-to-School is an initiative to connect schools and communities with local small farms and alternative enterprises.

- Future Outlook
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A century of serving Florida’s residents. UF/IFAS Extension works closely with the state agencies to address critical issues every day. From combating citrus greening to controlling water quality and conservation, growing the local economy, building communities that support a high quality of life and promoting healthy lifestyles by staying active and eating right.

Critical Issue
Florida has over 20 million people in its population and the state’s economic vitality depends on agriculture and tourism. Managing both sectors is difficult and requires the protection and conservation of natural resources and ecosystems. Producers face challenges in increasing productivity and economic growth while also promoting sustainability and environmental protection.

UF/IFAS Solution
Partnerships with federal, state, and local governments are essential to addressing the critical issues facing agriculture and tourism. UF/IFAS Extension works closely with policymakers to provide research-based solutions and support evidence-based decision-making.

Future Outlook
As the world’s population continues to grow, the need for sustainable food systems and natural resource management becomes even more critical. UF/IFAS Extension continues to work with partners to ensure that Florida residents have access to information and resources that help them make informed decisions about their health, safety, and economic well-being.