

Understanding Extension #2: Utilizing Extension Services in School-Based Agricultural Education¹

Debra Barry, John Diaz, Alyssa Shepherd, Jennifer Patton, and Stephen Gran²

Introduction

This document helps to describe how UF/IFAS Extension can be utilized in agricultural education. Agricultural education in the formal classroom setting is known as school-based agricultural education, or SBAE. School-based agricultural education has two main goals: to create successful, lifelong learners who are agriculturally literate citizens, and to create a skilled agricultural workforce (Roberts & Ball, 2009). School-based agricultural education is a fundamental program that is delivered through career and technical educations throughout the nation to nearly one million agricultural education students (Nevada, 2019).

Information in this article is especially helpful for agricultural educators, who can greatly benefit by partnering with Extension in their classroom and program. Extension has many different components, services and programs that can be used by educators in the classroom. Agricultural education encompasses a variety of topics that are taught in the classroom that range from animal science to horticulture and beyond (The Council, 2020). Extension agents educate the public on a variety of similar topics, many of which overlap with those of the agriculture instructor. The services that Extension offers can supplement lesson plans in the classroom, can help to provide training and support

for educators, and can help to build the toolbox of both first-year educators and the veteran educators that want to expand on their current lesson plans and resources.

Overview of Extension Services

Extension services are an effort that involves the collaboration of state, federal and county governments. The collaboration's goal is to conduct scientific research and then provide that research and knowledge to the general public through educational programs. In the state of Florida, Florida Cooperative Extension Service is a collaboration between FAMU Extension and UF/IFAS Extension (UF/IFAS, 2019).

UF/IFAS Extension (2020) has seven high-priority initiatives that guide program development, delivery, and impact assessment:

1. Increasing the sustainability, profitability, and competitiveness of agricultural and horticultural enterprises.
2. Enhancing and protecting water quality, quantity, and supply.

1. This document is AEC704, one of a series of the Department of Agricultural Education and Communication, UF/IFAS Extension. Original publication date September 2020. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
2. Debra Barry, lecturer, Department of Agricultural Education and Communication, UF/IFAS Extension, Gainesville, FL 32611; John Diaz, assistant professor and Extension specialist, program development and evaluation, Department of Agricultural Education and Communication, UF/IFAS Gulf Coast Research and Education Center, Plant City, FL 33563; Alyssa Shepherd, M.S. student, Department of Agricultural Education and Communication, Gainesville, FL; Jennifer Patton, student, Department of Agricultural Education and Communication, UF/IFAS Gulf Coast REC, Plant City, FL; and Stephen Gran, county Extension director and program Extension agent, community resource development, UF/IFAS Extension Hillsborough County, Seffner, FL 33584.

3. Enhancing and conserving Florida's natural resources and environmental quality.
4. Producing and conserving traditional and alternative forms of energy.
5. Empowering individuals and families to build healthy lives and achieve social and economic success.
6. Strengthening urban and rural community resources and economic development.
7. Preparing youth to be responsible citizens and productive members of the workforce.

“The University of Florida’s Institute of Food and Agricultural Sciences (UF/IFAS) is a federal, state, and county partnership dedicated to developing knowledge in agriculture, human and natural resources, and the life sciences and to making that knowledge accessible to sustain and enhance the quality of human life” (UF/IFAS, 2019).

How Extension Can Help

Agricultural education provides many hands-on, experiential learning opportunities that are a draw for many students in secondary agriculture programs. By tapping into the expertise of Extension agents, educators can find even more ways to develop partnerships and opportunities to achieve the objectives and learning goals for their lessons and students. The idea of cooperation between agricultural educators and Extension educators is not something new. However, while this idea has been around for many years, there is still a low participation rate of cooperation between the two parties. The results of a previous study found that “agriculture teachers and Extension educators both have very positive attitudes about the need for cooperation” (Ricketts & Bruce, 2009, p.8). However, the survey also showed that this cooperation “isn’t occurring as much as it could be” (Ricketts & Bruce, 2009, p.8). Utilization of resources and knowledge between agricultural educators and Extension educators can be completed seamlessly and needs to be encouraged.

Extension offices can offer services that can be utilized in agricultural education programs. Local offices include services such as soil testing, irrigation design, aquaculture, hydroponics, financial management, Florida-Friendly Landscaping™, identifying plant diseases and other relevant agricultural topics. While the resources that can be utilized for agricultural educators may seem overwhelming, here are some suggested examples of how Extension can

collaborate to help school-based agricultural education (SBAE) programs:

1. Resources and curriculum
2. Guest speakers
3. Members of an advisory council
4. Demonstrations
5. Workshops (nonformal training opportunities for educators)

Example: an educator teaches a class on natural resources, and one of the benchmarks for a standard is to make sure students know sustainable methods to manage organic waste. One of the ways to manage organic waste is by vermicomposting. However, the educator does not have hands-on and engaging resources to go over the steps of vermicomposting. The educator searches the local Extension office and sees that there is an agent in Lawn & Garden who focuses on composting, including vermicomposting. After contacting the local office, the agent agrees to come in to do a demonstration and speak to the class, turning a topic that could easily be glossed over into something engaging, and teaching students the skills to create their own vermicomposting bin at home.

How can agricultural educators explore resources?

When exploring ways to connect with Extension, it would be helpful to explore some of the resources connected to Extension program areas that are available on EDIS, the Electronic Data Information Source of UF/IFAS Extension. EDIS hosts a large number of articles and content on agricultural topics. A large number of educational materials are available for agriscience teachers to use in their classrooms (see Table 1: Connecting EDIS Resources to Your Agricultural Education Program). The EDIS resources column provides a link to many topics that align with agricultural education curriculum. Follow the link and explore the topics listed under *Agricultural Education Topics*.

After reviewing resources, explore your county’s Extension website by following this link: <https://directory.ifas.ufl.edu/searchdir?pageID=3&pl=05>. On this website, you can locate the phone number as well as the local page for your home county. You can explore resources and programs, as well as faculty and staff and their specific programs. If you are still not sure whom to reach out to, call the Extension County

office in your community, and Extension staff will work to connect you to the person who can best support your needs.

Locating Your Local UF/IFAS Extension Office

UF/IFAS Extension offices can be found in every county in the state of Florida. Locating your local office is quick and simple, and can be done two different ways. The first way you can search for your local office is to go to the UF/IFAS Extension website (<https://sfyl.ifas.ufl.edu/find-your-local-office/>), find your county on the map, and click on the star in your county area. Clicking on the star will give you information on the office's address, email, website, and phone number. Another way to locate your local office is by using the UF/IFAS Extension Interactive Fact Sheet (2020). This sheet provides addresses and phone numbers for local offices and hyperlinks to each county office's home page: http://sfyl.ifas.ufl.edu/media/sfylifasufledu/sfyl-assets/docs/pdf/ICS_Extension_Fact_Sheet_2018_Interactive.pdf

Summary

Extension offices and agents work to serve their communities, and one way they can connect to their communities is through school-based agricultural education programs. Agricultural education and Extension both work to improve the lives of others, and together they can make even bigger impacts on the next generation of agriculturalists and consumers. Don't hesitate to reach out to your county Extension office or to take advantage of resources that are available to you, including EDIS.

References

- Nevada Agriculture Education. (2019, August 5). *What is agricultural education?* http://nvaged.nv.gov/Content/Ag_Ed_Info/About/
- Ricketts, K. G., & Bruce, J. A. (2009). "Co-opetition?" Can It Exist between Extension and Agricultural Education?—A Study on Interdisciplinary Cooperation. *Journal of Extension*, 47(5), Research in Brief. https://www.joe.org/joe/2009october/pdf/JOE_v47_5rb1.pdf
- Roberts, T. G., & Ball, A. L. (2009). Secondary Agricultural Science as Content and Context for Teaching. *Journal of Agricultural Education*, 50(1), 81–91. <https://files.eric.ed.gov/fulltext/EJ867385.pdf>

The Council. (2020, April 21). *AFNR Standards*. <https://thecouncil.ffa.org/afnr/>

UF/IFAS. (2019, May 31). *About Extension*. <https://sfyl.ifas.ufl.edu/who-we-are/about-extension/>

UF/IFAS. (2020, April 22). *Districts, Directors, and County Offices*. <https://sfyl.ifas.ufl.edu/find-your-local-office/>

UF/IFAS Extension. (2020, April 21). *Shaping Solutions for Florida's Future, The UF/IFAS Extension Roadmap 2013–2023*. <https://extadmin.ifas.ufl.edu/media/extadminifasufledu/ext-admin-new/documents/Roadmap.pdf>

UF/IFAS EDIS. (2020, April 22). *What is EDIS?* <https://edis.ifas.ufl.edu/>

UF/IFAS Extension Interactive Fact Sheet. (2020, April 22). *We're in Every Florida County, Including Yours*. https://sfyl.ifas.ufl.edu/media/sfylifasufledu/sfyl-assets/docs/pdf/ICS_Extension_Fact_Sheet_2018_Interactive.pdf

Table 1. Connecting EDIS Resources to Your Agricultural Education Program

Extension Program Area	Agricultural Education Topics	EDIS Resources
Agriculture	Agricultural Safety, Aquaculture, Florida Crops, Forestry, Economic Value of Agriculture, Livestock and Poultry, Nurseries and Greenhouses, Organic Production, Professional Lawn and Landscape Services, Small Farms, Sustainable Agriculture, Turf and Sod	https://edis.ifas.ufl.edu/topic_agriculture
Lawn & Garden	Backyard Composting, Starting a Garden, Landscape Care, Landscape Plants, Lawn and Garden Design and Layout, Lawn and Garden Problems, Types of Gardens, Professional Lawn and Landscape Services, Home Lawns, Home Landscapes, Florida-Friendly Landscaping Program, Master Gardener Program, Vegetable Gardening	https://edis.ifas.ufl.edu/topic_lawn_and_garden
Families and Consumers	Aging and Caregiving, Food Safety in the Home, Health and Nutrition, Housing and Home Environment, Money Matters, Children, Relationships, Family Youth and Community Sciences Extension Programs, Family and Consumer Issues (en espanol)	https://edis.ifas.ufl.edu/topic_families_and_consumers
4-H Youth Development	4-H Youth Development (en espanol), 4-H 101 Fact Sheets, 4-H Curriculum, 4-H Financial Management Fact Sheets, Pre-Teens and Teens, Risk Management for 4-H, Youth Development Work series, Youth Programs	https://edis.ifas.ufl.edu/topic_4h_and_youth
Community Development	Disaster Preparedness and Recovery Economic Health (Communities), Involved Citizens, Sustainable, Community Development, Urban and Rural Growth, Community Development (en espanol)	https://edis.ifas.ufl.edu/topic_community_development
Environment	Climate Change, Coasts and Oceans, Economic Value of the Environment, Ecosystems and Species, Environmental Laws and Regulations, Getting Involved with the Environment, Plants and Animals, Recreation and Tourism, Sustainable Living, Water Resources, Wildland-Urban Interface, Environment (en espanol)	https://edis.ifas.ufl.edu/topic_environment