UF IFAS Extension UNIVERSITY of FLORIDA

AEC504

Understanding Ag Awareness Programming throughout UF/IFAS Extension: Supporting Citizen Awareness of Food Systems and the Environment[1]

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Introduction

Florida Extension agents around the state are working to increase public agricultural awareness (Ag Awareness). Yet the Extension Roadmap (University of Florida, 2013) recently re-emphasized these efforts as a priority under Initiative 1: increasing the sustainability, profitability, and competitiveness of agricultural and horticultural enterprises. At the same time, the United States continues to push for an improved science, technology, engineering, and math (STEM) workforce (Carnevale, Smith, & Melton, 2011), and agricultural educators and researchers work to re-emphasize the STEM in agricultural education programs (Hillison, 1996; Thoron & Myers, 2008), aligning with Extension Roadmap Super Issue 4 (University of Florida, 2013). How can all Extension efforts work together to meet a larger goal of public engagement with agricultural science?

This document will outline Florida's recent Extension efforts in agricultural awareness and highlight future directions to coordinate and strengthen this work, offering ideas for best practices while avoiding unnecessary duplication.

Public Engagement with Agriculture and Science

The United States population has continued to become further removed and less knowledgeable about agriculture, especially industrialized and scientifically advanced agricultural practices (Duncan & Broyles, 2006). As agriculture literacy has decreased, the public image of agriculture has also decreased (Duncan & Broyles, 2006; Powell, Agnew, & Trexler, 2008). Despite low levels of agriculture literacy, the general public has continued to trust farmers (Higgins, 1991; Rhoades & Irani, 2008). However, consumers have also distrusted agriculture, especially when perceived to have corporate involvement (Goodwin, Chiarelli, & Irani, 2011).

Similarly, the United States adult public still has a high level of trust in science and scientists (National Science Board, 2012), independent of their science literacy levels (Gauchat, 2012). However, they are considered to have a low level of engagement with science-based decision-making (Miller, 2004), partly attributed to a low level of science knowledge and skills. As recently as 2008, fewer than 30% of adults were considered able to read and comprehend The New York Times' science section (Miller, 2010). Finally, pilot data of public library and natural history museum visitors

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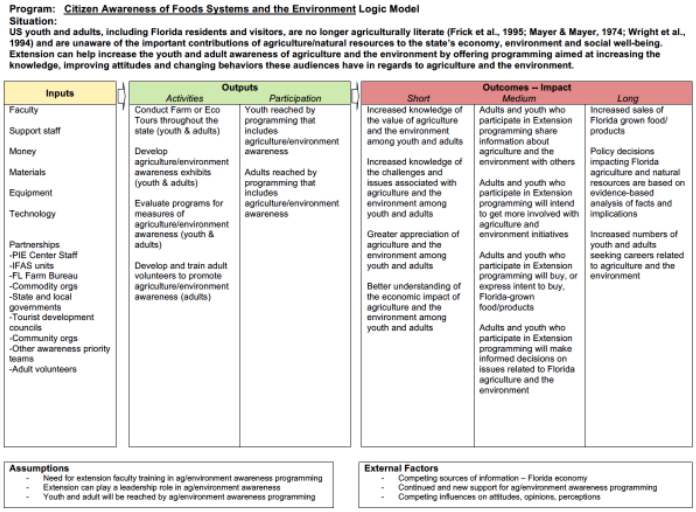
suggested that people may not spontaneously or explicitly connect the terms science and agriculture, signaling a potential gap between researchers and Extension agents and their audiences when using those terms.

The main role of Extension is to "provide scientific knowledge and expertise to the public" (University of Florida, 2013, para. 1). Through this process, agricultural and scientific awareness should naturally occur. However, reporting and evaluating programmatic awareness activities is often a struggle. Through the work in Initiative 1 of the Extension roadmap, we hope to highlight the awareness work that is already underway as well as enhance future awareness programming.

Initiative 1, Priority 3: Citizen Awareness of Food Systems and the Environment

Priority 3 of Initiative 1 aims to increase "citizen awareness of food systems and the environment" (University of Florida, 2013, p. 19) Ultimately, all of our Extension efforts support this priority, but we know that some are more directly related than others. The "Ag Awareness" priority area team has developed the following logic model to guide their plan of action:



Program: Citizen Awareness of Foods Systems and the Environment Logic Model

Situation:
US youth and adults, including Florida residents and visitors, are no longer agriculturally literate (Frick et al., 1995; Mayer & Mayer, 1974; Wright et al., 1994) and are unaware of the important contributions of agriculture/natural resources to the state's economy, environment and social well-being. Extension can help increase the youth and adult awareness of agriculture and the environment by offering programming aimed at increasing the knowledge, improving attitudes and changing behaviors these audiences have in regards to agriculture and the environment.

Inputs	Outputs		Outcomes – Impact		
	Activities	*Participation*	*Short*	*Medium*	*Long*
Faculty Support staff Money Materials Equipment Technology Partnerships -PIE Center Staff -IFAS units -FL Farm Bureau -Commodity orgs -State and local governments -Tourist development councils -Community orgs -Other awareness priority teams -Adult volunteers	Conduct Farm or Eco Tours throughout the state (youth & adults) Develop agriculture/environment awareness exhibits (youth & adults) Evaluate programs for measures of agriculture/environment awareness (youth & adults) Develop and train adult volunteers to promote agriculture/environment awareness (adults)	Youth reached by programming that includes agriculture/environment awareness Adults reached by programming that includes agriculture/environment awareness	Increased knowledge of the value of agriculture and the environment among youth and adults Increased knowledge of the challenges and issues associated with agriculture and the environment among youth and adults Greater appreciation of agriculture and the environment among youth and adults Better understanding of the economic impact of agriculture and the environment among youth and adults	Adults and youth who participate in Extension programming share information about agriculture and the environment with others Adults and youth who participate in Extension programming will intend to get more involved with agriculture and environment initiatives Adults and youth who participate in Extension programming will buy, or express intent to buy, Florida-grown food/products Adults and youth who participate in Extension programming will make informed decisions on issues related to Florida agriculture and the environment	Increased sales of Florida grown food/ products Policy decisions impacting Florida agriculture and natural resources are based on evidence-based analysis of facts and implications Increased numbers of youth and adults seeking careers related to agriculture and the environment

Assumptions	External Factors
- Need for extension faculty training in ag/environment awareness programming - Extension can play a leadership role in ag/environment awareness - Youth and adult will be reached by ag/environment awareness programming	- Competing sources of information – Florida economy - Continued and new support for ag/environment awareness programming - Competing influences on attitudes, opinions, perceptions

Inventory of Ag Awareness Programming

One of the inputs required to be able to proceed with activity planning is an understanding of Ag Awareness programming throughout Florida. To gain an understanding of what kinds of Ag Awareness activities are conducted throughout Florida, a link to an online survey was sent to all district Extension directors and county Extension directors in an email from the associate dean for Extension for agricultural programs in the fall of 2013. These individuals were asked to identify a contact person in each county office to gather information about the Ag Awareness programming that the office was conducting and respond to the survey.

The survey asked each contact to list and describe each Ag Awareness program his or her county was conducting. The survey also asked for the frequency, target audience, average number of participants, and evaluation method for each program. In addition, documents used in Ag Awareness programming could be uploaded to the survey. "Ag Awareness programming" was not defined by the survey but left open for respondents to define as they saw fit.

A total of 27 contacts, out of 67 counties, responded to the survey and reported current Ag Awareness programming. The results were analyzed using basic qualitative and quantitative strategies where appropriate and are reported below.

A Look into Ag Awareness Programming in 2013

Types of Ag Awareness Programming

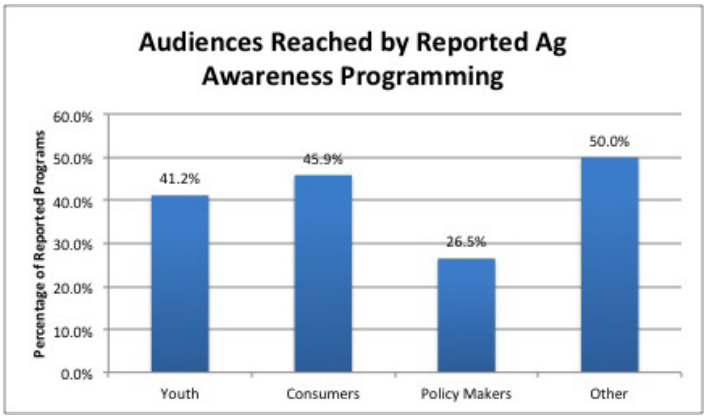
All respondents indicated they were currently conducting some programs related to Ag Awareness. A total of 170 Ag Awareness programs were reported, for an average of 16 programs per county. These programs were analyzed and grouped into common themes. Programs spanned almost all types of Extension programming. One or more respondents mentioned the following categories of programs:

- Workshops and Demonstrations—typical Extension programming held at the office
    - Examples: cooking demonstrations, beekeeping workshop, fire safety, hydroponics workshop
- Community Events—events that take place outside the Extension office, where specialists and agents offer programming or outreach as part of a larger event or themselves put on a larger community event
    - Examples: displays and exhibits at community functions, Farm City Day, farm tours, open houses
- Community Leader Engagement—outreach and programming offered to general community groups and business leaders, either by invitation or at the agent's initiation
    - Examples: presentations to board of commissioners, civic groups talks, programming for legislators
- Media—activities related to producing or interacting with local, state, national, or international media

    - Examples: media interviews, TV programs, newspaper columns
- School—youth events directly tied to school programs or outreach
    - Examples: career days, science fairs, Farm to School, Ag in the Classroom
- Youth Non-school—activities for youth not specifically tied to formal school
    - Examples: 4-H and youth events, youth expos, livestock judging
- Interest Group Engagement—outreach and programming offered to external Extension clientele with defined particular interests, either by invitation or at the agent's initiation
    - Examples: small farms programming

Audiences Reached through Ag Awareness Programming

When asked to identify the audience reached through the reported Ag Awareness programming, respondents could select consumers, youth, policy makers, and/or other. Respondents were encouraged to check all that apply. The reported Ag Awareness programming was most commonly reaching "other" audiences, followed by consumers, youth, and policy makers.



Those respondents who answered "other" were asked to specify the audience. Some could argue that some of the audiences listed could fall under the categories of youth, consumer, and/or policy makers. However, to be representative of the survey responses these were not combined into the existing audience categories. Common audiences specified included:

- Adults
- Beekeepers
- Chamber of Commerce
- Community Groups
- County and Business Leaders
- Students
- Farmers and Growers
- Foreign Diplomats
- Homeowners
- Parents
- Teachers
- School District Staff

Frequency of Ag Awareness Programming

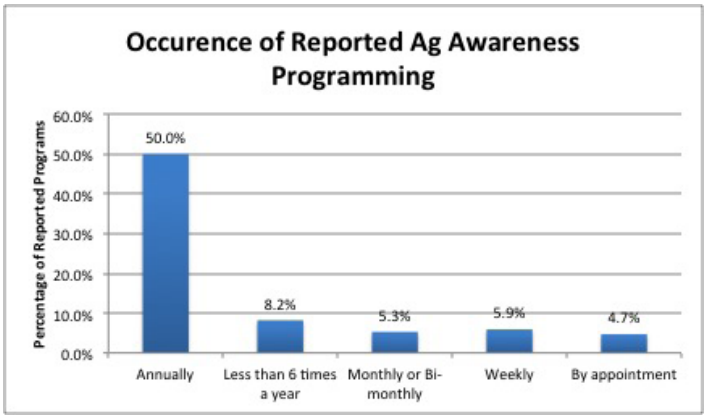
Respondents were asked to indicate the frequency of the Ag Awareness programming that they reported. The frequencies were self-reported in an open-ended question, and the types of programs were then grouped into common themes by the researchers. The reported Ag Awareness programs occurred most commonly on an annual basis.

Evaluation of Ag Awareness Programming

Respondents were asked to indicate the metrics used to evaluate the effectiveness of their Ag Awareness programming. This was an open-ended question, and responses were grouped into common themes. One or more respondents reported the following themes:

- Attendance—reports about the participants in a program or users of a product
    - Examples: new vs. repeat participants, number in attendance
- Client-initiated/Informal Feedback—feedback from participants in a variety of formats provided to the agent or specialist without prompting from the agent
    - Examples: testimonials, word of mouth, verbal feedback, email, comments, requests for more information
- Interviews—structured or semi-structured question and answer sessions with participants
- Media—reports related to media coverage of Extension programming or products
    - Examples: frequency of media interactions and coverage, reach (number and types of potential audiences), types of coverage (radio, TV, Internet, newspaper)
- Needs Assessments—pre-programming assessments of audience interests, questions, or status of adoption of desired behavior

    - Examples: client-initiated requests for programs
- Products—outputs of programs, created by agents and/or participants
    - Examples: number of gardens, number of contest entries, number of education products
- Surveys—paper or online assessments of pre-defined questions administered in the same way to all participants
    - Examples: pre-tests, post-tests, exit survey, program evaluation



Conclusions

Overall, Extension professionals engage in many programs that support Initiative 1, Priority 3 of the Extension Roadmap: citizen awareness of food systems and the environment. Representatives from just under half of Florida's counties reported offering a wide variety of programs, as well as a wide variety of ways of assessing the extent to which programs are meeting participant needs and Extension goals related to Priority 3 in Initiative 1.

Despite the positive findings and the suspicions that much of Extension programming supports Ag Awareness, over half of the counties did not respond to this survey. The following recommendations have been developed based on the results and may be helpful to agents in future reporting of Ag Awareness programming.

Recommendations for Future Reporting

- Identify an Ag Awareness contact person in each Extension office that can serve as a mentor for Ag Awareness reporting efforts.
- Consider the types of Ag Awareness programs reported in this EDIS publication and identify if there is programming you are currently conducting that could be reported as Ag Awareness.
- Consider Ag Awareness programming that could be conducted through other forms of media. Social media and other internet-based programming have the potential to reach a larger consumer audience. Online programming, including webinars, blogs, online resources or products, and purposeful social media use, can be effective in increasing citizen awareness of food systems and the environment.
- Consider alternative metrics in addition to traditional metrics when thinking about measuring the impact or effectiveness of Ag Awareness programming. For example, web-based metrics were not reported as an evaluation method in this survey. Web-based metrics such as number of downloads, number of unique Website visitors, citations, and other Google Analytics-type reports, are evaluation measures that could be used.
- Other metrics that could be collected include observations and records of participant actions and conversations during programs. This type of evaluation could provide feedback as to how participants reacted to or used the materials and programming, which could inform a success story of your program.
- Expand upon current baseline metrics. Several respondents reported using attendance or the number of new participants as an evaluation measure. You can make these measurements more meaningful by gathering participant demographics as well as interests, attitudes, and opinions. A good approach is gathering data specific to the objectives outlined in the plan of action for this priority team. Doing so will equip you with data for easy reporting to Initiative 1, Priority 3. Please note that objectives 1–4 are short-term objectives, 5–8 are medium term objectives, and 9–11 are long-term objectives.
    - Objective 1: At least 60% of youth and adult participants will report increased knowledge of the value of agriculture and the environment at the end of an Extension program.
    - Objective 2: At least 60% of youth and adult participants will report increased knowledge of the challenges and issues associated with agriculture and the environment at the end of an Extension program.
    - Objective 3: At least 60% of youth and adult participants will report a greater appreciation of agriculture and the environment at the end of an Extension program.
    - Objective 4: At least 60% of youth and adult participants will report a better understanding of the economic impact of agriculture and the environment at the end of an Extension program.

- Objective 5: At least 50% of youth and adults who participate in Extension programs will share with others the information related to agriculture and the environment acquired from an Extension program, within six months of the program.
- Objective 6: At least 50% of youth and adult participants will get more involved, or express intent to get involved, in agriculture and environment initiatives as a result of an Extension program, within six months of the program.
- Objective 7: At least 50% of youth and adult participants will buy, or express intent to buy, Florida-grown food/products within six months as a result of an Extension program.
- Objective 8: At least 50% of youth and adult participants will make informed decisions or express intent to make informed decisions on issues related to Florida agriculture and the environment within six months as a result of an Extension program.
- Objective 9: Increase sales of Florida grown products over a five-year period.
- Objective 10: Promote policy decision-making related to Agriculture and Natural Resources in Florida based on evidence-based analysis of facts and implications over a five-year period.
- Objective 11: Increase the numbers of youth and adults seeking careers related to agriculture and the environment over a five-year period.

- Use common reporting metrics under development by PDEC for Ag Awareness.

We hope that this EDIS publication will improve clarity about the meaning of Ag Awareness efforts and reporting. As the Initiative 1, Priority 3 team continues to work toward a future of increased citizen awareness, we encourage agents to consider and report any awareness programming they partake in.

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