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ARE YOU SMARTER THAN A FARMER: A MULTIFACETED, INTERACTIVE APPROACH TO AGRICULTURAL EDUCATION IN ALABAMA

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ABSTRACT

Agriculture and related industries represent a substantial portion of Alabama's economy in terms of both value and employment. However, knowledge of general agriculture and production can be lacking, particularly among residents that have no connection to the agricultural community. Are You Smarter than a Farmer, a modifiable program developed in 2017, aims to boost agricultural literacy of youth and adult audiences with the use of short, interactive quiz questions pertaining to agriculture in the state. To date, the program has reached a large audience with a presence at youth career days and leadership events with over 6,000 attendees, regional agricultural expos with over 80,000 in attendance, more than 30 traditional extension in-person programming, and through social media with posts reaching over 13,000.

Introduction

A recent report indicated that forestry, agriculture, and ag-related industries in Alabama contributes \$70.4 billion annually to the state's economy (Fields et al., 2013). Additionally, over 580,000 jobs are directly linked to these industries, making agriculture a significant economic driver for the state and a source of sustainable employment for citizens. However, the 2017 Census of Agriculture reported a decrease in the number of farms in Alabama from 2012 (USDA NASS 2017), indicating that more of the population may be completely removed from agriculture. A decreasing number of people directly linked to agriculture may also lead to a reduction in agricultural literacy of the population. The necessity of an agriculturally literate society is demanded to ensure a consumer base that is well informed of the science behind food and fiber production and the impact of that production. Furthermore, enabling consumers to be more agriculturally informed may lead to an increase likelihood of support for pro-agricultural policies (Funk and Kennedy, 2016; Kovar and Ball, 2013).

To address the need for general agricultural education and appreciation in the state, an interactive quiz, "Are You Smarter than a Farmer", was developed to introduce agricultural facts and trivia for a diverse audience. Since its introduction, the program has been used during face-to-face meetings for adults and youth as well as through a virtual component.

Materials and Methods

This program has been modified and expanded since first being used in conjunction with traditional production meetings. Initially, the "Are You Smarter" series was used just prior to the start of a production meeting or during the meal portion of an in-person meeting. Using a Wireless Audio Response System (Keypoint Interactive, Commerce, WI), the audience was asked to participate in a series of ag related questions via PowerPoint in a game show style format. Questions were modified to fit the specifics of the meeting attendees and were typically general agricultural trivia used to build audience interest (Figure 1). A number of sources were used to develop questions such as the USDA-NASS website, ALFA Farmers Federation publications, and other commodity organization publications. After each question, the presenter allocated time to answer the trivia question, but also allocated time for additional commentary about that commodity or industry in the state. Since 2017, this format has been used in extension meetings, at invited presentations to local and state commodity organizations, ag lender meetings, young farmer meetings, and as professional development for the Southern Agricultural Economics Committee commodity outlook meeting.

A version of the series was modified in 2018 to reach a youth audience with a goal of promoting general agriculture education and appreciation. For youth programming, a color-coded spinning wheel was developed for participants to spin. Distinct commodity specific questions were represented by each color.

Participants had the opportunity to receive a small prize if they could provide the right answer.

In 2020, COVID-19 resulted in limited in-person programming. This prompted the development of a virtual version of the program. We implemented this as part of a weekly series that included a specific question posted to the Alabama Cooperative Extension System (ACES) Farm and Agribusiness Team Facebook page on Monday of each week. Followers were encouraged to submit their guess in the comments section and return on Wednesday to view a virtual interview of a specialist or industry expert answering the question. Interviewees for video responses generally spent 5 to 10 minutes expanding on the commodity or issue related to the question posted.

What is the top speed of a chicken?

9 mph

2 mph

1 mph

35 mph

How many pair of jeans can be made from one bale of cotton?

84

540

215

105

How many pounds of honey does an Alabama hive of bees typically produce in a year?

17

25

52

78

Figure 1. Sample questions used for adult and youth programming during in-person activities.

Results and Discussion

When the series was initially developed in 2017, it was primarily limited to traditional extension programming and agricultural audiences. Since that time, reach has been expanded through traditional in-person avenues aimed at a broader audience including lenders, leadership programs, Master Gardener programs, and other non-agriculture specific programs. This clicker style format has been presented more than 30 times across the state in the three years since its initial development with audience sizes ranging from 20 to 250 attendees. The series is well suited for preplanned meetings with internet connectivity; however, limitations do exist in that a reliable connection is needed and the number of clickers available dictates the number of people that can participate.

A modified version of Are You Smarter was developed in 2018 that allowed better facilitated youth interaction during various expos and career days. Since 2018, the program has been included in Wiregrass World of Works, a career day aimed at 8th graders from Alabama, Georgia, and Florida, for two consecutive years. Student attendance at this career day has been over 3,000 in each year. Additionally, the youth version was featured in the Auburn building during the 2019 Sunbelt Ag Expo, an annual agricultural trade show, in Moultrie, Georgia (Figure 2). This event reported over 80,000 in attendance from multiple states across the southeastern region.



Figure 2. Alabama Extension personnel operate the Are You Smarter than a Farmer booth during the 2019 Sunbelt Ag Expo, Moultrie, GA.

In early 2020, restrictions on face-to-face meetings necessitated an alternative avenue for engaging shareholders and maintaining some level of agricultural awareness in the state. To do so, the Farm and Agribusiness management team created a video format of the series that could continue through the pandemic. The videos, released weekly from March to June and monthly thereafter, provided a consistent media for agricultural facts to be presented in a similar, game-style manner as in-person meetings allowed. Moreover, because of social media tools, the team had the ability to better gauge reach and interest of audiences in the topics covered through the video series.

In terms of video topic, general agricultural and horticulture were the most viewed and engaged topics in the online series (Figure 3). While row crop, wildlife, and livestock videos were well received, their reach did not equal general topics or horticulture topics; however, audiences for these commodity-specific videos increasingly leaned toward male viewers (Figure 4). More specifically, males in the 35-44 age range (data not shown), were more likely to engage with these videos.

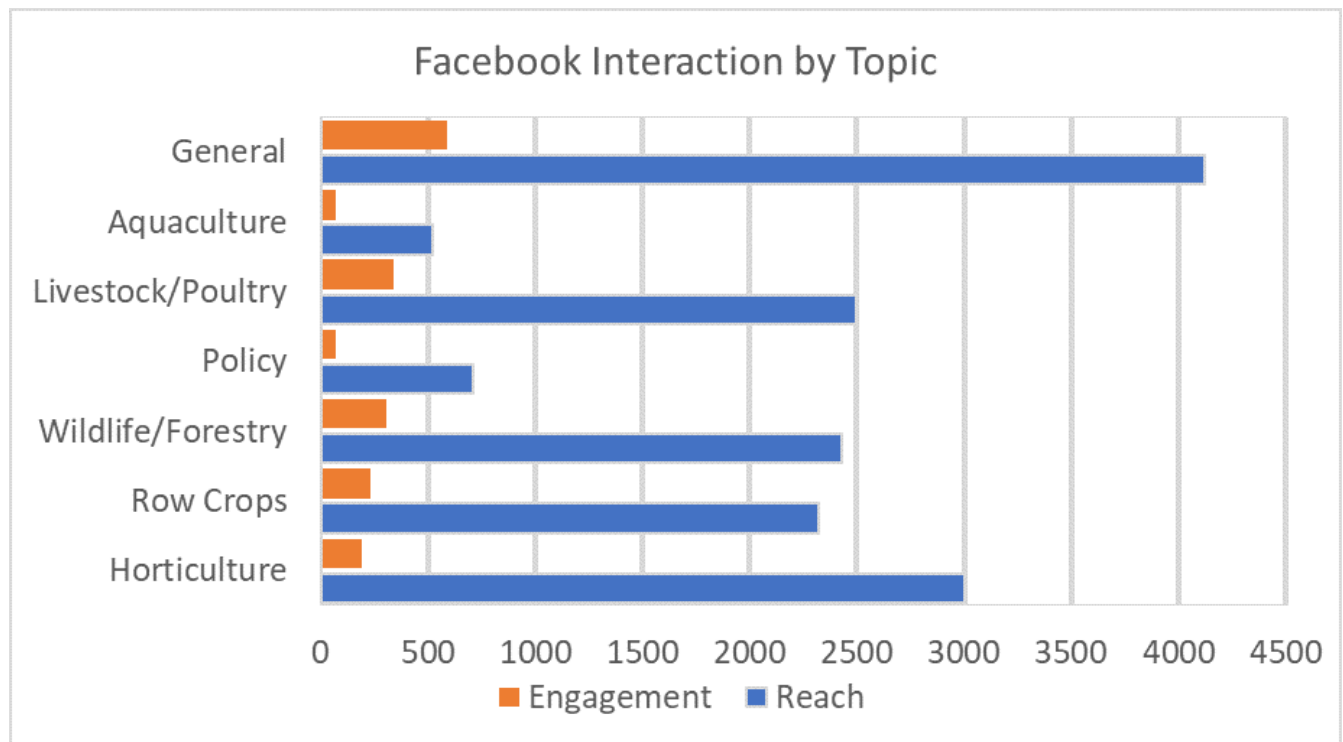


Figure 3. Engagement and reach of video answers to Are You Smarter than a Farmer online series through Facebook.

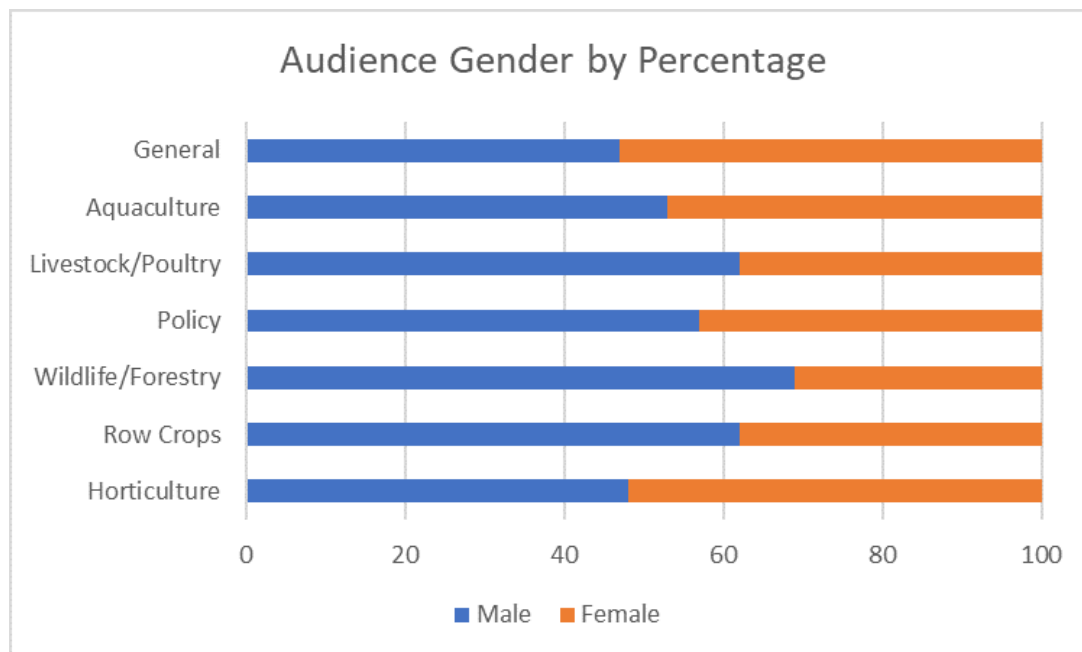


Figure 4. Gender of viewers by topic for Facebook video answers.

Conclusions

In most instances, extension serves to inform and educate growers to help ensure the future sustainability of agriculture. However, it is also imperative that extension use this platform to encourage and educate the general public about agriculture and its importance to society, not just those on the farm.

This program has reached over 6,000 students through youth programming, over 13,000 viewers through social media, and numerous participants through traditional in-person extension programming. Given the ability to modify the “Are You Smarter” series to fit almost any audience, it has served as an effective tool for promoting agriculture in the state both virtually and in-person. Further, this program can be tailored to suit programming in any state to provide agricultural education to a general audience.

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