

Commercial Horticulture

Making a Difference in the Food System (2019–2020 Impacts)

► The Commercial Horticulture Program provides multidimensional research-based information, support services, and training to a growing horticulture industry across Alabama. This includes the nursery and landscape industry and specialty crop producers using conventional or organic production systems.

Impacts across Food System Tiers

One of the major tasks of the Alabama Extension Commercial Horticulture Team is to support the various components of the overall food production system. For this impact report, we have adopted the tiered food system framework developed by the University of Wisconsin–Madison Center for Integrated Agricultural Systems (figure 1). Clearly, the commercial horticulture programs are effective with new collaborations being forged with major food distributors as the specialty crop industry grows.



Figure 1. Alabama Extension Commercial Horticulture Program Return on Investment (ROI) calculated based on impact evaluating of direct participants. Model is based on the University of Wisconsin–Madison Center for Integrated Agricultural Systems model, August 2010. www.cias.wisc.edu.

TIER 0 IMPACTS

(Personal Food Production & Community Gardening Systems)

Backyard, Urban & Community Gardens

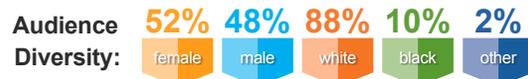
Commercial Horticulture regional Extension agents and specialists, in collaboration with the Home Grounds Extension Team, provided more than 500 hours of training to 300 Master Gardeners. In addition to Master Gardener training, Commercial Horticulture REAs and specialists collaborated on training videos and community garden projects with the Home Grounds Extension team to raise public awareness regarding the local food production system and health benefits at the individual level.



military veterans. This is one of the flagship programs in Alabama Extension Commercial Horticulture team. Many technical assistance providers help amplify program effectiveness in all corners of the state.

Collaborators: Alabama Fruit and Vegetable Growers Association, Alabama Sustainable Agriculture Network, Southern Sustainable Agriculture Working Group, Farmscape Solutions, Crotoquina, Inc., The United Christian Community Association

Number of Direct Participants: 1,385 in-state; 360 out-of-state; 37 events total



Evaluation Techniques: On-farm interviews, event surveys, learning assessments, e-survey, and telephonic impact surveys

Number of Farms Consulting: 111

Adoption Rate for Recommendations: 82 percent for direct consultation with REAs and technical assistance providers

First Time Attendees: 24%

Beginning Farmer Success Rate: 64% with 70+ business/marketing/food safety plans developed

Value of Business Consultancy (2019): \$114,840 (savings for farmers)

Crop Improved/Saved: \$2.1 million

Total Impact: \$2.9 million

Farming Barriers Reduced: 18% reduction in access to information; 30% reduction in need for marketing training; 55% crop losses prevented due to IPM plans.

Return on Investment: 10:1

TIER 1 IMPACTS

(Direct or Retail Marketing by Small Producers & Beginning Farmers)

Several commercial horticulture team projects are in this category because a majority of specialty crop producers are small- to medium-sized diversified farms that grow multiple crops throughout the year. Food is marketed by growers through direct channels such as farmers markets, farm stands, restaurants, and community supported agriculture.

Alabama Beginning Farmer Program

Project Leader: Ayanava Majumdar

Background: Funded by the USDA Beginning Farmers and Ranchers Development Program (BFRDP), the Alabama Department of Agriculture and Industries Block Grants (ADAI-SCBG), and the Sustainable Agriculture Research and Education (SARE) programs. Operation Grow provides hands-on training and grassroots networking opportunities to beginning farmers, with special emphasis on underserved communities and



FARMING BASICS

ONLINE COURSE

896

Students

21%

Completion
Rate

97%

Satisfaction
Rating
with immediate use
of information

4 CEUs from the American Agronomy Society
and the American Horticulture Society

1,500*
per year

Southeast
Vegetable
Crop Handbook

4,650*
total circulation

High Tunnel
Crop Production
Handbook

18,250*
total circulation

Organic
Vegetable IPM
Slide Chart

7,000*
total circulation

Urban Farm/
Market Garden
IPM Toolkit

500

Citrus IPM
Field Guide

3,000*
subscribers

Alabama IPM
Communicator
E-newsletter

13,200*
email clicks

IPM Communicator
E-newsletter

3,045

Social Media
Subscribers

600+
installations

Farming Basics
Mobile App

*Communication award winners from the National Association of County Agricultural Agents, American Horticulture Society, and Southern Region IPM Center.



Circulation/Viewership of Major Horticulture Resources:

TIER 2 IMPACTS

(Wholesale Marketing with Strategic Partners)

These programs are aimed to support rapidly growing farms that sell produce to strategic marketing partners, such as food cooperatives, food banks, and other local or regional food distributors.

Sustainable Horticultural Crop Production Reactive Program

Background: Fruit, vegetable, and tree nut production in Alabama is one of the fastest growing farming systems and is valued at \$161 million with value addition of \$103 million. The commercial horticulture industry supports more than 1,100 jobs and is one of the fastest growing industries in the state. Fueled by population growth and rapid urbanization, the demand for local foods is at an all-time high.

Goals: Provide research-based answers to production-related issues in commercial horticulture. Offer reactive services (on-farm consultation) in response to producer queries; develop or update publications; train and support crop advisers for critical issues; develop marketing materials to increase consumer awareness of local food systems.

Outputs: Regional Extension agents, Extension specialists, and county Extension coordinators answer more than 9,000 phone calls and 20,000 emails along with 400+ field visits annually to support the rapidly growing commercial horticulture industry statewide. More than 50 public service announcements and social media alerts were created for producers and consumers. Since 2010, Commercial Horticulture has also provided 20+ pest and event alerts to all subscribers of the *Alabama IPM Communicator* e-newsletter (66,000 emails; viewership 25%).

Evaluation Techniques: Commercial Horticulture Extension Team has developed a rapid service quality survey using Qualtrics with a QR code that is used in the field by clients themselves or by regional Extension agents. This captures immediate impact along with grower testimonials regarding the quality of service.

Adoption Rate for Recommendations: Based on 28 responses from an impact survey; overall adoption rate for information was 96% with 20% to 40% yield improvement in specialty crops. 93% satisfaction rating from 42 direct contact cases.

Overall Impact Estimate: Direct impact from 28 cases is \$744,850 with 224 hours of support on-farms. The statewide conservative impact on fruit and vegetable industry is estimated to exceed \$18 million annually.

Return on Investment: 55:1

Tier 3 Impacts
(Large Volume Aggregation with Major Food Distributors)

Commercial horticulture programs in Tier 3 assist producers in meeting the high-volume production and food safety standards demanded by some large national food aggregation and distribution companies, such as Sysco, Whole Foods, and Walmart).

Best Management Practices: Impact on Peach Producers

Project leaders: Gary Gray, Edgar Vinson, Elina Coneva

Background: This program promotes the use of best management practices in commercial horticulture industries, concentrating on optimization of practices related to pest management, freeze damage mitigation, dormancy issues as well as the proper cultivar selection to enhance economic, environmental, and community sustainability.

Collaborators: Alabama Fruit and Vegetable Growers Association



Evaluation techniques: Event survey

Adoption rate for recommendation among producers: 61%

Impact estimate (regional): \$3.8 million

Key project resource: *Southeastern Peach, Nectarine, and Plum Pest Management and Culture Guide*



Produce Market Demands & Food Safety

Project Leader: Kristin Woods

Background: Market demands and regulatory requirements for food safety training are significant challenges facing Alabama produce growers. The Food Safety Modernization Act Produce Safety Rule (FSMA PSR) went into effect in January 2016. This law requires that a representative from each farm attend a Produce Safety Alliance (PSA) or equivalent training course. The PSA training held in Montgomery included 52 attendees who are now PSA trainers and able to conduct training for growers. Alabama trainers attending included representatives from Auburn University, Alabama A&M University, Tuskegee University, the Alabama Department of Agriculture and Industries, industry groups, nonprofit groups, and tribal nations.

The volume of trainers now available will ensure that Alabama growers are able to maintain competitiveness in the market and meet the FSMA PSR requirements.

Impact Estimate: This is a new, multiteam educational activity that benefits whole farms. The number of farms with produce safety compliance is on the rise.

Key Project Resource:
 Produce Safety Alliance Curriculum

Return on Investment: 67:1



Professional Services

Alabama Green Industry Training Center, Inc. (Professional Services)

Project Leader: John Nabors

Direct Participants (Client Contact, Class Attendees, & Exams): 1,242

Indirect participants: Community use, partner meetings, 113; AGITC web page and social media, Facebook Twitter, 9,888; electronic class flyer views, 20,054

In 2019, there were 23 classes and training events hosted by the AGITC for a total of 285 people. These classes covered a state pesticide exam review, pesticide safety, Worker Protection Standard training, seasonal color installation and maintenance, and container gardening. These classes do not include the 18 days of classes held for the USDA Rural Development grant (see below).

Evaluation Techniques: Complete limited surveys and participants take state issued exams.

Audience Diversity: Client direct contacts from across Alabama who included labor positions, small business owners, and corporate management. Social media posts have and are reaching well past state lines with the electronic flyers reaching worldwide.

Key Project Resources: www.agitc.org; www.alclp.org; "Ornamental and Turf Pest Control Manual," ANR-0796, "[Common Insects and Disease Pests of Turfgrasses and Ornamentals](http://www.aces.edu/anr/pesticidemgt/CommercialApplicatorInfo.php)," ANR-0910, <http://www.aces.edu/anr/pesticidemgt/CommercialApplicatorInfo.php>



Alabama Fruit & Vegetable Growers Association

Collaborators: Board of Directors, Alabama Fruit and Vegetable Growers Association; Hunter McBrayer, Alabama Farmers Federation

Audience Diversity: 90% white, 7% black, 3% other

Evaluation Techniques: Event survey

Adoption Rate for Recommendation: 61%

Impact Estimate: \$3.8 million

Return on Investment: 67:1

"Info shared by Extension personnel is vital to our farming community. It helps our learning curve so we can be profitable quicker when branching out into other ventures. Advisement on chemicals and diseases is a critical area for us by Extension personnel in our peach operation."

Producer Testimonials

"The IPM newsletter is very valuable for me. I use the information and read all emails. Then click on the links. I like to look over the events section and decide which one I would like to attend."



Ayanava Majumdar, *Extension Specialist*, PPT Coordinator, Auburn University

For more information, contact your county Extension office. Visit www.aces.edu/directory.

For commercial horticulture personnel and program listings, refer to "Commercial Horticulture: Programs and People" (EX-0162).

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