



HORTICULTURE & HOME GROUNDS

2019 Team Impacts

Extension teaches
home gardeners
and trains
industry professionals.



- Azaleas to zucchinis
- Plants for home and office
- Good bugs, bad bugs
- Water-saving rain barrels
- Recycling and more!



Q/A
Extension
has answers to
your home garden
and landscape
questions.



\$ **MILLION** 570
Green
Industry

Horticulture is important to **Alabama**

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2019 Team Impacts

Beyond Rain Barrels

Rhonda Britton, Marcus Garner, Rudy Pacumbaba

Alabama A&M University & Auburn University

Stormwater runoff creates harmful environmental effects; municipal water systems demand energy-intensive systems to obtain, treat, and distribute water; and each summer holds the chance of another drought. Little habits make a big difference. Collecting rainwater, turning off the faucet while brushing teeth, reducing shower time, and washing only a full laundry load all add up to big savings. Adopting just one or two new habits affects water quality and water conservation.

Home Grounds Team Response

- Agents conducted 14 rain barrel programs. Participants were taught the benefits of using rain barrels, the mechanics of building one, and how to install one at home.
- Agents set up the Water Wheels education trailer at 15 events. This mobile teaching lab includes fun activities, gaming computers, the 3-D water conservation game Water You Doing, and a demonstration of a residential rainwater harvesting system and its uses.

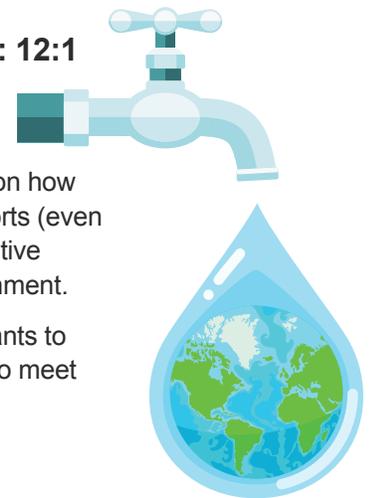
- Total participants were 8,521: 53% male, 47% female, 78% adult, 22% youth, 80% white, 17% black

Home Grounds Team Impact

- Harvested rainwater prevented environmental impacts due to lost nitrogen and phosphorus runoff and reduced municipal water use in vegetable and planter gardens. Changing daily habits saved household water and reduced water bills.
- 569,700 gallons were collected for or reduced from residential property use.
- Conservative direct impact estimate: \$249,000
- **Return on investment: 12:1**

Way Forward

- Continue educating people on how their water conservation efforts (even one person's) can have positive impacts in their local environment.
- Continue surveying participants to maximize program content to meet their needs.



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2019 Team Impacts

Food Insecurity in Alabama

Allyson Shabel, Chris Becker, Bethany O'Rear

Alabama A&M University & Auburn University

Many of Alabama's underserved clientele live in food deserts—areas that have limited access to fresh, nutritious foods. Community gardens can reduce this food insecurity as well as encourage physical activity, increase community involvement, provide nutritious produce, and offer hands-on learning experiences for everyone.

Creation and sustainability of community gardens can be hindered by factors such as lack of technical training, funding, volunteer involvement, and other local support.

Home Grounds Team Response

- Home Grounds regional Extension agents, urban regional Extension agents, and county coordinators offered 86 community garden training programs and consultations.
- Agents and volunteers obtained \$22,460 in funding and in-kind donations.
- Agents provided training and technical support to 281 volunteers (93 Master Gardeners and 188 non-Master Gardeners).
- Trained volunteers donated 6,106 hours to these gardens and local food projects statewide

- 48 community gardens were associated with the Alabama Extension Home Grounds team.
- Participants were 38% male, 62% female, 76% adult, 24% youth, 76% white, 22% black.

Home Grounds Team Impact

- Harvest in 2019 was 32,000 pounds.
- Harvest was equivalent to 128,000 ½ cup servings or the daily fruit and vegetable recommendation (2½ cups per day) for 25,600 people.
- Grants and supplies donated: \$22,460
- Volunteer hours: 6,783 (4,410 Master Gardeners, 2,173 non-Master Gardeners)
- Conservative direct impact estimate: \$260,600
- **Return on investment: 17:1**

Way Forward

- Continue providing technical support and educational programming to volunteers and community groups interested in creating successful community gardens.
- Continue linking resources with the community groups most in need of assistance.



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HORTICULTURE & HOME GROUNDS

2019 Team Impacts

New Methods Reach Diverse Audiences

Taylor Reeder, Roosevelt Robinson, Jack LeCroy

Alabama A&M University & Auburn University

In an increasingly digital age, Extension educators can find it difficult to connect with individuals face-to-face. Extension's principal goal is conveying to a diverse audience reliable, research-based information.

Home Grounds Team Response

Two videos (webinars) reached clientele using Zoom and Facebook Live. These included a series of 10 IPM-focused programs and a series of three intermediate-level beekeeper training programs.



- In its seventh year, the All Bugs Good and Bad webinar series ranged from pest ants to scale insects to termites and included GMO effects on certain insects. Speakers included Rudy Pacumbaba and Jeremy Pickens, Alabama Extension; Janet Hurley, Texas A&M University; and Tim Davis, University of Georgia. Participants in live sessions represented the general public, pest control service providers, Extension agents, and Master Gardener volunteers.
- Average participants per live episode were 155 with total participants of 1,552. To date, the recorded sessions have been watched more than 3,000 times. Participants were 49% male, 51% female, 77% white, and 15% black.

- The Beekeeping webinar series speakers were Tammy Horn-Potter, Kentucky Department of Agriculture State Apiarist, and Jack Rowe and Kevin Burkett, Alabama Extension. Topics were equipment, selling/marketing hive products, and bee breeds for Alabama. The course was viewed live via Zoom and streamed live via the Lawrence County Facebook page. Sessions were recorded and links distributed for further viewing. Participants in the live event totaled 640, and 662 have watched the recorded sessions. Participants were 44% male, 56% female, 77% white, and 8% black. Ages were 18–30 (9%), 31–45 (26%), 46–60 (40%), and 61+ (24%).

Home Grounds Team Impacts

- The Beekeeping webinar series had a conservative direct impact estimate of \$43,366.
- **Return on investment: 33:1.**
- The All Bugs Good and Bad webinar series had a conservative direct impact estimate of \$56,338.
- **Return on investment: 36:1.**
- Comparable online webinars charge registration fees, but both Alabama Extension webinars were free.

Way Forward

Continue producing web-based programs and hands-on activities to encourage engagement. Distance teaching tools help us reach wider audiences.

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2019 Team Impacts

Volunteers Add Value to Extension

Dani Carroll, Kerry Smith

Auburn University

Outdoor green spaces improve employee health and job productivity. Plants in hospital rooms reduce patients' blood pressure and fatigue. Home Grounds horticulture impacts the quality of daily life.

County Extension offices report that Home Grounds topics dominate calls as clients ask questions and seek programs. Trained Extension volunteers expand our outreach.



Home Grounds Team Response

- Home Grounds led volunteer training in 18 locations for attendees from 30 counties. They adopted the principles we taught, making them strong proponents for teaching others.
- We trained 425 interns and maintained support from 1,372 veteran Master Gardeners. Combined they donated 172,200 mission-based volunteer hours.
 - Extension volunteers: FW&NR, 4-H, EFNEP, SNAP-Ed, Home Grounds, and the Annual Beekeeping Symposium (\$3.4M in volunteer hours)
 - Public programs: Lunch & Learn, Ask the MG, Extension information at farmers markets and civic events, education booths promoting soil testing and plant/pest ID, and hands-on workshops (over \$1M in volunteer hours)
 - Lunch & Learn: Led by Extension agents and hosted by MG volunteers. Advanced MGs often serve as speakers. Their training sets them apart, is focused on Extension program needs, and illustrates another benefit from this Extension-MG partnership.
 - Research: 114 MG volunteers supported Harvest for Health, an ongoing cancer research project in 27 counties. The current study continues through 2022.
- County fairs: Blount County and 7 others report they depend on or heavily rely on MGs to continue their annual county fairs. Their volunteer hours injected \$142,800 to these counties last year.

- Multiplied our community: municipal boards and commissions, churches, libraries, community centers, botanical gardens, nature centers, youth services (public and private), senior centers, arboretums, and farmers markets
 - Some favorite projects: the petting zoo at Farm City, Classroom in the Forest, Habitat for Humanity projects, Festival of Flowers, water expos, Arbor Days, Hospice projects, McCoy Center and other special care facilities, the Lovelady Center, numerous school gardens, Blooming Birmingham, First Stop's garden, Aunt Katie's garden, Marshall County CASA, programs at private parks (Kenan's Mill, Landmark Park, Old Alabama Town, Pike Pioneer Museum), and programs for OLLI-AUM.
 - Teaching gardens: These demonstrate horticulture principles, and some donate produce.
 - Beautification projects: MGs donated plants, money, and time. Some donated labor, among them the Governor's Mansion and the Farley-Hill House in Montgomery, and several county and city municipal buildings and parks.
 - 2019 Search for Excellence awards: Baldwin County MGs for Summer Fun Day for Kids (supporting their local 4-H program) and Autauga County MGs for Prattville-Autauga Demonstration Garden, a 15-year-old teaching and giving garden.
- When asked to describe the benefits of this program, volunteers said: "Master Gardener is the most rewarding volunteer work we do;" "We share Extension with our community;" and "MG opens doors to relationships we might not have otherwise."

Home Grounds Team Impact

- Local leaders, nonprofits, schools, civic events, and many others rely on Master Gardener Extension volunteers. We're honored to lead this valued program!
- Harvest for Health (2011–2022) is proving that vegetable gardening is a healthy habit. Study participants improve their diet, strength, and flexibility and are more motivated to daily exercise because of their garden success.
- Food gardens and gleaning projects donated over 12 tons of fresh produce (average retail \$49,400, or 98,800 ½ cup servings).
- MG's statewide philanthropy to community organizations and financial support of community projects was \$82,000.
- Conservative direct impact estimate: \$4.4M
- **Return on investment: 12:1**

Way Forward

Continue recruiting, training, and engaging volunteers to support Extension programs, expand their support to research, include them in publication projects, and continue training Advanced Master Gardeners. Other organizations agree that volunteers join and stay when their "experiences are meaningful, develop their skills, demonstrate impact, and tap into their abilities and interests." (D. Eisner, R. T. Grimm Jr., S. Maynard, and S. Washburn, "The New Volunteer Workforce," *Stanford Social Innovation Review*, 2009)



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Higher Quality Turf for Young Athletes

Tim Crow

Auburn University

Issue: Sports fields are an integral part of school and municipal athletic activities. Properly maintained sports turf leads to safer play for the athletes, more efficient use of budgets and resources, and enhanced mental and physical health for everyone using the field.

Managing these fields requires knowledge specific to sports turf and is not commonly available within the staff at most schools and municipal facilities.

Home Grounds Team Response

Several park and recreation facilities and one school were advised in the proper techniques for managing athletic fields in high-use play.

- There are 13 fields within the Hartselle Parks and Recreation facilities. They are used for both city recreation leagues and high school athletic games. An estimated 1,000 children, ages 4 to 18 years old play on these fields throughout most of the year. The manager was new to his position and unfamiliar with calibrating a boom sprayer, the recommended turf products, and the application rates for these.
- Advising eight other parks and recreation field managers, similar savings were reported from them.

- Haleyville High School has 10 acres of athletic fields used by almost 300 students. They are maintained by a single person who is also responsible for campus landscape management. He had no weed or fertility management program, no over-seeding schedule, and was hoping to reduce his time on the fields.

Home Grounds Team Impact

- Calibrating their equipment accurately and using weed and fertility management products efficiently, the nine parks and recreation field managers reported savings.
- At Haleyville High School, the field improvements were recognized by the players, coaches, and fans. Many expressed that the play surface was significantly superior to those at away games. Partly due to this recognition, the school bought a new mower that now reduces maintenance time by 2 days per week.
- The Extension agent's knowledge and time gave benefit to these 10 field managers totaling \$23,460.
- **Return on investment: 11:1**

Way Forward

Continue advising sports field managers who need assistance. Knowing how to use and maintain equipment protects their investment and saves money in labor and products purchased.



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Taking the Sting Out of Fire Ants

Mallory Kelley, Ellen Huckabay

Auburn University

Managing red imported fire ants is an annual necessity to avoid painful encounters. The sting of these pest ants can impact our health through skin blisters, whole-body allergic reactions, and occasionally death. They invade homes and buildings, electrical equipment, and developed landscapes. The costs include health care, property and equipment repairs, pesticide use, and damage to wildlife and pets. The estimated statewide impact of fire ants in Alabama exceeds \$257M annually.

Home Grounds Team Response

- Home Grounds REAs and trained volunteers educated homeowners about fire ant control methods, pros and cons of each control product, and products' active ingredients.
- Applying broadcast baits in fall and again in spring reduces fire ants to an 80%–90% control level. Weather conditions, time of day, and product application rate are critical to managing this pest.

Bait products are highly effective when correctly applied. Incorrect use of bait products costs homeowners money, has potential environmental impact, and usually offers little control.

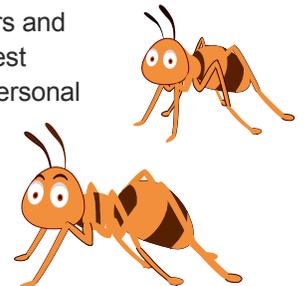
- Total participants were 788: 47% male, 53% female, 69% white, 25% black.

Home Grounds Team Impact

- Learning how to correctly apply biannual fire ant bait treatments greatly reduces or eliminates fire ants from a property. Just ½ pound of bait treats a ¼ acre residential lot and costs \$15 or less. Using it incorrectly or relying solely on contact insecticides wastes product, money, and time and has potentially negative environmental impact.
- Conservative direct impact estimate: \$56,700
- **Return on investment: 11:1**

Way Forward

- Continue educating homeowners and influencing their decisions for pest management, protecting their personal investment in a home.
- Continue to survey participants to maximize program content for their needs.



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