Measuring the Wellness Outcomes of EMG Volunteerism: Insights from Florida - Alyssa Vinson, Local Extension Master Gardener Coordinator, University of Florida

Extension Master Gardener Volunteer programs in Florida and throughout the United States provide benefits to communities, individuals, and landscapes. Reported outcomes of the Florida Master Gardener Volunteer program include, number of trained volunteers, volunteer hours served, and dollar value of those hours. However, wellness outcomes of volunteerism, and associated long-term impacts, can be better reported and used to support and enhance existing volunteer programs. To better document wellness impacts of Extension Master Gardener volunteerism, a survey was developed. The approved Institutional Review Board survey (201, IRB201902493) has been delivered six times to Extension Master Gardener Volunteers in three Florida counties from 2019 to 2021. Over the three-year period 386 responses were documented. The results of the survey indicate that on average 70% of volunteers reduced stress levels, 73% increased their self-esteem and 60% felt physically healthier. These wellness outcomes inform volunteer coordinator approach to program development and volunteer recruitment.

The Urban County Farm - Jeff Raska, Local Extension Master Gardener Coordinator, Texas A&M University, Nicky Maddams, Program Assistant, Texas A&M University

A unique relationship between Dallas County and Texas A&M AgriLife Extension Service began in 2017 to transform an 11-acre maintenance facility into an urban agricultural research, education and demonstration center. Jeff Raska, Urban Horticulturist, designed the gardens which were installed by EMGs. Parking lots have become seven ornamental gardens, a research vineyard and orchard, a demonstration community garden, and research farm, collectively known as The Urban County Farm.

The farm's mission is to research high-intensity growing practices in urban environments while developing a coalition of growers addressing food security issues. The farm partners with two Dallas growers for planting and distribution. The farm assists citizens growing their own food or starting a small farm. We frequently host visitors from as far away as New York to observe our practices. Our first seeds were planted in 2019 and, despite the pandemic and cold winters, we have donated over 12,000 pounds of food on only 1/20 of an acre to food distribution programs and shelters. We are creating living-wage job opportunities. Initially, the goal was to feed hungry people and then develop solutions to our county's food issues. We are thrilled to have become a hub for urban horticultural education.
Mississippi Harvest for Health – Jeff Wilson, State Extension Master Gardener Coordinator, Mississippi State University

People who grow and eat their own vegetables tend to have healthier diets and more active lifestyles. The Southeast Chronic Disease Initiative through University of Alabama at Birmingham (UAB) attempted to reduce cancer and other chronic disease health disparities in the deep south through home vegetable gardening. Participants in the delta region of Mississippi were selected from counties with higher-than-average percentages of diabetes and cardiovascular diseases. The goal was to enroll participants with chronic diseases to improve outcomes for older cancer survivors and increase access to healthy, affordable produce. Fifty participants were instructed on why this program was being conducted and how to grow vegetables in the container system used before being given gardening materials to grow fresh vegetables at home. Master Gardener Volunteers assisted the participants by contacting them monthly to provide gardening expertise to assist in the plant growing and maintenance process. Participants learned how to grow vegetables in a container system and reaped the result of their hard work with fresh, healthy produce.

Harvest for Health: Gardening Intervention for Cancer Survivors - Kerry Smith, State Extension Master Gardener Coordinator, Auburn University

Cancer survivors are at greater risk for comorbidity and physical function decline. Gardening interventions, particularly those that promote vegetable consumption, bear promise in improving both diet and exercise behaviors in cancer survivors. Harvest for Health is the specific and broad title of four health behavior interventions delivered in Alabama, starting in 2011. Intervention participants were provided materials for a home vegetable garden, along with a 12-month mentorship in planning and maintaining three seasonal vegetable gardens. Alabama Extension Master Gardener volunteers were the mentors in these four studies. Our premise – If cancer survivors have a vegetable garden at home, they are more likely to eat more vegetables and increase their physical activity. This presentation will share a brief overview of study methods, detail the EMG volunteers’ activities, and how the study delivery was altered in 2020 and 2021.
Enabling Your Participants by Disabling Yourself: A Hands-On Experience
Gardening offers many health benefits to individuals of all abilities, but it can be challenging to deliver programming to audiences with special needs. This session will equip you to address accessibility issues in gardens. This is a two-part workshop on Wednesday, filling Sessions 3 and 4.

Activity Development and Adaptation for Participants with Special Needs
This session will lead you through activity planning for participants with special needs. Come prepared with information about your chosen client groups and use this session to work develop programming activities using a task analysis and activity adaptation approach. This is a two-part workshop on Wednesday, filling Sessions 3 and 4.

Digital Delivery Workshops, Andrew Hayes, Digital Delivery Support Professional, College of Agricultural and Environmental Sciences, University of Georgia
Learn to use your smart phone to enhance your programming with digital delivery! This workshop will cover everything from storyboarding to editing and publishing. This is a two-part workshop on Wednesday, filling Sessions 3 and 4.
MG Program for Puerto Rico – Eva Marie Pabon, Local Extension Master Gardener Coordinator, University of Florida

During 2017, two hurricanes affected Puerto Rico leaving the residents with many limitations. Approximately 80% of the agriculture crops were ruined and less than 8% of the roads were opened, creating challenges for food distribution. Creating a Master Gardener Volunteer Program in PR was vital to train additional educators in the communities to help people to grow edible gardens in the future. In 2018, after various meetings with the University of Puerto Rico and University of Florida/IFAS, an In-Service Training was created to train a group of agents. The training was developed with a diverse group of agents and state specialists from UF/IFAS to provide the UPR agents the tools to initiate the MGV Program. After attending the training, the Puerto Rican agents launched the MGV Program, training and developing volunteers, recruiting new agents, and establishing plant clinics around the islands. This collaboration has helped with the development of Spanish materials which is a great resource for the UF/IFAS with the growing Spanish speaking population in the state. In conclusion, helping the UPR MGV Program has opened other opportunities to create more programs in Spanish, give Puerto Rican residents the opportunity to serve their communities and provide assistance to agents.

Fulfilled Volunteers and Thriving Units: Virginia EMG Research Study - Kathleen Reed, State Extension Master Gardener Coordinator, Virginia Tech & State University

What are the factors that inspire volunteers to feel fulfilled in their roles? How do we work to facilitate thriving Extension Master Gardener volunteer units? Over the past two years, Virginia has taken a deeper dive into these questions, looking into the primary influencers of fulfillment of Extension Master Gardener volunteers and what makes a volunteer unit thrive. From the internal motivation of volunteerism to dynamics within the volunteer group and Extension office, we’ve learned different perspectives on what makes a happy, fulfilled, and thriving group of volunteers. Join us to learn more about what was discovered and how we can use this knowledge to further strengthen all EMG programs.
Small Ripples Become Big Waves: MG Volunteer Programs Can Document Change using Ripple Effects Mapping - Anne Yasalonis, Local Extension Master Gardener Coordinator, University of Florida

Extension faculty invest significant time and resources in planning, implementing, and evaluating educational programming. While traditional quantitative surveys generate valuable data about the effectiveness and impacts of a program, there are other valuable elements missing—the stories behind the data, and the impacts to people beyond the direct participants. The Ripple Effects Mapping (REM) process provides a qualitative method for digging deeper and capturing social, economic, and environmental impacts. In 2021, a team of Florida Extension professionals conducted a mostly virtual REM process with Extension Master Gardener Volunteers, generating multiple public value statements and demonstrating community-wide impact through the storytelling process of REM.

Inclusive Volunteer Selection Practices: Lessons from the UC Master Gardener Program - Missy Gable, State Extension Master Gardener Coordinator, UC Agriculture & Natural Resources

During this presentation, we will review the UC Master Gardener Program’s Inclusive Volunteer Selection project, led by Marisa Coyne in her former role as UC’s Volunteer Engagement Coordinator. The project was created as part of an ongoing effort to foster a more inclusive volunteer program that reflects the population of Californians interested in gardening and horticulture education. We will review materials developed through a community-engaged process including a new trainee application, volunteer position description, trainee interview guide, and selection best practices document. We will share success stories from counties implementing inclusive volunteer selection strategies and outline next steps in this ongoing effort. While the presentation focuses on volunteer selection it also contains elements of volunteer identification. As human beings we may begin to select volunteers even before we identify those volunteers. We select volunteers based on where we advertise, and when we celebrate the contributions of volunteers solely on the basis of tenure and not on the basis of impact. There are many reasons that someone might decide not to become a volunteer but our job is to make sure that the resources we use to guide our selection process are as equity informed and bias free as possible.
Juntos en el Jardin - Renee Johnson, Other Program Assistant, Oregon State University

In June 2020, a local fish processor had a COVID outbreak. It quickly became apparent that more information and resources were necessary to support our Spanish and Mam speaking community members. Public Health officials, OSU Extension Professionals, local non-profit the Olalla Center, and community volunteers came together to start Juntos en Colaboración. The goal of the group was to provide information on how to respond to positive COVID cases and how to navigate needed health care, in both Spanish and Mam. Part of this included a formal needs assessment in the Fall of 2020 as well as facilitation of tri-lingual listening sessions between County Commissioners, Public Health, and community members.

Evolving During Changing Times: Implementing Accessible Extension Programs Through the Use of Technology, Kenzie Johnston, Local Extension Master Gardener Coordinator, Ohio State University

Although the traditional face-to-face educational opportunities that built Extension are still the heart of our mission, there is a need for more flexible and accessible education. The COVID-19 pandemic transitioned many programs online in order to provide research-based education to communities around the country.

Since early 2020, online programs have provided education to audiences that were once seen as hard-to-reach. Taking a program online requires many adaptive skills, time management, and understanding of online education.

In our presentation, we will discuss opportunities to expand Extension programs through the use of online platforms that can easily be integrated into a variety of Extension programs. We will address both the positives and negatives surrounding the transition to an online format and how this new method can reach a demographic that has been missing in many Extension programs. Examples of helpful materials and hands-on labs will be available to review. Some materials that will be discussed are based on the Extension Gardener Handbook developed by North Carolina State University Extension.
Reciprocal Relationship Building - Vanessa Venturini, State Extension Master Gardener Coordinator, University of Rhode Island

Journey with us through a process of reciprocal relationship building to enrich and diversify our volunteers and audience and welcome in an age of community-led Extension. Through our first ever community needs assessment process we learned a lot! EMG volunteers have begun to co-design programs with community groups based on their needs. We've also successfully engaged BIPOC individuals as peer educators, attending training, decolonizing the curriculum (or starting to), and returning to the community as leaders and facilitators of food sovereignty. We are excited to share and invite a conversation!

Master Gardener Volunteer Leadership School: Empowering Leaders for the Future - Wendy Wilber, State Extension Master Gardener Coordinator, University of Florida IFAS

The need to foster leadership skills in UF/IFAS Extension Master Gardener Volunteers (MGVs) is felt in many MGVs programs in Florida. Master Gardener Volunteer Coordinators benefit from key volunteers in leadership roles, especially in the positions of project management. The Florida Master Gardener Volunteer Leadership School was created to train MGVs in leadership skills so they would step into leadership roles within the volunteer organization. The Florida MGV Leadership School began in 2012 and is held every other year. Six Leadership Schools have been held and 500 MGVs have been trained. The 12-hour classroom training is delivered to volunteers that are nominated by the county agent. The training is attended by 80+ Master Gardener Volunteers biannually.

Attendees responding to follow up surveys have reported increased knowledge in critical thinking, volunteer motivations, identifying their leadership strengths, fundraising, managing community and demonstration gardens, conflict resolution, teaching styles, visioning seasons, and SWOT analysis.

Over the last 10 years, attendees (85%) found the training extremely to very useful in their leadership development. Long term results include volunteers educating other MGVs on project management, budgeting and working in teams. Agents and volunteer leaders report a change in behavior in event organization, fundraising, motivation, and communication.
Engaging Volunteers in Applied Research - Charlotte Glen, State Extension Master Gardener Coordinator, NC State University

Engaging Master Gardener volunteers in applied research increases their understanding of Extension’s mission, provides a fulfilling volunteer experience, and enhances Extension’s ability to conduct consumer horticulture research in multiple locations. During the 2021 and 2022 growing seasons, North Carolina county and state Extension Master Gardener program staff implemented a pilot project to assess volunteer interest, competency, and satisfaction with conducting research in their home garden or at Extension demonstration sites. We investigated how varieties of basil resistant to downy mildew perform on a home or community garden scale so we may provide relevant information to home gardeners. Volunteers grew and maintained basil throughout the 2021 and 2022 growing season, observed plants for disease symptoms and garden performance, and collected data for this statewide project. This presentation will focus on best practices to engage Master Gardener volunteers in applied research and lessons learned during this pilot project.

The NDSU EMG Pollinator Program: Education, Research, and Impacts - Esther McGinnis, State Extension Master Gardener Coordinator, North Dakota State University

The North Dakota State University Extension Master Gardener (EMG) Program and Extension Entomology are concerned about pollinator habitat loss and began an educational initiative to promote the planting of home pollinator gardens. Since 2016, the EMG Program designed and planted 27 public pollinator teaching gardens in 20 counties. EMGs hold workshops and give garden tours to educate people on the importance of pollinators, which native and ornamental flowers to plant for continuous bloom, and safe pesticide use. A packaged program is available for use by EMGs and contains six Extension publications, a PowerPoint presentation and a lesson plan for youth. The program goal is to inspire homeowners to build new pollinator gardens or to retrofit existing gardens to become an oasis for pollinators. As an incentive and as a means of tracking impact, homeowners can apply for a free certified pollinator garden sign if they meet specific requirements. Since 2016, the EMG Program has certified 174 pollinator gardens and meadows totaling 4,612,375 square feet. The project also conducted scientific research on pollinator preferences for 27 native species and ornamental cultivars of aster, false indigo, bee balm, and sedum flowers. During the study, over 16,000 insect pollinators were observed and identified.
Pollinator Day: Reaching the Urban Population through Purdue EMGs - Gina Anderson, Local Extension Master Gardener Coordinator, Purdue University

Pollinator Day, held in New Albany, IN, is a free, community-wide, family-friendly event that increases the public's awareness of threats posed to our pollinators and gives participants concrete ideas on how they can support pollinators. The day is packed with hands-on activities for all ages. Activities include beehive tours, building your own hummingbird feeder, native bee nest, and butterfly feeder, planting for pollinators, crafts for the kids, and more. Classes offered on planting for bees and butterflies, pollinator habitats, and beekeeping. To help guide the conversation youth are given a Pollinator Day Passport full of questions to ask volunteers staffing each of the booths.

This event started in 2016, and by 2019 almost 1,200 people came in five hours to learn about pollinators. This effort is a partnership between Purdue Extension, Extension Master Gardeners, and local beekeepers. These partners work together to create a fun learning atmosphere that encourages learning after the event is over. Participants return year after year and some have shared the changes they have made to their landscape management practices. Some examples of changes include removing invasive plants and planting natives and reducing the number of pesticides used to create a more pollinator friendly environment.

Building a MGEV Speakers Bureau through Landscape Stewardship Curriculum - Heather Kolich, Local Extension Master Gardener Coordinator, University of Georgia

Forsyth County Extension struggled for years to engage Master Gardener volunteers in educational public speaking outreach. In 2021, the ANR agent embraced a new statewide program, Georgia Green Landscape Stewards, as a foundation on which to develop teams of volunteer presenters and program facilitators. The agent developed a slow roll-out of GGLS in the summer of 2021. Seven planned events gradually increased MGEV involvement in GGLS, built enthusiasm for the program, and prepared 20 MGEVs to present at least one of the 10 GGLS curriculum topics, and 10 additional MGEVs to facilitate program set-up, registration, and participant engagement. In partnership with one county library branch, MGEVs taught the GGLS program to county residents over five evening sessions in the spring of 2022. By request, MGEVs will teach the program at another library in the fall of 2022. Community impact of the program is measured by the number of Forsyth County residents who complete the GGLS landscape certification after the conclusion of each GGLS outreach training in 2022. The impact on the Forsyth County MGEVs and the MGEV program is measured by the enthusiasm for, and engagement in, educational outreach through public presentations, including and beyond the GGLS curriculum.
The Georgia Green Landscape Stewards Program: Creating and Implementing a Statewide Sustainable Landscape Program - Jessica Warren, Local Extension Master Gardener Coordinator, University of Georgia

Utilizing funding from a mini-grant from the Center for Urban Agriculture at the University of Georgia, Camden County Agriculture Agent Jessica Warren and Northeast Area Water Agent Martin Wunderly worked to create a sustainable landscape program in which clients could learn from educational modules at their own pace, implement practices in their landscapes and evaluate their landscape practices for recognition. The Georgia Green Landscape Stewards certification program provides educational resources that teach Georgians about protecting natural resources, increasing plant and animal biodiversity, conserving soil and water, providing wildlife and pollinator habitat, and improving public and environmental health. Participants can measure their own sustainable land management activities with the program metric scorecard and earn certification status for their landscape. The program can be used as a self-guided education tool or delivered by county extension agents, assistants, and Master Gardener Extension Volunteers as a series of topics or singularly. The program website functions as the control center, complete with educational presentations, program description and participation steps, additional learning links, agent only resources (PowerPoints, graphics, promo materials, and program data), and contact information.

Statewide Diagnostic Education for EMG Continuing Education - Katie Dunker, State Extension Master Gardener Coordinator, Colorado State University

Continuing education (CE) is a requirement for all Extension Master Gardeners. Making CE offerings more meaningful, flexible, accessible and skills-based keeps EMGs engaged as learners and up-to-date on science-based horticulture. In 2020 & 2021, due to the COVID-19 pandemic, many CE opportunities were canceled, leaving our volunteers in limbo. Coordinators were then tasked with offering relevant continuing education, even at a distance. Over the past two years, there has been a noticeable increase in emails and inquiries about plants and plant issues. The situation prompted Colorado horticulture staff to consider new ways to upskill volunteers while meeting real-time demands at helpdesks. In response, Colorado Master Gardener staff rolled out a month-by-month continuing education plan focused on plant diagnostics for 2021 and on plant pest diagnostics for 2022. In this session, we'll share how we delivered the two-part monthly trainings to provide both lecture and hands-on opportunities to practice diagnostic skills using real helpdesk questions. This program demonstrates both high-tech and high-touch approach to meet the statewide needs of volunteers and staff. We'll share the training model, online toolkit developed and feedback from volunteers.
Educational Resources to Address Overfertilization of Phosphorus - Rick Durham, State Extension Master Gardener Coordinator, University of Kentucky

The Kentucky Extension Master Gardener Program is revising training related to “Your Yard and Water Quality” to emphasize issues and solutions to overfertilization with phosphorus (P) in the home landscape. Analysis of 25 years of soil test data indicate that samples collected from home lawns and gardens (HG) show a steady increase in P while those from hay fields, pastures and row crops are decreasing in P. Remarkably, almost 80% of samples from HG indicate P levels sufficient to incur water soluble P leaching from the soil. In a program called “No P on my Lawn,” we emphasize a 5R scenario regarding landscape fertilization: right source, rate, time, place, and right price. Furthermore, we draw attention to dog waste contributions to soil P levels in a program called, “Scoop on Poop – Bag the Doo.” In a city the size of Lexington, KY, we estimate there are ~70,000 dogs that produce upwards of 19 million pounds of waste per year. This has the potential of contributing 185,000 pounds of P to our landscapes, and eventually water supplies, which can be avoided when people “Doo” the right thing and dispose of pet waste. We will share access to our new educational resources.

Empowering Volunteers to Educate through Social Media - Tonya Ashworth, Local Extension Master Gardener Coordinator, University of Florida

The two objectives of the newly formed Social Media Master Gardener Project group were 1) to educate the public on sustainable gardening principles using social media and 2) to empower volunteers to use their writing, photography, videography, graphic design, and leadership skills. Methods: Volunteers were recruited for the project and an organizational meeting was held using Zoom. Volunteers took positions such as writer, photographer, videographer, and blogger. The group chose a name, a project leader, and lead persons for Facebook and Instagram, the UF/IFAS Blog, and You Tube. Results: The social media content for Duval County Ag Extension is now produced by volunteers. The group has a Teams channel where files are stored and shared. There is an approval calendar with regularly scheduled posts, and volunteers use graphic design software to produce content. Volunteers write for a blog, and videos are created for social media sharing. Our Facebook reach for April 2022 was 5,192, a 408% increase over the reach for April 2021. Our Facebook likes for April 2022 were 46, a 64% increase over the page likes for April 2021.
COMMUNITY DEVELOPMENT

- Building a Community of Colleagues: A Collaborative Approach to Curriculum Development - Rebecca Long, Pamela Hargest, University of Maine
- Building Community Partnerships - Debbie Dillion, NC State University
- Download the Playbook for Online Training - Katie Dunker, Christy Mardsen, Colorado State University
- Revenue Enhancement By Having A Garden Festival - David Austin, University of Florida
- Preserving Heirloom Apple Varieties Through Hybrid Learning - Josh Fuder, Ashley Hoppers, Stephanie Butcher, Wade Hutcheson, University of Georgia

ENVIRONMENTAL STEWARDSHIP

- A Water Efficiency Research and Demonstration Garden - Alison O'Connor, Tony Koski, Colorado State University
- Climate Forward Trees - Mimi Enright, Mimi Enright, University of California
- Plant of the Month Program: Serving Up Bite-Sized Information for Florida's Home Gardens - Cynthia Nazario-Leary, Taylor Clem, Martha Maddox, Cynthia B. Sanders, University of Florida
- Sustainable Landscape Trials Are a Positive Opportunity for Volunteer Engagement - Heather Stoven, Neil Bell, Oregon State University
- Understanding and Addressing the Impact of Potting Soil on Climate Change - Laurel Moulton, Washington State University
- Virtual Engagement Leads to Hands-On Results for Extension Master Gardener Volunteers - Dr. William Lester, Katelyn Brinkerhoff, Jamie Daugherty, University of Florida
- Changing the Norm during COVID-19 to Better Serve Clients Long-Term - Jennifer Pelham, University of Florida

HEALTH AND WELL-BEING

- Grow More, Give More - Communities Helping Communities - Bethany O'Rear, Dani Carroll, Auburn University
- Injury Prevention Training for Master Gardener Volunteers - Jessica Sullivan, Gabriela Murza, University of Florida
- Master Gardener Volunteer Program Fosters Health and Well-being - Terra Freeman, University of Florida
- Project GROW: Teaching Veterans to Grow Plants for Health and Well-being – Dr. Sheri Dorn, Lisa Klein, Cynthia McCrary, Shirley Bohm, University of Georgia; Dr. Stephanie Brown-Johnson and Dr. Alice Fann, Veterans Affairs Hospital, Atlanta, Georgia
- Promoting Home Gardens and Healthier Food Choices through Garden to Table Workshops - Ashley Stonecipher, University of Florida
- Community Garden IPM Reports - Dave Los, Rutgers University