University of Maryland Extension engages over 421,536 Marylanders with our faculty and staff, 5,881 volunteers, and over 5,040 partnerships.
The University of Maryland Extension
County, State, and Federal Partnerships

Whether it be at home, in the community, or in the fields, our trained faculty and staff offer problem-solving assistance based on the research and output generated at the University of Maryland, College Park. Here in Maryland, with offices in all counties and Baltimore City, we apply research-based practical education to improve the lives of American families, and to enhance agriculture, business, and industry. Our areas of expertise include but are not limited to agricultural production and nutrient management, water quality, natural resources, food safety, nutrition and healthy lifestyles, youth development, volunteer development, urban development, and community engagement.

All of this is made possible through a successful cooperative arrangement with the University of Maryland College of Agriculture and Natural Resources, the United States Department of Agriculture, and our local county governments, who have been long-standing supporters. We are immensely appreciative of our relationships with administration in each county and city, and look forward to continued collaborative efforts to generate a higher standard of living for Maryland state residents.

ON THE COVER: Kate Tully, assistant professor of agroecology, Plant Science & Landscape Architecture, AGNR and leading saltwater intrusion researcher, is developing solutions for coastal Maryland farmers.

The University of Maryland Extension (UME) provides research-based, informal education to citizens of the state of Maryland through generous support from its county partners. Educational programs cover a range of topics, including agricultural production, watershed protection, natural resources, food safety, nutrition and healthy lifestyles, youth development, volunteer development, urban agriculture, and agricultural nutrient management. These educational and training programs provide current, practical information through workshops, seminars, clinics, camps, displays, online courses, events, and newsletters.

The UME represents a partnership of county governments, the University of Maryland College of Agriculture and Natural Resources, and the U.S. Department of Agriculture. We are glad to share with you this summary of our 2019 activities and accomplishments that improve quality of life for the residents of Maryland.
4-H Youth Development

The UME 4-H Youth Development Program provides a supportive setting for youth to reach their fullest potential. Children learn beneficial cognitive and life skills through community-focused, research-based, experiential educational programs. Participation is open to all youth ages 5-18. 4-H has a 100-year tradition of voluntary action through strong public-private partnerships at federal, state, and community levels. Local volunteer leaders partner with UME faculty and staff to provide direct leadership and educational support to young people in urban, suburban, and rural communities. 4-H youth develop relationships that inspire people to voluntarily help themselves and others as they interact with caring adults and peers.

4-H Program Areas
- Science, Engineering, and Technology
- Healthy Living
- Civic Engagement and Leadership
- Volunteer Development

Maryland 4-H Priorities
- Building Community and Civic Engagement
- Developing Leadership Skills for Life
- Nurturing Social Empowerment and Resilience
- Improving College and Workforce Readiness
- Fostering Exploration and Creativity in Arts and Sciences
- Promoting Healthy Lifestyles and Self-Acceptance

Signature and statewide programs include AgSploration, Kids Growing with Grains, Health Rocks, Teen Corps, Robotics, and more!

2019 HIGHLIGHTS

51,640
4-H Youth Served

74,751
Youth Served by UME, including 4-H, FSNE, and EFNEP

54,842
STEM Projects Crafted

14,399
Civic Engagement Projects Prepared

31,289
Healthy Living Projects Created
Maryland's diverse environment ranges from the mountains of the west to the shorelines along the east, and from large urban landscapes to rural forests and lakes. UME's Environment, Natural Resources, and Sea Grant programs provide educational and technical support to residents who live, work, and play in these areas. Balancing the economic potential and value of these vastly diverse resources with the need to conserve and protect our natural resources for today and into the future is accomplished through a mix of Extension programs such as Woodlands Stewards, Master Gardener, Master Naturalist, Master Watershed Stewards, Master Loggers, and Chesapeake Bay Landscape Professional program graduates. In addition, residents benefit from forestry, home horticulture, environmental landscaping, wildlife, energy, climate, watershed, aquaculture, and seafood expertise at strategic campus, regional, and county locations.

**Impacts and Outcomes**

- The Master Naturalist program has trained close to 1,500 individuals in subjects designed to improve their knowledge and ability to affect Maryland's natural areas in a positive way. These individuals have contributed almost 130,000 volunteer hours since 2010 and have had direct and indirect impacts on Maryland's forests and natural areas.
- Maryland's aquaculture and seafood safety Extension team worked with the oyster industry and statewide policymakers to ensure the continuation of a strong leasing program, healthy oyster seed and spat, and safe seafood on our docks and in our markets. Currently over 7,300 acres are in active shellfish production in the Chesapeake Bay watershed with more than 100 additional lease applications. The Extension team also manages an oyster aquaculture education and training program for current and potential shellfish entrepreneurs.
- Over 400 Master Watershed Stewards and 600 Chesapeake Bay Landscape Professionals have been trained to date to provide assistance to individuals, communities, and towns with their pollution reduction goals through environmentally sound landscaping, stormwater management and other practices to reduce nutrient and sediment runoff into the Bay. These trainings and efforts result in the treating of stormwater through the implementation of best management practices that include impervious removal, conservation landcapings, rain gardens, and rain barrels.
- UME's Master Gardener program is valued at $3.23 million, featuring 21 county and city Master Gardener coordinators, over 2,300 volunteers, and 89,000 people educated in 2019 alone. The Home and Garden Information Center answered 7,150 garden and pest questions, making them the U.S. leader again on Extension's Ask an Expert platform.
- UME's forest resources Extension team has trained over 570 Woodland Stewards who together impact over 90,000 acres of forestland. Many Stewards become leaders in local, state and national organizations. Additionally, thousands of forest owners are provided information at workshops or online on critical forest and wildlife management topics.

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**2019 HIGHLIGHTS**

- **Master Gardener Volunteer Hours**
  - 112,788 hours
  - Value of $3.23 million

- **Master Naturalist Volunteer Hours**
  - 29,360 hours
  - Value of $841,188

- **Square Feet of Conservation Practices Treated or Installed by Master Watershed Stewards and Chesapeake Bay Landscape Professionals**
  - 433,509 square feet
  - Resulting in a reduction of 1100 pounds of Nitrogen and 750 pounds of Phosphorous from the Chesapeake Bay
UME educators in Family and Consumer Sciences (FCS) deliver education and outreach programs to help ensure that all Maryland residents are healthy and economically successful at every stage of life. UME FCS engages in and facilitates innovative educational programs and applied research that can improve health, well-being, and quality of life for Marylanders. In partnership with agencies and organizations, FCS educators are committed to providing research-based educational programs to consumers and families from diverse backgrounds. FCS also trains state and local agency staff, human service providers, teachers, educators, and other professionals to increase their competencies to deliver educational programs for consumers.

Food Supplement Nutrition Education (FSNE), Maryland’s SNAP-Ed program, uses a comprehensive multi-level approach to introduce youth and adults to healthy options and to support partnering sites in making changes to their policies, practices, and physical environments so that healthy choices are accessible to Maryland families. In FY19, FSNE reached more than 201,000 participants through inperson education, educational resources, and policy, systems, or environmental (PSE) efforts. FSNE also worked with 493 local partners to deliver nutrition education and promote sustained healthy changes throughout the state.

The Expanded Food and Nutrition Education Program (EFNEP) is a nutrition education program funded by USDA/NIFA. EFNEP empowers food-insecure families with children to make diet and physical activity-related behavior changes to facilitate a healthy lifestyle and reduce chronic disease risk. In 2019, EFNEP reached 3,901 youth, 1,185 adults and 5,086 families. EFNEP worked with 118 partners, and the program was delivered at over 130 delivery sites.

Fresh Conversations is a nutrition education program for Maryland adults 50 years of age and older. FCS facilitated this nutrition and wellness education at 44 senior centers or other sites in 19 counties and Baltimore City.

Priority Areas

- **Nutrition Health and Wellness:** To help youth and adults develop and maintain healthy eating habits along with physical activity for a healthier lifestyle.

- **Food Safety and Food Preservation:** To prevent foodborne illnesses from occurring through workshops and training for consumers, processors, farmers, and growers.

- **Financial Literacy and Capability:** To help youth and adults increase savings, decrease debts, and achieve financial well-being by making informed financial decisions.

- **Health Literacy and Health Insurance Literacy:** To help consumers better choose and use their health insurance as well as access and manage their health care.

## 2019 HIGHLIGHTS

| Financial Wellness Programs reaching 5,128 Consumers |
| 296 |
| Fresh Conversations sessions facilitated reaching 2,836 Participants |
| 288 |
The largest private industry in Maryland is agriculture, which is comprised of row-crop production, commercial horticulture, poultry, and livestock. The UME Agriculture and Food Systems (AgFS) Program serves Maryland producers and communities by translating fundamental research into applied research and education programs that Marylanders can use. The 38 AgFS educators have a physical presence across Maryland.

**Impacts and Outcomes**

- Supported urban agriculture by developing research-based tools such as the manual, *From Surviving to Thriving: Strategies for Urban Farm Success and the Beginning Farmer Guidebook*.
- A partnership with University of Delaware and Virginia Tech Extension conducted applied research on herbicide-resistant weed management and offered 11 one-day workshops about herbicide resistant weeds and how to manage them that reached 370 producers in 2018 and 2019.
- Conducted training for over 2,000 participants from the commercial horticulture industry, which includes fruits and vegetables, ornamentals such as trees and shrubs, and landscaping.
- A long-term partnership with University of Delaware Extension and Delmarva Poultry Industry, Inc. initiated 15 Grower Lunch & Learns to deliver monthly educational programs on financial and litter management, pollinators, ventilation, and other topics for 315 people.
- LEAD Maryland graduated Class X, celebrating its 20th anniversary. This collaboration with the LEAD Maryland Foundation has trained 223 agricultural, environmental, and rural leaders.
- The Agricultural Law Education Initiative (ALEI), a collaboration with the University of Maryland Baltimore County and the University of Maryland Eastern Shore, provided 64 presentations and webinars reaching 2,875 farmers and agricultural service providers.
- AgFS Extension collaborated with the Maryland Association of Soil Conservation Districts to perform four Farmer Mental Health Management Workshops across Maryland to train agricultural service providers how to help troubled farmers find the assistance they need. This program is sponsored by the Rural Maryland Council and Franklin P. and Arthur W. Perdue Foundation.

### 2019 Highlights

- **1,364** Nutrient Management Plans Reviewed with **260,187** Acres Covered
- **49,561** Educational Programs and One-on-One Consultations including **10,760** Educational Youth Programs
- **1,800** Participants Trained in the Commercial Horticulture Industry
- **6,500** Publication Downloads and **1,317** Video Plays from the Agriculture Law Education Initiative (ALEI) Website
The University of Maryland Extension programs are open to all and will not discriminate against anyone because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry, or national origin, marital status, genetic information, or political affiliation, or gender identity and expression.
Bryan Butler, principal agent for University of Maryland Extension, is leading a Maryland-centric hops research initiative in partnership with Flying Dog Brewery. Here, he chats with Tom Barse, owner of Milkhouse Brewery in Mt. Airy.