**2018 STARS Report**

**Continuing Ed courses/events related to sustainability 23,436**

**Total courses/events offered 58,591**

**Cornell Cooperative Extension programming:**

Cornell University utilizes the Cooperative Extension Education System to extend educational programs to citizens all across New York State. Cornell Cooperative Extension (CCE) programs are planned with an interest in long-term community and personal sustainability. CCE provides high-value educational programs and university-backed resources that help solve real-life problems, transforming and improving New York families, farms, businesses and communities. Programs related to integrated pest management, invasive species, youth education enrichment, adapting agricultural practices in the face of climate change, family nutrition and budget balancing, and community planning are examples of non-formal educational initiatives connected to Cornell’s interest in motivating sustainable practices. <http://cce.cornell.edu/>

Specific Cooperative Extension certificate programs include:

* Certificate in Plant-Based Nutrition <http://www.ecornell.com/certificates/plant-based-nutrition/certificate-in-plant-based-nutrition-cme-edition/>
* Climate Smart Farming: <http://climateinstitute.cals.cornell.edu/climate-smart-farming/>
* Master Composter: <http://ccetompkins.org/garden/composting/become-master-composter>
* Master Gardener: <http://gardening.cals.cornell.edu/cornell-cooperative-extension-master-gardener-volunteer-program/>
* Northeast Beginning Farmers Trainings – Small Farms Program <http://nebeginningfarmers.org/online-courses/>
* Preventing Childhood Obesity: An Ecological Approach,

website <https://www.nutritionworks.cornell.edu/features/index.cfm>

* **Climate Change Science, Communication, and Action Online Course**

<https://civicecology.org/course-cc/>

Examples of local, regional and statewide programs addressing sustainability are described below:

**Climate Smart Farming Extension Team**

Cornell’s Climate Smart Farming (CSF) Extension Team gives New York farmers access to extension specialists with commodity expertise necessary to help manage the risks posed by increasing extreme weather, climate variability and long-term change. The extension team works in partnership with Cornell Institute for Climate Smart Solutions (CICSS) staff and faculty http://climateinstitute.cals.cornell.edu/whoweare/ and with other Cornell University faculty and CCE staff. The team has collaborated with NY Integrated Pest Management (IPM) staff, NYS Partnerships for Regional Invasive Species Management (PRISM) and industry groups like the NYS Berry Growers Association (NYSBGA). The primary effort is to help NYS farmers’ prepare for a changing climate by drawing on the latest science to answer questions about how to make changes to their management

practices that will help increase resiliency and farm sustainability. Videos, resources and access to team members can be found here: <http://climateinstitute.cals.cornell.edu/climate-smart-farming/climate-smart-farming-extension-team/>

**On-Farm Cover Planning Tool for Farmers Aiming to Improve Soil Health**

Cornell’s Climate Smart Farming (CSF) Extension Team worked together with Cornell Institute for Climate Smart Solutions (CICSS) staff and faculty (http://climateinstitute.cals.cornell.edu/whoweare/) and with other Cornell University faculty and CCE staff to develop an online tool that permits farmers to effectively plan cover crop plantings to better protect soil health and function from damage caused by extreme weather events and climate variability. This new resource helps NYS farmers’ prepare their farm and fields for our changing climate by combining crop growth models with gridded weather data to assess likelihood of cover crop success for several cover crop species plantied at any location in NYS. This tool will allow farmers to make better management decisions to increase their farm's resiliency and sustainability.

 **Best Management Practices for long term high tunnel soil sustainability**

CCE’s Cornell's Vegetable Program, Dilmun Hill Student Organic Farm and NOFA-NY worked closely with 10 high tunnel operators across Central and Western NYS, educated farmers and students, and provided technical assistance in managing soil health in high tunnels for long term productivity. Educational topics included soil preparation, soil testing, and monitoring, fertility and soil pH management, effective crop rotations, and use of cover crops for soil health and yield in high tunnels used over multiple years on the same location in both organic and conventional settings. The program included workshops, presentations, and intensive learning experiences both on-farm and during the 2017 NOFA-NY annual Winter Conference and the 2017 Empire Producers Expo, technical assistance via articles on-line and in print publications, email, and farm visits. We provided soil, water and amendment analysis to farmers involved in implementation. Involving conventional and organic farms bridges research knowledge to be of benefit to both sectors. After participating in this project, net high tunnel income increased by an average of $1556.61, for an average increase of 26.9%.

**Master Gardener Volunteer Program Aims To Increase Healthy Living/Sustainable Practices**

Roughly 2,000 Master Gardener Volunteers from 47 counties in New York state spent over 100,000 hours on programs intended to raise environmental and community sustainability. Master Gardener programs are designed to enhance biodiversity, reduce family/childhood obesity by increasing home and community gardening opportunities, reduce the overuse of pesticide applications by helping individuals to appropriately identify pest issues and understand options for management, enhance well-being by supporting/guiding community gardens, help lower income families to incorporate growing food into their habits, and provide training on horticultural therapy to vulnerable populations (adults with disabilities, Alzheimer’s, Hospice, low income neighborhoods). <http://gardening.cals.cornell.edu/cornell-cooperative-extension-master-gardener-volunteer-program/>

**Invasive Species Awareness**
The CCE Invasive Species Program team of campus and county educators and faculty provides technical and educational support for the NYS Partnerships for Regional Invasive Species Management (PRISMs) – multi-county efforts. <http://nyis.info/?action=prism_partners> **Across the state**, s Emerald Ash Borer continues to spread out from known infestations **Emerald Ash Borer (EAB) Taskforce**s, regularly meet through the facilitation of Cornell Cooperative Extension to **pro-actively address this invasive concern impacting area residents and municipalities** resulting a broad outreach network bringing Extension developed resources to local community members. And, in communities of Long Island that were affected by the Asian Long-Horn Beetle outbreak and the devastating tree removals that followed, CCE is working with volunteers to replant a diverse selection of non-host tree species, improving urban canopy, and providing a sustainable future ecosystem.

**Free On-line Climate Change Education offered to anyone around the world...**This course has engaged nearl 6,000 participants from around the world in it’s first couple of years. Participants have learned about basic climate change science, impacts, communication strategies, and actions. With in the non-credit course, participants are invited to complete online content, log-on for weekly web-based discussions, and develop a short plan for an educational program. Course materials are delivered via video lecture and readings. Course participants may complete assignments alone or with other students. The course also uses a closed Facebook group as an optional discussion platform where course instructors and participants can post resources, pose questions, and “meet” others with similar interests.

**Growing the Next Generation of Conservationists**
CCE provides experiences for youth to engage with the outdoors, gain skills and knowledge to motivate good decisions for the environment, and build youth who are interested in sustainability. CCE Associations across the state run 9 4-H residential Camps, summer day camps, afterschool programs, children’s gardens, nature centers, and school enrichment experiences – many of which support environmental education.

Examples:

* **Statewide Youth STEM Camp**. Many statewide events in 4-H Youth Development have a STEM focus, but camp offers a unique environment that can bring together STEM specialists from across many disciplines, youth, and families in a unique outdoor setting that allows for excitement, curiousity and learning to happen. Forestry, geospacial science, outdoor adventure, entomology, backyard engineering, Bird Quest…are just a few topics lead by Cornell STEM specialists in depth over the course this weekend.
* **Many CCE Associations organize 6th Grade Conservation Field Days programs** for all 6th grade youth in their county introducing them to people, projects and places intended to make the kids think and grow.
* **School Garden Liaison Projects** – (ex. Chemung County). Five Chemung County Master Gardener Liaisons visited two community gardens every month in the summer of 2017. They brought gardening-related fact sheets and made recommendations and suggestions on garden maintenance during the growing season. Garden participants, especially the children from low-income families, have not only learned about gardening skills, but also tasted the fresh vegetables that they grew.
* **Camp Overlook – 4-H Camp – CCE Franklin County**. MAAPs, ADK Wilderness Program, provided youth in the three counties the opportunity to explore the High Peaks region of the Adirondacks while developing leadership skills,building personal confidence, and establishing a strong connection with the natural environment. The target population is 150 co-ed youth ages 8 – 19. The program is progressive, allowing campers to increase in trip intensity as they return to camp summer after summer.

**Taste NY Helping Locavore Movement Grow**
Taste NY is an initiative launched by Governor Cuomo in 2013 to promote New York’s food and beverage industries. Several Cornell Cooperative Extension Associations are working in support of this effort, acting as a liaison between farmers and retail stores – from building sustainabile business practices to growing the locally grown movement. Cornell Cooperative Extension is able to help Ag business with many aspects of product development – including assessing local needs, branding, retail sales, and on the back-end to increase farm production and sustainability practices. The intended effort is building a community where people can buy and create local products, enhancing community sustainability.

**Building Community through Local Gardening**Cornell Cooperative Extension has been supporting gardening endeavors for over a century. Recent efforts, including a program called “Seed to Supper”, have worked to fill food desert gaps and fill hunger needs with backyard gardening know-how. Seed to Supper is a program, developed by the Oregon Food Bank, to teach those with low-resource means how to grow their own food. New York State is adapting the program to our climate. CCE Associations have been taking the program to local communities and training volunteers about the process of community engagement and development through teaching gardening skills.

In return, the trained cadre of volunteers are teaching and mentoring those in need about how to grow their own vegetables. Additional visible outputs include community gardens, school based gardens, vegetable stands for extras, and people coming together around food that they have grown.