Collaborators and Partners

As we began our second millennium of serving Westchester residents and businesses, we saw an impressive number of increases in the volunteer efforts that made it possible for us to deliver so many services.

Nearly 1,000 local teachers volunteered to carry out our Incubation and Embryology project this year, delivering our program to a record number of 9,444 local school students who hatched chick and duck eggs in their classrooms while learning about biology, science and the environment.

Master Gardener Volunteers, 4-H Voluneteers and other volunteers donated over 7,000 hours to CCE in 2016. Re-energized volunteer programs have inspired volunteers to give some record numbers of hours to CCE as we rely on them to help us deliver our programs.

Just as those who came before us will never know the community benefits that their work eventually produced, we also might never know the benefits that our work produces for generations in the future. Nevertheless, we do it and keep the long term perspective that we need to do it now, in order to make life better in Westchester County in the future.

Cooperative Extension was the first nationwide workforce development organization in the United States. Extending knowledge and training to youth and adults, it helped get people ready and prepared for vocational pursuits, as well as continuing to be the resource they needed to expand their skills while “on the job.” Not a lot has changed in that respect.

4-H still teaches soft and hard skills, making 4-H youth better prepared for the future workforce. Our commercial horticulture program still teaches business owners and employees the best practices to make them more effective and efficient, while making their businesses successful and profitable. Our nutrition programs teach healthier lifestyles to people who are or will be in the workforce, thus making them potentially better and healthier employees.

We do this on a very small budget. Over 90% of our program dollars go toward programs, and less than 10% goes toward administrative or general costs.

We are proud to have built a solid reputation among those we serve and look forward to continuing to serve the Westchester community.

A Message from the Executive Director
Horticulture, the Environment and Natural Resources

Our professional staff of horticulture, pest management and arboriculture experts provide a variety of services to the public and to the “billion dollar green industry” in Westchester. That industry includes greenhouses, nurseries, turf and landscape businesses, tree services, landscape architects, garden supply houses, municipal owners of parks and public lands, and private and public golf courses. Among the services we provide are:

- on-site laboratory services to analyze soils, plants, insects and other pests.
- soil test kits that show whether nutrient changes are needed.
- advice on anything that grows (plants, fungi, etc.).
- best practices information that protects the environment.
- training and certification programs for the Green Industry.
- education programs for the horticulture consumer.
- growing degree day information for gardeners.
- advice on controlling insects and animals that damage plants or threaten public health.
- advice to hotels and dormitories about pest control.
- collaborative efforts with Cornell and other university experts, government entities and other environmental organizations involving research and environmental remediation projects.
- collaborative efforts with Westchester County trade associations involving educational outreach.

Our professional horticulture staff was busy in 2016.

- 1,372 responses to commercial and consumer telephone calls for service.
- 1,940 diagnoses completed for email and lab sample inquiries for service.
- 279 soil nutrient tests facilitated in response to inquiries for soil testing service.
- 23 Commercial site visits performed in response to inquiries for field diagnostic service.
- 2,523 program participants served through commercial/residential presentations and conferences.

The commercial newsletter Hudson Valley Horticulture, was published 7 times in 2016 with a circulation of 720 (mostly) Westchester Green Industry professionals who share the publication with their employees. CCE articles in NYSTLA’s Green Industry News got to 200 commercial subscribers. CCE’s contribution to the commercial turf publication ShortCUTT, has a circulation of over 900. Weekly Journal News articles have a circulation of 80,000.

SPECIAL 2016 COMMERCIAL AND CONSUMER PROGRAMS AND ACTIVITIES

1/13/16: The New York State Turf and Landscape Conference and Trade Show, Yonkers, over 300 attended (each representing a local business)
1/16-12/16: Reported local landscape pest issues/program information to Hudson Valley Horticulture commercial newsletter with 707 recipients.
3/28-9/7: Ongoing reporting of local turf pest/turf industry issues to the Cornell commercial turfgrass publication ShortCUTT with 900 subscribers who

2016 Paid Support for Cornell Cooperative Extension OF WESTCHESTER COUNTY

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
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<td>Westchester County</td>
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<tr>
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<tr>
<td>Cornell Faculty and Staff</td>
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$3,005,657.00 100%
In addition to the 6,209 hours* of Master Gardener volunteer time valued at over $260,840, there were many other volunteers who gave of their time and professional expertise. Among them were 22 Program Resource Committee members who gave over 25 hours each for a total of over 550 hours worth $23,095. 4-H volunteers donated 2,100 hours worth $88,221. Board Members gave approximately 1,210 hours of volunteer service worth $50,808, not including the time that some gave to teaching in our programs without any compensation. In addition to the registered volunteers, CCE has hundreds of casual volunteers (teachers we train to implement our programs, community partners who deliver our programs for us, business owners who provide information about us, etc.). It is hard to calculate the enormous number of hours they devote to CCE. Similarly, many faculty and staff from Cornell University provide services, time and expertise to us in a wide variety of areas, but we cannot calculate the exact amount of time they give us. Other universities also have contributed expertise to CCE Westchester programs including Rutgers University, Syracuse University, University of Connecticut, the University of Massachusetts, and a dozen other institutions.

*Not all hours were reported by press time.
Master Gardener Volunteers Program

2016 HOME GARDENING LECTURE SERIES

The Lives of Summer Wildflowers
Wednesday, January 20, 2016
Backyard Organic Veggie Gardening
Wednesday, February 24, 2016
Lawns and Alternatives to Lawns*
Wednesday, March 9, 2016
Challenging Habitats*
Wednesday, April 13, 2016
Unlocking Seed Secrets
Wednesday, May 25, 2016
Tour of Edeiken/Goldfinger Gardens*
Wednesday, June 8, 2016

*Landscape Architect Health, Safety and Welfare

Master Gardener Volunteers donated over 6209 hours to CCE in 2016. Valued at $42.01 per hour, this work was worth $260,840.

Among the 30 ongoing Master Gardener projects were collaborations with Cornell University researchers, including a citizen science mosquito survey to track the presence of species that may vector the Zika virus and related diseases. Master Gardener volunteers also participated in a continuing study with Cornell Waste Management Institute to survey the environmental effects of mulching leaves in place on lawns that will conclude in 2017.

The School Garden program brings a Master Gardener mentor to each participating school to help them develop a vegetable garden and teach students about nutrition and food sources. We have trained over 300 teachers so far and introduced over 6,000 Westchester children to school gardening at over 40 schools. Master Gardeners read to over 400 elementary students at 8 Westchester schools during “Agriculture in the Classroom” week, March 16-20, 2016.

The popular Home Gardening Lecture Series again attracted over 300 attendees in 2016. The Speakers Bureau and other Master Gardener speakers reached hundreds through 11 audiences at various venues throughout Westchester.

Master Gardeners participated in dozens of “Ask the Master Gardener” booths at farmer’s markets, Earth Day events and other direct contacts in 2016, reaching over 3,434 people directly.

CCE Master Gardeners continue to educate the public at Community and Demonstration Gardens at Ossining Organic Community Garden, Hart’s Brook Preserve, Hilltop Hanover Farm, John Jay Herb Garden, Lenoir Preserve Butterfly Garden, Alfred B. DelBello Muscoot Farm, and Sherwood House. Master Gardeners volunteer at Stone Barns, Lasdon Arboretum, Native Plant Center, and helped educate communities to reduce invasive weeds in public spaces. Master Gardeners at the Hart’s Brook Demonstration Garden donated over 1570 pounds (slightly more than 3/4 of a ton) of produce to a local food pantry in 2016 to help feed the needy, despite the horrible gardening weather this year.

MGVs at Hart’s Brook with vegetables they harvested for the food pantry. They donated 1570 pounds of produce.

Nutrition and Consumer Sciences

YA – “Exercise more and buying healthier foods and decreased sugar intake.”
TT – “I changed the foods I buy, I’m exercising more and reading all the labels.”

Comments from our Westhab graduates:

JD – “I drink more water and I eat fruits and vegetables now thanks to Dawn and her program.”
AL – “Eating more salads and dark green vegetables like kale.”
TD – “I am shopping smarter and reading labels now.”
LS – “I stopped adding salt and stopped letting my food defrost on kitchen counter overnight.”

Eat Smart New York

CCE Westchester’s ESNY program is part of the New York State OTDA’s comprehensive SNAP-Ed program, which is dedicated to all individuals who qualify for and/or receive benefits through the Supplemental Assistance Program (SNAP). This program provides community-based nutrition education and obesity prevention activities in a venue that may be a one-time activity or may include several classes to form a series. The goal of these efforts is to facilitate and empower adoption of healthy nutrition and physical activity behaviors conducive to the positive health and well-being of low-income individuals, families, youth, schools and communities.

In 2016, 2494 adults received education from our ESNY program through Direct education classes.

The main goals for ESNY in 2016:

1) Eat more fruits and vegetables.
2) Drink less sugar-sweetened beverages.
3) Exercise more and balance calories eaten as part of a healthy lifestyle.

Nutrition and Health – Saving Westchester County Medicaid Dollars

In addition to the obvious benefits of improved health and lifestyles of the participants in our classes, there are benefits for the Westchester County taxpayers, too.

Nearly one-tenth of the Westchester population lives at or below poverty level. Health problems related to nutrition are disproportionately high among low income individuals. Our target population lacks private health insurance and relies on taxpayer-funded Medicaid for health care. That is costly. The annual cost of Medicaid in Westchester County is approximately $1.5 billion!

When we look at the costs of healthcare for diseases that are preventable through improved nutrition and physical activity (the components of CCE’s nutrition classes), we can begin to see the link between what CCE does and the potential savings to the taxpayers of Westchester County.

We know that changing people’s behavior can improve their health. Type 2 diabetes, cardiovascular disease, hypertension, youth obesity, stroke and certain cancers have all been linked to improper nutrition.

Comments from our Westhab graduates:

1) Improved behavior can lead to improved health.
2) Exercise more and balance calories eaten as part of a healthy lifestyle.
3) Eating more fresh fruits and vegetables.

Nutrition class graduation.
Nutrition and Consumer Sciences

EFNEP
Cornell Cooperative Extension (CCE) of Westchester’s EFNEP program provides nutrition education programs to low income families with children, whose income does not exceed 185% of the poverty level. In Westchester, 9.5% of the families are at or below that level. Our target population includes pregnant women, Head Start parents, low income Hispanic parents and other low income families with dependent children in the household. We teach our nutrition classes in English and Spanish. In 2016, there were 256 families representing 866 people reached by direct education, outreach and marketing activities. 95% of participants showed improvement in one or more nutrition practices (plans meals, makes healthy food choices, prepares food without adding salt, reads nutrition labels or has children eat breakfast). Other areas of marked improvement included increased fruit and vegetable consumption, improved food safety practices (thawing and storing foods properly) frequency of being physically active and improved food resource management practices (comparing food prices and not running out of food by the end of the month). 84% more often use the "Nutrition Facts" on food labels to make food choices.

EFNEP-Youth programs
In 2016 Westchester’s EFNEP program reached 160 youth using the Choose Health Fun and Fitness Curriculum.
95% of youth adopt and practice 1 or more food selection behavior(s) consistent with Federal Dietary Guideline recommendations.
79% youth adopt or improve 1 or more habit(s) or behaviors related to physical activity.
77% improved in knowledge or skill necessary to choose foods consistent with Federal Dietary Guideline recommendation.

In their own words:
Comments from our JobStar Graduates:
TC- “I exercise more and eat more vegetables.”
KC- “I am eating more vegetables, drink less soda and eat more fruit.”
JL- “I started buying healthier food for my home and my children are eating healthier cereal now.”
BR- “I have started eating more vegetables and drinking more water.”

Comments from VJCS graduates:
GT- “I am eating more vegetables, less sugar, no soda, and have lost 10 pounds since the start of this program.”

Master Gardeners write a weekly column in the Journal News and contribute to CCE’s Westchester County Horticulture News.

Master Gardeners provided education and answered consumer gardening questions regularly over the season at Q&A tables at the following farmer’s markets: Bronxville, Croton, Irvington, Muscoot Farm, Ossining, Peekskill and the White Plains Recycling Center.

MGs and CCE staff provided education and answered consumer gardening questions at the following events:
4/16: Ossining Organic Garden Earth Day Celebration
4/20: IBM Yorktown Earth Day
4/30: Native Plant Center sale
4/30: Croton Earth Day
5/7: Westchester County Earth Day
5/14: Lewisboro Q&A
5/21: Lasdon Plant sale
6/11: Dobbs Ferry Q&A
8/20: Westchester 4-H Showcase at Alfred B. DeBelllo Muscoot Farm
9/24: Lewisboro Library Fair

Master Gardener Volunteers Program

Master Gardener Core Training:
9/7 to 12/7: Staff horticulturist conducted a 13 week fall 2016 Master Gardener Core Training in cooperation with Dutchess and Putnam CCE. Current MGs also attended this training for continuing education credits. Topics included botany, woody plants, pruning, lawn care, fruit and vegetable culture, garden design, ornamentals, weed ID/management, insect and disease ID/management, structural pests, wildlife, climate change, pollinators, invasive and native plants, site assessment, composting and hot topics in horticulture and the environment. Volunteers pay for educational materials and refreshments but CCE covers the training costs.

Advanced MG education provided by CCE
Westchester:
3/2: Emerging hot topics, (mosquitoes/Zika) and consumer gardening question review.
4/6: Pruning presentation and hands-on demonstration
4/8: Pollinator habitat/support advanced training (train the trainer)
4/26: Additional hands-on pruning demonstration
5/1: Container gardening
5/11: Pest/pest management update
7/13: Presentation on beekeeping and tour
7/22: Tour of private garden
8/3: Queries and research summaries, tour of private garden
8/17: Cornell Citizen Science Mosquito Survey, teaching, identification, prevention and trapping
10/21: Presentation on composting

(All 2016 volunteer hours were not reported at press time.)

Master Gardener Volunteers Program

Exercising with nutrition group at Mt. Vernon Head Start 2016

GT- "I am eating more vegetables, less sugar, no soda, and have lost 10 pounds since the start of this program."
4-H Youth and Family Development

4-H is the oldest continuously operating youth program in the world. Our 4-H Mission Statement is: “4-H connects youth to hands-on learning opportunities that help them grow into competent, caring, contributing members of society.” The 4-H Vision is “a world in which youth and adults learn, grow and work together as catalysts for positive change.” 105 Westchester youth are 4-H club members. 4-H volunteers donated about 2,100 hours while leading the clubs. Valued at $41.99/hour, their contributions equal $88,221. Clubs continued their focus on animals, science, the environment and agriculture.

This year as part of our partnership with Westchester Jewish Community Services, 4-H STEM projects were offered as part of the after school programming during “Amazing Afternoons” and “Off the Street” in Edward Williams and Hamilton Elementary Schools in Mt. Vernon. A total of 207 youth in grades 1 – 6 had hands-on science fun with physics, chemistry and biology.

The main objective of Agriculture Literacy Week, a program from NY Agriculture in the Classroom, is to promote a better understanding and appreciation of agriculture and the food and fiber system. In March 2016, volunteers (Master Gardeners, 4-H Leaders, 4-H youth, members of Intergenerate) visited 8 schools throughout the county, reaching 29 classrooms and 593 students reading “The Apple Orchard Riddle” by Margaret McNamara to second graders. This story is about a class field trip to an apple orchard to learn about apple varieties, how apples are harvested and cider is made. Goal: agriculture understanding.

One of our largest programs is 4-H Incubation & Embryology which teaches youngsters about biology, nutrition and habitats while they hatch chick and duck eggs in their classrooms. CCE helps the schools obtain fertilized eggs, trains teachers, provides curriculum ideas to teach, supports them with a phone and email hotline to answer questions during the hatching process and takes back the chicks for placement on farms. In 2016, CCE trained and assisted about 968 teachers throughout Westchester to deliver this program. 9,445 local youth in 117 schools received 4-H I&E education.

There were 4 special interest “Field trips” attended by members from several clubs. In March, a visit to the Sprout Creek Farm was a great learning experience for 12 youth and 7 adults. In April, 7 adults and 6 youth enjoyed the 4-H Southeast District Family “Sleep Overnight on the Intrepid Museum Ship”. In May, one member attended the goat workshop during Animal Crackers at Cornell. In September, 11 youth and 5 adults visited the Science Barge in Yonkers for a hands-on STEM fun. Entries from our Showcase that qualified to be entered in the NYS Fair for evaluation did well, with red and blue ribbons and one outstanding purple rosette.

In September, 4-H was very much a presence in 3 different spaces during the 4 day Yorktown Grange Fair. Members of the Rabbits, K-9 Kids, Hooves, Beaks and Bills and the Muscoot Gang 4-H Clubs participated in this fair. A total of 28 youth and 6 leaders were greeting the public and offering information about their project work for the 3 days of fair.

The Hooves, Beaks and Bills 4-H Club offered Apple-osoosa for the public at Hilltop Hanover Farm in November. The Muscoot Gang 4-H Club continued to provide support for events at Muscoot Farm including Fall Fest and Pumpkin Pickin’, Turkey Day, 4-H Wool Day, Christmas on the Farm, Meet the Baby Animals, Poultry Day and Dairy Day. Another important service the members provide the farm is socializing the livestock that the summer campers will be handling. In the spring, the Rabbits 4-H Club met the public at Muscoot Farm providing information on raising and caring for rabbits and guinea pigs. The K-9 Kids 4-H Club members continued to volunteer at the Mt. Kisco and Somers Public Libraries in the Reading with Rover project. Members also provide information to the public about dog behavior, including dog bite prevention. The Peekskill High School Environmental and Gardening 4-H Club serves the community by clearing trails in Depew Park, holding an Arbor Day celebration and tree planting, and adopting a class at Hillside Elementary School for Agriculture Literacy week. During the summer we gained a new club, Robocracy 4-H Club, whose members relax during the summer and begin an intense competition season just after the start of the new 4-H year in October.