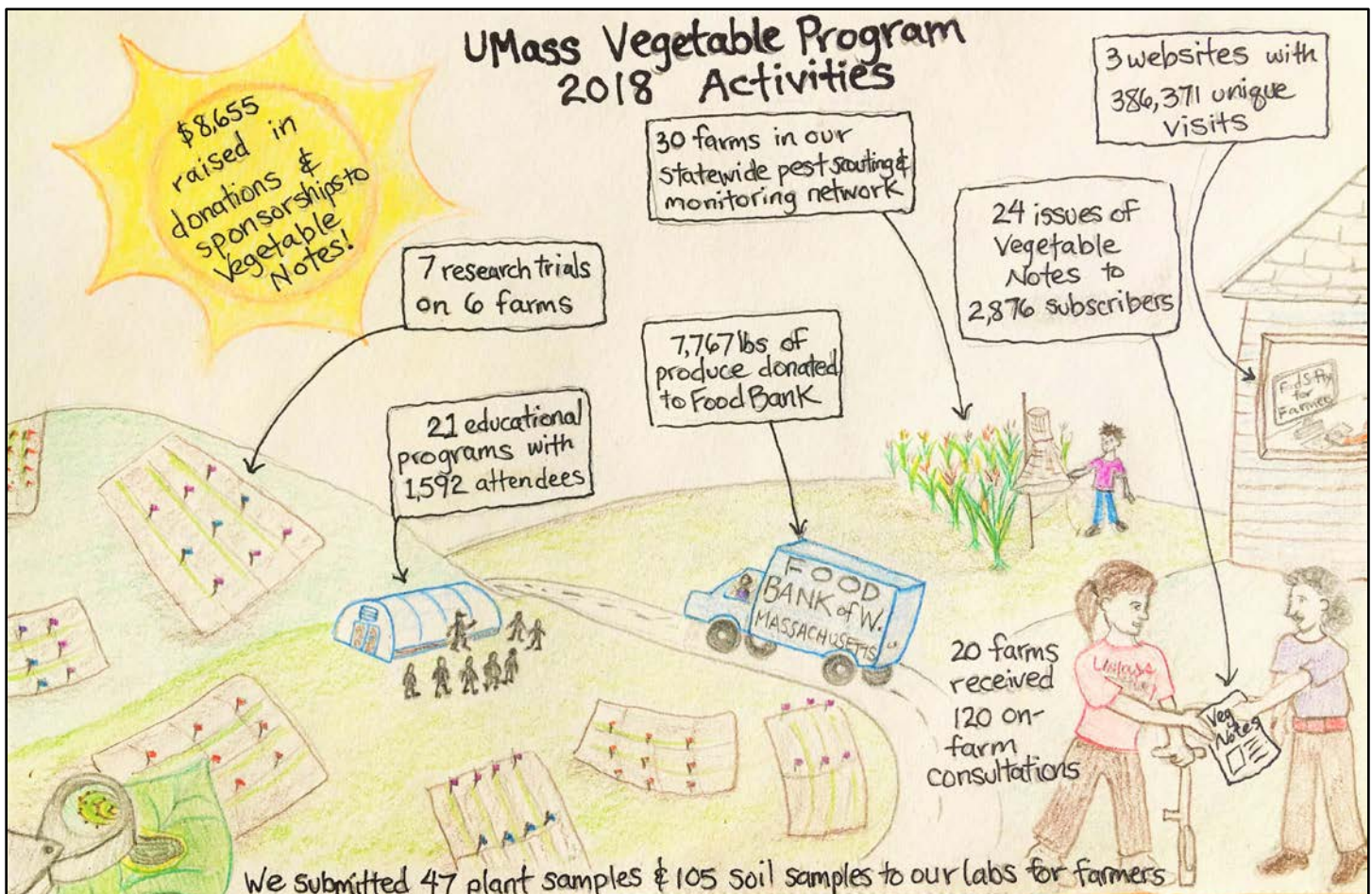


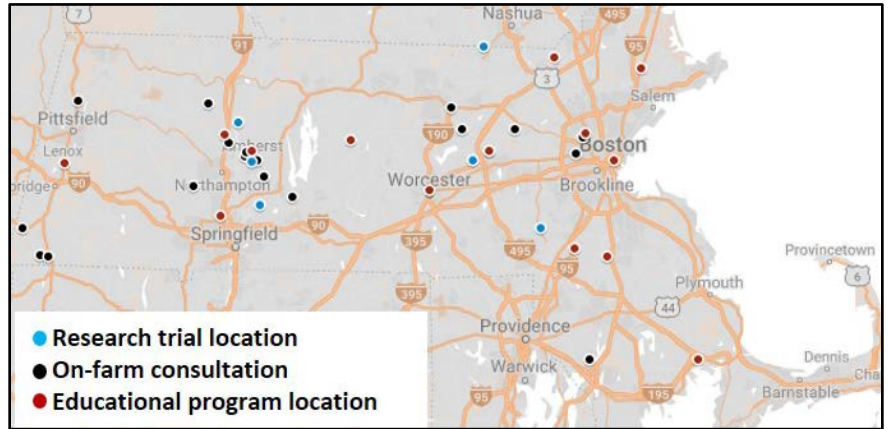
Vegetable Program Annual Report: October 2017-2018

Our team of Extension Educators includes: Katie Campbell-Nelson (nutrient management and team leader), Genevieve Higgins (field technician and program support), Lisa McKeag (food safety) and Susan Scheufele (plant pathology and applied research). As a lead trainer with the Produce Safety Alliance, Lisa McKeag has trained 172 farmers this year and began a graduate program in Food and Agricultural Policy. Her educational pursuits have already greatly informed our work! Genevieve Higgins has been tracking spinach and lettuce downy mildews across Massachusetts and is now managing a spinach research trial with downy mildew resistant varieties. She also developed a top notch '[Food Safety for Farmers](#)' website. Katie will be the general editor of the *2020-2021 New England Vegetable Management Guide*, and conducted a high tunnel soil survey in MA as part of a New England regional survey. Sue broke her personal record and conducted 6 research trials this summer on management of cabbage aphid, brassica flea beetle, cucurbit downy mildew, and reduced risk pesticides for protecting pollinators in butternut! Sue also launched the Brassica Pest Collaborative with researchers from UNH, UConn, and Cornell and received an award from World Farmers for Supporter of the Year. We were greatly supported by departmental assistants Avi Flynn and Michele Meder. Avi scouted on farms across the state this summer while also managing our pest trapping network, and made the beautiful pest alert maps you saw this year in [Vegetable Notes](#). Michele was our summer field assistant – she did the tractor work to keep our research plots weed-free all summer, kept us geared up and well prepared to collect data, and kept us well-nourished with her mean pies. Following is a report of our activities and impacts this past year.



Impacts:

- 144 people who attended our educational programs and completed evaluations reported that they were confident in implementing a new practice.
- 173 people who attended our educational programs and completed evaluations reported a gain in knowledge.
- 20 Agricultural Extension Educators participated in a professional development program and 11 reported using information they gained in outreach to the farmers they work with.
- We completed construction of a 30'x96' high tunnel at the UMass Research Farm for conducting trials in.



Locations of Vegetable Program Activities in 2018

Research Trials: Project Director Susan Scheufele:

Location: UMass Crop and Animal Research and Education Center, South Deerfield, MA.

- [Attracting Beneficial Insects to Reduce Cabbage Aphid Population Size](#)
- [Using Mulches to Reduce Flea Beetle Damage and Improve Crop Yield](#)
- [Beneficial Nematodes to Reduce Flea Beetle Population Size](#)
- *Evaluating Varieties for Cucurbit Downy Mildew Resistance and Yield*
- *Reduced Risk Fungicides for Pollinator Protection in Cucurbits*

Project Director Katie Campbell-Nelson:

- *New England High Tunnel Soil Survey*. Locations: 5 farms in MA, plus 13 farms in VT, NH and RI.

Grants Awarded:

Principle Investigator Katie Campbell-Nelson

- Prime Sponsor: Nat'l Institute of Food and Agriculture (NIFA) (NESARE), Title: *2018-2020 NESARE MA Professional Development and Outreach Program*, Total Award: \$60,000, Expiration: 9/30/2020
- Prime Sponsor: Nat'l Institute of Food and Agriculture (NIFA) (USDA), Title: *Massachusetts Vegetable Scouting Network*, Total Award: \$80,000, Expiration: 12/31/2019

Principle Investigator Lisa McKeag

- Prime Sponsor: US Dept of Agriculture (USDA) Risk Management Agency (RMA), Title: *UMass Extension Comprehensive Crop Insurance/Risk Management Education Program*, Total Award: \$225,000, Expiration: 3/31/2020
- Prime Sponsor: Food and Drug Administration (FDA), Title: *Massachusetts Department of Agricultural Resources Interdepartmental Service Agreement*, Total Award: \$146,000, Expiration: 6/30/2021

Principle Investigator Susan Scheufele:

- Prime Sponsor: US Dept of Agriculture (USDA)(NESARE) Research and Education Grant, Title: *Increasing grower adoption of ecologically-based pest management strategies to improve quality and yield of brassica crops*, Total Award: \$198,754 Expiration: 6/30/2021
- Gift: New England Vegetable and Berry Grower's Association. Title: *Evaluating Varieties for Cucurbit Downy Mildew Resistance and Yield*, Total Award: \$2,000

Principle Investigator Hilary Sandler

- Prime Sponsor: Nat'l Institute of Food and Agriculture (NIFA) *Supporting IPM on Diverse Massachusetts Farms through the Integration of Applied Research and Extension Outreach* Total Award: \$857,427.00 Expiration: 8/31/2020

Collaborations:

- [SARE](#) – Katie Campbell-Nelson serves as state coordinator and helps applicants submit successful grant proposals.
- [MDAR](#) – We worked with MDAR staff to provide educational programming on Nutrient Management and Food Safety.
- [SEMAP](#), [NEVBGA](#), [NRCS](#), [CRAFT](#), [Master Gardeners](#), [NOFA](#), MA Horticultural Society, Cornell Cooperative Extension, New Entry, CISA, Berkshire Grown, Harvest New England, Kimball Fruit Farm, Langwater Farm, and Ward’s Berry Farm we gave presentations at workshops and conferences hosted by these farms and agricultural organizations at multiple locations around the region.

Services: We treated seeds for 6 farms this year from ID, MA, and VT through our [Hot Water Seed Treatment](#) service. We submitted 105 soil and tissue tests to the UMass Soil Lab and submitted 47 plant samples to the UMass Diagnostic lab on behalf of farmers to provide valuable diagnostic support.

PHOTOS



L to R: Genevieve, Lisa and Sue presenting a Vegetable Program Poster at the annual Extension Staff retreat.



L to R: Michele and Genevieve prepare a flea beetle trap.



Avi Flynn checks a sweet corn trap at Golonka Farm.



Sue knows how to give a talk on cucumber varieties at the UMass Research Farm – taste samples!



Farmers demonstrate a no-till transplanter at a twilight meeting.



Katie is a pro at carrying research samples.