

Connecticut IPM Program – Donna Ellis, IPM Coordinator

A copy of the Connecticut IPM Program 2012-2013 Annual Report was distributed. The report is available on the UConn IPM website (www.ipm.uconn.edu).

- I. **Funding:** The Connecticut IPM Program is funded in part by USDA NIFA EIPM, CT Department of Energy and Environmental Protection (DEEP), CT Department of Agriculture/USDA Specialty Crop Block Grant Program, USDA (APHIS, NRCS, SARE), and the University of Connecticut.

II. Pest Management Project Updates

Fruit IPM (Mary Concklin): A variety of programs were offered to fruit growers and CT Master Gardeners to expand their knowledge in sustainable, environmentally as well as economically sound fruit growing practices. Spotted Wing Drosophila (SWD) has been in CT since 2011. New England fruit extension educators and researchers planned region-wide trapping to help growers and educators better understand this pest. Trapping was conducted in 2012 at 12 fruit farms around the state in grapes, berries and tree fruit, and in 2013 at 5 farms. A total of 5 farms received one-on-one IPM field training in 2012. Trainings included the use of mating disruption, identification of key insects and diseases and management options, soil and foliar testing for nutrient management and plant health, and summer pruning tips. Twenty-nine additional IPM site visits to fruit farms occurred. Hands-on pruning and grafting workshops were conducted during the winter and spring of 2013, attended by 57 growers who learned 25 new pruning tips. Six beginning farmers were selected for the Scaling Up: Beginning Farmer Program in 2012. Interviews, whole team farm visits, and setting priorities occurred in the winter of 2013. Team members worked one-on-one with each grower to address their individual needs throughout the 2013 growing season.

Greenhouse IPM (Leanne Pundt): Ten businesses and 12 growers participated in the program. 1,358,260 square feet of intensive production was directly impacted, which included 716,640 square feet of greenhouse production and 651,620 square feet of outdoor production. A total of 77 in-field IPM training sessions were conducted at grower and retail businesses. Topics included: identification, biology and life cycles, management of key insects and diseases, weeds, identification of naturally occurring natural enemies, cultural and environmental management of greenhouse diseases, greenhouse sanitation, use of biological control agents, beneficial nematodes, and biological fungicides. Pre- and post-program surveys were conducted to determine changes in pesticide use at participating farms. Annual meeting updates were provided at the *Bedding Plants - Spring 2013!* meetings at two CT locations. A plant diagnostic clinic was held in June 2013 in Southington and attended by 45 horticulture industry professionals. Greenhouse IPM information was provided via email pest messages to 225 CT greenhouse growers and retailers, and 21 pest messages were sent during 2013, *Tales from the Field* to update growers on pests and diseases observed on greenhouse crops in CT and posted on the UConn IPM website.

Invasive Species IPM (Donna Ellis and Ana Legrand): The Connecticut Invasive Plant Working Group (CIPWG; Donna Ellis, Co-Chair) is a consortium of individuals, members of environmental organizations, and affiliates of municipal and state agencies whose mission is to promote awareness of invasive plants and their non-invasive alternatives. Formed in 1997 as an ad-hoc group, CIPWG is now in its 16th year of operation. More than 800 people subscribe to the CIPWG list serve. The sixth biennial invasive plant symposium was convened in October 2012 at UConn in Storrs, CT and was sold out with 475 attendees. Mile-a-minute weed continues to spread in the state and is now found in 39 towns. Donna has partnered since 2009 with other UConn and CT Agricultural Experiment Station scientists, introducing 33,000 beneficial weevils for mile-a-minute biological control in 17 towns. Emerald ash borer (EAB) was confirmed in Connecticut on July 16, 2012 and is now found in five counties. Donna and Ana conducted educational outreach for EAB and Asian Longhorned Beetle. Donna continued a biological control program for lily leaf beetle, with 2 species of beneficial parasitic wasps introduced at 16 release sites in 5 Connecticut

counties during 2012-2013. One parasitized lily leaf beetle larva was confirmed in 2013, representing the first occurrence of biological control for this exotic pest in the state.

Landscape and Turf IPM (Ana Legrand): Ana and her graduate students conducted research on biological control of landscape and turf pests, including Oriental and Asiatic garden beetles. Information was provided to the public about the use of biologically-based alternatives for pest management of beetle pests. The spring *Tiphia* was successfully established as a biological control agent against Japanese beetle grubs and it is also a parasitoid of Oriental beetles. Ana delivered presentations on the use of entomopathogenic nematodes, invasive insects, and general IPM practices to 1,022 people.

Nursery IPM (Donna Ellis): Full-season IPM programs for Connecticut nurseries and garden centers were conducted, providing hands-on training for those who grow and sell ornamental crops. Site visits occurred on a bi-weekly basis during the growing season, inspecting crops for plant pests and cultural problems. Plant pest issues, management decisions for control, and overall plant health were discussed with growers and their staff. Pesticide application records were maintained by the growers and reviewed during each site visit. Participants increased their knowledge of relevant insect pests, weeds, and pathogens affecting their crops; when these pests are of most concern during the growing season; how to scout for pest damage on their crops; and the best strategies for control.

CT School IPM Coalition (Candace Bartholomew, Donna Ellis, and Victoria Wallace): Connecticut has banned the use of pesticides on K-8 school grounds and requires IPM plans for pesticide use on high school grounds and athletic fields. The Connecticut School IPM Coalition provides educational opportunities for school grounds managers and their staff to learn how to maintain athletic fields and landscapes without using pesticides. Training workshops were presented and educational assessment tools for athletic fields and ornamental landscapes were piloted. A day-long workshop attended by 60 practitioners was held in August 2012 on the grounds of an elementary school where pesticide use has been banned.

Vegetable IPM (Jude Boucher): The Commercial Vegetable Crops Program helps keep Connecticut producers current on some of the latest and most innovative ideas and technology, improves farm profitability, and has a positive impact on farms, families, products, and the environment. Activities included the New England Vegetable & Small Fruit Conference and Trade Show, the annual CT Vegetable and Small Fruit Growers' Conference (which set another attendance record of 197), *Crop Talk* - Commercial Vegetable and Fruit Crops Newsletter, the New England Vegetable Management Guide (updated biannually), special topic workshops, phone and farm consultations, All-America Selection variety trials (Jude is an official AAS Judge), and reduced tillage research and programming. Jude also continued research on the effects of fungicide timing and tillage on powdery mildew resistant pumpkins.

Plant Diagnostic Laboratory (Joan Allen): A total of 474 samples were identified or diagnosed in the Plant Diagnostic Laboratory at the UConn Home & Garden Education Center. The samples included plant identification, insect identification, plant disease and insect problem diagnosis, and abiotic plant problem diagnosis. Sixty-three samples were submitted by the IPM Program team and other Extension personnel working with CT growers. Joan conducted research on basil downy mildew control using organic fungicides and nitrogen fertilization rates. The Plant Diagnostic Lab is one of eight labs that cooperated in the development of a new plant problem diagnosis free app for iPhone and iPad, available in late summer 2013. The effort was led by Tom Creswell and Bob McCullouch at Purdue University.

Other updates: Two major UConn plant conferences, the Perennial Plant Conference for Landscape and Horticultural Professionals (325 attendees), and the Garden Conference for garden enthusiasts (300 attendees) were developed and presented by the UConn Ornamental Plant Extension Team in March 2013. The founder of the UConn IPM Program, former Associate Dean Roger Adams, Jr. retired to a life of breeding day lilies at his home and farm in Suffield, CT.