

**SEMI-ANNUAL NARRATIVE PROGRESS REPORT
COOPERATIVE AGRICULTURAL PEST SURVEY
USDA APHIS EASTERN REGION NOXIOUS WEEDS: CONNECTICUT
Cooperative Agreement Number 04-8209-0195-CA
*Donna Ellis, CAPS State Survey Coordinator, University of Connecticut***

Progress made toward accomplishment of calendar year 2004 work plan objectives during the period July 1, 2004 through December 31, 2004.

I. STATUS OF ACTIVITIES

Giant Hogweed (*Heracleum mantegazzianum*)

Report submitted by Elizabeth Corrigan, with additions by Donna Ellis

During the 2004 field season, work continued 1) to identify new giant hogweed (*Heracleum mantegazzianum*) locations in Connecticut; 2) to further eradication efforts of this Federal Noxious weed at previously documented sites; 3) to conduct detection and delimiting surveys of the general vicinity of known populations to determine spread into new areas; and 4) to conduct educational outreach activities for property owners with giant hogweed and for the general public, providing relevant information on giant hogweed identification and management.

Five new populations of giant hogweed were reported during the 2004 field season. Three of the populations were confirmed in Litchfield County, one occurrence was confirmed in Fairfield County and another population was found in Middlesex County. There was one unconfirmed report in Litchfield County where plants were consumed by deer before the site inspection occurred. Giant hogweed plants at all locations were intentionally planted. In many cases, however, the plants were misidentified, and the property owners thought they were planting the native species *Angelica atropurpurea*.

All but two property owners (one each in Fairfield and Litchfield Counties) agreed to eliminate their plants. Those that refused to destroy the entire plants insisted that cutting back, or dead-heading, the plants before going to seed would prevent their spread, despite educational outreach efforts and awareness of newly passed legislation. These sites will be monitored during 2005 and educational outreach will continue. Complete elimination of plants, however, will be difficult to achieve in such situations since there is no avenue for enforcement.

Follow up visits to sites confirmed in previous years showed that giant hogweed plants were eliminated at one site in Hartford County. Due to diligent weeding and herbicide treatment by the property owner, plants were not observed during the May 2004 site inspection at this location. Plans are to re-visit the site in 2005 to confirmation success.

Considerable progress was made towards eradication of other populations of giant hogweed, including those reported in previous years. Weed scientist Dr. Todd Mervosh of The Connecticut Agricultural Experiment Station in Windsor continued with experimental herbicide treatments at most of the giant hogweed sites (Note: Dr. Mervosh's research was independent of the Noxious Weed activities supported by USDA APHIS funds.). All treated sites showed significant decreases in population size over the course of the season. These results will be further assessed in 2005. At one of the larger giant hogweed sites in Litchfield County, plants were not treated with herbicides at the request of the landowner. At this location, plants were

eradicated by pulling up seedlings and digging up the older, deeply rooted plants. Due to the dedication and diligence of the property owner, this method is proving extremely successful, albeit it requires a lot of work and is time consuming. The giant hogweed population in this forested site, which initially was between 500 and 1,000 plants of various age classes, was significantly reduced over the course of two growing seasons. Giant hogweed plants at another Litchfield County site were also manually removed by the property owner, although plants growing along the roadside were chemically treated by Dr. Mervosh. Significant decreases in plant populations were observed from both methods of removal.

Field surveys of the general vicinity of known giant hogweed populations were conducted to determine whether plants are spreading beyond points of introduction. At most sites, plants have seeded into areas with disturbed and/or exposed soil such as gardens and along roadsides. Field observations suggest that seeds need open soil to colonize, but once plants mature, they can successfully out-compete other vegetation. Fortunately, giant hogweed had not been observed to have escaped into natural areas.

New occurrence records for giant hogweed were submitted to the NAPIS database following confirmation of data. During 2004, public inquiries about plants believed to be giant hogweed continued to be received from the public via email, phone, and personal communications. A core group of dedicated volunteers from the Connecticut Invasive Plant Working Group and other individuals responded to the inquiries during the summer and fall by returning phone calls to obtain site location information and plant descriptions, make site visits to identify suspect plants, respond to emails, and examine digital images and photos of suspect plants that were forwarded by the public. A significant percentage of the plants reported by the public were later identified as nontarget species, including native species in the same plant family as giant hogweed that included cow parsnip (*Heracleum maximum*) and angelica.

An Invasive Plant Alert for giant hogweed that includes plant description and biology, health and environmental hazards, and control options, is posted on the Connecticut Invasive Plant Working Group website at www.hort.uconn.edu/cipwg.

EDUCATIONAL OUTREACH CONDUCTED BY ELIZABETH CORRIGAN. Outreach activities included:

- Two presentations by Elizabeth Corrigan and Donna Ellis at the October 2004 Connecticut Invasive Plant Working Group (CIPWG) Symposium at the University of Connecticut, Storrs. The presentations included the identification and control of giant hogweed.
- An abstract was prepared for the symposium presentation, entitled, "Identification and Control of Giant Hogweed, Mile-a-minute Vine & Japanese Knotweed."
- The Pennsylvania Department of Agriculture's Giant Hogweed Pest Alert and brochure were adapted to Connecticut's needs and distributed widely at public events.
- A map was developed showing the confirmed occurrences of giant hogweed in Connecticut.
- A considerable amount of time was spent advising and providing educational outreach on control methods, means of spread, and the environmental and health hazards of giant hogweed to landowners who have this invasive species on their property.

II. EDUCATIONAL OUTREACH AND OTHER RELATED ACTIVITIES

- A. The semi-annual narrative progress report for Cooperative Agreement Number 04-8209-0195-CA (Noxious Weeds) for the period 1/1/04 through 6/30/04 was submitted to Patricia Douglass, USDA APHIS State Plant Health Director, on 28 July 2004. Federal form SF 269 (Financial Status Report) for the period 1/1/04 through 6/30/04 was submitted 21 July 2004, and the SF 269 for the period 7/1/04 through 12/31/04 was submitted 29 March 2005. SF 270 (Request for Advance or Reimbursement) for \$4,999.50 for the period 1/1/04 through 12/31/04 was submitted 29 March 2005.
- B. The following educational outreach activities were conducted by Donna Ellis, State Survey Coordinator:

Presentations

- New England Pest Management Issues Conference, Portsmouth, NH, December 9, 2004. Invited speaker for regional conference. The presentation, entitled “Invasive Species, was given during the session “New England Stakeholder Concerns.”
- Connecticut Invasive Plant Working Group Invasive Plant Symposium, University of Connecticut, Storrs, CT, October 7, 2004. Presentation entitled, “Connecticut Invasive Plant Working Group Update.”
- Connecticut Invasive Plant Working Group Invasive Plant Symposium, University of Connecticut, Storrs, CT, October 7, 2004. Two workshops presented with Elizabeth Corrigan at symposium. Workshops entitled, “Japanese Knotweed, Giant Hogweed & Mile-a-minute Vine.”
- Cornucopia-Fest 2004, Storrs, CT, October 3, 2004. Question-and-answer sessions on Integrated Pest Management and invasive plants.
- Exotic Invasive Plant Walk and Slide Show, Coventry, CT, July 22, 2004. Presentation and on-site walking tour of invasive plants to area residents.” An a entitled, “Exotic Invasive Plant Walk” written by Jasmine Wolf and D. Ellis for the Coventry Monthly June 2004 issue provided information on the program.
- Master Gardener Summer Tour, Storrs, CT, July 15, 2004. Conducted three training sessions on invasive species.

Teaching (subjects taught included giant hogweed and other invasive plants)

- Guest Lecturer, PLSC 204, Integrated Pest Management, November 9, 2004
- Guest Lecturer, PLSC 257, Ecology and Control of Weeds, November 4, 2004
- Loomis Chaffee School, Windsor, CT, November 2, 2004. Guest Lecturer for an Advanced Placement Environmental Science class.
- Guest Lecturer, Eastern Connecticut State University, September 22, 2004. Taught a class on the Integrated Pest Management Curriculum for Grades 7 & 8 for students training to be science and social studies teachers. The curriculum included lessons on invasive plants.

- Guest Lecturer, SAPL 041, Plant Pest Control, September 17, 2004

Abstracts

- Corrigan, E.E. and D.R. Ellis. 2004. Identification and control of giant hogweed, mile-a-minute vine and Japanese knotweed. Connecticut Invasive Plant Working Group Invasive Plant Symposium, Storrs, CT.

Curriculum Developed

- Integrated Pest Management (IPM) Connecticut Curriculum. 2004. A new science-based curriculum was developed for students in kindergarten and grade 1 was developed by R. Ashley, D. Ellis, D. Schimmel and C. Kusmer through a grant from the Bingham Trust. Integrated Pest Management (IPM) Connecticut Curriculum. 2004. A new science-based curriculum was developed for students in kindergarten and first grade and 4-H youth. The curriculum, which includes 5 units and 22 lessons with supplemental materials, was developed by R. Ashley, D. Ellis, D. Schimmel, and C. Kusmer through a grant from the Bingham Trust. Curriculum workshops are ongoing to introduce the concepts of IPM, including invasive plants, to teachers and students.

Conferences Planned and Presented

- “The Silent Invaders: Identification & Management of Invasive Plants,” University of Connecticut, Storrs, CT, October 7, 2004. Invasive plant symposium organized by the Connecticut Invasive Plant Working Group (D. Ellis, Co-Chair). 400 attendees

Newsletter Articles

- “New IPM School Curriculum Offers Hands-on Learning.” July/August/September 2004. University of Connecticut College of Agriculture and Natural Resources Journal, Vol. 11(3):pp. 1 and 4. Article written by Kim Markesich based on interviews with D. Ellis and others regarding a new Integrated Pest Management curriculum recently developed for schools and 4-H groups.
- “Prevention Through Public Awareness.” September 2004. Article published in Roadsides [Federal Highway Administration, Vol. 11(3):10] that included information on the Connecticut Invasive Plant Working Group (D. Ellis, Co-Chair).

Commentaries

- Ellis, D.R. 2004. Invasive Plants - A Growing Concern. 2 pages. The commentary was written to present current issues on invasive plants and was disseminated to the news media via the University of Connecticut Communications Office.

Newspaper Articles

- “Sellers Dispute State Approach to Invasives.” Article written by Luke Foster for the Journal Inquirer on September 14, 2004. Based on interviews with D. Ellis and others regarding invasive plants and an October 2004 invasive plant symposium organized by the Connecticut Invasive Plant Working Group (D. Ellis, Co-Chair).
- “Invasive Plants Plague State.” Article written by Gail Daly for the Willimantic Chronicle in September, 2004. Based on interviews with D. Ellis and others regarding invasive plants and new legislation.
- Editorial written by Jim Kevlin for the Norwich Bulletin on August 4, 2004. Based on interviews with D. Ellis and others regarding invasive plants.
- “Measure Will Ban Backyard Invaders.” Article written by Brittany Oat for the Norwich Bulletin on August 1, 2004. Based on interviews with D. Ellis and others regarding purple loosestrife and other invasive plants.

Respectfully submitted,

Donna Ellis
State Survey Coordinator
30 March 2005