



Giant Hogweed Eradication and Control in Pennsylvania (1989-2008)

Melissa A. Bravo
Noxious Weed Program Manager
Botanist/Weed Scientist
Pennsylvania Department of Agriculture
Bureau of Plant Industry
2301 North Cameron Street
Harrisburg, PA 17110
mbravo@state.pa.us

<http://www.agriculture.state.pa.us>

Tool Bar: Animal and Plant Health - Weeds

The Curse of the Giant Hogweed

- “Fishermen were succumbing to apoplexy in droves. The accursed weed grew so thick around the streams that they couldn’t indulge in their piscatorial pursuits without importing machetes or sharpening up their ancestral broadaxes to hack their way to the water”.

Mcleod, C. 1985. Avon Books, NY, NY. Page 2.

Giant Hogweed Growth Stages

Seed



© Jörg Ochsman

3 yr or older bolting plants



Cotyledon leaf



**1st true leaf
Retains this
shape the entire
season**



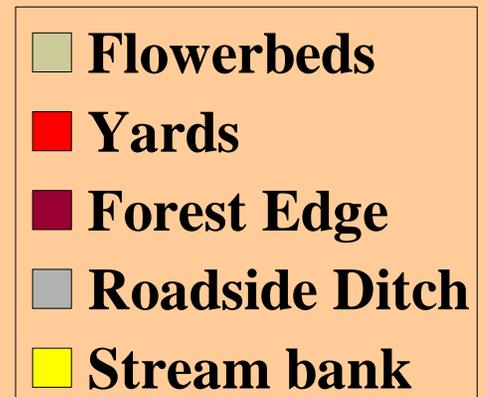
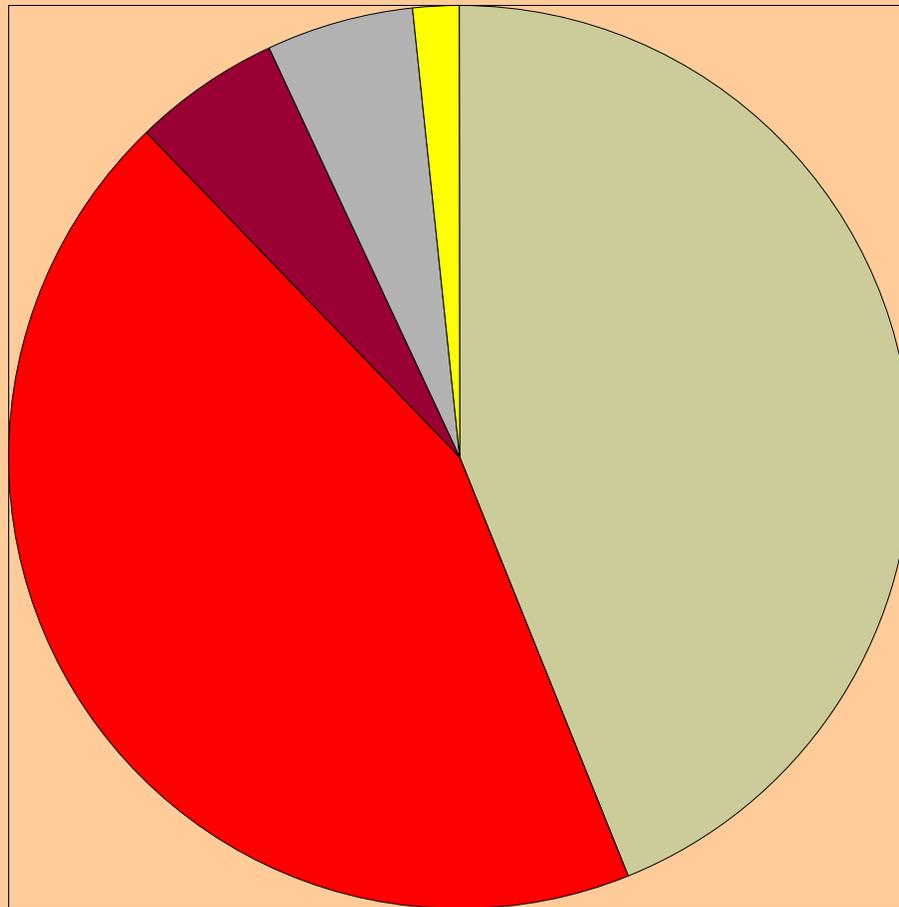
3 yr or older rosettes

Giant Hogweed in Pennsylvania (December 2008)

- 477 populations (sites) confirmed* in PA
 - 203 sites released as “eradicated” (in 2007, 2008)
 - No growth for 3 to 7 years
 - Will receive postcards and spot checks 3 more yrs
 - 274 sites remain “active” status for 2009
 - *Have been active in the past 3 yrs in 15 Counties*
- 2007. 100 sites treated: including 21 new sites
- 2008. 68 sites treated: including 6 new sites

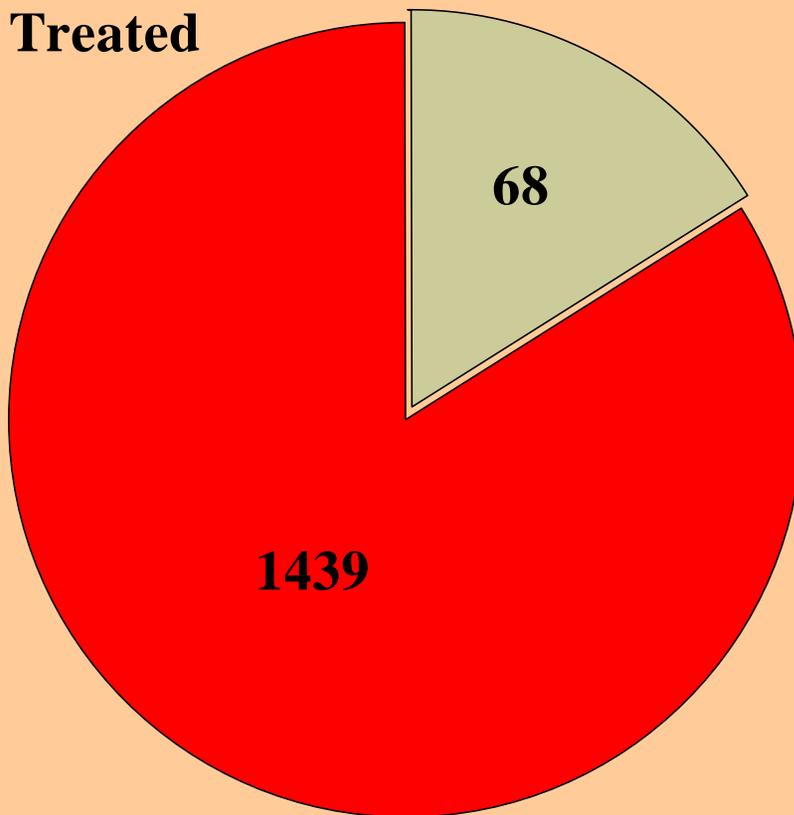
* 525 sites reported previously: 48 sites duplicate records for same population

Giant Hogweed Site Descriptors in Pennsylvania



274 Active Giant Hogweed Sites in PA

- Active Sites That Required Treatment
- Plants Treated



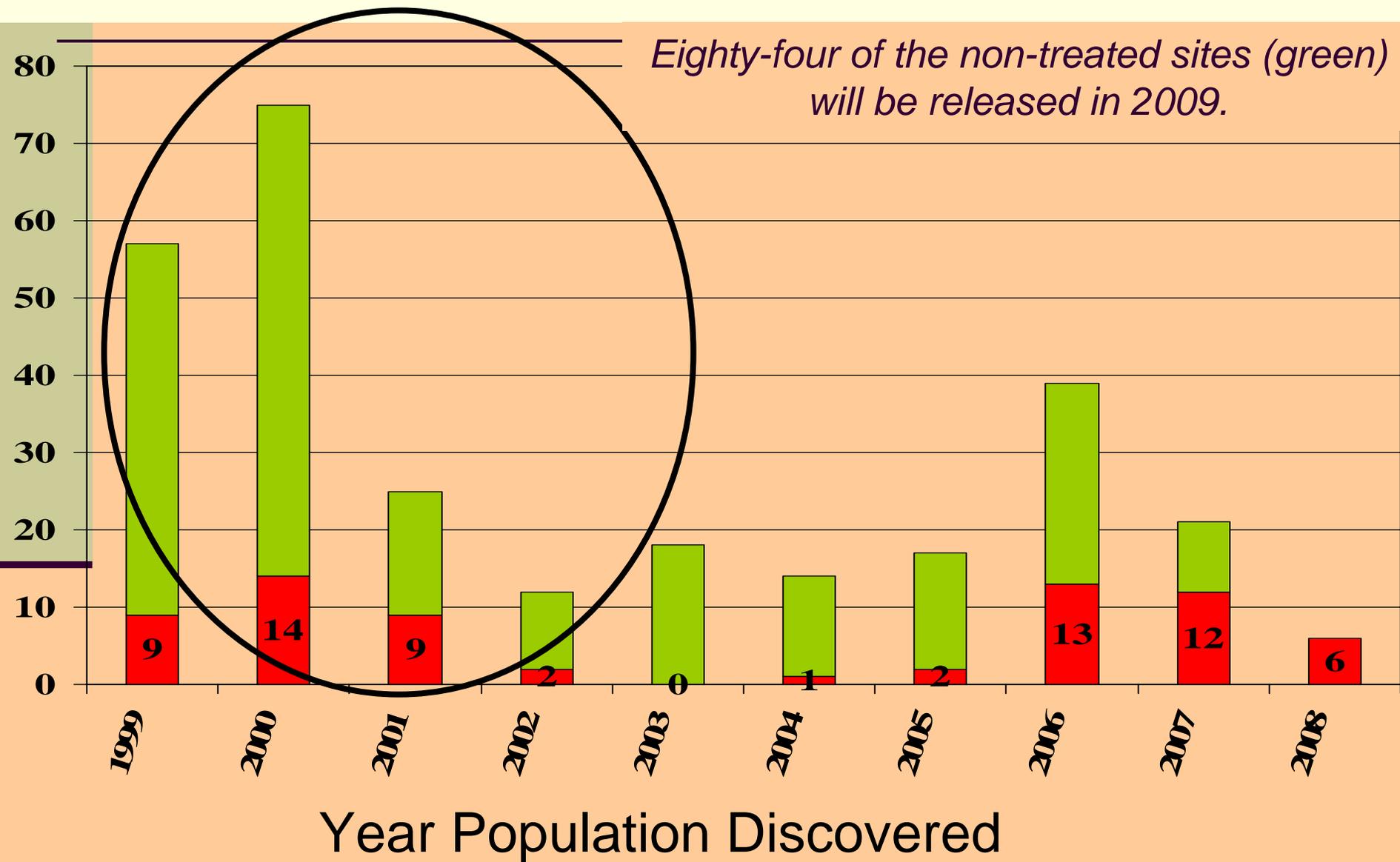
PA Base Program

Garlon 3A 5% v/v
in Thinvert RTU
using
Birchmeyer Sprayer
w/ Thinvert Gun

2008 Field Season

Plants treated per site range
(1 – 139)

68 Sites Treated in 2008 in PA (RED AREA)

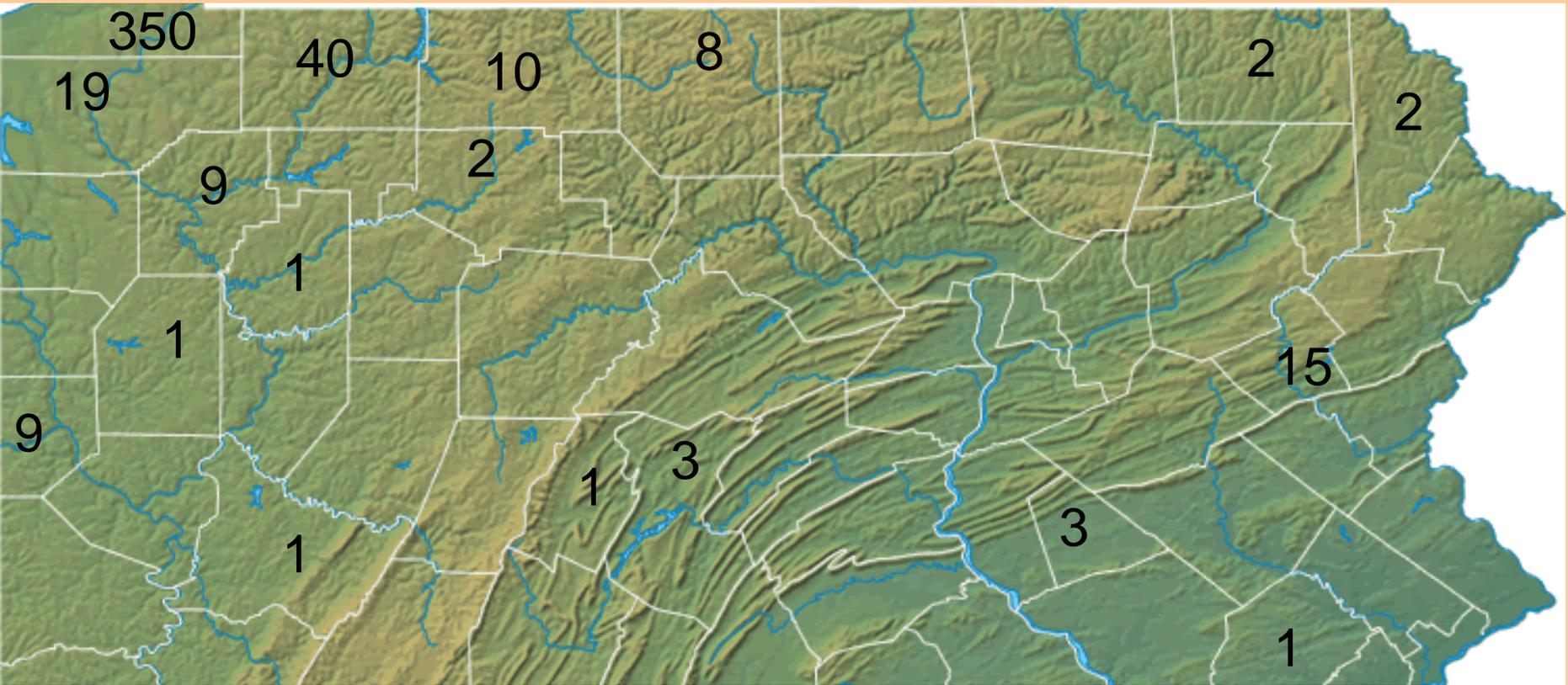


Problem Areas: Why are They Persisting?

- 1999 (9); 2000 (14); 2001 (9); 2002 (2)
 - Dense brush/bog areas - difficult to find plants
 - Mechanical control only (several)
 - Farthest site for technician to drive to
 - Little Kettle Creek, Potter County – 5 miles
 - Lebouf Creek, Erie County – 2 miles

Mechanical control alone significantly lengthens eradication program and this method alone has not yet “eradicated” a site in Pennsylvania.

GH Sites in Pennsylvania (1985 – 2008)

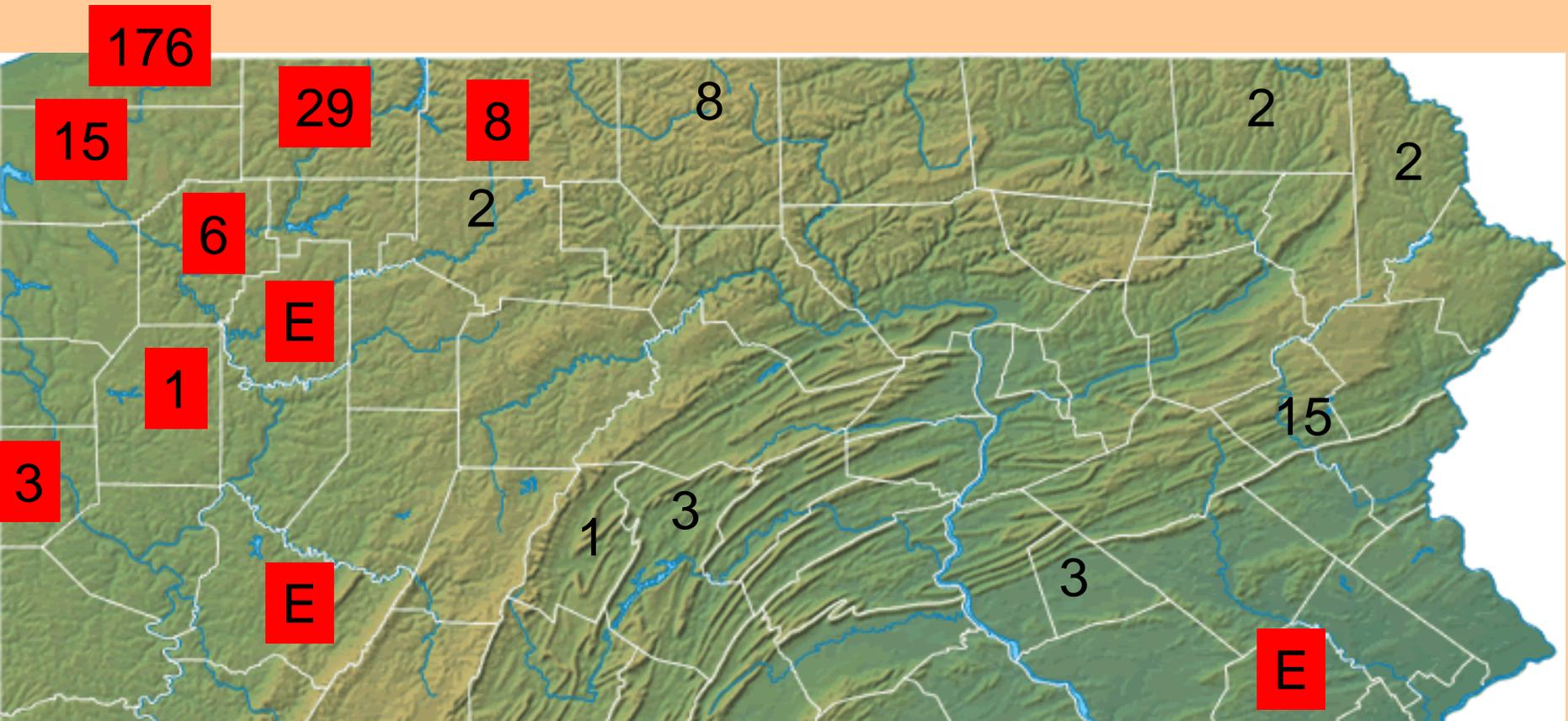


Erie – 350; Warren – 40; Crawford – 19; Carbon – 15;
Venango – 9; Beaver – 9; Potter – 8; Huntingdon – 3;
Lebanon – 3; Wayne – 2; Elk – 2; Susquehanna - 2
Blair – 1; Butler – 1; Clarion – 1; Chester-1; Westmoreland – 1

Giant Hogweed Field Staff - 2008

- Megan Polach – Erie Area Field Technician
- Jim Zoschg – Mile-A-Minute Field Technician
- Chris Santore – Region III Plant Inspector
- Melissa Bravo – State Botanist/Weed Scientist
 - David Hillger – Dow Agro Sciences Rep
 - Volunteered at Lebouf Creek
 - DCNR Forestry, State Parks, PennDot, APHIS and PDA staff
 - Volunteered at Little Kettle Creek

GH Sites Active in Pennsylvania (2008)



Known Sites in Program Since 1985 vs. Sites Still Active in 2008

Erie – 350 (176) ; Warren – 40 (29) ; Crawford – 19(15);
Carbon – 15; Venango – 9 (6); Beaver – 9 (3) ; Potter – 8;
Huntingdon – 3; Lebanon – 3; Wayne – 2; Elk – 2; Susquehanna – 2;
Blair – 1; Butler – 1; Clarion – 1 (E); Chester-1 (E); Westmoreland – 1 (E)

Roots of Large Plants

- Garlon 3A at 5% v/v with Thinvert RTU applied to one or more leaves of giant hogweed will kill root system of large perennial tap rooted plants.
- Garlon 3A at 2.5% v/v will kill all but the largest tap roots.
 - Add Milestone VM at .156% v/v for larger plants.





2007 Milestone 21 DAT Root Observations: Large rosette stage

Summary

What we have learned in previous work:

- **Triclopyr, Aminopyralid, Arsenal and Glyphosate** will control above ground biomass
 - Glyphosate and clopyralid did not cause significant root injury to large rooted plants
- Milestone at 3 oz rate will kill vegetative biomass and causes significant root damage
- Coverage must take into account leaf area increase over time
- Older leaves senesce and this will impact timing of herbicide treatment
- Sap from cut root will burn skin





The End

Blair County, 2008





Pennsylvania Giant Hogweed Hotline

1-877-464-9333