

# Invasive Plants in Pennsylvania

## Poison hemlock

**PA Noxious Weed**

*Conium maculatum*



Deric Case, DCNR-BOF

### Background:

In the 1800s, poison hemlock was brought to the United States from Europe as an ornamental. In ancient times, it was probably used to poison Socrates, a famous Greek philosopher.

### Range:

Poison hemlock is native to Europe, western Asia and North Africa. It is now wide-spread throughout much of North America.

### Habitat:

This plant commonly occurs in dense stands along roadsides, field margins, irrigation ditches and waste areas. It also invades native plant communities in riparian woodlands, open floodplains and along stream banks.

### Ecological Threat:

Poison hemlock can be a tenacious weed, particularly in moist sites. As a pioneer species, it quickly colonizes disturbed sites, displacing natives. All parts of the plant, especially the seeds, are extremely poisonous to humans and livestock.

### Description:

Poison hemlock is a biennial herb with hollow, purple-spotted stems (see photo to right) that can reach eight feet in height. Its finely dissected leaves emit a foul, parsnip-like odor when crushed. Plants begin as a rosette of leaves and flower in the second year of growth. The small, white flowers are borne in umbrella-shaped clusters (see photo to left).



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### Biology and Spread:

A single poison hemlock plant can produce over 30,000 seeds. These seeds can adhere to farm machinery, vehicles, fur and clothing, as well as be carried by water, and to a limited extent, wind. Poison hemlock is capable of rapid establishment, particularly in disturbed sites.



Brett Pifer, DCNR - BOF

### Look-A-Likes:

Poison hemlock is sometimes confused with the invasive giant hogweed (*Heracleum mantegazzianum*) and our native water hemlock (*Cicuta maculata*), which is also highly toxic. Water hemlock can be distinguished by its solid-purple stem (see photo below).

### If You Find This Plant

Poison hemlock is on the **Federal and PA Noxious Weed List**. It is a violation of the Noxious Weed Control Law to sell, transport, plant or otherwise propagate a listed species, like poison hemlock, within the Commonwealth. If you believe that you have found a new population of this plant, please contact: **Botany/Weed Specialist Pennsylvania Dept of Agriculture Phone: 717-787-7204**



## Poison hemlock (*Conium maculatum*)



Poison hemlock basal rosette sprouts in Spring.



Desiccated poison hemlock stems in mid-Summer and Fall.



## Poison hemlock (*Conium maculatum*)



Stem comparison, from left to right: Poison hemlock (Photo by Oregon State Univ.) & Wild parsnip.

## Poison hemlock Treatment Guidance

Special care should be taken while handling poison hemlock, all parts of this plant are toxic.

The most effective treatment of poison hemlock is to target the 1st year or early spring basal rosettes with a mixture of Garlon and 2,4-D with an added surfactant. Use 1.0 ounce of Garlon + 2.0 ounces of 2,4-D + 0.5 ounce of surfactant per gallon of water. This treatment is much more effective than treating bolted, flowering stems.

During the summer, the drying dead adult plants are easily observed. If this is the case, this site should be documented and treatment of the rosettes can take place in fall or the next growing season. If population is small, seed heads can be cut and bagged (in heavy, black plastic bags) and disposed of properly in a landfill after several weeks of baking in the sun.