

Subject: Poison Hemlock in Orange County NC

19 July 2023

Attn: Orange County Residents

Poison Hemlock, (*Cicuta maculata*) was located growing in Orange County in multiple areas. (In the vicinity of Squires Rd, vicinity of Doc Corbett Rd, and vicinity of Blacksmith Rd.)

<https://drive.google.com/drive/folders/15yOwiGipCAEPMInUtAoN0jFAM0HvnHxV?usp=sharing>

Cicuta maculata has multiple common names such as Cowbane, Poison Hemlock, Poison Parsnip, Spotted Cowbane, Spotted Hemlock, Spotted Water Hemlock, Water Hemlock. It is different from *Conium maculatum*.

Poison Hemlock (*Cicuta maculata*) is **HIGHLY TOXIC, and MAY BE FATAL IF EATEN!** It is a group 1 toxin and the plant is the most poisonous one in North Carolina. All parts of the plant are poisonous. Ingestion can be fatal and cattle are most likely poisoned but it is known that horses, sheep and swine have been poisoned. This plant is said to be the plant that caused the death of the ancient Greek philosopher Socrates.

The toxin is called Cicutoxin (an unsaturated long-chain aliphatic alcohol) and cicutol, both are convulsive poisons that affect the central nervous system. The plant roots and young leaves are the most toxic, although there is toxin in all other parts of the plant. Symptoms follow this sequence: Frothing at the mouth, uneasiness, jerking of muscles, stiffening of muscles, dilated pupils and rolling of eyes, periodic violent spasms, slow and shallow breathing, dizziness, and convulsions, followed by death. Abortions in cows have been attributed to eating the tops of and older plants. This plant is not known to cause dermatitis through handling.

Water Hemlock is a bi-annual herb with short tuberous roots and purple-striped or mottled, hollow stems with cross-partitions at the nodes and many of these at the base of the stem. Its leaves are alternate, clasp the stem, are 2-3 pinnately divided, and have leaflets with the veins ending in the notch between the teeth. These veins distinguish the Water Hemlock from other members of the Carrot family. It can be found in wet meadows, thickets, fresh water swamps, roadside ditches, floodplains, forest or natural area in wet areas, pond, stream, or ditch banks.

In its first year, it will be in the form of a low-growing rosette. Maturing in the second year, it will develop a tall stalk, growing to up to 8'. In ideal planting conditions, the plant can act as a perennial.

The tiny flowers are small, white, and form in umbrella-like clusters. They bloom from spring to fall, attracting a variety of bee, wasp and butterfly species. It is a host plant for the Black swallowtail butterfly. Although all parts of the plant are highly toxic, however, water birds do eat the fruits without effect.

There are look-alike plants that are similar to the white Umbrella head of poison hemlock. Queen Anne's Lace and Elderberry.

If found, please take a photo, of the plant and text me the photo, with the location of the plant, your name and contact number to my cell phone 804-318-7493. I want to map the locations of the poison hemlock within the county

Poison Hemlock can be controlled using a broad-spectrum herbicide like glyphosate or a selective broadleaf herbicide like 2,4-D and dicamba. Once killed, the plant should be burned to prevent it from getting into the landfill or composted (which will spread the seeds).

Please email mart_bumgarner@ncsu.edu if you have any questions. Add subject line: "Poison Hemlock"

Thanks again for your assistance.

Sincerely,

A handwritten signature in purple ink that reads "Mart Bumgarner".

Mart Bumgarner
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