

AG NOTES
By John Teague
UT/TSU Extension
April 27, 2021

As far as weeds go, there is really no good weed, but I am increasingly aware of one that has greater potential for killing animals, and for that matter, humans as well. This is a bad one. We need to pay attention to it. It's called poison hemlock, deadly hemlock, poison parsley, spotted hemlock, and California fern. Dr. Neil Rhodes, our weed control specialist at UT and one of the leading experts in the country, has produced a publication on the weed and its control. Here it is in part; for the entire article and illustrations, go to <https://extension.tennessee.edu/publications/Documents/W325.pdf>

It is a highly poisonous biennial weed that is a member of the family Apiaceae, which is also referred to as the carrot family. It was originally introduced as a garden plant because of its attractive flowers. Other members of this family include wild carrot, wild chervil, and a close relative to poison hemlock, water hemlock. This native of Eurasia is found throughout Tennessee where it usually occurs in patches in cool-season grass pastures, roadsides, drainage ditches and stream banks.

Flowers are small and white in large, compound umbels 1.5 to 2.4 inches wide. The hollow stems of this plant are ridged, glabrous, and purple-spotted. Leaves form a basal rosette; they are alternate upward, petioled, approximately 8 to 16 inches long, broadly triangular, and compound. Leaflets are lanceolate to ovate-oblong, finely cut, less than 0.5 inch long. Crushed leaves have a mouse-like odor. Mature plants can be 3 to 4 feet tall or taller with fibrous roots branching from a turnip-like taproot. See accompanying photo.

Poison hemlock is one of the most toxic plants in North America. It is highly poisonous to animals and humans. Cases have been documented where children have been fatally poisoned by making whistles or pea shooters from the hollow stems. Other human deaths have occurred where the plant is mistaken for wild parsnips or parsley. Toxicity of this plant is due to the presence of coniine and related pyridine type alkaloids. All parts of the plant are toxic. Leaves are particularly poisonous in the spring, up until flowering. Fortunately, the leaves are not very palatable, hence livestock seldom eat it if other feed is available. However, cattle consuming under a pound of plant material can be poisoned. Symptoms of poisoning include nervous trembling, excessive salivation, dilation of pupils and a rapid, weak pulse. Progression from initial symptoms to respiratory paralysis, coma and death is rapid.

As is the case with most other weeds, prevention is an essential component of an overall management plan. Scouting of pastures and knowing how to recognize poison hemlock by sight allows for physical removal and disposal of initial introductions of this weed. Fortunately, most pasture infestations of this weed are very localized rather than being scattered across the entire pasture. This allows for spot sprays of herbicides, and also for exclusion of livestock from infested areas with temporary fencing.

Remember that poison hemlock and most other toxic plants are low in palatability. However, as they begin to wilt following treatment with a herbicide, palatability increases and often animals will begin to graze the plants resulting in poisoning. Livestock should be excluded from infested areas prior to applying a herbicide. They should continue to be excluded until the plants have died and the plant carcasses are brown and dry. (Care should be taken to keep this out of hay as well.)

Two times of the year, either in November or March to April, are best for treatment. With thorough coverage that is achievable with spot sprays, 2,4-D, dicamba (Banvel, Clarity, Oracle, others) 2,4-D + dicamba (Brash, Weedmaster, Range Star) and aminopyralid + 2,4-D (GrazonNext HL) are effective. A new product of aminopyralid + florasulam (DuraCor) is very effective on this weed.

Prior to application of any herbicide, be sure to thoroughly read and understand the herbicide label, and follow all directions and precautions. Also, remember that practicing good herbicide stewardship is everyone's responsibility. For more information on herbicide stewardship, please visit our website: herbicidestewardship.utk.edu



