

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Poison Hemlock

I've worn many hats in my two decades plus of being an Extension Agent, working in both the county and district structure. One benefit to the District is having a co-worker who focuses on "the other side" of many agricultural related topics. David and I often bounce things back and forth where it makes sense to do so. One example is weedy species. He can tell you how to control it, and as is the case today, my focus tends to be on why you might want to control it in a livestock operation. The plant of concern today is one that needs caution, not only for livestock, but people and pets as well.

Poison-hemlock (*Conium maculatum*) grows throughout the United States and is common in Northeast Kansas. It is very toxic to sheep, cattle, swine, horses, and other domestic animals. They become poisoned by eating small amounts of green or dried plant. It is also extremely poisonous to humans. Poison-hemlock is sometimes confused with western water hemlock, a more deadly species. Poison-hemlock is commonly called deadly hemlock, poison parsley, spotted hemlock, European hemlock, and California or Nebraska fern.

Poison-hemlock has white flowers that grow in small erect clusters. Each flower develops into a green, deeply ridged grayish brown fruit that contains several seeds at maturity. Poison-hemlock starts growing in early spring. It usually grows for 2 years, but in favorable locations it may be a perennial. Roots of poison-hemlock may easily be mistaken for wild parsnips. Poison-hemlock grows along fence lines, in irrigation ditches, and in other moist, waste places. It can grow to be 6 feet or taller. The hollow stem usually is marked with small purple spots. Leaves are delicate, like parsley, with a white taproot.

All parts of poison-hemlock (leaves, stem, fruit, and root) are poisonous. Leaves are especially poisonous in the spring, up to the time the plant flowers. Fresh leaves are unpalatable, so livestock seldom eat hemlock when other feed is available. The toxic compounds are coniine, g-coniceine, and related piperidine alkaloids. People may be poisoned by eating any part of the plant. Poisoning often occurs after confusing hemlock root with wild parsnips, hemlock leaves with parsley, or hemlock seed with anise. Whistles made from hollow stems of poison-hemlock have caused death in children.

Poison-hemlock ingestion frequently is fatal. Sheep may be poisoned by eating as little as 100 to 500 grams of green leaves. Cattle that eat 300 to 500 grams may be poisoned. Signs usually appear within an hour after an animal eats the plant. Animals die from respiratory paralysis in 2 to 3 hours. There are some treatment options for animals who are suspected to have eaten poison hemlock, contacting your veterinarian in a timely manner will be paramount.

Signs of poisoning include; nervous trembling, stimulation followed by depression, Ataxia - especially lower and hind limbs, salivation, lack of coordination, dilation of the pupils, rapid/weak pulse, respiratory paralysis, coma, death, convulsions are possible, occasionally bloody feces and gastrointestinal irritation. Skeletal birth defects occur in calves when cows eat poison-hemlock between 40 and 70 days gestation.

Information for this article came from the USDA Poisonous Plants Research publication. As mentioned earlier, take a look at our District website to search for more information on control of problematic plants from David Hallauer, Crops and Soils agent. Keep your eyes open for this plant and take the necessary steps to prevent ingestion of the toxins.