

POISON HEMLOCK TOXICITY IN GOATS AND SHEEP

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Poison Hemlock (*Conium maculatum*) is a toxic plant that grows along irrigation ditches and water sources throughout the United States. It produces white flowers in May and June that are similar in appearance to Queen Anne's Lace. It is often confused with western water hemlock that is more deadly. All parts of the plant are considered toxic, but the seeds are the most concentrated. Human fatalities have occurred when the roots were eaten by mistake for wild parsnips. The leaves are significantly more toxic in the spring time, but most animals find them unpalatable. If other food sources are available, most grazing animals will choose not to eat the poison hemlock.



Consumption of poison hemlock is often fatal with signs of toxicity occurring within an hour of ingestion. The toxin conium alkaloid is neurotoxic and causes respiratory paralysis, incoordination, tremors, coma, and death. Goats and sheep can eat as little as 3 ounces of the plant and show clinical signs; however sheep tend to be able to metabolize the toxin better than most species. The toxin also causes birth defects in goats. If an animal does not progress to respiratory distress and death, prognosis is good for recovery. It is imperative to avoid over-stressing the animal. Gastric lavage, activated charcoal, and atropine treatments can help reduce symptoms. There is a public health concern if alkaloid residues persist in the meat.

The best way to control poison hemlock is to prevent the flower from going to seed. Herbicides containing 2,4-D are effective against young plants. However, herbicides are no longer effective once the plant is flowering. Mowing and mechanical removal of the plants should be done with care using clothing to protect skin exposure and respiratory masks.

Sources:
United States Department of Agriculture Agricultural Research Service
Cornell University College of Agriculture and Life Sciences

