



## Ben Beckman

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### POISON HEMLOCK

Poison hemlock and its cousin, water hemlock, are on the list of top ten poisonous Nebraska plants. A species that has really seemed to take over in wet or moist soils across the eastern portion of the state, hemlock can cause serious issues if ingested, by either livestock or humans.

As with any weed issue, proper identification is key to control. One of the things that can make hemlock so dangerous is the ease of which it can be confused with non-toxic species like Wild carrot. Both have fern-like leaves, small white flowers, and are often found in the same place. Despite the similarities, a good way to tell the two apart is to look at the stem. Hemlock will have a smooth or bald stem with conspicuous purple blotches or spots. Carrot has a hairy stem and while it may have a purple hue on occasion, does not have the spots found on hemlock. Smell can also help distinguish between the two. Carrot will have a fresh, green smell when leaves or stems are damaged, while hemlock has a smell best described as heavy or musty.

Hemlock thrives in moist soils where water is abundant, so stream banks, roadside ditches and even low areas in pastures are a ready home. A biennial, hemlock spends its first year of life as a basal rosette, producing a reproductive stalk the second year. These flower stalks can reach heights of 10 feet under ideal circumstances, shading out other vegetation and quickly taking over an area.

Hemlock plants produce alkaloid toxins in all parts of the plant. These chemicals are extremely potent. As little as 5 lbs. of consumed foliage can be a lethal dose for cattle. The hollow stem on mature plants may seem like an attractive straw or pea shooter for small children, with detrimental consequences.

Luckily from an animal perspective, hemlock is not an attractive grazing option. In a pasture with plenty of other grazing options, animals will typically leave hemlock alone. However, when forage options are limited, even unpalatable plants may become an option for hungry animals. Right now, early in the year, hemlock may be one of the only green options in areas of a pasture, causing animals to give it a try. Later on, if grazing isn't managed properly and grass gets short or if a pasture is dominated with hemlock and nothing else, it may once again make its way onto the menu. Finally, always make sure animals have plenty of water, salt, and mineral available. Thirsty animals or those with a mineral imbalance may seek out plants they would normally pass up in an attempt to fill the missing water or mineral need.

The good news is that hemlock can be controlled with mowing or herbicide applications. Regular mowing to prevent flower stalks from forming and producing seed can be an effective mechanical control technique. This is a time intensive option with the need to mow regularly throughout the growing season and will typically take several years to achieve full control. In the spring, a 2,4-D + dicamba mix can effectively treat and control hemlock. Those wanting to treat early should hold off however until there are several warm and sunny days in a row with night time temperatures above freezing. Repeated herbicide applications may be necessary over many years in heavily infested areas to achieve control.

For both mowing and herbicide treatment, do not try to control hemlock during the grazing season! Let me repeat that again... Do not try to control hemlock during the grazing season! Following control, make sure livestock stay out of the treated area as the poisonous alkaloids can still be present in dead leaf tissue. Additionally, mowing and herbicide alter the plant increasing its palatability, even in dead and dying plant tissues.

Poison hemlock can be an extremely aggressive weed in wet areas of our fields and pastures. It does pose a very real risk of poison to livestock who are forced to ingest it, but with proper grazing practices, this risk can be minimized. Control of infestations, when animals are not present, through mowing or herbicides can be achieved, but may take several years if patches are large.

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