



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Hardin County Extension News Release

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Cressleaf Groundsel in Hay

Hardin County - Cressleaf Groundsel is in full flower currently in forage and unplanted fields across the state. While this is not a new weed, prevalence has been increasing causing concern for many livestock producers.

Cressleaf Groundsel is toxic to both cattle and horses. Cattle are 30-40 times more susceptible to poisoning than sheep or goats. Calves and younger cattle are more susceptible than older cattle, but it can be fatal at high enough doses to all age groups. Pyrrolizidine alkaloids are the principle toxin in these plants. It is known to cause liver disease in cattle, producing symptoms such as listlessness, decreased appetite, depression, anorexia, diarrhea, and photosensitization in extreme cases. It also appears that this species has been responsible for abortions in cattle, making control of butterweed a necessity.

Cattle that consumed 4 to 8% of their body weight in the green plant over a few days developed acute liver necrosis and died within 1 to 2 days. Cattle that ingested 0.15% of their body weight (fresh weight) of a species in the same genus as butterweed for a minimum of 20 days resulted in 100% mortality. This comparative ratio equates to a 20-day cumulative dose of 2% of an animal's body weight of dry plants (Knight and Walter 2001). Most beef cattle will consume 2-2.5% of their body weight in dry matter per day. Since these toxins are cumulative when hay is over 5% Cressleaf Groundsel dry matter weight, enough can be consumed within 20 days to cause mortality.

While toxicity decreases in some plants as they dry, that is not the case with Cressleaf Groundsel. These toxins are not decreased if the plants are dried and baled. Ensilaging will decrease the concentration of toxin but not eliminate them. Producers with high concentrations of Cressleaf Groundsel may be forced to bale first cutting and throw it away so

that livestock are not poisoned. Areas of sparse concentration may be baled and fed cautiously, ideally alongside hay that is free from poisonous weeds. Cattle may sort the weeds out. A new bale should be fed before the only thing left in the feeder is weeds. In grazing situations, cattle will usually not eat poisonous plants as long as they have access to other quality forages. Be cautious anytime drought conditions decrease forage stands.

Cressleaf groundsel reproduces only from seeds and emerges as a rosette in the fall, then bolts, flowers, and goes to seed in the spring. Bolting stems are hairless, hollow, grooved, and can reach heights of three feet with inflorescences that have six to twelve yellow ray flowers. The flowers are like other species in the Aster family, with ray (outside) and disk (center) petals. The outer ray will normally consist of 5 to 15 petals that are bright yellow, and the inner disk will be a more golden yellow in color. Plants will eventually produce seeds that resemble those of dandelions. The seeds are small with a reddish to brown tint and have a feathery pappus that makes them easily carried by the wind.

Cressleaf groundsel normally does not regrow after the first cutting of hay; however, the goal should be to prevent it from becoming established in the field. Take note of fields with Cressleaf Groundsel in them or nearby for increased scouting and control measures next year. Effective chemical control is when the plants are still in the rosette growth stage in late fall or early spring. Herbicides such as 2,4-D provide good control when applied at the correct growth stage. Larger plants may require additional herbicides such as dicamba. Products that can be used to control this weed and others can be found in the 2020 Weed Control Guide for Ohio, Indiana, and Illinois. One caution using these broadleaf herbicides is that they also damage legumes such as alfalfa and clovers in pastures and hayfields.

Article written by Jason Hartschuh-OSU Extension, Crawford County and Ted Wiseman-OSU Extension, Perry County. Edited by Mark Badertscher-OSU Extension, Hardin County.