

Hairy Vetch Toxicity

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Hairy vetch in midsummer.
Photo: The Ohio State University

Kansas producers have successfully used hairy vetch (*Vicia villosa*) as a forage for cattle grazing for years. But this palatable legume may cause major health problems, and even death, if cattle are not observed closely for signs of disease and removed immediately if they occur.

Signs initially include itching and scaly skin that is thickened to the touch, as well as diarrhea, conjunctivitis, and body wasting. The coat develops a rough appearance, with hair standing erect. Exudates may harden and form crusts on the skin surface. Cattle may appear to have photosensitization, but the entire body will be affected, not just the white or light-skinned areas. This disease is especially remarkable when it is observed in black-hided cattle.

Vetch-associated disease is most prevalent and severe in cattle 3 years old or older that have been grazing the plants for 10 to 20 days or longer. In some cases, disease problems do not appear for several weeks after grazing is initiated. Sickness rates can vary widely. Once signs become evident, recovery is not promising, with fatality rates usually running between 50 to 100 percent of affected animals. There is no known effective treatment.

It has been suggested that there may be a genetic susceptibility to vetch toxicity because Angus and Holsteins seem to be the breeds most commonly affected. Exactly what triggers the problem, or which toxic component of hairy vetch causes the disease, is unknown. The multi-systemic, granulomatous inflammatory changes observed microscopically by pathologists most closely resemble a type-IV hypersensitivity reaction. This suggests that cattle that have reacted and survived are far more likely to react even more severely if exposed to hairy vetch again.

References

<http://www.kansasruralcenter.org/publications/hairyvetch.pdf>

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Larry C. Hollis, *Hairy Vetch Toxicity*, Kansas State University, October 2010.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF-2948

October 2010

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