

T-2/HT-2 Fact Sheet



Background Information: T-2 and HT-2 are two of the most toxic members of the trichothecene group of *Fusarium*-produced mycotoxins.

Major crops affected: Cereal grains and their corresponding silages.

Associated Mold: *Fusarium sp.*

Conditions favoring production: Cool and wet weather.

Symptoms: Irritation, gastroenteritis, hemorrhages, and necrosis throughout the digestive tract; dermatitis, weight loss, poor feed utilization, lack of appetite, feed refusal, vomiting, bloody diarrhea, abortion, ulcers, decreased bone marrow production, immune suppression and death (severe cases).

Interpretation Guidelines:

Detection Limit	Concern Level* (TRDM)	Potentially Harmful Level** (TRDM)	
		Cattle	Swine
5 ppb	250 ppb	700-1,500 ppb	700-1,500 ppb

*Level indicating possible favorable conditions for mycotoxins and probable need for further testing of all feeds or the TMR. Pending further tests, negative samples should be considered at concern levels in the presence of moderate symptoms and at harmful levels with marked symptoms. Limit amounts fed if moderate performance effects are present. Discontinue use at least temporarily if pronounced performance effects or acute clinical symptoms are present. Closely observe animals and continue checking for other possible causes.

**Mycotoxins at these levels indicate probable involvement in performance effects or acute clinical symptoms. Discontinue feeding at least temporarily in the presence of either type of symptoms. Observe animals closely in the absence of symptoms and do further testing of all feeds or the TMR.

TRDM = Total Ration Dry Matter

FDA Guidance – There is no FDA guidance concerning T-2/HT-2, but avoiding levels above 100 ppb may be reasonable. (Whitlow, etal)

Dairyland Lab Packages that include T-2/HT-2:

- Individual Mycotoxin request
- Mycotoxin Basic Package
- Mycotoxin Select Package
- Mycotoxin Complete Package

Serving the testing needs of agriculture since 1958

Comprehensive analyses of feed, forage, soil, water, molds and mycotoxins

Arcadia, WI • Stratford, WI • De Pere, WI
St. Cloud, MN • Battle Creek, MI • Jerome, ID

217 E. Main • Arcadia, WI 54612
P (608) 323-2123 • F (608) 323-2184

www.dairylandlabs.com

Sources

Adams, Richard S., Kenneth B. Kephart, Virginia A. Ishler, Lawrence J. Hutchinson, and Gregory W. Roth. "Mold and Mycotoxin Problems in Livestock Feeding." Dairy Cattle Nutrition (Penn State Extension). Penn State Extension, n.d. Web. 17 Sep. 2013.

Carlson, M.P., and S.M. Ensley. Understanding Fungal (Mold) Toxins (Mycotoxins). University of Nebraska-Lincoln Extension, Institute of Agriculture and Natural Resources. June 2003. articles.extension.org. Web. 3 Feb. 2016

Coulombe, R.A., Jr. 1993. Symposium: Biological Action of Mycotoxins. *Journal of Dairy Science*. 76:880-891.

Whitlow, L.W., F.T. Jones, M.B. Genter, W.M. Hagler, Jr., J.A. Hansen, B.A. Mowrey, and M.H. Poore. (1994, 2007). Understanding and Coping with Effects of Mycotoxins in Livestock Feed and Forage. North Carolina State Cooperative Extension Service. Dec. 1994.

Whitlow, L.W., and W.M. Hagler, Jr. Mold and Mycotoxin Issues in Dairy Cattle: Effects, Prevention, and Treatment. articles.extension.org. Web. 3 Feb. 2016.

Whitlow, L.W., W.M. Hagler, Jr., and D.E. Diaz. Mycotoxins in feeds. *Feedstuffs*. 15 September 2010, pages 74-84.

Serving the testing needs of agriculture since 1958

Arcadia, WI • Stratford, WI • De Pere, WI
St. Cloud, MN • Battle Creek, MI • Jerome, ID

Comprehensive analyses of feed, forage, soil, water, molds and mycotoxins

217 E. Main • Arcadia, WI 54612
P (608) 323-2123 • F (608) 323-2184

www.dairylandlabs.com