

# Fusaric Acid Fact Sheet



**Background Information:** Fusaric Acid is a *Fusarium*-produced mycotoxin, which has been shown to cause synergistic effects (increases toxicity and potential impact on livestock) in combination with Vomitoxin (DON). For example, it is now known that fusaric acid interacts with DON to cause the vomiting effects, which were previously attributed to DON alone. Fusaric Acid has also been shown to have synergistic effects with other Trichothecenes (family of *Fusarium* toxins including DON, T2/HT2, etc.), as well as the Fumonisin and Zearalenone.

**Major crops affected:** Cereal grains and their corresponding silages.

**Associated Mold:** *Fusarium sp.*

**Conditions favoring production:** Wet, rainy and humid weather from flowering to harvest in corn and small grains.

**Symptoms:** Inhibits growth of rumen bacteria (anti-microbial), decreased microbial protein synthesis, lowers blood pressure, anemia, lower limb swelling/lameness, lethargy, reduced feed efficiency, feed refusal, udder edema, as well as many synergistic effects like vomiting and diarrhea, among other digestive disorders.

**Detection Limit:** 0.1 ppm

## Dairyland Lab Packages that include Fusaric Acid:

- Mycotoxin Basic Package
- Mycotoxin Select Package
- Mycotoxin Complete Package

## Sources

Gallo, A., G. Giuberti, J.C. Frisvad, T. Bertuzzi, and K.F. Nielsen. Review on Mycotoxin Issues in Ruminants: Occurrence in Forages, Effects of Mycotoxin Ingestion on Health Status and Animal Performance and Practical Strategies to Counteract Their Negative Effects. *Toxins* 2015, 7, 3057-3111.

May H.D., Wu Q., Blake C.K. 2000. Effects of the *Fusarium spp.* mycotoxins fusaric acid and deoxynivalenol on the growth of *Ruminococcus albus* and *Methanobrevibacter ruminantium*. *Canadian J. of Microbiology*. V. 46. P.692-699. 2000.

Smith, Trevor K., E.G. McMillan, and J.B. Castillo. Effect of feeding blends of *Fusarium* mycotoxin-contaminated grains containing deoxynivalenol and fusaric acid on growth and feed consumption of immature swine. *Journal of Animal Science*. Volume 75, Issue 8, August 1997, Pages 2184-2191.

Whitlow, L.W., and W.M. Hagler, Jr. Mold and Mycotoxin Issues in Dairy Cattle: Effects, Prevention, and Treatment. [articles.extension.org](http://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.

Yiannikouris, A., and Jean-Pierre Jouany. 2002. Mycotoxins in feeds and their fate in animals: a review. INRA, EDP Sciences. *Anim. Res.* 51 (2002) 81-99.

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