

# Citrinin (CTN) Fact Sheet



**Background Information:** Citrinin takes its name from the fungus *Penicillium citrinum*. CTN can co-occur with Ochratoxin-A, since it's a derivative of the same fungal species.

**Major crops affected:** Cereal Grains, and their associated forages.

**Associated Mold:** *Penicillium sp.* and *Aspergillus sp.*

**Conditions favoring production:** *Penicillium* is a major silage mold and may be a greater silage problem because it can grow at lower pH than do other molds.

**Symptoms:** Like Ochratoxin-A, Citrinin targets the kidneys. The primary toxic effect is the inhibition of protein synthesis. It has been shown to be a parasympathomimetic agent, causing necrosis of tubular epithelial cells in the kidney, and in some cases, hepatotoxicity, a chemically-driven liver damage condition. CTN is also known to have an antibacterial antibiotic effect. Teratogenic and carcinogenic.

**Detection Limit:** 5 ppb

## Dairyland Lab Packages that include Citrinin:

- Mycotoxin Select Package
- Mycotoxin Complete Package

## Sources

Diaz, D.E., W.M. Hagler, and L.W. Whitlow. "Mycotoxins in Feeds." Feedstuffs. 15 Sep. 2010.

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Whitlow, L.W., M.B. Genter, W.M. Hagler, Jr., J.A. Hansen, F.T. Jones, 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.

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