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# Patulin Fact Sheet

**Background Information:** Patulin takes its name from the fungus from which it was first isolated, *Penicillium patulum*. It is most likely to occur in moldy fruits, such as apples, but may also be found in grains, especially wet grains, and silages. Patulin may be associated with problems in silages, however the data on that aspect has not been well established. Since Patulin is associated with storage molds, it should be considered when investigating silage problems, specifically regarding dairy cattle. Can co-contaminate feedstuffs with other *Penicillium* toxins, such as, Ochratoxin A (OTA), Citrinin, Roquefortine C, Mycophenolic Acid (MPA), and Cyclopiazonic Acid.

**Major crops affected:** Corn, Barley, Wheat, & Rye, their associated silages, and Fruits.

**Associated Mold:** *Penicillium sp.*, *Aspergillus sp.*, and *Byssoschlamys 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. Considered to be more prevalent from a storage mold situation, rather than field/growing condition mold situation.

**Symptoms:** Patulin is an antibiotic against gram-positive bacteria. In ruminants, Patulin has been shown to reduce VFA production, fiber digestion, and bacterial yield. Also, nephrotoxic (kidney) and immunotoxic effects. Gastrointestinal symptoms like gastric ulcers, intestinal hemorrhages, lesions in the duodenum, and alteration of intestinal barrier function.

**Detection Limit:** 200 ppb

## Dairyland Labs Packages that include Patulin:

- Mycotoxin Select Package
- Mycotoxin Complete Package

## Sources

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