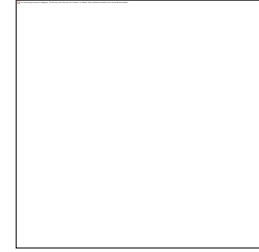


Stored Grain

Stachybotrys and Stachybotryotoxicosis

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Stachybotrys chartarum (syn. .S. atra, S. alternans) and perhaps other Stachybotrys species produce the trichothecene mycotoxins: verrucarins B and J, roridin E, satratoxins F, G, H and G plus an unrelated toxin, stachylysin. In addition, some isolates also produce cyclosporins, trichoverrols, trichoverrins, spiro lactams, spiro lactones, spirocyclic drimanes and phenylspirocyclic drimanes. Because of the numerous mycotoxins produced by this fungus, many analytical laboratories limit the analyses to the verrucarins. These mycotoxins are potent inhibitors of protein and DNA synthesis. Intoxication has been seen in cattle, horses and humans associated with ingestion or inhalation of spores and mycelia. Signs of intoxication are dermatitis, leucopenia, fever, various chest and upper airway symptoms, inflammatory disorders of the mouth, rhinitis, conjunctivitis, and neurological disorders. Generally symptoms will start within 2 to 3 days of exposure, and without new exposure occurring, signs may last for 3 weeks. The S. chartarum fungus grows at moistures in equilibrium with relative humidity's of 93% or more and it requires high cellulose content substrates with low available sugar and nitrogen. Clinical signs of stachybotryotoxicosis have been observed in humans living in moldy buildings and after handling wall board contaminated with black mold.

Categories: Stored Grain, Fungi, Stachybotrys, Stachybotryotoxicosis

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