MOLDS AND MYCOTOXINS

Common Forage Molds

Mold	Conditions for growth	Color	Toxin produced	Comments	Consequence
Alternaria	Field	Black		Common on forages and grains Generally does not produce potent mycotoxins	
Aspergillus	Storage and field	White/ yellow/ green/ blue	Aflatoxin, Ochratoxin, Neurotoxin	Found in drought, heat-stressed or insect-damaged crops Prefers high temperatures Common in silages and high moisture corn	Abortions Farmer's lung in humans
Byssochlamys	Storage	Fluffy, powdery white	Patulin	Found in high moisture corn more than corn silage	Impaired rumen function
Cladosporium		White	None	Produces yeast-like symptoms Grows at low temperatures Commonly invades corn after a premature frost	Non-toxic
Claviceps	Field	Black		Invades small grains and other seeds Produces ergot (black seeds)	Ergot poisoning (gangrene of the extremities, poor growth, abortion, agalactia)
Fusarim	Field	Red/White/Pink	Zearalenone, Fumonisin, Fusaric acid, Trichothecenes (DON, Vomitoxin, T-2)	Common in Wisconsin Invades forages and grains Prefers cool, wet growing conditions in the field Produces potent mycotoxins Causes numerous plant diseases	Can cause reproductive problems Diarrhea Poor performance Ruminal troubles
Geotrichum	Storage	Dusty white			Depresses intake in cows
Giberella		Red-orange spores Red mold	Vomitoxin	Mainly affects pigs	Feed refusal, hemorrhaging, reproductive disorders



September 2016

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Mucor	Storage	White/gray Black spores	None	Found especially in sealed corn, grows at low temperatures Very fast growth Common when silo removal rates are slow Also found in manures and the soils	Depresses intake Decreases bunk life Non-toxic
Penicillium	Storage and field	Blue/green	Ochratoxin, Citrinin, Patulin	Invades all feeds, silages and high moisture grains Invades feeds under a wide range of environmental conditions Most common toxin producer in silages	Can cause hemorrhaging in lungs, severe respiratory problems, kidney damage, poor performance, weight loss
Rhizoctonia	Field	Black		Invades red clover Produces excessive salivation in dairy cattle	
Rhizopus	Storage	Black/white	None	Requires high moisture and an advanced decay Common bread mold	Non-toxic
Trichoderma	Field	Greenish		Causes secondary rotting of corn (ears) at high moisture	
Ustilago maydis (corn smut)	Field	Black	None	Causes low test weight of corn	Infected corn is actually a delicacy in Mexican cuisine (huitlacoche) May impact palatability and nutrient availability when present in high concentrations Doesn't persist in storage

