

Ear Molds of Corn.

Paul Esker, UW-Extension Plant Pathologist
 Contact: (608) 890-1999; esker@wisc.edu

Ear mold/rot	Pathogen(s)	Symptoms	Primary mycotoxins	Links to photos and image source
Fusarium	<i>Fusarium moniliforme</i> , <i>F. proliferatum</i> , <i>F. subglutinans</i>	<ul style="list-style-type: none"> • Variable - depends on genotype, environment, and disease severity • Typically, individual or groups of infected kernels that are scattered randomly on ear. • Whitish pink to lavender growth on kernels and silks. • Kernels may have "starburst" appearance. • Growth frequently found at tip of ear where damage has occurred. • May also have asymptomatic kernels. 	Fumonisin	Delaware Iowa State Iowa State APS
Gibberella	<i>Gibberella zeae</i>	<ul style="list-style-type: none"> • Also called red rot. • Reddish mold that appears at tip and grows down ear. • Unless infection early, rare to see entire ear colonized by fungus. 	Deoxynivalenol Zearalenone T-2 toxin	Iowa State Illinois Canada Kentucky

		<ul style="list-style-type: none"> • If infection early, entire ear may rot and will have pinkish mycelium - husks will tightly adhere to ear. 		
Penicillium	<i>Penicillium oxalicum</i>	<ul style="list-style-type: none"> • Infection typically occurs where ears damaged. • Powdery green or blue fungal growth on and between kernels. • Most often at tip. • Infected kernels can become streaked or bleached. • Grain stored at high moisture may result in "blue eye", which is a blue discoloration of embryo. 	Ochratoxins	Missouri Illinois Penn State
Aspergillus	<i>Aspergillus flavus</i> , <i>A. parasiticus</i>	<ul style="list-style-type: none"> • Typically, only a few kernels infected. • Infected kernels have masses of yellow green spores on and between. • The yellow color differentiates from other ear rot fungi like <i>Penicillium</i> or <i>Trichoderma</i>. • Tip of ear most common site for infected kernels. 	Aflatoxins	Iowa State Kentucky APS
Diplodia	<i>Stenocarpella maydis</i>	<ul style="list-style-type: none"> • Thick, white mold that usually starts at base of ear. • Ear may be shrunken, 	None known with current strains of fungus in North America	Iowa State Ohio State

		<p>lightweight, and turn grayish brown.</p> <ul style="list-style-type: none"> • Infected kernels appear "glued" to husk. • Black pycnidia (fruiting bodies) can be produced on husks, kernels, cobs, and rotted stalks. 		Kentucky
Cladosporium	<i>Cladosporium herbarum</i> , <i>C. cladosporoides</i>	<ul style="list-style-type: none"> • Dark, greenish black, blotched, or streaked kernels. • Scattered across ear. • When completely colonized, ears are dark and lightweight. • Disease often associated with insect injury on kernels and also occurs after frost damage. 	None	Iowa State A. Robertson
Trichoderma	<i>Trichoderma viride</i>	<ul style="list-style-type: none"> • Dark green to dark bluish green fungal growth. • On and between kernels. • Often covers entire ear. • Associated with injury to developing ear. 		Iowa State

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Reference: White, D. G. (Ed.) 1999. *Compendium of Corn Diseases*, Third Edition. APS Press, St. Paul, MN.