

Seeds for Success

Agronomy Update

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Agronomy Update

is a monthly publication provided to producers free of charge. AgVenture, Inc. and its independently owned and operated Regional Seed Companies are dedicated to providing producers exceptional seed products – genetics and technologies, professional service, and local knowledge of agronomic conditions impacting producer profitability.

Grow with Confidence!



AV8430 in Delaware (photo Jeff Shaner)

Watch for Ear Rots A variety of environmental factors including rain, humidity, wind, hail, etc. can combine to stress the corn crop late in the season promoting the development of fungal infections. Following black layer development, AgVenture encourages growers to peel back husks of ears in several locations across a field. Make a note of what type of ear rot you are seeing. If more than 10 percent of the ears are affected, prioritize the field for early harvest. Determining which ear mold problems are present prior to harvest is critical to managing and minimizing the impact of these diseases through timely harvest and proper drying/storage conditions. Not all of ear mold fungi produce toxins. Mycotoxins produced by *Aspergillus*, *Fusarium* and *Gibberella* can rapidly deteriorate corn crop quality, cause dockages and reach toxic levels for livestock (photos: Purdue University).



Aspergillus: Dusty olive-green mold on kernels. The mold is usually first noticed at the tip of the ear, but can be found on any part of the ear.



Fusarium: White or purple mold on scattered kernels throughout the ear. Some kernels may be gray or brown, and/or have white streaks in the kernel known as a “starburst” pattern.



Diplodia: Bleached husks. Ears will have a white mold on kernels. Mat of mold and husks can stick to the ear. Kernels may be lightweight and turn gray or brown.



Gibberella: Red or pink mold found at the tip of the ear. Fungus forms a mat of mold on the ear. Husk stick to the ear and may bleach prematurely.

Sprouting Kernels Disrupting of normal hormonal balance in developing ears has caused some kernels to begin sprouting on the ear. Hail damage, combined with fungal infection and environmental stresses may be responsible for promoting the occurrence. In recent years, cases of 25-50 percent of ears in hail damaged fields have reported sprouting kernels on the ear regardless of hybrid. Look for sprouting kernels in tight-upright ears in high humidity or wet conditions following black layer formation. If found, notify your crop insurance adjuster. Where sprouting kernels are prevalent, consider submitting samples



to check for the presence of mycotoxins. Early harvest is recommended (source/photo: University of Nebraska Lincoln).

Typical combine losses for operators with varied skills		
Combine losses (% of yield)		
Type of loss	Average skill	Expert skill
Ear loss	4.0	1.0
Threshing loss	0.7	0.3
Loose kernel	1.4	0.5
Total loss	6.1	1.8

Mind the Operator Everyone has to learn, but be advised, training a rookie on the combine can be costly in terms of harvest losses. The skill of the operator can have a huge impact on what makes it to the bin. Over hundreds of acres, it adds up quickly (source: University of Kentucky Ag Engineering).

AgVenture, Inc.

is the nation's largest network of independently owned regional seed companies. Based in Kentland, Indiana, AgVenture provides a growing network of independently owned and managed regional seed companies with seed products meeting exacting standards for quality, together with leading-edge genetics and technology.

Since 1983, this unique marketing approach has allowed each individual company to match the hybrids it sells to the specific needs of the geographical area it serves. Combined with professional seed representation at a local level, AgVenture strives to help every grower realize more profit from every field.

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Weather Conditions Favor White Mold Development Cool, wet conditions during soybean R stages have prompted the development of white mold across many fields. Fungicides are of little to no use by the time the symptoms appear. Fields with heavy white mold infestations should be harvested last to help reduce the potential risks of spreading white mold to other fields. Crop rotation of 2-3 years between soybean crops helps reduce the survival of fungi that cause white mold in fields. Future management includes selecting the most resistant soybean varieties, minding seeding rates, and using foliar fungicides and/or bio-control products where needed.

Benefits Noted with Cover Crops Radishes, lentils, red clover and rye are among a list of cover crops proven to help producers curb fertilizer runoff and erosion. A new study published by the American Society of Agronomy cites many specific benefits cover crops provide. A team of researchers developed a framework for evaluating cover crops many benefits and how those benefits accrue through time without hurting crop yield. Additional benefits included higher carbon and nitrogen levels in soils, weed suppression, and greater colonization by beneficial fungi that help plants take up nutrients.

Trait Talk Understanding Drought Tolerant Traits: AgVenture Product & Technology Business Manager, Jeanne Storey explains specific drought tolerant trait designations.

Optimum[®] AQUAmax[®] products are offered by AgVenture under the VPMmax brand name. These products are selected using specific criteria to ensure that performance under non-stress conditions is on par or better than lead products in an area and that performance under stress conditions is exceptional compared to non-designated products. The products exhibit characteristics like advanced stomata control for more efficient use of water. They also show aggressive silking for improved kernel set, deeper kernels to maintain yield under late season stress, and efficient root systems to capture deep soil moisture.

Agrisure Artesian[®] products are designed to maximize yield when it rains, and increase yield when it doesn't, improving growers APH. Both Optimum AQUAmax and Agrisure Artesian are designations given to specific products that exhibit water optimization traits but these traits are produced using standard breeding practices as opposed to the gene insertion of GMO traits. This benefits the grower because new, improved products can be brought to market without the overseas approval restrictions of GMO traits.

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