

Fall 2009

# Insuring the Farm

*Insurance Knowledge For Local Farmers*



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Well, this is definitely going to be a tricky harvest. Two years in a row! Seems like farmers have everything going against them this year. Looks like (according to USDA) there is a lot of grain out there. If only it would dry down a little so you could get it out. Prices are low and the predictions are still for soft grain prices. Kiplinger Ag Newsletter predicts \$3-\$3.10 cash prices for corn, beans at \$8-\$9.00 cash. That's near breakeven for 185 bushel corn. The best news is that fertilizer and N have come back to earth. I guess that all has to do with supply and demand or is it just gouging since commodity prices were so high. You decide. One thing to remember, with the lateness of the harvest, there is a tendency to hurry and cut corners. That is when accidents happen and the chances of injuries are high. So please have a safe harvest.

~ Dave White

## ***FUNGUS — Corn ear rot diseases can reduce yield & quality***

Corn ear rot problems are often related to how long the corn stands in the field in the fall, and the late-season weather. This year, corn dry-down is progressing at a snail's pace so there are more ear rots being reported than usual. Other reports of ear rots included *Fusarium*, *Gibberella*, *Diplodia*, and *Penicillium*. Corn that has been frosted can be very susceptible to *Gibberella* ear rot if it remains in the field very long, particularly if the frost comes before maturity.

Ear rot diseases can reduce yield and quality of the corn harvest and some of these fungi can produce mycotoxins that are harmful to livestock and humans. To check for ear rots, strip back the husks on at least 100 plants scattered throughout the field. Scout fields separately according to hybrid, tillage and rotation history, and planting date. It is important to be able to recognize the ear rot diseases because their potential impact is very dependent on the particular fungus involved. Once the corn is harvested, it can be more difficult to recognize the symptoms, but if there is a major problem, it will be evident in the grain.

**When evaluating an ear rot problem, remember that certain ear rots are a warning sign to suspect toxins, but ear rots do not always lead to toxin problems.** When potentially toxigenic ear rots are noticed in the field, grain can be managed to minimize toxin development. If more than 10 percent of ears have a significant amount of mold (25 percent of the ear or more), these fields should be harvested and the corn dried as soon as possible. The combine will remove some of the moldiest kernels.

The best option for moldy grain is to feed it or sell it instead of storing it. However, it should be tested for toxins before feeding. Testing for mycotoxins can be done before putting the grain in storage. The best sampling method is to take a composite sample of at least 10 pounds from a moving grain stream, or to take multiple probes in a grain cart or truck for a composite 10-pound sample. If toxins are present, it is possible that it can be fed to a less sensitive livestock species, such as beef cattle (depending on the specific toxin and its concentration). A veterinarian or extension specialist can help with these decisions. If the grain is sold, there may be a reduced price due to mold damage.

Cleaning the grain removes fine particles that are usually the moldiest and most susceptible to further mold development. **Good storage conditions (proper temperature and moisture content, aeration, insect control, clean bins) and regular inspection are essential in preventing mold and toxin development in any stored corn.**

It seems the two most prevalent this year are *Diplodia* and *Gibberella*.



*Above: Diplodia fungus initially appears as a white mold beginning at the base of the ear. The mold and the kernels then turn grayish brown and rot the entire ear. A very distinguishing characteristic is the appearance of raised black bumps (pycnidia) on the moldy husk or kernels. Diplodia ear rot occurs most often in fields under reduced tillage where corn follows corn.*

*Right: Gibberella ear rot is caused by the fungus Gibberella Zeae, also known as Fusarium Graminearum. It usually begins at the tip of the ear and appears red or pink, or occasionally white. Gibberella sometimes rots the entire ear. Infections occur more commonly in cool, wet weather after silking and through the late summer. Gibberella can produce vomitoxin and zearalenone.*



### ***Insuring the Farm***

is created by Dave White

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## **FUNGUS...Continued from page 2**

**If you are harvesting and discover any mold or fungus, please call so we can determine the necessary steps you need to take to insure a smooth claim process.** Also, keep your harvested production by unit so we will be able to keep accurate records for your 10 year production history.

Neither of these molds are listed as a toxin for crop insurance purposes. Storing in a bin is questionable as reports are saying that the moisture needs to be below 14% before it will stop growing. Before storing on farm it is highly suggested to take a sample to the elevator for testing. According to the Risk Management Agency (RMA) any tests for mold or toxins must be done by an RMA approved elevator. Remember, RMA is the branch of government that oversees the crop insurance program for USDA. Approved elevators can be found at: [https://saltlake.sc.egov.usda.gov/approved\\_whses/ugrsa/report\\_UGRSA.asp?StateAbbr=IL&StateName=ILLINOIS&StateCode=17](https://saltlake.sc.egov.usda.gov/approved_whses/ugrsa/report_UGRSA.asp?StateAbbr=IL&StateName=ILLINOIS&StateCode=17).

**Both molds are covered by crop insurance. However, problems arise if the grain is stored at too high of moisture. This can cause the growth of toxins such as micotoxin or aflatoxin which, if in high enough concentrations, can cause the grain to be unsalable. Once corn is in the bin, coverage on it ends so there is no coverage for toxin losses.**

Molds cause kernel damage and is a covered cause of loss. If harvested corn delivered to an elevator has kernel damage caused by

fungus keep all tickets and load records and separate by unit. The amount of kernel damage will be listed on the ticket. The amount of damage from each load will determine the correct quality adjustment factor to be used if there is a claim on the unit. There must be at least 10% kernel damage before any quality adjustment is made for crop insurance purposes. After the 10% threshold has been reached the discount factor that applies changes for each 1% change in kernel damage, up to 35%. (For example, 100 bushel of corn with 20% kernel damage has a discount factor of .178; the quality adjustment factor would be  $1 - .178 = .822$ ; 100 bushels X .822 = 82.2 bushels of production to count.) If the kernel damage is greater than 35%, then other discount factors will apply. It is recommended not to comingle severely damaged corn with good quality corn in the bin, as this could contaminate the whole bin.

Settlement sheets from the elevator will reflect the fungus in the test weight & kernel damage that is recorded. Low test weight is listed in the actuarial charts after it falls below 49, kernel damage over 10% and/or if it grades at U.S. No 5 or worse. If damage is high enough to cause a claim, it must be reported as harvest loss the earlier of 15 days after completion of harvest, or December 10th the end of the insurance period. If an elevator rejects delivery of the corn the insured needs to get a written letter of rejection.

The most important thing to remember, is if you feel you have a fungus problem, contact us immediately and we will get an adjuster to be in touch with you.

To learn more about the disease look at these links:

<http://cropdisease.cropsci.illinois.edu/corn/Diplodiaearrot.html>

<http://agronomyday.cropsci.illinois.edu/2001/tours/diplodia-ear-rot/index.html>

## **Conditions conducive to frost damage**

Severity of frost damage depends in large part upon the duration and extent of sub-freezing temperatures. For example, substantial frost damage of leaf, stalk, and husk tissue will occur when temperatures remain below 32°F for 4 to 5 hours or when temperatures decline to 28°F or lower for even a few minutes before increasing above 32°F. Differences in wind speed and thermal radiation at a particular air temperature can also influence whether or not frost damage occurs. Frost damage due to rapid heat loss from radiational cooling can occur when air temperatures are several degrees above 32°F if the air is clear and still. Under these conditions, leaf temperatures can drop below the actual air temperatures. When air temperature is close to freezing, slight variations in terrain result in frost damage in low-lying areas, with no

damage only a few feet higher in elevation. Thin plant stands and plants at the edge of the field are more likely to freeze because of more radiational cooling and less heat contained within the crop cover. Corn plant parts vary in susceptibility to frost damage. Leaves are most susceptible because their whorl arrangement and thinness make it difficult to retain heat. In contrast, thicker plant tissues with more layers of protection, such as stalks, husks, and grain, have greater heat retention capabilities than leaves. Plant sap and/or cell contents can act as antifreeze to allow the temperature to fall below 32°F before tissues freeze. Plant tissues vary in concentration of these contents, and this might also cause variations within plants in the actual temperature at which ice crystals form. Upper plant parts are farther from the radiation source than lower parts and are therefore more likely to be frost-damaged.

## **Effect of frost damage on grain development and yield**

The influence of frost damage on final grain yield depends on how much leaf tissue is killed and the stage of development when the frost occurs. The effect of plant defoliation on grain yield becomes smaller the closer the plant is to physiological maturity. Redistribution of sugars from stalks to ears, despite complete leaf death, will increase kernel dry weight beyond that present on the frost date and reduce yield loss, unless the freeze is severe enough to kill stalks, husks, and kernels. If any leaves, especially above the ear, or even the stalk, ear shank, and husk are still green after a frost, grain dry weight will increase until the black layer forms at kernel tips. However, several days of cool temperatures (daily highs of 45 to 55°F) during grain fill may result in premature black layer formation, ending further grain yield increases even if another frost has not occurred. When green, very immature (milk to dough stage) corn plants have been frosted, leaves quickly dry, giving the appearance of rapid whole-plant dry down. But leaves comprise a

small portion (10 to 15%) of total plant weight and lose moisture rapidly compared to stalk and ears. Numerous studies have shown no evidence of increased whole-plant drying rates following frost. Many corn growers perceive that kernels from early-frosted corn dry very slowly or not at all in the field. Minnesota studies simulating frost damage at early dent stage (approximately 55% kernel moisture) indicated that corn killed immaturely by frost dried normally when environmental conditions favored kernel drying. Dry-down of the frosted corn was temporarily delayed immediately following frost, however, resulting in 4 to 9 more days needed to reach the acceptable grain harvest moisture range (22 to 30%) compared to non-frosted corn. Besides delaying harvest, this could increase field and harvest losses and limit fall tillage operations. Drying rate for ears with loosened husks simulating light frost damage) was more rapid than with normal ears. This suggests that a mild frost that only kills husks could increase rate of kernel moisture loss.

## ... IMPORTANT DATES ...

- 10/20/09** Last planting date for wheat  
**12/10/09** End of insurance on crops in the field  
**12/15/09** Last date to report a claim  
**03/15/10** Last date to make changes in crop insurance  
**04/25/10** Last date to report 09 yields

### Winter Wheat

The final date to plant winter wheat is 10/20/09. After that date, there is a 15 day late planting period. If you intended to plant wheat but cannot due to high moisture than you MAY be eligible for a prevented planting payment. I say may, because if you still have corn or soybeans in the field where you want to put wheat but is not mature enough to harvest, that does not constitute prevented planting. You also must have some history of planting wheat. This is an adjusters call so the best thing to do is call to get a claim submitted. Don't wait on this as timing is critical.

### End of Insurance Period

Yes, the insurance ends on crops in the field after Dec. 10<sup>th</sup>. If there are still crops out there they must be appraised by a company adjuster if you think there will be a claim.

### Old Corn in Bins?

Remember, if you have coverage other than GRIP or just want to keep track for the future, you must have your bins measured and marked by FSA or company adjusters if your bins have old corn in them.

### GRIP

Bad timing for prices to rise...we want prices to remain low for a GRIP payment. The fall price for grain is set during the month of October. For all you conspiracy theorists, does this seem weird for prices to all of a sudden go up. Current average price is \$3.58 for corn and \$9.34 for soybeans as of 10/12/09. Spring prices were \$4.04 and \$8.80 respectively. These prices also apply to CRC and RA coverage.

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### Have any questions on your crop insurance?

Contact Dave White,

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Check us out at [www.saukvalleyinsurance.com](http://www.saukvalleyinsurance.com)

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## Equipment Breakdown

In a recent newsletter there was information about this. As a review, breakdown policy pays for damage from a farm accident that is defined as a random event that causes direct physical damage to permanently installed "covered farm equipment". The event must be: mechanical breakdown, including rupture or bursting caused by centrifugal force, or artificially generated electrical current, including electrical arcing, that damage electrical devices, appliances or wires.

Farm Equipment is defined as permanently installed equipment that generates, transmits, or utilizes energy, including electronic communications and computer equipment. Equipment which, under normal usage operates under vacuum or pressure, other than the weight of its contents.

This coverage is very reasonably priced ranging from \$72.00 to \$131.00 depending on the type of farm operation. Not all farms need this coverage. Farms with irrigation, large confinement operations and grain drying and storage structures are some types that may benefit from this coverage.

Here are some examples of losses that were paid by breakdown coverage.

**FARM DWELLING** - A 3 hp well pump for the farm dwelling failed electrically. The failure was due to a line disturbance. The cost to replace the pump was \$4,300.00.

**HOG FARM** - Due to downed power lines, several components of a computer burned out. The computer is used for the farming process. The cost to replace the damaged parts was \$3,105.00.

**CROP FARM** - A control switch on a 180 degree pivot irrigation system failed electrically. The switch was used to control direction and when the switch failed the system ran through a reverse stop, causing damage to piping. The cost to repair the irrigation system was \$7,343.00.

**FARM** - The insured's location lost power for four days. During that time, the insured ran their back up emergency generator. On the third day the generator shorted out electrically, causing some damage to the drive engine. The unit was replaced for \$17,120.00.

These are just a few. The reason for my review is that some of our companies will be rolling this coverage on at your next renewal. If you do not want this coverage, just call us and we will make sure it is not added on. For the price, it is valuable coverage.

**The challenges of feeding the world's hungry people are staggering.** And they are sure to worsen as **population swells one-third by 2050.** Food output will need to rise 70% to meet everyone's needs. That a tough proposition given many obstacles, including water shortages and malevolent governments that hinder farmers and keep food from people.

The world will look to agricultural advances to mitigate the problem, with U.S. Farmers and scientists helping to lead the way. Take corn yields as a measure of how far many nations have yet to go to match U.S. farms and as an example of how the U.S. can help. Last year, in a yield contest several American farmers grew 290-350 bu./acre without using irrigation. Such big yields...twice the 160 bu. U.S. average benefit from biotech seeds and fertilizers and other know-how can be deployed elsewhere. **By comparison corn yields in China average 85 bu./acre. Ukraine...65, Brazil...60.**

**How many cornstalks can be removed to make biofuel without hurting the soil?** Perhaps 40% on average, says a Minnesota researcher, though the types of soil and tillage plus total surface residue each play a role, varying how much crop waste can be safely removed. Where yield is over 200 bu./acre, half or more of the stalks could often be gather without aggravating the erosion of soil, the research finds. Also stover leftovers from processes such as gasification can be returned to the soil.