

### Bottom Line Tidbits

## FARM TENANT and LANDOWNER COMMUNICATION

It is old news that leasing farm land is becoming more competitive. Further, in this competitive environment it continues to surprise most people that the number one complaint consistently shared by farm rental landowners is “my tenant seems to take me for granted and doesn’t communicate with me”. Improving your communication with your landowners or potential landlords can give you a competitive advantage.

If you rent land, addressing and resolving this common complaint of landowners should be one of your highest business management priorities for the remainder of 2012. It is an economic reality that it is easier and cheaper for the landowner to come up with a new tenant – than it is for a tenant to come up with replacement land. The ironic point is that addressing and resolving this problem need not be difficult, expensive, or complicated.



If you don’t feel comfortable visiting in person or telephoning each of your landowners on a regular basis – consider developing a seasonal or quarterly update (newsletter, email). This letter should inform the landowner about:

- happenings since your last communication,
- crop progress and condition,
- new equipment and technology you have acquired, and upcoming activities and events.

On the subject of activities or events – have you considered having a field day for your landowners? This would be an excellent way of expressing your appreciation for the opportunity of farming their land and impressing upon them the significant investment you have made in machinery and new technology. This would also be an excellent opportunity to invite some of your farm service and input representatives to your farm. In fact, they could help communicate to the landowners the need for their company’s services or products. An additional benefit of a field day is that it would give you the opportunity and motivation to cleanup your equipment, shop, and machine shed.

Don’t be afraid to share information about your personal or family activities. Remember, a goal of this communication is to develop a feeling of inclusion – that you are not taking the landowner for granted and that you appreciate the opportunity of farming their land. Additionally, tenants will be viewed in a much better light if they are proactive in adjusting rental inequities – rather than reactive to landowner concerns.

Use your imagination for ways of enhancing your communication with your landowners and approach the task with a positive and creative attitude.

**Source:** *Parman R. Green, Ag Business Mgmt. Specialist*

## Comparing the 2012 Drought to other drought years using corn

Meteorologists have compiled a number of weather statistics to document the severity of the 2012 drought. Crop productivity is also an excellent indicator of drought intensity. Most grain crops have specific stages of development when their yields are most sensitive to drought stress, so timing of stress also influences the amount of yield loss. Greatest yield losses usually happen with sustained drought stress during the late growing (vegetative) stages and through flowering, grain set and fill (reproductive growth stages).

Usually, drought stress during early vegetative stages has little effect on grain yield, but nodal root growth can be reduced by dry soil during stages V2 to V5 or when the corn plant has 2 to 5 fully open leaves. Stress during mid-vegetative stages may reduce ear size by reducing the number of flowers on the ear and may reduce plant height and leaf size. Unfortunately in 2012, corn plants, at least in some parts of Missouri, were affected by drought stress from shortly after emergence through the end of grain filling.

Corn's most sensitive stage is a three week period centered on silking also known as R1 or reproductive stage one.

Stress during this period reduces the number of fertilized flowers. Stress after silking results in increased kernel death. Also, if the drought stress has not been relieved during grain fill, reduced seed size.

In August, and again in September, USDA estimated the state average corn yield would be 75 bushels per acre, which is 46% below the projected average yield from the trend line yield.

Trend line for grain yield is a straight line drawn through a graph of yield history. A formula for the line is derived so that trend line yields can be calculated for any year beginning from 1962. Using yields before this could be misleading since it includes years before hybrid corn was widely available.

During the drought of 2012, weather data was compared to previous drought years such as 1980, 1983, and 1988. State corn yield averages were 39, 45, and 24% below projected average yields or trend line in those years.

Drought severity, as calculated by corn yield loss, was greater in 2012 than for any year within the past 50 years. Above normal precipitation in the Missouri and Mississippi River basins caused substantial flooding in

1993. State corn yield average in 1993 was reduced 17%. Somewhat surprising, Missouri average corn yields for the most recent three years (including 2012) have all been below the trend line.

The National Agricultural Statistics Service provides yield data for 9 districts in Missouri. Trend line yields and yield losses were calculated for the 2012 drought and the three most recent droughts for 8 of those regions. The south central region is often not used in state corn calculations because total corn production is relatively low in that region.

Summer weather conditions often vary widely across Missouri. Weather in the SE district is often similar to states south of Missouri, while weather in northern Missouri is often similar to southern Iowa and central Illinois. For example in 1993, SE Missouri experienced drought conditions in July and August while heavy rains were common in central and north Missouri. Large reductions in the state average corn yield almost always means some kind of weather stress occurred throughout the entire state.

Many farmers said that the weather in 2012 reminded them of 1988. Statewide, the yield loss in 1988 was only half of the estimated yield loss in 2012. The 1988 yield loss ranks 6th among yield losses for the past 50

years. The stressful weather and yield losses in 1988 were located mostly in the northern third of the state.

Yield losses of more than 20% occurred in all 8 regions of Missouri in 1980 and 1983. Because of statewide drought conditions, these years rank 3rd and 2nd for yield losses among the past 50 years. The pattern for estimated yield losses among the 8 regions in 2012 was unusual. In 7 of the 8 regions estimated yield loss was greater than 40%. But, in SE Missouri the estimated yield loss was only 9%. According to the Drought Monitor, SE Missouri experience exceptional drought for much of the late spring and summer of 2012. Apparently, the widespread use of irrigation for corn in SE Missouri helped maintain corn yield in this region.

Another impact on the 2012 drought was the 2011 drought and continued relatively dry fall, winter and spring of 2011 and 2012. Subsoil moisture was depleted and not replaced meaning the corn crop did not have moisture reserves.

Finally, there are some considerations not so easily included as statistical number crunching and weather data. In 1988 the 45% yield reduction can be seen as a



minor difference from 2012's 46% reduction. This may not take into account the improved drought resistance made to corn hybrids over the 24 years separating these droughts. Plus, the three recent years below the trend line include wet and dry years. Nitrogen losses during wet years and drought may have reduced the 2012 expected trend line yield.

When the final yields for the 2012 corn crop are calculated we will be able to see if these projections hold or if there is a more or less dramatic result from this year's dry weather.

For more information see the graphs associated with the original article at: <http://ipm.missouri.edu/IPCM/2012/10/Comparison-of-the-2012-Drought-to-other-Droughts-for-Yield-Reductions/>.

**Source:** *Dr. William Wiebold, MU Plant Sciences; Jim Jarman, agronomy specialist.*

## Winterizing your sprayer

Now is the time to get your sprayer properly winterized. Good winterizing and storage of your sprayer can ensure it will function properly next spring. Here are a few tips one can use to make winterizing easy.



**Rinse:** Prior to storing a sprayer for the winter it needs to be thoroughly rinsed of all pesticide residues. It is better to rinse the sprayer several times with a small amount of clean water than to fill it up

only once. Dispose of the rinsate in a field that has proper setbacks from all water sources. Do not allow the rinsate to accumulate into puddles. It is preferable to rinse the sprayer on an impervious surface where the rinsate can be collected in a secondary containment facility. At this time make sure that all water is drained out of the sprayer so no damage is caused by water freezing. Once the inside of the tank is cleaned out do not forget about the outside of the sprayer. The outside should be rinsed with clean water and if at all possible on an impervious surface and the rinsate collected. Always remember to read the label of the pesticide used and use appropriate personal protective equipment when cleaning.

**Clean:** Once you have the tank properly rinsed the next step is to decontaminate it. Commercial cleaning agents or some common household products can be purchased to clean your system. For a chart of the product and amount reference the following Montana State University

Extension Bulletin number MT198917AG - Maintenance, Cleaning and Storage of Ground Sprayers. Remember to run the cleaning solution through the entire system including agitation and return lines. Rinse clean water through the system after it has been thoroughly cleaned

opening up the nozzles and running the water until only clean water is coming out. If you have foam markers and flow meters do not forget to clean these following the manufacturer's suggestions.

**Maintenance:** With the sprayer is rinsed and cleaned, carefully inspect the system making note of any maintenance concerns and repairing them. Inspect nozzles, screens, hoses, valves, pumps, boom, as well as the tank. This is a good time to check for tank integrity. Refer to the January 2011 issue of Ag Connection for an article on poly tank inspections. Please remember that even though the system has been cleaned you still need to be cautious and wear all labeled personal protective equipment.

**Storage:** The final step is to properly store the system. Any removable parts should be removed to ensure that there is no damage during storage. For example nozzles, filters, tips, check valves, screens, pressure gauges. If at all possible store these in an area that will not freeze. Clean filters with soapy water before storage. The last step is to circulate an antifreeze solution throughout the system including the boom's hoses. Cap the boom nozzles, one or two nozzles may need to be left open to ensure total circulation remember to cap them when the system is filled, to make sure that antifreeze is in the entire system.

**Source:** *Kent Shannon, Natural Resource Engineer*





## Attention Hay Buyers Don't Import, Red imported fire ants

Red imported fire ants (RIFA) are a serious threat to people, crops, agricultural equipment, newborn and young animals. These exotic pests often make their nests in hay bales. Infested bales have been transported into Missouri. Other incidences of FIRA could mean this pest might become established in Missouri.

The U.S. Department of Agriculture wants to prevent further spread of RIFA. They are assisted by state departments of agriculture to enforcing a Federal quarantine and cooperate with them to regulate the movement of certain articles including: baled hay and straw stored in direct contact with the ground; soil; plants and sod stored outdoors; used soil-moving equipment; any other article or means of conveyance determined to pose a risk of spreading RIFA.

There are a number of practices Missouri hay buyers can follow to help reduce new RIFA introductions and subsequent infestations: Ask if the hay contains ants; visually inspect the hay bales when they are delivered; if possible, request that the hay be certified for movement by the shipping State; monitor for RIFA where hay bales are or were located; and If any suspected ants are found, get them correctly identified. If you need assistance, contact the Missouri State Department of Agriculture or a local cooperative extension office.

Contact information is available online at [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/fireants/index.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/fireants/index.shtml). If a particular location is under quarantine can be found through the APHIS website by entering the hay's source ZIP code at [www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/fireants/](http://www.aphis.usda.gov/plant_health/plant_pest_info/fireants/). The site contains extensive information about imported fire ants, including guidelines for producers and purchasers of baled hay.

**Source:** *Jim Jarman, Agronomy Specialist*



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