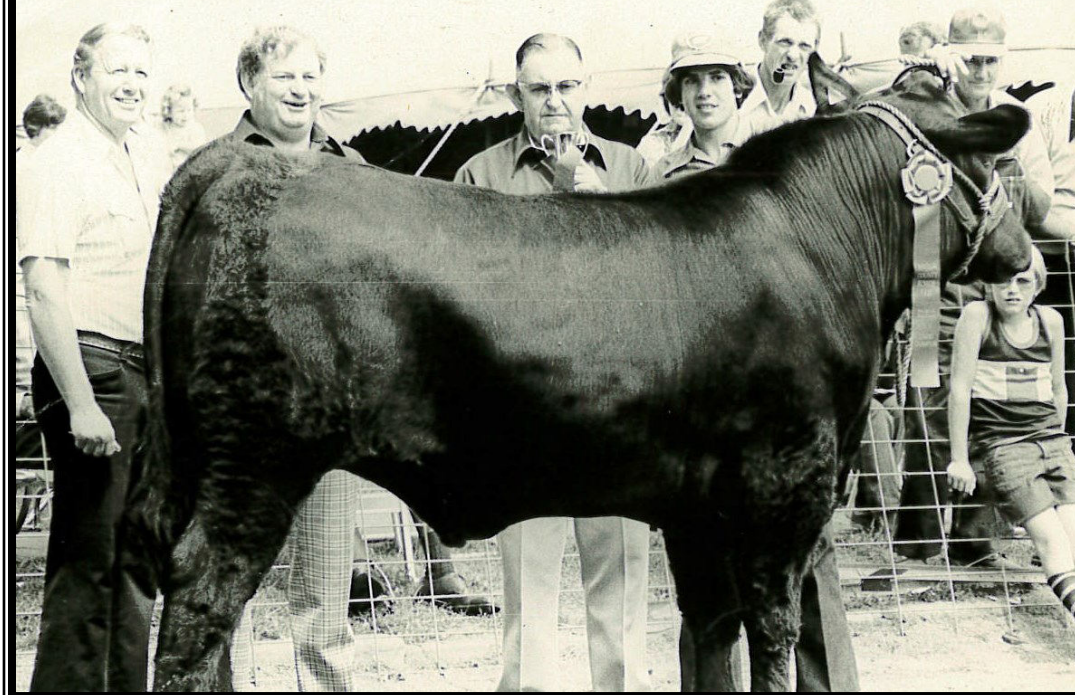


## Another Blast From the Past

1975 Marion County Fair  
Grand Champion Steer

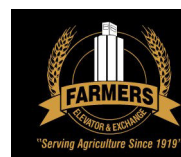


Recognize anyone in this photo? Send us your thoughts  
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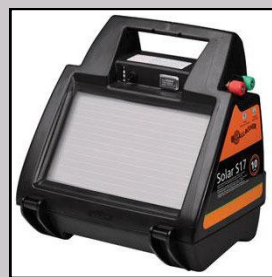


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# THE PRIDE OF MONROE CITY

January 2016

[www.farmerselevator.net](http://www.farmerselevator.net)

Happy New Year! Last fall's grain harvest activity has long-since faded and along with that, our memory of the overabundance of water from the 2015 planting/growing season that was followed by a fall drought that actually allowed harvest to flow smoothly are disappearing in the rear-view mirror of life. As many of you are stewards of the soil and producers of crops and livestock, the beginning of the New Year is a time to focus on all that lies ahead. There is no better time than now to create some plans that will help us/you avoid procrastination in coming weeks and months.

If you are a grain producer and have stored grain in bins on your farm, plan to be keep it in safe and viable condition in order to avoid quality issues that decreases the value at the market place.

One grain specialist spelled out a simple process to accomplish this: **Monitor, Inspect, Sample, Aerate and Repeat.** Take a look at your stored grain on a weekly basis, especially during periods when average air temperatures are changing rapidly. Check the surface of the grain for signs of crusting, wet, sticky or frozen kernels. Take a look at the underside of the bin roof for signs of condensation and probe the grain surface with a grain thermometer on a long rod to detect any heating of the grain. If any of these signs appear, you should react quickly due to the fact that deterioration of the grain condition can accelerated and jeopardize the entire grain mass. Stored grain should be cooled to 35-40 degrees Fahrenheit for winter storage. Aeration cycles should be started any time the average 24-hour temperature is 10-15 degrees cooler than the temperature of the grain. And remember that air follows the path of least resistance. Therefore, fines that have accumulated in the center of the bins will block air-flow and can go out of condition if not broken up or removed. The two most common mistakes made in aerating grain are:

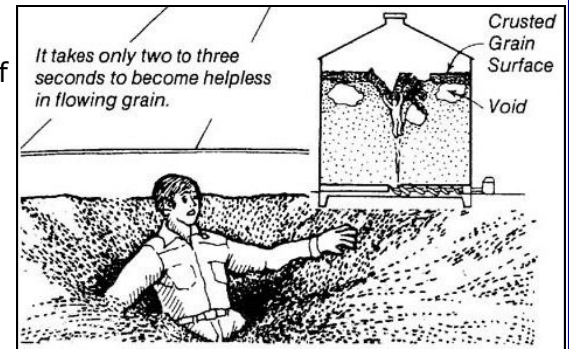
- ♦ Not running the fans long enough to equalize the temperature in the entire mass.
- ♦ Running the fans too long or when the atmospheric conditions are inappropriate. Low humidity can over-dry grain causing significant weight loss. And when removing grain

from the bin, practice safety at all times. We found the illustration shown in the upper right of the next column in our archives and its message never grows old (even though we humans do). Take a few seconds to be safe at work.

One of our plans in 2016 is to continue bringing good service to those of you who are livestock producers. If you are a pork producer, please know that we have been monitoring the latest information about PEDV which tends to rear its ugly head more often during cold weather. Our drivers who deliver feed are working to practice good biosecurity measures before driving onto farms. Our drivers clean and disinfect the trucks and they are also equipped with 'booties' that are to be worn when on the ground and while operating unloading equipment, especially at the sow farms. Our plan is to do our part to control this disease and other diseases that affect your bottom line.

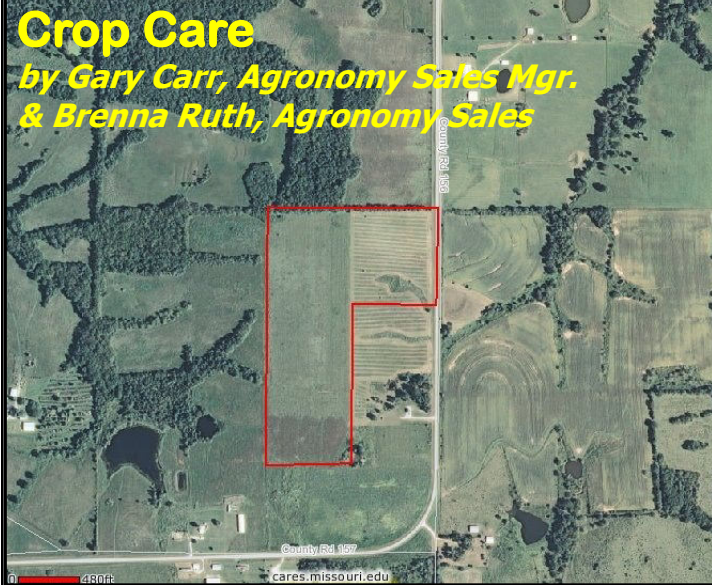
It is winter and we have been of course making plans for the spring crop planting season that is not as far away as one might think. It seems that time flies and once January arrives, it is 'almost' April! 2015 proved once again that 'the early bird gets the worm' as the earlier-planted crops tended to prove out with the better yields in our geography. Adam Grove who is now in charge of our agronomy operations has been working with producers to get plans in place that will help us create efficiencies that can benefit everyone. With this simple goal in mind, we want to run as weather allows and deliver great service to you! Everything focuses on readiness!

Lots to think about — that is what we want to help you do. Be safe and have a Happy New Year!



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## Crop Care

by Gary Carr, Agronomy Sales Mgr.  
& Brenna Ruth, Agronomy Sales

Baby, it's cold outside! Some real winter weather has arrived just in time to ring in the New Year! We hope you all had a joyous Christmas and got to spend time with the ones you love. Now a New Year is beginning, and we all have resolutions and the future on our mind. At Farmers Elevator and Exchange, looking to the future means making plans! We are dedicated to helping you get prepared for the upcoming year in any way we can.

Since we are talking about planning, we can mention that our annual **Pre-Pay discounts are still going on! We will continue this program through January 15<sup>th</sup>.** Come visit us today to receive **BIG DISCOUNTS** on chemicals, seed, and fertilizer for next year! This will be very beneficial this year for business planning purposes. Knowing what your input costs are before you ever go to the field can give you a much better idea what your breakeven costs will be. Planning is a crucial part of farming, just as crucial as planting or harvesting.

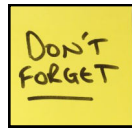
Continuing with the planning theme, let's talk about the tools we can use for farm planning. When you think about a carpenter's tool belt, it stands to reason that a carpenter has a use for every single tool on his tool belt, otherwise it wouldn't be there. And if they were to design a piece of technology that would make the carpenter's job easier, I am willing to bet that he would use it. Farming isn't much different. We have dozens of different tools we can use to assist in farm planning. But do we use all of the tools on our belt? We have the ability to grid sample our farms. Are all of us doing it? If not, why not? We understand that the up-front cost of soil sampling can seem expensive. However, we are learning that in most cases grid sampling can pay for itself, often in the first season, just by putting the fertilizer only where it needs to be. We have the ability to test for nematodes. Do we bother to take the tests? Often when we see irregularities in a field we assume it's from water

or compaction or any number of causes, when nematodes should be toward the top of the list of things to check. Do we use starter fertilizer? Haven't we seen the results firsthand in many cases of how yields can be improved with an application of starter? We have the ability to take tissue samples in season. How many of us make tissue testing a mandatory practice? When we pull a tissue test, it is a snapshot of what is going on in our crop at the time. Wouldn't it be great to know if the plant is using the nutrients we have provided? If the test shows the plant is deficient, but we know we applied adequate fertilizer, what else could be going on? A lot of growers have yield monitors in their combines. Do they all use them? Are they all calibrated? That technology is great, but if we aren't utilizing it for its purpose, there isn't much of a reason to have the equipment. Say a farmer does have a yield monitor AND it is calibrated... that's great! Let's make sure we save the yield maps and are using them to learn more about our farm. If we do map the fields, are we addressing what problems occurred at different locations? Why was the southwest corner of the



farm consistently out-yielding the northeast corner? Does the soil test map show any differences? Do we even have a soil test map? These are all questions that can be answered if we use the technology at our disposal. These are all simply tools we have on our toolbelt. Is it worth our time to learn how to use this technology? Or are we willing to accept that things are the way they are, and we don't want to do anything to change it. We should be more like the carpenter, and use everything we have.

At this time we would like to mention that **we will be hosting an agronomy meeting on February 4<sup>th</sup> at the Dugout Steakhouse in Monroe City.** We will be discussing some of the topics mentioned above, so it will be a very informative meeting! Invitations will be sent with more information as the time grows nearer.



### Things to Remember:

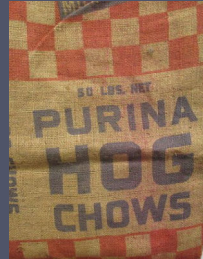
- **Pre-Pay discounts for seed, fertilizer, and chemical end January 15<sup>th</sup>**

- **We can apply nitrogen fertilizer on pasture and wheat throughout the winter months**
- **Mark your calendar for an Agronomy Meeting February 4th**
- **Have a Happy New Year!**



## FROM THE FEED BAG

by Eulynn Keller, Asst. Livestock Specialist



### A Breakthrough For Mizzou—A Win for Pork

Once known as "mystery swine disease," porcine reproductive and respiratory syndrome otherwise known as PRRS (and pronounced 'purz' for short) finally may have met its match! According to National Hog Farmer, researchers from the **University of Missouri**, Kansas State University and Genus plc have combined efforts to breed pigs that are resistant to porcine reproductive and respiratory syndrome virus. "Once inside the pigs, PRRS needs some help to spread; it gets that help from a protein called CD163," says Randall Prather, distinguished professor of animal sciences in the College of Agriculture, Food and Natural Resources. "We were able to breed a litter of pigs that do not produce this protein, and as a result, the virus doesn't spread. When we exposed the pigs to PRRS, they did not get sick and continued to gain weight normally."

PRRS was first detected in the United States in 1987, and pigs that have contracted the disease have a hard time reproducing, don't gain weight and have a high mortality rate. As a result, the disease costs North American farmers more than \$660 million annually. For years, scientists have been trying to determine how the virus infected pigs and how to stop it. Previously, researchers believed that the virus entered pigs by being inhaled into the lungs, where it attached to a protein known as sialoadhesin on the surface of white blood cells in the lungs. However, two years ago Prather's group showed that elimination of sialoadhesin had no effect on susceptibility to PRRS. A second protein, called CD163, was thought to "uncoat" the virus and allow it to infect the pigs. In their current study, Prather's team worked to stop the pigs from producing CD163.

"We edited the gene that makes the CD163 protein so the pigs could no longer produce it," says Kristin Whitworth, co-author on the study and a research scientist in Mizzou's Division of Animal Sciences. "We then infected these pigs and control pigs; the pigs without CD163 never got sick. This discovery could have enormous implications for pig producers and the food industry throughout the world." While the pigs that didn't produce CD163 didn't get sick, scientists also observed no other changes in their development compared to pigs that produce the protein.

The early-stage results of this research are



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promising. The University of Missouri has signed an exclusive global licensing deal for potential future commercialization of virus resistant pigs with Genus plc. If the development stage is successful, the commercial partner will seek any necessary approvals and registration from governments before a wider market release.

"The demonstration of genetic resistance to the PRRS virus by gene editing is a potential game changer for the pork industry," says Jonathan



(From Left) Kristin Whitworth, research scientist in MU's Division of Animal Sciences; Randall Prather, distinguished professor of animal sciences; and Kevin Wells, assistant professor of animal sciences unlock the genetic key to PRRS resistance

Lightner, chief scientific officer and head of R&D of Genus plc. "There are several critical challenges ahead as we develop and commercialize this technology; however, the promise is clear, and Genus is committed to developing its potential. Genus is dedicated to the responsible exploration of new innovations that benefit the well-being of animals, farmers and ultimately consumers."