

Oil Extraction and Distillers Grain Nutrition Profile

Several local ethanol plants have added special equipment so corn oil can be extracted from distillers grain. Beef producers need to be aware of potential changes.

According to Robert Wisner, professor at Iowa State, beef cattle producers feed more distillers grain than the dairy, pork and poultry sectors combined, because it is suited so well for beef cattle production. When distillers grain are fed to beef cattle, one pound of distillers grain can replace more than one pound of corn and be fed as a protein supplement as well.

When an ethanol plant decides to start extracting the corn oil off of the distiller by-product the nutritional profile is going to change. Justin Sexten, University of Missouri Beef Nutrition State Specialist, says that distillers grain traditionally has about 10 to 12% fat. The “de-oiled” distillers grain from the extraction process has only 3 to 5% fat levels. Producers can expect a decrease in energy levels. Be aware of where you source your distillers grain and ask if the plant is extracting oil from distillers grain because it does affect the nutrition profile of the by-product that producers feed their livestock.

Source: Wendy Rapp, Livestock Specialist

Ag Connection Transitions

Over the past year MU Extension has made some internal changes. Part of those changes included the elimination of the central region, which developed the ag connection newsletter. The ag specialists are all still with extension, but are now in four different regions (Northeast, Northwest, West Central and East Central). Thus, this issue will be the last issue of the central region Ag Connections.

Good News, there will be other regional newsletters. The names of those newsletters have not all been decided but communications will continue. Starting January you may notice some changes in your newsletter. We appreciate feedback to help us make a better newsletter for you.

Thank you for your continued support,

Ag connection editorial board



Roundup Ready Soybean Patent Expiration

The last U.S. patent covering the original Roundup Ready soybean trait is set to expire in 2015. Producers are interested in how and if this will affect their management decisions. Monsanto has created a website to help answer questions about the patent expiration at ww.soybeans.com.

On this website, Monsanto discusses the different types of patents and why they are useful. The site also has information on how Monsanto will still support the use of the original Roundup Ready patent and how it still will be available from other sources.



One question that often arises is "Can a producer save seed?". Basically, if the only trait involved is the original Roundup Ready soybean trait then the answer is yes. However, because patent law and seed technology is complicated, determining

which seeds can be saved and planted is complicated. There are two types of patents involved. A trait patent is a patent on a particular biotech trait that can be present in many different soybean varieties. A varietal patent is a patent on a particular variety of soybean. A patented variety of soybean might contain several different patented traits or none at all. Check with your seed supplier about any additional patents on varieties you are considering.

The first opportunity for producers to save Roundup Ready soybean planting will be from the 2014 harvest to plant in 2015. If the Roundup Ready variety is protected by any other patents, you will need to ask for a license to save and plant seed subject to these patents. If a producer receives a license to legally save seed, the soybeans can be sold as grain, consumed on the farm, or saved and planted in fields owned or operated by that producer. It may not be sold or transferred as planting seed to another producer.

Monsanto has licensed independent seed companies to sell varieties of original Roundup Ready seed that was developed by Monsanto breeders. This enables those seed companies to provide producers who purchase varieties with special licenses to save and plant subsequently harvested seed of those varieties. These rights will only apply to Monsanto developed varieties. Other soybean breeders will set their own policies about whether to license producers to plant saved seed of the varieties they developed. If a variety is still covered by a variety patent, a producer will not be able to save and plant the seed from those varieties without a license giving them that added right.

Even though the trait patent will expire in 2015, it will continue to be regulated by governments around the world. Monsanto will help to maintain access to global markets for the Roundup Ready soybean trait. They expect to

provide full global regulatory support for Roundup Ready soybean traits through 2021.

Source: *Wayne Crook, Agronomy Specialist*

Year-end Activities for Beef Producers

The end of the year is rapidly approaching. Many cattle producers are in the process of evaluating their herd productivity and doing business-related planning for the upcoming year. The following are a few items to consider for the upcoming winter season and new business year.

This is a good time of year to review rental or lease arrangements. Terms of these agreements tend to be very specific to the parties involved; therefore, general recommendations may not be particularly useful. However, several resources are available to assist producers with this process. MU guide G302, "2012 Custom Rates for Farm Services in Missouri" may be helpful in determining the value of services. Extension ag business specialists have sample lease agreements available which may be helpful in developing arrangements satisfying all parties. Remember agreements should be in writing and signed by all parties involved.

Beef cattle producers who have sold the spring calf crop are in a position to evaluate whole-herd performance. A general assessment of cow herd productivity is to divide total weight of calves sold by the total number of cows exposed to bulls. This average pounds of calf weaned per cow exposed is a useful benchmark to assess current productivity and guide future management decisions.

Producers with individual calf weights can get much more specific production data on their cow herd. Actual weaning weights need to be adjusted for age of calf at weaning, cow age, and sex of the calf. Then direct comparisons of productivity between cows can be done, since calf performance variables are standardized. Standardized adjustment formulas are available from the Beef Improvement Federation or MU Extension livestock specialists. These comparisons assist with current culling decisions and breeding decisions next spring.



One last thing to consider is an item for the upcoming calving season. The Sandhill's Calving System was developed to help producers combat scour outbreaks in baby calves. The system is described below.

Prior to the start of the calving season, all cows are placed in a single pasture. Beginning two weeks after the first calves are born, all cows that have **not** calved are moved to a new pasture. Cows that have calved stay in the original pasture.

After one week in the second pasture, all cows that have **not** calved are moved to a third pasture while cows that calved in the second pasture stay there. The process of moving pregnant cows to new pastures continues on a weekly basis. Cows and calves remain in their original pastures until the youngest calves are four weeks old, then these groups can be co-mingled back together.

With this system, most calves are born on clean pastures that have not been contaminated with scour causing pathogens from older calves. In addition to reducing pathogen exposure, this system helps with animal management. Pregnant cows are together in one pasture which reduces the amount of area a producer must cover when checking cows for calving problems. Most scour problems occur in calves 1 to 3 weeks old. Since calves are segregated by age and location, the time needed to track down and check the health condition of the calves is reduced. Attention can be focused on the groups most susceptible to scour problems.

Producers who have adopted this system have generally been very enthusiastic about the results. It takes some forward thinking and planning, so begin trying to figure out how this might be implemented on your operation if this idea is of interest.

Source: Gene Schmitz, Livestock Specialist

Farm Records

This is the time of year many are working on farm records and making business decisions. Good financial records allow for more informed decision making. Financial records begin with farm records and accounting information. There are many types of farm records with various features. MU Extension has a website with several choices
<http://agebb.missouri.edu/mgt/mofar>

If you are considering making a change in accounting systems or researching the best fit for your needs, it is important to consider how you plan to use the records. Each accounting system has features and limitations and of course a price tag.

County Extension offices have paper copies of the Missouri Farm Business Record Book, developed by University Extension and Ag Education. It contains receipts, expenditures, summary, and enterprise forms needed for one year of records. Refill pages are available and can be printed from the above website.

Computer software programs are another choice. There are basically two types of programs: 1) programs designed specifically for farm accounting and 2) generic programs designed for accounting.

Farm accounting packages

The website above lists a package called PC Mars. The company that created it is located in Iowa and the software is available through the Iowa Farm Business Center. A few features include inventory tracking, livestock and crop production data and enterprise allocations.

Other popular farm accounting software not listed on that webpage includes AgCHECK, AgManager, AgMIS, Easy Farm, Farm Biz and FarmWorks. These are some of the more popular packages, but it is not inclusive. A web search can find the company sites for these accounting packages. Many of the packages may have free demo programs, so potential buyers can try the software before purchasing.

Generic accounting packages

The website above lists a couple of popular software packages. The website mentions tools that can help customize these packages to make them easier to use for farm accounting.

There are several choices in accounting systems, so it may be helpful to make a list of the items you want in a package before you begin searching. It is important to choose a system that makes the task of entering records user-friendly to facilitate keeping your records current. Farm accounting is an important foundation of your farm business, so time spent researching accounting software can be very beneficial.

Source: Mary Sobba, Ag Business Specialist



Seasons Greetings

The MU Extension Agriculture Specialist wish you and yours a Safe and Happy New Year!

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Guidesheet can help producers get through the winter more economically

Winter is almost here and there is a great resource producers can utilize to guide them in making good purchasing decisions for supplements, hay, energy, etc.. The Ohio State University has a factsheet called “Winter Supplementation of Beef Cows” which can be found at <http://ohioline.osu.edu/as-fact/0001.html>. There is a lot of great information that can help producers through the winter; one of the items the factsheet covers is a simple way producers can determine cost per unit of crude protein between products.

For example, compare two commercial products: Product A is \$475/ton and has 36% crude protein (CP) and Product B is \$290/ton and has 20% CP. On first look producers might think Product B would be cheaper; however, that might not be the case. Doing some simple math between the two products: Product A: $2000 \text{ lbs.} \times 0.36 \text{ (percent protein/100)} = 720 \text{ lbs. of protein}$, $\$475/720 \text{ lbs.} = \mathbf{\$0.66}$ per unit of CP. Doing the same for Product B: $2000 \text{ lbs.} \times 0.20 = 400 \text{ lbs.}$ $\$290/400 \text{ lbs.} = \mathbf{\$0.73}$ per unit of CP. Although Product A appears to be more expensive than Product B, when comparing the two protein levels Product A is the better buy in this example.



When looking at products there could be other factors that would make a producer choose one product over the other; freight costs, a complete vitamin and mineral package verses none, form of the mineral (oxides vs. sulfated), inclusion of an ionophore, etc.. These added features should be taken into consideration when looking at supplements. The factsheet also gives other great tips for producers and will help them make better purchasing decisions when buying supplements, by-products and hay. *Source: Wendy Rapp, Livestock Specialist*

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