



Ag Connection

Your local link to MU for ag extension and research information

<http://agebb.missouri.edu/agconnection>

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Keeping Grain in Condition

Management is required to keep grain in good condition once it is placed in storage. Because of differences in temperature between the grain in the bin and the outside air, air temperature inside the bin can migrate.

With cold outside air, the air inside the bin moves downward along the outside wall and then upward toward the center of the bin. The air that comes up through the center of the bin will carry some moisture as it contacts the cool grain in the center of the bin. Moisture will then condense and cause the grain in this area to go out of condition and crust over.

The crusting will keep air from flowing through the mass of grain and making it impossible to keep the grain in condition. To prevent this problem, grain should be cooled to about 40 degrees F in the fall and warmed to about 60 degrees F in the spring. This will minimize migration of air through the bin.

Check grain weekly. Use a grain probe and a thermometer to check the temperature by probing below the surface of the grain in several places. Record these temperatures to monitor changes. Moving air through the grain can help in determining grain condition. If a musty odor is detected, problems may exist not detected by inspecting the grain or checking the temperature. If problems do occur, fans may need to be run to dry the grain. In some cases, grain may need to be removed from the bin.

Covering the fan intake when it is not in use can prevent air from moving through it and minimize insect and rodent problems.

Should air be pushed or pulled through the bin? There is no right or wrong answer — it depends. If air is pushed through the grain, moisture is most likely to condense on the cold roof. This can cause some moisture problems with grain at the top of the bin. An advantage of pushing the air is if grain spoilage does occur, it will most likely be at the top of the bin and is easier to detect.

When air is pulled through the bin, the moist air coming off the grain can condense on floors and on grain near the floor. This can block ducts and plug the aeration system. If air is pulled air through the grain, one should wait until several feet of grain has been placed in the bin to avoid pulling fines into the duct.

Leave the fan on long enough. Anytime a drying or cooling front is started through the grain, make sure the fan runs long enough to move the front completely through the grain. When the temperature of the air coming through the grain is equal to the outside air, drying or cooling is complete.

Source: Kent Shannon, natural resource engineer

2018 Farm Bill - PLC or ARC

The primary decision for crop producers with the latest farm bill is the choice between Price Loss Coverage (PLC) or Agriculture Risk Coverage (ARC) – county or individual. Even though the choices are not new, there have been changes in how the programs are administered.

PLC is price loss support that protects producers who have a share of risk in base acres in years where the prices for those commodities fall below the effective reference price. PLC is chosen by crop, by farm. The covered commodity does not have to be planted, since any payment is calculated on 85% of base acres. If the effective price falls below the reference price, a payment is triggered.

The effective price is the market year average price, which is determined by one of two ways. Either by the national average market price during the 12-month marketing period or the national average loan rate in effect for the applicable marketing year. This figure is not based on the price received at the local elevator, but rather a cumulation of many such markets.

Under PLC, there is the option to update yields in 2020. This is the average yields from 2013 – 2017. Prevent plant and subsequently planted acres are not included, but approved double crop acres are included in the average. One landowner (not tenant) is required to sign the form if updates are made. Yields reported to crop insurance are the safest way to update and will stand up to review.

ARC is revenue based support, either county revenue based – based on county average yield (ARC-CO) or individual revenue based – based on individual farm yields (ARC-IC). These options are the same as the last farm bill, with the reference prices (per bushel) – corn \$3.70, soybeans \$8.40, wheat \$5.50, grain sorghum \$3.95, oats \$2.40, etc.

ARC-CO is income support to cover a portion of a producers out-of-pocket losses when crop revenues fall below benchmark levels based on county level historic revenue. It too is chosen by crop, by farm, and any payments are calculated on 85% of base acres, not planted acres. Payment cannot exceed 10% of the benchmark county revenue. Yields are based on a 5-year Olympic average. (*Olympic averages eliminate the high and low observations and then average all remaining observations.*) The figure on the next page shows an example of ARC-CO payment calculation.

Average county yield data will be based on the physical location of the farm, not the administrative county.

The 5-year average excludes the most recent year as a lag year. For example, the 2019 program calculations include only 2013-2017 with 2018 being the lag year. County yield data will use RMA data first instead of the National Agriculture Statistics Service (NASS) data as was used first with the 2014 farm bill.

ARC-IC is income support to cover a portion of a producers out-of-pocket losses when crop revenues fall below benchmark levels based on individual farm level historic revenue. This option applies to the entire farm base acres. One cannot choose by crop. Payments are calculated on 65% of base acres, and the covered commodity must be planted to get a payment, if triggered. If a farm was 100% prevent plant in 2019, then a producer should consider ARC-IC.

Program election made for 2019 will remain for program year 2020. For 2021, 2022, and 2023 producers will have the opportunity for a new election. It must be a unanimous decision by all producers who have an interest in the crop acres on the farm. If no election is made for 2019/2020 by March 15, the farm remains in default status and is not eligible for 2019 program payments. The election decisions from the 2014 farm bill will remain the election for 2019 and 2020.

Farms completely reported as grass, idle, or fallow from Jan 1, 2009 – Dec 31, 2017 are not eligible for ARC or PLC payments. These acres may be eligible for the Conservation Security Program with NRCS at \$18/acre for five years. Base acres and PLC yields are maintained on the farm, but are not eligible for payments. If producers were eligible for 2019, they would have received a letter from FSA.

In deciding which choice to make, consider the following: price projections from USDA and FAPRI; yield data from crop insurance; discussing options with landowner or tenant; and utilizing decision aid tools. These decision aid tools can be found at <https://fd-tools.ncsa.illinois.edu/#/>; or <https://www.afpc.tamu.edu/>; or call 979-845-5913 with your information and someone will input it for you while you are on the phone.

The Texas A&M tool has been modified for easier use since it was used for the 2014 farm bill. Assistance is also available through MU Extension agriculture business specialists before the March 15 deadline.

Source: *Darla Campbell, ag business specialist*

2018 Farm Bill: ARC-CO Payment Calculation

WHEAT	County Average Yields					Olympic Averages	Bench-mark	Guarantee (86% of Bench-mark)	10% CAP	2019 Actual Yield	2019 MYA Price	Total Revenue	Payment Calculation
	2013	2014	2015	2016	2017								
Yield	52	59	37	56	62	56	\$291.20	\$250.43	\$29.12	47	\$5.16	\$242.52	\$250.43
Price	\$6.87	\$5.99	\$4.89	\$3.89	\$4.72	\$5.20							(\$242.52)
													\$7.91

Farm 1202

Wheat Base: 120 Ac.

PLC Yield: 54 bu./ac.

$$\text{\$250.43} - \text{\$242.52} = \text{\$7.91} \times 120 \text{ base ac} \times 85\% = \text{\$806.82}$$

2019 Show-Me-Select Heifer Sale - Palmyra

The Northeast Missouri Show-Me-Select Replacement heifer sale averaged \$2,017 at F & T Livestock Market, Palmyra on Saturday, December 14. The 17 producers of the 229 heifers were enrolled in the MU educational heifer management program. The top lot sold belonged to Twin Hill Stock Farm and brought \$3,000.

Highest average price from a consignor was \$2,621 on 16 head from Keithley/Jackson, Frankford. Other top consignors were Gene and Kim Dryden, Hannibal - \$2,500 on 8 head; Prairie View Farms, Monroe City - \$2,109 on 19 head; and McCutchan Angus, Monticello - \$2,104 on 11 head.

Averages of other Show-Me-Select sales from fall 2019 were Joplin - \$1,672 on 190 head; Kirksville - \$1,811 on 110 head; Kingsville - \$1,768 on 231 head; Fruitland - \$1,651 on 64 head; and Farmington - \$1,694 on 112 head.

The 41 buyers were responsible for just over \$460,000 worth of bred heifer exchanging hands in less than one hour. Repeat buyers, 29, purchased 167 head, or 73 percent of the total consignment. Calving surveys returned by these buyers provide important information that is given back to consignors to improve for future years.

The Show-Me-Select heifer development program takes nearly a year to complete. Enrolled heifers are bred to sires with both calving-ease and growth genetics. The heifers complete a pre-breeding examination usually 4 to 8 weeks before to breeding which includes a pelvic measurement, reproductive tract score, and weight. Heifers may be bred artificially or be exposed to natural service, however; the service sires must meet specific calving ease EPD requirements based on breed. This year 154 head, or 67 percent, of the heifers in the sale were synchronized and bred AI. Choosing AI showed producers a \$59 price advantage over those bred naturally.

All heifers must be pregnancy tested within 90 days of breeding by a veterinarian to determine expected calving date. The use of ultrasound has helped improve calving date accuracy. During the development period, the heifers undergo an extensive health program and are vaccinated at weaning, pre-breeding, and pregnancy examination. Heifers are treated for parasites and screened for blemishes, condition, muscling, and structural soundness by MU livestock specialist and USDA graders.

This was the 23rd year for the Show-Me-Select heifer sale in Palmyra with 40,046 heifers enrolled through the program and 6,864 head sold. If you are interested in this program, contact your local MU Extension Livestock Specialist.

Source: Daniel Mallory, livestock specialist

MU Extension Seeks Input on Updating Custom Rate Guide

The Missouri Custom Rates survey is routinely used by landowners, farmers, custom operators and government agencies. This survey has been conducted approximately every three years to update prices, since 1972.

University of Missouri Extension is asking all persons involved in custom farming activities to fill out the survey. Responses will benefit the agricultural community of Missouri as it efficiently produces food, fuel and fiber.

The online survey contains dozens of questions but is organized so that respondents can quickly locate the questions specific to their business. Completing the survey should be quick and easy. The survey is designed for easiest use on a computer, but it is formatted to work on smartphones as well.

To take the survey go to tinyurl.com/MOCustomRate. Choose the broad categories of custom activity for which you will provide information and enter your values for individual activities. Paper copies of the survey are available from county extension centers or call your regional ag business specialist.



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2016 Custom Rates for Farm Services in Missouri

The rates reported in this guide are based on a statewide survey conducted by mail in the winter of 2017. Farmers, agribusiness firms, aerial applicators and land improvement contractors responded to questions on the rates they were charging or paying in 2016 for custom services, excluding the cost of materials being applied.

There is no assurance that the average rates reported in this guide will cover your costs for performing the service or that you will be able to hire a custom operator in your area for the rates shown. *Calculate your own costs carefully before deciding the rate to charge or pay. Before entering into an agreement, discuss with the other party all the details of the specific job to be performed.*

Custom rates cover the cost of machinery, fuel, labor and,

indicate that Missouri farmers were paying more for almost every activity in 2016, relative to 2012.

Explanation of the rates in this guide

Rates in this guide reflect each respondent's judgment of a "normal" job. Operators may add charges if they consider a job abnormal, such as in distance from the operator's base location, the amount of product or labor involved, the difficulty of the terrain, or special requirements of the customer or location.

The "Number reporting" and "Range in rates" columns are important. Some items had very few responses or a wide range in rates, so the average rate may not accurately reflect rates in your area. Possible explanations of the wide ranges are the type or size of equipment used, the mix of

Return Service Requested



Northeast Missouri
Ag Connection
In This Issue:

- ⇒ Keeping Grain in Condition
- ⇒ 2018 Farm Bill - PLC or ARC
- ⇒ 2019 Show-Me-Select Heifer Sale—
Palmyra
- ⇒ Seeking Input for Custom Rate Guide