

Agricultural Update

August 27, 1999

Government Programs

Certain counties in Missouri qualify for USDA flood compensation

U.S. Department of Agriculture will begin distributing \$42 million to farmers and ranchers whose cropland was damaged by extensive flooding. The Flood Compensation Program will be especially helpful to farmers in the upper Missouri River basin and Prairie Pothole region, where flooding began as early as 1993.

The Flood Compensation Program compensates farmers in certain eligible counties, including those in northeastern South Dakota and the Devil's Lake area of North Dakota, for loss of the use of cropland or pastureland due to flood during the period from October 1, 1997, through September 30, 1998. Farmers in certain counties in Minnesota, Iowa, and Missouri also qualified for assistance under the Flood Compensation Program. Inquire at your local FSA office if you believe your county qualifies

General

You can track your county's daily LDP for corn, soybean, and wheat

The Center for Agriculture and Rural Development (CARD) at Iowa State University has been recording daily county LDP's for all counties in the Midwest for over a year now. Missouri counties are included in this list. For an explanation of the LDP go to the CROPS Q&A at FARMFIRST.

The following commodities are hot-linked to their respective LDP daily quote at CARD:

[Corn](#)

[Soybean](#)

[Wheat](#)

If you would like historical LDP rates for your county please contact Joe Parcell at parcellj@missouri.edu and I will compile this information and send it electronically to you.

Salvaging Drought Corn for Grazing or Silage: Agronomic and Economic Evaluation

This is from a news release developed by Dr. Don Smith, Farm Management Specialist, Northeast Region,

Dr. Robert Kallenbach, State Forage Specialist, provided input into this news release

In many drought years people consider grazing or making silage out of drought-damaged corn as a salvage practice. Although silage made from drought damaged corn is usually not as good as non-stressed corn, drought damaged corn can make good livestock feed. As a rule, drought-damaged corn will have 85 to 95% of the feeding value of normal corn silage. Dr. Robert Kallenbach, MU Assistant Professor of Agronomy has outlined agronomic and animal safety issues of these practices.

According to Dr. Kallenbach, ideally, corn silage would be between 60 and 70% moisture at harvest. If drought damaged corn contains less than 60% moisture, producers could add some water at the silo. However, when drought slows plant growth and delays maturity, the moisture content is often higher than is suggested by the appearance of the crop. Taking the time to check the moisture content before harvesting could save a lot of trouble later. MU Guidesheet 3151 contains detailed information on how to measure the moisture content of silage using a microwave oven.

Drought-damaged corn should be chopped to 3/8 to 1/2 inch in length. This length of chop should help in packing the silage to exclude as much oxygen as possible. Producers should also sharpen the knives on their equipment before making silage. Other tips include filling the silo quickly and packing the silage as tightly as possible. Remember to make good silage oxygen should be excluded at all points.

One concern with drought damaged corn is high nitrate levels in the grazed corn or silage. This has the potential to cause animal deaths if consumed in sufficient quantity. Therefore, a nitrate test should be used and necessary precautions taken.

High nitrate levels are frequently found where high levels of nitrogen fertilizer were applied and/or where drought-damaged corn is chopped a few days after a rain. Other factors that contribute to high nitrate levels in corn silage are cloudy weather, extremely high plant populations, and shortages of soil phosphorus and potassium.

Ensiling drought-damaged corn is preferred to greenchop, because during the fermentation process, the nitrate content will be reduced by about 50%. If a producer suspects that the crop may have high nitrate levels, they should have it analyzed if possible before harvest.

If producers have corn with high nitrate levels, there are a few things they can do. First, they might delay harvesting until the plant begins to "out-grow" the nitrate accumulation. Usually, drought damaged corn will have normal levels of nitrates after two weeks of normal growth (once the drought ends!). Second, producers might increase the cutting height to eight or ten inches. Nitrate levels are usually highest in the lower part of the stem, so increasing the cutting height can help lower nitrate levels in silage. This is an important animal health issue which may make ensiling preferable to grazing drought damaged corn. Finally, if they have high nitrate corn silage in the silo, they could dilute the silage with other feed grains or hay at feeding.

Several producers have asked about making "big round bale silage" or baleage from drought stressed corn. For those not familiar with the practice, baleage is simply baling high moisture forage (55% is usually ideal)

and then wrapping the bales with plastic film to exclude oxygen. In theory, this could be a way to store the crop if silage-making equipment were not available. However, many people who try this with corn are disappointed. Often the corn stalks poke holes in the plastic film and thus the silage spoils. In addition, it is difficult for many big round balers to tightly compact 60 to 70% moisture corn stalks and/or partially mature ears. For these reasons, we can't totally recommend baleage for drought stressed corn.

Harvesting drought-damaged corn for silage can be a way to salvage an otherwise useless crop. Paying close attention to moisture content, length of cut, packing, and nitrate levels in drought-stressed corn cut for silage will help make the most of a bad situation.

Another factor in addition to Dr. Kallenbach's preceding agronomic considerations is the economics of the corn for grain vs. salvage options. For this reason, I have developed both a worksheet (paper form) and computer spreadsheet to assist producers in estimating the value of grazing or ensiling standing drought corn relative to silage, grain, and hay values. The paper form is found below and the computer file is available by contacting Dr. Don Smith by email at smithda@missouri.edu.

**VALUING DROUGHT STRICKEN (OR NORMAL) CORN STANDING IN
THE FIELD FOR SILAGE OR GRAZING
Dr. Don Smith, Extension Farm Management Specialist**

CAUTION: Take all necessary precautions for testing and analyzing alternatives for handling high nitrate green chopped corn and/or silage. High nitrate corn may cause animal deaths when grazed or fed as silage. To value for grazing, enter \$0.00 harvest, storage, loss costs for silage.

METHOD 1: ESTIMATED VALUE RELATIVE TO SILAGE PRICE			Examples	Your Values
1.	Dollar value/Ton of good quality corn silage	\$23.00		\$_____ Tn
2.	Relative feed value of drought stricken corn	80.00 %		_____ %
3.	Value/Ton in storage, line 2 times line 1.....	\$18.40		\$_____ Tn
4.	Cost/Ton of harvesting and hauling to storage	\$10.00		\$_____ Tn
5.	Average storage cost/Ton until used	\$1.00		\$_____ Tn
6.	Storage losses per ton	\$1.00		\$_____ Tn
7.	Total harvest and storage costs, lines 4+5+6 ..	\$12.00		\$_____ Tn
8.	Net value/Ton of corn in field, lines 3 minus 7	\$6.40		\$_____ Tn
9.	Yield per acre of drought stricken corn	8.00 Tn		_____ Tn
10.	Estimated net value, line 9 times line 8	\$51.20 Ac		\$_____ Ac

METHOD 2: ESTIMATED VALUE RELATIVE TO GRAIN & HAY			Examples	Your Values
1.	Grain value = 30.00 bu/ac X \$2.00 /bu. = \$60.00 Ac			xxxx Ac
	Your values = _____ bu/ac X \$_____ /bu. =	xxxx		_____ Ac
2.	Harvest cost per acre	\$20.00 Ac		\$_____ Ac
3.	Cost per acre to haul to market	\$4.50 Ac		\$_____ Ac
4.	Net value as grain in field, L1 - (L2+L3).....	\$35.50 Ac		\$_____ Ac
5.	Estimated yield per acre as silage.....	8.00 Tn		_____ Tn
6.	Dry matter = 8.00 Ton/ac X 30.00 % DM = 2.40 Tn			xxxx Tn
	Your values = _____ Ton/ac X _____ % DM =	xxxx		_____ Tn

7.	90% dry feed=	2.40 Ton(L6)/	90.00 % DM =	2.67 Tn	xxxx
	Your values =	_____Ton(L6)/	90.00 % DM =	xxxx	_____Tn
8.	Dry feed/ac =	2.67 Ton(L7)X	2000 Lb/Tn=	5333 Lb	xxxx
	Your values =	_____Ton(L7)X	2000 Lb/Tn=	xxxx	_____Lb
9.	Ear corn 90%DM	30.00 Bu (L1)X	72.00 Lb/Bu=	2160 Lb	xxxx
	Your values =	_____Bu (L1)X	72.00 Lb/Bu=	xxxx	_____Lb
10.	Hay eqv 90%DM*	3173 (L8-L9)X	\$0.015 /Lb* =	\$47.60 Ac	xxxx
	Your values* =	_____ (L8-L9)X	_____/Lb* =	xxxx	\$_____Ac
11.	Value/Ac as silage standing in field (L4+L10)=			\$83.10 Ac	xxxx
	Your value as silage standing in field(L4+L10)=			xxxx	\$_____Ac
12.	Total hvst & storage costs, Section 1 Line 7 =			\$12.00 Ac	\$_____Ac
13.	Net value as silage standing in field L12-L11 =			\$71.10 Ac	\$_____Ac

*Hay equivalent value, i.e., the price per pound for standing hay. Research shows drought stricken corn with ears harvested at a desirable moisture as silage can be worth 80-85% of the value of regular silage. Corn without ears can have 70% or more of the value of corn silage. This is because starch goes into the leaves and stalks rather than ears.

Web Sites to Check

- [Agriculture Traders Resource Center at the Chicago Mercantile Exchange](#)
- [Chicago Board of Trade Agriculture Futures Information](#)

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