

In The Cattle Markets

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Corn Price and Dry Diller Grain Price Relationship

Corn price and Dry Distiller's Grains tend to move in the same direction. There are years where this is the exception, including 2017 and 2020. When examining weekly Kansas City corn price data and 10% Dry Distillers Grain price data from May 2006 to March 2022, the correlation between the two prices series is 0.86, indicating DDG and corn prices tend to move in the same direction.

A regression analysis using the data was conducted to find which price series indicated a relationship with DDG. Weekly high protein Kansas soybean meal price, Kansas corn price, a weekly variable indicating seasonality and a variable indicating year were included in the analysis. The model showing the best fit, with 81% of the DDG price variability explained included all the variables. The results indicate that when Kansas City corn price has a 1% change, the Kansas DDG price will change by 0.77%. Therefore, a \$0.10 change in 2021 Kansas City corn price per bushel results in a \$1.82 change in Kansas DDG price per ton. These results are similar, although slightly less variable, to what Michael Langemeier found using the Central Illinois prices.

Looking forward into 2023 to determine DDG prices requires using projected corn and soybean meal prices. Using Chicago Board of Trade futures prices for 2023, corn prices will be between \$6.25 and \$7.00 per bushel, while soybean meal prices will be between \$380 and \$410 per ton. Results from the regression model indicate that Kansas DDG prices will be between \$250 and \$280 per ton.

Understanding how these price changes affect profitability requires an understanding of the displacement ratio between corn and DDGs. There are large variations in these ratios, depending on location and complexity of diets. For example, Kirk Klasing found that adding 30% DDGs in beef diets displaces about 24% of corn in the diet in the high plains, but only displaces about 2% of corn in the West where diets differ. How much the variability in DDG price affects profitability will depend on the least cost ration used.

The Markets

The November WASDE report will be released on Wednesday, November 9. Trading will likely slow in anticipation of the report. Corn harvest will likely be near 85% in the afternoon Crop Progress Report on November 7. The biggest issue is river traffic continues to have challenges moving corn and soybeans.

Beef demand has been strong. Fed cattle prices started the week strong, with live cattle contracts up. Packers need cattle. The Choice beef cutout value finished last Friday at \$263.75, up \$2.54 on the week. The estimated harvest total last week was 667,000, and that was 1,000 head less than the week prior. Feeder cattle volume has decreased, especially in those areas of the country most impacted by drought.

<i>Data Source: USDA-AMS Market News</i>		Week of 11/4/22	Week of 10/28/22	Week of 11/5/21
5-Area Fed Steer	all grades, live weight, \$/cwt	\$151.98	\$151.95	\$129.23
	all grades, dressed weight, \$/cwt	\$241.90	\$239.85	\$202.81
Boxed Beef	Choice Price, 600-900 lb., \$/cwt	\$263.74	\$261.19	\$288.64
	Choice-Select Spread, \$/cwt	\$30.67	\$31.60	\$21.85
700-800 lb. Feeder Steer	Montana 3-market, \$/cwt	\$173.00	\$179.75	\$163.50
	Nebraska 7-market, \$/cwt	\$182.26	\$186.97	\$164.29
	Oklahoma 8-market, \$/cwt	\$178.19	\$175.32	\$155.83
500-600 lb. Feeder Steer	Montana 3-market, \$/cwt	\$197.66	\$204.86	\$164.92
	Nebraska 7-market, \$/cwt	\$209.03	\$209.99	\$176.91
	Oklahoma 8-market, \$/cwt	\$190.15	\$184.11	\$164.97
Feed Grains	Corn, Omaha, NE, \$/bu (Thursday)	\$7.23	\$7.17	\$5.44
	DDGS, Nebraska, \$/ton	\$271.00	\$274.17	\$195.00