

## **Has the Presence of the LDP Created Marketing Havoc in Missouri?**

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Beginning in the Fall of 1998 low corn and soybean prices triggered a government price support mechanism established under the 1996 Farm Bill. This mechanism, the loan deficiency payment (LDP), created minor chaos for many producers. These producers did not understand how the LDP program functioned, and they did not understand the strategies for marketing the LDP. As producers, researchers, and politicians began to understand the LDP program, more questions regarding the effectiveness and fairness of the program arose. Some producers and Extension marketing economists argued that the LDP affected long-term basis patterns. This analysis investigates claims that producers could take advantage of certain market situations, that would not normally exist, through marketing the grain and LDP simultaneously.

The 1996 Agriculture Market Transition Act gave farmers the choice of receiving a loan deficiency payment in lieu of placing their crop in storage under loan. The LDP is the loan price less the posted county price (PCP). Table 1 is an example of how the LDP is determined for Lafayette county in Missouri. The PCP is based on a terminal or Gulf market price-adjusted for a county loan differential. The PCP can be at, above or below the local market price-depending on how well the terminal or Gulf price, adjusted for the county loan differential, reflects local market conditions. Under previous farm programs, farmers forfeited the grain under loan to the Commodity Credit Corporation (CCC) when market prices were below the loan rate. The CCC could then hold the forfeited grain off the market creating a price floor at or near the loan price.

The LDP alternative allows farmers to take the LDP up until 9 months following the beginning of harvest or until 9 months after the grain is placed under loan. This “decoupling” or marketing of grain from loan prices provide farmers the opportunity to seek profit maximization from both the loan program (in the form of an LDP) and in the cash market. In this situation, the affect of the loan rate acting as a floor is diminished as a result of grain potentially entering the market which would previously have been held by the CCC. To the extent that the PCP does not equal local price, a new opportunity for profit seeking exists.

### ***Evaluating Potential Market Scenarios***

Cash price data were collected from DTN AgDayta and LDP/PCP data were collected from CARD to analyze whether marketing inefficiencies may have been caused by the presence of the LDP. Daily data was used between 1993 and October 1999. Marketing inefficiencies refer to the ability of producer to receive a net price greater than what could have been received under normal marketing conditions. For instance, some persons have claimed that they can market the LDP in their home county and market their crop in a different location (than they would normally market) and receive a net price in excess of the local price plus LDP. This situation in particular locations may be due to availability of the LDP causing grain to enter or be kept off the market in certain locations. That is, local supply/demand conditions may deviate from historical seasonal patterns.

One issue is that the LDP rate for time  $t + 1$  can actually be observed late in the day on day  $t$ . Therefore, a producer who is wanting to sell the crop for which the LDP has not been taken, has the flexibility of taking the greater of today's or tomorrow's LDP and then marketing the grain. Summary statistics, by location, are computed to determine the percent of the days,

for which the LDP today is greater than yesterday's LDP. Secondly, the loan rate establishes a price floor. Thus, in theory the cash price plus the LDP should equal the loan rate. This did not always occur. Summary statistics, by location, are computed for the percentage of the days when the cash price today plus the LDP, and the cash price today plus yesterday's LDP, was above the loan rate. The following summary statistics were computed for some locations in Missouri.

Figures 1 and 2 are used to show six factors, by location:

- a. CCC loan rate for the county where the town is located
- b. Percentage of the time the LDP today is greater than yesterday's LDP
- c. Percentage of the time the cash price today plus today's LDP is greater than the loan rate.
- d. Percentage of the time the cash price today plus yesterday's LDP is greater than the loan rate.
- e. Average Kansas City cash price minus price for the location, before LDP
- f. Average Kansas City cash price minus price for the location, during LDP

Summary Statistics indicate that for when the corn LDP was available between 40% and 48% of time the LDP was greater today than yesterday (figures 1 and 2, letter B). The magnitude of most of these differentials was less than \$0.02/bushel. For soybean, 55% of the time the LDP was greater today than yesterday - note, the LDP payment ends at the end of May; therefore, during 1998 the LDP ended with a positive value indicating that this percentage may have been biased. Producers should consider marketing the LDP late in the day to determine if he/she could profit from taking tomorrow's LDP.

Next, it was determined that the percentage of the time the cash price plus LDP was greater than the loan rate varied between 24% and 97% of the time, depending on location (figure 1 and 2, letters C and D). Generally, river locations in eastern Missouri had a higher percentage of days where the cash price plus LDP, today or yesterday, exceeded the loan rate. For western and north-central locations, there was not consistency between marketing corn or soybean. It appears there are regional differences between revenues generated from marketing the cash and LDP. However, one caveat to this is that the cash prices quoted may not be the prices actually received by producers.

Letters E and F in figures 1 and 2 indicate the average daily price differential between Kansas City and that location with and without the LDP available. Generally, there was not difference in price differential between with and without the LDP. Thus, particularly for NE Missouri, this would indicate that there were no additional profit opportunities from taking the LDP and marketing the corn or soybeans in Kansas City. Of course, there could be other marketing opportunities between other locations.

## Summary Conclusions:

1. **Summary statistics indicate that there is value to producers, who are considering taking the LDP, in waiting to late in the day and calculating tomorrow's LDP so that one can determine whether to take today's or wait until tomorrow.**
2. **Based on data used for this analysis there is evidence to suggest that producers could receive per bushel value greater than the loan rate; however, the difference between cash price plus LDP and loan rate varied by location.**

It is likely that producers will market the LDP and cash crop at different times. Some producers may take the LDP at harvest, effectively easing cash flow concerns or meeting debt obligations, and store the grain.
3. **Casual observation of the data indicates that the between location spread was not significantly effected by the presence of the LDP program. Thus, significant returns from taking the LDP in your home county and marketing the corn/soybean in another location where you would not typically market are not large. However, this marketing opportunity should be evaluated on a location by location basis.**
4. **The next newsletter will summarize results of the impact that the LDP program may have had on corn and soybean basis in Missouri. The past two years basis patterns for corn and soybeans in Missouri have differed significantly from historical basis patterns. This study analyzes whether the presence of the LDP caused**

## References

- CARD. "County-Specific LDP Archive." Loan Deficiency Payment (LDP) data obtained via Internet download at <http://cardsrv6.card.iastate.edu/>, Winter, 2000.
- DTN AgDayta. "Cash Grain Sorghum Prices." Obtained via use agreement, Fall 1999.
- J.L. Parcell. "The Impact of the LDP on Corn and Soybean Basis in Missouri." Presented paper at NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, ed. T.C. Schroeder, 19p. Dep. of Agr. Econ., Kansas State University, 2000.

Table 1. Determination of Loan Deficiency Payment for Lafayette County Missouri under a Below and Above Loan Rate Scenario

	Below Loan Rate	Above Loan Rate
A. Gulf price	\$2.16	\$2.46
B. Gulf differential	\$0.46	\$0.46
C. Posted county price based on Gulf cash price (A ! B)	\$1.70	\$2.00
D. Kansas City price	\$1.88	\$2.36
E. Kansas City differential	\$0.22	\$0.22
F. Posted county price based on K.C. cash price (D ! E)	\$1.66	\$2.14
G. Posted County Price (maximum of line C and F)	\$1.70	\$2.14
H. County Loan Rate	\$1.87	\$1.87
I. Loan Deficiency Payment (LDP) rate (H ! G, where H ! G > 0 for LDP to be in effect)	\$0.17	\$0.00

Figure 1. Summary Corn LDP and Marketing Information for Missouri Locations

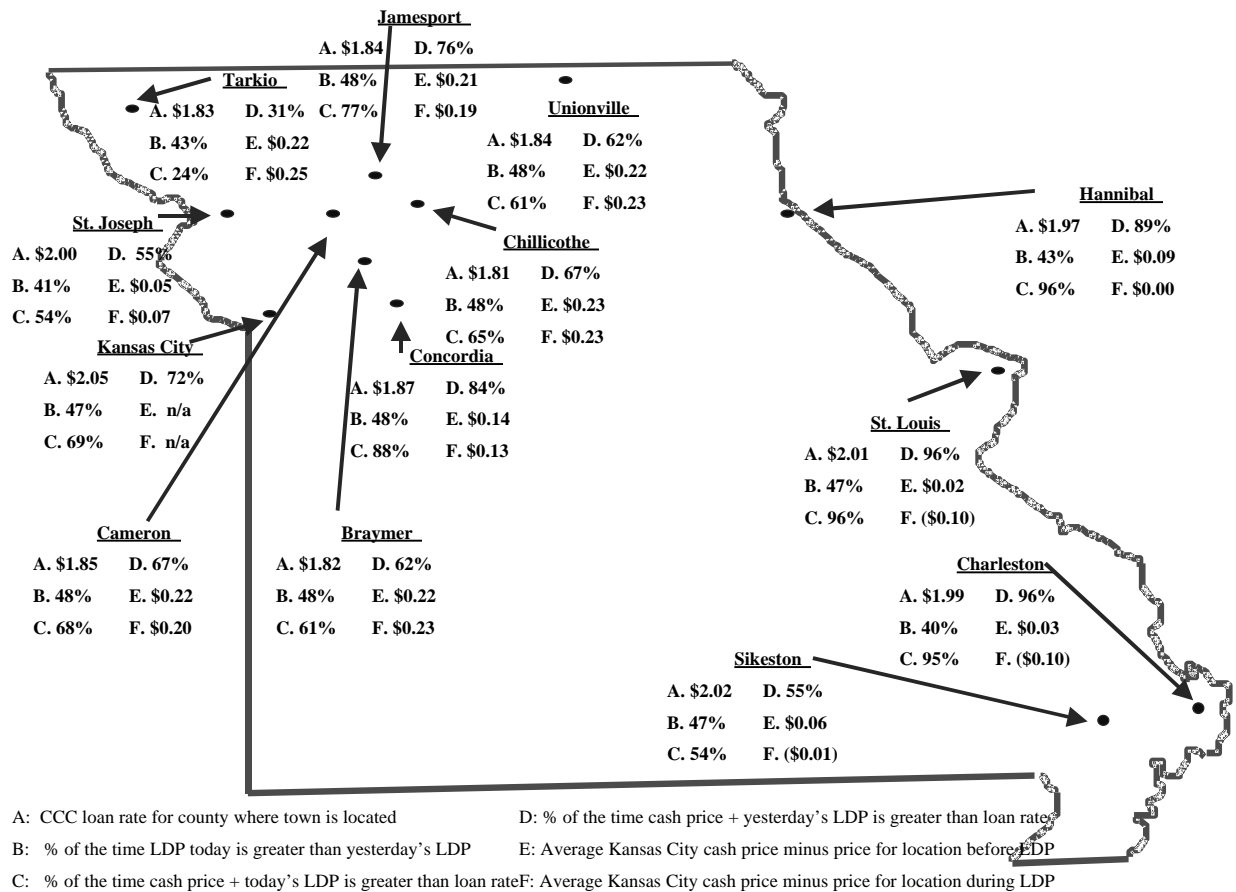


Figure 2. Summary Soybean LDP and Marketing Information for Missouri Locations

