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Basis Variation in Nebraska

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Cornhusker Economics

Cooperative Extension

Institute of Agriculture & Natural Resources
Department of Agricultural Economics
University of Nebraska – Lincoln

Basis Variation in Nebraska

Market Report	Yr Ago	4 Wks Ago	9/19/03
Livestock and Products,			
Average Prices for Week Ending			
Slaughter Steers, Ch. 204, 1100-1300 lb Omaha, cwt	\$66.23	\$81.46	93.24
Feeder Steers, Med. Frame, 600-650 lb Dodge City, KS, cwt	82.50	*	*
Feeder Steers, Med. Frame 600-650 lb, Nebraska Auction Wght. Avg	86.85	106.60	109.05
Carcass Price, Ch. 1-3, 550-700 lb Cent. US, Equiv. Index Value, cwt	103.93	126.84	148.35
Hogs, US 1-2, 220-230 lb Sioux Falls, SD, cwt	31.00	*	42.00
Feeder Pigs, US 1-2, 40-45 lb Sioux Falls, SD, hd	*	25.57	*
Vacuum Packed Pork Loins, Wholesale, 13-19 lb, 1/4" Trim, Cent. US, cwt	90.22	105.20	116.22
Slaughter Lambs, Ch. & Pr., 115-125 lb Sioux Falls, SD, cwt	74.25	*	*
Carcass Lambs, Ch. & Pr., 1-4, 55-65 lb FOB Midwest, cwt	157.74	180.12	180.62
Crops,			
Cash Truck Prices for Date Shown			
Wheat, No. 1, H.W. Omaha, bu	4.74	3.69	3.36
Corn, No. 2, Yellow Omaha, bu	2.46	2.19	2.13
Soybeans, No. 1, Yellow Omaha, bu	5.42	5.99	6.26
Grain Sorghum, No. 2, Yellow Kansas City, cwt	4.64	4.11	4.07
Oats, No. 2, Heavy Minneapolis, MN, bu	2.16	1.57	1.62
Hay,			
First Day of Week Pile Prices			
Alfalfa, Sm. Square, RFV 150 or better Platte Valley, ton	132.50	115.00	130.00
Alfalfa, Lg. Round, Good Northeast Nebraska, ton	92.00	63.75	61.25
Prairie, Sm. Square, Good Northeast Nebraska, ton	117.50	*	*
* No market.			

Choosing an appropriate basis is critical to using futures and option markets. The NebGuide *The Importance of the "Basis" in Trading on the Futures Market*,¹ states,

"If the producer plans to use hedging as a marketing strategy he must first understand basis and its patterns for his local area. He must know how the basis changes over time and how much fluctuation can occur over a short period. He must understand that hedging will not entirely eliminate price risk from marketing. The basis has to be estimated as it can be the key to receiving the expected price, or better. Once a hedge is set, it is the basis that will determine the actual price received."

The use of market records is a common method of determining an expected basis. The University of Nebraska has collected market data on various sites throughout the state and made this data available in an Extension Circular (EC 02-893-B) entitled *Basis Patterns for Selected Sites in Nebraska for Corn, Wheat, Sorghum and Soybeans*.²

Basis is defined in this analysis as the local market minus the futures market. Since markets in Nebraska are normally lower than futures markets this basis is usually negative. When it is positive it is referred to as an inverted basis.

Table 3 shows the annual average basis for ten marketing years. The marketing year begins in July for wheat and in October for corn and soybeans. The standard deviation indicates annual average basis variation is least for soybeans and greatest for wheat.

Although year-to-year is greater than seasonal basis variations, understanding seasonal patterns may be more useful for developing post-harvest marketing strategies. The more seasonal basis patterns vary over time the less useful they are for planning purposes. The seasonal pattern of the



Table 3. State Annual Average Bases

Market Year	Corn	Soybeans	Wheat
1992	-0.14	-0.35	-0.08
1993	-0.11	-0.32	-0.21
1994	-0.13	-0.41	-0.20
1995	0.07	-0.42	-0.17
1996	-0.18	-0.39	-0.17
1997	-0.27	-0.42	-0.26
1998	-0.33	-0.44	-0.40
1999	-0.31	-0.38	-0.53
2000	-0.24	-0.33	-0.28
2001	-0.19	-0.31	-0.16
Grand Total	-0.18	-0.38	-0.25
Standard Deviation	0.11	0.05	0.13

first and last five year periods were compared for each commodity to see their change over time. These patterns are charted in Figures 1 through 3.

These charts show that soybean basis patterns have the most seasonal consistency overall. Although the patterns of the first and last five year averages are similar for wheat, the magnitude of the basis appears to have increased. Corn appears to have the most change in seasonal basis pattern over time. The corn basis was inverted for most of 1995. The amended first five-year average in Figure 1 is a four-year average resulting when 1995 data were removed. The nine-year average excludes the 1995 data as well. Even with 1995 excluded, the consistency between seasonal patterns from one time period to the next does not appear to be great. This observation would lead us to believe that projecting the basis for corn from historic data will be more difficult than basis projections for soybeans or wheat.

Figure 1. Seasonal Nebraska Average Corn Basis

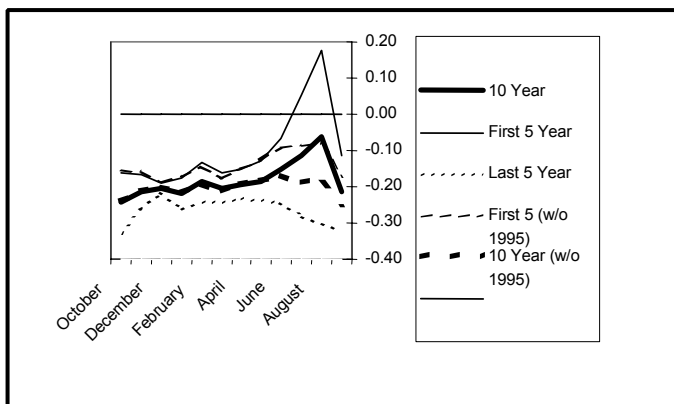


Figure 2. Seasonal Nebraska Average Soybean Basis

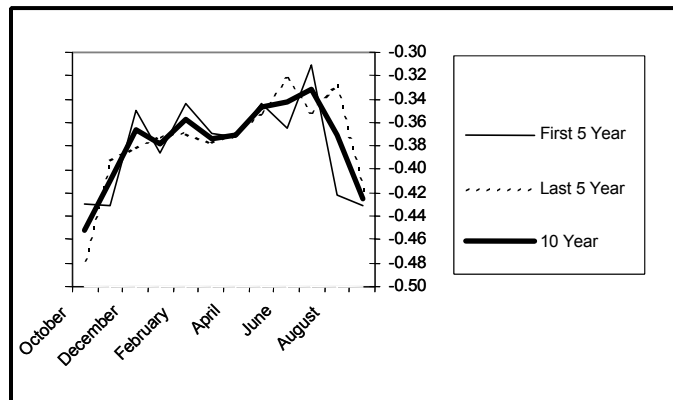
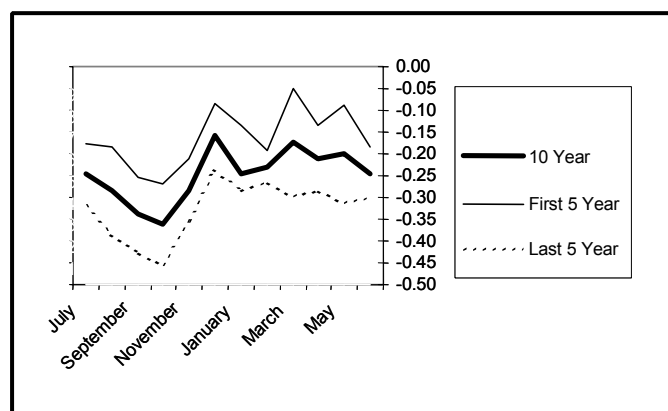


Figure 3. Seasonal Nebraska Average Wheat Basis



¹ Lutgen, Lynn H., *The Importance of the Basis In Trading on the Futures Market*, NebGuide G78-416A, University of Nebraska, 1978.

² Lutgen, Lynn H. and Diane Wasser. *Basis Patterns for Selected Sites in Nebraska for Corn, Wheat, Sorghum and Soybeans*, EC 02-893-B, University of Nebraska, various.

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