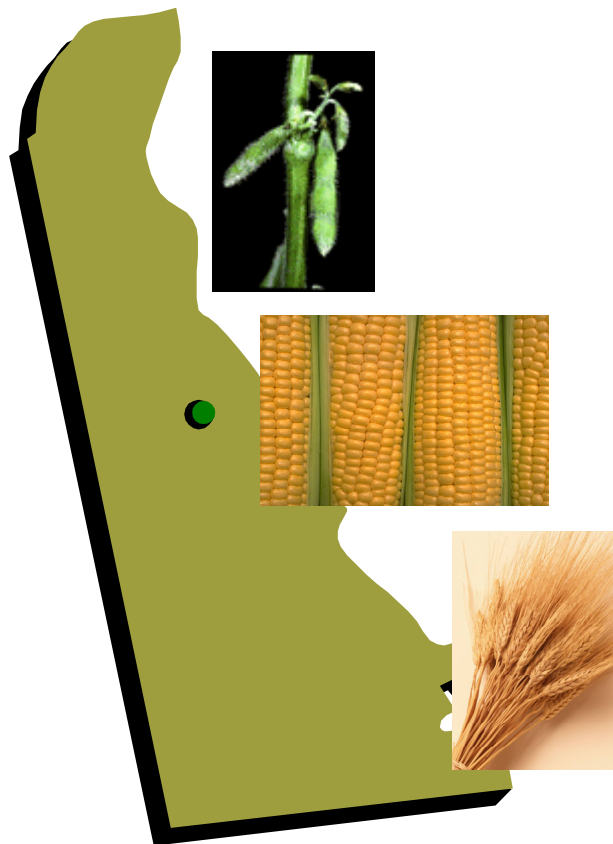


# THE HISTORICAL BASIS RECORD FOR GRAIN AND SOYBEANS IN DELAWARE; MARKETING YEARS 1999/00 TO 2003/04

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November 28, 2004



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## Acknowledgments

The authors would like to thank the Delaware Soybean Board for providing partial funding for this project. We also would like to recognize the Agriculture Statistics Service in Annapolis, Maryland for contributing the data used in the project. A word of thanks is also in order to the Delaware Statistical Office for providing corn and soybean production data.

## Prelude

Basis is used in the grain marketing industry as a guide in making all grain marketing decisions. Historical basis records for given geographical locations should be updated periodically. The historical basis record for the most recent three to five year period is necessary to effect grain marketing decisions. This publication updates the historical basis record for corn, soybeans, and wheat for the 1999/00 to 2003/04 Marketing Years.

The following can be used in effecting current grain marketing decisions:

- *Five-year average basis table summaries for Northern and Southern Eastern Shore Corn can be found on pages 18 and 24. Corresponding graphical illustrations are given on pages 59 and 65.*
- *Five-year average basis table summaries for Northern and Southern Eastern Shore Soybeans can be found on pages 30 and 36. Corresponding graphical illustrations are given on pages 71 and 77.*
- *Five-year average basis table summaries for Northern and Southern Eastern Shore Wheat can be found on pages 42 and 48. Corresponding graphical illustrations are given on pages 83 and 89.*

The average basis summaries are relevant in making current grain marketing decisions. The summary tables can be used in determining which marketing alternative to use and in timing sales decisions. For more information on “How to use Basis in Effecting Grain Marketing Decisions” refer to The Farmers Grain Marketing Guide, ER04-01 <http://ag.udel/departments/frec/PUBS/>.

An historical perspective of the change in basis for Eastern Shore Corn, Soybeans, and Wheat can be found on pages 90 to 93.

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## **I. Introduction**

Basis is a key component of all grain marketing and sales decisions. It is the difference between the cash (spot) price and a futures market price at the time and place where delivery is to take place. In the case of grains, the futures price generally refers to the price quoted for a specific delivery month for a commodity at the Chicago Board of Trade. Familiarity with the basis usually lies within a description of the term and a method for tracking or recording it for various locations. Basis is used in the grain marketing industry as a guide in making marketing decisions.

Basis is important to grain and soybean farmers in that it affects and is involved in every grain sale and purchase decision. Recent estimates suggest that the value of the movement in the basis in Delaware is anywhere from \$4.0 to \$12.0 million annually.

The historical basis record is necessary to assist Delaware farmers in profitably marketing grain and soybeans in their attempt to capture as much of the basis value as possible. This publication provides information on the historical basis record for the five most recent marketing years (1999/00 to 2003/04).

## **II. Objectives**

- To update and analyze historical corn, soybean, and wheat basis records for the Northern and Southern Eastern Shore.
- To develop basis tables for the 1999/00 to 2003/04 marketing years.
- To graphically illustrate and analyze the change in basis, for the 1999/00 to 2003/04 marketing years.
- To indicate the use of basis in making grain marketing decisions.
- To provide an historical overview of the change in basis from 1970 to 2003.

### **III. Procedure**

Cash and futures prices were obtained from the Maryland Grain & Livestock Report for the Marketing Years 2003/04. Basis tables were utilized for the Marketing Years 1999/00, 2000/01, 2001/02 and 2002/03 from a previous report published in May 2002 (German, Towle, Tuttle 2003) to obtain the current basis averages for the Eastern Shore. Basis analysis, tables and graphs were completed utilizing Microsoft Excel.

Historical basis tables were used to compile the Eastern Shore basis for corn, soybeans, and wheat in their respective harvest months from 1970 to 2003 (P. 49 to 52). Graphical illustrations of the change in basis over the past thirty-three years can be found on pages 90 to 93 (Figures D1; D2; and D3).

### **IV. How to Use the Basis Tables; An Example**

1. Select the appropriate table for the commodity and year in question (Table A-6: Northern Eastern Shore Average Corn Basis; Marketing Years 1999/00-2003/04).
2. Choose the futures contract month (across the top) in which you wish to hedge, forward contract, or make the cash (spot) sale; for example, December futures.
3. Choose the month (left margin) in which the hedge, forward contract or spot sale is to be made; for example, December.
4. The figure corresponding to the contract month and calendar month will be the correct historical basis to use in effecting the grain marketing decision being considered; for example, the basis for Northern Eastern Shore December Corn futures and the December calendar month is \$.14/ bushel (14 over the Dec) Table A-6.
5. The tables can be used as a guide in calculating returns to both the storage and production hedge. Technical assistance in using the tables can be obtained by

contacting Carl German, Extension Specialist, Marketing, University of Delaware  
[clgerman@udel.edu](mailto:clgerman@udel.edu) or 302-831-1317.

*Note: Five-year average basis table summaries for Northern and Southern Eastern Shore Corn can be found on pages 18 and 24. Corresponding graphical illustrations are given on pages 59 and 65.*

*Five-year average basis table summaries for Northern and Southern Eastern Shore Soybeans can be found on pages 30 and 36. Corresponding graphical illustrations are given of pages 71 and 77.*

*Five-year average basis table summaries for Northern and Southern Eastern Shore Wheat can be found on pages 42 and 48. Corresponding graphical illustrations are given on pages 83 and 89.*

## **V. Analysis of The Northern and Southern Eastern Shore Basis for Corn, Soybeans, and Wheat; Marketing Years 1999/00 to 2003/04**

### ***Northern Eastern Shore Corn Basis***

- The Northern Eastern Shore average new crop corn basis for the Marketing Years 1999/00 to 2003/04 was 14 cents over the Dec future (ranging from 25 cents under to 39 cents over) Table A-6.
- The strongest basis offering occurred in the 2002/03 Marketing Year at 39 cents over December (Table A-4).
- The weakest basis offering occurred in the 2000/01 Marketing Year at 25 under Dec (Table A-2).

Observations: The average corn basis offering for the Northern Eastern Shore improved 64 cents per bushel (from 25 under to 39 over) for December futures from the 1999/00 Marketing Year to the 2003/04 Marketing Year.

Overall basis averages did not change significantly from the previous report. When comparing Table A-6 to Table A-6 of the previous report, 23 of the averages were stronger, while 6 were weaker and 8 remained unchanged (German, Towle, Tuttle 2003), depicting a very slight strengthening in the corn basis. The two most recent marketing years (2002/03 and 2003/04) had

an overall stronger basis for every contract than the average in the previous report.

### ***Southern Eastern Shore Corn Basis***

- The Southern Eastern Shore average new crop corn basis for the Marketing Years 1999/00 to 2003/04 was 26 cents over the Dec (ranging from 0 (even) to 48 over) Table A-12.
- The strongest basis offering for the Southern Eastern Shore occurred in the 2002/03 Marketing Year, at 48 cents over the Dec (Table A-11).
- The weakest basis offering for the Southern Eastern Shore occurred in the 2000/01 Marketing Year, at 0 (even) Dec (Table A-8).

Observation: The average basis offering for the Southern Eastern Shore 2003/04 Marketing Year, decreased 17 cents per bushel from the 2002/03 Marketing Year (from 48 over to 31 over).

Table A-12 shows an overall strengthening in basis, from Table A-12 of the previous report (German, Towle, Tuttle 2003). The 2003/04 Marketing Year for Southern Eastern Shore Corn (Table A-11) had an overall higher basis recording when compared to the average basis for the same contracts in the Marketing Years 1998/99 through 2002/03.

### ***Northern Eastern Shore Soybean Basis***

- The Northern Eastern Shore average new crop soybean basis for the Marketing Years 1999/00 to 2003/04 was 30 cents under Nov (ranging from 44 under to 8 under) Table A-18.
- The strongest basis offering for Northern Eastern Shore soybeans occurred in the 1999/00 Marketing Year at 8 cents under the Nov (Table A-13).

- The weakest basis offering for Northern Eastern Shore soybeans occurred in the 2000/01 marketing year at 44 under the Nov (Table A-14).

Observations: There was a 36 cent per bushel weakening in the average basis offering for Nov soybeans from the 1999/00 Marketing Year to the 2000/01 Marketing Year.

Table A-18 shows an overall decline in basis, from the previous report's Table A-18 (German, Towle, Tuttle 2003). The 2003/04 Marketing Year for Northern Eastern Shore Soybeans (Table A-17) had weaker basis offerings for almost all contracts when compared to the average basis for the same contracts in the Marketing Years 1998/99 through 2002/03 (Table A-18 from the previous report).

### ***Southern Eastern Shore Soybean Basis***

- The Southern Eastern Shore average new crop soybean basis for the Marketing Years 1999/00 through 2003/04 was 19 under the Nov (ranging from 42 under to 10 cents over) Table A-24.
- The strongest offering for the Southern Eastern Shore soybean basis occurred in the 2002/03 Marketing Year at 10 cents over the Nov (ranging from 9 over to 11 over) Table A-22.
- The weakest soybean basis offering for the Southern Eastern Shore occurred in the 2000/01 Marketing Year, at 42 under the Nov (Table A-21).

Observations: The November basis improved 52 cents/bushel from the 2000/01 to the 2002/03 Marketing Year, and dropped in the 2003/04 marketing year by 43 cents per bushel.

Table A-24 also shows the basis strengthening, when compared to the previous report's Table A-24 (German, Towle, Tuttle 2003). The 2001/02 Marketing Year for Southern Eastern Shore Soybeans (Table A-23) had a stronger basis for almost all contracts when compared to the average basis for the same contracts in the Marketing Years 1998/99 through 2002/03 (Table A-24 from the previous report).

### ***Northern Eastern Shore Wheat Basis***

- The Northern Eastern Shore new crop wheat basis averaged 23 cents per bushel under July (ranging from 29 under to 11 under) (Table A-30).
- The strongest basis offering was recorded at 11 cents under July, during the 2000/01 Marketing Year (Table A-26).
- The weakest basis offering occurred during the 2003/04 Marketing Year at 29 cents under July (Table A-29).

Observations: The average Northern Eastern Shore wheat basis for July delivery improved from the 2000/01 to 2003/04 Marketing Year by 18 cents per bushel.

Table A-30 shows a stronger overall basis than the previous report's Table A-30 (German, Towle, Tuttle 2003). The 2003/04 Marketing Year for Northern Eastern Shore Wheat (Table A-29) had stronger basis offerings for the March and May futures contract months when compared to the average basis for the same contracts in the Marketing Years 1999/00 through 2002/03 (Table A-30 from the previous report). The basis for the futures contract months of July, September, and December were found to be weaker. In the 2003/04 basis analysis there were many N/A prices for unverified reasons.

### ***Southern Eastern Shore Wheat Basis***

- The Southern Eastern Shore new crop wheat basis averaged 24 under the July for the Marketing Years 1999/00 through 2003/04 ( ranging from 28 under to 20 under) Table A-36.
- The strongest basis offering occurred at 20 under the July during the 2002/03 Marketing Year (Table A-34).

Observations: The basis improved 8 cents per bushel for July futures, between the 2001/02 and 2002/03 marketing years and decreased by 4 cents per bushel in the 2003/04 marketing year.

In Table A-36, the overall average basis is slightly stronger than the previous report's Table A-36 (German, Towle, Tuttle 2003). The 2003/04 Marketing Year for Southern Eastern Shore Wheat (Table A-35) had weaker average basis in comparison to the 1998/99 – 2002/03 study. Once again there were more N/A prices compared to previous years of the basis analysis.

## **VI. Summary and Conclusions**

### **Corn Basis Analysis**

Observations regarding the use of basis in making grain sales decisions; Marketing Years 1999/2000 to 2003/2004 are as follows:

- The basis for both Northern and Southern Eastern Shore corn generally depicts an improving pattern from the October, November, December harvest delivery months to the March, May, and July storage months (Figures C-6 and C-12).
- An improving basis is beneficial to grain marketers in utilizing hedging and options on futures pricing strategies when those strategies are deemed appropriate.

- An improving basis can be beneficial to grain marketers in utilizing the No Price Established (NPE) contract in the cash market.
- The Northern Eastern Shore corn early harvest basis for September delivery has averaged 20 over Dec for the past five marketing years, ranging from 10 over to 35 over. This is generally indicative that an early harvest cash grain sale is warranted.
- An extremely strong basis for Northern Eastern Shore Dec corn futures similar to that occurring in the 1999/00, 2002/03, and 2003/04 marketing years, is generally indicative that a harvest sale is warranted.
- The Southern Eastern Shore corn early harvest basis for September delivery has averaged 27 over Dec for the past 5 marketing years, ranging from 17 over to 49 over. This is generally indicative that an early harvest cash grain sale is warranted.
- An extremely strong basis for Southern Eastern Shore Dec corn futures similar to that occurring in the 1999/00, 2002/03, and 2003/04 marketing years is generally indicative that a harvest sale is warranted.

### **Soybean Basis Analysis**

- The Northern and Southern Eastern Shore soybean basis generally depicts an improving pattern from the harvest delivery months (September, October, November, December) to the March storage month. The May and July basis is generally weaker after the month of June (Figures C-18 and C-23).
- A strong basis for Northern Eastern Shore harvest delivered soybeans is similar to that occurring in the 1999/00 and 2002/03 marketing years, ranging from 8 under to 1 over Nov futures.

- A strong basis for Southern Eastern Shore harvest delivered soybeans is similar to that which occurred in the 1999/00 and 2002/03 marketing years, ranging from 1 over to 11 over Nov futures.
- Basis bids that are equal to or better than those termed as strong above are likely to be indicative that harvest sales are warranted.

### **Wheat Basis Analysis**

- The Northern and Southern Eastern Shore wheat basis generally depicts an improving pattern from the June and July delivery months to the September, December, March, and May storage months (Figures C-30 and C-36).
- An improving basis pattern over time can be indicative that storing the commodity at harvest, hedging it, and selling into one of the future storage months will pay.
- A strong basis for Northern and Southern Eastern Shore harvest delivered wheat similar to that occurring in the 2000/01 marketing year (11 under and 22 under July) is likely to indicate that a harvest sale is warranted.

### ***Basis in Summary***

Basis is simply the price difference between the local cash price of grain and the nearby futures price. Anyone in the grain trade, buying or selling, has two basic factors that ultimately determine the final sale or purchase price of a commodity; the futures price and the basis. The futures price is a market projection of how current world fundamentals will affect the supply and demand for a commodity in the near and distant future. It's the price agribusinesses use as a benchmark to gauge cash bids and offers for commodities at the local level. All grain sales and purchase decisions involve the basis.

Profits can be improved considerably when marketing grain by learning to use basis as a key indicator in all grain sales decisions.

**VII. Historical Analysis of the Change in the Eastern Shore Basis for Corn, Soybeans, and Wheat; Marketing Years 1970 – 2003.**

***Eastern Shore Corn Basis***

- According to the harvest month historical basis for December corn; the basis has on average been on a rise for the past 33 years from 79 under in 1970 to a high of 44 over in 2002.
- With many ups and downs the average Eastern Shore Corn Basis, has been on a steady climb since 1970 (Figure D-1, P. 91).

***Eastern Shore Soybean Basis***

- According to the harvest month historical basis for November soybeans; the average basis has been on a decline for the past 33 years ranging from a high of 69 over in 1974 to a low of 43 under in 2000.
- Much like corn, with many ups and downs, the average Eastern Shore soybean basis has been on a steady decline since 1970 (Figure D-2, P. 92).

***Eastern Shore Wheat Basis***

- According to the harvest month historical basis for July wheat; the average basis has been on a steady increase for the past 8 years. Prior to 1996 the wheat basis was not recorded. The lowest recording for the wheat basis was in 1996 at 38 under the July. The average wheat basis reached its highest level of 17 under July in 2000.
- The wheat basis has steadily increased from 1996 to 2000 (Figure D-3, P. 93).

**VIII.**

**Appendix A: Basis Tables for Corn, Soybeans, and Wheat; Marketing  
Years 1999/00 to 2003/04**

Table A-12: Southern Eastern Shore Average Corn Basis; Marketing Years 1999/00-2003/04

Month	Futures Contracts				
	September	December	March	May	July
	dollars/bu				
August	0.26 (.17 to .39)	0.15 (.08 to .26)	0.05 (-.03 to .18)	0.00 (-.10 to .16)	-0.05 (-.18 to .16)
September	0.27 (.17 to .44)	0.13 (0 to .31)	0.03 (-.12 to .25)	-0.02 (-.19 to .22)	-0.06 (-.26 to .23)
October		0.09 (-.14 to .41)	0.00 (-.26 to .35)	-0.06 (-.33 to .32)	-0.11 (-.39 to .31)
November		0.20 (-.13 to .45)	0.11 (-.25 to .42)	-0.05 (-.33 to .40)	0.00 (-.40 to .39)
December		0.26 (0 to .48)	0.19 (-.13 to .45)	0.13 (-.21 to .43)	0.09 (-.28 to .40)
January			0.26 (.01 to .47)	0.20 (-.07 to .44)	0.14 (-.14 to .41)
February			0.31 (.05 to .53)	0.24 (-.03 to .5)	0.19 (-.11 to .48)
March			0.32 (.06 to .53)	0.28 (0 to .53)	0.22 (-.08 to .52)
April				0.31 (.24 to .53)	0.25 (.09 to .52)
May				0.35 (.28 to .45)	0.29 (.09 to .49)
June					0.35 (.27 to .47)
July					0.39 (.08 to .70)

Source: University of Delaware

Basis = Cash - Futures

Table A-2: Northern Eastern Shore Corn Basis; Marketing Year 2000-2001

Month	Futures Contract				
	September	December	March-01	May-01	July-01
	dollars/bu				
August	0.09 (.05 to .12)	-0.03 (-.07 to 0)	-0.15 (-.19 to -.12)	-0.23 (-.27 to -.20)	-0.31 (-.40 to -.27)
September	0.10 (.10 to .10)	-0.09 (-.21 to 0)	-0.21 (-.33 to -.12)	-0.28 (-.40 to -.19)	-0.35 (-.47 to -.26)
October		-0.21 (-.28 to -.14)	-0.31 (-.39 to -.24)	-0.39 (-.46 to -.33)	-0.47 (-.54 to -.40)
November		-0.30 (-.40 to -.22)	-0.41 (-.51 to -.34)	-0.49 (-.59 to -.42)	-0.56 (-.66 to -.49)
December		-0.25 (-.25 to -.25)	-0.32 (-.37 to -.26)	-0.39 (-.44 to -.33)	-0.47 (-.52 to -.41)
January			-0.11 (-.17 to -.04)	-0.19 (-.25 to -.12)	-0.27 (-.32 to -.20)
February			-0.11 (-.13 to -.10)	-0.19 (-.21 to -.18)	-0.27 (-.29 to -.26)
March			-0.10 (-.10 to -.10)	-0.16 (-.20 to -.09)	-0.24 (-.28 to -.17)
April				-0.01 (-.07 to .11)	-0.08 (-.15 to .03)
May				0.16 (.16 to .16)	-0.04 (-.45 to .14)
June					0.05 (-.02 to .11)
July					-0.15 (-.15 to -.15)

Source: University of Delaware

Basis = Cash - Futures

Table A-12: Southern Eastern Shore Average Corn Basis; Marketing Years 1999/00-2003/04

Month	Futures Contracts				
	September	December	March	May	July
	dollars/bu				
August	0.26 (.17 to .39)	0.15 (.08 to .26)	0.05 (-.03 to .18)	0.00 (-.10 to .16)	-0.05 (-.18 to .16)
September	0.27 (.17 to .44)	0.13 (0 to .31)	0.03 (-.12 to .25)	-0.02 (-.19 to .22)	-0.06 (-.26 to .23)
October		0.09 (-.14 to .41)	0.00 (-.26 to .35)	-0.06 (-.33 to .32)	-0.11 (-.39 to .31)
November		0.20 (-.13 to .45)	0.11 (-.25 to .42)	-0.05 (-.33 to .40)	0.00 (-.40 to .39)
December		0.26 (0 to .48)	0.19 (-.13 to .45)	0.13 (-.21 to .43)	0.09 (-.28 to .40)
January			0.26 (.01 to .47)	0.20 (-.07 to .44)	0.14 (-.14 to .41)
February			0.31 (.05 to .53)	0.24 (-.03 to .5)	0.19 (-.11 to .48)
March			0.32 (.06 to .53)	0.28 (0 to .53)	0.22 (-.08 to .52)
April				0.31 (.24 to .53)	0.25 (.09 to .52)
May				0.35 (.28 to .45)	0.29 (.09 to .49)
June					0.35 (.27 to .47)
July					0.39 (.08 to .70)

Source: University of Delaware

Basis = Cash - Futures