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**THE HISTORICAL BASIS RECORD FOR GRAIN AND SOYBEANS IN  
DELAWARE; MARKETING YEARS 1996/97 to 2000/01**

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May 31, 2002



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**ER02-02**

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By

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**I. Introduction**

Basis is a key component to 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 specified 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 effects 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 between \$3.6 to \$10.8 million, annually. The historical basis record is necessary to assist Delaware farmers in profitably marketing

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grain and soybeans in order to capture as much of the basis value as possible. The purpose of this project is to provide information by updating and comparing the historical basis record for the five most recent marketing years (1996/97 to 2000/01).

## **II. Objectives:**

- To update historical basis records for soybeans for the Northern and Southern Eastern Shore.<sup>4</sup>
- To develop basis tables for the 1996/97 to 2000/01 marketing years.
- To graphically illustrate and analyze the change in basis, for the 1996/97 to 2000/01 marketing years.
- To compare Mid-Western soybean prices to Mid-Atlantic average soybean prices over the past three marketing years.
- To evaluate how the LDP is affected by spot pricing and the implications to Mid-Atlantic soybean prices.

## **III. Procedure**

Cash and futures prices were obtained from the Maryland Grain & Livestock Report. Basis analysis, tables and graphs were completed utilizing Microsoft Excel.

## **IV. Using Basis in Making Grain Marketing Decisions**

Basis is a common term to anyone involved in the grain industry whether they are a farmer, grain merchandiser, miller, processor, grain broker, futures trader, etc. It is the

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<sup>4</sup>Historical Tables for corn and wheat are also included.

difference between the local cash price and the futures price of a particular commodity (basis = cash – futures).

The futures price is established in open bidding at the Chicago Board of Trade (corn, soybeans, and wheat), The Kansas City Board of Trade (wheat), and the Minneapolis Grain Exchange (spring wheat). Locally, basis bid by grain buyers (end users and second handlers) is affected by many factors. The factors vary from time to time, and all of the factors are not necessarily reflected in a specific basis bid on a given day. Generally, buyers have a particular use for the commodity e.g., poultry feed, livestock feed, and/or export.

It takes large volumes of grain to be able to affect many of the grain marketing alternatives that are available to the farmer and to the industry as a whole. It also takes large volumes of grain to be able to affect a basis offer. Better basis bids are sometimes given for large sales volumes. The level of basis bids being offered can and often do move or adjust frequently. Basis is used throughout the grain industry as an indicator in purchasing or selling grain and soybeans.

Farmers typically use the basis as their decision indicator to determine the best time to buy and sell grains, the type of marketing alternative to use (futures, options, or a cash sale), and when to accept a supplier's offer or a buyer's bid. Buyers use the basis to determine the cash price that they are willing to offer on a given day and as an indicator

to suppliers/sellers as to when the best and worst times might be for them to receive the grain.

### *Basis Tables Described*

The grain trade typically refers to the basis as being over or under futures, e.g. 30 under the Dec, meaning that the cash price is 30 cents below the December futures price. This is illustrated as a negative number (-30) in a basis table. Conversely, if one receives a bid from a grain dealer specified as 30 over Dec, this means that the cash price is 30 cents above the December futures price. This is illustrated in basis tables as a positive number.

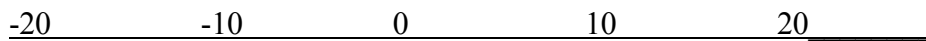
The basis estimates in the tables in this study are computed using weekly (Thursday) cash and futures prices. Cash prices were taken from the Maryland Feed and Grain Report, and futures prices are taken from the Chicago Board of Trade Statistical Annuals.

### *Basis Movement*

Basis changes as the factors affecting cash and/or futures markets change. The two terms that are commonly used to describe a changing basis are strengthening and weakening. If basis becomes more positive or less negative, the basis is said to be strengthening; and if the basis becomes less positive or more negative, the basis is said to be weakening (Figure 1). A strengthening basis occurs when the cash price increases relative to the futures. In this instance, the cash price is becoming stronger relative to the

futures. A weakening basis occurs when the cash price decreases relative to the futures. In this case, the cash price is becoming weaker relative to the futures.

*Figure 1. Basis Strengthens*



The basis becomes more positive (moving from left to right).

### *Factors That Affect The Basis*

The factors that may have an affect on the basis are many and can vary greatly from year to year. These factors will vary from one location to another, as basis varies from one location to the next. Typically, they include:

- 1) Supply and demand - Basis is typically stronger in a given location if the available supply is scarce relative to demand. It is generally weaker when an area is experiencing ample or abundant production relative to demand.
- 2) Transportation – The availability and costs of transporting the crop at harvest or during the marketing season can affect the basis. On the Eastern Shore, rail rates and shipping rates can affect the basis.
- 3) Storage availability – If storage space is committed or demand for storage exceeds the supply available, the basis will weaken.
- 4) Storage costs – Are generally affected by the cost of money and the general rate of inflation. If either increases, the basis will weaken.
- 5) Seasonality of harvest – a short harvest season coupled with a large harvest can cause the basis to weaken.

- 6) Location differences – Moving grain from point A to B costs money and long hauls are expensive. Grain that is grown closest to an end use buyer typically has a stronger basis offer than that which has to be hauled to the point of use. In Delaware, we have typically seen a stronger basis offered for the Southern Eastern Shore as compared to the Northern Eastern Shore, a direct result of this factor.
- 7) Protein supply/crop condition – Grain crops sometimes have quality problems that can cause the basis to weaken.
- 8) Consolidation – Has become common to almost every U.S. industry, particularly within the last decade. End users such as exporters, grain dealers, and poultry processors are likely to become fewer and larger in the future. As the grain industry consolidates, the basis is likely to weaken over time.
- 9) Stockpiling – Placing grain on the ground is expensive and adds costs to handling. This will weaken the basis.
- 10) Uncertainty/psychology – From time to time, grain buyers are faced with conflicting crop reports or other pending reports that can cause surges in grain prices. At those times buyers are likely to take protection, which tends to widen the basis for short periods of time.

Basis, the relationship between cash and futures prices, tends to be fairly steady while prices often fluctuate greatly. For example, the December corn basis for the Northern Eastern Shore fluctuated by a total of 70 cents per bushel over the last five marketing years, while cash prices moved more than \$2.12 per bushel.

### *Basis History*

The ability to evaluate whether a particular bid or offer is competitive depends on basis history. Even though prices can vary greatly from year to year, the basis typically does not change dramatically and generally is predictable based upon historical patterns.

### *Putting Basis to Work*

Knowing the usual basis and basis patterns for commodities that are bought and sold will help one to make informed grain marketing decisions. Basis is used regularly by grain traders for a variety of reasons:

- *To accept or reject a given price*

Historical basis information can help to decide if a particular cash bid offer is attractive, or whether it is better to hedge the price risk and wait for the basis to improve.

- *To decide which buyer or seller to use*

Cash market bids and offers reflect different basis levels. Grain sellers need to check around to see which buyer or supplier is bidding or offering the most attractive basis, which is likely to translate into the most attractive price.

- *When to sell, store, or purchase a crop*

Does the current price offer reflect the average basis or is it stronger or weaker than normal?

- *When to "lift" a hedge*

If the basis has improved to equal the estimated basis level or better, it could be a sign to offset or lift the hedge.



- *Whether, when, and in what delivery month to sell or hedge*

Is the basis quoted for a deferred futures contract month more attractive than the nearby futures month?

- *When and how to turn an unusual basis situation into a possible profit opportunity*

Merchandisers and basis traders manage basis levels. Unusual basis patterns can be used to improve profit margins or avoid losses while maintaining bids and offers at competitive levels.

Historical basis information for corn, soybeans, and wheat for the past five marketing years are given in Tables 1-36 for the Northern and Southern Eastern Shore.

## **V. Analysis of The Northern and Southern Eastern Shore Basis for Soybeans, Corn and Wheat for Selected Marketing Years**

### *Northern Eastern Shore Corn Basis*

- The Northern Eastern Shore Average Corn Basis for the Marketing Years 1996/97 to 2000/01 was 11 under the Dec (ranging from 25 under to 29 over) (Table A-6).
- The strongest basis offerings occurred in the 1999/00 Marketing Year at 29 over the Dec (Table A-4).
- The weakest basis offerings for the Northern Eastern Shore occurred in the 2000/01 Marketing Year at 25 under the Dec (Table A-5).

Observations: The average basis offering declined 54 cents per bushel from the 1999/00 Marketing Year to 2000/01, representing a 14 cent decline in the per bushel basis offering from the average.

### *Southern Eastern Shore Corn Basis*

- The Southern Eastern Shore Average Corn Basis for the Marketing Years 1996/97 to 2000/01 was 22 over the Dec (ranging from 0 even to 38 over) (Table 12).
- The strongest basis offering occurred in the 1999/00 Marketing Year at 38 over the Dec (Table A-10).
- The weakest basis offering occurred in the 2000/01 Marketing Year at 0 even with the Dec (Table A-11).

Observations: The average basis received by Delaware farmers in the 2000/01 Marketing Year declined 38 cents per bushel from 1999/00, representing a 22 cent per bushel decline from the average.

### *Northern Eastern Shore Soybean Basis*

- The Northern Eastern Shore Average Soybean Basis for the Marketing Years 1996/97 to 2000/01 was 22 under the Nov (ranging from 8 under to 44 under) (Table A-18).
- The strongest basis offering for Northern Eastern Shore new crop soybeans occurred in the 1999/00 Marketing Year at 8 under the Nov (Table A-16).
- The weakest basis offering for Northern Eastern Shore new crop soybeans occurred in the 2000/01 Marketing Year at 44 under the Nov (Table A-17).

Observations: There was a 36 cent per bushel decline in the basis offering for soybeans from the 1999/00 Marketing Year to 2000/01, representing a 22 cent decline in the basis from the average.

### *Southern Eastern Shore Soybean Basis*

- The Southern Eastern Shore Average Soybean Basis for the Marketing Years 1996/97 to 2000/01 was 16 under the Nov (ranging from 2 over to 42 under) (Table A-24).

- The strongest Southern Eastern Shore basis offering occurred in the 1999/00 Marketing Year at 2 over the Nov (ranging from 1 to 4 over) (Table A-22).
- The weakest Southern Eastern Shore basis offering occurred in the 2000/01 Marketing Year at 42 under the Nov (Table A-23).

Observations: The basis declined 40 cents per bushel from the 1999/00 Marketing Year to 2000/01, representing a 24 cent per bushel decline in the basis from the average.

#### *Northern Eastern Shore Wheat Basis*

- The Northern Eastern Shore Wheat basis averaged 30 under for the Marketing Years 1996/97 to 2000/01 (ranging from 11 under to 43 under the July) (Table A-30).
- The strongest basis offering for Northern Eastern Shore new crop wheat occurred in the 2000/01 Marketing Year at 11 under the July (Table A-29).
- The weakest basis offering for Northern Eastern Shore new crop wheat occurred in the 1996/97 Marketing Year at 43 under the July (ranging from 38 to 46 under) (Table A-25).

Observations: The Northern Eastern Shore Wheat Basis has improved during the time period.

#### *Southern Eastern Shore Wheat Basis*

- The Southern Eastern Shore wheat basis averaged 31 under the July for the Marketing Years 1996/97 to 2000/01 (ranging from 22 to 38 under) (Table A-36).
- The strongest basis offering for Southern Eastern Shore new crop wheat occurred in 2000/01 at 22 under the July (Table A-35).
- The weakest basis offering for Southern Eastern Shore new crop wheat occurred in 1997/98 at 38 under the July (ranging from 37 to 42 under) (Table A-32).

Observations: Basis offerings for wheat delivered during the storage months for the Marketing Years 1996/97 to 2000/01 are noted as being extremely weak, making individual farmer profits difficult to achieve for storing wheat.

**VI. Table 1: How Cash Price Received vs. PCP Effects Loan Deficiency**

Date	Northern Eastern Shore			Southern Eastern Shore		
	Cash Price Received	PCP	Difference	Cash Price Received	PCP	Difference
2-Aug-2000	4.34	4.31	0.03	4.41	4.31	0.10
9-Aug-2000	4.29	4.34	-0.05	4.36	4.34	0.02
16-Aug-2000	4.50	4.43	0.07	4.57	4.43	0.14
23-Aug-2000	4.43	4.42	0.01	4.49	4.42	0.07
30-Aug-2000	4.67	4.63	0.04	4.72	4.63	0.09
6-Sep-2000	4.68	4.76	-0.08	4.75	4.76	-0.01
13-Sep-2000	4.73	4.67	0.06	4.82	4.67	0.15
20-Sep-2000	4.61	4.41	0.20	4.68	4.41	0.27
27-Sep-2000	4.69	4.54	0.15	4.76	4.54	0.22
4-Oct-2000	4.61	4.43	0.18	4.66	4.43	0.23
11-Oct-2000	4.50	4.48	0.02	4.51	4.48	0.03
18-Oct-2000	4.35	4.32	0.03	4.39	4.32	0.07
25-Oct-2000	4.36	4.42	-0.06	4.38	4.42	-0.04
1-Nov-2000	4.30	4.30	0.00	4.32	4.30	0.02
8-Nov-2000	4.40	4.47	-0.07	4.43	4.47	-0.04
15-Nov-2000	4.36	4.51	-0.15	4.41	4.51	-0.10
21-Nov-2000	4.46	4.64	-0.18	4.48	4.64	-0.16
29-Nov-2000	4.57	4.77	-0.20	4.59	4.77	-0.18
6-Dec-2000	4.64	4.79	-0.15	4.65	4.79	-0.14
13-Dec-2000	4.64	4.88	-0.24	4.66	4.88	-0.22
20-Dec-2000	4.67	4.93	-0.26	4.68	4.93	-0.25
27-Dec-2000	4.59	4.91	-0.32	4.59	4.91	-0.32
3-Jan-2001	4.69	4.79	-0.10	4.62	4.79	-0.17
10-Jan-2001	4.57	4.77	-0.20	4.59	4.77	-0.18
17-Jan-2001	4.43	4.57	-0.14	4.43	4.57	-0.14
24-Jan-2001	4.43	4.52	-0.09	4.54	4.52	0.02
31-Jan-2001	4.42	4.45	-0.03	4.55	4.45	0.10
7-Feb-2001	4.54	4.52	0.02	4.60	4.52	0.08
14-Feb-2001	4.42	4.37	0.05	4.54	4.37	0.17
21-Feb-2001		4.41			4.41	
28-Feb-2001	4.44	4.38	0.06	4.52	4.38	0.14
7-Mar-2001	4.51	4.40	0.11	4.61	4.40	0.21
14-Mar-2001	4.36	4.34	0.02	4.40	4.34	0.06
21-Mar-2001	4.29	4.21	0.08	4.41	4.21	0.20
28-Mar-2001	4.27	4.28	-0.01	4.38	4.28	0.10
4-Apr-2001	4.20	4.08	0.12	4.32	4.08	0.24
11-Apr-2001	4.20	4.09	0.11	4.32	4.09	0.23
18-Apr-2001	4.19	4.10	0.09	4.30	4.10	0.20
25-Apr-2001	4.07	4.08	-0.01	4.15	4.08	0.07
2-May-2001	4.16	4.17	-0.01	4.36	4.17	0.19
9-May-2001	4.23	4.30	-0.07	4.37	4.30	0.07
16-May-2001	4.29	4.42	-0.13	4.44	4.42	0.02
23-May-2001	4.28	4.33	-0.05	4.40	4.33	0.07
30-May-2001	4.22	4.26	-0.04	4.35	4.26	0.09
6-Jun-2001	4.45	4.39	0.06	4.58	4.39	0.19
13-Jun-2001	4.54	4.59	-0.05	4.67	4.59	0.08
20-Jun-2001	4.46	4.55	-0.09	4.59	4.55	0.04

20-Jun-2001	4.46	4.55	-0.09	4.59	4.55	0.04
27-Jun-2001	4.27	4.44	-0.17	4.38	4.44	-0.06
4-Jul-2001	4.51	4.75	-0.24	4.59	4.75	-0.16
11-Jul-2001	4.77	4.95	-0.18	4.81	4.95	-0.14
18-Jul-2001	4.83	5.14	-0.31	4.88	5.14	-0.26
25-Jul-2001	4.77	4.89	-0.12	4.83	4.89	-0.06
1-Aug-2001	4.74	4.97	-0.23	4.79	4.97	-0.18
8-Aug-2001	4.67	4.94	-0.27	4.76	4.94	-0.18
15-Aug-2001	4.76	5.02	-0.26	4.84	5.02	-0.18
22-Aug-2001	4.50	4.83	-0.33	4.59	4.83	-0.24
29-Aug-2001	4.49	4.67	-0.18	4.56	4.67	-0.11
5-Sep-2001		4.68			4.68	
12-Sep-2001		4.58		4.35	4.58	-0.23
19-Sep-2001	4.30	4.56	-0.26	4.41	4.56	-0.15
26-Sep-2001	4.28	4.43	-0.15	4.36	4.43	-0.07
3-Oct-2001	4.17	4.25	-0.08	4.23	4.25	-0.02
10-Oct-2001	4.13	4.23	-0.10	4.19	4.23	-0.04
17-Oct-2001	3.96	4.07	-0.11	4.05	4.07	-0.02
24-Oct-2001	3.87	3.92	-0.05	3.97	3.92	0.05
31-Oct-2001	3.91	4.03	-0.12	4.00	4.03	-0.03
7-Nov-2001		3.93			3.93	
14-Nov-2001	4.06	4.04	0.02	4.13	4.04	0.09
21-Nov-2001	4.09	4.15	-0.06	4.17	4.15	0.02
28-Nov-2001	4.01	4.12	-0.11	4.12	4.12	0.00
5-Dec-2001	4.11	4.30	-0.19	4.21	4.30	-0.09
12-Dec-2001	4.03	4.25	-0.22	4.16	4.25	-0.09
19-Dec-2001	4.10	4.12	-0.02	4.23	4.12	0.11
26-Dec-2001	4.03	4.20	-0.17	4.16	4.20	-0.04
2-Jan-2002	3.95	4.06	-0.11	4.12	4.06	0.06
9-Jan-2002	4.19	4.20	-0.01	4.31	4.20	0.11
16-Jan-2002	4.38	4.31	0.07	4.46	4.31	0.15
23-Jan-2002	4.17	4.26	-0.09	4.29	4.26	0.03
30-Jan-2002	4.08	4.16	-0.08	4.25	4.16	0.09
6-Feb-2002	4.13	4.19	-0.06	4.26	4.19	0.07
13-Feb-2002	4.26	4.23	0.03	4.36	4.23	0.13
20-Feb-2002	4.33	4.25	0.08	4.45	4.25	0.20
27-Feb-2002	4.33	4.22	0.11	4.46	4.22	0.24
6-Mar-2002	4.40	4.34	0.06	4.51	4.34	0.17
13-Mar-2002	4.50	4.40	0.10	4.59	4.40	0.19
20-Mar-2002	4.48	4.41	0.07	4.55	4.41	0.14
27-Mar-2002	4.60	4.48	0.12	4.69	4.48	0.21
3-Apr-2002	4.54	4.52	0.02	4.58	4.52	0.06
10-Apr-2002	4.48	4.46	0.02	4.57	4.46	0.11
17-Apr-2002	4.60	4.48	0.12	4.66	4.48	0.18

Percentage Cash price under PCP	58.89%	36.67%
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Observations:

- The Loan Rate for Delaware Soybeans was \$5.37 per bushel for the 2000/01 Marketing Year and \$5.38 per bushel for the 2001/02 Marketing Year
- When the Cash Price is below the PCP the loan deficiency payment plus the cash price received is not equal to the loan rate.
- Fifty-eight percent of the time, for the 88 observations made, the loan deficiency payment plus the cash price received did not equal the loan rate for Northern Eastern Shore Soybeans.
- Thirty-seven percent of the time, the loan deficiency payment plus the cash price received did not equal the loan rate for Southern Eastern Shore Soybeans.

**VII. Table 2: Soybean Prices**

Commodity	Year	Region	Monthly Prices											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			dols/bu											
soybeans	1999	IL	5.460	4.950	4.710	4.720	4.570	4.540	4.250	4.500	4.660	4.610	4.550	4.580
		NE Shore	5.090	4.837	4.660	4.640	4.383	4.293	4.000	4.493	4.674	4.668	4.465	4.600
		SE Shore	5.180	4.917	4.710	4.750	4.483	4.423	4.117	4.625	4.774	4.740	4.568	4.700
soybeans	2000	IL	4.740	4.870	5.000	4.960	5.280	4.980	4.650	4.520	4.660	4.550	4.620	4.860
		NE Shore	4.785	4.960	5.088	5.243	5.302	4.853	4.458	4.446	4.678	4.455	4.618	4.635
		SE Shore	4.910	5.025	5.158	5.323	5.364	4.925	4.560	4.510	4.753	4.485	4.446	4.645
soybeans	2001	IL	4.740	4.510	4.490	4.310	4.470	4.580	4.910	4.910	4.550	4.230	4.280	4.360
		NE Shore	4.508	4.467	4.358	4.165	4.236	4.430	4.720	4.632	4.290	4.008	4.053	4.068
		SE Shore	4.546	4.553	4.450	4.273	4.384	4.555	4.778	4.708	4.373	4.088	4.140	4.190
soybeans	2002	IL	4.330	4.340	4.550									
		NE Shore	4.154	4.263	4.495									
		SE Shore	4.286	4.383	4.585									

Observations:

- Illinois soybean price is the average monthly price for central Illinois.
- Northern Eastern Shore soybean price is the average price for the month specified.
- Southern Eastern Shore soybean price is the average price for the month specified.



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

1. Select the appropriate table for the commodity and year in question (Appendix A - Table 1).
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 December Northern Eastern Shore Corn futures and the December calendar month for the 1996/97 Marketing Year is -.01 (1 under the Dec).
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.

## **IX. Summary & Conclusions**

### *Basis in Summary*

Anyone in the grain trade, buying or selling, has two factors that ultimately determine the final sale or purchase price of a commodity. One of those factors is the futures price and the other is 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 agri-businesses use as a benchmark to gauge cash bids and offers for commodities at the local level. Basis is simply the price difference between the local cash price of grain and the futures price. All grain sales and purchase decisions revolve around the basis. Profits can be improved considerably when marketing grain by learning to use basis as a key indicator in all grain sales decisions.

The farm value of the corn, soybean, wheat, and barley crops grown in Delaware is currently estimated at approximately \$ 100 million, annually. It is the author's opinion that taking an objective look at the subject of basis is important to the future of the grain industry and the state's economy. It is recommended that historical basis data be updated annually.

## **X. Definitions**

Inverse Carrying Charge - the cash price is above the futures price. The market situation is considered to be at a discount with distant contract months selling at a discount to the near months. The underlying reasons for an existing discount market include an immediate high demand, a short crop or a large potential harvest following

tight current supply. The basis is generally very strong in an inverse market. Cash sales are generally warranted.

Localized Futures Price is the expected cash price at delivery. The localized futures price is determined by adding or subtracting the anticipated basis to a specific futures price e.g.,

March Corn Futures @	\$2.00
+/- or Anticipated Basis of 19 cents over	<u>+ .19</u>
= Localized Futures Price	\$2.19

Cash Price Received is the farm price received.

PCP is the Posted County Price.

## **XI. Selected References**

- German, Carl L., “Basis: The Economics of Where and When”, The Delmarva Farmer, Volume 26, No. 41, December 2001.
- German, Carl L., “Basis: The Economics of Where and When”, *Grain Marketing Discussion Group on the Internet*, Volume III, Issue No. 6, December 2001.
- German, Carl L., “Grain Marketing Highlights”, *Weekly Crop Update*, Volume 9, Issues 1 to 24, March – September 2001.
- German, Carl L., Toensmeyer, U.C., “An Analysis of Crop Production and Marketing for Delaware Grain and Soybeans; 1978-1998”, Delaware 2020 Project, November 1999.
- German, Carl L., “Grain Marketing Highlights”, *Basis: A Key Indicator to All Grain Marketing Decisions*, Weekly Crop Update, Volume 6, Issue 2, April 1998.
- Risser, E.C., Toensmeyer, U.C., German, C.L. et al., “An Analysis of Hedging as a Soybean Marketing Alternative”, Senior Thesis, Department of Food & Resource Economics, February 1996.
- German, C.L., Toensmeyer, U.C., et al., “Historical Analysis of Upper Eastern Shore Soybean Forward Cash Pricing Opportunities; 1973-1993”, Cooperative Bulletin #51, College of Agriculture Sciences, Newark, DE, June 1994.

**XII. APPENDIX A**  
**BASIS TABLES**

Table A-1: Northern Eastern Shore Corn Basis; Marketing Year 1996-1997

Month	Futures Contract				
	September	December	March-97	May-97	July-97
August	19 (11 to 38)	45 (39 to 61)	38 (32 to 54)	33 (26 to 49)	33 (27 to 48)
September	-3 (-26 to 29)	24 (6 to 54)	16 (-1 to 46)	10 (-6 to 40)	9 (-8 to 40)
October		-3 (-8 to 4)	-9 (-14 to -4)	-15 (-21 to -10)	-18 (-22 to -13)
November		-7 (-8 to -6)	-9 (-10 to -9)	-14 (-16 to -13)	-17 (-21 to -15)
December		-1 (-5 to 1)	3 (-5 to 10)	1 (-6 to 8)	-1 (-8 to 6)
January			19 (18 to 19)	19 (18 to 21)	20 (17 to 23)
February			22 (20 to 23)	23 (21 to 24)	24 (22 to 25)
March			19 (18 to 20)	20 (19 to 21)	20 (17 to 22)
April				19 (18 to 20)	19 (18 to 20)
May				20 (17 to 22)	22 (13 to 29)
June					9 (2 to 15)
July					-2 (-7 to 2)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-2: Northern Eastern Shore Corn Basis; Marketing Year 1997-1998

Month	Futures Contract				
	September	December	March-98	May-98	July-98
August	3 (-6 to 13)	-1 (-9 to 9)	-9 (-16 to 1)	-13 (-22 to -4)	-16 (-24 to -7)
September	20 (14 to 25)	21 (16 to 25)	12 (7 to 16)	7 (2 to 11)	5 (1 to 8)
October		16 (13 to 22)	7 (4 to 13)	10 (-2 to 8)	-2 (-6 to 4)
November		23 (22 to 24)	13 (12 to 14)	7 (6 to 8)	3 (2 to 5)
December		29 (17 to 36)	21 (7 to 27)	14 (1 to 21)	9 (-3 to 15)
January			31 (31 to 31)	24 (24 to 24)	19 (19 to 20)
February			30 (26 to 31)	21 (17 to 23)	15 (11 to 16)
March			29 (28 to 31)	20 (16 to 22)	14 (10 to 16)
April				21 (18 to 23)	12 (10 to 15)
May				21 (21 to 21)	13 (12 to 14)
June					14 (13 to 14)
July					14 (8 to 17)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-3: Northern Eastern Shore Corn Basis; Marketing Year 1998-1999

Month	Futures Contract				
	September	December	March-99	May-99	July-99
August	14 (8 to 18)	5 (-1 to 8)	-8 (-12 to -5)	-15 (-20 to -12)	-21 (-25 to -18)
September	20 (20 to 21)	9 (8 to 9)	-4 (-4 to -4)	-11 (-12 to -11)	-18 (-19 to -17)
October		8 (8 to 8)	-3 (-3 to -3)	-10 (-10 to -10)	-14 (-14 to -14)
November		11 (9 to 14)	-1 (-4 to 3)	-8 (-11 to -5)	-14 (-18 to -11)
December		21 (21 to 21)	13 (12 to 14)	6 (5 to 7)	-1 (-1 to 0)
January			23 (22 to 24)	17 (16 to 18)	12 (10 to 13)
February			26 (26 to 27)	20 (20 to 21)	15 (15 to 16)
March			29 (29 to 29)	26 (24 to 27)	20 (18 to 21)
April				22 (21 to 23)	13 (7 to 17)
May				18 (17 to 19)	14 (14 to 14)
June					16 (16 to 17)
July					23 (22 to 23)

Source: MD Grain & Livestock Report

Basis = Cash - Futures



Table A-4: Northern Eastern Shore Corn Basis; Marketing Year 1999-2000

Month	Futures Contract				
	September	December	March-00	May-00	July-00
August	18 (13 to 19)	5 (2 to 6)	-5 (-8 to -4)	-10 (-12 to -9)	-14 (-16 to -12)
September	33 (31 to 35)	18 (10 to 22)	6 (-1 to 11)	0 (-7 to 6)	-4 (-12 to 2)
October		15 (13 to 17)	4 (3 to 5)	-2 (-4 to -1)	-8 (-10 to -7)
November		24 (21 to 26)	13 (10 to 15)	6 (3 to 8)	-1 (-4 to 2)
December		29 (28 to 30)	15 (4 to 20)	8 (-2 to 13)	1 (-8 to 6)
January			21 (13 to 26)	13 (5 to 18)	6 (-2 to 10)
February			28 (23 to 34)	20 (15 to 26)	12 (7 to 18)
March			26 (26 to 26)	18 (12 to 24)	10 (4 to 16)
April				17 (7 to 26)	8 (-2 to 17)
May				30 (30 to 30)	22 (16 to 25)
June					25 (16 to 32)
July					22 (14 to 29)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-5: Northern Eastern Shore Corn Basis; Marketing Year 2000-2001

Month	Futures Contract				
	September	December	March-01	May-01	July-01
August	9 (5 to 12)	-3 (-7 to 0)	-15 (-19 to -12)	-23 (-27 to -20)	-31 (-40 to -27)
September	10 (10 to 10)	-9 (-21 to 0)	-21 (-33 to -12)	-28 (-40 to -19)	-35 (-47 to -26)
October		-21 (-28 to -14)	-31 (-39 to -24)	-39 (-46 to -33)	-47 (-54 to -40)
November		-30 (-40 to -22)	-41 (-51 to -34)	-49 (-59 to -42)	-56 (-66 to -49)
December		-25 (-25 to -25)	-32 (-37 to -26)	-39 (-44 to -33)	-47 (-52 to -41)
January			-11 (-17 to -4)	-19 (-25 to -12)	-27 (-32 to -20)
February			-11 (-13 to -10)	-19 (-21 to -18)	-27 (-29 to -26)
March			-10 (-10 to -10)	-16 (-20 to -9)	-24 (-28 to -17)
April				-1 (-7 to 11)	-8 (-15 to 3)
May				16 (16 to 16)	-4 (-45 to 14)
June					5 (-2 to 11)
July					-15 (-15 to -15)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-6: Northern Eastern Shore Average Corn Basis; Marketing Years 1996/97 - 2000/01

Month	Futures Contract				
	September	December	March	May	July
August	13 (3 to 19)	10 (-3 to 45)	0 (-15 to 38)	-6 (-23 to 33)	-10 (-31 to 33)
September	16 (-3 to 33)	13 (-9 to 24)	2 (-21 to 16)	-4 (-28 to 10)	-9 (-35 to 9)
October		3 (-21 to 16)	-6 (-31 to 7)	-11 (-39 to 10)	-18 (-47 to -2)
November		4 (-30 to 24)	-5 (-41 to 13)	-12 (-49 to 7)	-17 (-56 to 3)
December		11 (-25 to 29)	4 (-32 to 21)	-2 (-39 to 14)	-8 (-47 to 9)
January			17 (-11 to 31)	11 (-19 to 24)	6 (-27 to 20)
February			19 (-11 to 30)	13 (-19 to 23)	8 (-27 to 24)
March			19 (-10 to 29)	14 (-16 to 26)	8 (-24 to 20)
April				16 (-1 to 22)	9 (-8 to 19)
May				21 (16 to 30)	13 (-4 to 22)
June					14 (5 to 25)
July					8 (-15 to 23)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-7: Southern Eastern Shore Corn Basis; Marketing Year 1996-1997

Month	Futures Contract				
	September	December	March-97	May-97	July-97
August	52 (22 to 74)	78 (50 to 103)	71 (44 to 96)	66 (39 to 91)	66 (39 to 91)
September	-9 (-20 to 13)	23 (13 to 38)	15 (5 to 30)	9 (-1 to 24)	8 (-2 to 24)
October		5 (2 to 10)	-2 (-4 to 2)	-8 (-10 to -4)	-11 (-14 to -7)
November		8 (6 to 9)	6 (1 to 8)	1 (-4 to 4)	2 (-9 to 1)
December		8 (7 to 9)	11 (-5 to 23)	11 (-6 to 25)	7 (-7 to 14)
January			30 (27 to 32)	31 (27 to 34)	31 (26 to 36)
February			34 (29 to 39)	34 (28 to 40)	36 (29 to 41)
March			34 (31 to 37)	34 (28 to 36)	34 (26 to 37)
April				27 (25 to 24)	27 (24 to 30)
May				25 (27 to 32)	35 (30 to 41)
June					25 (11 to 40)
July					27 (23 to 29)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-8: Southern Eastern Shore Corn Basis; Marketing Year 1997-1998

Month	Futures Contract				
	September	December	March-98	May-98	July-98
August	30 (19 to 40)	27 (15 to 38)	19 (7 to 30)	14 (2 to 26)	11 (-1 to 24)
September	33 (28 to 42)	31 (22 to 41)	22 (13 to 32)	17 (9 to 27)	14 (5 to 25)
October		12 (9 to 18)	4 (2 to 9)	-2 (-4 to 4)	-5 (-8 to 0)
November		23 (20 to 23)	12 (10 to 13)	6 (4 to 7)	2 (0 to 4)
December		37 (30 to 42)	31 (26 to 39)	24 (19 to 32)	19 (15 to 27)
January			40 (39 to 41)	33 (32 to 34)	29 (28 to 29)
February			36 (35 to 39)	28 (26 to 31)	21 (20 to 24)
March			37 (34 to 38)	29 (26 to 31)	23 (20 to 25)
April				29 (28 to 31)	21 (20 to 22)
May				31 (30 to 31)	24 (22 to 26)
June					34 (33 to 34)
July					34 (26 to 41)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-9: Southern Eastern Shore Corn Basis; Marketing Year 1998-1999

Month	Futures Contract				
	September	December	March-99	May-99	July-99
August	26 (23 to 29)	16 (13 to 20)	4 (1 to 9)	-3 (-6 to 1)	-9 (-12 to -4)
September	29 (28 to 29)	17 (16 to 17)	4 (4 to 5)	-3 (-4 to -3)	-10 (-11 to -9)
October		11 (11 to 11)	0 (0 to 0)	-7 (-7 to -7)	-11 (-11 to -11)
November		20 (17 to 24)	8 (4 to 13)	-2 (-3 to 5)	-5 (-10 to -1)
December		28 (28 to 28)	22 (19 to 25)	15 (12 to 18)	9 (6 to 11)
January			30 (29 to 30)	24 (23 to 24)	18 (17 to 19)
February			31 (30 to 31)	25 (24 to 25)	20 (19 to 20)
March			32 (32 to 32)	25 (23 to 27)	19 (17 to 21)
April				26 (26 to 27)	18 (11 to 21)
May				23 (21 to 25)	19 (18 to 20)
June					27 (24 to 31)
July					38 (36 to 40)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-10: Southern Eastern Shore Corn; Basis Marketing Year 1999-2000

Month	Futures Contract				
	September	December	March-00	May-00	July-00
August	30 (27 to 33)	17 (16 to 20)	7 (6 to 9)	2 (1 to 4)	-2 (-3 to 0)
September	44 (39 to 49)	24 (13 to 36)	12 (1 to 25)	7 (-5 to 20)	2 (-9 to 16)
October		20 (16 to 22)	9 (6 to 11)	2 (-1 to 5)	-4 (-7 to 0)
November		30 (26 to 34)	18 (15 to 21)	11 (8 to 14)	5 (1 to 7)
December		38 (37 to 38)	23 (15 to 27)	16 (9 to 20)	10 (3 to 14)
January			28 (18 to 37)	21 (10 to 29)	13 (3 to 21)
February			34 (32 to 37)	26 (24 to 29)	18 (16 to 21)
March			32 (32 to 32)	28 (18 to 41)	20 (10 to 33)
April				24 (13 to 33)	15 (4 to 24)
May				35 (35 to 35)	28 (23 to 32)
June					34 (22 to 39)
July					32 (22 to 42)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-11: Southern Eastern Shore Corn Basis; Marketing Year 2000-2001

Month	Futures Contract				
	September	December	March-01	May-01	July-01
August	22 (16 to 29)	10 (4 to 17)	-2 (-8 to 5)	-10 (-16 to -3)	-18 (-29 to -10)
September	19 (19 to 19)	0 (-12 to 9)	-12 (-24 to -3)	-19 (-31 to -10)	-26 (-38 to -17)
October		-10 (-13 to -7)	-21 (-24 to -17)	-29 (-31 to -26)	-36 (-39 to -33)
November		-13 (-23 to -6)	-25 (-34 to -18)	-33 (-42 to -26)	-40 (-49 to -33)
December		0 (0 to 0)	-13 (-19 to -10)	-21 (-26 to -17)	-28 (-34 to -25)
January			1 (-6 to 17)	-7 (-14 to 9)	-14 (-21 to 1)
February			5 (1 to 10)	-3 (-7 to 2)	-11 (-15 to -6)
March			6 (6 to 6)	0 (-4 to 6)	-8 (-12 to -2)
April				17 (9 to 28)	9 (1 to 20)
May				28 (28 to 28)	9 (-32 to 11)
June					27 (20 to 33)
July					8 (8 to 8)

Source: MD Grain & Livestock Report

Basis = Cash - Futures



Table A-12: Southern Eastern Shore Average Corn Basis; Marketing Years 1996/97 - 2000/01

Month	Futures Contract				
	September	December	March	May	July
August	32 (22 to 52)	30 (10 to 87)	20 (-2 to 71)	14 (-10 to 66)	10 (-18 to 66)
September	23 (-9 to 44)	19 (0 to 31)	8 (-12 to 22)	2 (-19 to 17)	-2 (-26 to 14)
October		8 (-10 to 20)	-2 (-21 to 9)	-9 (-29 to 2)	-13 (-36 to -4)
November		14 (-13 to 30)	4 (-25 to 18)	-3 (-33 to 11)	-7 (-40 to 5)
December		22 (0 to 38)	15 (-13 to 31)	9 (-21 to 24)	3 (-28 to 19)
January			26 (1 to 40)	20 (-7 to 33)	15 (-14 to 31)
February			28 (5 to 36)	22 (-3 to 34)	17 (-11 to 36)
March			28 (6 to 37)	23 (0 to 34)	18 (-8 to 34)
April				25 (17 to 29)	18 (9 to 27)
May				28 (23 to 35)	23 (9 to 35)
June					29 (25 to 34)
July					28 (8 to 38)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-13: Northern Eastern Shore Soybean Basis; Marketing Year 1996-1997

Month	September	November	January-97	Futures Contract			
				March-97	May-97	July-97	August-97
cents/bushel							
September	-27 (-30 to -22)	-4 (-5 to -1)	-11 (-13 to -8)	-16 (-19 to -12)	-16 (-20 to -12)	-16 (-20 to -12)	62 (52 to 81)
October		-15 (-23 to 3)	-20 (-26 to -6)	-27 (-34 to -14)	-29 (-36 to -16)	-31 (-39 to -17)	-10 (-10 to 32)
November		-22 (-23 to -21)	-22 (-23 to -21)	-22 (-26 to -16)	-22 (-28 to -12)	-24 (-31 to -13)	-19 (-24 to -10)
December			-19 (-47 to -8)	-15 (-41 to -5)	-12 (-38 to -4)	-12 (-38 to -4)	-11 (-36 to -5)
January			4 (-4 to 11)	2 (-5 to 8)	3 (-4 to 8)	3 (-4 to 8)	7 (-3 to 12)
February				5 (4 to 7)	5 (3 to 5)	5 (3 to 6)	9 (7 to 11)
March				4 (-3 to 9)	-7 (-12 to 5)	-9 (-15 to 7)	3 (-4 to 13)
April					-21 (-26 to -13)	-24 (-31 to -17)	-5 (-16 to 6)
May					-24 (-24 to -24)	-19 (-22 to -13)	15 (8 to 30)
June						-3 (-3 to -3)	41 (41 to 41)
July						-81 (-81 to -81)	-48 (-82 to -8)
August							-104 (-133 to -106)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-14: Northern Eastern Shore Soybean Basis; Marketing Year 1997-1998

Month	September	November	January-98	Futures Contract			
				March-98	May-98	July-98	August-98
				cents/bushel			
September	-65 (-122 to -21)	17 (-7 to 35)	15 (-9 to 33)	8 (-14 to 28)	1 (-21 to 23)	-4 (-26 to 17)	16 (-4 to 40)
October		5 (-7 to 39)	1 (-10 to 36)	1 (-18 to 31)	-13 (-24 to 22)	-19 (-31 to 16)	7 (-3 to 33)
November		-22 (-49 to 5)	-44 (-48 to 3)	-33 (-51 to -1)	-37 (-55 to -5)	-40 (-56 to -11)	-35 (-50 to -4)
December			10 (12 to 26)	16 (8 to 24)	11 (3 to 19)	7 (1 to 15)	10 (5 to 18)
January			24 (22 to 26)	20 (18 to 21)	17 (14 to 19)	13 (10 to 16)	15 (11 to 17)
February				10 (2 to 19)	7 (-2 to 16)	3 (-7 to 13)	4 (-6 to 15)
March				13 (16 to 19)	10 (0 to 14)	6 (-2 to 10)	7 (-2 to 11)
April					14 (14 to 15)	13 (12 to 15)	14 (12 to 15)
May					9 (8 to 10)	14 (13 to 14)	18 (16 to 21)
June						3 (-11 to 14)	13 (-7 to 24)
July						-53 (-73 to -27)	-48 (-52 to -17)
August							-29 (-41 to -17)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-15: Northern Eastern Shore Soybean Basis; Marketing Year 1998-1999

Month	Futures Contract						
	September	November	January-99	March-99	May-99	July-99	August-99
	cents/bushel						
September	-6 (-11 to 1)	-3 (-3 to -3)	-13 (-14 to -13)	-24 (-25 to -23)	-33 (-34 to -32)	-43 (-45 to -41)	-46 (-56 to -42)
October		-25 (-25 to -25)	-25 (-25 to -25)	-35 (-35 to -35)	-43 (-43 to -43)	-51 (-51 to -51)	-53 (-53 to -53)
November		-16 (-16 to -15)	-23 (-24 to -23)	-32 (-33 to -32)	-38 (-40 to -34)	-48 (-49 to -46)	-49 (-52 to -46)
December			-24 (-25 to -23)	-31 (-32 to -29)	-38 (-40 to -35)	-44 (-47 to -40)	-45 (-48 to -41)
January			-13 (-13 to -13)	-14 (-16 to -12)	-18 (-21 to -15)	-22 (-25 to -19)	-23 (-26 to -20)
February				-14 (-14 to -13)	-18 (-19 to -17)	-24 (-27 to -22)	-26 (-29 to -24)
March				-14 (-14 to -14)	-18 (-19 to -17)	-26 (-26 to -26)	-29 (-29 to -28)
April					-23 (-24 to -22)	-29 (-23 to -33)	-36 (-36 to -35)
May					-27 (-29 to -24)	-32 (-32 to -31)	-35 (-35 to -34)
June						-32 (-34 to -29)	-33 (-34 to -31)
July						-25 (-29 to -21)	-30 (-32 to -29)
August							-27 (-27 to -27)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-16: Northern Eastern Shore Soybean Basis; Marketing Year 1999-2000

Month	September	November	January-00	Futures Contract			
				March-00	May-00	July-00	August-00
cents/bushel							
September	-27 (-50 to -4)	-26 (-55 to -9)	-35 (-64 to -18)	-43 (-71 to -26)	-48 (-76 to -31)	-53 (-80 to -36)	-54 (-78 to -37)
October		-15 (-29 to -1)	-27 (-40 to -14)	-34 (-47 to -22)	-40 (-53 to -29)	-45 (-59 to -35)	-45 (-59 to -34)
November		-8 (-9 to -6)	-23 (-32 to -14)	-30 (-39 to -21)	-36 (-46 to -26)	-42 (-51 to -31)	-41 (-52 to -30)
December			-17 (-40 to -1)	-23 (-41 to -8)	-29 (-46 to -14)	-35 (-52 to -20)	-35 (-52 to -19)
January			-10 (-10 to -10)	-22 (-38 to -7)	-30 (-46 to -16)	-39 (-55 to -25)	-40 (-56 to -26)
February				-5 (-13 to 1)	-15 (-23 to -8)	-24 (-32 to -16)	-25 (-33 to -18)
March				-11 (-11 to -11)	-20 (-29 to -10)	-30 (-41 to -20)	-33 (-44 to -23)
April					-19 (-37 to -9)	-32 (-49 to -21)	-35 (-51 to -25)
May					-5 (-5 to -5)	-8 (-22 to 12)	-11 (-24 to 9)
June						-7 (-14 to -4)	-3 (-15 to 5)
July						-7 (-7 to -7)	-9 (-15 to -5)
August							-6 (-6 to -6)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-17: Northern Eastern Shore Soybean Basis; Marketing Year 2000-2001

Month	September	November	January-01	Futures Contract			
				March-01	May-01	July-01	August-01
cents/bushel							
September	-20 (-20 to -20)	-24 (-34 to -14)	-35 (-45 to -24)	-44 (-54 to -35)	-51 (-61 to -42)	-59 (-69 to -50)	-59 (-68 to -49)
October		-23 (-32 to -17)	-35 (-41 to -28)	-43 (-50 to -37)	-50 (-57 to -45)	-58 (-65 to -52)	-59 (-66 to -52)
November		-44 (-44 to -44)	-30 (-54 to 47)	-39 (-64 to 38)	-47 (-75 to 31)	-53 (-79 to 24)	-53 (-80 to 24)
December			-39 (-44 to -31)	-48 (-53 to -41)	-56 (-59 to -50)	-61 (-64 to -55)	-60 (-64 to -54)
January			-21 (-21 to -21)	-21 (-28 to -15)	-28 (-35 to -22)	-35 (-42 to -30)	-34 (-41 to -27)
February				-7 (-15 to 2)	-8 (-15 to 2)	-14 (-20 to -4)	-14 (-19 to -4)
March				9 (9 to 9)	-6 (-14 to 7)	-12 (-20 to 0)	-11 (-19 to 0)
April					-17 (-34 to -3)	-21 (-33 to -3)	-17 (-31 to -2)
May					-31 (-31 to -31)	-27 (-39 to -16)	-21 (-32 to -10)
June						-29 (-61 to -12)	-23 (-56 to -4)
July						-62 (-62 to -62)	-39 (-59 to -27)
August							-45 (-49 to -40)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-18: Northern Eastern Shore Average Soybean Basis; Marketing Years 1996/97 - 2000/01

Month	Futures Contract						
	September	November	January	March	May	July	August
	cents/bushel						
September	-29 (-65 to -6)	-8 (-26 to -3)	-16 (-35 to 15)	-24 (-44 to 8)	-29 (-51 to 1)	-35 (-59 to -4)	-16 (-59 to 62)
October		-15 (-25 to 5)	-21 (-34 to 1)	-28 (-43 to 1)	-35 (-50 to -13)	-41 (-58 to -19)	-28 (-59 to 10)
November		-22 (-44 to -8)	-28 (-44 to -22)	-31 (-39 to -22)	-36 (-49 to -22)	-41 (-53 to -24)	-40 (-53 to -19)
December			-18 (-39 to 10)	-20 (-49 to 16)	-25 (-56 to 11)	-29 (-61 to 7)	-28 (-60 to 10)
January			-3 (-21 to 24)	-7 (-22 to 20)	-11 (-30 to 17)	-16 (-39 to 13)	-15 (-40 to 15)
February				-2 (-14 to 10)	-6 (-18 to 7)	-11 (-24 to 5)	-10 (-26 to 9)
March				0 (-14 to 13)	-8 (-20 to 10)	-14 (-26 to 6)	-13 (-33 to 7)
April					-13 (-23 to 14)	-19 (-32 to 13)	-16 (-36 to 14)
May					-16 (31 to 9)	-14 (-32 to 14)	-7 (-35 to 18)
June						-14 (-32 to 3)	-1 (-33 to 41)
July						-46 (-81 to -7)	-35 (-48 to -9)
August							-42 (-104 to -6)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-19: Southern Eastern Shore Soybean Basis; Marketing Year 1996-1997

Month	Futures Contract						
	September	November	January-97	March-97	May-97	July-97	August-97
	cents/bushel						
September	-2 (-18 to 18)	20 (8 to 43)	12 (1 to 36)	7 (-4 to 29)	8 (-5 to 31)	7 (-5 to 29)	80 (67 to 103)
October		-10 (-13 to 6)	-13 (-17 to -3)	-20 (-25 to -11)	-22 (-27 to -13)	-24 (-30 to -14)	17 (-1 to 35)
November		-14 (-15 to -13)	-12 (-14 to -9)	-12 (-18 to -4)	-12 (-20 to 0)	-14 (-23 to -1)	-9 (-16 to 2)
December			-10 (-24 to -1)	-7 (-28 to 2)	-5 (-25 to 3)	-5 (-25 to 3)	-4 (-23 to 4)
January			9 (3 to 13)	8 (2 to 14)	8 (3 to 14)	8 (3 to 13)	12 (4 to 18)
February				14 (9 to 17)	14 (10 to 15)	14 (10 to 15)	18 (13 to 21)
March				12 (3 to 19)	1 (-6 to 15)	-1 (-9 to 17)	10 (2 to 23)
April					-17 (-24 to -10)	-20 (-26 to -14)	-1 (-10 to 12)
May					-20 (-22 to -17)	-10 (-15 to -1)	24 (15 to 42)
June						7 (-4 to 16)	61 (54 to 78)
July						-50 (-68 to -32)	-18 (-71 to 17)
August							-95 (-133 to -110)

Source: MD Grain & Livestock Report

Basis = Cash - Futures



Table A-20: Southern Eastern Shore Soybean Basis; Marketing Year 1997-1998

Month	September	November	January-98	Futures Contract			
				March-98	May-98	July-98	August-98
cents/bushel							
September	-47 (-92 to -18)	34 (15 to 65)	32 (13 to 63)	25 (5 to 58)	18 (-3 to 53)	12 (-7 to 47)	33 (70 to 14)
October		8 (-2 to 31)	3 (-5 to 28)	-1 (-13 to 23)	-5 (-20 to 14)	-9 (-27 to 21)	9 (1 to 25)
November		-22 (-53 to 10)	-22 (-52 to 7)	-25 (-55 to 3)	-29 (-59 to -1)	-31 (-56 to -6)	-25 (-50 to 0)
December			24 (21 to 28)	16 (17 to 26)	11 (12 to 21)	7 (9 to 17)	10 (8 to 21)
January			28 (26 to 29)	23 (21 to 25)	20 (17 to 21)	16 (13 to 18)	18 (14 to 20)
February				21 (16 to 29)	18 (13 to 26)	14 (8 to 23)	15 (9 to 25)
March				24 (17 to 29)	21 (14 to 23)	17 (9 to 20)	17 (9 to 21)
April					22 (20 to 23)	21 (19 to 23)	21 (20 to 23)
May					13 (16 to 19)	22 (22 to 23)	26 (25 to 29)
June						14 (-6 to 28)	24 (-2 to 38)
July						-44 (-58 to -31)	-34 (-37 to -19)
August							-21 (-33 to -9)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-21: Southern Eastern Shore Soybean Basis; Marketing Year 1998-1999

Month	Futures Contract						
	September	November	January-99	March-99	May-99	July-99	August-99
cents/bushel							
September	0 (-2 to 6)	4 (2 to 7)	-7 (-9 to -4)	-18 (-20 to -14)	-27 (-29 to -23)	-36 (-40 to -32)	-40 (-47 to -33)
October		-25 (-25 to -25)	-25 (-25 to -25)	-35 (-35 to -35)	-43 (-43 to -43)	-51 (-51 to -51)	-53 (-53 to -53)
November		-4 (-4 to -4)	-12 (-14 to -11)	-21 (-23 to -21)	-29 (-32 to -27)	-37 (-38 to -34)	-37 (-40 to -34)
December			-11 (-11 to -10)	-17 (-19 to -15)	-24 (-27 to -21)	-30 (-34 to -26)	-31 (-35 to -27)
January			-2 (-2 to -2)	-5 (-5 to -5)	-9 (-10 to -8)	-13 (-14 to -12)	-14 (-15 to -13)
February				-6 (-6 to -5)	-10 (-11 to -9)	-16 (-19 to -14)	-18 (-21 to -16)
March				-7 (-7 to -7)	-13 (-14 to -12)	-21 (-23 to -19)	-24 (-25 to -22)
April					-12 (-13 to -11)	-22 (-22 to -21)	-25 (-25 to -24)
May					-17 (-18 to -15)	-22 (-23 to -21)	-25 (-26 to -24)
June						-19 (-22 to -14)	-20 (-22 to -16)
July						-13 (-14 to -11)	-19 (-22 to -15)
August							-18 (-18 to -17)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-22: Southern Eastern Shore Soybean Basis; Marketing Year 1999-2000

Month	September	November	January-00	Futures Contract			
				March-00	May-00	July-00	August-00
				cents/bushel			
September	-11 (-22 to 0)	-16 (-27 to -5)	-25 (-36 to -14)	-33 (-43 to -22)	-38 (-48 to -27)	-44 (-52 to -32)	-44 (-53 to -33)
October		-8 (-23 to 6)	-19 (-34 to -7)	-27 (-41 to -15)	-33 (-47 to -22)	-38 (-53 to -28)	-38 (-53 to -27)
November		2 (1 to 4)	-12 (-19 to -4)	-20 (-26 to -11)	-26 (-33 to -16)	-31 (-39 to -21)	-31 (-39 to -20)
December			-7 (-26 to 10)	-13 (-31 to 3)	-19 (-37 to -3)	-25 (-43 to -9)	-25 (-43 to -8)
January			-8 (-8 to -8)	-9 (-31 to 27)	-18 (-39 to 18)	-26 (-48 to 9)	-27 (-49 to 8)
February				1 (-5 to 7)	-9 (-15 to -2)	-17 (-24 to -10)	-19 (-25 to -12)
March				-9 (-9 to -9)	-13 (-22 to 3)	-23 (-34 to -7)	-26 (-37 to -10)
April					-11 (-29 to -1)	-24 (-41 to -13)	-27 (-43 to -17)
May					-2 (-2 to -2)	-2 (-16 to 18)	-5 (-18 to 15)
June						0 (-8 to 5)	4 (-9 to 15)
July						-1 (-1 to -1)	1 (-3 to 8)
August							1 (1 to 1)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-23: Southern Eastern Shore Soybean Basis; Marketing Year 2000-2001

Month	September	November	January-01	Futures Contract			
				March-01	May-01	July-01	August-01
cents/bushel							
September	-13 (-13 to -13)	-17 (-27 to -5)	-27 (-38 to -15)	-37 (-47 to -26)	-44 (-54 to -33)	-52 (-62 to -41)	-51 (-61 to -40)
October		-20 (-28 to -12)	-31 (-23 to -37)	-40 (-46 to -32)	-47 (-53 to -40)	-55 (-61 to -47)	-56 (-62 to -47)
November		-42 (-42 to -42)	-47 (-52 to -38)	-56 (-62 to -47)	-64 (-73 to -55)	-70 (-77 to -62)	-71 (-78 to -63)
December			-38 (-42 to -30)	-47 (-51 to -40)	-55 (-57 to -49)	-60 (-62 to -54)	-59 (-62 to -53)
January			-28 (-28 to -28)	-17 (-35 to -5)	-24 (-42 to -12)	-31 (-49 to -19)	-30 (-48 to -19)
February				1 (-3 to 8)	1 (-3 to 8)	-5 (-10 to 2)	-5 (-10 to 2)
March				19 (19 to 19)	3 (-3 to 17)	-3 (-9 to 10)	-2 (-8 to 10)
April					-6 (-26 to 8)	-10 (-25 to 8)	-6 (-23 to 9)
May					-11 (-11 to -11)	-12 (-26 to -1)	-6 (-19 to 1)
June						-17 (-50 to 1)	-10 (-45 to 9)
July						-54 (-54 to -54)	-33 (-51 to -22)
August							-38 (-40 to -35)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-24: Southern Eastern Shore Average Soybean Basis; Marketing Years 1996/97 - 2000/01

Month	Futures Contract						
	September	November	January	March	May	July	August
	cents/bushel						
September	-15 (-47 to 0)	5 (-17 to 34)	-3 (-27 to 32)	-11 (-27 to 25)	-17 (-44 to 18)	-22 (-52 to 12)	-4 (-51 to 33)
October		-11 (-25 to 8)	-17 (-31 to 3)	-24 (-40 to -1)	-30 (-48 to -5)	-35 (-55 to -9)	-24 (-56 to 17)
November		-16 (-42 to 2)	-21 (-47 to -12)	-27 (-56 to -12)	-32 (-64 to -12)	-37 (-70 to -14)	-35 (-71 to -9)
December			-8 (-38 to 24)	-14 (-47 to 16)	-18 (-55 to 11)	-23 (-60 to 7)	-22 (-59 to 10)
January			0 (-28 to 28)	0 (-17 to 23)	-5 (-24 to 20)	-9 (-31 to 16)	-8 (-30 to 18)
February				6 (-6 to 21)	3 (-10 to 18)	-2 (-17 to 14)	-2 (-19 to 18)
March				8 (-9 to 24)	0 (-13 to 21)	-6 (-23 to 17)	-5 (-26 to 17)
April					-5 (-17 to 22)	-11 (-24 to 21)	-8 (-27 to 21)
May					-7 (-20 to 13)	-5 (-22 to 22)	3 (-25 to 26)
June						-3 (-19 to 14)	12 (-20 to 61)
July						-32 (-54 to -1)	-21 (-34 to 1)
August							-34 (-95 to 1)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-25: Northern Eastern Shore Wheat Basis; Marketing Years 1996-1997

Month	Futures Contract				
	July	September	December	March-97	May-97
cents/bushel					
June	-44 (-49 to -39)	-48 (-54 to -44)	-58 (-64 to -52)	-58 (-66 to -51)	-30 (-35 to -26)
July	-43 (-46 to -38)	-37 (-49 to -20)	-44 (-59 to -27)	-43 (-58 to -28)	-17 (-32 to -4)
August		-17 (-50 to -1)	-22 (-54 to -6)	-20 (-53 to -3)	5 (-28 to 20)
September		-3 (-3 to -3)	6 (-1 to 14)	12 (3 to 23)	28 (24 to 36)
October			10 (-33 to 25)	21 (-11 to 31)	39 (11 to 50)
November			25 (-2 to 41)	41 (32 to 57)	63 (46 to 77)
December			49 (42 to 57)	58 (55 to 60)	81 (74 to 86)
January				53 (45 to 57)	69 (58 to 78)
February				46 (41 to 51)	48 (34 to 60)
March				47 (43 to 53)	37 (31 to 43)
April					31 (31 to 31)
May					-

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-26: Northern Eastern Shore Wheat Basis; Marketing Year 1997-1998

Month	Futures Contract				
	July	September	December	March-98	May-98
			cents/bushel		
June	-33 (-34 to -31)	-40 (-41 to -40)	-53 (-54 to -52)	-62 (-64 to -60)	-55 (-57 to -53)
July	-34 (-35 to -34)	-42 (-43 to -38)	-56 (-57 to -53)	-64 (-66 to -63)	-65 (-68 to -62)
August		-40 (-40 to -40)	-56 (-57 to -54)	-67 (-68 to -66)	-69 (-70 to -68)
September		-35 (-39 to -29)	-49 (-53 to -45)	-62 (-66 to -57)	-65 (-69 to -59)
October			-20 (-49 to 20)	-34 (-62 to 5)	-41 (-70 to -2)
November			-14 (-20 to -9)	-29 (-34 to -25)	-38 (-42 to -34)
December			-3 (-6 to 1)	-18 (-19 to -16)	-26 (-27 to -23)
January				-19 (-19 to -18)	-27 (-28 to -25)
February				-19 (-20 to -18)	-30 (-30 to -29)
March				-16 (-19 to -14)	-25 (-27 to -24)
April					-24 (-27 to -23)
May					--

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-27: Northern Eastern Shore Wheat Basis; Marketing Year 1998-1999

Month	Futures Contract				
	July	September	December	March-99	May-99
cents/bushel					
June	-38 (-41 to -35)	-49 (-52 to -47)	-64 (-68 to -61)	-77 (-80 to -74)	-83 (-87 to -79)
July	-30 (-31 to -29)	-40 (-42 to -37)	-55 (-58 to -52)	-68 (-70 to -67)	-76 (-76 to -75)
August		-37 (-40 to -35)	-54 (-56 to -52)	-69 (-71 to -68)	-77 (-77 to -77)
September		-27 (-35 to -19)	-44 (-49 to -40)	-58 (-64 to -51)	-68 (-74 to -61)
October			-30 (-30 to -30)	-45 (-45 to -45)	-53 (-53 to -53)
November			-33 (-58 to -11)	-47 (-69 to -28)	-55 (-76 to -37)
December			-9 (-9 to -9)	-22 (-22 to -22)	-32 (-32 to -32)
January				-25 (-25 to -24)	-35 (-35 to -35)
February				-19 (-20 to -19)	-30 (-31 to -30)
March				-18 (-18 to -18)	-24 (-24 to -24)
April					-24 (-24 to -24)
May					--

Source: MD Grain & Livestock Report

Basis = Cash - Futures



Table A-28: Northern Eastern Shore Wheat Basis; Marketing Years 1999-2000

Month	July	September	Futures Contract		
			December	March-00	May-00
cents/bushel					
June			NA*		
July			NA*		
August		-29 (-32 to -22)	-47 (-50 to -40)	-61 (-65 to -54)	-70 (-74 to -64)
September		-27 (-29 to -24)	-37 (-49 to -15)	-52 (-65 to -31)	-62 (-74 to -41)
October			-33 (-37 to -26)	-49 (-53 to -42)	-59 (-62 to -52)
November			-21 (-24 to -18)	-37 (-40 to -33)	-47 (-50 to -44)
December			-15 (-15 to -15)	-29 (-32 to -17)	-39 (-42 to -28)
January				-26 (-33 to -19)	-37 (-44 to -30)
February				-31 (-34 to -27)	-43 (-46 to -39)
March				-39 (-39 to -39)	-37 (-80 to 9)
April					-26 (-33 to -20)
May					-

Source: MD Grain & Livestock Report

Basis = Cash - Futures

NA\* - Data Not Available

Table A-29: Northern Eastern Shore Wheat Basis; Marketing Years 2000-2001

Month	Futures Contract				
	July	September	December	March-01	May-01
	cents/bushel				
June	-35 (-49 to -16)	-47 (-61 to -26)	-64 (-78 to -43)	-77 (-91 to -57)	74 (-66 to 227)
July	-11 (-11 to -11)	-43 (-54 to -20)	-60 (-72 to -37)	-77 (-89 to -53)	-86 (-99 to -63)
August		-43 (-60 to -27)	-61 (-78 to -45)	-78 (-95 to -62)	-89 (-106 to -72)
September		-	-68 (-68 to -68)	-85 (-85 to -85)	-94 (-94 to -94)
October			6 (3 to 10)	-12 (-15 to -8)	-22 (-26 to -18)
November			5 (-3 to 13)	-13 (-19 to -5)	-24 (-30 to -15)
December			-	-55 (-55 to -55)	-66 (-66 to -66)
January				-33 (-33 to -33)	-45 (-45 to -45)
February				-40 (-40 to -40)	-51 (-51 to -51)
March				-28 (-28 to -28)	-33 (-41 to -22)
April					-
May					-

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-30: Northern Eastern Shore Average Wheat Basis; Marketing Years 1996/97 - 2000/01

Month	Futures Contract				
	July	September	December	March	May
	cents/bushel				
June	-38 (-44 to -33)	-46 (-49 to -40)	-60 (-64 to -53)	-69 (-77 to -58)	-24 (-83 to 74)
July	-30 (-43 to -11)	-41 (-43 to -37)	-54 (-60 to -44)	-63 (-77 to -43)	-61 (-86 to -17)
August		-33 (-43 to -17)	-48 (-61 to -22)	-59 (-78 to -20)	-60 (-89 to 5)
September		-23 (-35 to -3)	-38 (-68 to 6)	-49 (-85 to 12)	-52 (-94 to 28)
October			-13 (-33 to 10)	-24 (-49 to 21)	-27 (-59 to 39)
November			-8 (-33 to 25)	-17 (-47 to 41)	-20 (-55 to 63)
December			6 (-15 to 49)	-13 (-55 to 58)	-16 (-66 to 81)
January				-10 (-33 to 53)	-15 (-45 to 69)
February				-13 (-40 to 46)	-21 (-51 to 48)
March				-11 (-39 to 47)	-16 (-37 to 37)
April					-11 (-26 to 31)
May					-

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-31: Southern Eastern Shore Wheat Basis; Marketing Years 1996-1997

Month	Futures Contract				
	July	September	December	March-97	May-97
cents/bushel					
June	-41 (-44 to -39)	-45 (-49 to -42)	-55 (-57 to -53)	-54 (-52 to -56)	-26 (-31 to -23)
July	-33 (-39 to -23)	-28 (-41 to -14)	-35 (-51 to -18)	-35 (-50 to -17)	-8 (-24 to 8)
August		-1 (-8 to 10)	-6 (-15 to 6)	-4 (-13 to 7)	21 (14 to 32)
September		-3 (-4 to -2)	5 (0 to 12)	12 (4 to 17)	28 (25 to 30)
October			7 (-11 to 14)	18 (17 to 22)	36 (31 to 42)
November			9 (-10 to 21)	25 (14 to 37)	47 (34 to 57)
December			24 (28 to 22)	48 (24 to 94)	71 (49 to 114)
January				26 (15 to 30)	41 (28 to 47)
February				43 (39 to 46)	47 (39 to 55)
March				49 (46 to 56)	34 (6 to 43)
April					-
May					-

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-32: Southern Eastern Shore Wheat Basis; Marketing Years 1997-1998

Month	Futures Contract				
	July	September	December	March-98	May-98
	cents/bushel				
June	-34 (-34 to -34)	-43 (-44 to -41)	-55 (-55 to -54)	-60 (-60 to -59)	-46 (-53 to -39)
July	-38 (-42 to -37)	-44 (-50 to -41)	-58 (-64 to -56)	-67 (-72 to -65)	-68 (-71 to -65)
August		-39 (-41 to -38)	-55 (-56 to -52)	-66 (-68 to -64)	-67 (-70 to -65)
September		-38 (-39 to -38)	-52 (-54 to -50)	-65 (-66 to -64)	-69 (-71 to -68)
October			-36 (-50 to -20)	-52 (-65 to -33)	-59 (-72 to -40)
November			-34 (-34 to -34)	-49 (-50 to -48)	-58 (-59 to -56)
December			-28 (-33 to -20)	-37 (-50 to -21)	-44 (-57 to -29)
January				-20 (-23 to -18)	-29 (-30 to -27)
February				-19 (-22 to -17)	-29 (-33 to -27)
March				-23 (-24 to -22)	-33 (-34 to -32)
April					-32 (-35 to -22)
May					-29 (-29 to -29)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-33: Southern Eastern Shore Wheat Basis; Marketing Years 1998-1999

Month	Futures Contract				
	July	September	December	March-99	May-99
	cents/bushel				
June	-36 (-38 to -34)	-48 (-49 to -46)	-63 (-65 to -60)	-75 (-79 to -73)	-81 (-85 to -78)
July	-30 (-34 to -28)	-40 (-45 to -37)	-55 (-61 to -52)	-68 (-73 to -67)	-76 (-79 to -73)
August		-36 (-37 to -34)	-52 (-54 to -51)	-68 (-70 to -66)	-76 (-79 to -79)
September		-33 (-31 to -34)	-49 (-58 to -45)	-62 (-65 to -60)	-72 (-75 to -70)
October			-51 (-51 to -51)	-64 (-64 to -64)	-72 (-64 to -64)
November			-57 (-78 to -45)	-72 (-89 to -62)	-80 (-96 to -71)
December			-27 (-27 to -27)	-35 (-40 to -30)	-45 (-50 to -40)
January				-37 (-39 to -35)	-48 (-50 to -45)
February				-33 (-35 to -31)	-44 (-46 to -42)
March				-41 (-41 to -41)	-47 (-47 to -47)
April					-47 (-48 to -47)
May					-44 (-47 to -44)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

Table A-34: Southern Eastern Shore Wheat Basis; Marketing Years 1999-2000

Month	July	September	Futures Contract		
			December	March-00	May-00
cents/bushel					
June			NA*		
July			NA*		
August		-22 (-37 to 9)	-40 (-54 to -8)	-54 (-68 to -22)	-63 (-77 to -31)
September		-1 (-27 to 12)	-35 (-62 to -5)	-50 (-78 to -19)	-60 (-87 to -29)
October			-42 (-46 to -35)	-58 (-62 to -51)	-67 (-71 to -61)
November			-32 (-31 to -29)	-48 (-52 to -45)	-58 (-62 to -55)
December			-31 (-32 to -29)	-45 (-56 to -38)	-55 (-66 to -49)
January				-46 (-72 to -31)	-57 (-83 to -42)
February				-35 (-45 to -27)	-47 (-57 to -39)
March				-41 (-41 to -41)	-44 (-81 to -17)
April					-37 (-49 to -24)
May					-30 (-30 to -30)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

NA\* - Data Not Available

Table A-35: Southern Eastern Shore Wheat Basis; Marketing Years 2000-2001

Month	Futures Contract				
	July	September	December	March-01	May-01
cents/bushel					
June	-35 (-52 to -17)	-47 (-64 to -27)	-64 (-81 to -44)	-77 (-94 to -58)	74 (-82 to 224)
July	-22 (-22 to -22)	-42 (-53 to -31)	-60 (-71 to -48)	-76 (-88 to -64)	-86 (-98 to -74)
August		-51 (-63 to -39)	-69 (-81 to -58)	-86 (-98 to -74)	-96 (-108 to -86)
September		-46 (-46 to -46)	-57 (-73 to -39)	-75 (-90 to -56)	-84 (-100 to -65)
October			-63 (-74 to -51)	-80 (-92 to -69)	-90 (-101 to -79)
November			-52 (-65 to -26)	-70 (-83 to -44)	-80 (-93 to -54)
December			-45 (-45 to -45)	-58 (-62 to -50)	-69 (-73 to -60)
January				-51 (-61 to -42)	-63 (-72 to -54)
February				-41 (-50 to -32)	-53 (-62 to -43)
March				-	-36 (-26 to -46)
April					-37 (-39 to -35)
May					-

Source: MD Grain & Livestock Report

Basis = Cash - Futures



Table A-36: Southern Eastern Shore Average Wheat Basis; Marketing Years 1996/97 - 2000/01

Month	Futures Contract				
	July	September	December	March	May
	cents/bushel				
June	-37 (-41 to -34)	-46 (-48 to -43)	-59 (-64 to -55)	-67 (-77 to -54)	-20 (-81 to 74)
July	-31 (-38 to -22)	-32 (-44 to -28)	-52 (-60 to -35)	-62 (-76 to -35)	-60 (-86 to -8)
August		-30 (-51 to -1)	-44 (-69 to -6)	-56 (-86 to -4)	-56 (-96 to 21)
September		-24 (-46 to -1)	-38 (-57 to 5)	-48 (-75 to 12)	-51 (-84 to 28)
October			-37 (-63 to 7)	-47 (-80 to 18)	-50 (-90 to 36)
November			-33 (-57 to 9)	-43 (-72 to 25)	-49 (-80 to 47)
December			-21 (-45 to 24)	-25 (-58 to 48)	-28 (-63 to 71)
January				-27 (-51 to 26)	-31 (-63 to 41)
February				-17 (-41 to 43)	-25 (-53 to 47)
March				-14 (-41 to 49)	-25 (-47 to 34)
April					-38 (-47 to -32)
May					-34 (-44 to -29)

Source: MD Grain & Livestock Report

Basis = Cash - Futures

### **XIII. APPENDIX B**

#### **BASIS FIGURES**

Figure B-1: Northern Eastern Shore Corn Basis; Marketing Year 1996/97

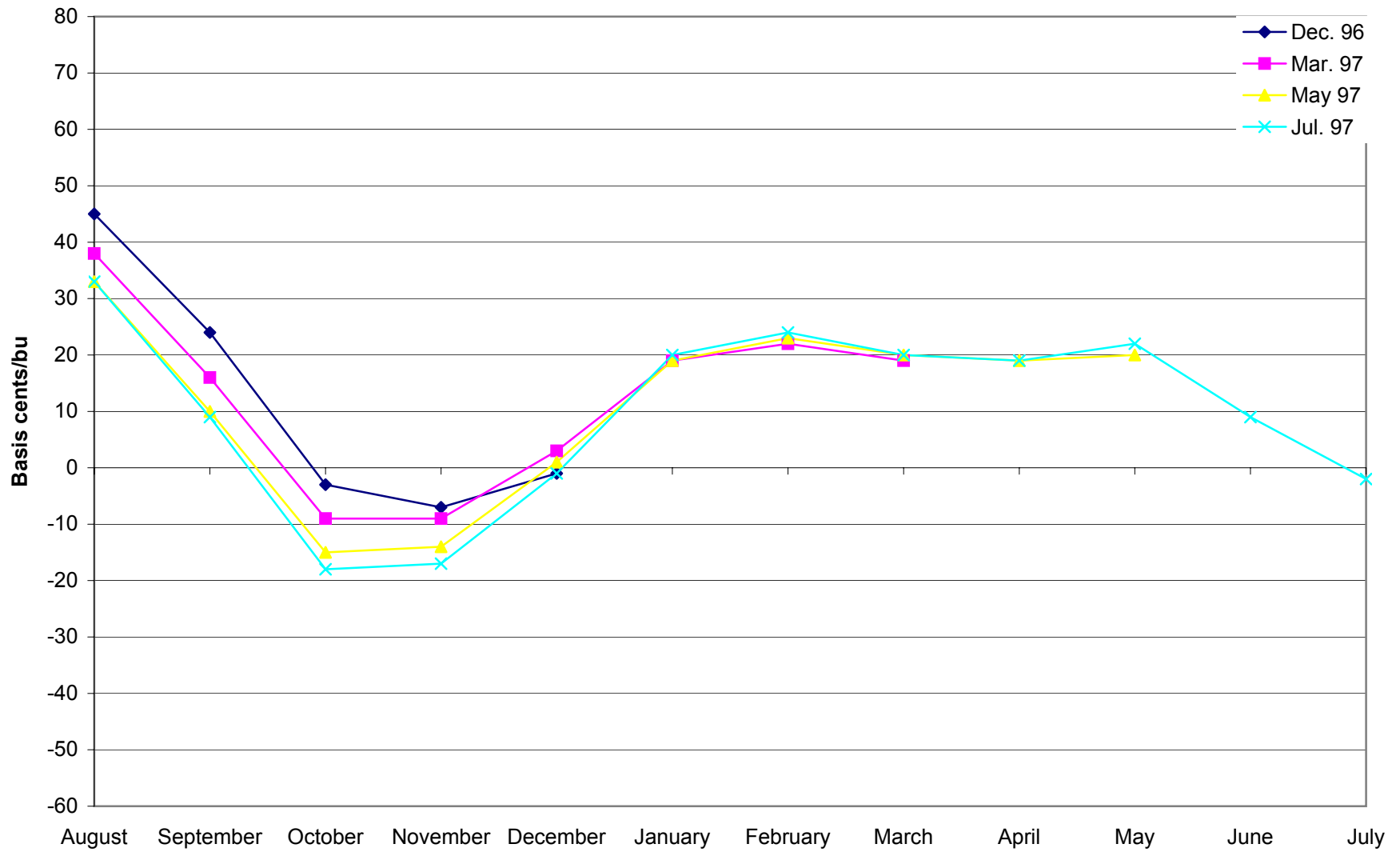


Figure B-2: Northern Eastern Shore Corn Basis; Marketing Year 1997/98

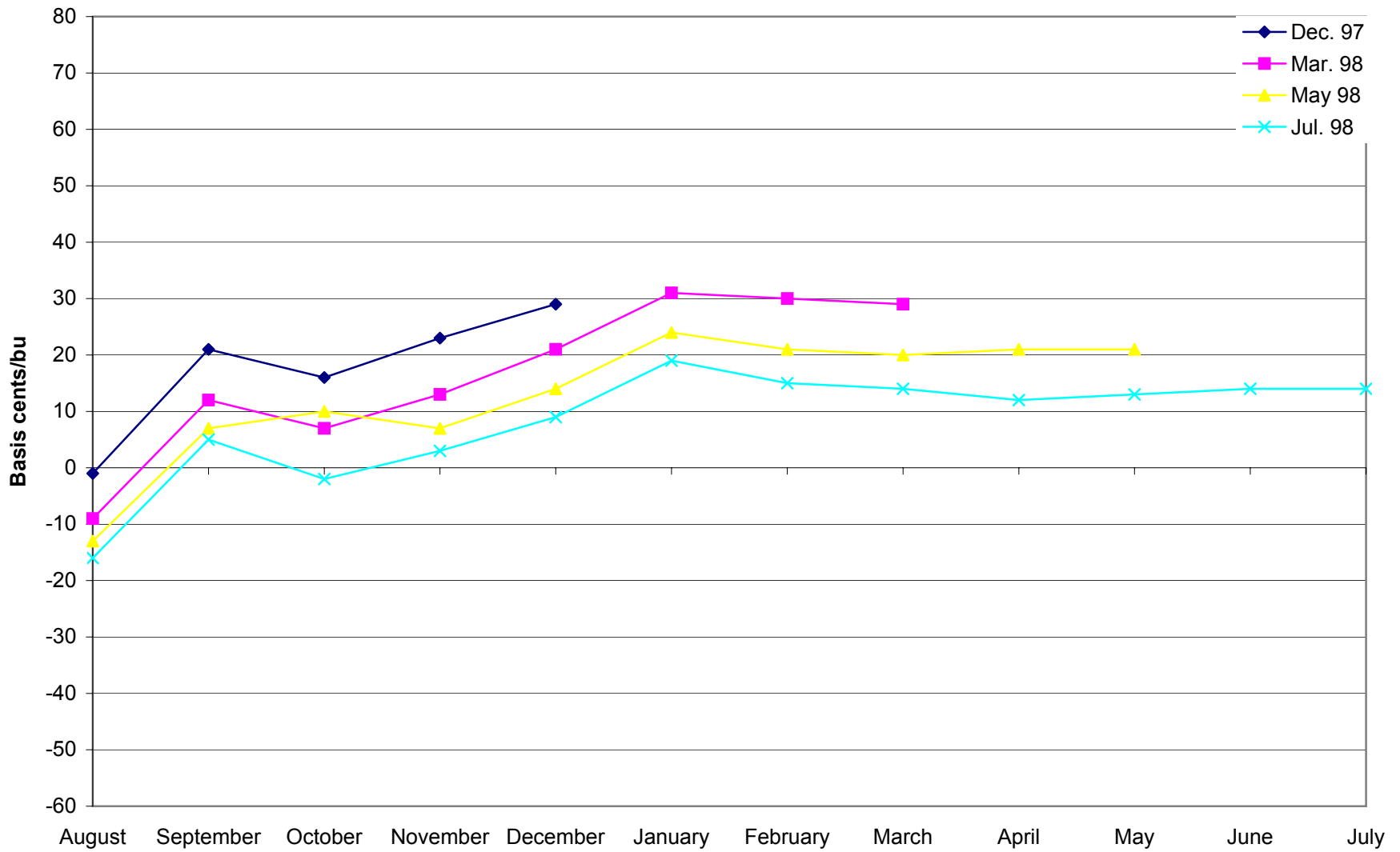


Figure B-3: Northern Eastern Shore Corn Basis; Marketing Year 1998/99

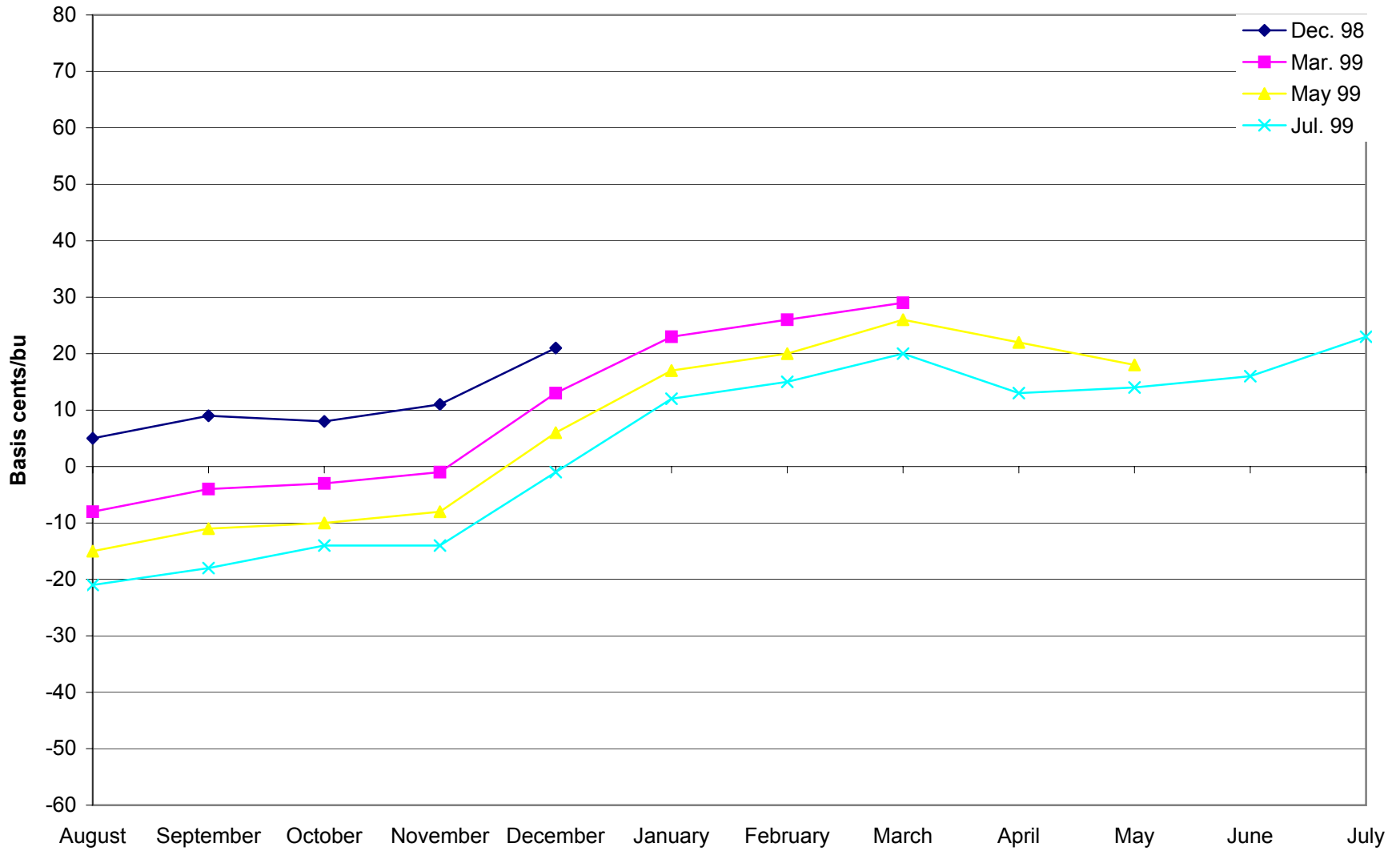


Figure B-4: Northern Eastern Shorn Corn Basis; Marketing Year 1999/00

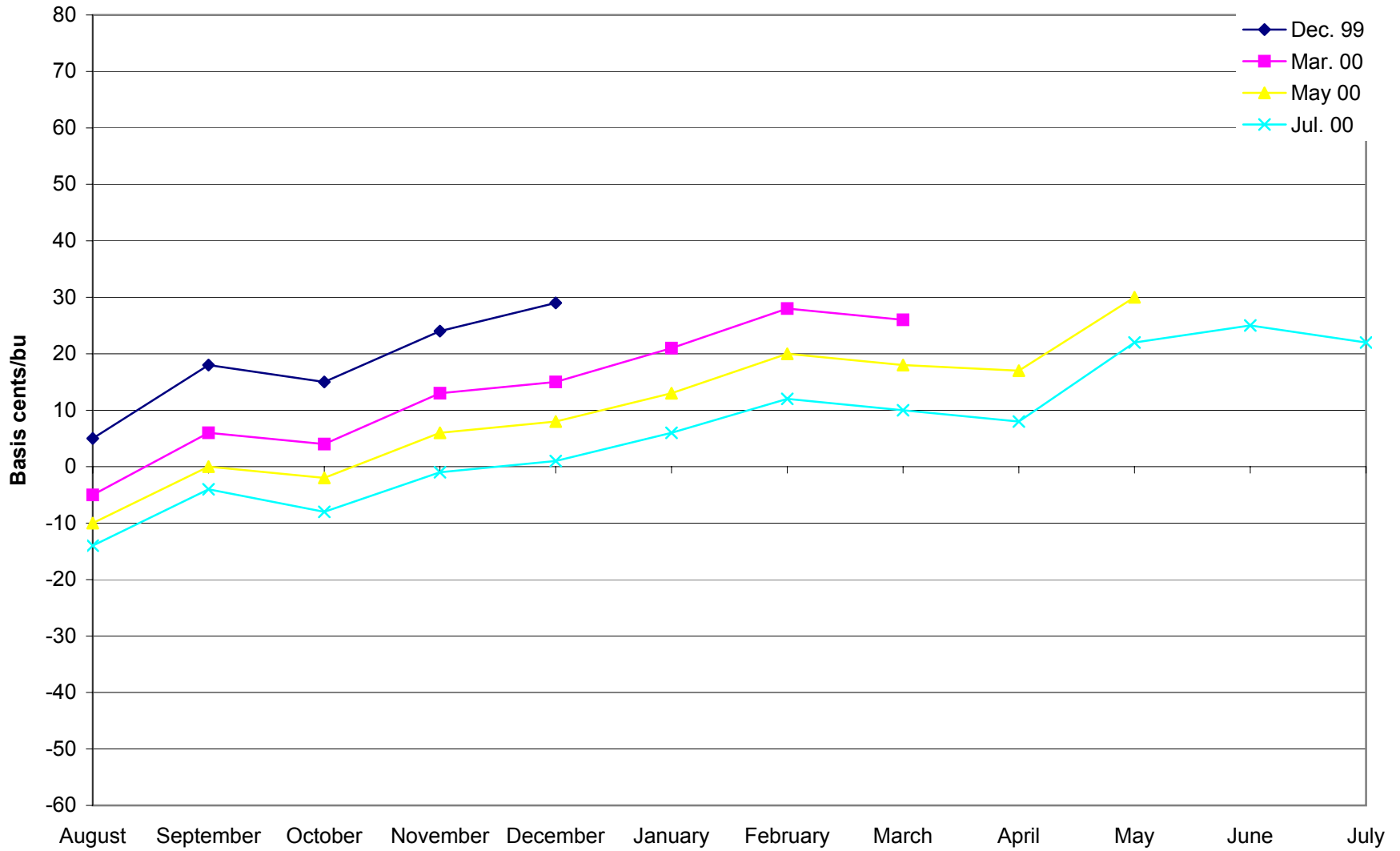


Figure B-5: Northern Eastern Shore Corn Basis Marketing Year 2000/01

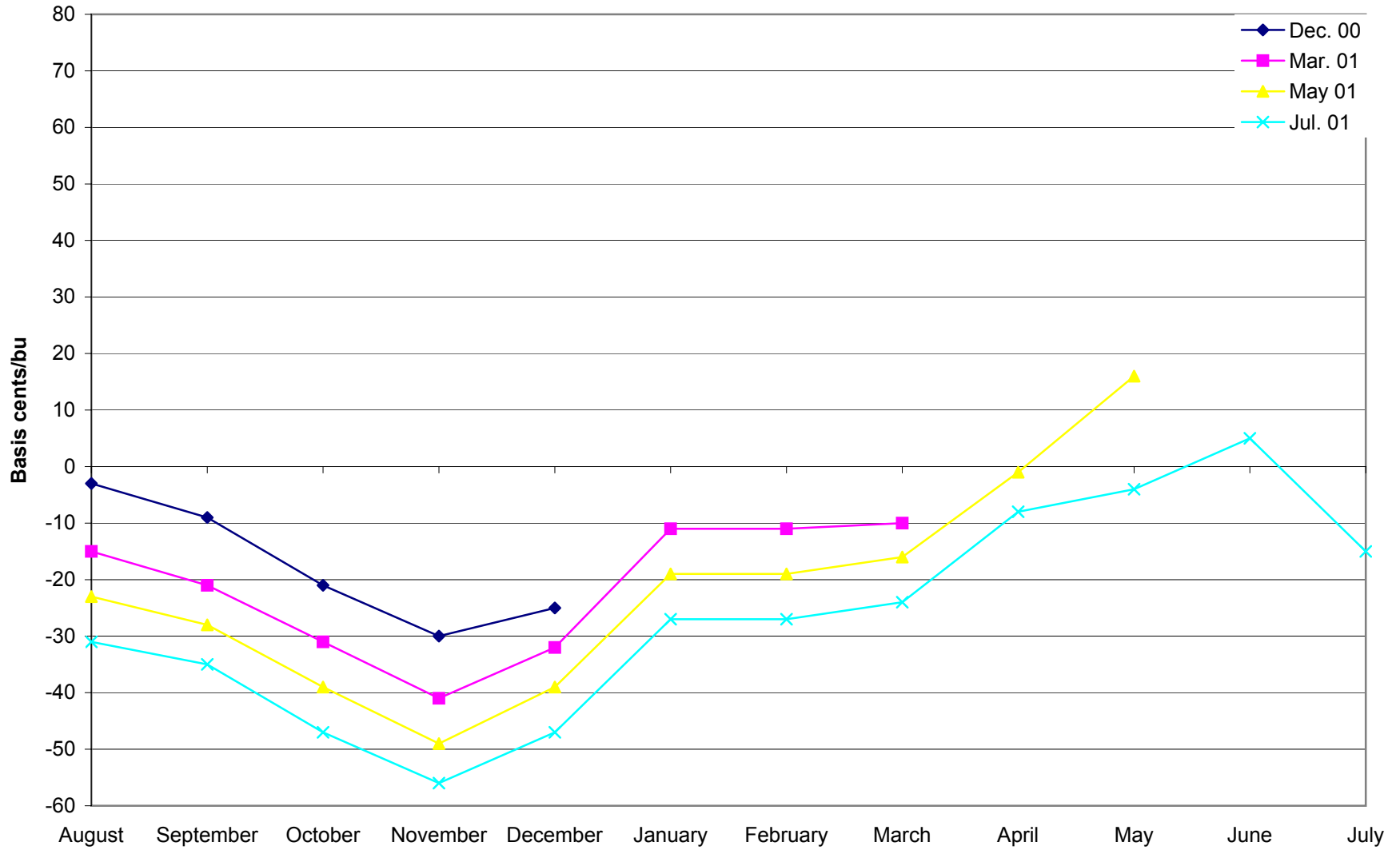


Figure B-6: Northern Eastern Shore Average Corn Basis Marketing Years 1996/97-2000/01

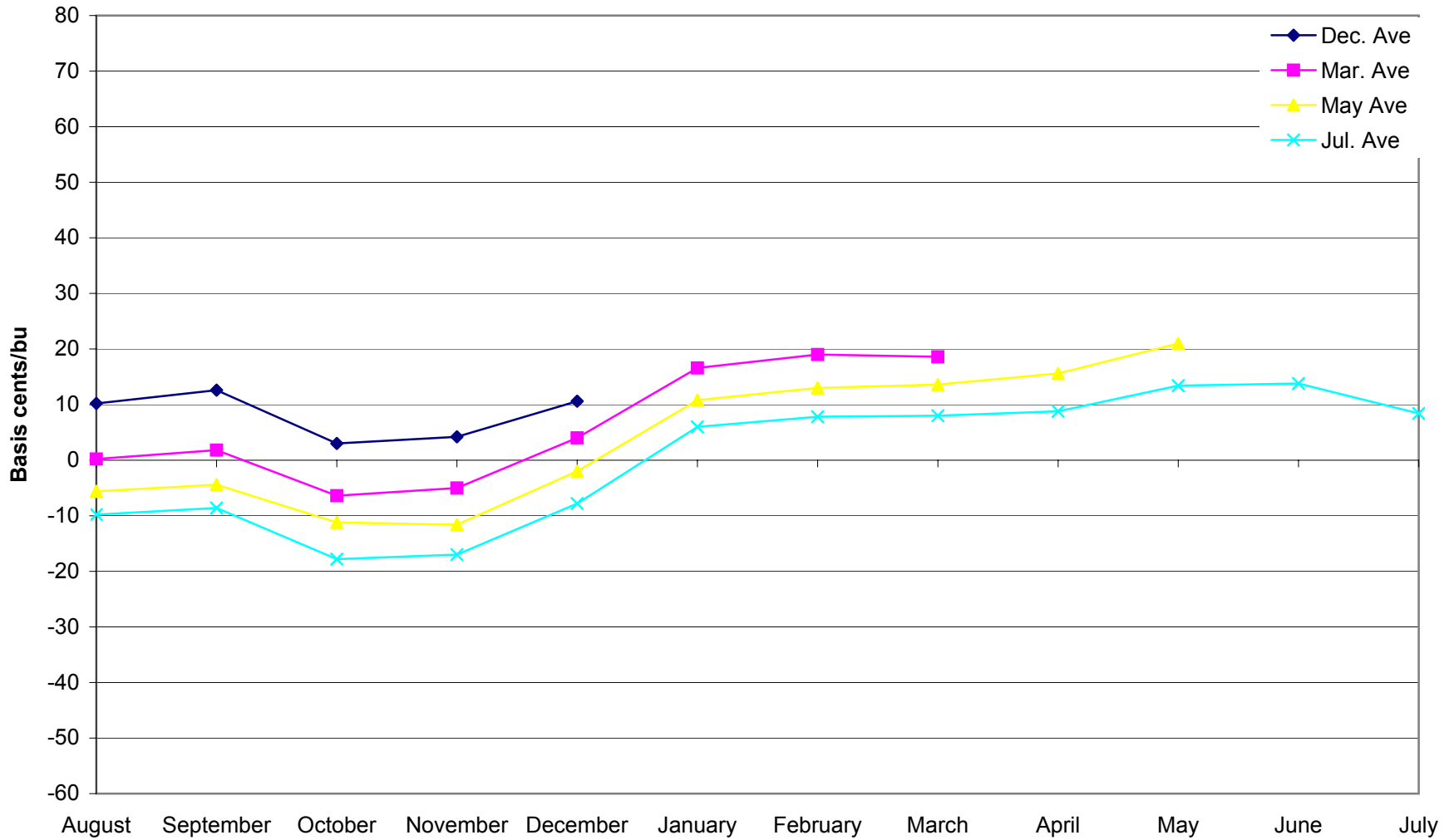




Figure B-7: Southern Eastern Shore Corn Basis; Marketing Year 1996/97

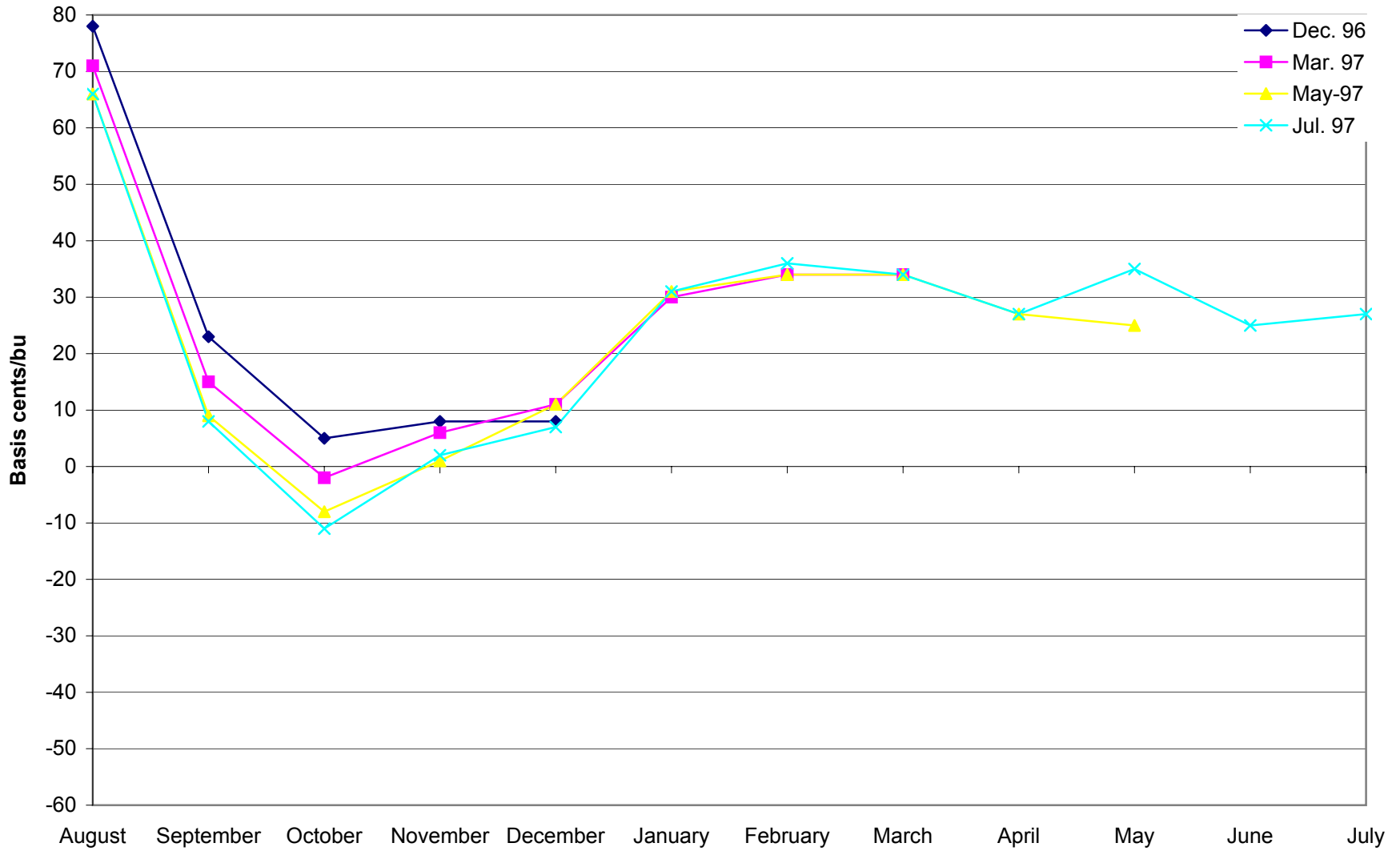


Figure B-8: Southern Eastern Shore Corn Basis; Marketing Year 1997/98

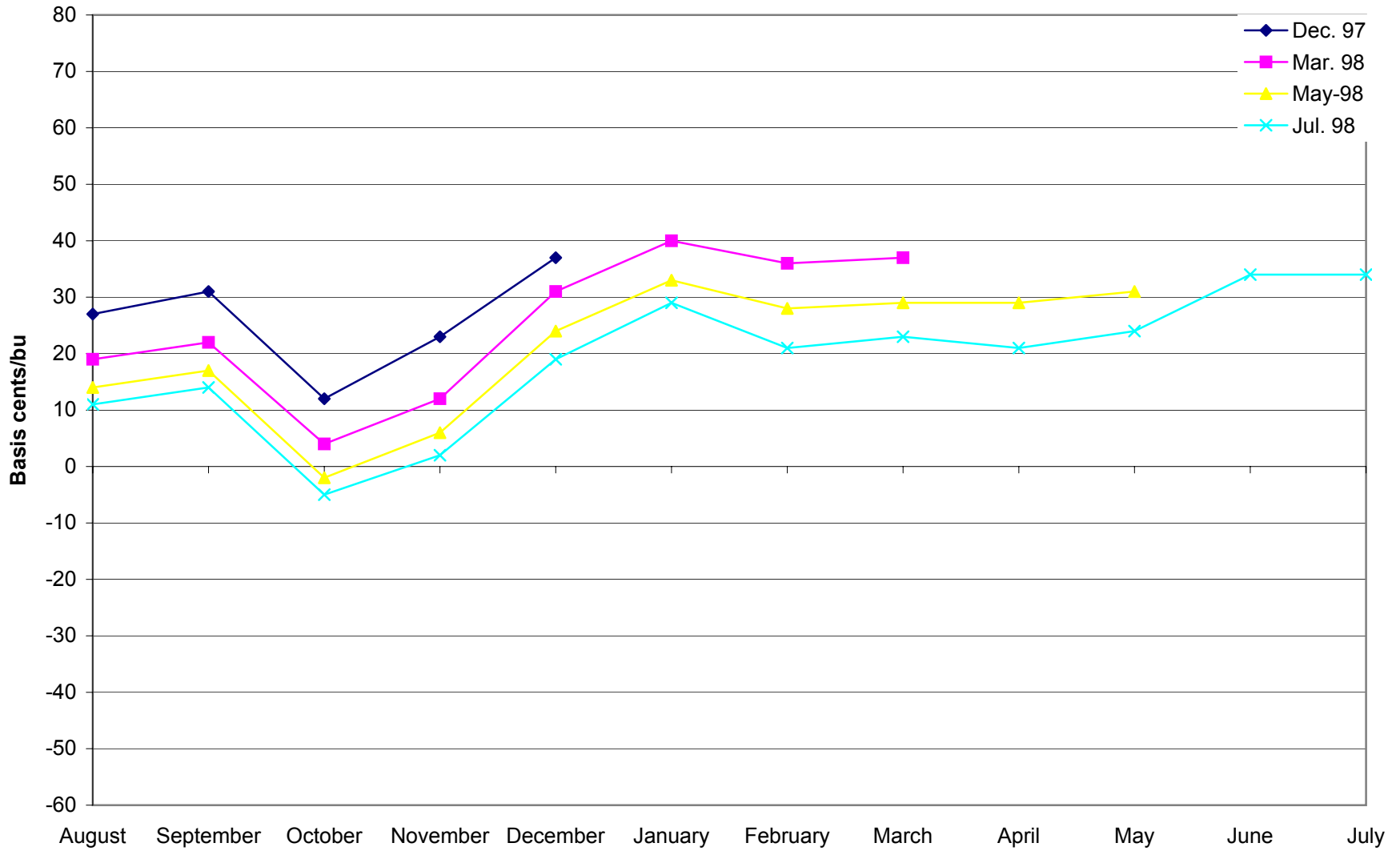


Figure B-9: Southern Eastern Shore Corn Basis; Marketing Year 1998/99

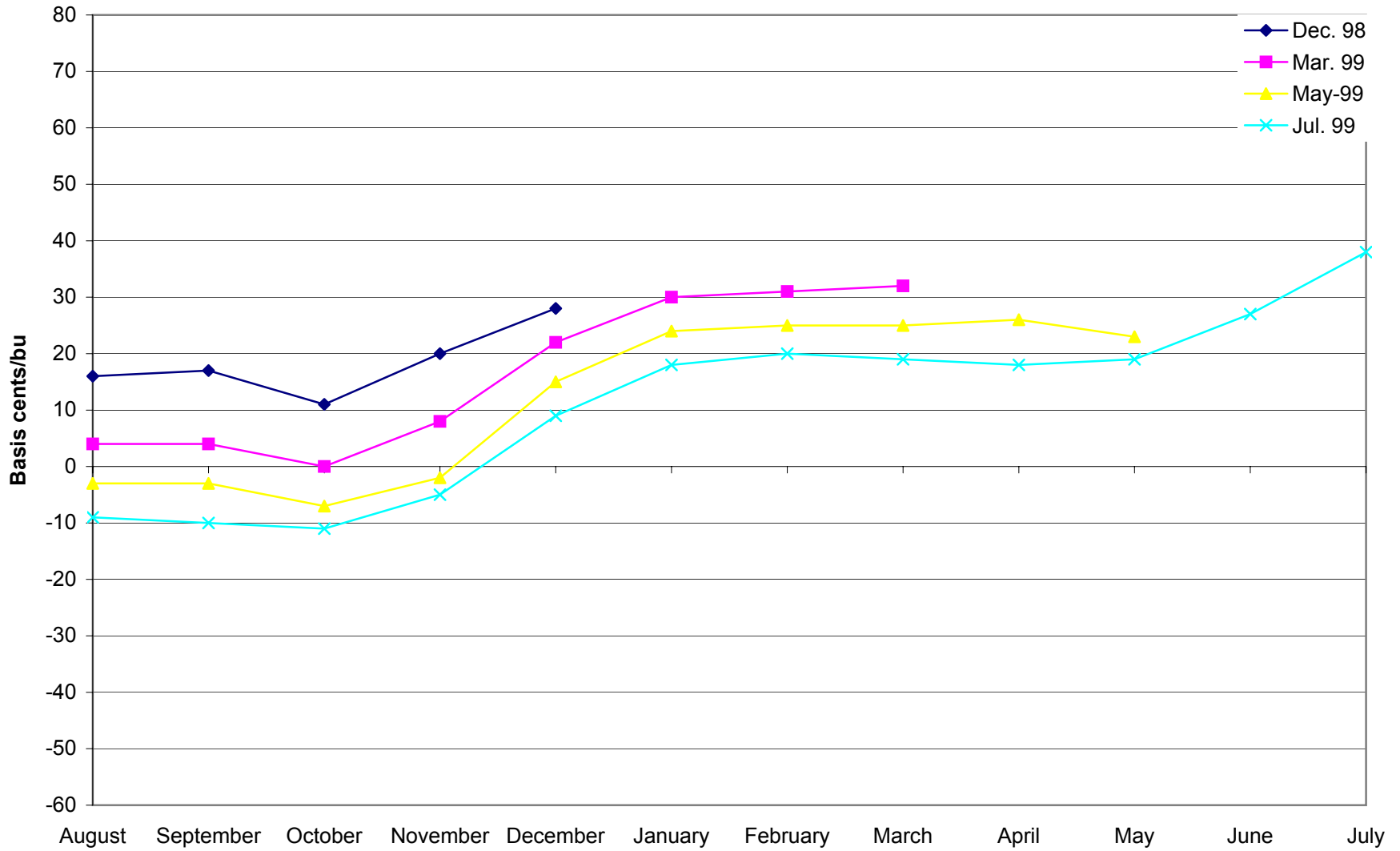


Figure B-10: Southern Eastern Shore Corn Basis; Marketing Year 1999/00

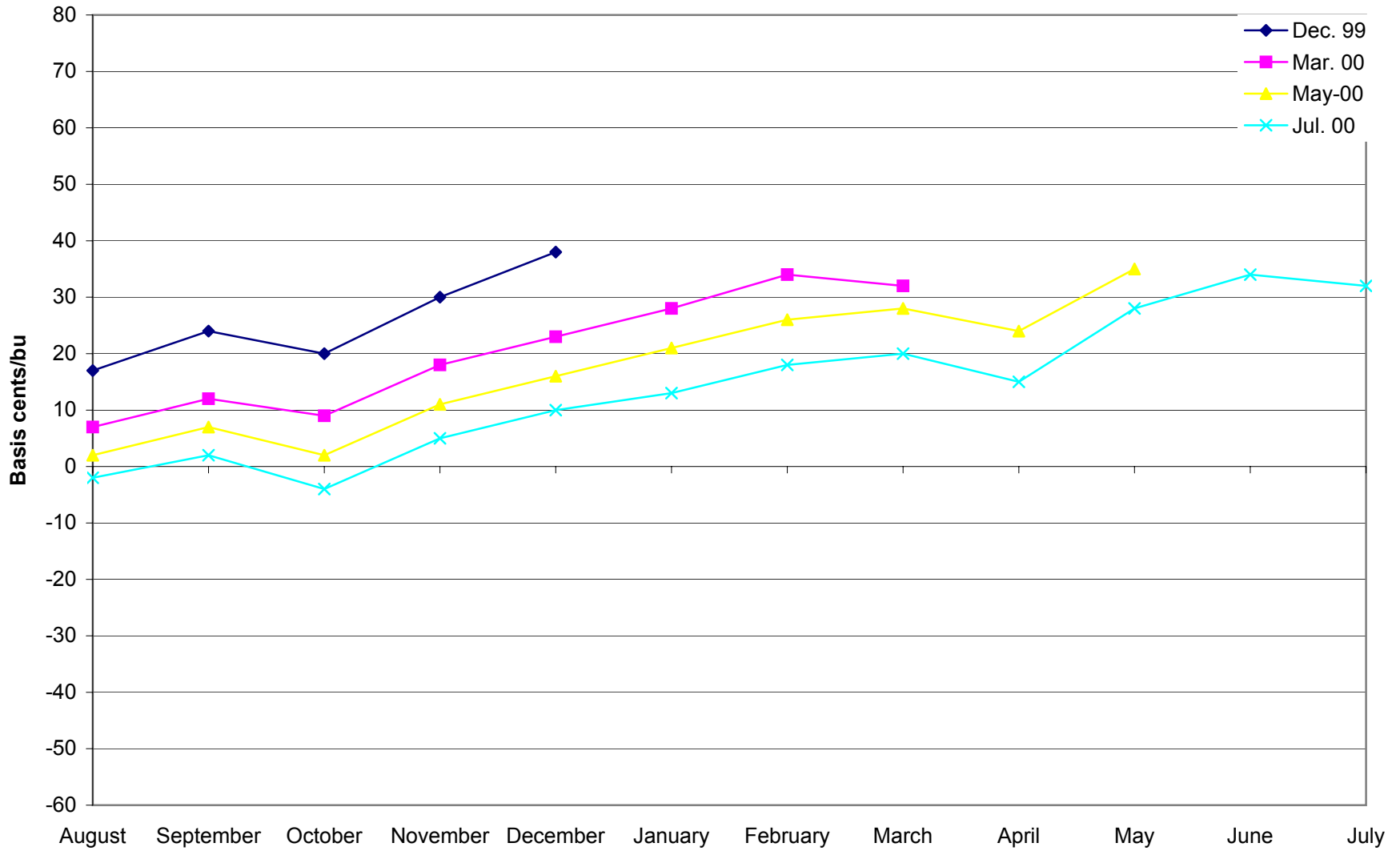


Figure B-11: Southern Eastern Shore Corn Basis; Marketing Year 2000/01

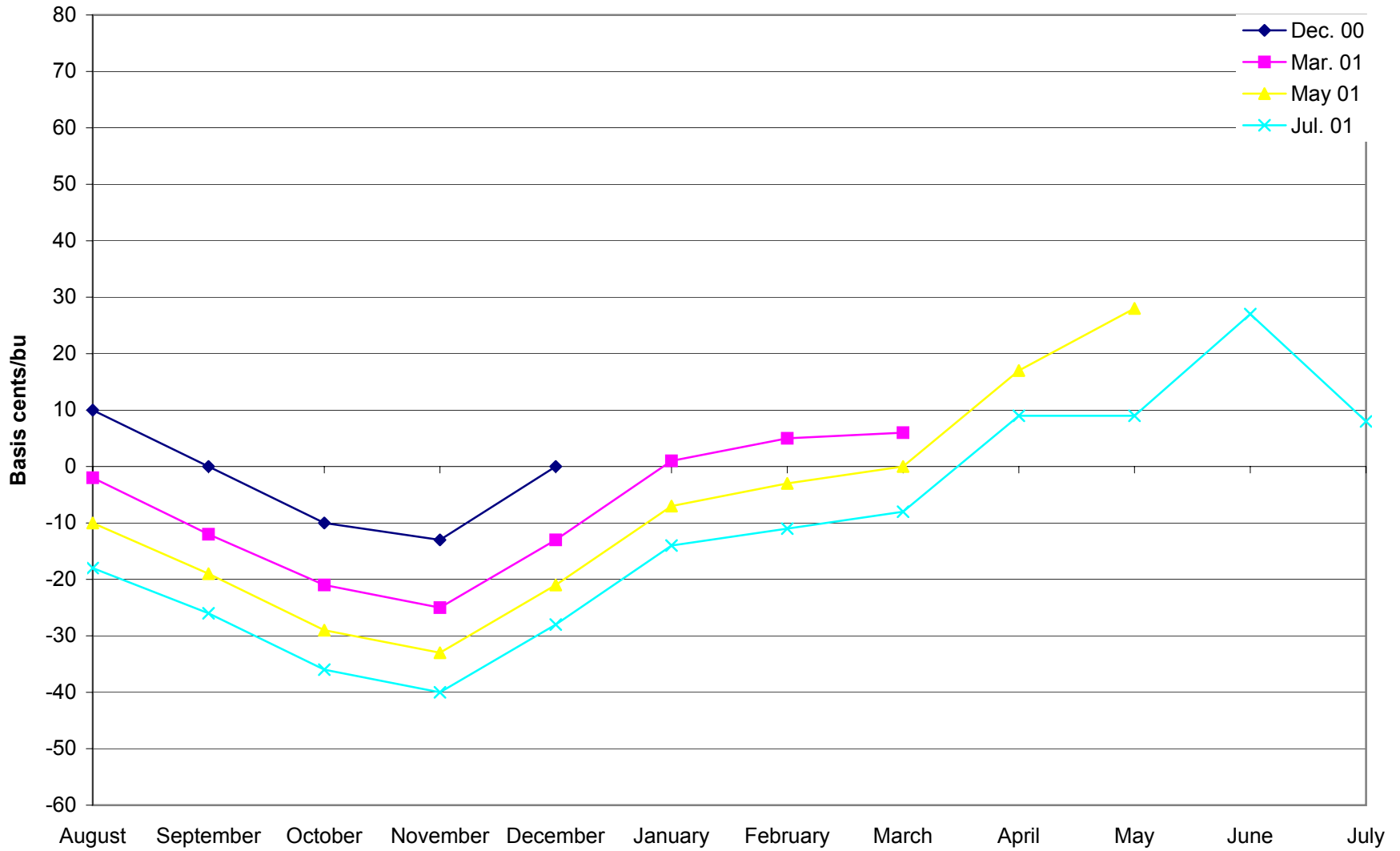
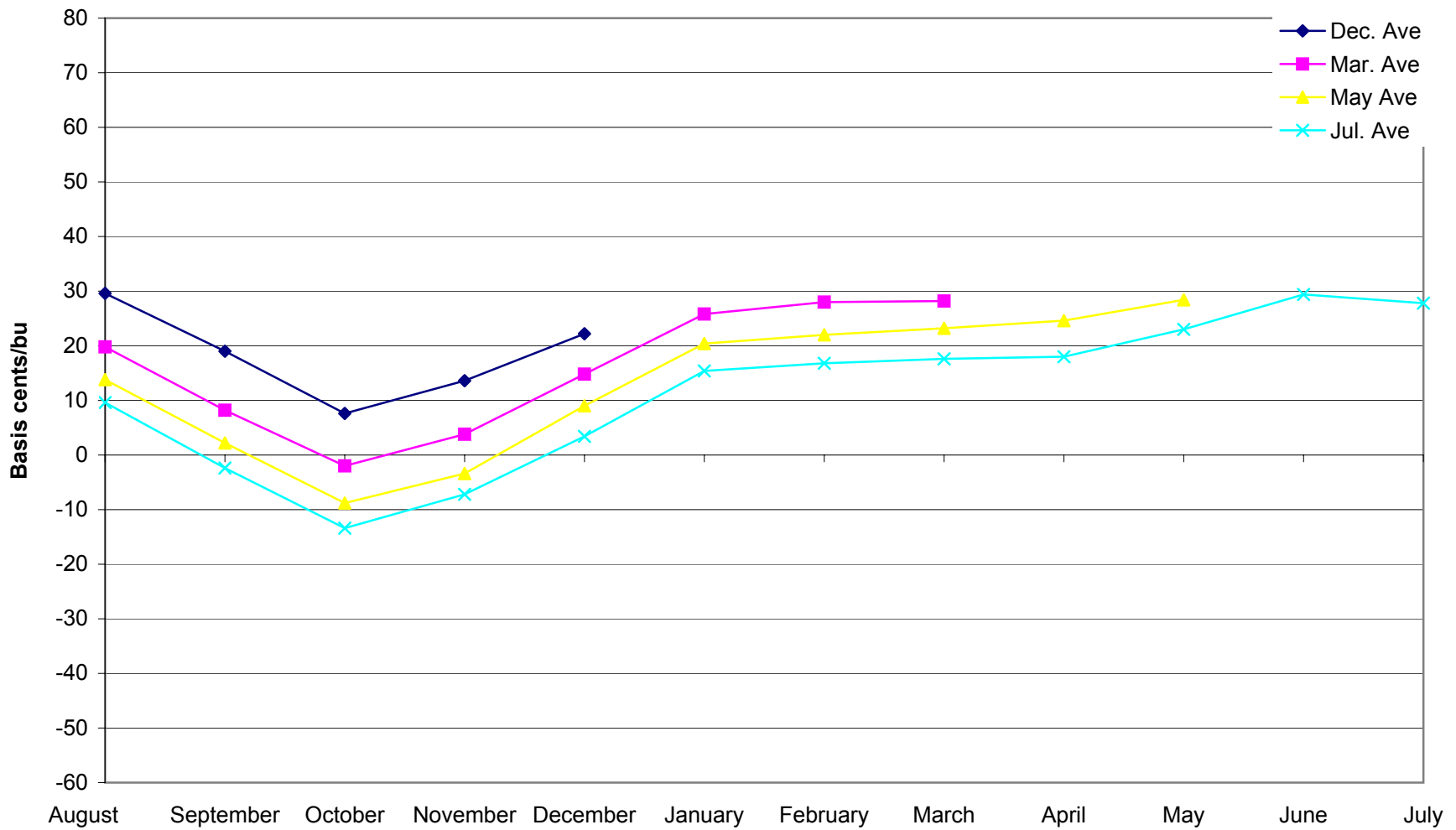


Figure B-12: Southern Eastern Shore Average Corn Basis; Marketing Years 1996/97-2000/01



**Figure B-13: Northern Eastern Shore Soybean Basis; Marketing Year 1996/97**

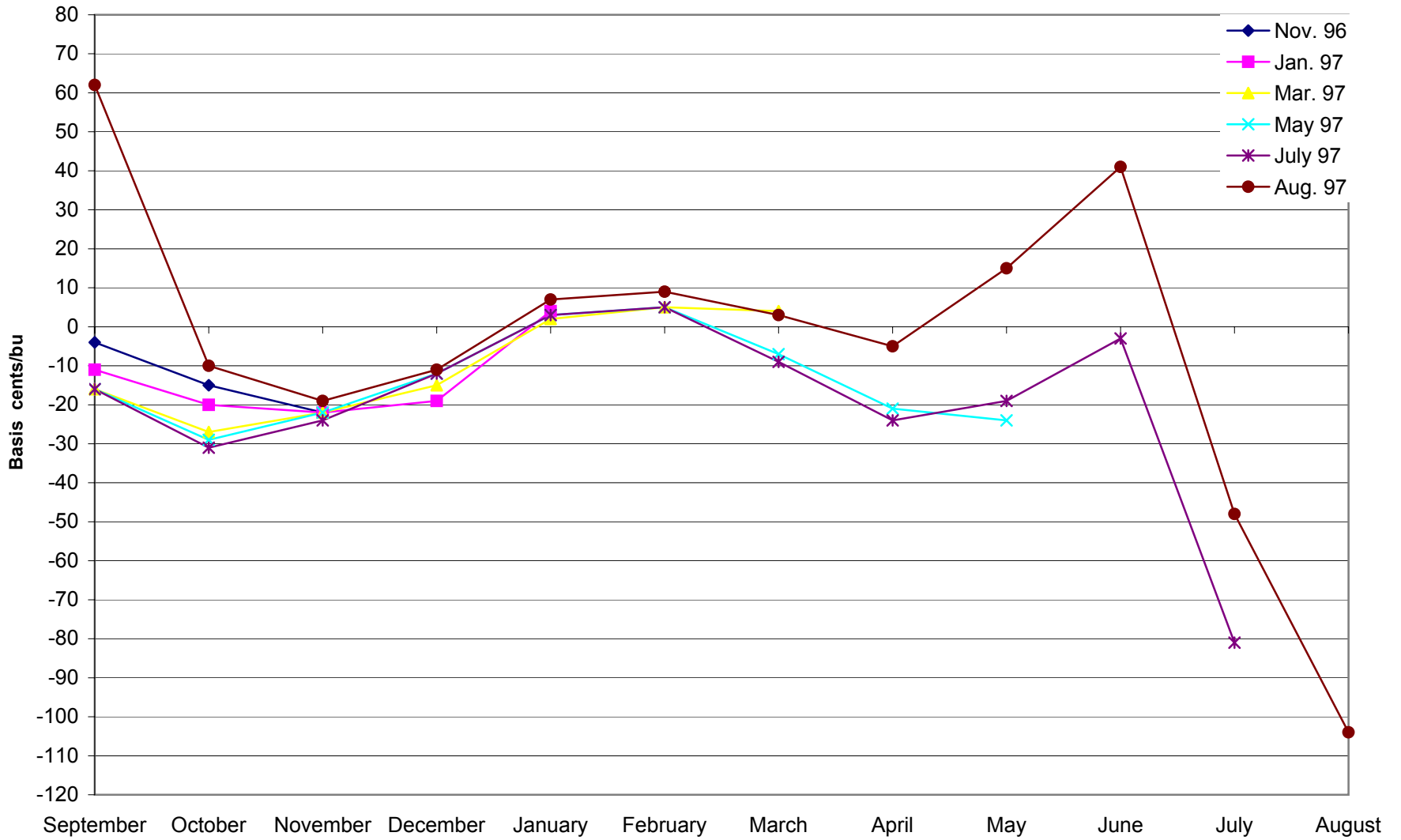


Figure B-14: Northern Eastern Shore Soybean Basis; Marketing Year 1997/98

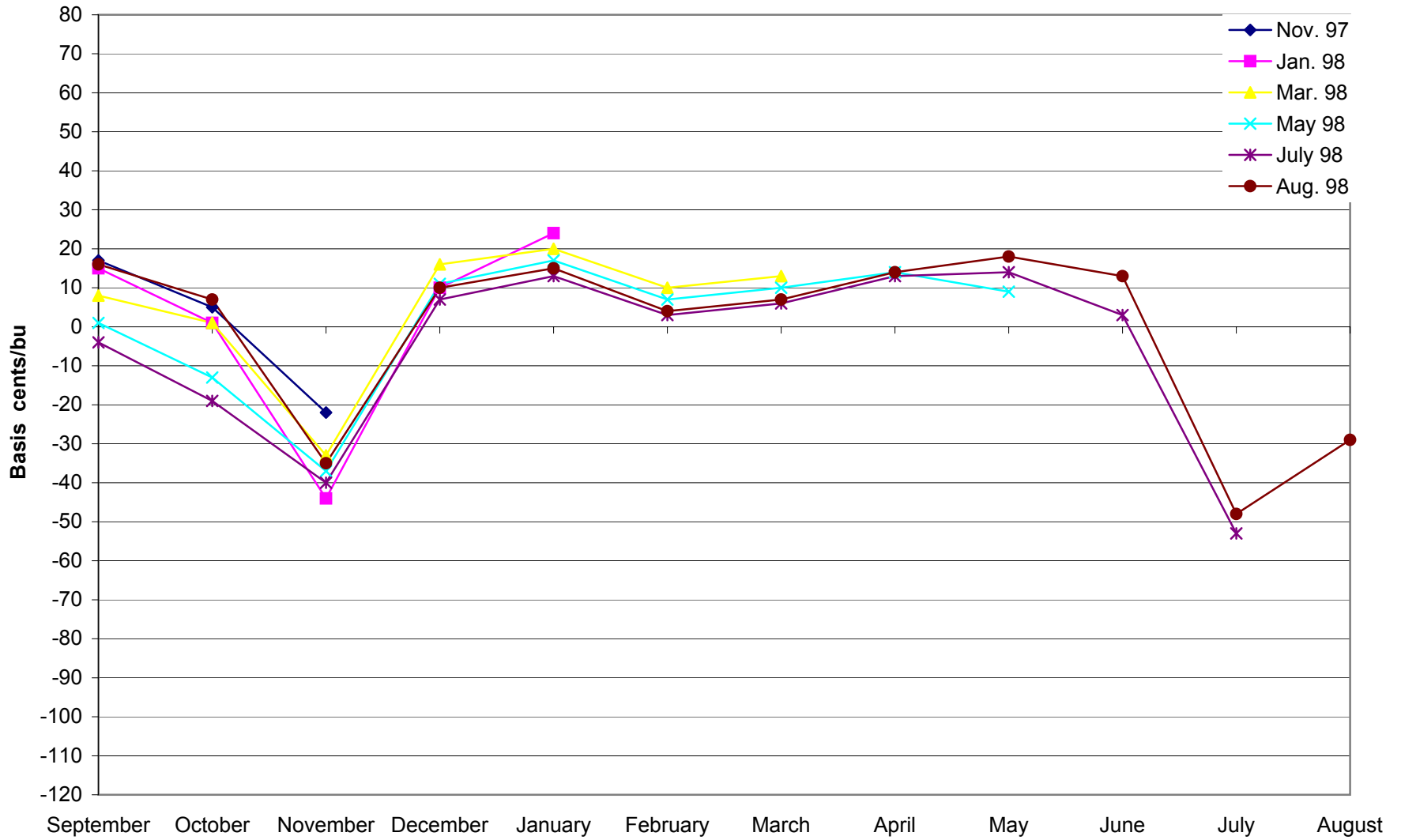




Figure B-15: Northern Eastern Shore Soybean Basis; Marketing Year 1998/99

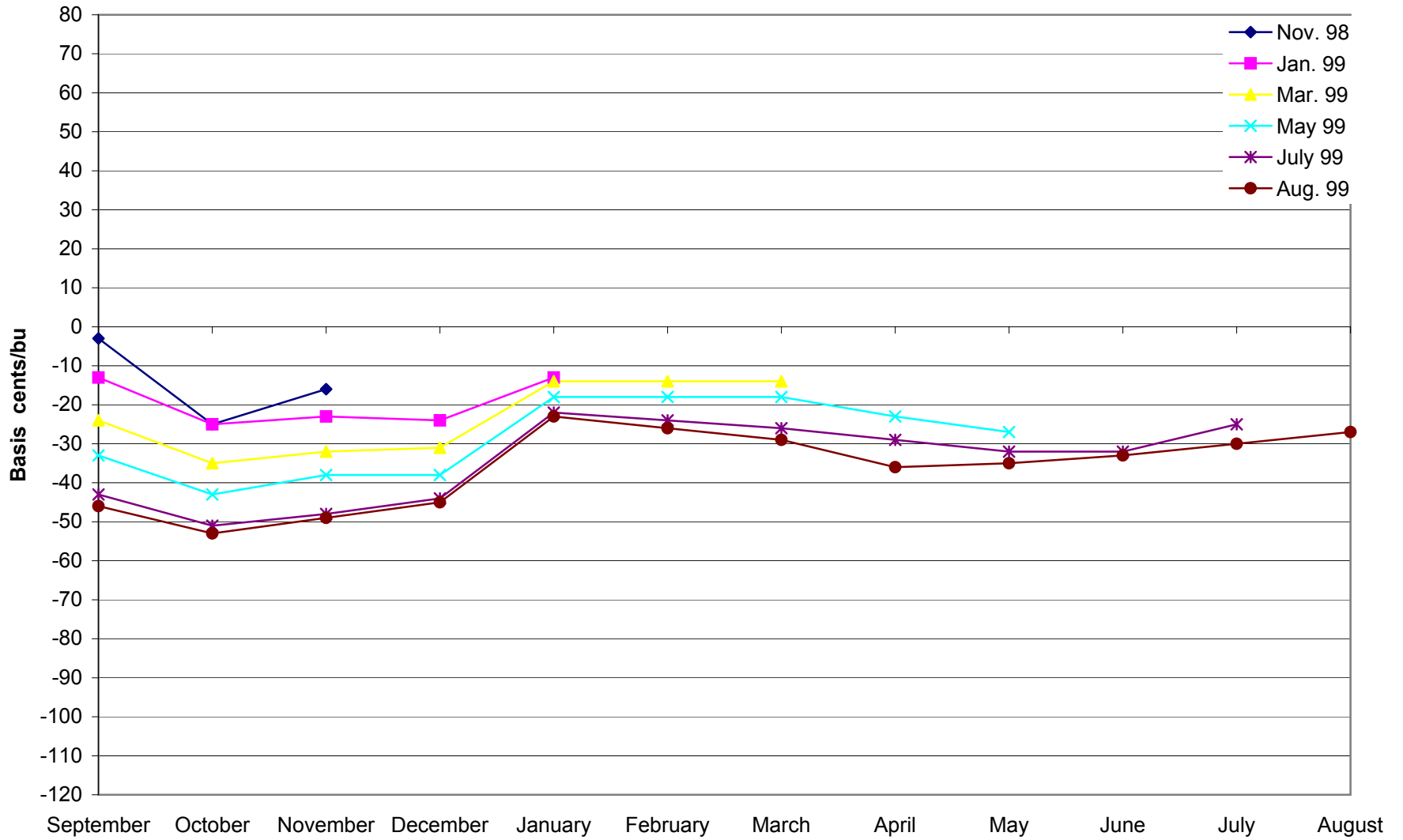


Figure B-16: Northern Eastern Shore Soybean Basis; Marketing Year 1999/00

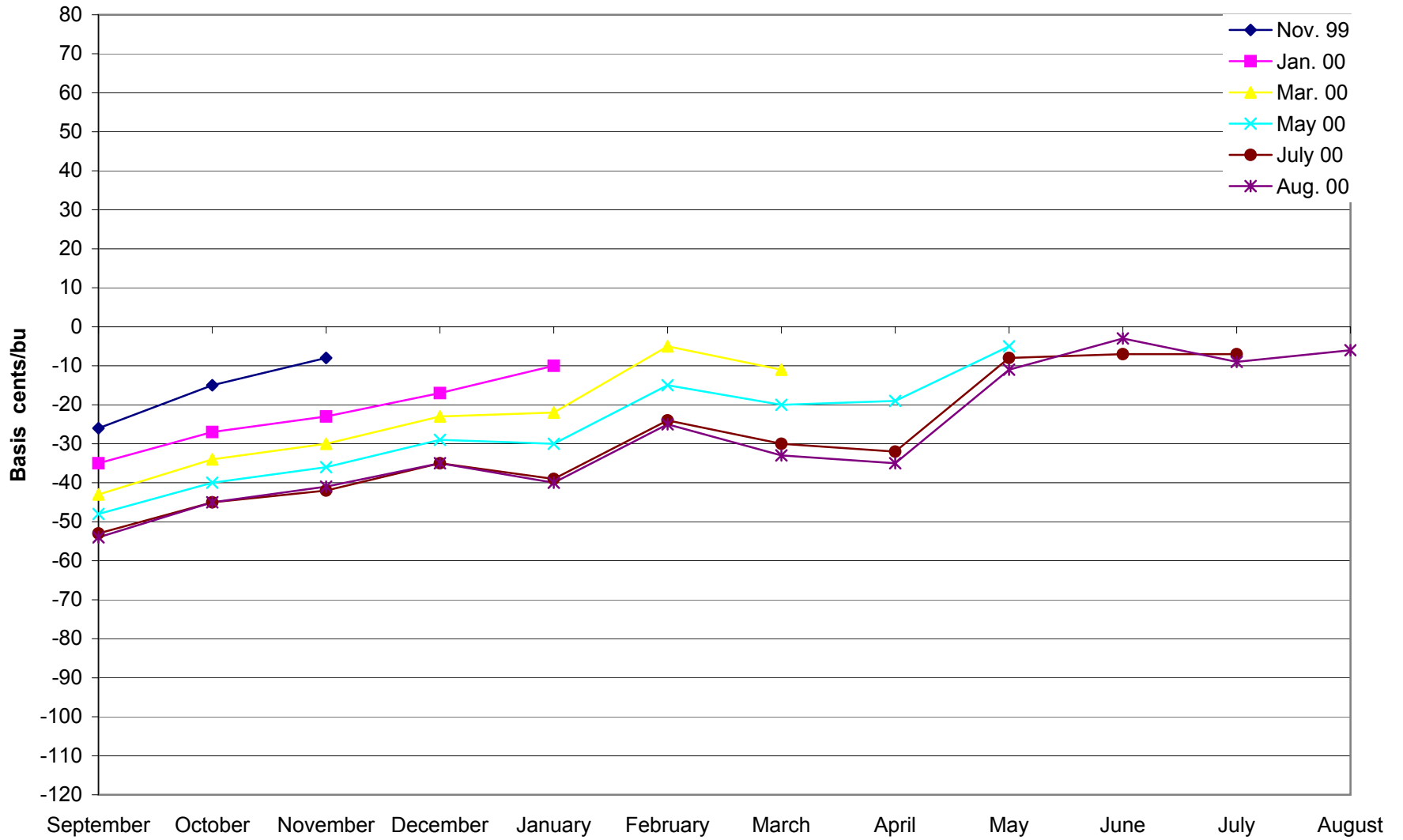
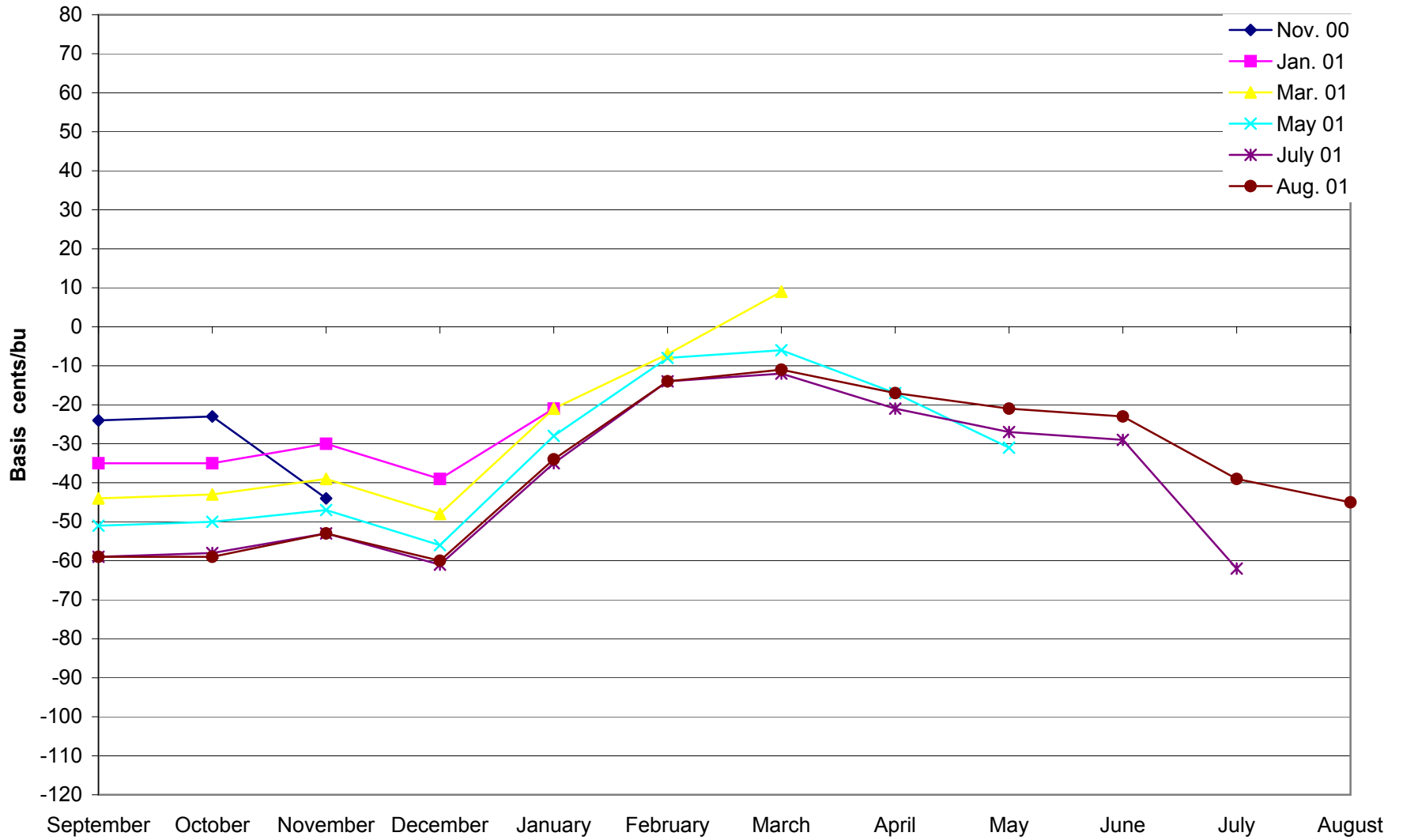


Figure B-17: Northern Eastern Shore Soybean Basis; Marketing Year 2000/01



**Figure B-18: Northern Eastern Shore Average Soybean Basis; Marketing Years 1996/97-2000/01**

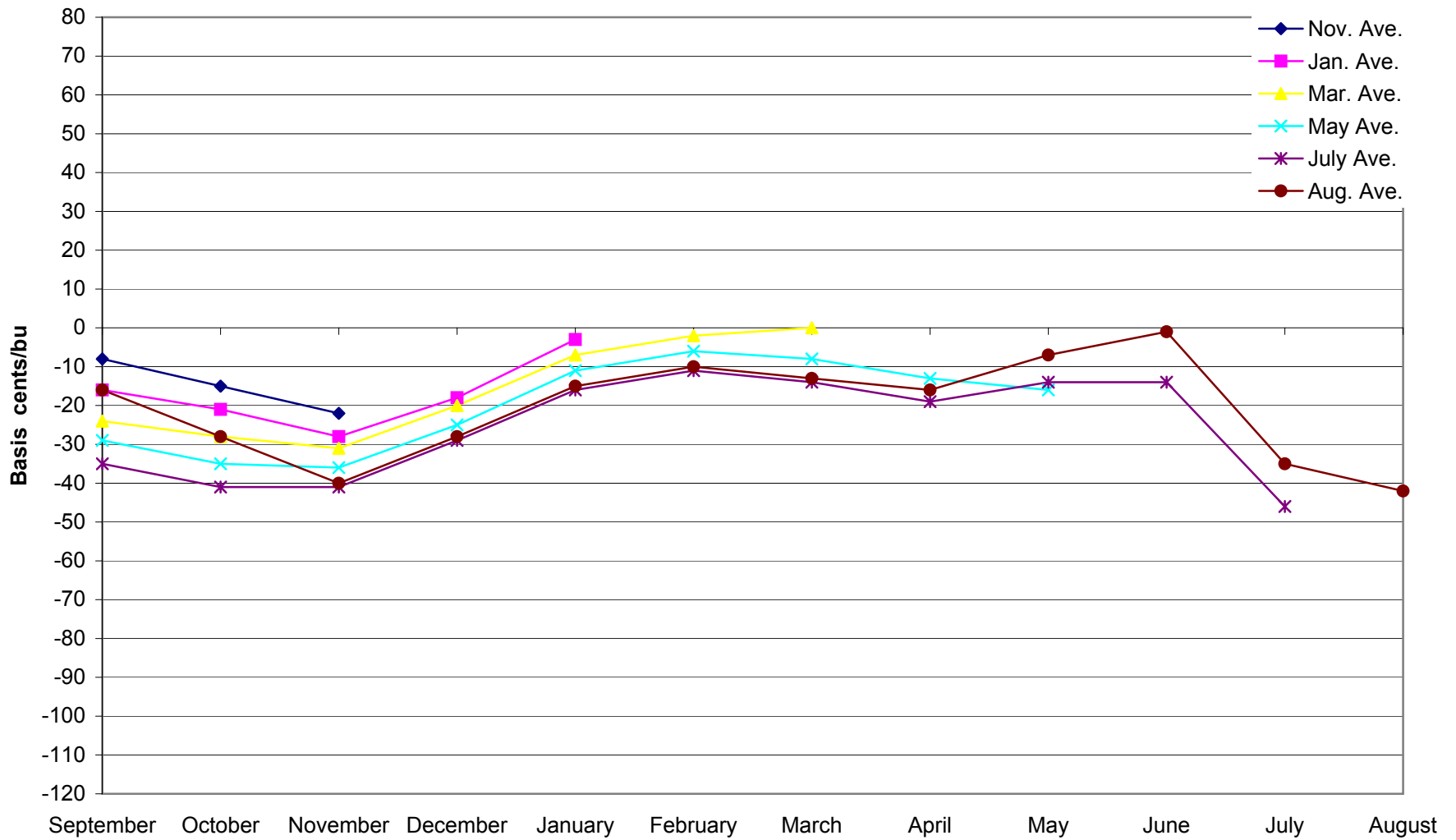


Figure B-19: Southern Eastern Shore Soybean Basis; Marketing Year 1996/97

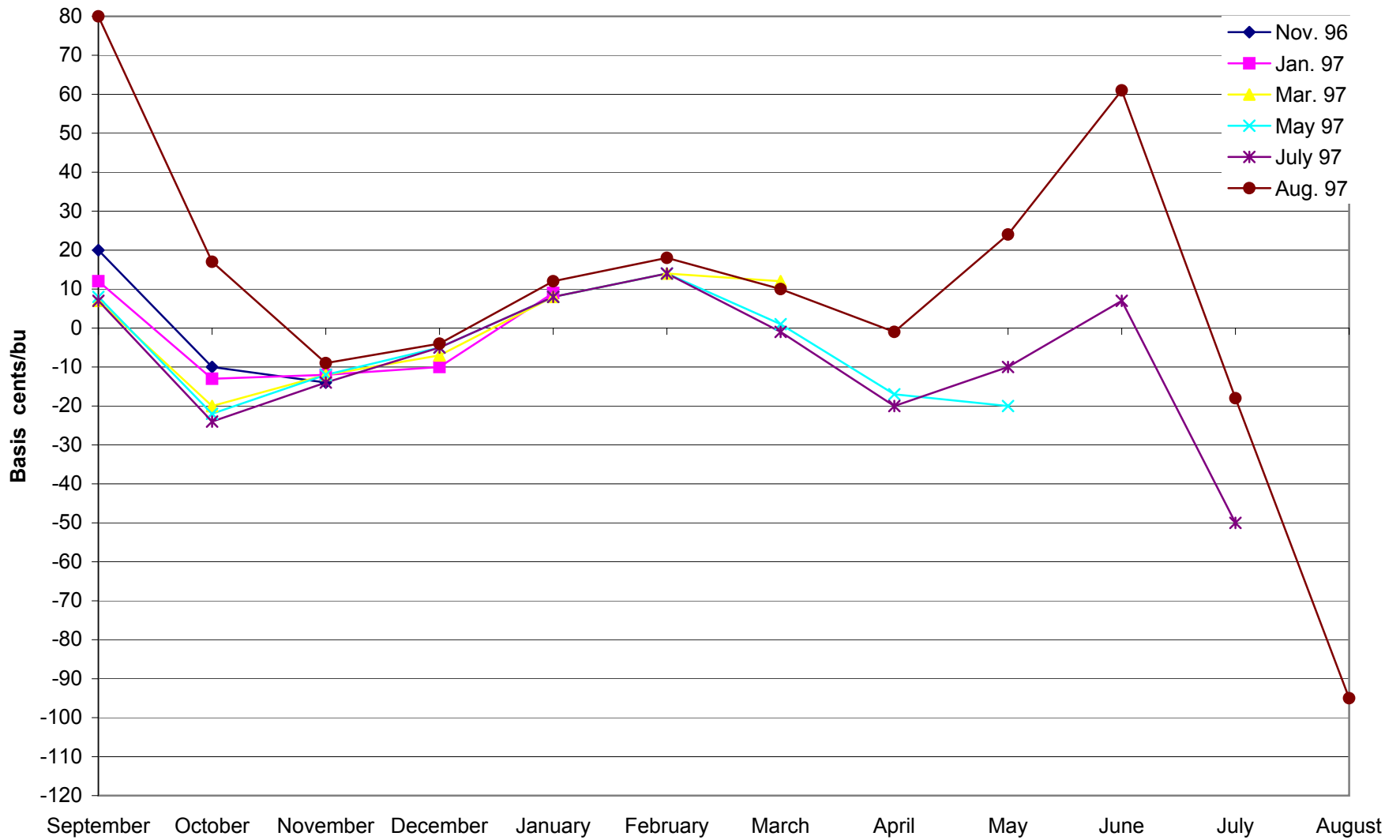


Figure B-20: Southern Eastern Shore Soybean Basis; Marketing Year 1997/98

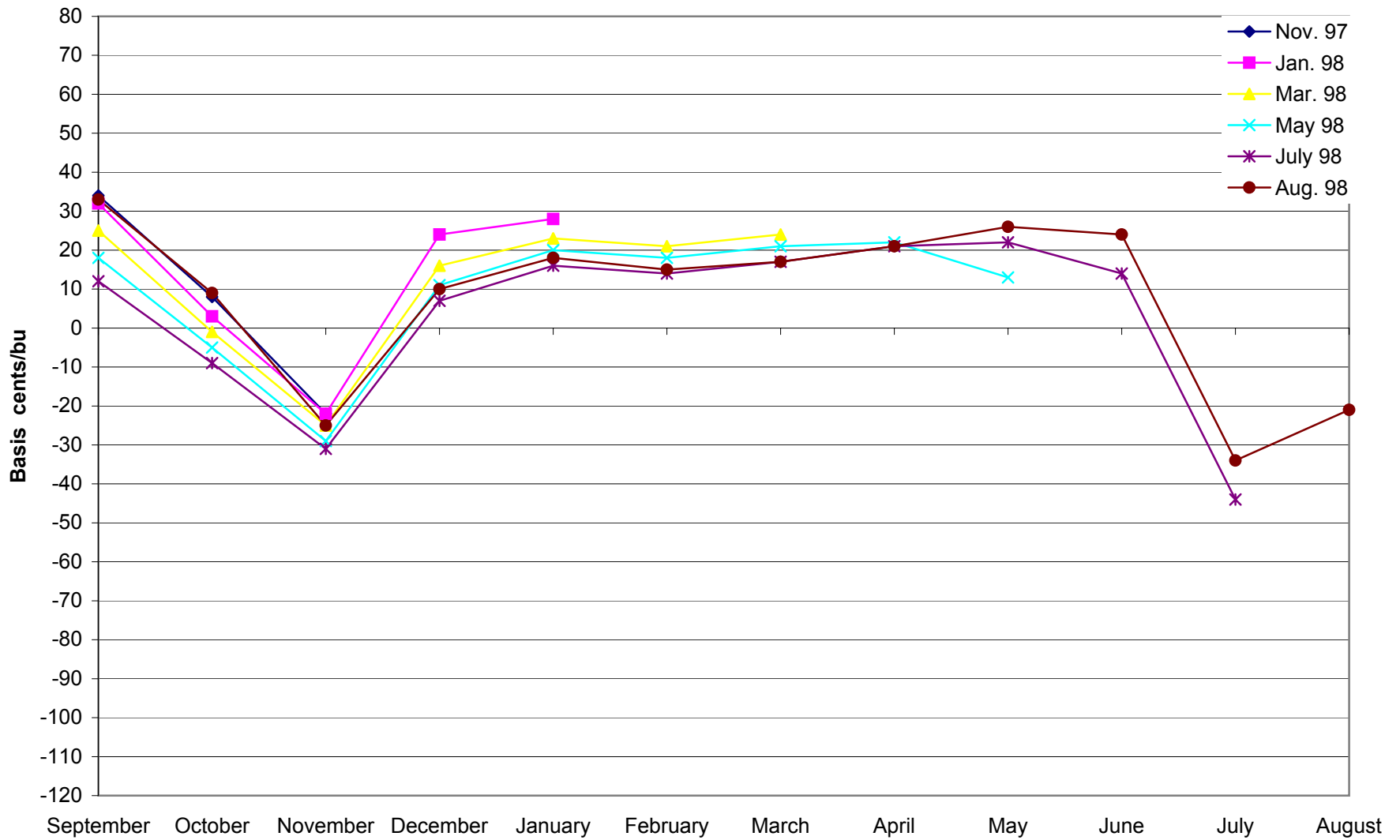


Figure B-21: Southern Eastern Shore Soybean Basis; Marketing Year 1998/99

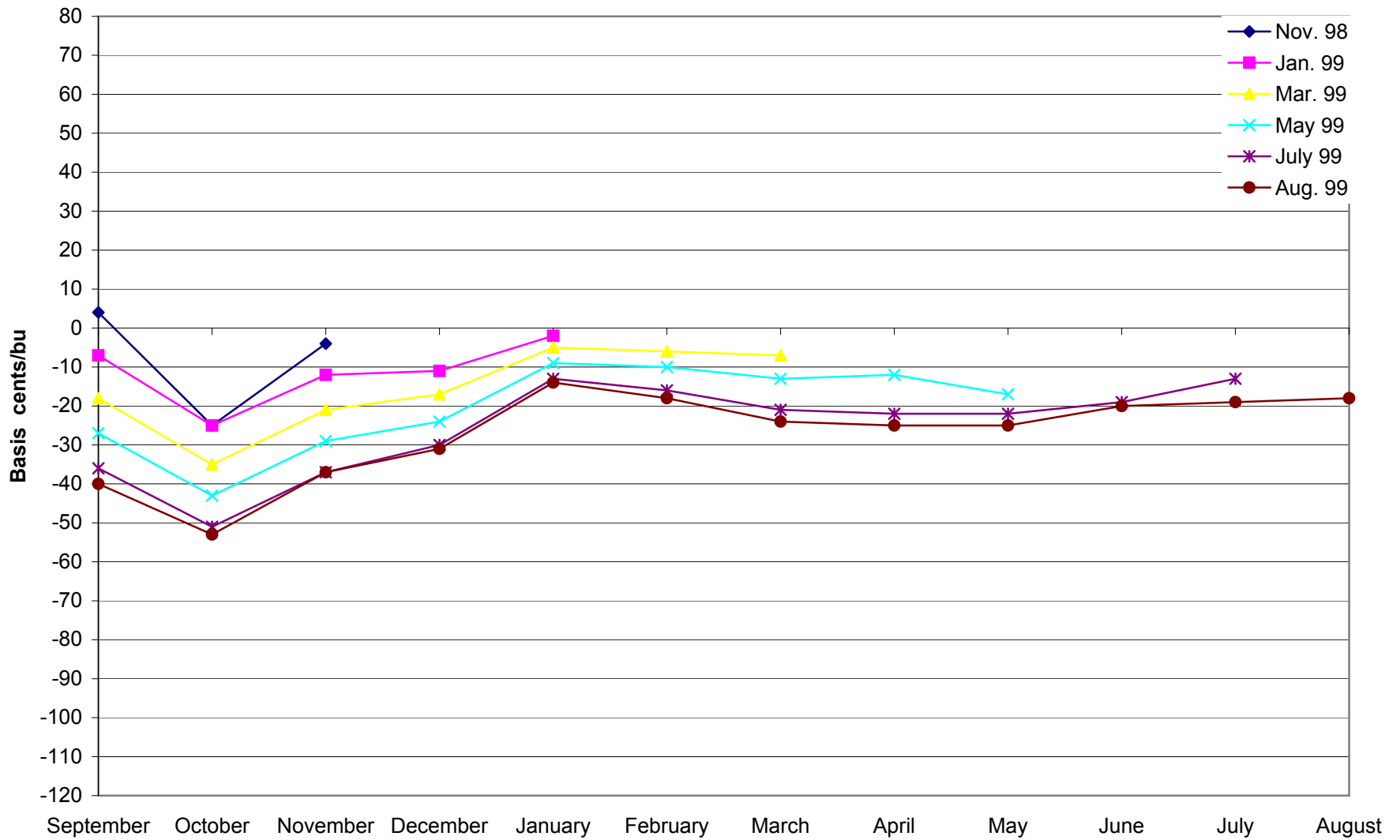


Figure B-22: Southern Eastern Shore Soybean Basis; Marketing Year 1999/00

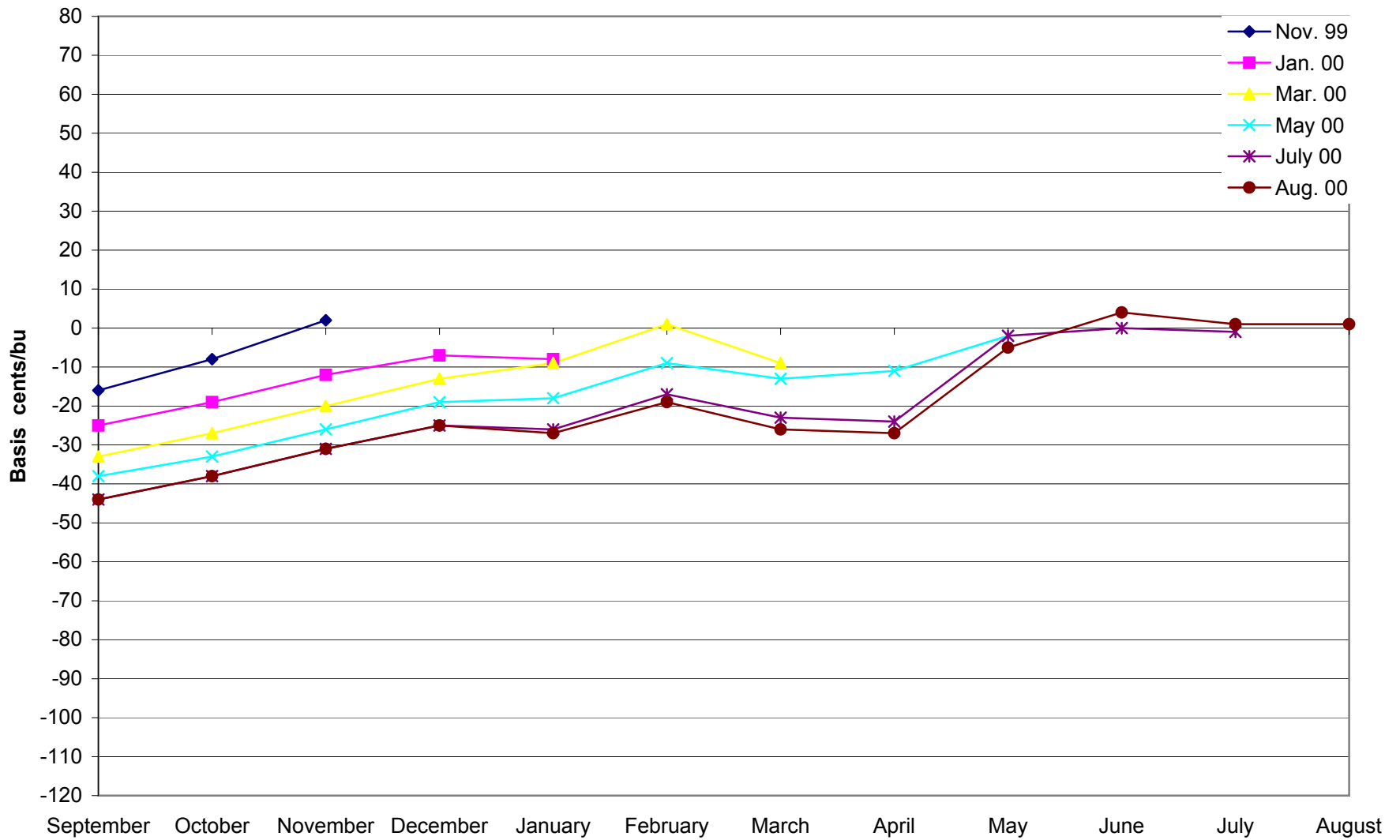
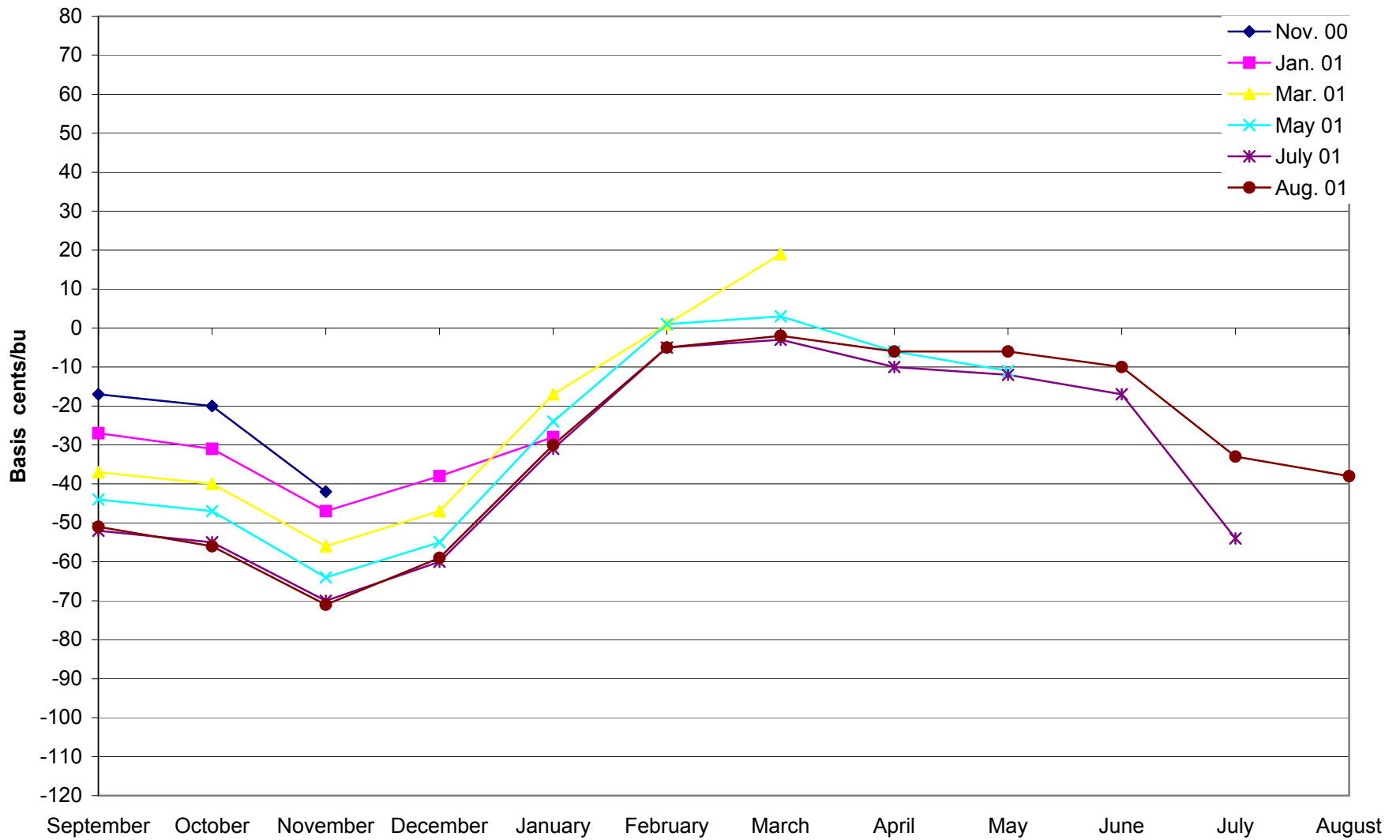




Figure B-23: Southern Eastern Shore Soybean Basis; Marketing Year 2000/01



**Figure B-24: Southern Eastern Shore Average Soybean Basis; Marketing Years 1996/97-2000/01**

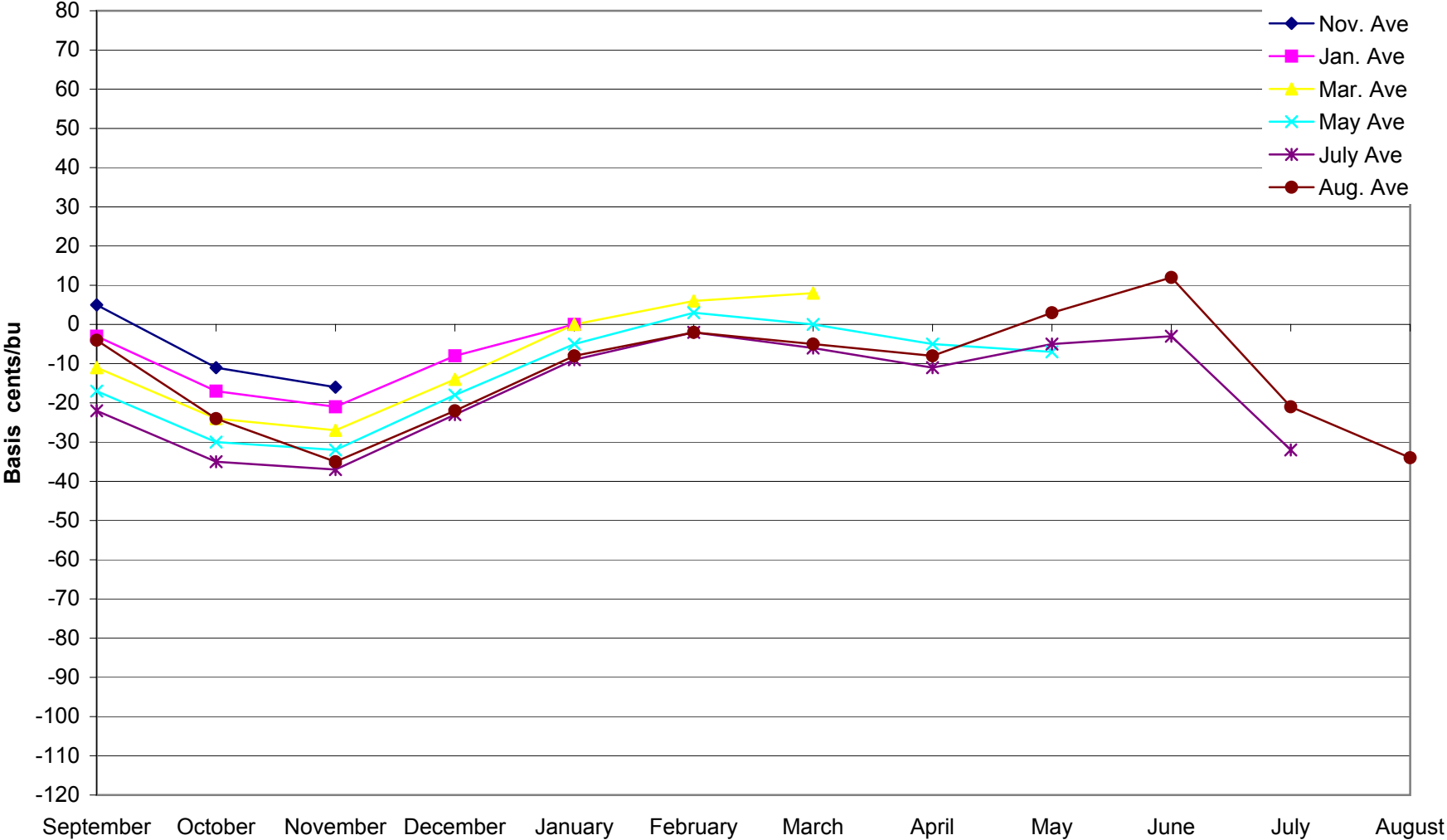


Figure B-25: Northern Eastern Shore Wheat Basis; Marketing Year 1996/97

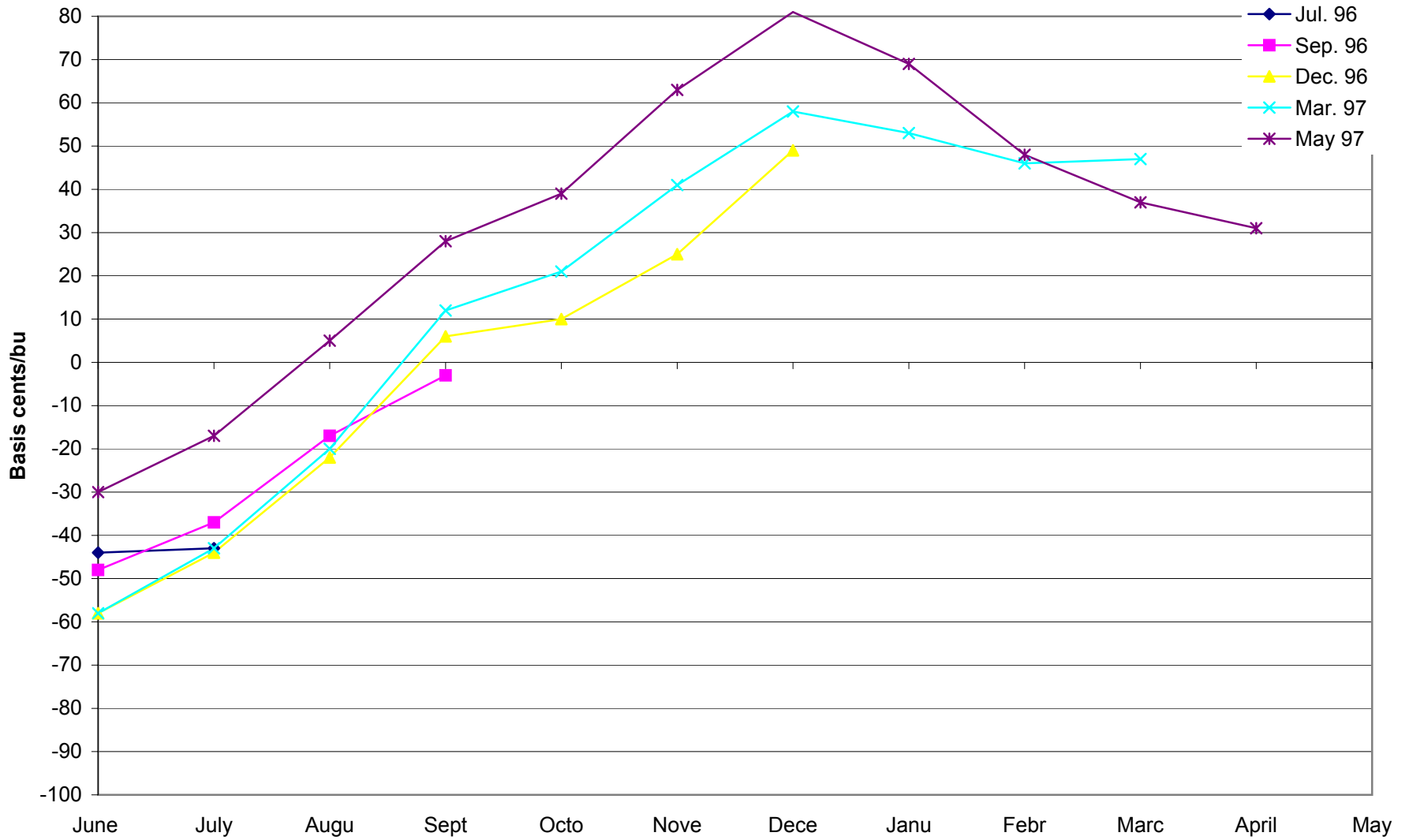


Figure B-26: Northern Eastern Shore Wheat Basis: Marketing Year 1997/98

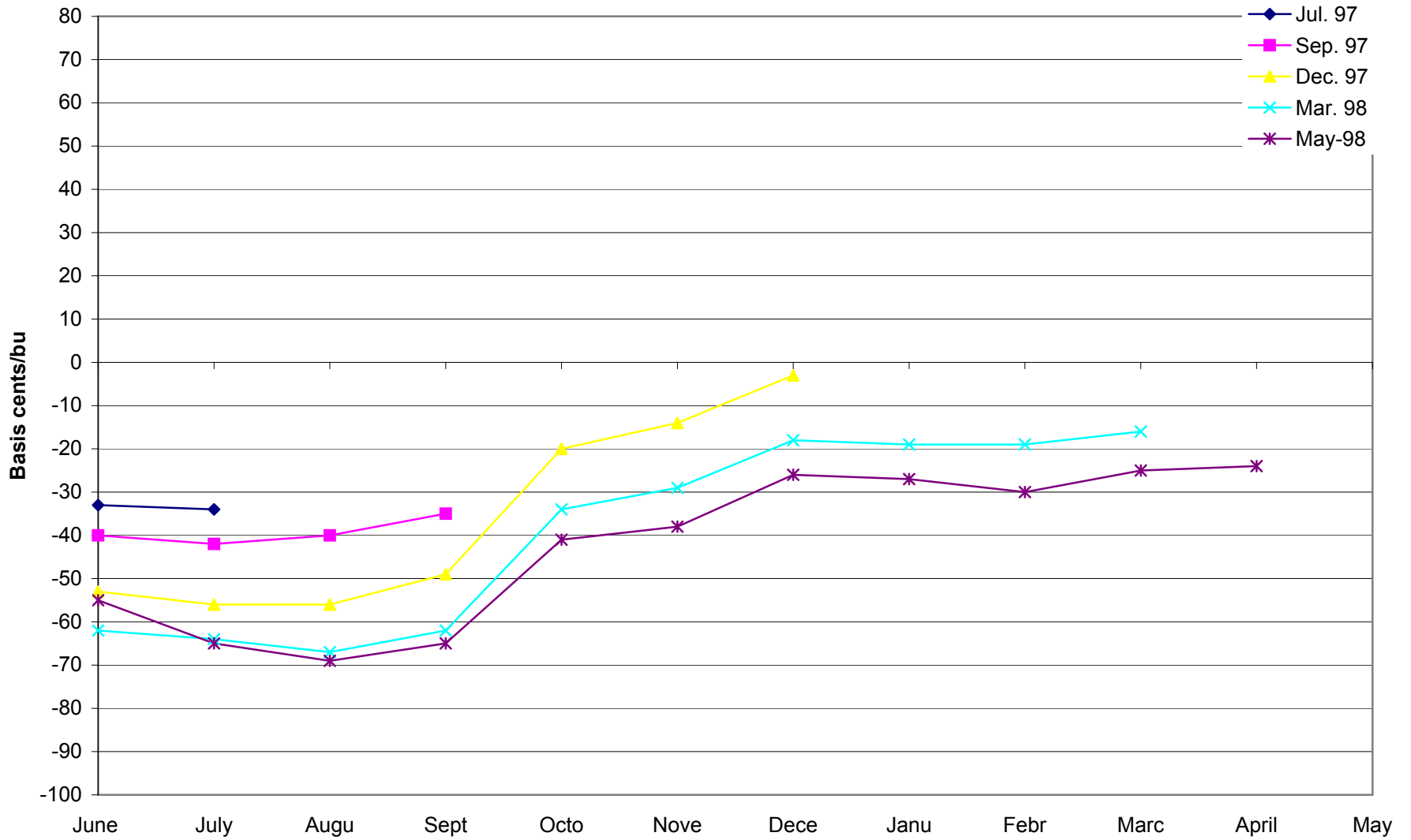


Figure B-27: Northern Eastern Shore Wheat Basis; Marketing Year 1998/99

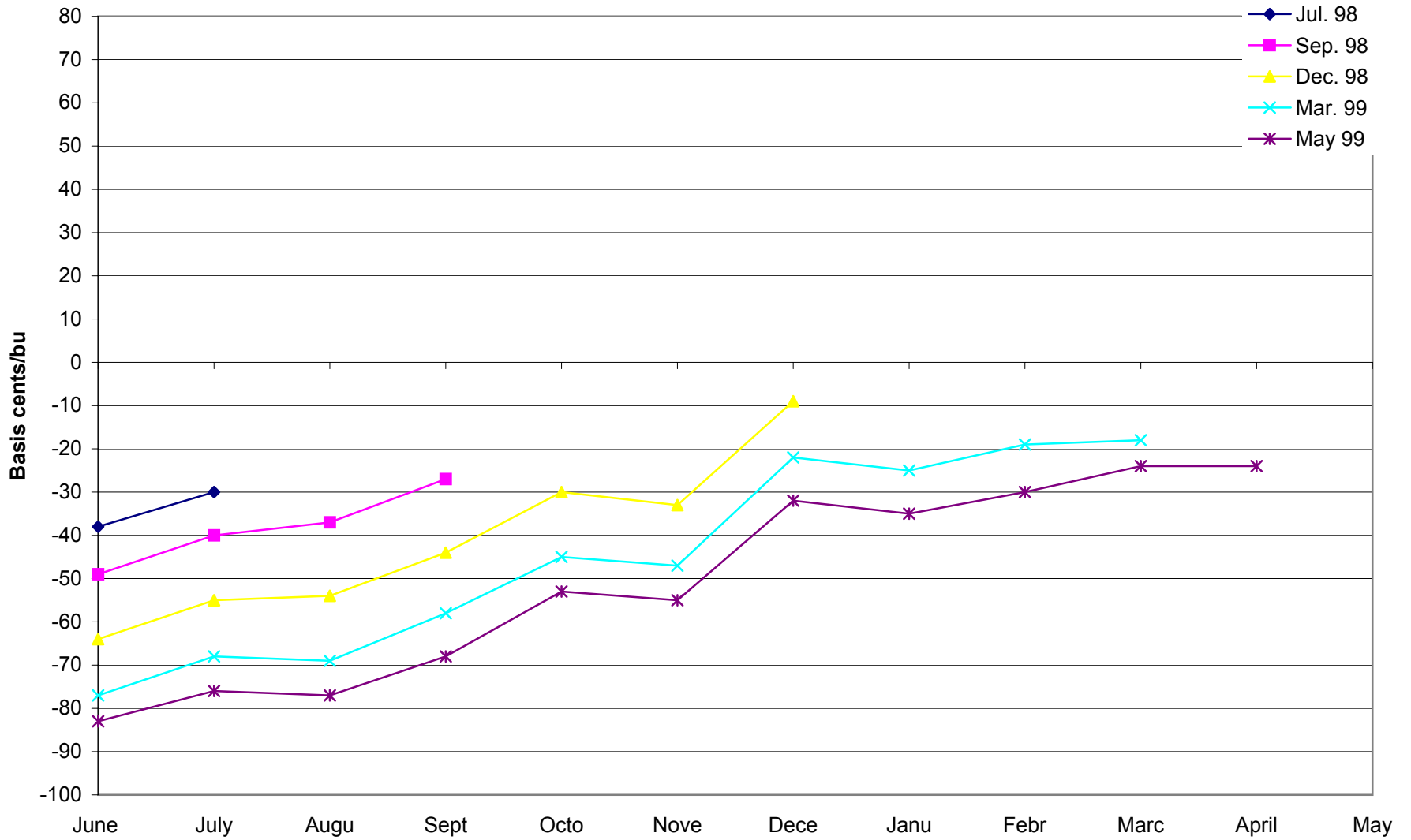
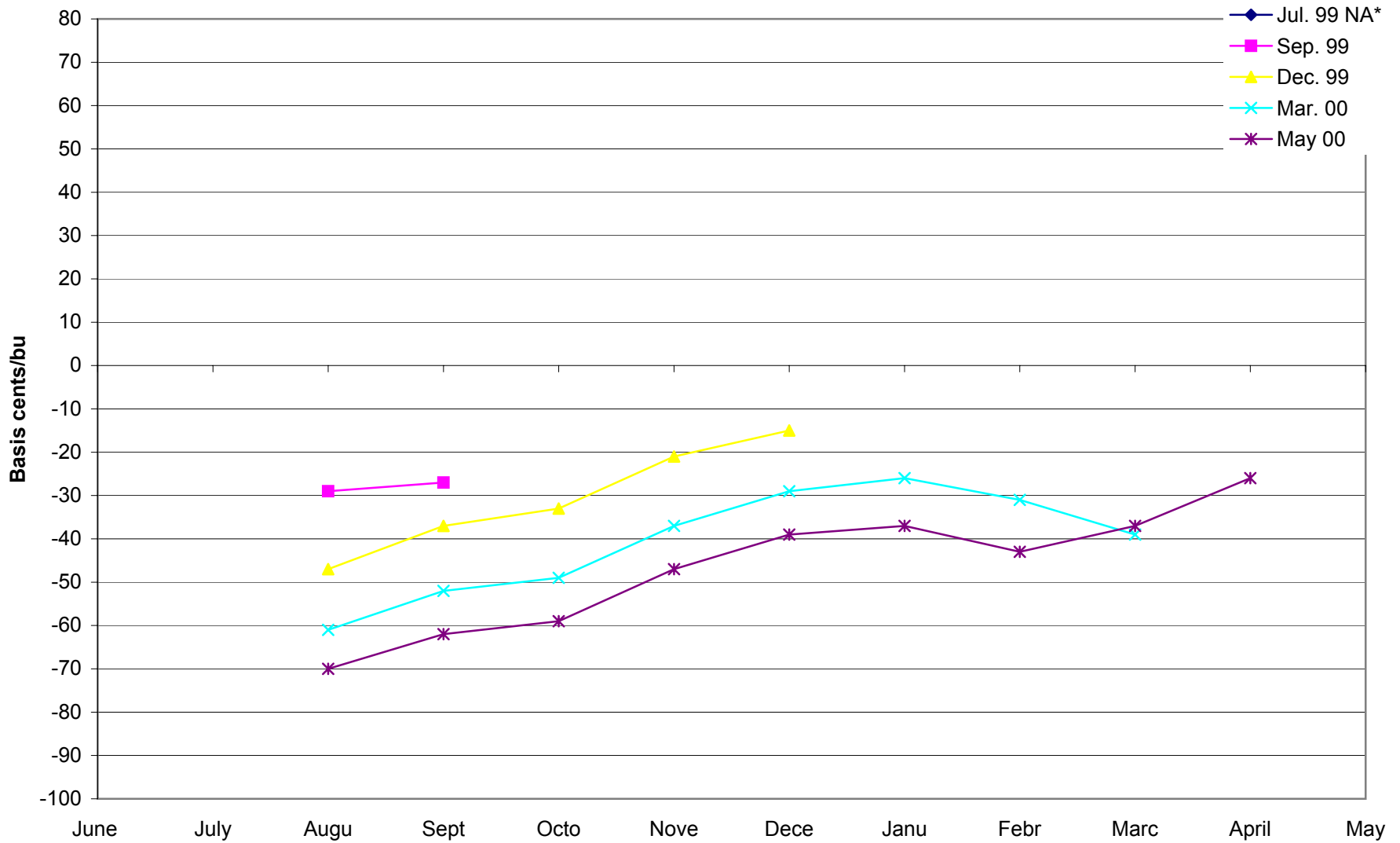


Figure B-28: Northern Eastern Shore Wheat Basis; Marketing Year 1999/00



NA\* - Data Not Available

Figure B-29: Northern Eastern Shore Wheat Basis; Marketing Year 2000/01

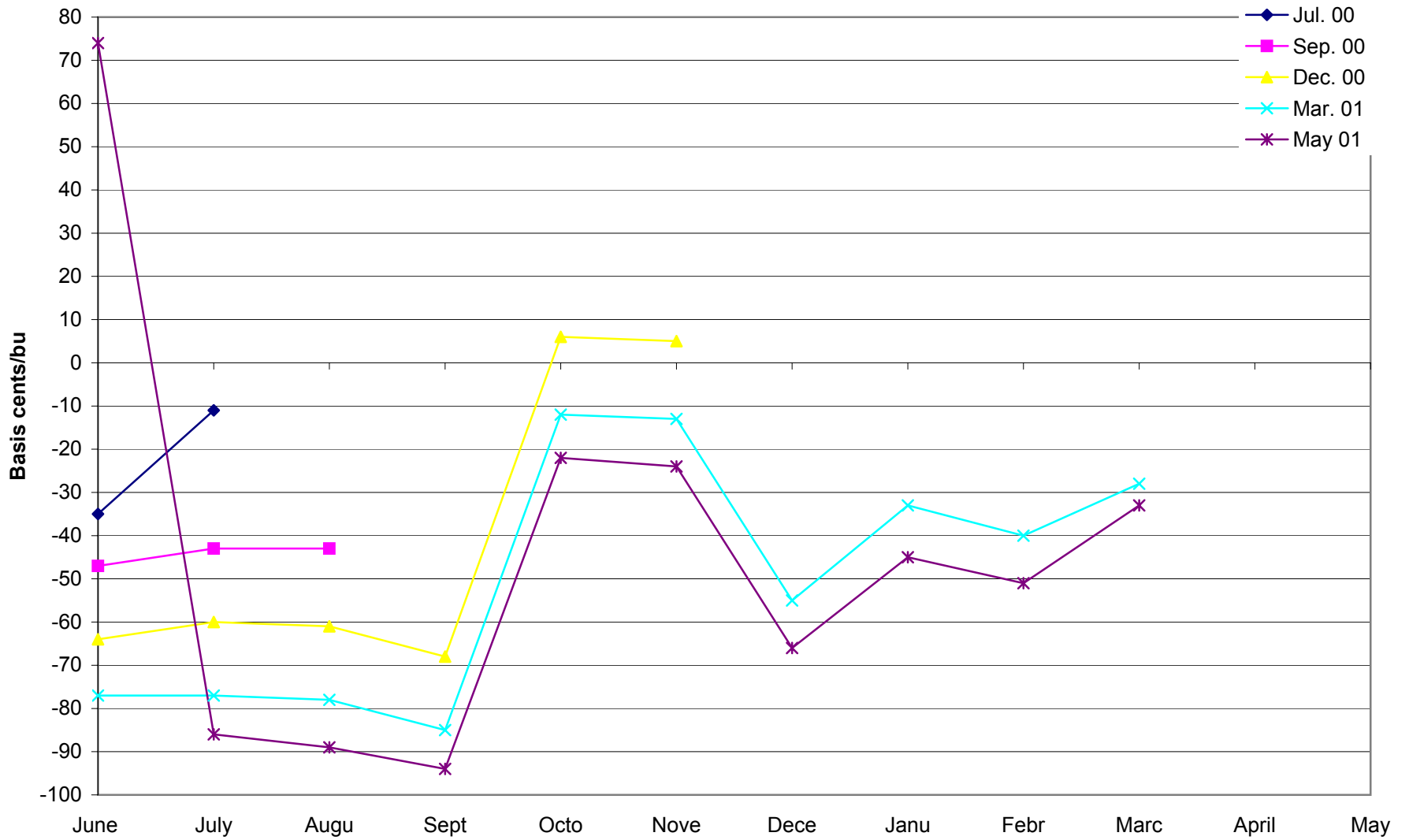


Figure B-30: Northern Eastern Shore Average Wheat Basis; Marketing Years 1996/97-2000/01

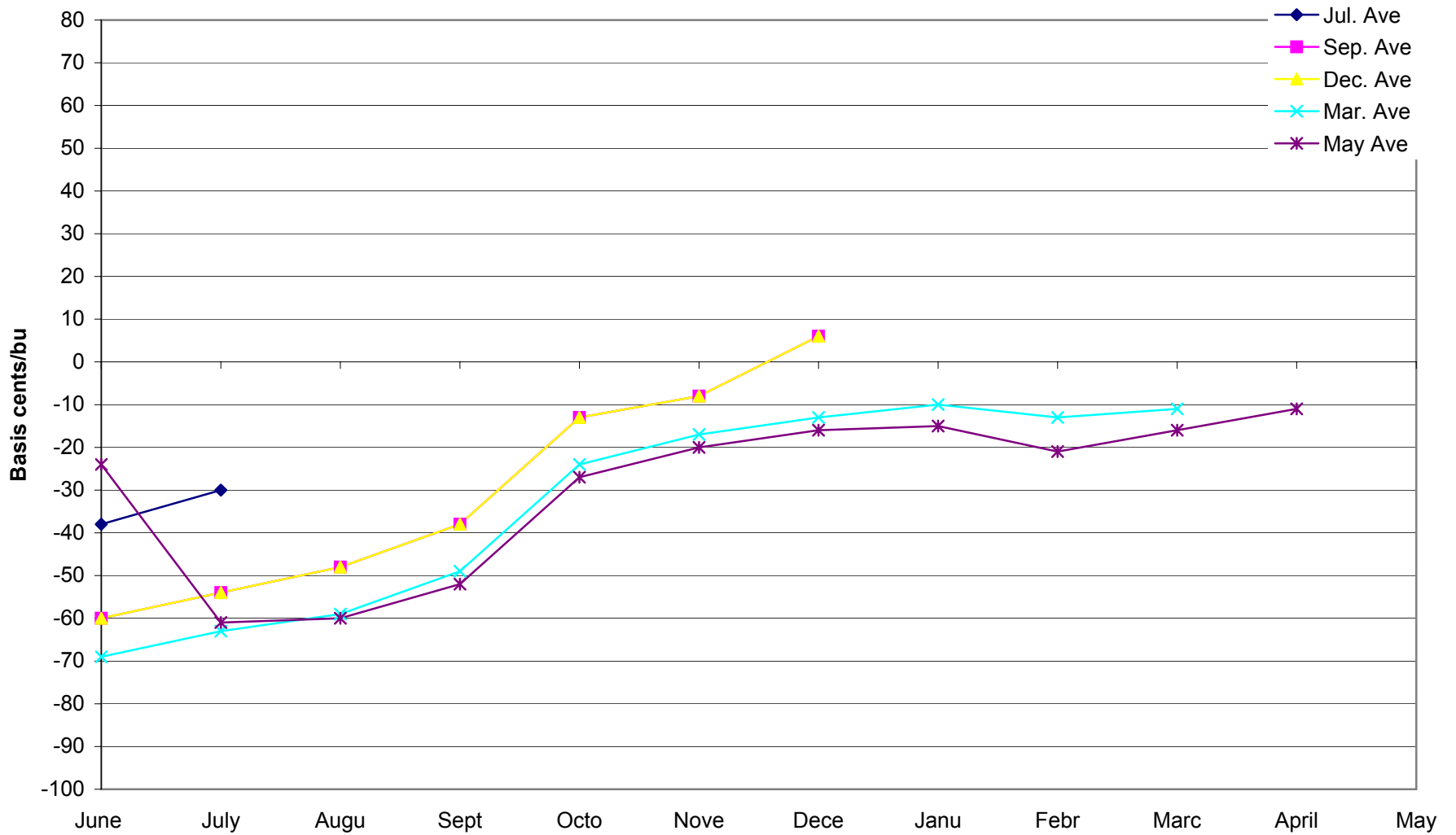




Figure B-31: Southern Eastern Shore Wheat Basis; Marketing Year 1996/97

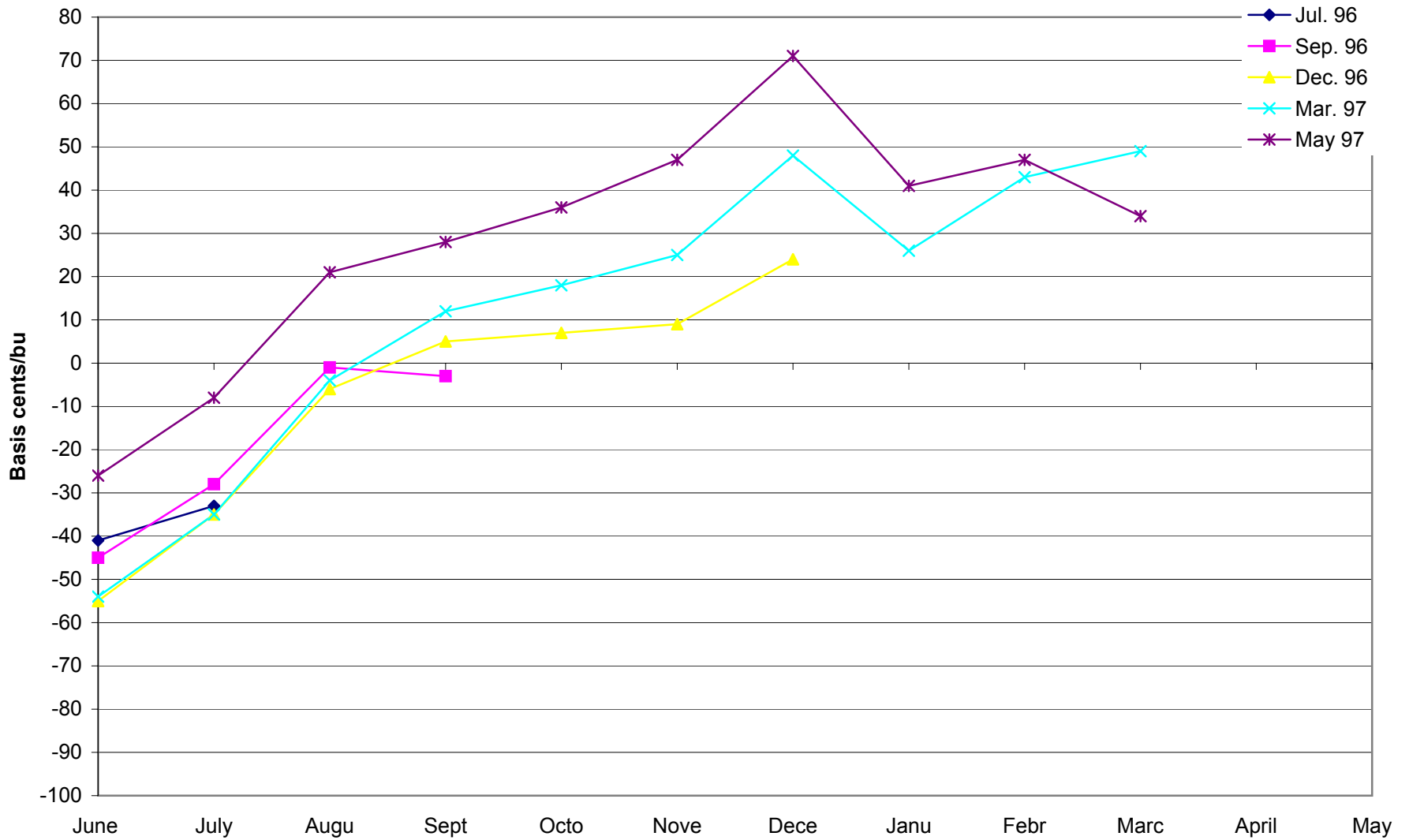


Figure B-32: Southern Eastern Shore Wheat Basis; Marketing Year 1997/98

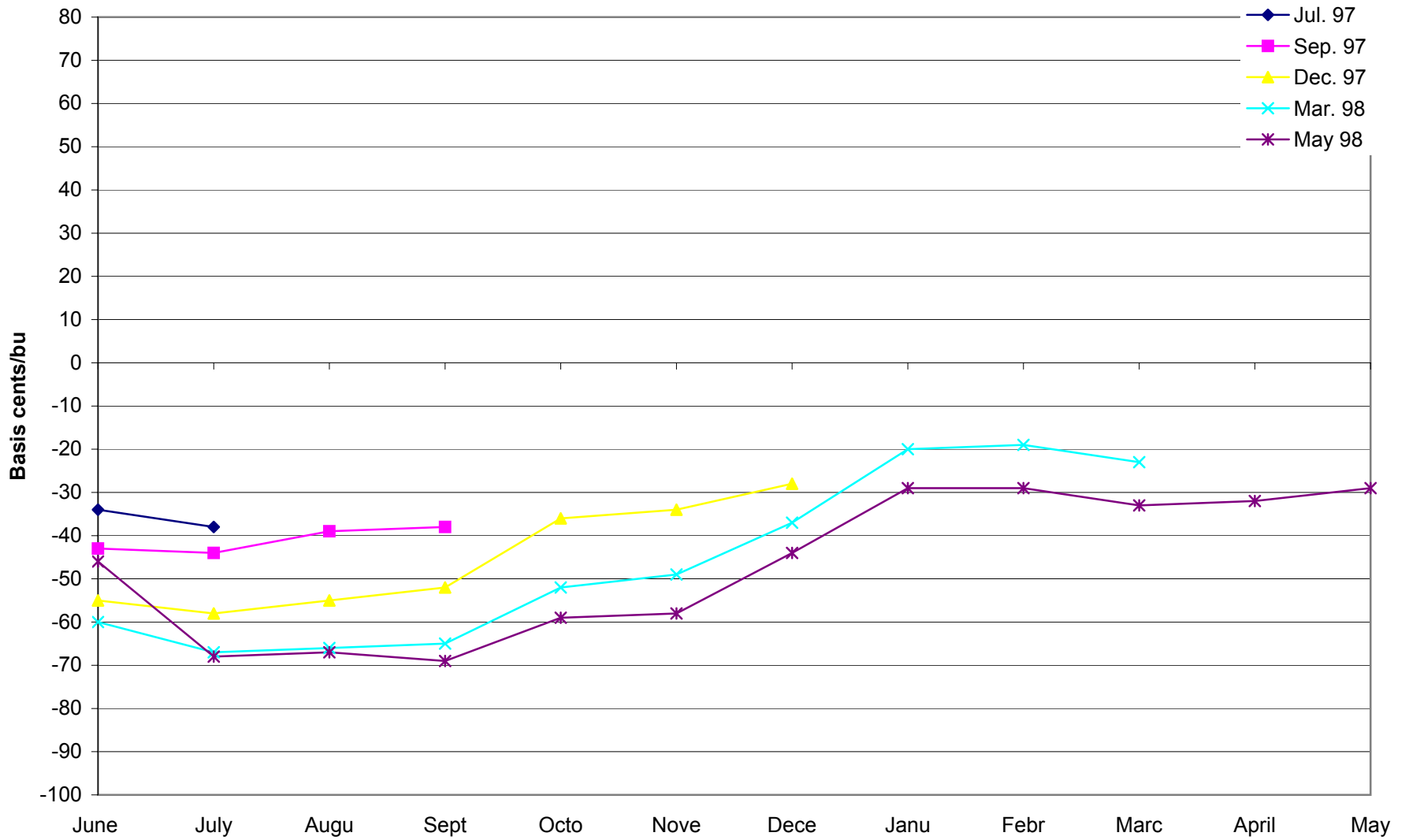


Figure B-33: Southern Eastern Shore Wheat Basis; Marketing Year 1998/99

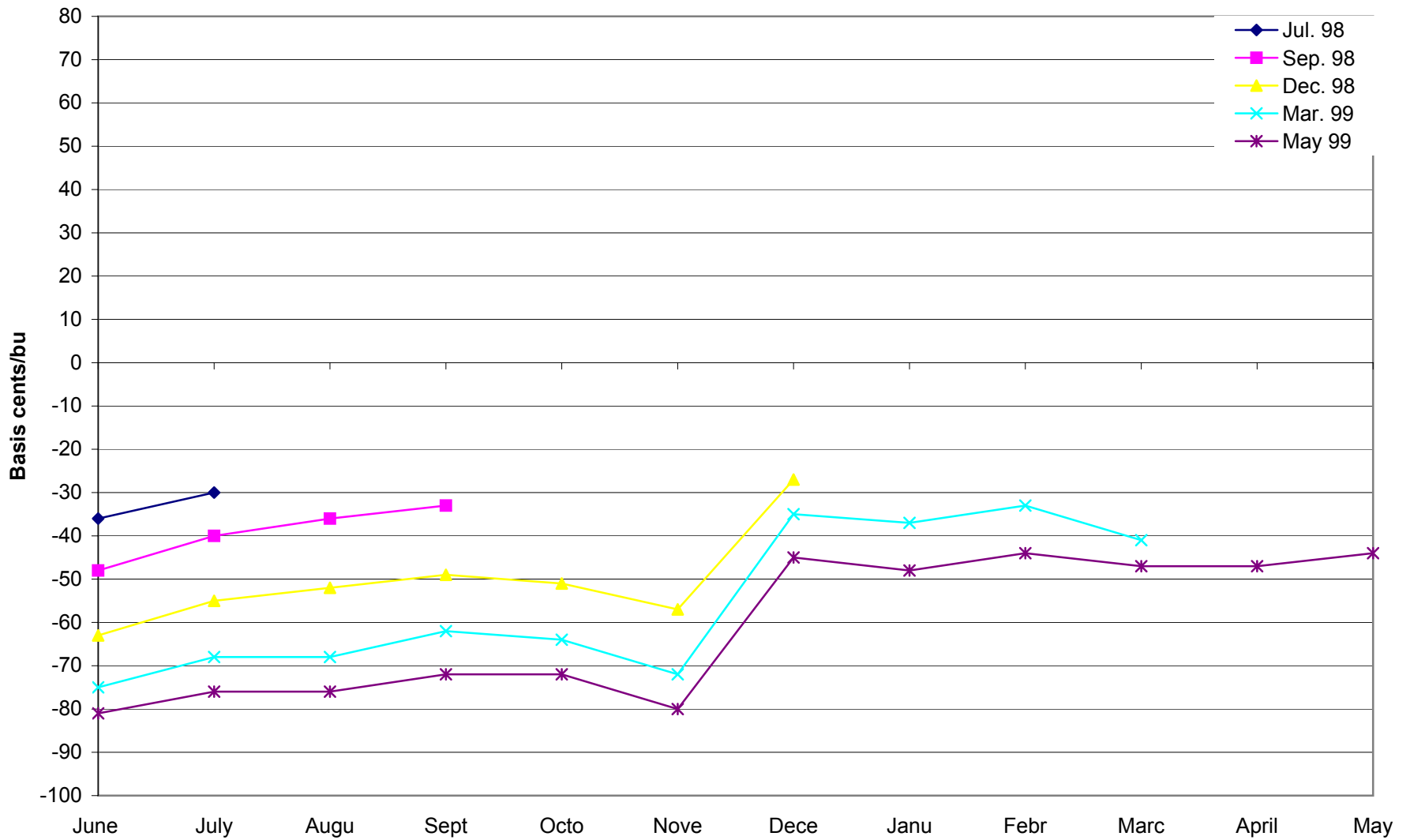
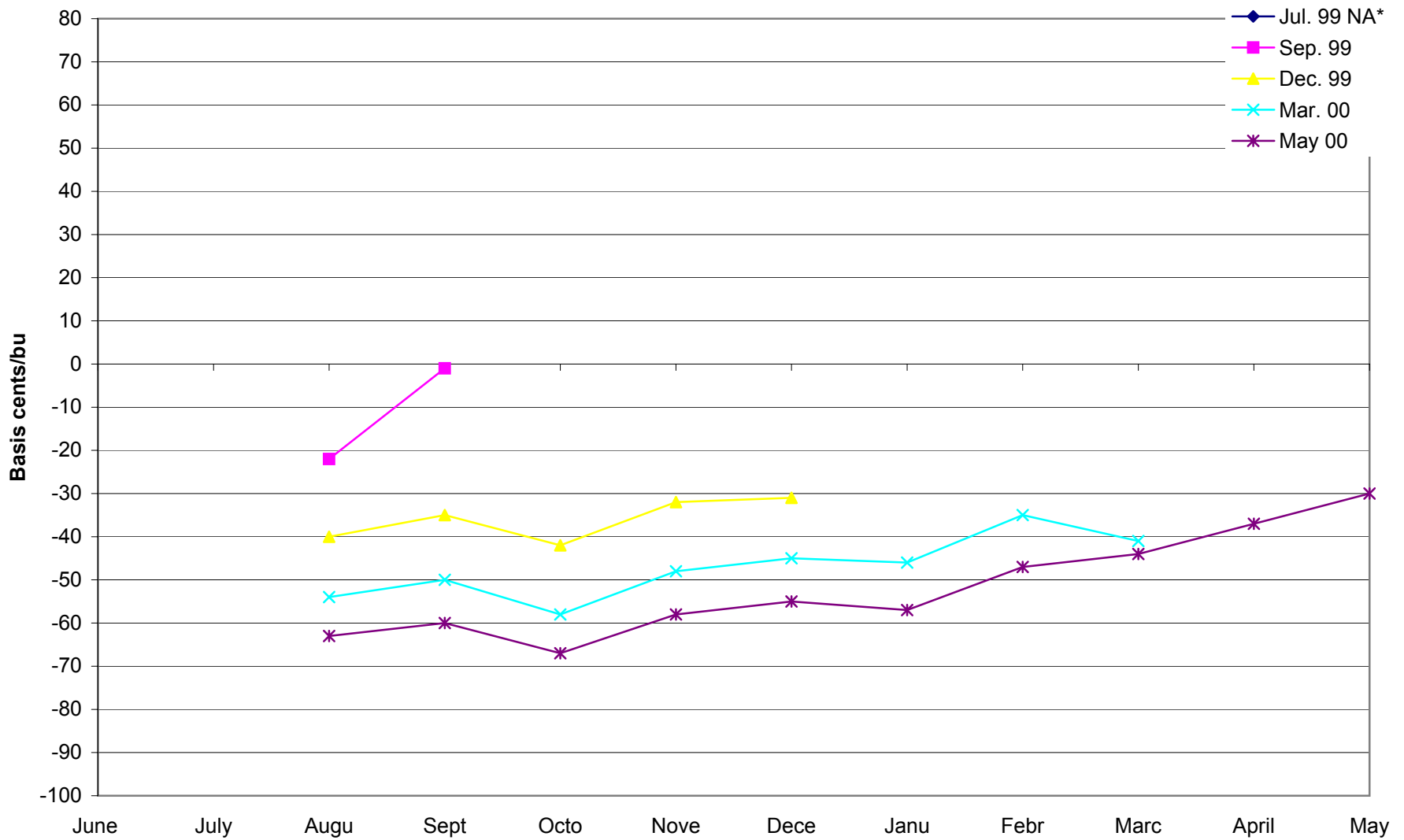


Figure B-34: Southern Eastern Shore Wheat Basis; Marketing Year 1999/00



NA\* - Data Not Available

Figure B-35: Southern Eastern Shore Wheat Basis; Marketing Year 2000/01

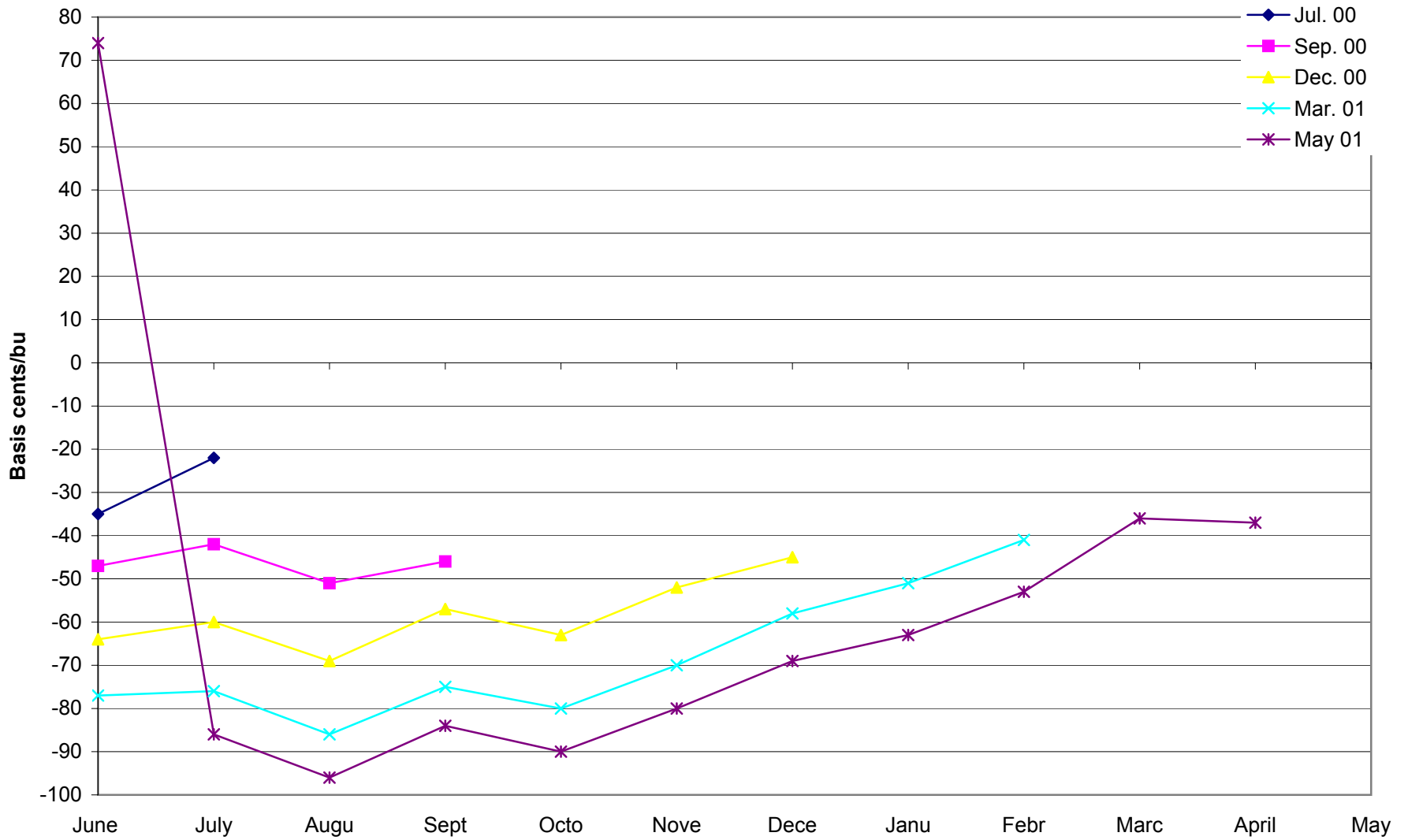


Figure B-36: Southern Eastern Shore Average Wheat Basis; Marketing Years 1996/97-2000/01

