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# Comparison of Organic and Conventional Crop Prices: 1995 to 1997

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**Comparison of Organic and Conventional  
Crop Prices: 1995 to 1997**

by Thomas L. Dobbs  
with assistance from Lisa M. Carr<sup>1</sup>

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## Comparison of Organic and Conventional Crop Prices: 1995 to 1997

Organic industry sales by United State (US) natural product distributors have been growing at more than 20 percent annually during the 1990s. Demand growth for certified organic agricultural commodities has been strong both in the US and abroad. For example, Japan's demand for organically grown US soybeans has been especially strong in recent years.

This growth in demand, together with growing concerns about the profitability and ecological sustainability of more "conventional" farming systems in some areas, is causing new interest in organic agriculture. Therefore, as part of our sustainable agriculture research program in the Economics Department at South Dakota State University (SDSU), we have begun to keep systematic track of organic prices for some key grain and bean commodities. Comparisons of these organic prices with prices for the same commodities grown "conventionally" are presented in this pamphlet. Data and charts for the years 1995, 1996, and 1997 are presented.

### Data sources

Data on organic prices for this report came from the **Organic Food Business News' Commodity Fax Service**. This service, available by subscription through Hotline Printing and Publishing<sup>1</sup>, releases weekly data on organic fruit, vegetable, grain, bean, and oilseed

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<sup>1</sup>Altamonte Springs, Florida.

commodities. Weekly lows and highs are reported. For fruits and vegetables, region of the country (e.g., East or West) is indicated, but prices reported for grains, beans, and oil seeds are for the US as a whole. Both "farmgate" and "wholesale" prices are reported.

The SDSU Economics Department subscribes to receive *Commodity Fax Service* data for the third week of each month. Midpoints between the high and low farmgate prices in those third weeks were calculated for four crops frequently included in organic farming systems in South Dakota and other parts of the Northern Plains and Upper Midwest: corn, soybeans, spring wheat, and oats. These "monthly" organic prices for 1995, 1996, and 1997 are summarized here and compared to prices for the same commodities grown conventionally.

"Conventional" prices for the same time period are reported three ways in this pamphlet: (a) South Dakota (SD) cash prices; (b) US cash prices; and (c) nearby futures prices. SD and US cash prices are those reported by the US Department of Agriculture's National Agricultural Statistics Service (NASS). Nearby futures prices for corn, soybeans, and oats are for the Chicago Board of Trade (CBOT), and the wheat futures prices are for the Minneapolis Grain Exchange (MGE).<sup>2</sup>

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<sup>2</sup>The futures price data were obtained from the Data Transmission Network (DTN). Some of the data had already been compiled by Bashir Qasmi (SDSU Economics Research Report 95-4, October 1995) and Kelly McDaniel, in the SDSU Economics Department.

### Price comparisons<sup>3</sup>

Yearly average organic and conventional prices for corn, soybeans, spring wheat, and oats are shown in Table 1. Ratios of organic to conventional prices also are shown there. For cases in which organic price quotes were not available every month, the ratio calculations include only the comparable months for the prices of conventionally grown crops. Monthly organic and conventional cash prices are shown in Figures 1 through 4.

**Corn:** Ratios of organic to conventional corn prices have steadily risen over the past three years (Table 1). The ratio of average organic to average conventional futures prices went from 1.22 in 1995 to 1.62 in 1997. Nationwide organic corn prices were 45-46 percent higher than SD cash prices for conventional corn in 1995 and 1996, but 96 percent higher in 1997. Organic corn prices were 35 percent higher than US cash prices in 1995, 44 percent higher in 1996, and 73 percent higher in 1997. The widening gap between organic and conventional (SD cash and US cash) corn prices can be observed in the plotting of monthly data in Figure 1.

**Soybeans:** The organic soybean prices shown in Table 1 and Figure 2 are for the Clear Hilum type, on a cleaned basis. The Japanese market requires Clear Hilum soybeans. Those prices averaged more than double nearby futures, SD cash, and US cash

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<sup>3</sup>The comparisons here that involve futures and US cash prices also will appear in the Second Quarter 1998 issue of **Choices**, published by the American Agricultural Economics Association.

prices of conventional soybeans in 1995. The organic prices were slightly less than double the conventional prices in 1996, but in 1997 they were 132 percent higher than the futures prices, 150 percent higher than the SD cash prices, and 141 percent higher than the US cash prices. Even accounting for a 10-15 percent loss in volume from cleaning organic soybeans, these are substantial price differentials. Some organic farmers in climatically suited areas grow the Vinton variety of Clear Hylum soybeans, which commands an even higher price premium. For example, cleaned organic Vintons averaged 2.67 times the US cash price of conventionally grown soybeans in 1997, compared to 2.41 (Table 1) for other organic Clear Hylum soybeans. The Vintons, however, usually give lower yields than other Clear Hylum varieties.

The fluctuations in organic soybeans prices were not as closely correlated with movements in conventional prices (Figure 2) as they were for corn (Figure 1) and wheat (Figure 3). Because of the especially strong influence of the Japanese market on the demand for organic soybeans, the markets for organic and conventional soybeans are somewhat divorced from each other.

**Wheat:** Ratios of organic to conventional spring wheat prices from 1995 through 1997 were more like those for corn than for soybeans (Table 1). By 1997, the nationally-reported organic wheat prices averaged 62 percent more than MGE futures prices and 74 percent more than SD and US cash prices. Although both organic and conventional wheat prices trended downward after spring 1996

(Figure 3), the absolute gap between organic and conventional prices did not decline much. Consequently, the ratios of organic to conventional prices were higher in both 1996 and 1997 than in the previous year.

**Oats:** Ratios of organic to conventional oats prices also became larger each of the last two years (Table 1). For example, the ratio of national organic to SD cash prices went from 1.28 in 1995 to 1.63 in 1996 and 1.78 in 1997. The month-by-month spreads between organic and conventional cash prices are shown in Figure 4. Both organic and conventional oats prices started trending downward in summer 1996, but the absolute spreads between organic and conventional prices remained relatively high. In fact, the average absolute spreads were greater in 1997 than in 1996.

### **Summary**

Prices for some certified organic grain and soybean commodities have been substantially higher in recent years than for the same commodities produced by conventional farming methods. Organic soybean prices have been especially high in comparison to conventional prices. Most organic farmers are quite entrepreneurial in their marketing, however. They market to a wide variety of brokers and processors. They are not necessarily successful in selling all of their organic production at premium prices every year, and there can be wide variations in the premiums obtained from year to year and between farmers in the same year.

Also, farmers must keep in mind that a rapid expansion in organic acreage of some crops could cause price premiums to decline substantially. Moreover, a decision to begin organic farming should be based not only on knowledge of relative market prices, but also on estimates of yields and costs for the particular mixes of crops to be included in organic and conventional *farming system* rotations.



Table 1. Comparison of Organic and Conventional Prices

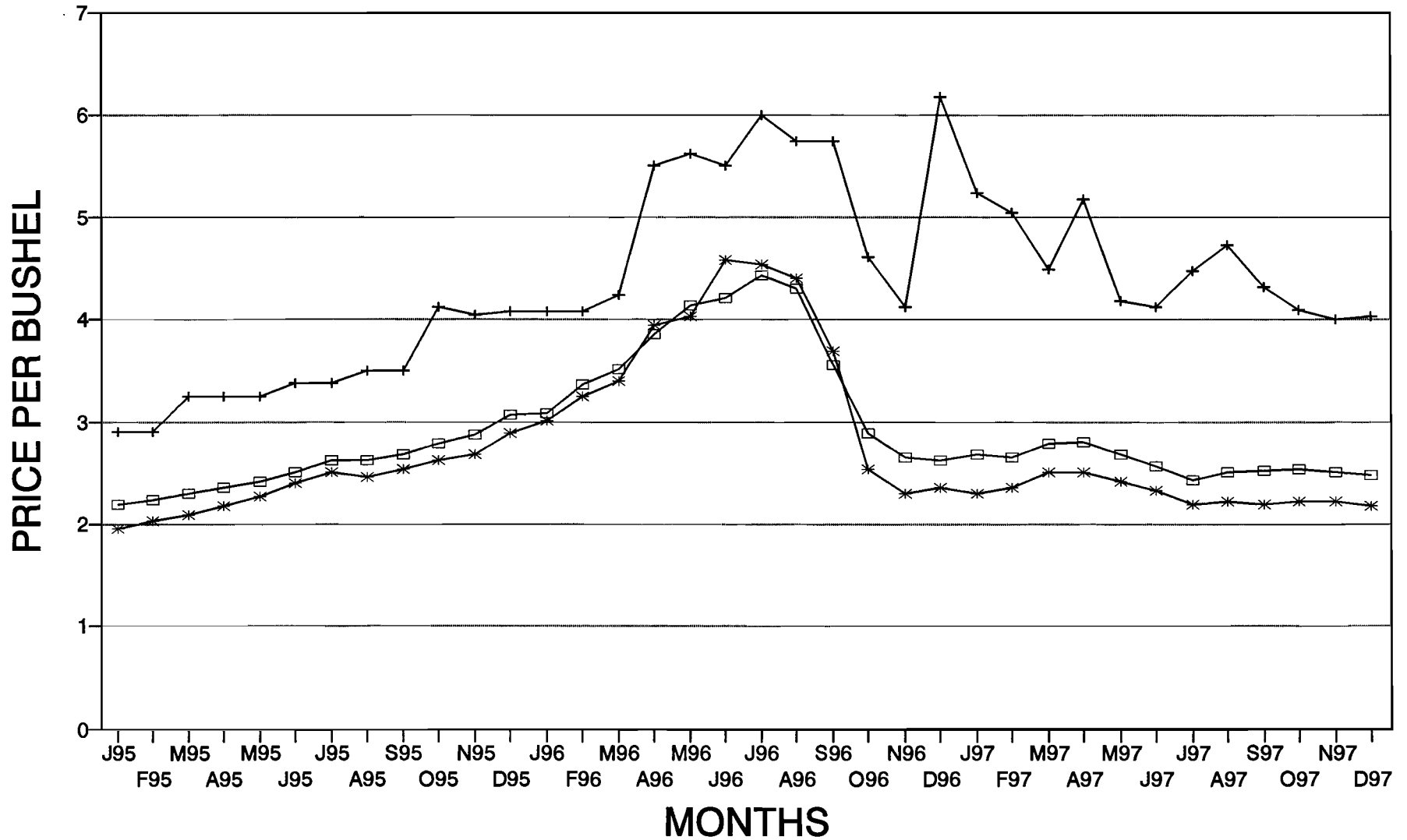
Crop Commodity, and Year	Prices (\$/bu)				Price Ratios		
	Organic- Farm*	Conv- CBOT or MGE **	Conv- SD Cash ***	Conv- US Cash ***	Organic-Farm/ Conv-CBOT or MGE	Organic-Farm/ SD Cash	Organic-Farm/ US Cash
Corn, 1995	3.46	2.83	2.38	2.56	1.22	1.45	1.35
Corn, 1996	5.12	3.86	3.50	3.55	1.33	1.46	1.44
Corn, 1997	4.50	2.77	2.30	2.60	1.62	1.96	1.73
Soybeans, 1995	12.52	6.16	5.53	5.85	2.03	2.26	2.14
Soybeans, 1996	13.41	7.54	6.89	7.23	1.78	1.95	1.85
Soybeans, 1997	17.80	7.66	7.11	7.40	2.32	2.50	2.41
Spring Wheat, 1995	6.09	4.33	4.17	3.95	1.41	1.46	1.54
Spring Wheat, 1996	7.63	5.07	4.85	4.78	1.50	1.57	1.60
Spring Wheat, 1997	6.49	4.00	3.74	3.74	1.62	1.74	1.74
Oats, 1995	1.97	1.64	1.54	1.46	1.20	1.28	1.35
Oats, 1996	3.17	2.06	1.95	2.00	1.54	1.63	1.59
Oats, 1997	2.96	1.64	1.66	1.71	1.80	1.78	1.73

\* The organic soybeans refer to Clear Hilum, cleaned.

\*\* Chicago Board of Trade (CBOT) for corn, soybeans, and oats; Minneapolis Grain Exchange (MGE) for spring wheat.

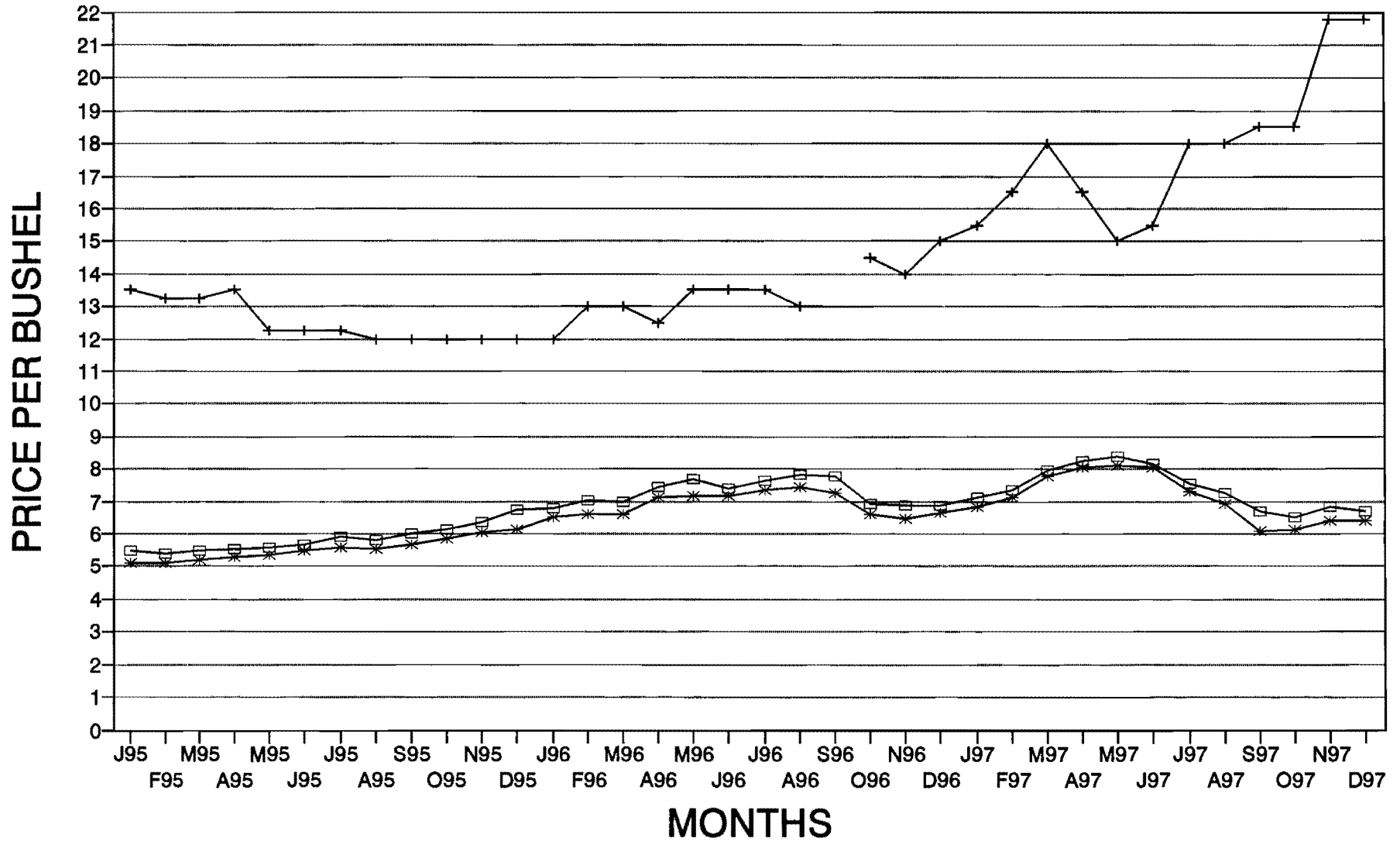
\*\*\* 1997 SD and US Cash Prices include preliminary data for December.

# Figure 1. CORN PRICES



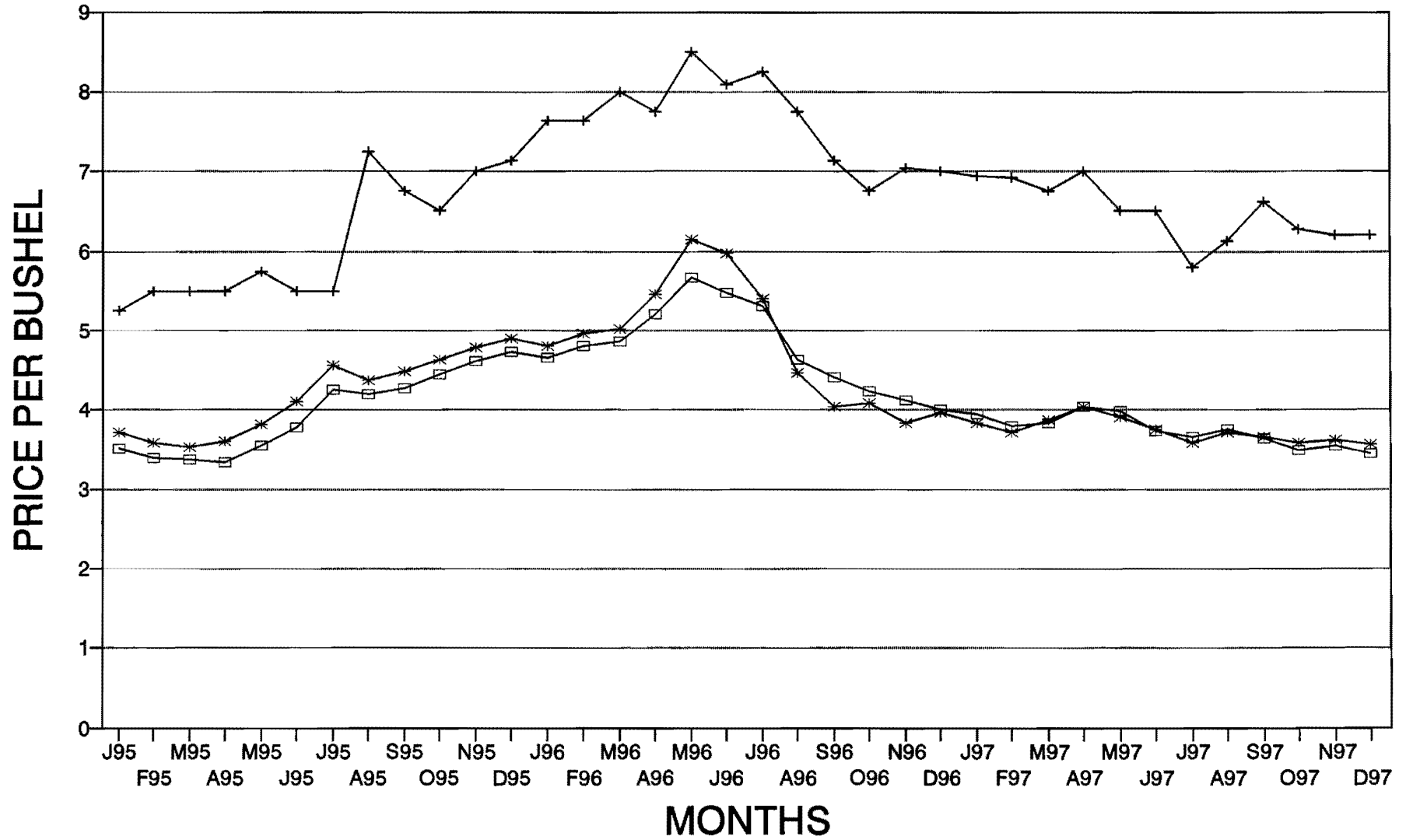
—+— ORGANIC-FARM    —\*— CONV-SD CASH    —□— CONV-US CASH

# Figure 2. SOYBEAN PRICES



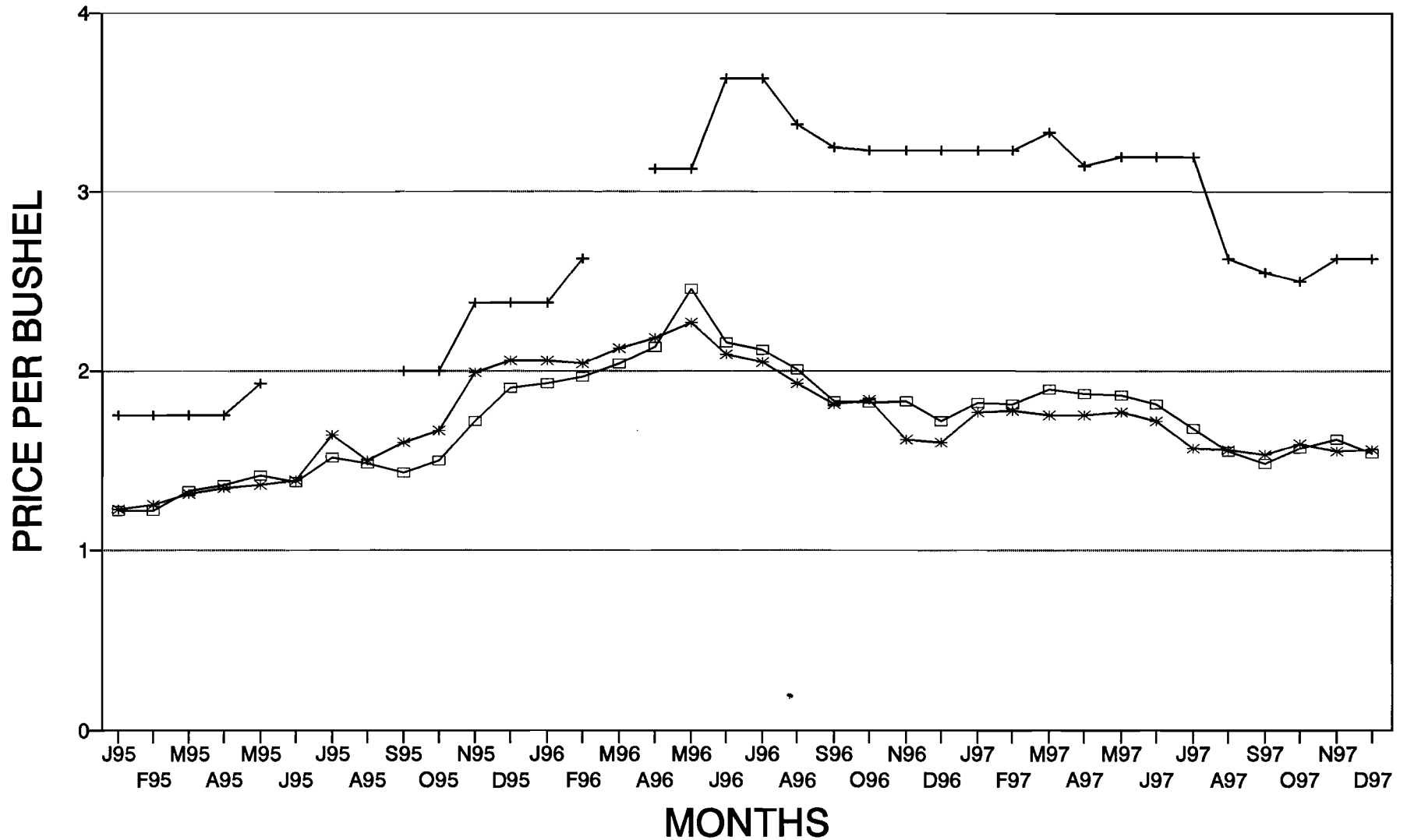
+ ORGANIC-FARM    \* CONV-SD CASH    □ CONV-US CASH

# Figure 3. SPRING WHEAT PRICES



—+— ORGANIC-FARM    —\*— CONV-SD CASH    —□— CONV-US CASH

# Figure 4. OATS PRICES



—+— ORGANIC-FARM —\*— CONV-SD CASH —□— CONV-US CASH