

## Price Premiums for Organic Crops

The new farm bill expanded research and education on organic production techniques, and a variety of government and nonprofit institutions have stimulated new interest in organic agriculture. Yields, the mix of crops in organic rotations, and costs of production obviously affect the profitability of switching to organics, but here I focus on one other key determinant of profits—price premiums.

Some consumers in the United States and abroad willingly pay higher prices for foods produced from certified organic commodities, partly for food safety concerns and partly to support more environment-friendly farming practices. Price premiums help increase profits for many organic farmers.

To be certified organic, crop products must come from land on which synthetic chemical inputs have not been used for at least three years. Various certifying agencies operate throughout the United States, and pending federal regulations will establish minimum certification standards.

### Data sources

Data on organic crop prices are limited. However, Hotline Printing and Publishing releases weekly data on organic prices in its *Organic Food Business News Fax Bulletin*. This commercial subscription source reports lows and highs each week for a wide variety of organic crop products. The organic grain commodity price quotes are for the U.S. as a whole, rather than for particular locations or regions. Reports include both farmgate and wholesale prices.

We have obtained data for the third week of each month going back through 1995. We calculated the midpoints between the farmgate highs and

lows for several commodities in those third weeks and used the results as monthly observations.

Those organic prices were compared to U.S. cash prices and to nearby futures prices in the same time periods for the products of conventionally grown crops. Nearby futures prices for corn, soybeans, and oats were for the Chicago Board of Trade (CBOT), and the wheat futures prices were for the Minneapolis Grain Exchange (MGE).

### Price comparisons

Monthly organic prices for corn, soybeans, wheat, and oats during 1995, 1996, and 1997 appear in figures 1 through 4. Organic prices for corn were consistently higher and tended to move with cash and nearby futures prices (figure 1). The gap between organic and conventional prices was much higher for soybeans than for corn, wheat, and oats. However, the fluctuations in organic soybean prices were not as closely correlated with movements in conven-

tional prices (figure 2) as they were for corn and wheat. 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.

Yearly average prices are summarized and compared in table 1. Farm-level organic corn prices averaged 35 percent higher than U.S. cash prices for conventional corn in 1995, 44 percent higher in 1996, and 73 percent higher in 1997. The organic prices averaged 22, 33, and 62 percent higher than CBOT nearby futures in 1995, 1996, and 1997, respectively.

The organic soybean prices shown here are for the Clear Hilum type, on a cleaned basis. The Japanese tofu market requires Clear Hilum soybeans. Those prices averaged more than double the U.S. cash and nearby futures prices of conventional soybeans in 1995 and 1997, and averaged nearly double in 1996 (table 1). Even accounting for a

Table 1. Comparison of organic and conventional prices, U.S.

Crop Commodity, and Year	Prices (\$/bu) <sup>a</sup>			Price Ratios <sup>a</sup>	
	Organic-Farm <sup>b</sup>	Conv-CBOT or MGE <sup>c</sup>	Conv-U.S. Cash	Organic-Farm/Conv-CBOT or MGE	Organic-Farm/U.S. Cash
Corn, 1995	3.46	2.83	2.56	1.22	1.35
Corn, 1996	5.12	3.86	3.55	1.33	1.44
Corn, 1997	4.50	2.77	2.60	1.62	1.73
Soybeans, 1995	12.52	6.16	5.85	2.03	2.14
Soybeans, 1996	13.41	7.54	7.23	1.78	1.85
Soybeans, 1997	17.80	7.66	7.40	2.32	2.41
Spring Wheat, 1995	6.09	4.33	3.95	1.41	1.54
Spring Wheat, 1996	7.63	5.07	4.78	1.50	1.60
Spring Wheat, 1997	6.49	4.00	3.74	1.62	1.74
Oats, 1995	1.97	1.64	1.46	1.20	1.35
Oats, 1996	3.17	2.06	2.00	1.54	1.59
Oats, 1997	2.96	1.64	1.71	1.800	1.73

<sup>a</sup> Average prices and ratios computed on basis only of months for which organic price data were available.

<sup>b</sup> The organic soybeans refer to Clear Hilum, cleaned.

<sup>c</sup> Chicago Board of Trade (CBOT) for corn, soybeans, and oats; Minneapolis Grain Exchange (MGE) for spring wheat.



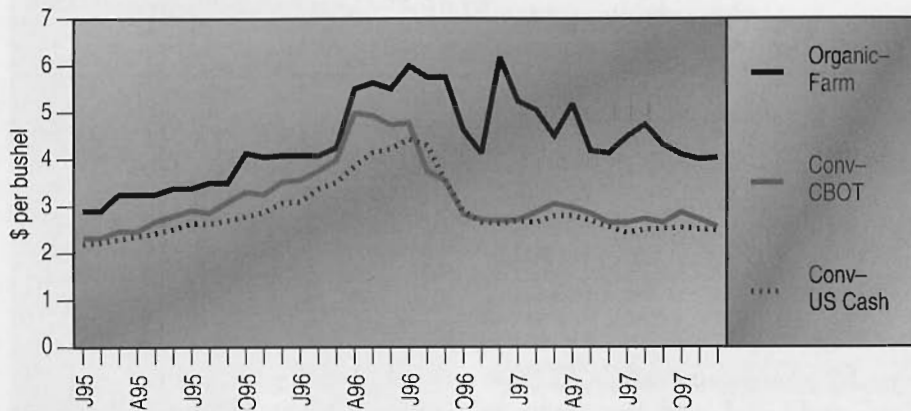


Figure 1. Corn prices, U.S.

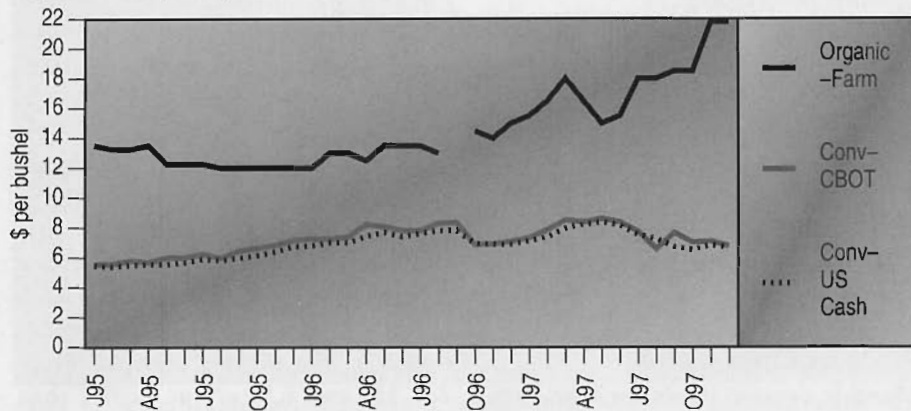


Figure 2. Soybean prices, U.S.

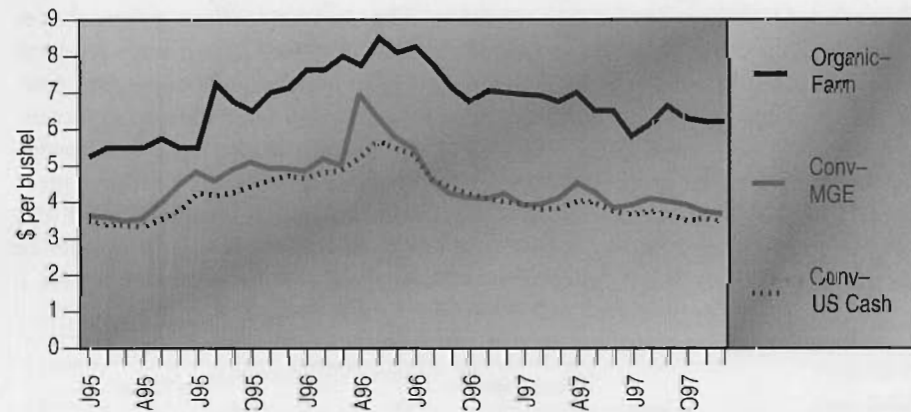


Figure 3. Spring wheat prices, U.S.

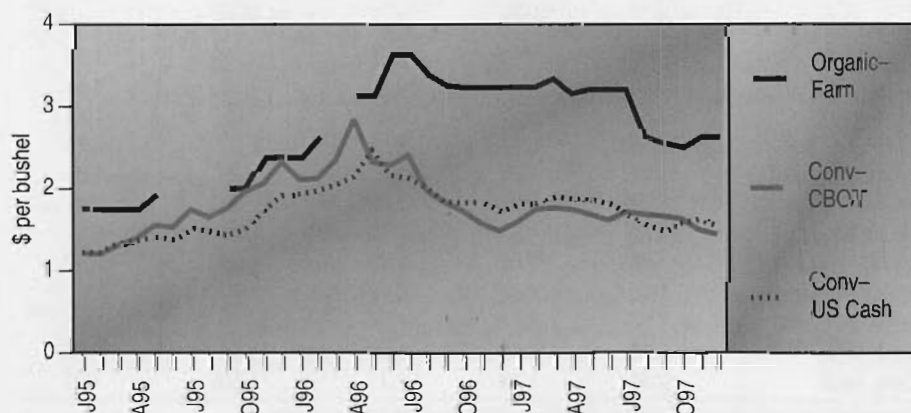


Figure 4. Oats prices, U.S.

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 Hilum soybeans, which commands an even higher price premium. For example, cleaned organic Vintons averaged 2.67 times the U.S. cash price of conventionally grown soybeans in 1997, compared to the 2.41 ratio (table 1) for other organic Clear Hilum soybeans. The Vintons, however, usually give lower yields than other Clear Hilum varieties.

Hard red spring wheat organic prices averaged over \$6/bu in 1995 and over \$7.50/bu in 1996, about 50 percent higher than corresponding U.S. cash and MGE nearby futures prices for conventionally grown spring wheat (table 1). Organic wheat prices declined to around \$6.50/bu in 1997, but the premium over conventional prices increased in percentage terms.

Organic oats prices averaged 35 percent higher than U.S. cash prices for conventional oats in 1995, nearly 60 percent higher in 1996, and more than 70 percent higher in 1997. The organic prices were 20, 54, and 80 percent higher than CBOT prices in 1995, 1996, and 1997, respectively (table 1).

### Some concluding observations

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 or-

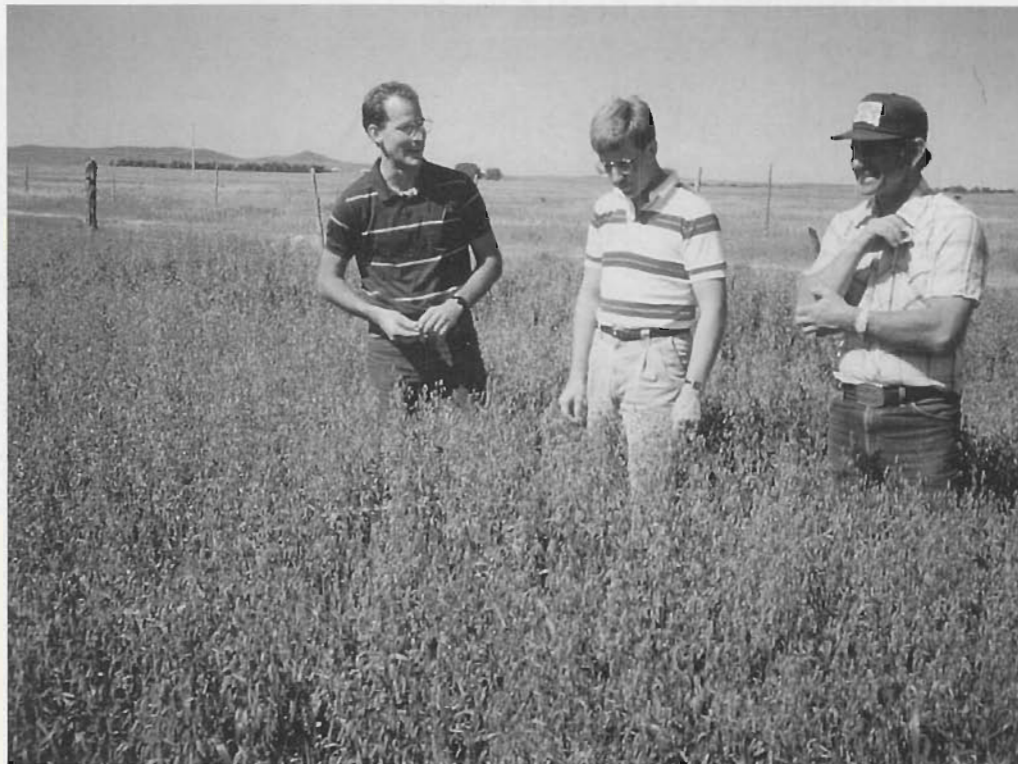


ganic farming should be based not only on knowledge of relative market prices, but also on yields and costs for the particular mixes of crops to be included in organic and conventional farming system rotations. Recent studies taking these other factors into consideration have shown that it is possible to produce profitably under some circumstances with organic methods, even without receiving organic price premiums (see, for example, Hanson, Lichtenberg, and Peters; and Smolik, Dobbs, and Rickerl). In some situations, however, price premiums are critical for the organic systems to effectively compete in profits with conventional systems (see Klonsky and Livingston). □

### ■ For more information

Blobaum, R. "The Worldwide Expansion of Organic Farming: Its Potential Contribution to a Global Transition to Sustainable Agriculture." *For All Generations: Making World Agriculture More Sustainable*, J.P. Madden and S.G. Chaplowe, eds., chap. 7, pp. 122-42. Glendale CA: OM Publishing for the World Sustainable Agriculture Association, 1997.

Hanson, J.C., E. Lichtenberg, and S.E. Peters. "Organic Versus Conventional Grain Production in the Mid-Atlantic." *Amer. J. Alter. Agr.* 12, no. 1(1997):2-9.



SDSU researchers and farmer (right) in his southwestern South Dakota organic oats field.

Klonsky, K., and P. Livingston. "Alternative Systems Aim to Reduce Inputs, Maintain Profits." *California Agr.* 48, no. 5(1994):34-42.

Organic Food Business News. *Organic Food Business News Fax Bulletin: Organic Commodity Prices*. Issued weekly. Altamonte Springs FL: Hotline Printing and Publishing.

Smolik, J.D., T.L. Dobbs, and D.H. Rickerl. "The Relative Sustainability of Alternative, Conventional, and Reduced-till Farming Systems." *Amer. J. Alter. Agr.* 10, no. 1(1995):25-35.

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### Findings Citations

Carter, C. "The Urban-Rural Income Gap in China: Implications for Global Food Markets," *AJAE*, Vol 79, No. 5, 1997. Lewandrowski, J., and D. Schimmelpennig, "Economic Implications of Climate Change for U.S. Agriculture: Assessing Recent Evidence," *LE*, February 1999. Kim, H., G. Helfand, and R. Howitt, "An Economic Analysis of Ozone Control in California's San Joaquin Valley," *JARE*, July 1998. Centner, T., and R. Griffin, "Externalities from Roaming Livestock: Explaining the Demise of the Open Range," *JARE*, July 1998. Variyam, J., J. Blaylock, and D. Smallwood, "Informational Effects of Nutrient Intake Determinants on Cholesterol Consumption," *JARE*, July 1998. Pritchett, J., D. Liu, and H. Kaiser, "Optimal Choice of Generic Milk Advertising Expenditures by Media Outlet," *JARE*, July 1998. Willis, D., and N. Whittlesey, "Water Management Policies for Streamflow Augmentation in an Irrigated River Basin," *JARE*, July 1998. Willis, B., J. Caldas, M. Frasier, N. Whittlesey, and J. Hamilton, "The Effects of Water Rights and Irrigation Technology on Streamflow Augmentation Cost in the Snake River Basin," *JARE*, July 1998.