Grain Market Comments

T. Randall Fortenbery
Dept. of Ag. and Applied Econ.
UW-Madison

Introduction

U.S. corn and soybean markets experienced their fifth consecutive year with national average yields at or above trend line levels. This is the first string of five good to excellent crops in well over 30 years. While an amazing accomplishment from a production perspective, this trend has had a negative impact on average price levels.

Wisconsin, like the U.S. in general, also experienced excellent crops the last several years. However, Wisconsin's production as a percentage of national production has been less stable. For example, in 1999 Wisconsin produced a much larger percentage of the national corn crop than they did in 2000. This has resulted in more volatility in local prices relative to the mid-1990's, and has increased basis volatility from year to year (basis is the difference between the local cash price and the futures price for the same commodity).

Corn

As of December 2000, the U.S. corn crop for the 2000/01 marketing year (September 1, 2000 through August 31, 2001) was estimated at 10.05 billion bushels. This is essentially equal to the record crop of 1994, but unlike 1994 followed an excellent production year.

Wisconsin corn production totaled 363 million bushels in 2000 (November estimate), a reduction of almost 11 percent over 1999. The smaller Wisconsin crop relative to the national crop has resulted in excellent basis appreciation following the 2000 harvest season, and good storage returns early in the year. However, in many parts of northern Wisconsin, storage opportunities beyond the first of the year will be limited. Basis appreciation has already resulted in basis levels not normally seen until later in the year, and any additional returns to storage will need to come from a futures market rally.

The smaller Wisconsin crop in 2000 resulted from a 3.5 percent reduction in corn acres, and an 11-bushel per acre reduction over the record yields of 1999. Average corn yields across Wisconsin in 2000 averaged 132 bushels per acre, compared to 143 bushels per acre in 1999. Despite the large reduction relative to the previous year, however, the current yield ties with 1997 as the fourth highest Wisconsin corn yield on record.

Harvested corn acres in Wisconsin have been falling steadily since 1996, but until this past season improved yields had more than compensated for declining acres. Wisconsin harvested acres for corn in 2000 were the lowest they have been since 1993. Before that you have to go back to the 1988 drought to find fewer harvested corn acres than 2000.

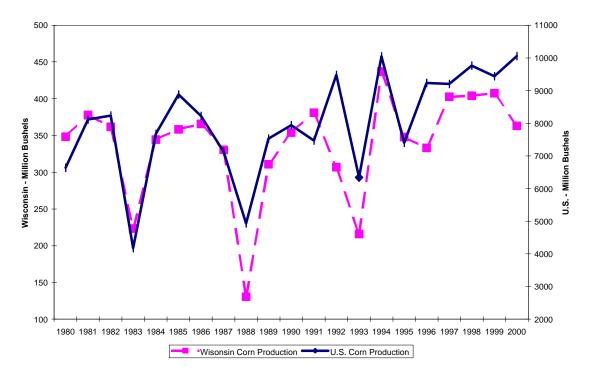
US Corn Balance Sheet (Sep/Aug) 12/19/00							
				USDA			
Marketing Veer	USDA 95/96	USDA 96/97	USDA 97/98	USDA 98/99	USDA 99/00	DEC EST. 00/01	
Marketing Year	93/90		Million Bu		99/00	00/01	
Dog Ctooks	4.550	4 745					
Beg Stocks	1,558	426	883	1,308	1,787	1,715	
Imports	16	13	9	19	15	10	
Acres Planted	71.2	79.2	79.5	80.2	77.4		
Acres Harvested	65.0	72.6	72.7	72.6	70.5	73.0	
% Harvested	91.3%	91.7%	91.4%	90.5%	91.1%	91.7%	
Yield	113.5	127.2	126.6	134.4	133.8	137.7	
Production	7,374	9,233	9,207	9,759	9,437	10,054	
Total Supply	8,948	9,672	10,099	11,085	11,239	11,779	
11,	•	·	·	·	·	,	
Feed & residual	4,696	5,302	5,505	5,496	5,676	5,850	
Food/Seed/Ind.	1,598	1,692	1,782	1,822	1,913	1,975	
Exports	2,228	1,795	1,504	1,981	1,935	2,200	
Total Demand	8,522	8,789	8,791	9,298	9,524	10,025	
	0,022	0,. 00	0,.0.	0,200	0,02.	10,020	
Ending Stocks	426	883	1,308	1,787	1,715	1,754	
Stocks To Use	5.00%	10.04%	14.88%	19.22%	18.01%	•	
CLOURS TO USC	3.00 /6	10.07/0	17.00/0	1 3.22 /0	10.01/0	17.5076	
Avg. Farm Price	\$3.24	\$2.71	\$2.43	\$1.94	\$1.80	\$1.85	

Average price levels for corn, both nationally and in Wisconsin, have drifted lower the last three years. The average cash price for corn was about \$2.25 per bushel in the early and mid-1990's. However, the average corn price now is below \$2 per bushel, and reflects the current run of good to excellent production, and an associated build up in end of the marketing year stocks.

End of the year stocks (referred to as the carryout) represent the market's cushion against a crop production problem in the next harvest, and has a direct influence on both the average price level through the current marketing year, as well as prices offered for delivery commitments following the next harvest. The larger the carryout is anticipated to be, in general, the lower the average price during the marketing year, and the lower the pre-harvest price offerings for the next harvested crop.

Without a serious planting and/or production problem next year, ending stocks in 2001/02 will not be reduced appreciably from the current projection for 2000/01. As such, producers need to reconsider what constitutes an attractive price guarantee for 2001 produced corn as they progress through the production season. The current price levels of both energy and chemical inputs (specifically fertilizer) suggest that corn acres could be reduced next year. However, as Wisconsin's recent experience suggests, a slight

Corn Production



Average Annual Cash Corn Price



reduction in acres does not necessarily translate into a significant reduction in corn production. Further, any acreage reductions are most likely to come from the Western corn producing areas (for example the Dakotas) where acres were most recently brought into production. This means acres leaving corn production because of high input costs (at least in the first year) will be those with the lowest yield potential already. It is not likely that the traditional corn soybean rotations in the true Corn Belt will be significantly altered with just one year of high input prices. If the current input cost to corn price ratio persists into another production season, a more dramatic shift from corn production could be realized. However, that potential event is not likely to have a significant impact on corn prices in coming months.

Soybeans

The year 2000 continued to see aggressive increases in soybean acres nationally, as well as in Wisconsin. Soybean acres in the U.S. have been growing rapidly since 1992, and in recent years have been heavily influenced by the current government farm program. The current loan program, and associated loan deficiency payments (LDP), highly favors soybean production over corn, and both spring and winter wheat. As a result, some of the most dramatic increases in soybean acreage have come from acres formerly devoted to wheat production. In North Dakota alone, soybean acres were increased about 50 percent relative to 1999, and now total over 2 million acres. When South Dakota is included, the combined increase in soybean acres is almost 1 million. This more than offset acreage declines in other states.

The Dakota experience is also reflected in Upper Midwest acreage allocations. Wisconsin increased soybean acres 150 thousand relative to 1999. In addition, Minnesota experienced a year-over-year increase of 200 thousand, and Michigan 250 thousand acres. Soybean production is rapidly moving north and west relative to the traditional production areas.

Like corn, soybean yields have remained healthy for each of the last five years. The combination of stable yields and aggressive acreage growth has resulted in several recent record soybean crops, including the 2000 crop.

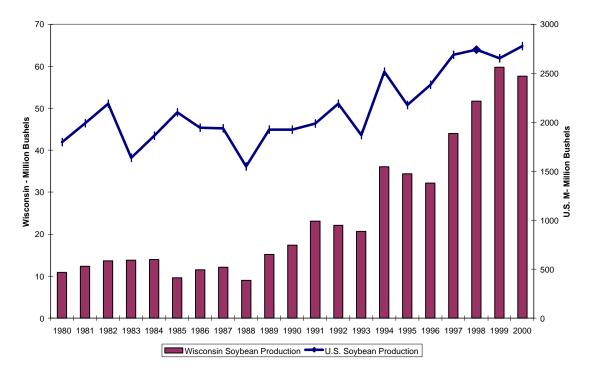
Note that soybean production, both nationally and in Wisconsin, was quite stable through the 1980's. Beginning in the early 1990's, however, large increases in acres resulted in increased year-over-year production, with the growth in Wisconsin particularly strong. Wisconsin soybean production in 2000 was five times what it was just 12 years ago. In addition to acreage growth, Wisconsin has experienced significant yield improvement. In 1980, for example, the average Wisconsin soybean yield was 33 bushels per acre. By 1990, it had increased to 41 bushels per acre, and in 1999 averaged 46 bushels per acre. The record average yield for Wisconsin came in 1998 at 47 bushels per acre. The average yield in 2000 was 40 bushels per acre, a bit of a disappointment relative to the previous two years, but still well above the averages expected just a few years ago.

US Soybean Balance Sheet (Sep/Aug) 12/24/2000							
Manhadha Wasa	USDA	USDA	USDA	USDA	USDA	DEC	
Marketing Year	95/96	96/97	97/98 Million Bu	98/99	99/00	00/01	
Beg Stocks	335	183	132	200	348	288	
Imports	5	9	5	3	4	3	
Acres Planted	62.6	64.2	70	72	73.7	74.5	
Acres Harvested	61.6	63.3	69.1	70.4	72.4	73.0	
% Harvested	98.4%	98.6%	98.7%	97.8%	98.2%	98.0%	
Yield	35.3	37.6	38.9	38.9	36.6	38.0	
Production	2,177	2,380	2,689	2,741	2,654	2,777	
Total Supply	2,517	2,572	2,826	2,944	3,006	3,068	
Crush Sep/Aug	1,370	1,436	1,597	1,590	1,579	1,605	
Exports	851	882	873	801	970	975	
F/S/R	111	123	156	205	170	167	
Total Demand	2,332	2,441	2,626	2,595	2,719	2,747	
Ending Stocks	185	131	200	348	288	320	
Stocks To Use	7.93%	5.37%	7.60%	13.41%	10.59%	11.65%	
Avg. Farm Price	\$6.77	\$7.35	\$6.47	\$4.93	\$4.65	\$4.70	

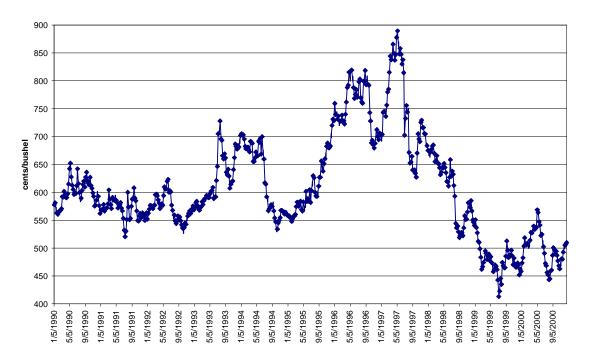
As with corn, average price levels in both the U.S. and Wisconsin have moved lower, reflecting the increase in soybean production. Prices the last three years have been consistently below levels that seemed unachievable just 4 or 5 years ago. However, because of the relatively lower per unit production costs compared to corn and wheat, and a more attractive price guarantee through the government loan program, soybean acres will continue to increase, suggesting even more downward pressure on market prices. Looking at average weekly prices for the nearby soybean futures contract (the futures contract closest to maturity) shows just how much average prices have changed (chart 4). Prior to 1997, futures prices for soybeans averaged about \$6.25 to \$6.35 per bushel. Prices below \$5 were almost unheard of, and never lasted long if they did occur.

While average corn prices have fallen, average soybean prices have fallen much more. The average cash price for soybeans now is 75 cents or so lower than it was just 4 or 5 years ago. The most attractive pricing opportunities for producers in this environment has been to forward price next year's production when futures prices are in the upper \$5 range (a price associated with the absolute bottom of the potential price range in earlier years), and then hope to add a large LDP payment to that at harvest, with cash prices in the low \$4 range. Futures prices over \$6 anytime during the marketing year have been a rare occurrence, until soybean carryout levels are significantly reduced will continue to

Soybean Production



Weekly Average Soybean Prices - Nearby Futures



be elusive. Given the current farm program incentives, this will likely occur only with a substantial production disaster in the U.S. or Brazil.

The current price levels of energy and chemical inputs increase the economic incentives to plant soybeans over corn and wheat. As a result, if current prices persist into the planting season, we could easily see a one million acre increase in U.S. soybean acres for 2001, and a corresponding increase in Wisconsin acres. Most of the national acreage increase will likley come from the most western and northern producing states. However, if high energy prices persist beyond the 2001 production season, substantial soybean acre growth could be experienced in the central Corn Belt as well.

The current market environment suggests that soybean prices will continue to average in the low to sub \$5 range in the coming year. Producers who want to maximize pricing opportunities in this environment will need to be prepared to accept pre-harvest price offerings at levels unheard of just a few years ago. Without a significant and confirmed production disruption in 2001, futures prices for soybean delivery in 2001 will have a very difficult time approaching the \$6 per bushel range, and will certainly not be able to sustain any move to that level. If we have a normal planting and production season, the greatest pricing opportunities for soybean producers will be maximizing their LDP payment to enhance historically low market price offerings.