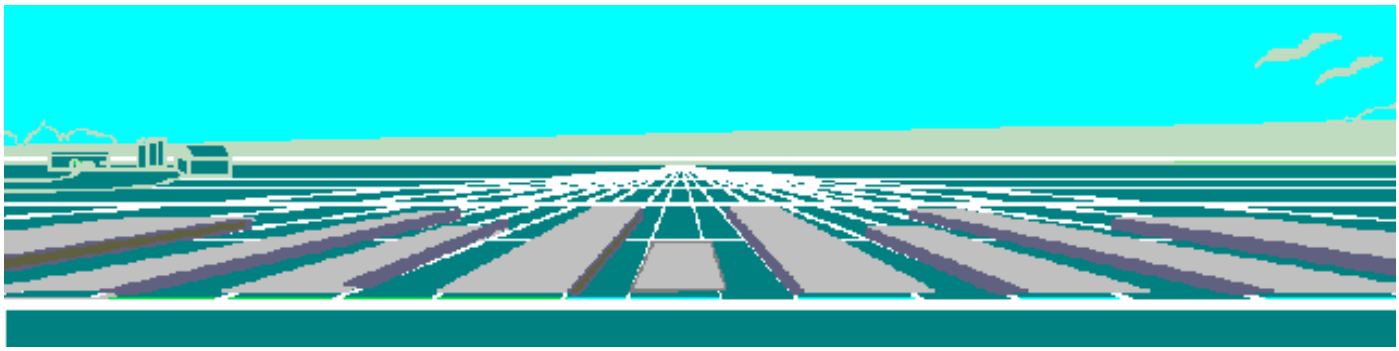

August 14, 2000 Ames, Iowa Econ. Info. 1795

2000 AAEA ANNUAL OUTLOOK SURVEY

Each year at the annual meeting of the American Agricultural Economics Association, agricultural economists from around the country who are actively engaged in outlook work are asked to complete an outlook survey. This survey was conducted during July and the results were presented at the annual meetings at the end of the month.

The survey was completed by 28 individuals with 22 of them being university employees. The respondents were asked how much use they make of formal econometric models in developing their forecasts. Ten reported no use of econometric models, 11 reported minor use, three reported moderate use, and four reported major use of econometric models. The respondents were also asked what role forecasting is in their position. Nine indicated forecasting is a major responsibility, 11 reported forecasting as moderate, and eight reported forecasting as a minor responsibility in their position.

Actual data was reported for the first quarter of 2000 and a partial estimate was completed for the second quarter. The respondents were asked to provide estimates for the rest of 2000 and 2001 by quarter. Following are tables with prices and production levels for beef, pork, and milk. The tables show the average estimate, the minimum and maximum, and the average of the experts. The experts were identified in the survey as individuals with a major responsibility in a given forecasting area.

Beef

Commercial Beef Production, Percent Change from Previous Year										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	4.0	0.9	0.7	-1.3	1.1	-2.0	-2.1	-2.6	-2.1	-2.4
Min			-1.6	-5.1	-0.3	-5.6	-4.8	-5.0	-5.0	-4.1
Max			3.0	2.0	2.0	0.3	0.5	1.0	1.0	0.5
Avg. Experts			1.0	-1.6	1.1	-2.7	-2.9	-3.4	-2.8	-2.9

Beef production is estimated to be higher for the third quarter of 2000 and then begin to decline. Cattle on feed numbers for the historic 7 states on July 1 were 9 percent higher than year earlier levels, indicating that beef production will continue to run above year earlier levels through the fall. On feed numbers will decline in the coming months as cattle supplies decline. Beef production for 2001 is forecast to be 2.4 percent lower than this year.

Choice Slaughter Steers, 1100-1300 lb., Omaha, $/cwt.										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	69.32	71.50	67.62	69.16	69.29	71.53	73.43	71.90	73.17	72.58
Min			66.00	65.00	68.00	64.50	65.50	66.00	67.00	65.75
Max			70.00	74.00	71.00	75.00	76.00	78.00	76.00	75.00
Avg. Experts			67.53	70.06	69.43	72.94	74.57	72.22	74.03	73.38

The survey respondents are projecting fed cattle prices to decline in the third quarter and then start to increase as supplies decrease. Prices for 2001 are estimated to be above $70 for the entire year with an average of $72.58. The experts are projecting smaller supplies in 2001 and higher prices. The respondents may have overestimated prices for the rest of 2000 since the surveys were completed before the most recent USDA Cattle on Feed Report. That report showed lower than expected marketings and higher than expected on feed numbers due to feedlots holding cattle longer before marketing them. In mid-July, Iowa-Southern Minnesota Choice 1100-1300 lb. slaughter steers were near $68.00/cwt. For the week ending August 4th, prices had fallen to $65.00.

Feeder Steers, medium frame #1, 750-800lb., Oklahoma City, $/cwt.										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	84.91	84.80	85.15	86.29	85.49	86.73	86.91	86.00	87.38	87.05
Min			79.40	80.90	82.65	81.00	81.50	83.00	83.25	82.30
Max			90.00	92.00	88.00	92.00	91.00	94.00	96.00	93.00
Avg. Experts			86.22	87.44	85.98	88.13	87.36	86.78	88.28	87.70

Feeder steer prices are expected to be fairly steady during the next 1-½ years. Forecast prices range from a low of $85.15 during the third quarter of 2000 to $87.38 during the fourth quarter of 2001. Prices are forecast to average $87.05 during 2001, up $1.56 from 2000. Similar to fed cattle prices, the experts are predicting slighter higher feeder cattle prices compared with the average.

Pork

Commercial Pork Production, Percent Change from Previous Year										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	-0.9	-2.7	-2.2	-2.1	-2.0	-0.9	1.0	2.0	2.3	1.3
Min			-3.5	-5.4	-3.0	-4.0	-3.0	-3.0	-2.5	-3.2
Max			0.0	2.0	-1.0	4.0	4.0	4.7	6.0	3.1
Avg. Experts			-2.1	-1.3	-1.9	-0.4	1.9	2.4	2.7	1.9

Pork production is expected to post year over year increases by the second quarter of 2001 as the hog cycle transitions from the liquidation phase to the expansion phase. Even with the June 1st breeding herd being 4.3 percent lower, low levels of sow slaughter and increases in productivity indicate that expansion is starting to occur. There is a wide range between the minimum and maximums indicating that we don't have a good handle on how much expansion is occurring or how soon it will occur. Increases in slaughter weights and the usage rate of Elanco's feed ingredient Paylean™ adds further uncertainty. Our initial analysis of the June Hogs and Pigs report here at Iowa State suggested that by the second quarter of 2001, pork supplies would be above year earlier levels. Data from this survey for the second quarter of 2001 shows a range from –3.0 percent to +4.0 percent with an average of +1.0 percent from everyone and +1.9 percent from the experts.

Iowa-Southern Minnesota Barrow and Gilts, 51-52 % Lean, $/cwt.										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	41.14	50.75	48.35	42.16	45.48	43.53	45.93	45.75	39.63	43.58
Min			44.00	40.00	44.00	40.00	40.00	40.50	32.00	40.00
Max			51.00	52.00	50.00	52.00	53.00	55.00	53.00	53.00
Avg. Experts			47.93	41.19	45.09	42.72	45.39	44.83	37.33	42.43

Hog prices are forecast to ease slightly during the third quarter and then decline further in the fourth quarter, with an annual average of $45.48 for 2000. Prices during 2001 are expected to be below 2000 levels starting in the second quarter due to year over year increases in pork production. The annual average price forecast for 2001 is $43.58, a drop of only $1.90 from 2000. Similar to the pork production estimates, there is a wide range in the price forecasts, especially the farther out you go. Estimates range from $32 to $53 for the fourth quarter of 2001. The most pessimistic forecast was for a $44 average in 2000 and a $40 average for 2001. This signals that profitability for pork producers should extend throughout most of 2001 as these prices are above costs of production considering current and forecast feed prices. The experts are predicting higher pork production and lower prices than the average of all the economists.

Milk

Milk Production, Percent Change from Previous Year										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	5.2	3.1	2.6	2.1	3.2	1.1	1.5	1.3	1.3	1.4
Min			1.5	-1.5	2.0	-2.0	-1.0	-1.0	0.0	-1.0
Max			3.0	4.0	4.0	4.0	4.0	2.7	3.0	3.0
Avg. Experts			2.5	2.1	3.2	1.3	1.5	1.3	1.3	1.4

Milk production is forecast to increase 3.2 percent in 2000 and 1.4 percent in 2001. The estimates from the experts are similar to the overall averages. July 1 U.S. Milk cow numbers were up 1.1 compared with year-earlier levels. Milk per cow also continues to rise, increasing 3.2 percent for January – June compared with 1999 levels.

Milk, 3.5% BFP, $/cwt.										
	2000					2001				
	Q1	Q2 Est.	Q3	Q4	Ann.	Q1	Q2	Q3	Q4	Ann.
Average	9.71	9.45	10.81	11.78	10.44	10.68	10.15	11.11	12.11	11.01
Min			10.15	10.75	10.14	9.75	9.00	9.75	10.00	10.25
Max			11.31	13.00	10.80	11.75	11.00	12.50	13.50	11.75
Avg. Experts			10.77	11.50	10.37	10.96	10.39	11.28	12.00	11.16

Milk prices are forecast to increase from sub $10 levels during the first half of the year to $11.78 by the fourth quarter. Continued increases in milk production for 2001 will only allow forecasted prices to increase to $11.01, a $0.57 increase over 2000.

Alan Vontalge

CROP FORECAST: POTENTIAL PRESSURE ON STORAGE SPACE AND PRICES

Prospects for large corn and soybean crops point to a little further weakness in the grain markets into late September, and are likely to continue to pressure prices through at least the first half of the coming marketing year. USDA's August crop report forecasts U.S. corn production at a record 10.37 billion bushels, up 10 percent or 932

million bushels from a year ago. U.S. soybean production was pegged at 2.99 billion bushels, 13 percent or 346 bushels more than last year. Combined U.S. corn and soybean supplies this fall are indicated to be nine percent larger than a year ago. The U.S. average corn yield is forecast at a record 141.9 bushels per acre, about five percent above the long-term trend. The last record yield was in 1994 at 138.6 bushels per acre, about 12 percent above trend. Historically, the August crop report has tended to be a slightly conservative indicator of final production, especially in years of large crops. A couple good rains across the Midwest between now and the first week of September probably would just about insure that production would be near or slightly above the August indications. That is in spite of some problem areas in parts of west central and northwest Iowa, and non-irrigated areas of Nebraska. Since this year's crops were planted early in most areas, the risk of serious damage from early frost is almost non-existent. Weather through early September will affect corn kernel size somewhat, but the risk of a severe reduction in the U.S. average yield looks quite low. Soybean yields could vary considerably in either direction from the current forecast, depending on rainfall in the last half of August.

Other Feed Grains

Grain sorghum yield prospects are less favorable than for corn, with early indications that the yield will be near the average of recent years. The crop is mostly grown on non-irrigated land and has been stressed by dry weather in Nebraska and parts of neighboring states. The major-states barley crop was reported to be 52 percent good to excellent on August 6, the same as a year earlier. U.S. barley production is forecast to be up 9 percent from last year because of a nine percent increase in acreage. That slightly more than offsets a predicted 3 percent drop in grain sorghum production. The nation's oat crop is forecast to be up five percent from last year. ***While these crops are important in some local areas, by far the most important determination of the total feed grain supply is the corn crop. It accounts for about 92 percent of U.S. feed grain production.*** Grain sorghum accounts for 5 percent of the U.S. feed grain crop, along with 2.4 percent for barley and 0.8 percent for oats.

International Developments

The export demand outlook for U.S. feed grains has brightened somewhat in the last few months due to adverse weather in parts of China, Eastern Europe, and the former Soviet Union (FSU). USDA's World Supply and Demand report lowered the forecast of China's 2000 corn crop 276 million bushels from a year earlier. The crop is now placed at 515 million bushels less than a year earlier. Reduced production there is almost certain to cause a substantial reduction in China's corn exports in the year ahead, thus boosting demand for U.S. corn in the Pacific Rim. However, optimism about export demand for U.S. corn should be tempered by recognition that rains have been fairly good to very good in about 70 percent of China's corn/soybean producing area and these areas may have above-normal yields. Also, China's feed grain carryover stocks, at 500 million bushels more than two years ago, are believed to be large enough to allow some exports. China's soybean crop is now forecast to be up 6.5% from last year, due to around a 14% increase in plantings as farmers shifted land from corn to beans. Soybean yields there are projected to be modestly below those of last year, but the final yields will be influenced by weather in the next few weeks. USDA projects China's soybean imports in 2000-01 to decline 64 million bushels from this season.

Eastern Europe (EE) also has had serious drought, especially in Poland, Hungary, and Romania. EE feed grain production is projected to be about 400 million bushels less than last year, with its exports expected to be down about 100 million bushels from 1999-00. However, the European Union's wheat crop is believed to be up almost as much as the EE feed grain crop has declined. Part of it is low quality because of harvest-time rains. Some of this production may be used to offset declines in EE supplies. Feed grain production in the former Soviet Union (FSU) is projected to be 180 million bushels larger than last year's drought-reduced crop, although its wheat crop is expected to be down about 60 million bushels. USDA projects a decline in FSU feed grain imports in the year ahead. Canada's feed grain crop is forecast to be about 40 million bushels (corn equivalent) above last year.

China Weather Details

More detailed information on weather in China's Corn/Soybean Belt, and the location of its corn and soybean production are shown in the following web sites. http://news.bridge.com/gws/home/gwshome2.htm and http://www.usda.gov/oce/waob/jawf/profiles/mwcacp.htm

Based on Global Weather Service July rainfall maps, China's driest corn/soybean areas are the three extreme northeastern provinces. These three provinces together produce about 32 percent of China's corn crop. The worst drought has been in the corn growing area of Jilin, the middle province, which normally accounts for about 13 percent of the Chinese corn crop. The northeast part of this province had 150 to 400 percent of normal rain in July, in contrast to 25 to 75 percent of normal over the rest of the province. Heilongjiang, which normally produces about 11 percent of China's corn crop, had 75 to 100 percent of normal rainfall over much of its corn area in July, with a few areas receiving 100 to 150 percent. Liaoning, the southernmost of these three provinces, produces about 8 percent of China's corn crop. Its July rainfall ranged from 25 to 75 percent of normal. While the greatest amount of irrigation in China is south of Beijing, these northeastern areas have a large amount of irrigation. However, rivers and reservoirs in parts of this region dried up, reducing or eliminating irrigation water supplies.

While production is projected to be down 10 percent or 500 million bushels, old-crop carryover stocks are believed to be about half a billion bushels larger than in 1998 and are well above long-term desirable levels. Despite large exports this past year, China was not able to reduce stocks to more comfortable levels. The stocks are expected to allow China to avoid the need for corn imports and to export some corn in the year ahead. However, its exports almost certainly will be well below those of this past year—perhaps down 150 to 240 million bushels. That, in turn, should increase U.S. corn exports to the Pacific Rim. ***It is important to note that this is a weather-driven source of demand what may at least partially disappear in 2001-02.***

More Downside Price Risk?

Four years into "Freedom to Farm," the program's ability to handle extreme above and below trend yields has not been tested, but this may be the year that we test it on the upside. If August weather were to remain as favorable as in June and July and the crop has the same percentage deviation from the trend yield as in 1994, we would add another half-billion bushels or 5 percent to the U.S. corn supply. What is the downside price risk in that case? A starting point we have used for many years in corn price forecasting is a price flexibility based rule: a one percent change in the total corn supply moves the season average price about 2 percent in the opposite direction, provided other market influences remain unchanged. ***Applying this rule to the upper end of these supply possibilities would take the 2000-01 U.S. average corn price down to about $1.25 per bushel and the Iowa average price down to about $1.15. Those are prices last seen in the mid-1980s farm crisis and before that, in the early 1970s. The downside risk comes not from huge global supplies or a severe collapse in export markets, but from the marketing loan "clearance sale" mechanism, which is designed to lower the price of a product with a highly inelastic demand enough to avoid building stocks.*** If this doesn't buy a large amount of additional demand, the market will deal with the problem by depressing prices, the basis, and the nearby futures until farmers and the rest of the private sector carry the inventories for two or more years without government financing or risk-control. We don't know how low prices will have to go to do that, because historical experience is lacking***. Agricultural lenders are likely to be reluctant to finance multi-year on-farm grain storage when there is no government storage payment or price support mechanism to help manage price risk.***

Another potential source of price pressure this fall is a lack of storage space. The USDA, FSA storage financing has encouraged construction of some new capacity. However, the amount of new capacity likely is rather small. The incentive for putting up new storage with this program is a 3.0 to 3.5-percentage point interest rate advantage over commercial rates, or about 2.4 cents per bushel per year for the repayment on a 10-year loan at $1.25 per bushel cost for new bins. That is far less of an incentive than under the old Farmer-Owned Reserve.

Demand Developments

The largest source of demand for the U.S. corn crop is domestic feeding (plus residual use, which includes statistical errors). This season, feed and residual use will account for about 59 percent of total U.S. corn use. Domestic processing and seed account for another 20 percent, with exports at about 21 percent. Domestic feed and residual use the first three quarters of the 1999-00 marketing year averaged about 0.6 percent less than a year earlier. For the first half of the 2000-01 marketing year, domestic feeding probably will be constrained somewhat by hog numbers, good quality of the corn crop, and technological changes in hog feed conversion. However, low prices will likely encourage

slightly larger corn feeding than a year earlier, and the increase in corn feeding should accelerate slightly in the spring and summer of 2001.

Balance Sheet and Price Projections

My projections of U.S. corn utilization for the year ahead, along with supplies under three different yields are shown at: http://www.econ.iastate.edu/faculty/wisner/Wisner/balancesheets.pdf. Columns B and C are the most likely supply outcomes. Column B reflects the USDA August crop report. Currently, the National Weather Service 30-day outlook for August shows above-normal temperatures and normal rainfall for the eastern and northern Corn Belt and about two thirds of Iowa. The western one-third of Iowa, northwestern Missouri, Nebraska, northern Kansas, and the corn/bean area of South Dakota are forecast to have below normal rain. These latter areas may experience some loss of yield potential in the next three weeks, although irrigation in Nebraska and parts of Kansas will temper negative impacts on the crop. Very widespread hot/dry weather likely would be needed to take the U.S. average yield down to the column A level.

Marketing Considerations

Key marketing considerations center on these main areas: (1) what to do with remaining old-crop grain, (2) lining up storage space for the new crop, (3) taking advantage of what are likely to be well above normal storage hedging returns for new crops, (4) how and when to capture the LDP/marketing loan gains without excessive risk, and (5) developing a marketing plan for the 2001 crops that will adequately reflect the current risk environment. Farmers have been stunned by the severe drop in old-crop prices this summer, and so far have been relatively tight holders of much of the remaining old-crop grain. However, time is running out. For grain under CCC loans, most of the loans will expire in the next 2 and one-half months. Continued storage will require private sector financing, which will be difficult for some to obtain. Much of this grain is likely to be moved to make room for the new crop. That, along with an anticipated lack of storage space and pressure on the basis, is a caution sign that continued holding of old-crop grain carries significant risk. For the new crop that was not priced for harvest or post-harvest delivery, alternatives to be strongly considered are storage (until spring on the farm, or shorter-term in town) while capturing above-average hedging returns. For those who want to retain ownership while hedging, purchases of call options is an alternative to consider. Still another alternative would be to store and buy puts. Buying September 2001 puts would allow a producer to store into mid- to late summer with downside price protection.

Storage Returns

Our analysis of unpriced on-farm corn storage in Iowa shows an average net return (excluding bin ownership cost) of around 8 cents per bushel for storing corn into May, but with storage being profitable only about 50 percent of the years since 1979. Hence, unpriced storage is a high-risk alternative. Prudent risk management and marketing suggest considering the use of storage hedges or elevator forward contracts when they offer a positive net return. If the producer wants to speculate on higher prices, an alternative to consider is options purchases or a carefully developed bull call spread where call options sales at a higher strike price do not exceed call options purchases at a lower strike price, and where risk exposure is carefully determined before the position is established.

Pricing Next Year's Crop

For the 2001 crop, producers should note that 26 years of data show December corn prices declining from planting time to harvest 73 percent of the time. November soybean futures prices have followed a similar pattern. One way of capturing marketing benefits from this pattern is to buy December put options during or a little before the planting season, and hold them into the fall. In years when the market moves sharply higher (27 percent of the time over the last 26 years, because of widespread weather problems), producers will receive a higher price for their corn, and will be out only the options premium cost. For years like this year and many others when prices fall sharply, the puts will increase in value as prices decline. Some elevators also have developed pre-harvest pricing tools in order to offer benefits of this strategy to producers who feel uncomfortable using the options market. Given this price pattern, it is important to develop the next year's marketing plan early, look at financial needs, potential insurance tools for managing yield risk, and the marketing tools available for price protection.

Robert Wisner