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Five-Year Outlook for Iowa Agriculture

Philip Kaus
Iowa State University, pkaus@iastate.edu

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Crop and livestock producers in the United States have been faced with one of the most challenging fall and winter seasons in recent memory. The price of corn fell to the lowest level in a decade, and soybeans, which had been buoyed by the price of oils, recently succumbed to decade lows also. Pork producers struggled through the worst December on record when the price of barrows and gilts fell to Depression era prices. Cattle producers, while seeing declining cattle numbers and after running in the red for more than a year, dealt with stiff competition from pork and poultry producers who were cranking out record production. They have been unable to turn a profit until recently, partly because of larger than expected beef production caused by record slaughter weights and overall large levels of meat available.

Against this backdrop, in January 1999, the Food and Agricultural Policy Research Institute (FAPRI) established its annual baseline projections for crop and livestock commodities produced in the United States and around the globe. A new outlook for Iowa agriculture was generated from the results of these projections. The outlook period for Iowa is from 1999/00 to 2003/04. This baseline contains policy assumptions consistent with the continuation of the 1996 Farm Bill.

**IOWA AND U.S. CROPS**

**Corn:** U.S. producers are projected to trim corn planting to 79.7 million acres in 1999/00, then increase gradually over the period to 80 million acres in 2003/04. Corn trend yields increase over the period causing production to increase from 9.76 billion bushels in the first year to 10.1 billion bushel by the end of the period. The season-average farm price of corn is projected to increase from $1.94 per bushel during 1998/99 to $2.24 per bushel in 2003/04 as overall world supplies remain fairly large. Iowa corn plantings for 1999/00 are projected to dip to 12.58 million acres initially, increase to 12.705 million acres, and then settle to 12.695 million acres by the end of the period. Iowa corn yields continue to be well above average U.S. yields, and corn production is projected to increase from 1.73 billion bushels in 1999/00 to 1.83 billion bushels by 2003/04. The season-average farm price for the marketing year in Iowa is projected to be $1.91 per bushel during 1998/99 and increase steadily over the period to $2.21 per bushel.

Soybeans: U.S. acres planted to soybeans are projected to increase 300,000 acres in 1999/00 to 72.7 million and then trend downward through the rest of the period to 70.3 million acres by 2003/04. The increased acreage in 1999/00 largely reflects a more favorable bean-to-corn ratio, especially in the loan rate. Soybean yield follows the trend over the period and production increases marginally from 2.81 billion bushels in 1999/00 to 2.88 billion bushels in 2003/04 as yield increases more than offset acreage decreases.

The season-average price of beans during 1998/99 is projected to be $5.33 per bushel, dip to $5.08 per bushel in 1999/00, and then increase to $5.43 per bushel during 2003/04. Price recovery is hampered by increased production in South America. Iowa soybean plantings for 1999/00 are projected to increase 27,000 acres to 10.527 million acres initially, then decrease slowly throughout the period to 10.175 million acres. Iowa soybean yields continue to be above average U.S. yields, and soybean production is projected to drop slightly from the 1998/99 production, due to more normal growing conditions. Production then slowly increases from 487 million bushels in 1999/00 to 490 million bushels by 2003/04. The season-average farm price for the marketing year in Iowa is projected to be $5.29 per bushel during 1998/99, drop to $5.05 per bushel in 1999/00, and then
General Equations for 1999: 

- Meat Consumption: Iowa's beef and pork producers will face stiff competition from U.S. poultry producers in supplying U.S. consumer meat in the coming years. U.S. per capita retail meat consumption is projected to increase just over 1 percent between 1999 and 2000. 

- Hog Production: Hog production is projected to increase $3.67 per hundredweight during 2001. The 1999 yearly average price for Nebraska Direct Steers is projected at $65.71 per hundredweight, 7 percent above the 1998 price. Barrow and gilt prices are projected to rise to $43.32 per hundredweight in 2001 and then decline to $35.62 per hundredweight by the end of the period. Sow prices for 1999 are projected to be $25.41 per hundredweight, 20 percent higher than in 1998. Sow prices are projected to reach a cyclical peak of $33.37 per hundredweight in 2001 and then decline to $30.69 per hundredweight at the end of the period.

- Cattle: The U.S. cattle numbers indicate a continued reduction of the beef herd. January 1 inventory numbers decline from 33 million head in 1999 to 32.7 million head in 2002 and then rise to 32.9 million head in 2003. The 1999 yearly average price for Nebraska Direct Steers is projected at $65.71 per hundredweight, 7 percent above the 1998 price. Prices are projected to continue on a up note, peaking at $75.72 per hundredweight before declining to $74.56 per hundredweight in 2003.

- Pork: After a tough year, U.S. pork producers will trim breeding herd numbers by 290,000 to 6.38 million head in 1999, then slowly rebuild their inventory to 6.63 million head by 2003. Hog slaughter will dip from 101 million head in 1998 to 95.4 million head in 2000 before coming back to 101 million head in 2003. U.S. pork production is projected to drop to 18 billion pounds in 2000 then increase to 19.4 billion pounds in 2003. The U.S. season-average farm price is projected to increase $3.67 per hundredweight to $35.41 per hundredweight in 1999, then decline to $36.52 per hundredweight by the end of the period. Iowa pork producers are projected to trim the December 1 breeding herd inventory number by 57,000 head to 1.2 million head. Inventory numbers are projected to steadily increase through the period and finish at 1.521 million head in 2002 as U.S. inventories decline. The projected average-farm price for a fed steer in 1999 is $65.15 per hundredweight, and it is projected to increase to $75.02 per hundredweight by 2002, before dropping slightly in 2003. The season-average feeder steer price is projected to be $84.56 per hundredweight in 1999, 7 percent above the 1998 price. Feeder steer prices are projected to peak at $94.95 per hundredweight in 2003. The 1999 yearly average price for Nebraska Direct Steers is projected at $65.71 per hundredweight, 7 percent above the 1998 price. Barrow and gilt prices are projected to increase just over 1 percent between 1999 and 2000.
1999 and 2003, from 213.1 pounds to 215.7 pounds. Per capita beef consumption is projected to decline from 64.8 pounds to 60.4 pounds. Per capita pork consumption is projected to decline slightly from 51.9 pounds to 49.8 pounds. Beef’s share of consumption is projected to decline from 30.4 percent to 28 percent, and pork’s share during the same period is projected to decline slightly from 24.4 percent to 23.1 percent. Beef and pork’s loss is poultry’s gain, as poultry’s share is projected to increase from 37 percent to 41 percent.

**Net Farm Income**

Iowa net farm income for 1999 is projected to be down another 9 percent from 1998 to $2.22 billion. This is 15 percent below the five-year average of $2.61 billion from 1993 to 1997. Net farm income is projected to rise rapidly to $2.82 billion in 2002 before declining to $2.48 billion in 2003.

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**Recommended Daily Allowances (RDAs) Soon to Change**

Recommended daily allowances (RDAs), commonly seen on packaged food, may soon be replaced. The Food and Nutrition Board of the Institute of Medicine is currently revising the RDAs for nutrient intake.

“The Food and Nutrition Board is working to establish new reference intakes for all nutrients, which will be called Daily Reference Intakes (DRIs),” Alicia Carriquiry, associate professor of statistics, said.

There are four DRIs for each nutrient: estimated average requirement (EAR), recommended daily allowances (RDA), adequate intakes (AI), and upper tolerance levels (UL). The DRIs will be concerned not only with inadequate intake levels, but also with excessive intake levels.

Many food intake surveys ask people what they normally eat, or what they eat in one day. However, there were concerns that these approaches didn’t provide the information needed to set dietary policies; and therefore, researchers at Iowa State University developed new statistical methods to address these needs.

“We made a recommendation on the number of days for which information is collected,” Carriquiry said. “When two days of dietary data are available for some individuals in a sample, it’s possible to estimate long-term average intake.”

To implement the new statistical methods, the ISU team developed a software program, which initially was called Software Intake Distribution Estimation (SIDE). Since then, a more user-friendly Windows-based version, C-SIDE, has been developed and that version is the one currently being used by university and government researchers and nutritionists. A PC-based version of the software is under development.

“As more people began to use the statistical method, there was more interest in the software, and an increasing demand for a PC-based version,” said Helen Jensen, Food and Nutrition Policy division head at the Center for Agricultural and Rural Development.

The SIDE or C-SIDE software is used to analyze a given population’s intake of nutrients, Carriquiry said. From this analysis, specific population groups can then be identified as at risk for inadequate or excessive levels of nutrients, Jensen said. Those specific population groups identified could be children, senior citizens, women, or those with low incomes, for example.

“Surveys can tell us the food-intake status of a certain segment of the population. The next step is to evaluate factors associated with food choices, the role of food preparers, and then make recommendations for changes,” Jensen said.

(Editor’s note: Parts of this article were excerpted from the ISU College of Agriculture 1998 Annual Report, page 33.)