

April 2, 2001

Ames, Iowa

Econ. Info. 1811

MARCH HOGS AND PIGS REPORT

The USDA estimated the inventory of all hogs and pigs on US farms March 1, 2001 to be 1.7 percent greater than in March 2000 (Table 1). The breeding herd was up 0.9 percent and market hog inventory was 1.8 percent higher than the year before. The larger supply is expected to result in lower prices than the same period the year before, but because the numbers were slightly smaller than pre-report trade estimates, futures prices may actually strengthen in the short term.

The March report includes a downward revision to earlier reports. Of particular interest was a downward revision of the Sep-Nov 2000 pig crop (second quarter 2001 marketings) by slightly more than 1 percent.

**Table 1. US and Iowa March 1, 2001 Hog Inventory
And Percentage Change from March 2000.**

	US	% Chg	IA	% Chg
	1000	2000	1000	2000
Total hogs	58,754	1.7	14,800	0.0
Breeding herd	6,244	0.9	1,120	-3.4
Market hogs	52,510	1.8	13,680	0.3
Under 60	19,594	2.0	4,280	-0.7
60-119	12,704	2.4	3,760	4.7
120-179	10,808	2.4	3,050	2.7
180+	9,405	-0.1	2,590	-6.5
Pig crop				
Sep-Nov	25,408	1.7	3,983	-8.7
Dec-Feb	24,896	1.5	3,825	-5.0
Farrowing Intentions				
Mar-May	2,907	0.8	470	-4.1
Jun-Aug	2,917	1.0	470	0.0

Production

First quarter slaughter was 24.692 million head, 1.9 percent lower than the same period in 2000. Due to heavier carcass weights, pork production was only 0.6 percent lower. Based on estimated pig crops for Sep-Nov and Dec-Feb, second and third quarter slaughter is forecast to be 1-2 percent higher than a year ago. Heavier carcass weights will continue to add at least 1 percent to the supply resulting in 2-3 percent larger supplies in these quarters.

The Mar-May and Jun-Aug farrowing intentions indicated that fourth quarter 2001 and first quarter 2002 supplies would continue to post a year-over-year expansion. In addition to a 1 percent increase due to carcass weight, pigs per litter continue to increase adding approximately another 1 percent. Thus the forecast is for pork supplies to increase 3 percent compared with the same quarter of the previous year.

Iowa continues to reduce its breeding herd, but maintains hog inventories by importing feeder pigs. The March breeding herd was 3.4 percent lower compared with nearly a 1 percent increase to the country as a whole. However, Iowa market hog inventory posted a slight increase.

Prices

Iowa-Southern Minnesota barrow and gilt prices are forecast to remain at profitable levels through Labor Day and possibly through October before dropping to break even or below for average producers. Forecast quarterly average prices are shown in Table 2. Given current corn prices and the current feed price forecast, breakeven for average producers is estimated to be in the upper \$30s. Less efficient producers or those with larger debt levels will have higher costs.

Table 2. Forecast Average Prices for Iowa Southern Minnesota Barrows and Gilt.

Apr-Jun	44-47
Jul-Sep	41-44
Oct-Dec	34-37
Jan-Mar	34-37

Monthly Numbers

The USDA has been releasing monthly breeding herd numbers since October 2000. While it is still too early to know how to best use these statistics, they do provide some information. Table 3 shows the sow and gilt inventory at the beginning of the month and the number of these sows and gilts bred, litters farrowed, and pig crop born during the month.

Table 3. Monthly USDA Sows, Gilts, Litters Farrowed and Pig Crop (1000 Head).

	Inventory	Bred	Farrowings	Pig crop	% Bred	Bred/day	Pigs/day
Oct	6,072	1,183	947	8,382	19.5	38.2	270.4
Nov	6,055	1,168	922	8,172	19.3	38.9	272.4
Dec	6,090	1,185	934	8,163	19.5	38.2	263.3
Jan	6,030	1,169	946	8,301	19.4	37.7	267.8
Feb	6,031	1,142	956	8,432	18.9	40.8	301.1
Mar	6,065						

The inventory doesn't include the entire US inventory. The March 1 inventory in the monthly survey was 6.065 million sows compared with 6.244 million in the quarterly report (97 percent of the total). While sow and gilt numbers declined from December to March, there was an increase from February to March.

The numbers bred, farrowed, and born during the month represent the throughput of the industry, but because of a different number of days in the month, they can be misleading. First, notice that the average number of pigs born per day decreased 9,000 a day from November to December and increased over 37,000 head a day from December to February. While the accounting is not exact and doesn't account for death loss, this does suggest an increase in daily slaughter approximately 6 months later. That is, lower numbers in June and higher numbers by August. Also notice that the average number of sows bred per day increased over 3000 sows from January to February suggesting a jump in farrowings approximately 4 months later (June) and slaughter 10 months later (November). We still have a lot to learn about the monthly data, but they are worth monitoring.

Strategy

The market is preoccupied with Foot and Mouth disease and will be sensitive to news about FMD in Denmark (a major trade competitor) or in the US. If FMD is found in the US, the price is expected drop dramatically and immediately. Producers should consider buying an out-of-the-money put option to protect against significant price declines. FMD news about Denmark may also provide opportunities to forward price hogs at acceptable profits or to buy a higher strike price for the same premium.

Depending on a producer's breakeven, the forecast looks profitable into the fall, but watch for red ink in late 2001 and early 2002. As in other cycles, supplies will continue to build until prices are low enough to force a cutback. The rate of expansion has slowed showing patience on the part of the industry. Demand also remains strong enough to support small increases in supply at profitable prices. The remaining wild card is what happens with FMD. If Japan continues to ban Danish imports, US and Canadian exports will likely increase. If Denmark has an actual widespread outbreak, it could take several years for them to return to the export market. If Denmark can successfully protect its borders from the disease, they may return to the export market in a matter of weeks.

The best-case scenario for US prices is a continued export ban on Denmark, strong demand in spite of a weaker economy, and slow herd expansion; worst case is the weaker economy results in poorer domestic demand for pork. The Danes are allowed to export again to Japan and other markets. US expansion accelerates and by 2002 numbers are larger than packer capacity (Seaboard announced they have withdrawn plans for a new pork plant near St Joe). Worse yet, the US breaks with FMD.

John Lawrence

PLANTING INTENTIONS REPORT REMOVES SOME ACREAGE UNCERTAINTY

USDA's March 30, 2001 Planting Intentions Report removed some of the uncertainty about potential 2001 corn and soybean acreage. *News from this report, along with the March 1 grain stocks report, should help set the stage for modestly higher old and new-crop corn prices between now and late May. However, the record-large indicated soybean plantings dim the prospects for soybean price strength this spring, unless widespread weather concerns emerge.*

Intended corn plantings were 2.85 million acres or 3.6% *below* last year's estimated plantings, and the stocks report data indicated domestic corn feeding during the December-February quarter was about 5.8% *above* last year. That brings indicated total U.S. corn feeding for the first half of the marketing year to an increase of 2.5% above a year earlier, near the annual rate of increase we have projected in our balance sheet. While reported stocks were near grain trade expectations, the intended plantings were nearly a million acres below average expectations. In contrast, intended soybean plantings were 0.7 million acres *above* average expectations and were up 2.2 million acres from last year's estimated plantings. Soybean stocks were slightly below trade projections, hinting that last year's soybean crop may have been slightly over-estimated. The stocks report may slightly temper the negative impact on soybean prices from the large intended acreage.

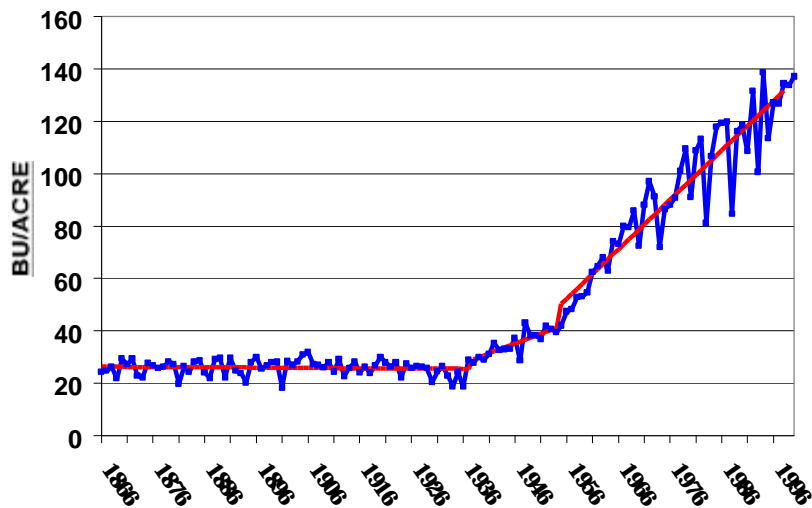
Supply-Demand Prospects

Our corn and soybean balance sheets in <http://www.econ.iastate.edu/faculty/wisner/> show updated projections of 2001-02 production, utilization, carryover stocks and prices based on the intended plantings and three alternative weather scenarios. Column A represents widespread adverse weather and the U.S. average corn yield about 20% below the long-run trend. For soybeans, the Column A yield is about 11% below trend. The long-term probability at the bottom of the tables indicates approximately how frequently weather that would generate such yields (plus or minus a few bushels) has occurred over the last two and one-half decades. A longer period of years would show somewhat lower occurrence of such years. Column B represents approximately average weather for the Corn Belt as a whole, with a slight downward adjustment in the corn yield from normal to reflect an expected decline in the nitrogen fertilizer supply. Column C represents slightly above normal yields, but significantly less favorable conditions than in the last year of record U.S. yields (1994).

Figure 1 shows the actual and trend U.S. corn yields since 1866. It indicates the average yield has shown remarkably little variation around the trend in the past four years. That's in sharp contrast to most years since USDA began reporting the average corn yield in 1866. One period of exception to the large year-to-year variation in U.S. corn yields was the late 1950s and early 1960s.

For both corn and soybeans, a Column A weather scenario would almost certainly generate sharply higher prices for the year ahead. Column B reflects a continued upward trend in U.S. corn feeding and processing, and a modest recovery in U.S. corn exports. Our corn exports for the coming year will be strongly influenced by the speed with which the StarLink problem can be alleviated, the size of China's 2001 corn crop, its response to WTO developments, and Brazil's volume of 2001-02 corn exports. Brazil has exported little or no corn in recent years, but its 2001 corn harvest is projected to be up about 20% or 240 million bushels from last year, due to a sharp increase in plantings. Trade reports indicate Brazil has sold corn to Japan and Portugal to meet their non-GMO and/or non-StarLink corn needs. Weather and the size of crops in Eastern Europe also will be important influences of U.S. corn exports in the coming year. That area has exported corn in recent years, but was forced to import grain this season because of a severe 2000 drought. Columns B and C show next year's U.S. corn carryover stocks slightly below the expected level for August 31, 2001, with average prices slightly above to slightly below this season's average. The lower than expected corn planting intentions will modestly increase the sensitivity of corn prices this spring and summer to any widespread threat of adverse weather.

Figure 1. U.S. CORN YIELD 1866-2000



Soybean Track Record vs. Planting Intentions

The planting intentions surveys historically have tended to understate actual soybean plantings. From 1965 through 2000, U.S. soybean planting intentions, on average, were 0.5 percent below actual plantings. From 1985 through 2000, they averaged 0.7 percent less than estimated actual plantings, *and from 1990 through 2000 the average was 1.2 percent below estimated actual plantings. Percentages of the time that actual plantings exceeded soybean-planting intentions over these periods were 64, 69, and 82 percent, respectively.* Changes from March to the next January since 1990 suggest it is quite likely that actual soybean plantings this spring will be greater than currently indicated. *The 1990-2000 average deviation would push 2001 soybean plantings up to 77.6 million acres (an additional 0.9 acres above intentions), and would add around 27 to 30 million bushels to potential production. That would add slight upward potential to carryover stocks and downward potential to prices.* “Freedom to Farm” does not appear to have noticeably changed the tendency for the March soybean intentions to be conservative. Since the start of “Freedom to Farm” in 1996, soybean plantings have exceeded March intentions 80% of the time, by an overall average of 1.3 percent.

Corn Track Record vs. Planting Intentions

In contrast to soybeans, the planting intentions surveys in recent years have tended to overstate actual corn plantings. From 1965 through 2000, the corn planting intentions, on average, were 0.8 percent above actual plantings. From 1985 through 2000, they also averaged 0.8 percent more than estimated actual plantings, *and from 1990 through 2000 the average was 0.9 percent above estimated actual plantings.*

Percentages of the time that actual corn plantings were above the planting intentions over these periods were: 42, 38, and 36 percent, respectively. Changes from March to the next January since 1990 suggest it is quite likely that actual corn plantings this spring will be less than currently indicated. *The 1990-2000 average deviation would push 2001 corn plantings down to 76.1 million acres (a drop of 0.6 million acres from intentions), and would reduce potential production with normal weather by around 70 to 75 million bushels. That would reduce carryover stocks slightly and would add slight upward potential to new-crop corn prices.* Indicated carryover stocks in our Column B projection in the balance sheet would still be slightly above the beginning 1999 and 2000 levels.

In contrast to soybeans, “Freedom to Farm” does appear to have influenced the deviation of corn planting intentions vs. actual planted acres. However, the small number of years does not allow us to draw firm conclusions about this. *Since the start of “Freedom to Farm” in 1996, U.S. corn plantings have fallen short of the March intentions 60% of the time, but by an overall average of only 0.1 percent.* That is a caution that the 1990-2000 period may not be appropriate for judging this year’s U.S. corn planting intentions will compare to actual planted acreage. During the 1990-1995 period, land-idling provisions of farm programs, including the set-aside and 0-92, were important influences on actual planted acreage. Soybean plantings this year will be influenced by the amount of abandoned wheat acreage replanted to beans.

Other Crops

The planting intentions showed intended increases in hay acreage of 6.6% from last year, along with increases of 2% for sorghum and other spring wheat, 21% for canola, and 0.5% for cotton. Indicated plantings of barley, oats, sunflowers, and winter wheat all were below 2000 actual plantings.

Biotech Intentions

For the U.S. as a whole, farmers indicated they intend to plant 16% of their corn crop to insect resistant varieties, a decline from the 18% planted last year. Intended use of Bt corn ranges from 5% in Indiana to 20% in Iowa and 29% in South Dakota. U.S. farmers indicated they intend to plant 7% of their corn crop to herbicide-resistant varieties, up from 6% last year. Planned use of herbicide-resistant varieties ranges from 3% in Illinois to 7% in Iowa and 14% in South Dakota. Intended use of “Stacked” (herbicide & insect-resistant) varieties was reported at 1% nationally, and ranges from less than 0.5% in Illinois to 2% in Iowa and 3% in South Dakota. Herbicide and stacked varieties have not been approved in the European Union, which is a large market for the corn gluten feed produced by U.S. wet-milling processors. Some processors have asked farmers not to plant these varieties, and the Illinois Department of Agriculture and Land Stewardship requested that seed companies not sell these varieties until they are approved world-wide for all uses.

Intended plantings of herbicide-resistant soybeans nationally was reported at 63%, up from 54% last year. Intentions for these types of soybeans ranged from 36% in North Dakota to 62% in Iowa and 80% in Kansas. Planting intentions by states can be found at <http://www.usda.gov/nass/PUBS/TODAYRPT/pspl0301.txt>

Future Chinese Imports and Exports

The exact size of China’s 2000 corn and soybean crops remains uncertain. USDA estimates that its corn crop was down substantially while its soybean production was up modestly. However, China’s behavior in world markets so far this season suggests its corn crop may have been under-estimated and its soybean crop over-estimated.

Despite the estimated sharp decline in 2000 corn production, China is continuing to export corn and import soybeans, although its July-August corn exports may be small or even zero. From last September 1 through March 22, China had purchased 75% more U.S. soybeans than a year earlier. USDA and some private analysts project that China will import 4 million tons (158 million bushels) of corn in the 2001-02 marketing year. It might appear somewhat irrational on the part of the Chinese to export corn aggressively with this season’s weak corn prices, and then import corn at potentially higher prices next year—considering a widely anticipated decline in U.S. corn planted acreage. Motives for doing so might be to reduce north China stocks if they are uncomfortably high for WTO entry.

U.S. and Chinese officials in China last June indicated to us that the Tariff-Rate Quotas (TRQs) to be implemented when China joins WTO do not require Chinese imports of corn, but do lock in the tariff at one percent, down a couple of percentage points from the previous rate. The WTO, assuming China is admitted, is expected to remove Chinese government decision-making about imports and shift those decisions to the private sector. In the past, China often imported small amounts of corn into southern China for feed while exporting from northern areas. Since 1987-88, except for 1994-95 and 1995-96, its imports ranged from zero to 17million bushels and its exports exceeded its imports by a large amount. Its imports in 1994-95 totaled 3.99 million metric tons (157 million bushels) along with 1.45 million metric tons (57 million bushels) the next year. Imports in 1994-95 were triggered partly by a substantial drop in production. With the resulting drop in its exports and the extreme rise in world prices that followed in the next year, the Chinese government recommitted itself to seeking self-sufficiency in food supplies and to encouraging domestic production.

China also will be required to eliminate export subsidies. Corn is one of the main products receiving such subsidies. It remains to be seen whether the negotiated trade policy changes will reduce its corn production, or whether China will find other ways of subsidizing corn growers if it determines that is needed. Land and much of the labor in north China have few alternative uses other than grain and oilseed production. As recent global experiences have shown, land only is removed from crop production when (1) it has alternative uses, and/or (2) prices for the product fall below variable costs of production. That helps to explain why U.S. and world crop acreage has remained large despite a very sharp decline in prices for corn, wheat, and soybeans in the last five years. China’s corn acreage is estimated to have been in a long-term upward trend.

Variable costs are costs that would not be incurred if the land were not planted. Where most of the labor does not have alternative uses, labor costs also are fixed costs. Variable costs of crop production in China are believed to be quite low. Changes in its support mechanisms also can effect the mix of various crops raised, especially the relative mix of corn, wheat, and soybeans. The currency exchange rate is another potential influence on domestic production and exports. China’s exchange rate is government-determined rather than market-determined. It has remained almost constant in the

last three and one-half years, while most other Asian currencies have fallen sharply in value. A decline in its currency, if that were to happen, would increase the competitiveness of Chinese exports, while tending to discourage imports.

If the policy changes negotiated so far trigger a considerable decrease in Chinese grain production and/or increased imports, B and C column prices could be a bit higher than indicated here. Research from a major Chinese agricultural university indicates China's cost of corn production is approximately the same as in the U.S., although its soybean production costs are modestly higher. The U.S. is able to export corn and soybeans at prices well below its average production costs through the LDP and various other government payments. With agricultural policies used in the U.S. as a possible guide, it remains to be seen whether China will be able to find ways of shifting the current corn export subsidy into another form that might be acceptable under WTO rules. Agricultural subsidies likely will be one of several major issues considered by the Chinese and strongly debated in the WTO negotiations in the next one to three years. At this stage, an issue reportedly delaying China's entry into WTO is whether it will be considered a developed or a developing country. Developing nations are allowed to use larger subsidies than developed nations.

Other Developments Affecting Next Year's Corn Exports

Grain production in Eastern and Western Europe, India, the Former Soviet Union (FSU), and Canada will be other potential influences on U.S. corn exports in the next six months. Eastern Europe, in recent years has been a feed grain exporter, but suffered severe drought last year along with some parts of FSU. Weather and planted acreage in these nations will significantly affect competition in world markets.

Robert Wisner