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AgLetter

HOG EXPANSION STILL UNDERWAY

Large gains in pork production since last fall are weighing heavy on hog prices and causing losses among most hog farmers. And based on the U.S. Department of Agriculture's most recent ***Hogs and Pigs*** report, that trend is likely to continue into next year. The report noted that the number of hogs and pigs on U.S. farms as of March 1 was up nearly 8 percent from a year earlier. On a somewhat more positive note for producers, however, the report suggested that the rate of expansion is slowing. Reflecting this, the inventory of hogs held for breeding purposes was reported to be up only 2 percent.

The latest quarterly report summarized the expansion among hog producers since December. It also contained revisions to the data from earlier reports, confirming that the expansion last year exceeded previous estimates. For example, the hog inventory estimate for December 1 was revised upward nearly 2 percent, pushing the year-over-year gain in hog numbers as of that date up to 8.5 percent. The updated numbers since then imply the rate of expansion eased slightly this winter. The estimate of actual sow farrowings during the three months ending February was slightly less than what had been indicated as producers' farrowing intentions last December. That coupled with a below-trend rate of increase in pigs per litter helped limit the year-over-year rise in the December-February pig crop to 8 percent.

A much slower rate of expansion will likely occur this spring and summer. As noted, the March 1 inventory of hogs held for breeding purposes was up only 2 percent from a year earlier. Moreover, producer intentions for sow farrowings during the March-May period now point to a year-over-year gain of 3 percent while those for the June-August period imply a gain of 2 percent. The indicated farrowings, adjusted for the trend rate of increase in pigs saved per litter implies the spring (March-May) and summer (July-August) pig crops will likely register year-over-year gains of around 5 and 3 percent, respectively.

Year-over-year comparisons in hog numbers vary widely by state. In a reversal of the recent past, the current cyclical upturn in hog numbers is more pronounced in states comprising the Seventh Federal Reserve District than elsewhere. However, the expansion here in the Midwest is focused more on hogs being raised for market than on those held for breeding purposes. The March 1 inventory of hogs in Iowa, which has far more hogs than any other state, was up a sixth from a year ago. But all of that gain was in market hogs. Among the other four District states—Illinois, Indiana, Michigan, and Wisconsin—hog numbers were up about 7.5 percent, paced by an 11 percent rise in Indiana. Indiana was the only District state to record an increase in hogs held for breeding purposes. The estimates for the other 12 major hog-raising states were mixed. Those for North Carolina, which remains under a moratorium on new and expanding hog operations, show a rise of only 1 percent. But a proportionately large share of the rise for North Carolina stemmed from a 5 percent increase in hogs held for breeding purposes. Oklahoma recorded the largest rise (29 percent) in hog numbers, with very large gains in both those held for breeding and those held for market. Other states recording relatively large gains (mostly in market hogs) included South Dakota, Minnesota, and Ohio.

The expansion in hog numbers that started a year ago has turned into a major upswing in available pork supplies to domestic consumers. Commercial pork production in the first half of last year was down 2.5 percent from the year before and—on a trade-adjusted, per capita basis—was the lowest first-half total for any year since 1978. The turnaround in pork production began very modestly last summer and then swelled to a 7 percent year-over-year gain in the fourth quarter. The gain widened to 12 percent in the first quarter of this year, pushing pork production—on a per capita basis—to the highest for the period since the early 1980s.

The current inventory of hogs on farms implies the year-over-year gains in pork production will remain large for several more months. The gains for both the second and third quarter will probably approximate 10 percent. Thereafter, for the fall and winter months the gains will probably narrow appreciably, perhaps retreating to the 2 to 4 percent range. Despite the moderating gains, however, per capita pork supplies will hold near earlier cyclical highs.

The upswing in hog numbers is the most significant factor influencing hog prices and producer earnings. But at the margin, trade developments are also a factor. Net imports of live hogs—mostly from Canada—have escalated in recent years, offsetting the benefits of rapidly growing pork exports. In 1997, net hog imports were four times the level of three years earlier and, at 3.1 million head, equivalent to 3.4 percent of the hogs processed in domestic packing plants last year. Hog imports were especially heavy in the fourth quarter and into the early part of this year. The growth in net pork exports, which also hit a new high in the fourth quarter of last year, has only partially countered the inflow of live hogs. In 1997, net pork exports reached 412 million pounds (carcass-equivalent basis). That marked a significant turnaround from three years earlier when the balance in U.S. pork trade registered 195 million pounds of net imports. Despite the turnaround, net pork exports absorbed only about 2.4 percent of the pork that came out of U.S. packing plants last year. The growth in net pork exports is expected to continue this year, but at a much slower pace than in the recent past.

The upturn in pork production is taking a heavy toll on hog prices and on producer earnings. During the first quarter, hog prices averaged less than $35 per hundredweight, down nearly a third from the high year-earlier level. Moreover, the first-quarter average was about $10 per hundredweight below the break-even cost of production for a typical farrow-to-finish hog farmer as calculated by Iowa State University. The break-even cost of production has been slowly declining for the last year and a half and further declines are likely in the months ahead, especially if the 1998 crop harvest achieves its potential. But with hog prices likely to hold in the upper $30s and low $40s the rest of this year, it's doubtful that the operating losses will end this year.

With the changing structure in hog production and marketing, it's not readily apparent where the operating losses are being absorbed. The integration that has occurred within the industry has tended to blend the income statements of input suppliers, hog farmers, and hog packers. Where this is the case, lower earnings within one component can be offset by improved earnings in another component of the production chain. To the extent that some farmers have become hog "growers" rather than producers, the low hog prices probably haven't altered the fixed contractual payments the growers receive for finishing out other producer's hogs to market weight. For those still functioning as a traditional hog producer, the increased use of quantity and/or quality premiums can translate into returns that exceed what otherwise is suggested by current hog prices. And to the extent that the rapidly expanding use of contractual arrangements between packers and hog farmers now include "window pricing" arrangements, both the farmer and the packer are probably absorbing a portion of the indicated operating losses. Under typical window pricing arrangements, the hog farmer receives the entire amount when prices fall within the window—say $42 to $48 per hundredweight. But when prices fall below, or exceed the window, the hog farmer and the packer often split the difference. Regardless of the changing structure and marketing arrangements, it's clear that the returns to assets used to produce pork have declined substantially and, at some point, the curtailed returns will pull production back into a better balance with market demand.

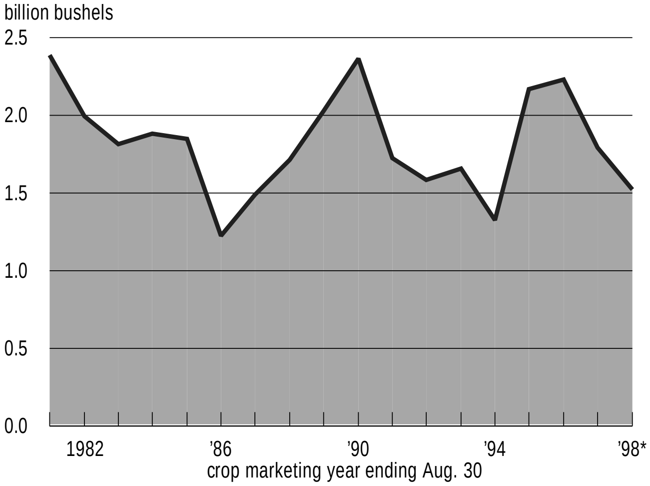
CORN USAGE ESTIMATES LOWERED

Continued disappointments in export sales and shipments and a higher-than-expected March 1 quarterly stock estimate prompted the U.S. Department of Agriculture to lower its estimate of total use of corn for the 1997/98 marketing year. With over half of the marketing year now elapsed, the latest USDA estimates imply total usage of corn this year will approximate 9.05 billion bushels. That revised estimate marks a cut of nearly 3 percent from the previous forecast but it still exceeds the 8.85 billion bushels of corn usage the previous marketing year. The lower usage estimate implies carryover stocks prior to the 1998 harvest will be slightly larger. At the present estimate of 1.21 billion bushels, old-crop carryover stocks of corn this fall will be more than a third larger than last year and the most since the end of the 1994/95 marketing year. As a percentage of annual usage, however, the projected carryover stocks (at 13.4 percent) would still lag the average since 1990/91.

Corn exports have proven very disappointing this year. Preliminary indications are that for the first six months of the 1997/98 marketing year, corn exports were down nearly a fourth from last year's pace. The USDA now believes corn exports for the entire marketing year will approximate 1.52 billion bushels, down 15 percent from last year and 25 percent below what had been projected at the start of the marketing year. Some observers believe the latest estimate may still prove too high.

The problems in U.S. corn exports this year encompass several factors. Foreign import demand for corn has declined this year. But more importantly, U.S. exports are facing increased supplies among other exporting countries. Despite a large cut in China's corn harvest last fall, its role as a net exporter of corn has unexpectedly strengthened so far this year. Likewise, more of the world import demand for corn is being filled by a large increase in coarse grain exports out of Eastern Europe and the

U.S. corn exports



*Projected.
Source: U.S. Department of Agriculture.

Former Soviet Union. More recently, the large harvest underway in Argentina has added substantially to the exportable supplies available in that country during the rest of this marketing year and into the early months of the 1998/99 marketing year.

Domestic usage of corn is more difficult to gauge. The estimates of domestic usage hinge largely on residual calculations that subtract out known uses from available stocks. An earlier quarterly stocks estimate (for December 1) implied a strong rise in domestic corn usage for the first three months of the marketing year. But the implied domestic usage rate for the early part of the marketing year is especially vulnerable to residual miscalculations that might arise from over- or under-estimating the size of the fall corn harvest. The recently updated March 1 quarterly stock estimate for corn implied domestic usage this winter was up only marginally from the year before and well short of the pace indicated earlier. Accordingly, the USDA lowered its estimate of domestic usage of corn for the entire 1997/98 marketing year to 7.52 billion bushels. The revised estimate is more than 2 percentage points lower than the previous forecast, but still 6.7 percent above domestic usage the previous marketing year and 4 percent above the previous high in 1994/95.

Over three-fourths of the corn used domestically is classified as that which is either fed to livestock and poultry or used in some other residual (unmeasured) capacity. Hog numbers are up considerably from a year ago. But the rise in poultry numbers has been less than expected and earlier year-over-year gains in the number of cattle in feedlots have now evaporated. These developments underscore the downward revision in the estimate of domestic corn usage.

While usage of corn is proving to be less than expected, a recent survey of grower planting intentions suggested the area seeded to corn in 1998 may increase only marginally. The survey indicated that farmers plan to seed some 80.8 million acres to corn this year. Such a level, if it materializes, would be the largest since 1985 but up less than 1 percent from last year. Most of the indicated increase in corn acreage was for southern states and Kansas, as well as for the Dakotas and Minnesota where extensive flooding cut corn acreage last year. Most states in the Corn Belt will apparently reduce corn acreage slightly this year. Farmers in the five District states plan to reduce their corn acreage by 1 percent. Declines were indicated for all District states except Iowa where the intentions point to no change in corn acreage this year.

The intended corn plantings could be altered, depending—in part—on market trends and weather conditions during the planting season. Likewise, weather patterns during the growing season will be the key variable in determining the share of the acreage that will be harvested for grain and the average yield per acre harvested. Under "normal" conditions, however, the indicated corn seedings would be expected to result in a harvest of 9.6 billion bushels this fall. Unless next year's recovery in exports exceeds current expectations, a harvest of that size would be ample enough to cover usage in the year ahead.

This issue marks the end of my 28-year affiliation with *AgLetter* and the Federal Reserve Bank of Chicago. It has been an enjoyable experience. My thanks to all who, over the years, have shared with me their knowledge of Midwest agriculture and their thoughts on *AgLetter.*

Gary L. Benjamin

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SELECTED AGRICULTURAL ECONOMIC INDICATORS

	Latest period	Value	Percent change from: Prior period	Year ago	Two years ago
Prices received by farmers *(index, 1990–92=100)*	March	103	2.0	–5	–6
Crops *(index, 1990–92=100)*	March	112	1.8	–5	–13
Corn *($ per bu.)*	March	2.53	–0.8	–9	–28
Hay *($ per ton)*	March	97.50	0.3	–4	22
Soybeans *($ per bu.)*	March	6.42	–2.3	–19	–8
Wheat *($ per bu.)*	March	3.34	2.1	–15	–34
Livestock and products *(index, 1990–92=100)*	March	95	1.1	–4	1
Barrows and gilts *($ per cwt.)*	March	35.70	–1.1	–28	–28
Steers and heifers *($ per cwt.)*	March	64.20	1.4	–5	7
Milk *($ per cwt.)*	March	14.50	–1.4	7	5
Eggs *(¢ per doz.)*	March	69.9	8.0	–3	–12
Consumer prices *(index, 1982–84=100)*	March	162	0.2	1	4
Food	March	160	0.2	2	5
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	4,937	N.A.	10	30
Soybean stocks *(mil. bu.)*	March 1	1,203	N.A.	14	1
Wheat stocks *(mil. bu.)*	March 1	1,166	N.A.	42	42
Beef production *(bil. lb.)*	February	1.98	–8.3	3	–3
Pork production *(bil. lb.)*	February	1.46	–10.8	11	3
Milk production* *(bil. lb.)*	March	11.8	13.2	1	3
Receipts from farm marketings *(mil. dol.)*	December	19,755	–6.1	3	13
Crops**	December	11,062	–16.8	2	13
Livestock	December	7,954	3.2	2	5
Government payments	December	739	N.A.	42	835
Agricultural exports *(mil. dol.)*	January	4,809	–8.3	–4	–13
Corn *(mil. bu.)*	January	141	17.0	–25	–24
Soybeans *(mil. bu.)*	January	120	–21.0	–1	34
Wheat *(mil. bu.)*	January	84	3.5	58	–18
Farm machinery sales *(units)*					
Tractors, over 40 HP	March	8,033	57.7	20	34
40 to 100 HP	March	4,693	61.5	28	39
100 HP or more	March	3,310	51.1	8	27
Combines	March	562	14.0	41	22

N.A. Not applicable
*20 selected states.
**Includes net CCC loans.

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