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1980 AGRICULTURAL OUTLOOK

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DISCUSSION OF HOG OUTLOOK

(By Richard Crom, ESCS, U.S. Department of Agriculture)

Since I participated in the development of the livestock outlook, I am obviously not in a position to offer a critique of it; but let me elaborate on some of the specifics concerning hogs and then turn to some longer run considerations.

This year bears considerable resemblance to 1970 when pork production increased all year and hog prices declined. Price levels are much higher now; the peak monthly average price was $54 this year compared with $28 in 1970. But the price decrease from high month to low was 44 percent in 1970; we look for about the same percentage price decline this year.

PERCENT CHANGE FROM A YEAR EARLIER (BY QUARTER, 1979)

	1st	2d	3d	4th
Pork production	+5	+15	+19	(1 +20-22)
Retail port price	+14	+4	−5	(1 −10-12)
Hog price	+10	−10	−21	(1 −30-34)

[1] Estimated.

Let's analyze forthcoming pork supplies and prices in terms of three stages of production in the hog supply—pigs on the ground, sows and gilts already bred, and probable farrowings of sows and gilts not yet bred.

Near term outlook

Hog slaughter for the rest of this year and the first half of 1980 will come from pigs in the September inventory and the September through November pig crop. With the exception of a few weeks, these pigs are here. Hogs weighing 60 to 180 pounds on September 1 were up 19 percent from a year ago; pigs weighing less than 60 pounds numbered 16 percent more than September 1, 1978. Farrowing intentions for September through November indicated a pig crop up 13 percent from a year ago.

Hog slaughter in the first half of 1980 may be up more than that indicated by the pig crop because of some liquidation of sows and boars. Last year over 200,000 hogs were added to the breeding inventory between December 1 and March 1 in the 14 major States. Next year this period probably will show some decrease.

Thus we look for:

Fourth quarter 1979 slaughter be up 20 percent from a year earlier.

First quarter 1980 slaughter to be up 20 percent.
Second quarter 1980 slaughter to be up 13 percent.

One must also consider that the severe winters of the past 2 years reduced the rates of gain considerably thereby delaying movement of hogs to slaughter. While another harsh winter could again reduce slaughter, especially in the first quarter, a mild winter could serve to increase pork production over a year earlier even more.

Continued low beef supplies will be one of a few positive factors affecting hog prices in 1980 but broiler supplies will be large during the first half of the year. We hope we have adequately accounted for the influence of the expected recession on demand. However, steady to somewhat lower hog prices than we are seeing now seem likely through mid-1980 because of both a weak demand and further increases in supplies. Fourth quarter barrow and gilt prices are averaging $33–$35. Barring severe winter weather—which might limit pork production enough to increase hog prices several dollars—a slight increase from the fourth quarter price (perhaps a dollar) seems most likely for the first quarter of next year.

Second quarter hog prices (April–June) probably will decline another $4 from the first quarter to a $30–$32 average. The expected pork supply, if realized, will be near record large next spring and the recession-weakened demand would also be at a seasonal low.

How will this affect producer profits? Most producers will not cover direct costs (feed, labor, interest, other production items, and farm overhead). For farrow-to-finish producers we estimate direct costs per hundred pounds of hogs sold at:

$35 to $37 for the fourth quarter;
$37 to $39 for the first half of 1980.

Producers thinking about expanding their hog production facilities or new entrants to hog production must assess returns versus total costs which include ownership, management and other fixed costs in addition to direct costs. Through mid-1980 the total cost of hog production is expected to be in the mid-$50's per hundredweight of hogs sold.

NEXT SUMMER AND FALL OUTLOOK

With the exception of late spring farrowings, the supply of slaughter hogs for July–December 1980 will come from sows and gilts already bred. Farrowings intentions recorded on September 1 for this December through February were 10 percent over a year earlier. Costs and returns during the breeding period were conducive to expansion. Data on sow slaughter through the end of September, do not indicate any major liquidation of sows during the breeding season just concluded.

Some reduction in the 1980 March–May pig crop is likely compared with this year if prices continue in the low $30's for the next few months.

Pork production in the last half of 1980 probably will run 2 to 5 percent over that of this year. This will represent a substantial quantity of pork (an annualized per capita consumption of almost 77 pounds compared with 74 pounds this year) but the rate of increase over a year earlier will be slowing.

Hog prices for the last half of 1980 could improve to the upper $30's if demand improves as we work our way out of recession.

THE LONGER TERM

Let us consider some longer run developments in the structure of hog production. Producing units with an inventory of less than 100 hogs still comprise just over three-fourths of all production units while those with an inventory of over 500 head are less than 4 percent—but the number of hogs produced in larger units continues to increase.

	Percent of hog production	
	1977	1978
Hog inventory (head):		
1 to 99	18.9	17.8
100 to 499	45.8	45.1
500 and over	35.3	37.1
Total	100.0	100.0

Our production economists feel that this year at least 40 percent of total hog production came from units having annual sales of 1,000 head or more. In 1974, this statistic was 24 percent. This upward trend is expected to continue.

More of the current expansion has taken place outside of the "heart of the hog country"—Iowa and Illinois—which has about one-third of the hogs. The June hogs and pigs report showed a 13-percent increase in the number of hogs in Iowa over a year earlier and an 11-percent increase for Illinois. Consider the year-to-year expansion in hog numbers as of last June 1 in other areas:

	Percent
Eastern Corn Belt:	
Indiana	+22
Ohio	+28
Southeast:	
Georgia	+37
Kentucky	+27
Western Corn Belt:	
Nebraska	+25
South Dakota	+25
Missouri	+21

These seven States had almost the same number of hogs as Iowa and Illinois on June 1, but the rate of expansion in these States was substantially greater.

Regardless of location, much of this growth is the result of construction of capital-intensive units. This will lead to a more concentrated industry that will tend to operate near capacity in order to spread overhead costs.

The price-production cycle for hogs was first analyzed in 1878, using data commencing with the Civil War. Actions which the industry might take to smooth the hog cycle have been the subject of research ever since. Recent research has focused on the notion of a "steady-state" livestock production industry, in which production is geared to longer run estimates of consumer demand thereby reducing the amplitude of the production cycle.

Let me close with a brief description of a "steady-state" level of hog production—a concept which could be achieved if hog production tends to larger, more concentrated units.

Pork demand at profitable producer prices has been projected at about 65 pounds per person in 1980 and 60 pounds per person by 1990—a slight downtrend. Recall we expect a 76-pound per capita consumption next year, and we reached a low of 56 pounds in 1975. But increasing population would offset this decline in per capita pork demand during the 1980's, resulting in a rather stable consumption and subsequent pork production. Unless productivity per sow increases markedly, we would need about 12½ million sows farrowing each year throughout the 1980's to satisfy projected consumer demand. Compare this level of farrowings with 1979's which will be near 14½ million, about the same number of farrowings are expected in 1980. Farrowings in 1975, the year of 56 pounds per capita consumption, were 9.9 million head.