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## DEPARTMENT OF AGRICULTURAL AND APPLIED ECONOMICS AGRICULTURAL LETTER

FEDERAL RESERVE BANK OF CHICAGO Number 1712 July 17, 1987

#### Pork production is on upswing

A recent USDA report reaffirmed that U.S. hog farmers are expanding production. The report indicated that the spring (December-May) pig crop was up 7 percent from the same period a year earlier, the first upturn of significance since 1983. In line with the upturn, the June 1 inventory of all hogs and pigs was up 7.5 percent from the 11-year low set in 1986. Producers plan to expand further, as reflected in their intentions to farrow 8 percent more sows during the six months ending in November than in the same period a year ago. The upturn in production was triggered by the extremely favorable returns enjoyed by hog farmers over the past year. But as the increased production becomes evident in larger pork supplies during the months ahead, declining hog prices will begin to trim hog farmer earnings.

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The bigger spring pig crop was a result of a 6 percent increase in the number of sows that farrowed and a further rise of more than 1 percent in the number of pigs saved per litter. With the larger pig crop, the June 1 inventory of hogs intended for slaughter markets, at 45.2 million head, was up 7 percent from the year before but virtually unchanged from two years ago. All weight groups of market hogs recorded increases of 7 to 8 percent except for those of 180 pounds or more which were up 4 percent.

The June 1 inventory of hogs held for breeding purposes rose to 7.0 million head, up 10 percent from a year earlier. The proportionate rise in the number of hogs held for breeding is noticeably larger than the 8 percent rise in sow farrowing intentions for the June-November period. Yet the intentions imply that the ratio of sow farrowings to the June 1 inventory of breeding stock would be considerably higher this year than was the case for all years prior to 1986. If farmers carry out their farrowing intentions, and if the number of pigs per litter continues to advance at about the same rate as in recent years, the June-November pig crop would be up 9 percent from last year and the highest since 1983.

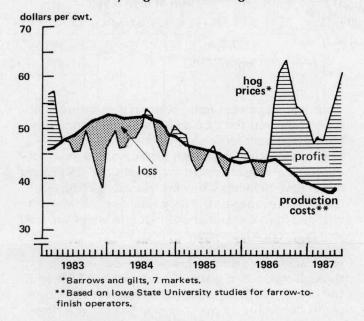
The upturn in hog production is evident among most of the 10 major states for which separate estimates are compiled. Among District states covered by separate estimates, the expansion is most pronounced in lowa. Producers in Iowa, by far the leading pork-producing

state, had 12 percent more hogs on their farms as of June 1 than was the case a year ago and planned to farrow 8 percent more sows during the June-November period. Estimates for Illinois point to an 8 percent increase in current inventories and a 5 percent rise in June-November sow farrowings. For Indiana, the estimates suggest that hog numbers are unchanged from a year ago and that farrowings will hold steady through November.

Hog slaughter continued below year-earlier levels through the second quarter, but an upturn is likely in the near future. Hog slaughter in federally-inspected plants during the 13 weeks ending June 27 was down more than 6 percent from the same period a year ago. That implies a steeper second-quarter decline in commercial slaughter than analysts had expected from earlier reports and represented a marked widening from the 2 percent decline in the first quarter. Nevertheless, an upturn in hog slaughter that will extend well into next year is likely to become apparent this summer. Based on the spring pig crop and the June 1 inventory of market hogs, it would appear that hog slaughter during the second half will exceed the yearearlier level by 6 to 8 percent. The increase in the third quarter may be slightly smaller than that for the fourth quarter when hog slaughter will reach a seasonal peak. During the first half of next year, hog slaughter will likely be up 8 to 10 percent from the cyclical low reached during the first half of this year, assuming actual June-November farrowings are close to producers' intentions. Some analysts, however, believe that the unusually favorable profits of recent months could lead to even larger gains in farrowings the rest of this year, and thus even higher slaughter levels in the first half of next year.

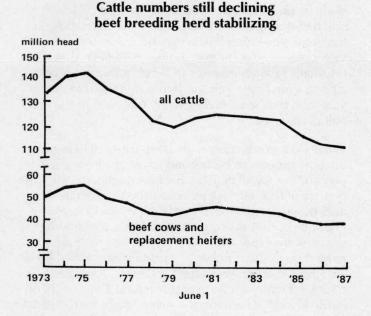
While pork production is about to turn up, beef production appears to be headed lower. Following a 3 percent rise for all of 1986, beef production in the first guarter of this year edged below the year-earlier level and, based on preliminary indications, was down about 8 percent in the second quarter. Continuing declines are expected over the next several quarters, even though the number of cattle being finished for slaughter in commercial feedlots is up. The latest USDA estimates indicate that the June 1 inventory of cattle in feedlots among the seven major cattle feeding states was up 6 percent from the year before. The

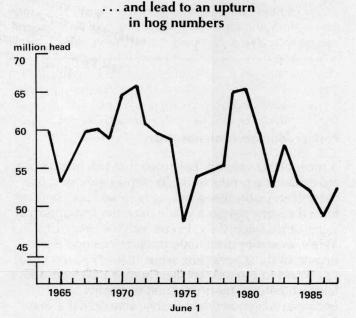
## High prices and low production costs buoy hog farmer earnings ...



increase was particularly apparent in Iowa where the number of cattle in feedlots was up 11 percent. While these estimates foreshadow an increased flow of cattle from feedlots to slaughter, total beef production is expected to decline as the growing economic incentives begin to encourage cattlemen to rebuild their beef cow herds.

Various USDA reports suggest that the liquidation of the cattle breeding herd, which significantly augmented beef production over the last few years, has ended. But since there is no evidence yet of any re-





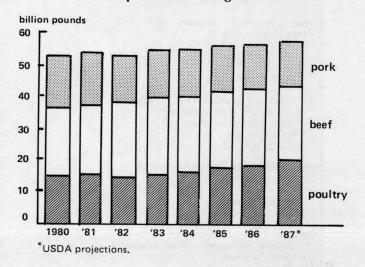
building, cattle inventories apparently remain at the lowest level since the early 1960s. The USDA's latest update noted that the nation's cattle herd numbered 112 million head as of June 1, down 2 percent from a year ago. Reflecting the whole-herd Dairy Buyout Program that started in April of last year, dairy cattle accounted for a proportionately large part of the decline. The combined inventory of dairy cows and heifers held for dairy cow replacements was down 4 percent. The two major components of the beef breeding herd, beef cows and beef replacement heifers, both numbered about the same as a year ago, as did the inventory of all bulls weighing 500 pounds or more. Steers and heifers weighing 500 pounds or more and not being held for breeding herd replacements numbered 4 percent less than a year ago while all calves under 500 pounds numbered 2 percent less. The report also noted that the 1987 calf crop would likely be down 1 percent from the year before.

Several implications are apparent in the cattle inventory estimates that, combined with other factors, foreshadow continuing declines in beef production. For one, the supply of cattle available to move into feedlots remains at an unusually low level. While low feeder cattle supplies may not preclude further gains in feedlot activity, it will limit the size of any further expansion over the near-term. Moreover, in light of the recent and prospective favorable returns to feedlot operators, the tight supplies will sustain relatively high prices for feeder cattle. High feeder cattle prices, coupled with good range and forage conditions imply favorable returns to beef cow/calf operators. While direct comparisons are not possible due to differing benchmark dates, it is apparent that the breeding herds of beef cow/calf operators remain at the lowest levels since the mid-1960s. Beef cow/calf operators are expected to respond to the favorable returns by expanding their herds. The expansion could begin during the second half and extend throughout next year. While the expansion is underway, the slaughter of cows (already down sharply) and potential replacement heifers not finished in feedlots will decline significantly, offsetting the prospective rise in slaughter of cattle coming out of feedlots. While projections vary among analysts, many believe that the year-over-year declines in total beef production during the secondhalf of this year and the first half of next year will range from 5 to 10 percent.

While lower beef production will cushion the price impact of rising pork production, poultry production continues to expand rapidly. Current USDA estimates suggest that poultry production (encompassing broilers, turkeys, and mature chickens) in the second half of this year will be up a tenth from the year before, about matching the first-half rate of growth. Continued gains into the first half of next year are also probable.

In view of current prospects, it seems likely that total meat production over the next few quarters will hold at or somewhat below, the recent highs. In light of this, hog prices will undoubtedly retreat from the seasonal highs reached in June. After averaging a little over \$48 per hundredweight in the first quarter, barrow and gilt prices rose sharply this spring, averaging \$61 in June and about \$56.25 for the entire second quarter. Many analysts expect hog prices will decline sharply this summer and average around \$45 per hundredweight in the fourth quarter. In light of the relatively low production costs, such levels should provide reasonable returns to most farrow-to-finish hog farmers. Yet any expansion much beyond that

## Continued growth for poultry is holding meat production at high levels



now underway could easily result in prospects for negative returns for hog farmers a year from now.

#### Gary L. Benjamin

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#### Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two year ago
Prices received by farmers (1977=100)	June	131	1.5	8	2
Crops (1977=100)	June	112	2.8	3	-9
Corn (\$ per bu.)	June	1.72	3.6	-26	-35
Oats (\$ per bu.)	June	1.50	-4.5	36	-6
Soybeans (\$ per bu.)	June	5.45	4.8	5 -1	-3
Wheat (\$ per bu.)	June	2.44	-8.3	-1	-21
Livestock and products (1977=100)	June	150	1.4	12	12
Barrows and gilts (\$ per cwt.)	June	61.00	10.5	14	34
Steers and heifers (\$ per cwt.)	June	67.30	-0.1	27	19
Milk (\$ per cwt.)	June	11.80	-1.7	-1	-3
Eggs (¢ per doz.)	June	50.9	1.6	0	-5
Prices paid by farmers (1977=100)	April	162	1.9+	2	-1
Production items	April	147	2.8	1	-4
Feed	April	100	1.0	-12	-17
Feeder livestock	April	179	9.1	22	10
Fuels and energy	April	164	3.8	4	-18
Producer Prices (1967=100)	June	297	0.2	3	1
Agricultural machinery and equipment	June	342	0.1	1	1
Fertilizer materials	June	217	3.2	1	-6
Agricultural chemicals	June	479	1.0	0	4
Consumer prices (1967=100)	May	339	0.3	4	5
Food	May	333	0.5	5	8
Production or stocks					
Corn stocks (mil. bu.)	June 1	6,332	N.A.	27	123
Soybean stocks (mil. bu.)	June 1	865	N.A.	2	42
Beef production (bil. lbs.)	May	1.85	-4.0	-12	-11
Pork production (bil. lbs.)	May	1.07	-8.5	-12	-19
Milk production (bil. lbs.) <sup>††</sup>	May	11.0	5.6	-2	1

N.A. Not applicable Prior period is three months earlier. 21 selected states.



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