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AGRICULTURAL LETTER

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Meat production to reach another new high in 1987

Meat production is headed for a new high again this year, despite another decline for red meats. The latest USDA estimate suggests that total meat production will approximate 58.4 billion pounds this year, up 1.5 percent from last year and up 11 percent from a decade ago. The increase will stem from another large gain in poultry production, currently projected to be up 9.7 percent this year. In contrast, red meat production is forecast to be down 2.3 percent this year and the lowest for any year since 1982. Beef accounts for the bulk of the projected decline in red meat production since a second-half upturn is expected to result in a modest increase in pork production for all of this year. Initial projections for next year foreshadow another decline in beef production and slower growth in poultry production. However, total meat production is expected to register an even larger increase next year (2.5 percent) as the expansion now underway among hog farmers leads to a large increase in pork production.

The USDA measure of total meat production combines the carcass weight of commercial and farm production of red meats (beef, pork, veal, and lamb and mutton) and the so-called "ready-to-cook" weight of poultry (broilers, turkeys, and mature chickens) processed in commercial plants. While useful for analytical purposes, this method of compilation does have some interpretive loopholes. This is particularly true when production figures are viewed from a longer-term perspective and when inferences are drawn about consumption patterns based on production figures. For instance, the ready-to-cook weights used for poultry production translate more directly into consumption figures than do the carcass weights used for red meat production. Reflecting this, USDA figures on meat consumption, which are based on a retail-weight basis, show that per capita civilian consumption of poultry in 1987, for the first time, will exceed that for beef, even though the production of beef available for domestic civilian consumers will likely exceed that of poultry by 20 percent. Also, the inclusion of farm level slaughter in the estimates of red meat production, but not in those for poultry, may understate poultry's share of total meat production. While the degree of understatement for poultry's share may be nominal in

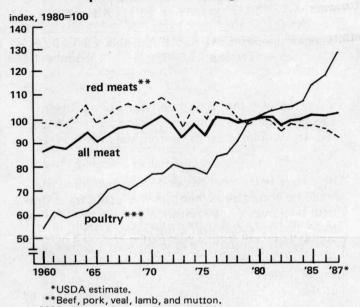
current times, it may have been more of a problem years ago when it was more common for farm households to "acquire" their meat from their own chicken coop.

There have been other developments over time that should be considered when viewing recent meat production figures from an historical perspective. For example, the trend toward raising leaner animals probably has translated, over time, into a higher proportion of the carcass weight of red meats moving through retail counters than was the case years ago. But also over time there has been a growing tendency for further processing of both red meats and poultry to provide consuming households with meats that can be prepared more conveniently and in less time. The latter trend would imply that a somewhat smaller share of the production tonnage has moved through meat counters to end users in recent years.

About 34 percent of this year's estimated meat production represents poultry, while the remaining 66 percent represents red meats. Of the 20.0 billion pounds of poultry production forecast for this year, broilers account for nearly 78 percent, turkeys account for 19 percent, and mature chickens account for the remaining 3 percent. The nearly 10 percent rise projected for poultry production this year stems from a proportionately large gain for turkeys (17 percent) and another sizeable increase (8 percent) for broilers. The 38.4 billion pounds of red meat production forecast for this year has a split of 61 percent beef, 37 percent pork, and a combined 2 percent share for yeal, lamb, and mutton. A projected decline of nearly 4 percent in beef production for this year will more than offset the modest 1 percent rise anticipated for pork production, accounting for the bulk of the 2.3 percent decline expected in total red meat production.

Over the years, the composition of meat production has changed considerably. In 1960, for example, poultry accounted for only 17 percent of all meat production while red meats accounted for the remaining 83 percent. The composition of the poultry production in 1960 was 69 percent broilers, 18 percent turkeys, and 13 percent mature chickens. The composition of the red meat production in 1960 was 48 percent beef, 46 percent pork, and 6 percent veal, lamb, and mutton.

Per capita production of all meats expected to reach new high in 1971



***Broilers, turkeys, and mature chickens.

When comparing trends over a long period of time, it is often more meaningful to look at meat production on a per capita basis. The 1987 meat production forecast translates into 239.5 pounds per person, up 0.6 percent from last year. While marking a new record high in per capita production of all meats, this year's peak exceeds the past cyclical highs in 1971 and 1976 by only 1 percent. The 1971 cyclical high, at 237.4 pounds per person, occurred during a year of extraordinarily large pork production. The 77.1 pounds of pork production per person in 1971, while not unusually high when compared to the norm of the 1950s, stands far above any other year since 1964. Except for the 1971 cyclical high, per capita pork production since 1964 has fluctuated from a low of 54.5 pounds (in 1975) to a high of 73.0 pounds (in 1980). In 1986, per capita pork production declined to 58.2 pounds, the second lowest for any year since at least the mid-1950s. And based on current estimates, per capita pork production will rise only nominally this year.

The 1976 cyclical high in per capita production of all meats (at 237.1 pounds) coincided with the all-time high, both in absolute terms and on a per capita basis, in beef production. Because of extensive herd liquidations by cattlemen suffering huge operating losses in the mid 1970s, per capita beef production in 1976 reached 119.1 pounds, some 19 percent higher than a decade earlier and 39 percent higher than two decades earlier. Since the 1976 peak, however, per capita beef production has trended irregularly downward,

falling to an estimated 96.2 pounds this year. Except for 1979 and 1980, when per capita beef production averaged 95.2 pounds, this year's outturn will be the lowest since 1964.

With per capita production of both beef and pork near their cyclical lows of the past 2 or 3 decades, and the continuing long-term decline in veal, lamb, and mutton production, per capita production of all red meats this year will probably drop to about 157.6 pounds. That marks a decline of 3 percent from last year, a drop of 16 percent from the 1971 peak, and is the lowest for all red meats since at least 1955. In contrast, the long uptrend in poultry production has continued virtually unabated. At the presently estimated 82.0 pounds per capita, this year's poultry production will be up 49 percent from a decade ago, up 76 percent from two decades ago, and up 160 percent from three decades ago.

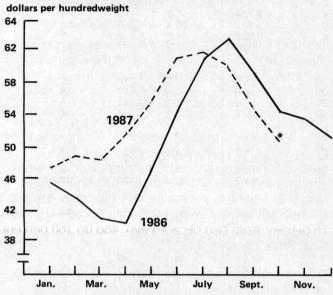
Meat production prospects for next year point to another decline for beef, a large upturn in pork production, and further, but slower, growth in poultry. This year's large increase in poultry production coincided with some adverse publicity regarding the sanitary conditions in poultry processing plants. Perhaps reflecting the record supplies and consumer reaction to the adverse publicity, producer prices for both broilers and turkeys this year will probably average the lowest in several years. This contrasts markedly from the pattern of recent years when the strength in consumer demand tended to sustain annual average broiler and turkey prices at or near record highs despite growth in per capita supplies. Lower prices, both for this year and again next year, and prospects for somewhat higher feed costs are expected to slow the

Hog numbers and prospective farrowings are up an the 10 major states

	Sept. 1 inventory of market hogs		Intended sow farrowings September-February		
	Million head	Percent change*	Million head	Percent change*	
Illinois	4.85	4	.54	1	
Indiana	3.98	7	.43	6	
Iowa	12.40	11	1.42	9	
Georgia	1.00	13	.12	4	
Kansas	1.20	-3	.14	0	
Minnesota	3.99	11	.49	14	
Missouri	2.53	6	.37	14	
Nebraska	3.44	1	.40	1	
North Carolina	2.23	11	.26	8	
Ohio	1.92	34	.23	15	
10-state total	37.53	9	4.42	8	

^{*}From same period the year before.
SOURCE: U.S. Department of Agriculture.

Upturn in pork production pushes hog prices below year-earlier levels



*Preliminary, based on average through October 20.

1988 rise in poultry production to about 5 percent. Projections for poultry production, however, should be considered more tentative than those for red meats since poultry responds far more quickly to unexpected shifts in production incentives. The quicker response for poultry reflects both a shorter "producer lag" (the time between the onset of a change in production incentives and the implementation of a shift in producer plans) and a shorter "biological lag" (the time between implementing revised producer plans and the resulting change in meat supplies). The biological lag for broiler production is extremely short, requiring only 10 to 11 weeks to incubate an egg and raise the resulting chick to slaughter weight.

The biological lag for beef production is comparatively long, requiring a minimum of about two years for gestating and raising a calf to slaughter weight. As a result, beef production is expected to decline again next year although cattlemen will probably rebuild their breeding herds following several quarters of favorable operating returns. With the likely rebuilding of beef cow herds and another likely decline in dairy cow slaughter, the production of beef from cattle that are not finished in commercial feedlots will probably decline again next year. Feedlot operators have placed more feeder cattle in feedlots this year and feedlot inventories among the seven-major cattle feeding states

as of September 1 were up 6 percent from a year ago. But feeder cattle supplies are tight and prices of feeder cattle have been bid to comparatively high levels. These developments foreshadow less favorable returns to feedlot operators in the year ahead and only modest gains in fed cattle marketings. In light of these developments, USDA analysts are suggesting that beef production may decline about 4.5 percent in 1988.

Hog farmers have enjoyed extremely favorable returns since the spring of 1986. But largely reflecting its 9 to 10-month biological lag, pork production trailed yearearlier levels through the first half of this year. Since mid year, however, pork production has been on the upswing and is likely to record a large rise in 1988. A recent USDA survey of hog farmers in the 10-major hog states found that hog numbers as of September 1 were up 9 percent from a year earlier and up 2 percent from two years earlier. Moreover, the survey found that producers in the 10-state area intend to increase the number of sow farrowings during the six months ending with February by 7.5 percent from the same months the year before. USDA analysts are suggesting that these indications of the underlying expansion now underway on hog farms foreshadows a 10 percent rise in pork production next year.

These prospects have already contributed to a sizeable decline in hog prices and further large declines are projected through mid 1988. Hog farmers still have time to alter their farrowing plans for the spring and summer months of next year. But if collectively they do not considerably slow the rate of expansion by then, most hog farmers could be mired in negative operating returns by this time next year.

Gary L. Benjamin

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Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
Receipts from farm marketings (\$ millions)	June	9,304	-2.8	-9	-4
Crops*	June	3,432	29.3	-5	-16
Livestock	June	5,836	-7.5	8	7
Government payments	June	35	-94.2	-97	-82
Real estate farm debt outstanding (\$ billions)					
Commercial banks	June 30	13.8	5.2	14	30
Federal Land Banks	June 30	34.5	5.2 [†] -3.9 -0.8 -0.8	-17	-28
Life insurance companies	June 30	10.4	-0.8+	-11	-14
Farmers Home Administration	June 30	10.2	-0.8	-3	-1
Nonreal estate farm debt outstanding (\$ billions)			+		
Commercial banks	June 30	30.4	5.7+	-11	-24
Production Credit Associations	June 30	9.88	5.7 [†] 2.5 [†] 1.7 [†]	-22	-41
Farmers Home Administration	June 30	16.6	1.7	-7	-8
Commodity Credit Corporation	June 30	14.3	-23.9	-20	62
Farm loans made (\$ millions)					
Life insurance companies	June	36	-57.1	-38	-17
Interest rates on farm loans (percent)					
7th District agricultural banks			†		
Operating loans	July 1	11.01	1.1 [†] 2.0 [†]	-7	-15
Real estate loans	July 1	10.47	2.0	-7	-17
Commodity Credit Corporation	October	7.50	9.1	31	-6
Agricultural exports (\$ millions)	August	2,135	-10.5	13	8
Corn (mil. bu.)	August	112	-17.0	117	22
Soybeans (mil. bu.)	August	55	0.5	160	107
Wheat (mil. bu.)	August	118	-29.0	-5	32
Farm machinery sales ^p (units)					
Tractors, over 40 HP	September	5,086	-2.9	48	29
40 to 139 HP	September	3,046	-1.7	7	5
140 HP or more	September	2,040	-4.7	241	93
Combines	September	1,383	86.6	46	27

Preliminary



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^{*}Includes net CCC loans.
Prior period is three months earlier.