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1981 AGRICULTURAL OUTLOOK

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## POULTRY AND EGG OUTLOOK

(By Allen Baker, National Economics Division, Economics and Statistics Service, U.S. Department of Agriculture)

Poultry and egg producers can look forward to higher prices for their products in 1981 even with increased broiler and turkey supplies. Broiler and egg prices may increase 18 to 20 percent and turkeys may increase 10 to 12 percent. However, higher feed and other input costs may limit profits especially in the first half of the year. Consumers will face higher retail prices for poultry as total meat supplies decline and consumers' incomes rise.

### BROILERS

Broiler producers have endured trying times during 1980. In the first half of the year, they were caught in a price-cost squeeze as prices were held down by large supplies of poultry and competing meats. Negative returns persisted from the second quarter of 1979 until the third quarter of 1980. Based on preliminary cost estimates, producers had losses of as much as 9 cents per pound in October 1979, and in April 1980, they were losing almost 6 cents per pound. Responding to these conditions, producers planned to reduce broiler output for the last half of the year, but hot weather intervened and lowered production. The unusually hot summer caused a reduced rate of gain, loss of birds, reduced hatching egg supplies, and decreased hatchability. Reduced output of broilers and pork during the summer and a strengthening in demand increased broiler prices and stimulated production. Producers slaughtered fewer hens and probably set smaller-than-normal eggs to increase supplies. Thus, with the large first-half production, the results of these efforts will likely mean 1980 broiler output will be 2 percent above 1979, and another record.

Broiler producers increased output 7 percent from a year earlier in the first quarter of 1980. Production increased 3 percent in the second quarter, but declined 3 percent in the third quarter. Chicks placed had indicated about a 2-percent decline for the third quarter but weather induced bird losses and slowed growth brought output down another 1 percent. Increased egg sets for November and December slaughter should bring fourth quarter output back to year earlier levels even though production was down in October.

Delayed impacts of the hot summer caused the October reduction. Loss of breeder hens reduced the number of eggs available for incubation, and a smaller percentage of these eggs hatched. Producers delayed culling of the remaining hens while adding young hens to the breeding flocks. Therefore, egg sets increased as the breeder flock was rebuilt. In addition, producers probably set smaller-than-normal eggs to increase chick numbers. Producers usually set only large eggs because

the chicks weigh more at hatching and reach market weight with less feed. A reduction in U.S. hatching egg exports provided a final source of additional supplies for the domestic market. In August, these exports were down 39 percent for a year earlier.

During the hot weather, there were some industry reports of losses in the primary breeding flock—the parent birds for the breeding flocks. It takes 6 to 7 months to rebuild the primary breeding flock, and another 6 to 7 months before the hatchery supply flock can increase egg output. Two generations of chickens are required to provide the eggs for broiler production under most cross breeding programs. Thus, losses of birds in the primary flock would limit production increases until after mid-1981. However, August placements of chicks in the breeding flock were down 1 percent from 1979 and September placements were 11 percent greater. This suggests that losses in the primary flock were not serious enough to limit expansion of the breeder flock.

The long period of reduced returns caused broiler producers to reduce the size of their breeder flocks. Broiler type hatchery supply flocks are normally composed of hens 7 to 14 months of age. Thus, cumulative pullet placements 7 to 14 months earlier give an indication of future breeder flock size. These slipped below year-earlier levels in August 1980 and will continue below at least through April. However, producers can continue to delay slaughter of old hens which increases the number of eggs available. The size of the breeder flock may limit the extent that broiler production can be expanded in early 1981.

Given the reduced breeding flock and the increase in costs, especially feed, 1981 broiler output may only expand 3 percent above 1980 rather than 7 to 10 percent, as in the past 2 years. Improved returns this year compared with 1979 have encouraged broiler producers to maintain the level of egg sets during the fourth quarter of 1980. The low profits in 1979 caused reduced egg sets. Thus compared with the 1979 level, broiler producers will likely continue high levels of egg sets into 1981. Broiler output may expand 1 percent above 1980 in the first quarter of 1981 and about equal year-earlier levels in the second. If prices are above production costs especially in the second quarter when demand usually increases seasonally, second half 1981 production could equal first-half production. This would be about 5 percent above 1980's reduced output. However, if feed costs rise more than now expected or broiler prices are lower than expected, second-half 1981 broiler production could be reduced. A more favorable profit situation would encourage producers to increase production.

Broiler prices are expected to strengthen in 1981 as the economy expands and supplies of pork decline. Production costs will exceed prices through the first quarter of 1981. However, prices are expected to exceed costs as broiler producers enter their main marketing periods in the second and third quarters. The nine-city weighted average wholesale price for broilers may average 51 to 53 cents in the first quarter of 1981 and increase to 54 to 56 cents in the second quarter. These prices would be significantly above the 43 and 41 cents of the first and second quarters of 1980. Prices in the second half of 1981 may average 55 to 58 cents, dropping to the lower end of the range as demand weakens in the fourth quarter.



## TURKEYS

Except for the second quarter of 1980, turkey production has been profitable since 1977. This has led to expanded turkey output, up 10 percent in 1979 and perhaps another 6 percent this year. The increased production occurred in the first and second quarters, with slight decreases in the last half of the year.

Turkey consumption is changing from a holiday tradition to a year-round habit. In years past, turkeys were predominantly grown, slaughtered, and frozen for consumption during the fourth quarter. In recent years, especially along the east coast, turkeys have been marketed fresh as well as frozen, and have been available year-round. Processed turkey products have also been accepted by consumers and the food service industry. These factors have changed turkey consumption patterns and have increased turkey use during the first three quarters of the year. Fourth quarter turkey consumption has remained relatively stable since 1971, ranging from 3.9 pounds to 4.4 pounds per person. However, per capita consumption has increased about a pound in each of the other quarters during this period, with 1980 increases ranging 11 to 27 percent over last year. Relatively large cold storage stocks of turkey early this year may have contributed to this increase.

At the beginning of this year cold storage stocks of frozen turkeys were 37 percent larger than a year earlier. They were 53 percent greater at the beginning of the second quarter, and were 43 percent above year-earlier levels on July 1. These early year stocks had to be sold before the main market season to provide space for this year's turkeys and to maintain their quality. Under proper conditions, whole turkeys can be safely stored for 6 months to a year without losing quality. Thus, turkeys have been priced attractively and "specialed" by retailers during the year.

The relatively large cold storage stocks of turkey, plentiful supplies of other meats, and the weak economy, resulted in low producers' prices during the second quarter of 1980. Producers responded by reducing the number of turkey poultts hatched by 1 percent. Then, the hot summer slowed turkey rates of gain. As a result, slaughter weights were below year-earlier levels in the third quarter and slaughter numbers were also lower. Demand for turkeys remained high and third quarter consumption rose from a year ago. Beginning fourth quarter cold storage stocks of frozen turkeys were down 6 percent from a year ago.

Heavy breed turkey poultts hatched in July were 8 percent above a year earlier, bringing the total number available for slaughter in the fourth quarter to near year-earlier levels. Hatchings of light breed turkeys were up also. While the number of turkeys slaughtered in the fourth quarter is expected to equal 1979, slaughter weights may be somewhat lower, so that total production could be about 1 percent less. Higher interest rates, which increase storage costs, are expected to encourage the industry to reduce the carryover of turkey this year relative to 1979. If storage stocks are reduced, per capita consumption in the fourth quarter could equal 1979's 4.3 pounds.

Profitability has increased in the second half of 1980. Despite higher feed prices, turkey prices have also increased, allowing growers to once

again realize positive returns. The improved prospects have encouraged producers to increase the numbers of turkey poults hatched for slaughter in 1981. Compared with a year earlier, hatchings were up 5 percent in August and 12 percent in September. Also, in August, producers reported they'd maintain their breeding flocks at about the same level as this year. With total red meat production expected to decline during 1981, demand for turkey should remain high and production may increase 6 percent from 1980. Output may be 7 percent greater in the first quarter and 8 percent larger in the second.

Demand for turkey usually peaks during the fourth quarter with the Thanksgiving and Christmas holidays. The wholesale price of young hen turkeys in New York may average 78-80 cents per pound, up from 73 cents in fourth quarter 1979. Demand usually declines after the holidays and prices weaken. With the expected increase in production, prices may average 67 to 70 cents in the first half of 1981. This compares with 57 cents during the first half of 1980. Increasing production costs may put turkey producers in a cost-price squeeze in the first half of 1981.

As red meat output declines further in the second half of 1981, meat prices should strengthen. The wholesale price of young hen turkeys in New York may then average 75 to 77 cents per pound. Producer returns should improve, especially if prospects for the grain crop are good.

#### EGGS

Egg producers were in a cost-price squeeze for most of 1980. During the first half of the year, prices were low. During the second half, rising costs largely offset prices.

Weak demand and large supplies of competing high-protein foods drove egg prices sharply lower in the second quarter of 1980. In May, egg producers lost over 8 cents per dozen. The industry cut output by increasing culling and by force molting more hens. By August, 16.5 percent of the laying flock had been force molted, the largest proportion since October 1975. Force molting reduces egg production immediately, but unlike slaughter, maintains the hens for future production. In this case, producers wanted to maintain their production base for the fourth quarter when demand is generally strong.

Culling of hens was high relative to a year ago during the first half of 1980. As the older hens were culled, the flock became younger and the rate of lay increased from a year earlier through May.

The number of egg-type chicks hatched has trailed 1979 during most of 1980. With a reduced hatch of replacement pullets, the average age of the flock has probably increased during the year because there has been a relative slowdown in the culling of hens since July. However, weekly slaughter of culled hens increased relative to year-ago levels when egg prices dropped below estimated costs of production. Producers seem to be adjusting flock size—and thus egg output—to maintain egg prices which are adequate to cover their costs. With a high percentage of the hens already force molted, producers may not decide to force molt them a second time. Cull hen slaughter levels will probably continue to be a key element in determining egg output in 1981.

The rate of lay has been increasing since 1977. However, with an older laying flock and fewer young birds added, the rate of lay in 1981 may tend to stabilize. Increasing productivity of the laying flock helps hold down cost per egg, but with a leveling off in the rate of lay in 1981, productivity would not blunt the impacts of higher input costs.

Egg production in the fourth quarter of 1980 may decline 1 percent from 1979. Output in 1981 may be 1 percent less than 1980 with most of the reduction occurring in the first quarter and output equaling 1980 in the rest of the year. Recent movements in prices and egg consumption suggest these cuts in output will be necessary to generate price increases that will allow producers to cover production costs.

Egg prices tend to move with prices of other high-protein foods. When prices of meats increase, eggs may become an alternative source of protein. Increased meat demand and low supplies in the second half of 1981 could boost meat prices and give additional strength to egg prices. However, given production lags, egg producers may not be able to quickly increase production to fully meet increased demand.

The price of grade A large cartoned eggs in New York during the fourth quarter of 1980 may average 71 to 73 cents per dozen. Egg prices usually strengthen in the fourth quarter because of increased holiday baking. Unless the increased sugar prices slacken holiday baking, egg prices should strengthen from early fall levels especially with reduced output.

If producers reduce output in the first half of 1981, egg prices will be much stronger than in 1980. Prices may average 76 to 78 cents per dozen in the first quarter, then decline as demand weakens in the spring. Prices in the second half of 1981 may average 79 to 81 cents if the economy improves and demand increases for high-protein foods.

#### RETAIL PRICES

The retail price index for eggs, as measured by the BLS Index, is expected to increase in the fourth quarter and during most of 1981. Compared with a year earlier, the index may be up 4 percent in the fourth quarter, and range from 18 to 24 percent higher in the first half of 1981.

Even with broiler prices dropping from the third to the fourth quarter, the poultry price index may increase about 15 percent from fourth quarter 1979. In the first half of 1981, the poultry price index may increase about 20 percent, which may be relatively larger than the expected gain in the red meat price index. In the second half of 1981, the red meat price index is expected to rise more than the poultry price index, which may increase about 17 percent.