

P.H. -EGG PROD. -Economics
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CALIFORNIA'S COMPETITIVE POSITION IN CATTLE FEEDING AND POULTRY PRODUCTION
Agriculture Economics Report No. 72-1

In October 1972 the University of California Agricultural Extension Service published a report with the above title. Portions of the report pertaining to Poultry Egg Production is included here for your information:

POULTRY PRODUCTION

California poultry producers had 1971 total farm revenue of \$320 million distributed approximately 41 percent for eggs and chicken sales, 22 percent for turkeys, and 19 percent for broilers. During the last twenty years there have been substantial regional shifts in the production of eggs, turkeys, and broilers. For example, California's share of U.S. production has been decreasing for turkeys, increasing for eggs, and fairly constant for broilers. The regional location of poultry production is influenced by a number of factors. The most important, as usually listed, include: (1) the efficiency of production, assembly, packing, and distribution; (2) prices paid for major production inputs; and (3) the degree of coordination of production, input supply, and marketing functions.

California is a surplus producer of eggs and turkeys and a deficit producer of broilers. However, the surplus of eggs and turkeys has been decreasing and the deficit for broilers continues to increase. Because of surpluses of eggs and turkeys, prices are below the U.S. average. The deficit for broilers results in above average prices for California producers.

EGGS

California's share of eggs sold in the United States increased from 8.0 percent in 1955 to 12.4 percent in 1971. Increases in egg production have also occurred in the South Central and South Atlantic States, especially in North and South Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, and Texas. The South Atlantic States increased production by over 30 percent and the South Central States increased production by 18 percent between 1965 and 1970. The West's increase of almost 10 percent for the same period was larger than the U.S. increase of 7 percent.

California has both advantages and disadvantages when competing with other regions in egg production. Advantages include realization of economies of scale in production from its large flocks, high egg production per layer, efficient milling operations with below average margins, efficient hatchery operations, a high degree of economic integration, and proximity to a large consumer market. Disadvantages include high costs for major feed ingredients and high labor costs. Despite these disadvantages, California egg production costs are among the lowest in the United States.

PRODUCTION COSTS

The major input costs for egg production are feed, chicks (replacements), and labor. The estimated distribution of costs for four regions in the United States were feed, 52 percent to 57 percent; replacements, 23 percent to 31 percent; and labor, 6 percent to 9 percent. More recent date for San Diego County, California, has the following cost distribution: feed, 55 percent; replacements, 21 percent; and hired labor, 7 percent. It should be noted that over half of the cost of the replacement is a feed cost. Thus, feed accounts for approximately two-thirds of the total cost of producing eggs in California.

Feed costs vary by region with California facing a cost disadvantage for milo, corn, and soybean meal approximately equal to transportation costs from supplying regions. However, published series of prices paid by farmers for layer feed and scratch grains suggest that prices are lowest in the Western region. California has offset higher ingredient costs through large-scale, well-utilized feed mills which received below average margins.

The cost of chicks in California has been lower than in other regions due to large-scale hatcheries and low hatching margins. However, recent data shows that the cost per average layer for replacement chicks increased by 50 percent between 1969 and 1971. Because of higher feed costs (accounting for over one-half of replacement chick costs), California producers typically pay about the same price for started pullets as do producers in other regions. Regional data on prices of started pullets aren't available for 1971, but California producers probably now pay higher prices than do major competitors because of increased feed prices.

Wage rates are higher in California than in competing regions. This disadvantage has been offset, however, with large-scale units utilizing below average amounts of labor. In 1966, the Western region's labor requirement per hen was only 84 percent of the U.S. average

With favorable feed and chick prices, large-scale operations, high rates of lay per bird, and comparatively low labor requirements, it is not surprising that California has been able to expand egg production and profitably serve other regions. Competing areas, however, are rapidly expanding flock sizes and improving on the rate of lay per bird. These actions, combined with recent increases in feed grain prices in California, will erode California's surplus position in egg production. Rogers assesses the situation as follows:

"While in the short run the California egg industry appears healthy and competitive, in the longer run it may find its prospects outside the region dimming. Hence the future production may be more closely geared to satisfying California's need and some of those of nearby states"

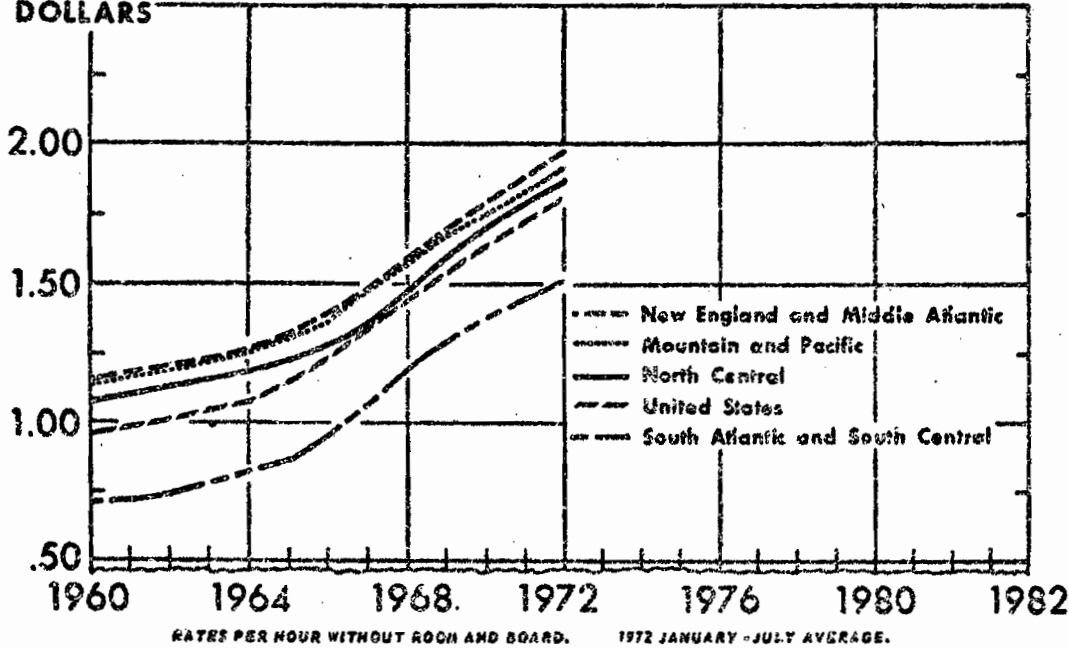
Rogers' statement was based on research of his own and a rather complete review of previous studies of interregional competition for eggs. Dean and King project a return to self-sufficiency in California egg production. They state:

"Taking into account California population increases, correcting for hatching eggs, and assuming a return to self-sufficiency rather than exporting around five percent of California eggs, as has been the case in recent years, total egg production in California would increase from about 6,837 million annually in 1961-65 to 8,527 million in 1980 and 12,430 million in 2000."

(California production of 8,717 million eggs in 1971 attained the 1980 projection.)

HOURLY FARM WAGE RATES BY REGION

DOLLARS

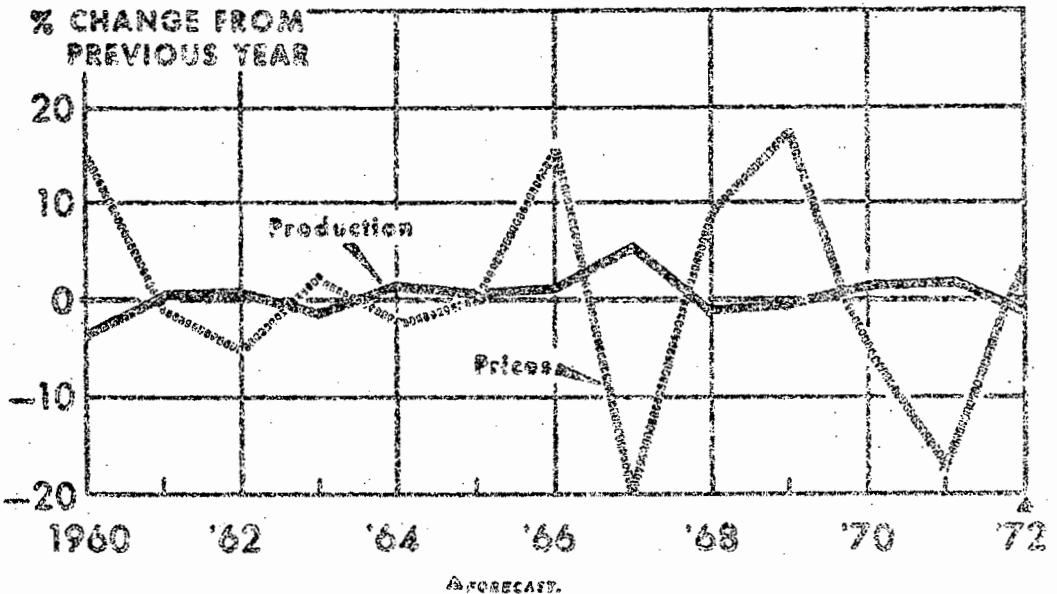


U.S. DEPARTMENT OF AGRICULTURE

REG. SRS 218-72 (B) STATISTICAL REPORTING SERVICE

Figure 72

EGGS: CHANGES IN PRODUCTION AND FARM PRICES



U.S. DEPARTMENT OF AGRICULTURE

REG. SER 5395-72 (8) ECONOMIC RESEARCH SERVICE

Figure 107

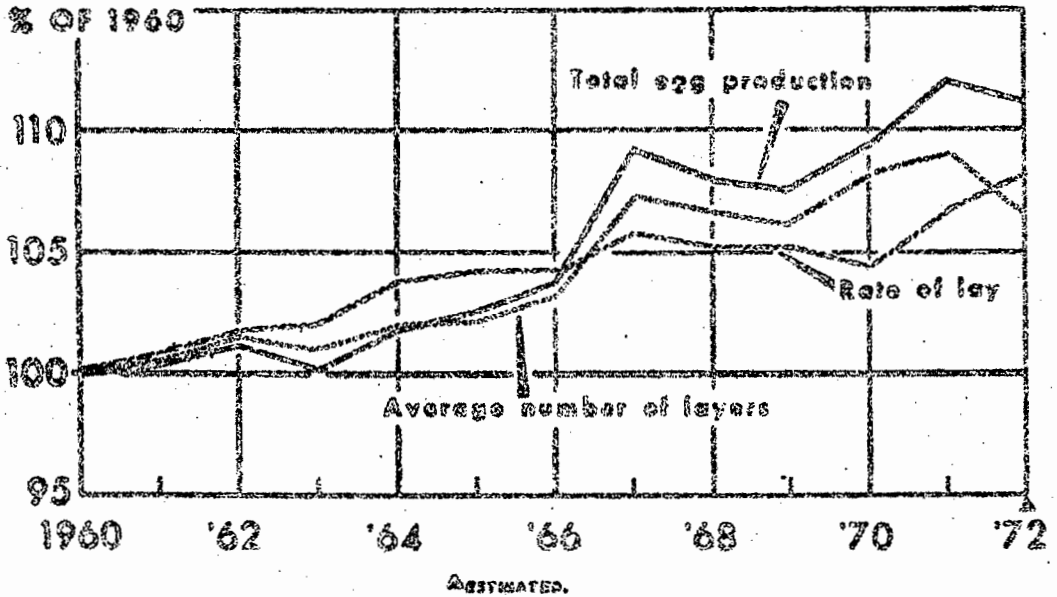
Eggs: Changes in egg production and farm prices, 1960-72

Year	Egg production		Egg prices	
	Volume	Change from year earlier	Per dozen	Change from year earlier
	Million dozen	Percent	Cents	Percent
1960	5,339	-3.7	35.7	16.0
1961	5,358	.4	33.2	-1.4
1962	5,403	.8	33.8	-5.1
1963	5,315	-1.1	34.8	2.1
1964	5,435	1.7	33.8	-2.0
1965	5,474	.7	33.7	-.3
1966	5,540	1.2	39.1	16.0
1967	5,536	0.3	31.2	-20.2
1968	5,773	4.3	34.0	9.0
1969	5,757	-.3	43.0	27.0
1970	5,853	1.7	37.7	-5.8
1971	5,973	2.1	31.1	-17.5
1972 ²	5,835	-.7	32.2	3.5

¹ Simple averages.

² Forecast.

TOTAL EGG PRODUCTION, RATE OF LAY, AND NUMBER OF LAYERS



U.S. DEPARTMENT OF AGRICULTURE

REG. ERS 3296-72 (8) ECONOMIC RESEARCH SERVICE

Figure 100

Eggs: Production, rate of lay, and average number of layers, 1960-72

Year	Egg production		Rate of lay		Layers	
	Total	Percentage of 1960	Eggs per layer	Percentage of 1960	Average number	Percentage of 1960
	Million	Percent	Number	Percent	Thousand	Percent
1960	64,069	100.0	208	100.0	295,294	100.0
1961	64,299	100.4	210	100.9	298,648	100.5
1962	64,840	101.2	212	101.9	299,834	101.5
1963	64,135	100.1	213	102.0	298,478	101.1
1964	65,215	101.8	217	103.9	301,136	102.0
1965	65,932	102.8	218	104.3	301,687	102.2
1966	66,484	103.8	218	104.3	305,142	103.3
1967	70,031	109.3	221	105.8	316,662	107.3
1968	69,270	108.1	220	105.3	314,953	105.7
1969	69,036	107.8	220	105.3	314,118	106.4
1970	70,233	109.6	218	104.6	321,940	109.0
1971	71,736	112.0	223	107.0	321,535	108.9
1972 ¹	71,250	111.2	223	108.2	316,000	106.7

¹ Estimated.

Data published currently in *Poultry and Egg Situation (ERS)*.

PRICES OF POULTRY AND EGGS

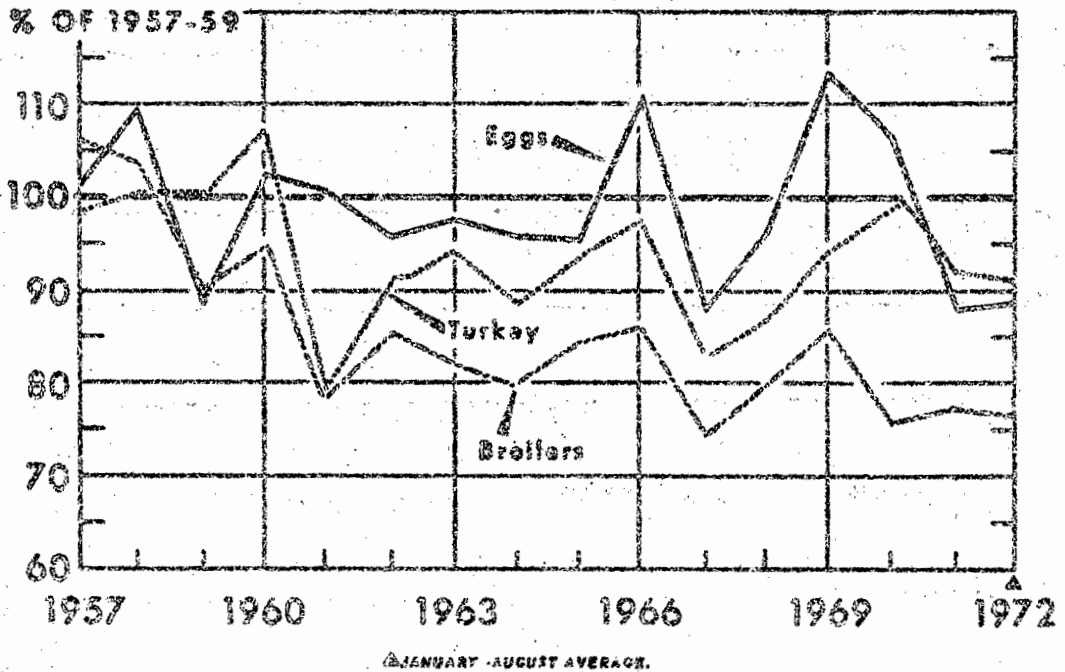


Figure 108

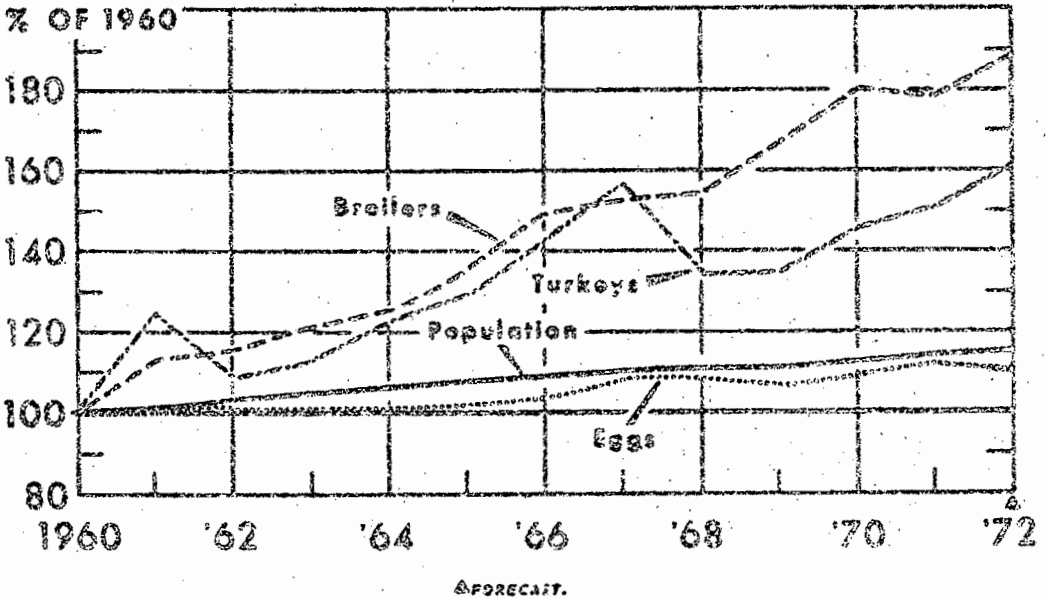
Poultry and eggs and related commodity groups: Prices received by farmers

Year	Reported price			Index numbers, 1957-59=100					
	Broilers per pound	Turkeys per pound	Eggs per dozen	Individual commodities			Commodity groups		
				Broilers	Turkeys	Eggs	Poultry and eggs	Meat animals	Dairy products
	Cents	Cents	Cents						
Average:									
1957-59	17.8	23.7	35.3	100.0	100.0	100.0	100	100	100
1957	18.9	23.4	35.5	106.2	96.7	101.7	103	89	101
1958	18.5	23.9	35.5	103.9	100.3	100.1	108	109	99
1959	18.1	23.9	31.4	90.4	100.8	89.0	91	102	100
1960	18.9	25.4	35.1	94.9	107.2	102.2	101	86	101
1961	12.9	18.9	35.6	78.1	79.7	100.3	92	97	101
1962	15.2	21.8	32.8	85.4	91.1	95.3	92	101	95
1963	14.6	22.3	34.5	82.0	94.1	97.7	92	94	98
1964	14.2	21.0	33.8	79.8	88.6	95.9	99	88	100
1965	15.0	22.2	33.7	84.3	93.7	95.5	92	104	102
1966	15.3	23.1	39.1	85.0	97.5	110.9	102	118	114
1967	12.3	19.8	31.2	74.7	82.7	83.4	94	109	113
1968	14.2	20.5	34.0	79.8	88.5	95.3	90	112	124
1969	15.2	22.4	40.0	85.4	94.5	113.3	103	130	130
1970 ^a	13.5	23.6	37.7	75.9	89.5	108.5	96	131	134
1971 ^a	13.3	21.9	31.1	77.5	82.4	88.1	84	131	138
Jan.-Aug.									
1971	14.2	21.7	31.2	78.3	80.0	92.0	102	117	116
1972	14.2	22.0	29.2	78.3	91.3	86.2	90	142	120

^a Prices for 1970 and 1971 are simple averages.

Data published currently in Agricultural Prices (SRS).

POULTRY AND EGG PRODUCTION AND POPULATION



U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2681-72 (8) ECONOMIC RESEARCH SERVICE

Figure 109

Poultry and eggs: Production and U.S. population, 1960-72

Year	Production						U.S. population including armed forces overseas	
	Broilers ¹		Turkeys ¹		Eggs		Number	As a percentage of 1960
	Quantity	As a percentage of 1960	Quantity	As a percentage of 1960	Number	As a percentage of 1960		
	Million pounds	Percent	Million pounds	Percent	Million	Percent	Million	Percent
1960	5,017	100.0	1,483	100.0	64,066	100.0	180.7	100.0
1961	6,532	113.5	1,871	125.7	64,296	100.4	183.7	101.7
1962	6,907	114.8	1,826	109.2	64,840	101.2	186.6	103.2
1963	7,276	120.9	1,656	113.5	64,135	100.1	189.2	104.7
1964	7,521	125.0	1,829	122.7	65,215	101.8	191.8	106.1
1965	8,115	134.9	1,915	129.7	65,692	102.5	194.2	107.6
1966	8,993	149.4	2,123	142.6	66,484	103.8	196.8	108.7
1967	9,187	152.7	2,343	157.4	70,031	109.3	198.8	109.6
1968	9,332	155.1	2,039	135.0	69,270	108.1	200.6	111.0
1969	10,045	166.9	2,029	135.7	69,066	107.8	202.8	112.1
1970	10,806	179.8	2,196	147.5	70,233	109.6	204.8	113.3
1971 ²	10,769	178.9	2,262	151.9	71,736	112.0	206.7	114.4
1972 ³	11,411	189.8	2,660	181.2	71,250	111.2	209.1	115.7

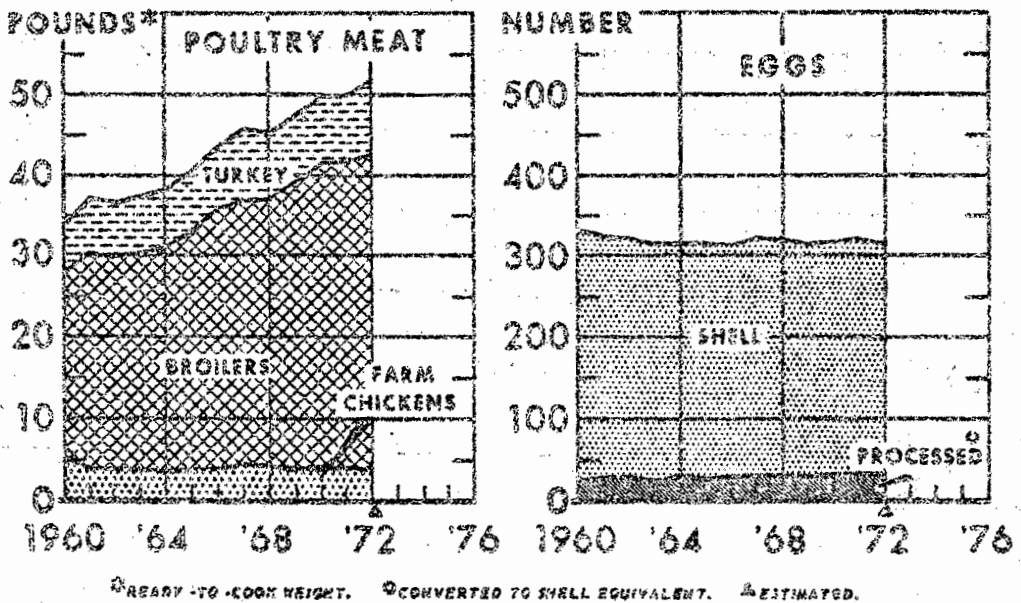
¹ Liveweight.

² Preliminary.

³ Forecast.

Data published currently in *Poultry and Egg Situation (ERS)*.

PER CAPITA CONSUMPTION OF POULTRY AND EGGS



U.S. DEPARTMENT OF AGRICULTURE

REG. ERS 3020-72 (2) ECONOMIC RESEARCH SERVICE

Figure 110

Poultry and eggs: Per capita consumption, 1960-72

Year	Chicken			Turkey	Total poultry meat	Eggs		
	Broilers	Other ¹	Total			Shell	Processed ²	Total
	Pounds	Pounds	Pounds			Number	Number	Number
1960	23.4	4.7	28.1	5.1	34.2	308	29	335
1961	25.6	4.2	30.0	7.4	37.4	298	30	328
1962	25.7	4.3	30.0	7.0	37.0	296	31	327
1963	27.0	3.8	30.8	8.8	37.6	290	29	319
1964	27.6	3.5	31.1	7.4	38.5	288	30	318
1965	28.5	3.8	33.4	7.5	40.9	283	28	314
1966	31.2	3.8	38.1	7.8	43.9	284	20	314
1967	32.8	4.4	37.2	8.8	46.8	268	38	324
1968	33.1	4.4	37.5	7.9	45.4	269	32	321
1969	35.2	3.9	39.1	8.3	47.4	287	31	318
1970	37.3	4.1	41.4	8.2	49.6	286	33	319
1971	37.2	4.2	41.4	8.5	49.9	295	37	322
1972 ³	38.7	4.1	42.8	8.9	51.7	220	37	317

¹ Includes an allowance for consumption of output from backyard flocks from 1960-63.

² Shell equivalent of processed eggs.

³ Estimated.

Data published currently in the *Poultry and Egg Situation* (ERS).