Poultry and Egg Situation

Economic Research Service

U.S. Department of JUNE Agriculture 1977

TRI-AGENCY READING ROOM

iy!f

500 12th St., SW, Room 505 Washington, D. C. 20250



	1 1 74		19	76			19	77	
Item	Unit	Jan.	Feb.	Mar.	Apr.	Jan.	Feb.	Mar.	Apr. 445.2 271 19.7 55.3 63.3 81.2 163 6.8 42 24.7 54.8 24.3 33.6 41.4 61.2 68.2 183 2.7 195 3.4 26.6 142.3 279.4 71.6
					E	Jgs			
Farm production	Mil. doz. Mil. No. Ct. per doz. Ct. per doz. Ct. per doz. Dol. per ton	461.0 281 19.7 61.2 73.3 89.1 143	432.8 280 18.6 58.5 67.4 90.1 143	464.2 278 20.0 53.5 62.4 78.2 145	446.2 274 19.6 52.7 62.0 77.6 144	455.8 280 19.6 65.1 79.0 98.6 156	411.3 277 17.8 66.2 76.6 103.4 161	462.8 275 20.2 58.8 68.0 89.0 161	445.2 271 19.7 55.3 63.3 81.2 163
Egg-feed price ratio Stocks, first of month: Shell Frozen Replacement chicks hatched	Pounds cases Mil. Ib. Mil.	8.7 22 36.3 35.8	8.4 14 31.7 39.6	7.5 21 28.7 50.1	7.3 7.3 29.4 51.5 Pou	8.3 36 26.1 40.2	8.2 28 26.9 41.3	7.3 44 24.9 51.0	6.8 42 24.7 54.8
Federally inspected slaughter, cert. Broilers Turkeys Price at farm, live weight Broilers Turkeys 9-city wholesale broiler price Retail price (BLS) Broilers Turkeys. Broiler-feed price Broiler-feed price ratio Turkey-feed price ratio Stocks, first of month: Broilers, fryers, roasters Turkeys. Total poultry	Mil. Ib. Mil. Ib. Ct. per Ib. Ct. per Ib. Ct. per Ib. Ct. per Ib. Ct. per Ib. Dol. per ton Pounds Dol. per Ib. Pounds Mil. Ib. Mil. Ib.	712.3 76.3 24.2 33.4 41.9 63.6 76.6 158 3.1 165 4.1 22.3 195.2 313.6	632.3 61.7 25.2 32.1 42.7 61.4 75.0 160 3.2 165 3.9 20.2 186.8 296.1	771.9 68.6 24.4 32.9 41.9 60.8 73.5 160 3.0 165 3.9 19.7 160.7 267.0	742.5 79.9 23.5 31.8 41.0 60.7 74.4 159 3.0 162 3.9 19.4 140.7 248.4	713.8 70.5 21.5 32.4 38.8 54.7 69.7 174 2.5 182 3.6 32.9 203.4 362.8	659.2 58.7 24.0 32.5 42.1 58.8 70.6 178 2.7 186 3.5 27.4 190.2 334.6	783.2 80.3 24.3 34.2 41.9 61.3 71.4 179 2.7 188 3.6 24.6 167.8 302.9	24.3 33.6 41.4 61.2 183 2.7 195 3.4 26.6 142.3 279.4
Average weekly placement of broiler chicks in 21 States	Mil.	60.4	61.7	66.4	68.5	63.6	64.8	69.5	71.6





In This Issue

Poultry and Egg Situation at a Glance	2
Summary	3
Factors Affecting Poultry Industry	õ
Eggs	ô
Broilers	1
Turkeys 1	5
Gross Income Up in 1976 18	8
Fewer Hatcheries 19	Э
Record Poultry Use in 1976 19	9

Page

Written by William E. Cathcart and Gerald R. Rector

Commodity Economics Division

Economic Research Service

Selected Poultry and Egg Statistics 31 Special Articles: Quarterly Broiler Price Predictive Equations 37 Marketing and Integration in Poultry and 37 Egg Industries 39 List of Tables 43 U.S. Department of Agriculture Washington, D.C. 20250

Approved by The Outlook and Situation Board and Summary released May 26, 1977

SUMMARY

Egg output will inch up in coming months; broiler output will continue at record levels, and turkey output may not match last year's level. Egg prices will strengthen seasonally but will probably remain below 1976. Broiler and turkey prices will rise seasonally this summer and average above a year earlier.

The demand for poultry products likely will improve in coming months because of gains in consumers' disposable incomes, higher employment, and smaller supplies of red meat after mid-1977. Although demand prospects are favorable, the cost of producing poultry and eggs will continue high at least through the summer. Corn supplies will remain abundant, but soybean meal supplies will stay tight and prices relatively high.

After dropping 2 percent during the first quarter because of the severe winter weather, egg production is again back to year-earlier levels. Layer numbers should gain relative to 1976 as more pullets enter the flocks. There were around a fifth more egg-type pullets hatched for flock replacement during May and June than last year. However, the hatch indicates that replacement pullets will only be up about 6 percent during July-October. The rate of lay is expected to exceed last year's rate for most of the rest of 1977. Thus, egg production during the second half of 1977 likely will average 1 to 2 percent above 1976.

Egg prices dropped sharply, as usual, following Easter. The New York price for Grade A large cartoned eggs dropped about a dime a dozen during the 3 weeks following Easter. Prices likely will strengthen in coming months but will stay well below a year ago.

Egg demand prospects for the first half of 1978 look favorable. Increased consumer incomes will bolster the demand for shell eggs and egg products.

The next issue of the *Poultry and Egg Situation* will be published in early September

Page

Also, hatching use is expected to be up from the first half of 1977. However, total egg production will likely be above a year earlier and shell egg prices lower. An increase in total egg production of 2 percent from first-half 1977 would likely result in the New York cartoned egg prices averaging a nickel a dozen below the expected January-June 1977 average of 67 cents.

Broiler output during January-March was 2 percent above a year earlier-a smaller rise than was earlier expected because of the severe winter weather. Weekly slaughter and chick placement reports indicate that output will be up around 5 percent during the spring and early summer. Producers are continuing to place a record number of eggs in incubators despite sharply higher soybean meal prices. If prospects continue favorable for this year's soybean crop and some easing occurs in soybean meal prices after midyear, producers probably will continue to produce around 5 percent more chicks for slaughter this fall.

Broiler prices have been strong and during January-April averaged a little over 41 cents a pound (wholesale, 9-city average). This was only about a

-5

-5

cent below a year earlier despite the record large supplies of meats. Prices are expected to average in the low 40-cent range this spring before strengthening seasonally to the mid-40-cent range this summer. Prospects for broiler prices this fall are favorable for producers. Increased consumer incomes and reduced competing meat supplies mean increased demand for broilers. If broiler output this fall is 5 percent above last fall, the 9-city price may average around 40-42 cents a pound, compared with 35.5 cents last year.

Turkey meat output was down in early 1977 but picked up sharply in March. Output likely will drop below last year's level this summer but may return to year-ago levels in the fall.

Turkey prices trended steadily upward in early 1977 but have weakened recently. Prices may remain relatively weak this spring but likely will strengthen this summer and fall and average moderately above year-earlier levels. Prices are expected to be bolstered next fall by reduced supplies of red meat, increased consumer buying power, and higher prices for competing meats.

-1

+3

Egg, Poultry, and Livestock Production and changes from a year earlier									
		19	76	· · · · ·		1977			
	1	1	ш	١v	1	11 ¹	111 ¹	1V ¹	
Eggs (Mil. dozens)	1,358	1,344	1,342	1,360	1,330	(1,355)	(1,365)	(1,385)	
Percent change	+1	+1	0	0	-2	+1	+1.5	+2	
Broiler ² (Mil. lb.)	2,116	2,314	2,372	2,186	2,156	(2,430)	(2,490)	(2,300)	
Percent change	+15	+12	+14	+10	+2	+5	+5	+5	
Turkeys ² (Mil. Ibs.) .	207	369	710	664	210	(375)	(690)	(665)	
Percent change	+24	+28	+14	+5	+1	+2	-3	0	
Beef ³ (Mil. Ibs.)	6,491	6,143	6,617	6,411	6,329	(6,150)	(6,200)	(6,100)	
Percent change	+11	+10	+11	+3	-2	0	-6	-5	
Pork ³ (Mil. ibs.)	2,895	2,782	2,952	3,590	3,276	(3,150)	(3,050)	(3,550)	

Eggs, Poultry, and Li	ivestock Pric	es
-----------------------	---------------	----

+27

+18

+13

+13

	····	19	76		1977					
+										
	1	11	111	17	1	11*	111*	11/1		
Eggs, New York ⁴ (Cents/dozen)	68.0	63.1	71.8	78.4	74.9	(58-60)	(63-65)	(68-70)		
Broiler-9-City ⁵ (Cents/Ib.)	42.2	41.7	41.5	35.5	40.9	(41-43)	(43-45)	(40-42)		
Turkeys, New York ⁶ (Cents/Ib.)	49.3	48.2	48.5	49.0	50.2	(51-53)	(53-55)	(53-55)		
Choice Steers, Omaha (Dollars/100 lbs.)	38.7	41.4	37.3	39.0	37.9	(41-43)	(42-44)	(43-45)		
Barrows and Gilts, 7 Markets (Dol./100 lbs.)	48.0	49.2	43.9	34.2	39.1	(40-42)	(43-45)	(37-39)		

¹ Forecast. ² Federally inspected slaughter. ³ Commercial production. ⁴ Cartoned, consumer Grade A large, sales to volume buyers, store door delivery. ⁵ Wholesale weighted average. ⁶ Wholesale, 8-16 pound young hens.

Percent change . .



Factors Affecting the Poultry Industry

The demand for poultry and eggs will improve during the balance of 1977. Consumers' buying power and the number of people gainfully employed will increase. At the same time, supplies of red meat will begin to taper off from the high levels of 1976 and prices will rise.

General Economy Buoyant

Improvement in the general economy in early 1977 was better than was expected after the severe winter weather. Consumers' per capita disposable income in April was $3\frac{1}{2}$ percent above April 1976, and the unemployment rate fell to a seasonally adjusted rate of 7.0 percent in April from 7.3 percent in March, the lowest rate in nearly $2\frac{1}{2}$ years. The economy is expected to experience a real growth rate of around 6 percent for the rest of 1977 and into early 1978. Real disposable personal income may increase by around 5 percent for the same period. The unemployment rate may decline to about 6 percent by mid-1978, down 1 percentage point from April 1977.

Red Meat Supplies to Taper Off

Supplies of red meat have been above year-earlier levels each quarter since the start of 1976. However, after mid-1977 supplies probably will taper off and drop below 1976 levels as a result of the leveling off of the expansion in pork production and the downturn in the cattle inventory. Smaller red meat supplies during the second half of this year are expected to strengthen both farm and retail prices.

Beef production in 1977 will account for nearly two-thirds of the total red meat produced and nearly half of the total of red meat and poultry combined. Thus, any easing in beef supplies will have a heavy impact on other meat prices. Beef supplies during July-December may be down 5 to 7 percent with most of the drop being due to reduced marketings of cows and young cattle coming directly off grass to slaughter. Placements of cattle on feed have been above year-earlier levels. However, fed-beef supplies will likely be below 1976 levels this summer but be above in the fall. This adds up to a little less beef available after midyear at a higher price and moderately smaller supplies of cheaper cuts of beef that compete more closely with broilers and turkeys, largely because of the decline in cow and non-grain-fed beef.

Pork output for the first half of 1977 may average 13 percent above a year ago. However, the gain is expected to narrow this summer and by fall output may only about match last year. The severe winter weather and disease losses probably will hold pork production below what farrowings indicated. Largely as a result of easing pork output and declining beef supplies, hog prices likely will exceed last year's level this fall for the first time since around mid-1976. Somewhat smaller red meat supplies at prices higher than a year earlier will be a positive factor for poultry and egg prices in the fall.

Soaring Soybean Meal Prices Push Up Production Costs

The cost of producing eggs, broilers, and turkeys has risen sharply in recent months, largely because of the surge in soybean meal prices. Estimates show that first quarter 1977 production costs are above the year earlier period (tables 13, 14, and 15).

The full impact of the high soybean meal prices is not shown in first quarter cost estimates because feed prices are lagged. And, many producers may have bought much of their soybean meal before prices skyrocketed. Production costs are likely to stay high during the next few months because continued short supplies and high prices of soybean meal will offset slightly lower feed grain prices. Also, the cost of production items, other than feed, will continue to inch upward.

Lower corn prices this year have partially offset the rise in meal prices. Yellow corn (No. 2 Chicago) averaged \$2.52 a bushel during January-April, nearly 15 cents a bushel below the same months in 1976. Prices have continued lower and averaged around \$2.40 a bushel in late May, compared with nearly \$3 a year earlier. Corn prices likely will continue near the \$2.50 per bushel level in coming weeks. However, weather will play a critical role in the marketplace during the summer but may not be as dominant as a year ago when supplies were tighter.

In contrast to corn, soybean supplies are very tight and meal prices are up sharply from a year ago. Soybean meal prices (49 to 50 percent Decatur) increased from an average of \$224 a ton in January to \$299 a ton for April. Prices in late May were running around \$260 a ton, nearly \$100 above a year ago. Soybean meal prices will continue strong over the next few months, although there may be wide price swings. Farmers are expected to plant substantially more acreage to soybeans this year. With favorable growing weather, the 1977 soybean crop could be near record levels and result in easing soybean meal prices later this year. Coupled with a larger corn crop and lower prices, this would point to a decline in feed costs from current levels.

EGGS

Egg production is expected to inch upward in coming months and may exceed 1976 levels by 1 to 2 percent this summer and fall. Egg prices will strengthen from spring levels but probably will remain below a year earlier.

Output Bounces Back

After suffering from the effects of last winter's severe weather, egg output has returned to 1976 levels. Egg production in January-March was 2 percent below a year earlier, but production in April was about the same as a year ago. Gains in layer numbers and increased output per hen will likely result in egg production being 1 to 2 percent above 1976 during the balance of 1977.

Calendar	Number of layers		Eg per l	igs ayer	Eggs produced		
quarters	1976	1977	1976	1977	1976	1977	
	Mil.	Mil.	No.	No.	Mil. doz.	Mil. doz.	
I II III	279 272 272 279	277	58.3 59.4 59.2 58.5	57.6	1,357.9 1,343.9 1,342.3 1,359.9	1,329.9	
Annual .	277		235.4		5,404.0		

Layers on farms and eggs produced

Layer numbers were down 1 percent on May 1, but they likely will increase relative to 1976 in coming months as more pullets enter the flock. The egg-type chick hatch during November-December 1976 was 23 percent above a year earlier. This indicates that there could be 6-7 million more pullets entering the laying flocks during May-June (table 2). The hatch of egg-type chicks eased in early 1977 and indicates that replacement pullets for July-October will only be up about 6 percent

Table 2- Egg-type chick hatchery operations

Month		Hatch	Eggs in incuba- tors first of month change from year earlier		
	1975	1976	1977	1976	1977
	Thou.	Thou.	Thou.	Pct.	Pct.
January February March May June July September October December	34,818 36,552 45,372 47,409 47,989 40,854 38,099 34,934 33,851 34,801 28,446 30,679	35,844 39,637 50.055 51,482 48,233 42,351 38,609 38,257 37,721 37,039 36,305 36,647	40,249 41,306 50,991 54,838	3 5 9 1 -1 3 1 4 10 9 21 15	12 12 1 8 11

and that the gains in layer numbers may ease after midyear.

The increased number of replacement pullets will be partially offset by the increased slaughter of old hens and fewer force molted layers. When egg prices were high and producer profits were good in January and February, the number of mature chickens that moved through federally inspected plants was about the same as a year earlier. However, as egg prices eased and production costs rose sharply in recent months, producers stepped up marketing of old layers. During March, there were 2.6 million more mature chickens slaughtered than in March 1976, and weekly reports indicate that slaughter remained well above 1976 during April.

On May 1, producers in 17 States reported that 11.8 percent of their hens and pullets had com-

Pullet chicks placed for laying flocks, 1968-72 average and 1973-77*

Month	1968-72 average	1973	1974	1975	1976	1977
	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.
January	22.5	21.7	20.0	19.6	20.3	22.7
February	23.8	22.9	21.3	20.4	22.3	23.1
March	31.0	29.1	26.0	25.4	27.5	28.4
April	34.5	30.0	30.1	26.2	28.6	30.7
May	32.9	30.6	28.8	26.9	27.3	
June	26.8	24.9	24.2	22.9	23.8	
July	23.1	23.1	20.6	21.5	22.1	
August	20.9	23.8	19.8	20.1	22.0	
September .	21.5	24.1	18.2	19.6	21.4	
October	22.2	25.9	19.9	19.8	21.2	
November .	20.0	22.5	18.7	16.5	20.6	
December	20.1	20.0	18.4	17.7	20.7	
Total	299.3	298.6	266.0	258.9	278.8	

*One-half of egg-type chick hatched plus pullet chicks placed domestically for broiler hatchery supply flocks by leading breeders. pleted at least one molt, and another 5.1 percent were in the process of being molted. This compares with 13.0 and 4.7 percent, respectively, on May 1, 1976 (table 3). Because of the increase in replacement pullets and the poor profitability of egg production, force molting of layers may lag 1976 levels in coming months.

If egg production remains unprofitable, producers could hold production at a lower level during the second half of 1977 by sending more old layers to slaughter rather than putting them through a force molt.

In addition to layer numbers edging up, the output per hen during the balance of 1977 is expected to exceed a year ago. The flock will be younger and more productive because of more pullets entering the flock and fewer old layers being recycled.

Post Easter Egg Price Drop

Egg prices showed their usual seasonal drop following Easter. The New York price (consumer Grade A cartoned white eggs, sales to volume buyers, store door delivery) for Large eggs dropped 10 cents a dozen during the 3 weeks following Easter.

Prices likely will rise seasonally in coming months but will stay well below a year earlier. Egg prices usually drop to their low for the year in May, then strengthen during the summer and weaken in October before peaking in December. Prices are expected to follow about the same pattern this year, but the price rise will be limited by the expected gains in egg production relative to 1976. The overall demand for eggs should be relatively strong in coming months because of larger

Shell egg prices

Calendar	Rec by pro	eived oducers	New 'carto	York ned*	14 Metro areas*		
quarter	1976	1977	1976	1977	1976	1977	
	Cents per doz.	Cents per doz.	Cents per doz.	Cents per doz.	Cents per doz.	Cents per doz.	
· · · · · · · · · · · · · · · · · · ·	57.7 53.6 58.8 65.1	63.4	68.0 63.1 71.8 78.4	74.9	67.7 62.5 71.0 76.9	74.5	
Annual	58.8		70.3				

*Sales to volume buyers, consumer Grade A large.

quantities going for the manufacture of egg products and increased hatchery use.

New York Wholesale Prices Discontinued

USDA's Market News Service as of June 1 discontinued the New York wholesale egg price series for loose eggs. However they will continue to report "Prices to Retailers—Sales to Volume Buyers, Consumer Grade A White Eggs in Cartons, Delivered Store Door."

Over the past 2 years there has been a 75 to 80 percent drop in both the volume of loose eggs handled and the number of handlers. Marketing practices have changed and many dealers who formerly traded in loose eggs are handling cartoned eggs or have gone out of business. The volume of loose eggs handled is no longer sufficient to use as a representative price for eggs.

	Being molted						Molt completed					
State	Ma	rch	Ap	pril	м	ay	Ма	rch	Ar	oril	м	ау
-	1976	1977	1976	1977	1976	1977	1976	1977	1976	1977	1976	1977
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Alabama	1.0	.5	.5	1.5	1.5	2.0	10.0	5.5	10.0	4.5	8.0	3.5
Arkansas	1.0	1.5	1.0	1.0	1.5	2.0	5.0	8.0	5.0	7.0	4.5	4.5
California	8.0	12.0	9.0	6.0	10.0	12.5	28.0	37.0	35.0	34.5	36.0	32.5
Florida	2.0	2.0	1.5	1.5	5.5	6.0	12.5	16.0	13.0	14.5	10.5	13.0
Georgia	4.0	3.5	4.5	2.5	8.5	4.5	11.5	12.0	8.5	9.0	10.0	9.5
Indiana	.5	1.0	1.0	1.5	1.0	2.0	6.5	7.0	6.0	4.5	6.5	5.0
Iowa	1.0	1.0	1.0	1.0	3.0	3.5	1.5	5.0	4.0	4.5	4.5	4.0
Mississippi	.5	.5		1.0		2.5	.5	.5	.5	1.0	.5	1.5
New York	2.5	3.5	1.0	4.0	1.0	2.0	7.5	6.0	7.0	5.0	5.0	5.0
North Carolina .	4.0	2.0	2.0	1.5	4.0	4.0	5.0	3.0	6.0	2.0	3.5	3.0
Ohio	1.0	.5	1.5	.5	3.0	2.5	6.5	8.5	5.5	8.5	2.0	4.0
Oregon	2.0	2.0	6.5	3.5	8.0	9.0	27.0	22.0	23.0	18.0	26.0	20.5
Pennsylvania	1.5	2.0	1.0	2.0	2.0	1.0	7.0	2.5	6.0	2.0	6.0	4.0
South Carolina .	4.0	1.0	1.0	1.0	2.0	1.0	5.5	6.0	7.5	6.5	8.0	6.0
Tennessee	2.0	.5	2.0	4.5	3.0	4.5	8.0	5.0	8.0	5.5	8.0	7.5
Texas	1.5	2.0	1.5	2.0	1.5	2.5	2.5	5.5	2.5	4.0	2.5	4.5
Washington	6.5	8.0	3.0	7.0	6.5	12.0	38.0	34.0	33.5	40.0	34.0	32.5
17 States	3.3	3.9	-3.2	2.7	4.7	5.1	12.1	13.8	13.2	12.5	13.0	11.8

Table 3—Forced molt layers as a percent of hens and pullets of laying age, first of month, selected states, 1976-77

Therefore, the *Poultry and Egg Situation* has switched from the New York loose price series to the New York cartoned series. We will also continue to use the 14 Metro area cartoned price series which includes the New York price.

USDA Purchases Dried Egg Mix

USDA purchases of dried egg mix totaled nearly 1.7 million pounds. Around 86,000 cases of shell eggs are required to produce this quantity of egg mix. The first purchase was made on April 26 and thereafter through May 17 when the program ended. USDA purchased 1.5 million pounds in 1976 —all during the month of May. The dried egg mix consists of 51 percent whole egg solids, 30 percent nonfat milk solids, 15 percent vegetable oil, and 1 percent salt. The whole eggs used in the mix must be processed in plants operating under USDA's Egg Products Inspection Program.

Breaker and Hatchery Use Strong

Egg breakers during January-February broke 90 million dozens of eggs under Federal inspection, 19 percent above the reduced levels in 1976. Weekly reports indicate breakings were up around 8 percent in March and 9 percent in April (table 4).



Cartoned Egg Prices, New York*

Month	1972	1973	1974	1975	1976	1977
	Cents per doz.					
January	37.55	60.51	79.75	68.43	73.90	81.04
February	37.01	50.00	74.28	62.09	67.21	76.25
March	42.11	57.14	66.85	65.42	63.04	67.39
April	36.50	56.50	59.07	56.39	62.14	61.38
May	35.11	55.25	49.75	56.32	63.54	
June	36.98	62.89	49.80	56.94	63.61	
July	40.95	69.73	55.32	58.84	68.20	
August	41.51	81.66	62.25	64.46	73.30	
September	45.01	74.53	67.62	67.85	73.96	
October	40.00	69.32	67.94	63.11	72.41	
November	48.75	72.50	67.70	70.49	78.82	
December	57.86	77.53	73.51	76.84	83.87	
Annual	41.61	65.63	64.49	63.93	70.33	

*Sales to volume buyers, store door delivery, consumer Grade A large.

Eggs going for breaking purposes likely will continue well above year-earlier levels in coming months because of very low inventory stocks of frozen egg products. Cold storage stocks of frozen egg products on May 1 totaled a little over 26 million pounds, up 6 percent from a month earlier, but 12 percent below a year earlier. This is the lowest stocks of frozen egg products for the date in recent history. Around 9½ percent of all chicken eggs produced in 1976 went to egg breakers for egg products. More eggs are also being used for hatchery purposes this year because of larger production of both egg-type and broiler-type chicks. During January-April, 4 percent more broiler chicks and 6 percent more egg-type chicks were hatched. For all of 1976, an estimated 7.5 percent of all eggs produced were used for hatchery purposes.

Table 5–Egg supplies available to civilians for food, January-March 1976-77

Table 4–Shell e	ggs broken	and egg pro	ducts produced
under	federal ins	pection, 197	76-77

Devie d	Shell	Egg pr	oducts pro	duced ²
Period	eggs broken	Liquid ³	Frozen	Dried
	Thou. doz.	Thou. lbs.	Thou. lbs.	Thou. lbs.
1976				
Jan. 4-Jan. 31 Feb. 1-Feb. 28 Feb. 29-Mar. 27 Mar. 28-Apr. 24 Apr. 25-May 22 July 1-July 17 July 18-Aug. 14 Aug. 15-Sept. 11 Sept. 12-Sept. 30 Oct. 1-Oct. 23 Oct. 24-Nov. 20 Nov. 21-Dec. 18	36,069 37,569 44,727 46,143 45,863 28,425 48,264 45,044 36,847 42,290 48,982 42,792	21,263 23,729 26,076 26,107 28,198 41,699 16,315 29,420 27,117 24,106 26,283 29,278 25,120	20,190 20,670 24,695 26,550 23,688 36,648 15,971 23,802 23,331 16,381 21,049 26,585 23,021	3,115 3,079 4,726 4,443 4,974 6,967 3,472 6,064 4,840 3,986 4,841 5,447 4,432
1977				
Dec. 19-Jan. 15 Jan. 16-Feb. 12 Feb. 13-Mar. 12	41,440 41,678 47,126	23,638 25,598 29,246	22,606 21,842 23,375	4,225 4,588 5, 7 25

 1 Weeks in 1976 and 1977. 2 Includes ingredients added. 3 Liquid egg product produced for immediate consumption and for processing.

		Jai	nuary-Mar	ch
Item	Unit	1976	1977	Change from year earlier
Beginning stocks	Mil. doz.	28.2	20.7	-7.5
Farm Production	Mil. doz.	1,357.9	1,329.9	-28.0
Imports	Mil. doz.	0.2	1.2	1.0
Exports and ship-		1 •		
ments	Mil. doz.	15.2	16.1	0.9
Military procure-				
ments	Mil. doz.	13.1	7.6	-5.5
Eggs used for				
hatching	Mil. doz.	104.6	108.4	3.8
Supplies available to civilians for food:				
Totai	Mil. doz.	1,253.4	1,219.7	-33.7
Percapita	No.	70.8	68.4	-2,4
Civilian population	Mil.	212.5	214.1	1.6

First Half 1978 Egg Prospects

The laying flock on January 1, 1978 likely will be larger than a year earlier and egg prices significantly lower. However, production costs could ease from first half 1977 levels if the large corn and soybean acreage planted this spring develops favorably.

Production costs during January-June 1978 are largely dependent on the 1977 corn and soybean









crop with the soybean crop the more critical. Carryover stocks of corn this October may total 800 to 900 million bushels—the largest carryover of old crop since the 1.1 billion bushels in 1972. But carryover stocks of soybeans and soybean meal will be minimal. Although soybean meal prices are expected to ease with a large crop, prices may remain at relatively high levels. On balance, large 1977 corn and soybean crops likely would lead to lower first half 1978 prices both for corn and soybean meal. However, adverse growing weather, which would reduce corn and soybean crops, would cause higher feed costs than in January-June 1977.

The demand for all eggs may be bolstered in the first half of 1978 by improved general economic conditions, larger hatchery use of eggs, and increased breaker activity. Eggs going for hatchery use may show a moderate gain from 1977 levels, but this is largely dependent on the continued expansion in broiler production in 1978. Breaking use could increase further next year but with prospective larger stocks of egg products, the gain over year-earlier levels likely will be less than in 1977.

Egg production in early 1978 will be largely determined by producer decisions during the balance of 1977. If producers continue to raise more replacement pullets, as now seems likely, a sharp reduction in force molting would be necessary to prevent a buildup in the laying flock. It seems likely that the the laying flock at the close of 1977 will be 1-2 percent above a year earlier. In addition, the output per hen will probably continue to rise. Thus, production going into 1978 could be 2 percent or more above 1977.

Higher consumer incomes, hatching use, and breaking use, coupled with total egg production equal to January-June 1977, would be expected to result in the New York cartoned large egg prices in the first half of 1978 averaging 67-70 cents a dozen. This compares with the estimated 67 cents for the first half of 1977. However, if total egg output increases around 2 percent, prices may average 3 to 6 cents a dozen lower than a year earlier (table 6).

BROILERS

Broiler output is expected to be around 5 percent above a year earlier this spring and summer. Market prices for broilers will remain strong this spring and increase seasonally into summer.

Broiler Output Gains

Broiler output through March was at record levels but was somewhat below earlier expectations because of the effects of the severe winter weather over much of the country. Chicks placed 8 weeks

Table 6-Estimated January-June 1978 Egg Price/Production Relationships¹

Totai eg	New York cartoned			
Million dozen	Percent change from year earlier	large egg prices ²		
	/ <u>_,, ,, </u>	Cents per dozen		
2,766	+3	58-61		
2,739	+2	61-64		
2,712	+1	64-67		
2,685	0	³ 67-70		
2,658	-1	70-73		
2,631	-2	73-76		
2,604	-3	76-79		

¹Based on historical relationships. ²USDA, cartoned, consumer Grade A, volume buyers, store door delivery. ³The estimated 67-70 cents a dozen is based on prospective conditions for general economic activity, hatching and breaking use, and assumed no change from the estimated 1977 first half total egg production.

The prices, other than the base price, were estimated by assuming the same conditions as under the base except that total egg production was changed.

earlier indicated that the number of birds marketed should have been above 1976 by around 5 percent but the number of birds inspected for slaughter was up 2.3 percent. The difference between chicks placed and the number marketed indicates that the severe winter weather caused substantial losses to the broiler industry. Broiler meat output during January-March in federally inspected plants totaled 2,156 million pounds (ready-to-cook), up 2 percent from 1976.

Broilers slaughtered in Federally inspected plants

Calendar	Num inspe	nber cted	Ave live v	rage veight	Certified		
quarters	1976	1977	1976	1977	1976	1977	
	Mil.	Mil.	Lb.	Lb.	Mil. 1b.	Mil. 1b.	
I II III IV	764.7 842.9 864.8 780.4	782.3	3.82 3.78 3.79 3.87	3.82	2,116.4 2,313.7 2,371.6 2,185.5	2,156.2	
Annual .	3,252.8		3.81		8,987.3		

Now that the effects of the adverse weather are behind us, broiler output in the second quarter will increase further. Weekly slaughter reports and chick placements indicate that it will be 5 percent above a year earlier. Producers are continuing to place 5 to 6 percent more eggs in incubators for summer marketings, despite the sharp rise in feed costs (table 7).

If prospects continue favorable for this year's soybean crop and if soybean meal prices ease, pro-

Wook onding		Eggs set	j	Percent of previous		Chicks placed		Percent of previous
week ending	1975	1976	1977	1977	1975	1976	1977	1977
	Thou.	Thou.	Thou.	Pct.	Thou.	Thou.	Thou.	Pct.
November 29	72,321	68,144	74,062	103	58,348	58,362	60,524	104
December 6 13 20 27	68,101 72,353 73,231 72,752	68,144 72,298 73,013 73,107	74,062 75,158 76,925 76,535	109 104 105 105	59,517 59,394 59,170 56,368	59,529 59,407 59,200 56,398	61,610 61,192 60,788 60,599	103 103 103 107
January 3 10 17 24 31	65,629 64,498 66,755 68,543 69,768	71,739 74,074 74,905 75,253 74,205	77,327 78,159 77,503 77,278 78,699	108 106 103 103 106	55,349 54,933 55,429 54,259 53,500	59,337 59,146 59,615 60,608 61,168	61,750 63,003 62,986 63,984 64,335	104 105 106 106 105
February 7 14 21 28	70,495 71,371 71,308 72,652	76,270 78,697 80,029 80,988	80,418 82,745 83,662 84,377	105 105 105 104	55,314 57,256 57,954 58,015	61,397 62,089 60,489 62,870	64,124 63,498 65,240 66,212	104 102 108 105
March 6 13 20 27	72,080 71,552 72,818 73,608	81,478 81,792 82,119 82,832	85,498 85,522 85,721 86,761	105 105 104 105	58,821 58,776 59,796 60,015	64,639 65,667 66,944 67,168	68,052 69,314 69,109 70,238	105 106 103 105
April 3 10 17 24	73,775 73,297 71,790 73,242	83,405 83,261 83,073 82,134	87,480 87,586 87,681 85,584	105 105 106 104	59,312 59,955 60,939 61,058	67,449 68,039 68,560 68,729	70,721 70,205 71,922 72,024	105 103 105 105
May 1 8	73,892 73,994 74,033 74,241 74,554	83,482 83,402 83,302 83,767 83,815	87,274 87,504	105 105	60,932 59,279 60,504 60,120 60,828	68,869 68,369 67,075 68,461 68,729	72,407 72,010	105 105
June 5 12 19 26	74,177 70,326 70,140 72,123	83,331 83,105 81,278 77,495			61,374 61,153 60,623 60,650	68,662 68,899 69,152 68,412		
July 3 10 17 24 31	72,110 71,893 71,789 70,325 70,284	80,098 80,641 79,981 79,317 78,625			57,886 57,244 58,669 58,985 58,420	68,363 66,538 62,977 65,615 65,670		
August 7 14 21 28	70,087 68,960 70,088 69,445	77,629 76,895 76,602 77,723			58,447 57,723 57,207 57,136	65,182 64,446 63,535 63,297		
September 4 11 18 25	66,559 58,501 68,763 70,371	73,964 65,270 71,768 76,254			56,445 56,952 56,339 54,388	62,768 62,389 63,517 60,550		
October 2	67,393 59,532 63,944 69,922 72,638	73,645 64,939 67,252 73,567 76,581			46,845 56,278 57,677 55,207 48,741	52,917 58,163 62,280 60,217 53,091		
November 6 13 20	70,669 72,536 71,753	74,739 75.892 74,933			52,444 57,244 59,397	54,404 60,157 62,816		
	3,667,071	4,024,472			2,998,617	3,293,128		

Table 7-Broilers: Eggs set and broiler chicks placed weekly in 21 commercial broiler producing States, 1975-77

¹ Includes weeks ending November 30, 1974 through November 22, 1975. ² Includes weeks ending November 29, 1975 through November 20, 1976.

ducers likely will continue to produce around 5 percent more chicks for slaughter in the fall. However, if prospects turn unfavorable, soybean meal prices will remain under upward price pressures and broiler producers could begin to reduce production.

The broiler hatchery supply flock probably will be large enough to support a 5-percent or larger gain during the second half of 1977. Based on pullet placements 7 to 14 months earlier, the number of layers in the broiler hatchery supply flock will peak this spring then decline seasonally during the summer, but stay above year-earlier levels. Placements throughout the second half of 1975 and all of 1976 were well above the previous year. They fell below a year earlier in February 1977, but moved back above in April.

Broiler Prices Strong

Broiler prices in recent months have been higher than expected. This was partially a result of the severe winter weather which moderated the gains in both broiler meat and pork production. Wholesale broiler prices in 9 cities during January-March averaged slightly over 41 cents a pound, up 5 cents from the prior quarter, but 1 cent below the same months of 1976. Prices continued near this level in April but strengthened in May to around 42 cents a pound. Prices likely will strengthen further during the summer and average in the mid-40-cent range, 2 to 4 cents above a year earlier.

Color day	Livew	reight	9-c	ity						
quarters	1976	1977	1976	1977						
	Cents per pound									
۱	24.6	23.3	42.2	40.9						
11	24.1		41.7							
	23.9		41.5							
ıv	19.8		35.5							
Annual	23.1		40.2							

Broiler prices

Although broiler supplies will be larger, total red meat supplies may be below year-earlier levels this summer for the first time since the fourth quarter of 1975.

1976 Broiler Crop Record

There were 3,280 million broilers produced in the United States during the 1976 marketing year (December 1-November 30). This was 12 percent above 1975 and nearly 7 percent above the previous record for 1972 (table 26). Production increased in all major producing States. Of the 3,280 million birds produced, 97 percent came from the 21 major commercial broiler-producing States included in the weekly broiler placement report. Arkansas remained the top producing State by a wide margin. They produced 540 million broilers, nearly a fifth more than Georgia, the second largest producing State. The other producing States in the top 10 in order are Alabama, North Carolina, Mississippi, Maryland, Texas, Delaware, California, and Virginia. This was the same ranking as in 1975, with the exception of Virginia which replaced Maine as the tenth largest producing State. With the exception of Virginia, all top 10 States produced over 100 million broilers in 1976.

Prospects for October-December 1977

The tight soybean meal supply situation continues to plague the broiler industry and will continue to do so at least through the summer. However, prospects for a large 1977 soybean crop could improve the situation this fall.

If the corn and soybean crops develop about as now seem likely, (6-billion-bushel-plus corn and nearly 1.6 billion bushel soybean crop) production costs next fall could drop 5 cents a pound from the summer level but still be near the fall of 1976.

Broiler prices normally decline seasonally in the fall. The demand for broilers begins to decline at the end of the summer and continues to weaken until after the year-end holidays. The drop may be less this year because of less competition from red meat and continued growth in the economy.

Beef supplies this fall probably will be moderately lower than a year earlier with pork supplies about the same. Both beef and pork prices are expected to surpass year earlier levels. Turkey supplies may not be much different than in October-December 1976.

Table 8—Estimated 4th Quarter	1977	Broiler
Price/Consumption Relation	nship	s ¹

Domestio capita co	Estimated 9-city		
Pounds	Percent change from year earlier	price	
		Cents per pound	
8.2	-15	52-54	
8.7	-10	49-51	
9.2	-5	46-48	
9.7	-0	² 43-45	
10.2	+5	40-42	
10.7	+10	37-39	
11.2	+15	34-36	

¹Based on historical relationships. ² The estimated 43-45 cents per pound is based on prospective conditions for competing meats and general economic activity and assumes no change from a year earlier in per capita consumption of broilers.

The prices other than the base 43-45 cents per pound price were estimated by assuming the same conditions for competing meats and economic activity as under the base but various changes from a year earlier in the per capita consumption of broilers.







Table 9–Young chicken: Supply and utilization, Fourth quarter 1965-76

Year	Production	Beginning stocks	Total supply	Ending stocks	Exports and shipments	Military	Civilian disappear- ance	Population	Per capita
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million	Pounds
1965	1,444	26	1.469	34	44	20	1,372	192.4	7.1
1966	1,614	38	1,652	56	40	24	1,532	194.0	7.9
1967	1.565	48	1,614	56	39	18	1,501	196.0	7.7
1968	1,638	25	1,663	26	39	17	1,581	197.9	8.0
1969	1,798	25	1,824	34	37	21	1,732	200.1	8.7
1970	1,832	42	1,874	52	44	11	1,767	202.7	8.7
1971	1,910	37	1,947	40	43	13	1,851	205.1	9.0
1972	1,973	24	1,997	29	48	11	1,909	207.1	9.2
1973	2,025	28	2,052	33	50	8	1,961	208.7	9.4
1974	1.849	35	1,884	37	47	8	1,792	210.4	8.5
1975	2,021	23	2,043	22	61	9	1,951	212.1	9.2
1976	2,203	24	2,227	33	115	10	2,069	213.7	9.7

If this fall's red meat supplies and prices and consumers' disposable incomes turn out about as expected, and broiler meat output exceeds a year earlier by around 5 percent, the October-December 9-city broiler prices would be expected to average around 40-42 cents a pound. This would be 5 to 7 cents above October-December 1976. However, if the other factors are as expected and broiler output is held at 1976 levels, broiler prices could average in the mid-40-cent range (table 8).

TURKEYS

Turkey meat production is expected to average below a year earlier this summer but may return to near 1976 levels this fall. Turkey prices have remained relatively weak this spring but should show some seasonal price strength after midyear.

Output Large

Turkey meat output in federally inspected plants during January-February was down 6 percent. But output picked up sharply in March and was up 17 percent as a result of 14 percent more birds marketed at a 3-percent heavier average liveweight.

Calendar	Nun inspe	nber ected	Ave live w	rage veight	Certified			
quarters	1976	1977	1976	1977	1976	1977		
	MiL	Mil	Lb.	Lb.	Mil. 1b.	Mil. 1b.		
I II III	14.7 27.1 49.6 43.0	15.0	17.9 17.2 18.1 19.5	17.9	206.6 368.5 710.4 664.5	209.5		
Annual .	134.3		18.3		1,950.1			

Turkey slaughtered in Federally inspected plants

This pushed first quarter total output to 1 percent above last year's level.

Turkey marketings will again drop below a year ago in coming months, though marketing weights could average above a year ago. Production of turkey poults in recent months have been below a year earlier. During February-April, there were 4 percent fewer poults hatched but eggs in incubators on May 1 were about the same as a year ago.

Nearly all of the decline in poults hatched was in light breeds. During February-April, the heavy breed poult hatch totaled around 47 million, about the same as in 1976, while the hatch of light breed poults dropped 32 percent to 3.8 million (tables 10 and 11).

Above year-earlier marketing weights are likely to continue because of the larger share of heavy breed turkeys and the increase in demand for heavier weights for further processing.

Further processing of turkeys is continuing the upward trend of recent years. Through March, turkey meat inspected for further processing was up 16 percent to 170 million pounds. During January-March, 27 million pounds were processed in whole bird form, down 16 percent from 1976. However, further processed turkey meat other than wholebird gained 25 percent to 143 million pounds. Cutup turkey totaled 89 million pounds, 9 percent above a year earlier.

Storage Stocks Relatively Low

Cold storage turkey stocks have declined seasonally this year and totaled 130 million pounds on May 1. This was 13 percent above a year ago but well below most other recent years. With second quarter turkey output only moderately larger, mid-1977 stocks may total near the 178 million pounds of July 1, 1976.

		Unite	d States			9-St	Intes1Change from year earlierHatchEggs in incubators first of monthPct.Pct1-460156-7-13-2-3-9-7		
	Ha	tch	Change fro	om year earlier	На	tch	Change fro	om year earlier	
Month September	1975-76	1976-77	Hatch	Eggs in incu- bators first of month	1975-76	1976-77	Hatch	Eggs in incu- bators first of month	
	Thou.	Thou.	Pct.	Pct.	Thou.	Thou.	Pct.	Pct.	
September	4,337	4,301	-1	-2	3,710	3,677	-1	-4	
October	4,465	4,889	9	6	3,766	3,977	6	0	
November	5,391	6,129	14	4	4,466	5,117	15	6	
December	7.888	7,633	-3	-9	6,433	5,974	-7	-13	
January	10,582	10,771	2	2	8,565	8,389	-2	-3	
February	13,774	12,733	-8	-3	10,781	9,767	-9	-7	
March	18,735	18.091	-3	-5	14,819	13,851	-7	-7	
April	19,901	19,511	-2	-3	15,408	14,903	-3	-5	
May	20,280	-		0	15,721			-2	
June	19,673				15,476				
July	15,422				12,085				
August	8,155				6,638				

Table 10- Turkey hatchery operations, United States and 9 States, 1975-77

¹ California, Iowa, Minnesota, Missouri, North Carolina, Ohio, Texas, Virginia, and Wisconsin.

	Light bread advanced			Heavy breeds								
Month of marketing	Light	d months	anced	He	Hens advanced Toms advanced 5 months 6 months			All turkey: Sum of preceding columns*				
	1975	1976	1977	1975	1976	1977	1975	1976	1977	1975	1976	1977
	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million	Million
January	0.5	0.7	0.6	2.6	3.7	3.5	5.9	6.4	6.7	9.1	10.8	10.8
February	1.2	1.0	1.0	1.3	1.8	1.8	2.6	3.7	3.5	5.1	6.5	6.3
March	1.3	1.2	1.3	1.5	1.7	2.0	1.3	1.8	1.8	4.1	4.8	5.1
April	1.3	1.5	1.3	1.8	2.1	2.4	1.5	1.7	2.0	4.6	5,3	5.7
May	1.2	1.8	1.2	2.6	3.2	3.2	1.8	2.1	2.4	5.7	7.1	6.8
June	1.4	1.5	1.1	3.7	4.4	4.8	2.6	3.2	3.2	7.7	9.1	9.1
July	1.4	2.0	1.3	5.3	6.1	5.8	3.7	4.4	4.8	10.5	12.5	11.9
August	1.7	2.0	1.4	7.4	8.4	8.4	5.3	6.1	5.8	14.3	16,5	15.6
September	1.5	1.9		8.5	8.9	9.1	7.4	8.4	8.4	17.4	19.2	
October	1.4	1.9		8.8	9.2		8.5	8.9	9.1	18.7	20.0	
November	1.5	2.0		8.1	8.9		8.8	9.2		18.4	20.0	
December	1.3	1.2		6.4	6.7		8.1	8.9		15.8	16.8	

Table 11- Turkeys: Monthly hatchings by breed type, advanced to indicate prospective month of marketing
1975-77

*Details may not add exactly to totals due to rounding.



Turkey Prices Above 1976

Turkey prices trended steadily upward in early 1977 but have weakened in recent weeks. New York wholesale prices for 8-16 pound young hen turkeys through April averaged 51 cents a pound, ranging from 48.7 cents for January to 53.6 cents for April. Prices for these months in 1976 averaged 49 cents a pound. Prices weakened in late April and averaged around 51 cents a pound in mid-May, 2 cents above a year ago. Prices will remain relatively weak this spring but should strengthen this summer and fall. Prices will be bolstered this fall by reduced supplies and higher prices for red meats and increased consumer incomes.

Lurke	V Drices
I UI KE	y prices

Calendar	Livew	eight	New York wholesale				
quarters	1976 1977		Young hens 8-16 pounds			Young toms 14-20 pounds	
			1976	1977	1976	1977	
			Cents pe	er pound			
I H HI IV	32.8 31.7 31.0 31.8	33.0	49.3 48.2 48.5 49.0	50.2	47.6 49.3 47.7 50.2	51.4	
Annual .	31.8		48.7		48.7		

GROSS INCOME UP IN 1976

Gross income from chickens, turkeys, and eggs at the producer level during the 1976 marketing

Tom turkey prices, 24-26 pounds, f.o.b. New York¹

Month	1973	1974	1975	1976	1977
	Cents	Cents	Cents	Cents	Cents
	per lb.				
January	41.5	48.9	49.8	52.4	54.2
February	44.5	47.0	46.9	50,7	55.4
March	51.1	45.6	44.6	53.7	57.3
April	52.5	39.3	46.0	54.6	58.1
May	57.6	41.1	50,0	60.0	
June	62.7	41.4	53.2	56.3	
July	64.2	37.4	54.4	56.3	
August	75.4	45.1	56.4	55.4	
September	77.0	46.5	57.9	51.3	
October	67.8	45.2	60.7	51.6	
November	57.7	46.9	60.1	51.6	
December	56.4	49.8	56.9	55.0	
Year	59.0	44.5	53.1	54.1	

¹ U.S. Grade A, frozen, ready-to-cook, carlots or trucklots.

year (December-November) increased nearly 7 percent from 1975 to total \$7.1 billion (table 12). About three-fourths of the \$452 million gain in 1976 was from eggs, primarily because of higher prices.

Sales of turkeys and broilers were both up around 12 percent, whereas eggs gained less than 1 percent. However, egg prices gained over a tenth, while broilers and turkeys dropped about a tenth.

Gross income from eggs accounted for 45 percent of the total, broilers 42 percent, turkeys 12 percent and other chicken 2 percent. Eggs regained top spot in gross income from broilers in 1976 after loosing it for the first time the previous year. Eggs' share of gross income inched up from 43 percent in 1975, broiler's share fell from 44 percent, and turkeys' share remained near a year earlier.

Table 12- Gross farm income from poultry and eggs, 1965-76¹

		Value of sales and consumption on farms where produced									
	E	Eggs			Nonbroi	ler chicken			Total		
Year	Sales	Consump- tion on farms	Broilers	Turkeys	Sales	Consump- tion on farms	Other poultry ²	Sales	Consump- tion on farms	Gross income	
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	
1965 1966 1967 1968 1969 1970 1971 1972 1973 1974	1,785 2,106 1,765 1,893 2,212 2,192 1,813 1,781 2,886 2,911	56 51 39 38 32 21 17 26 25	1,217 1,371 1,223 1,326 1,531 1,475 1,487 1,622 2,690 2,437	421 486 460 417 454 499 501 539 936 679	86 100 91 90 104 102 90 101 166 118	13 11 8 8 6 5 5 8 5	69 77 85 74 81 77 84 103 114 124	3,578 4,140 3,624 3,800 4,382 4,345 3,975 4,149 6,792 6,269	69 62 47 46 38 26 22 34 30	3,647 4,202 3,671 3,846 4,428 4,383 4,001 4,171 6,826 6,299	
1975 1976 ³	2,793 3,128	22 24	2,899 2,950	794 824	103 136	5 6	(⁴) (⁴)	6,589 7,038	27 30	6,616 7,068	

¹Beginning in 1970 data (except turkey) correspond to a December-November marketing year. ²Includes turkey hatching eggs. ³Preliminary. ⁴Not available.

FEWER HATCHERIES

The number of chicken and turkey hatcheries continued to trend downward during 1975 and 1976. At the same time, the total egg hatching capacity increased slightly for chickens but declined for turkeys. Although total egg capacity was not greatly different from 2 years earlier, hatching of both broilers and turkeys in 1976 and early 1977 were at record levels.

Chicken Hatcheries

The number of commerical chicken hatcheries in the United States on January 1, 1977 totaled 651, compared with 797 on January 1, 1975 and with 989 on January 1, 1973. Total egg setting capacity on January 1, 1977 totaled 420 million, up from 416 million 2 years earlier. Despite the limited gain in hatchery capacity, the number of chicks hatched (both egg-type and broiler-type) during January-March 1977 were 16 percent above the same months for 1975.

The number of hatcheries in all size groups declined but the average capacity increased. The 651 hatcheries on January 1, 1977 had an average capacity of about 645,000 eggs, compared with 522,000 on January 1, 1975. Those with capacities of 500,000 eggs and over accounted for 68 percent of the total egg capacity for all chicken hatcheries.

The number of hatcheries declined in all regions of the United States during the past 2 years, with the largest percentage decline in the West North Central, down 26 percent, followed by the South Central and East North Central, each down about 17 percent.

United States chick hatcheries in 1976 produced nearly 4 billion chicks, up a tenth from 1975. Of the chicks hatched in 1976, broiler chicks accounted for about 88 percent of the total. The leading States in broiler-type chick hatchings were Arkansas, Georgia, Alabama, North Carolina, and Mississippi. These 5 States accounted for 61 percent of the broiler chicken in 1976. The top States in egg-type chicks hatched in 1976 were Georgia, California, Florida, Indiana, and Arkansas. These States produced 39 percent of the egg-type chicks hatched.

Turkey Hatcheries

On January 1, 1977, there were 149 turkey hatcheries in the United States, 31 less than 2

years earlier. Egg capacity declined nearly 4 percent during the same period to 40.4 million but the average capacity per hatchery gained around 17 percent to 271,000 eggs. Over half of the turkey hatcheries have capacities of 200,000 or more eggs and have accounted for 90 percent of total turkey egg hatching capacity. This compares with 41 percent of the hatcheries on January 1, 1975 and 77 percent of the capacity.

In 1976, these hatcheries produced nearly 150 million turkey poults, 9 percent more than in 1975. The leading States in poult production in 1976 were Minnesota, California, North Carolina, Missouri, and Texas. They produced 60 percent of the turkey poults produced in 1976.

RECORD POULTRY USE IN 1976

The consumption of chicken and turkey in 1976 increased 3.6 pounds per person to a record 52.5 pounds. The previous record use was 51 pounds per person in 1972. Consumption of eggs declined for the fifth consecutive year to the lowest per capita use on record. Per capita consumption of eggs in 1976 totaled 276 eggs, down 3 eggs from 1975 and 38 eggs below 1971. All of the decline in 1976 was in shell egg use, down 5 eggs to 243, whereas processed egg use was up 2 eggs to 33 eggs per person.

Total chicken meat used in 1976 totaled 43.3 pounds per person, up 3 pounds from 1975. Broiler consumption (young chicken) increased 3.5 pounds per person and the use of other (mature) chicken dropped a half-pound. The drop in the use of chicken other than broilers resulted from reduced availabilites. Other chicken largely are old hens culled from the egg laying flocks. And the egg-laying flock numbers in 1976 were the smallest on record going back to 1925.

Turkey consumption also reached a record 9.2 pounds per person in 1976, 0.6 pound above 1975 and 0.2 pound above the previous record use in 1972.

Red meat consumption in 1976 increased 11.6 pounds to 192.7 pounds per person. Beef and veal totaled a record 132.8 pounds, up 8.5 pounds from 1975. Pork picked up 3.2 pounds and totaled 58.0 pounds. Thus, consumption of red meat, chicken, and turkey in 1976 (carcass weight) totaled 245.2 pounds per person, 15.3 pounds more than in 1975 and the largest per capita use in recent history.

Colondar quarters	Production	costs all eggs	Wholesale, car large	Net returns ^{2 3 5}	
Calendar quarters	Feed ²	Total ²	Total costs ^{2 3}	14 metro areas price ²	
	Cents per dozen	Cents per dozen	Cents per dozen	Cents per dozen	Cents per dozen
Annual average ²					
1972	17.3	28.9	43.3	40.5	-2.8
1973	29.2	41.7	58.1	64.3	6.2
1974	31.0	45.4	63.5	63.0	-0.4
1975	29.0	43.5	61.8	62.9	1.0
1976 ⁴	28.6	43.1	61.6	69.9	8.2
1974					
1	31.2	45.6	63.6	72.3	8.6
11	27.5	41.9	59.9	52.1	-7.8
111	31.4	45.8	63.8	59.9	-3.9
IV	34.1	48.5	66.6	67.8	1.2
1975					
1	30.8	45.3	63.6	65.0	1.3
11	28.3	42.8	61.1	55.3	-5.7
111	29.3	43.8	62.1	61.9	-0.2
IV	27.8	42.3	60.6	69.1	8.5
1976					
1	26.9	41.4	59.9	67.7	7.9
11	27.9	42.4	60.9	62.5	1.7
111	31.4	45.9	64.4	71.2	6.8
IV	28.4	42.9	61.4	77.9	16.5
19774					
1	29.6	44.1	63.3	74.5	11.2

Table 13-Estimated costs and returns for market eggs¹

¹ Based on secondary data and incomplete data from survey. Estimated by computerized formula. ² Weighted by monthly egg production less estimated eggs used for hatching. ³ Based on farm

cost converted to wholesale market values for Grade A large eggs, ⁴ Preliminary, ⁵ May not add across due to rounding.

Table	14-Estimated	costs and	returns	for	broilers
-------	--------------	-----------	---------	-----	----------

	Production co	osts liveweight	Wholesale re	eady-to-cook	
Calendar quarters	Feed ²	Total ²	Totai costs ^{2 3}	9-city weighted average price ²	Net returns ^{2 3 5}
	Cents per pound	Cents per pound	Cents per pound	Cents per pound	Cents per pound
Annual average ²					
1972	9.0	14.3	28.2	28.2	-0.1
1973	16.4	22.2	39.8	42.4	2.6
1974	15.8	22.0	40.1	38.0	-2.0
1975	15.1	21.3	39.4	45.2	5.8
19764	15.0	21.3	40.2	40.2	0.0
1974					
1	16.1	22.3	40.5	39.3	-1.2
11	15.2	21.3	39.2	35.3	-3.9
HILL	14.5	20.7	38.3	37.6	-0.7
IV	17.7	23.8	42.5	40.4	-2.3
1975					
1	16.4	22.6	41.3	41.2	0.0
II	14.5	20.7	38.7	43.7	5.0
111	14.6	20.8	38.7	50.3	11.6
IV	15.0	21.2	39.3	45.1	5.8
1976					
1	13.7	20.0	38.4	42.1	3.8
11	14.1	20.4	38.9	41.7	2.8
	16.5	22.8	42.2	41.5	-0.7
IV	15.8	22.1	41.2	35.5	-5.7
19774					
1	15.7	22.0	41.2	40.9	-0.3

¹Based on secondary data and incomplete data from survey. Estimated by computerized formula. ²Weighted by monthly broiler slaughter. ³Based on farm cost converted to wholesale

market values for ready-to-cook broilers. ⁴ Preliminary. ⁵ May not add across due to rounding.

	Production co	osts liveweight	Wholesale r		
Calendar quarters	Feed ²	Total ²	Total costs ^{2 3}	New York young hen price ²	Net returns ^{2 3 5}
	Cents per pound	Cents per pound	Cents per pound	Cents per pound	Cents per pound
Annual average ²					
1972	13.5	20.5	34.1	36.6	2.5
1973	25.6	33.1	50.6	64.5	13.9
1974	22.5	30.7	48.8	47.0	-1.8
1975	22.1	30.7	49.4	55.1	5.8
19764	22.5	31.5	51.3	48.6	-2.8
1974					
1	22.1	30.3	48.4	49.9	1.6
Н	23.6	31.8	50.2	39.2	-11.0
111	19.9	28.1	45.6	45.6	-0.1
IV	24.8	33.0	51.7	52.1	0.4
1975					
1	25.6	34.2	53.8	48.9	-4.9
П	21.6	30.2	48.7	51.7	3.0
111	21.3	29.9	48.4	57.1	8.7
IV	22.2	30.8	49.5	56.5	7.0
1976					
	20.2	29.2	48.5	49.4	0.9
11	20.5	29.5	48.9	48.1	-0.9
111	22.6	31.6	51.5	48.5	-3.0
IV	24.1	33.1	53.3	48.7	-4.7
19774					
1	22.1	31.1	50.9	50.4	-0.6

Table 15-Estimated costs and returns for turkeys¹

¹ Based on secondary data and incomplete data from survey. Estimated by computerized formula. ² Weighted by monthly turkey slaughter. ³ Based on farm cost converted to wholesale

÷.

		Su	oply				Utiliz	ration		
Main		-				E to		Domestic di	isappearanc	e
Year	Produc-	Imports	Beginning stocks ²	Total	Ending	and and	Eggs	Military	Civ	ilian
			310003	suppry		ampinenta	hatching	Whittary	Total	Per capita
	Mil. doz.	Mil. doz.	Mil doz.	Mil. doz.	Mil. doz.	Mil. doz.	Mil, doz.	Mil. doz.	Mil. doz.	Number
1965	5,463	1	46	5,510	41	39	333	94	5,003	314
1966	5,517	15	41	5,573	28	43	365	102	5,035	313
1967	5,777	4	28	5,809	71	55	361	110	5,212	320
1968	5,680	6	71	5,757	56	46	364	108	5,183	316
1969	5,629	9	56	5,694	34	41	395	83	5,141	310
1970	5,710	28	34	5,772	39	45	400	66	5,222	311
1971	5,846	10	39	5,895	58	45	391	52	5,349	314
1972	5,795	2	58	5,855	53	56	395	54	5.297	308
1973	5,547	14	53	5,614	34	49	396	36	5,099	294
1974	5,494	13	34	5,541	42	57	366	38	5,038	288
1975	5,365	6	42	5,413	28	62	371	43	4,909	279
1976 ³	5,404	3	28	5,435	21	65	406	45	4,898	276

Table 16-Eggs: Supply and utilization, 1965-761

¹ Calendar years, ² Storage stocks include shell eggs and the approximate shell-egg equivalent of frozen eggs. ³ Preliminary.

Year Production Beginning stocks Total supply End stocks Exports and suppents Million million pounds Million mounds Million pounds Million Million			-						
Million pounds Million 1965 7,172	Year	Production	Beginning stocks	Total supply	End stocks	Exports and shipments	Military	Civilian disappear- ance	Per capita
Young chicken 1965 5,872 37 6,909 34 122 83 5,670 29.6 1966 6,437 34 6,471 56 139 89 6,187 32.0 1967 6,552 56 6,608 56 138 93 6,321 32.4 1968 7,175 26 7,201 34 159 78 6,330 34.8 1970 7,687 34 7,721 52 178 58 7,433 36.9 1971 7,724 52 7,776 40 196 56 7,484 36.7 1973 8,025 29 8,054 33 193 38 7,790 37.4 1974 8,127 33 8,160 37 222 32 7,869 36.9 1975 8,082 37 8,119 22 254 35 7,808 36.9 1976 76 82		Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Pounds
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					Young	chicken			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1965	5.872	37	5.909	34	122	83	5.670	29.6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1966	6.437	34	6.471	56	139	89	6.187	32.0
1968 6,653 56 6,709 26 144 82 6,457 32.8 1969 7,175 26 7,201 34 159 78 6,930 34.8 1970 7,687 34 7,721 52 178 58 7,484 36.9 1971 7,724 52 7,76 40 1965 7,484 36.7 1972 8,147 40 6,187 29 198 40 7,920 38.4 1973 8,025 29 8,054 33 193 38 7,790 37.4 1974 8,127 33 8,119 22 254 35 7,808 36.9 1975 8,082 37 8,119 22 254 35 7,808 36.9 1966 761 74 835 107 28 8 692 3.6 1965 761 74 835 107 28 8 692 3.6 1966 761 74 833 76 7 <td>1967</td> <td>6.552</td> <td>56</td> <td>6,608</td> <td>56</td> <td>138</td> <td>93</td> <td>6.321</td> <td>32.4</td>	1967	6.552	56	6,608	56	138	93	6.321	32.4
1969 7,175 26 7,201 34 159 78 6,930 34.8 1970 7,687 34 7,721 52 178 58 7,433 36.9 1971 7,724 52 178 58 7,433 36.9 1972 8,147 40 8,187 29 198 40 7,920 38.4 1973 8,025 29 8,054 33 193 38 7,766 37.4 1975 8,025 29 8,061 37 222 32 7,869 37.5 1975 8,025 29 9,081 33 414 32 8,602 40.4 1975 8,082 37 835 107 28 8 602 3.6 1976 9,059 22 9,081 33 414 32 8,602 3.6 1965 746 102 848 74 46 11 717 3.8 1966 761 74 835 107 28 16 <td>1968</td> <td>6 653</td> <td>56</td> <td>6 709</td> <td>26</td> <td>144</td> <td>82</td> <td>6,457</td> <td>32.8</td>	1968	6 653	56	6 709	26	144	82	6,457	32.8
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1969	7 1 7 5	26	7 201	34	159	78	6 930	34.8
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1970	7 687	34	7 721	52	178	58	7 4 3 3	36.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1971	7 724	52	7 7 7 6	40	196	56	7 484	36.7
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1972	8 1 4 7	40	8 1 8 7	29	198	40	7 920	38.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1973	8 0 2 5	29	8 054	33	193	38	7 790	37.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1974	8 1 2 7	33	8,000	37	222	32	7 869	37.5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1975	8 082	37	8 1 1 9	22	254	35	7 808	36.9
Other chicken 1965 746 102 848 74 46 11 717 3.8 1966 761 74 835 107 28 8 692 3.6 1967 827 107 934 114 18 11 791 4.1 1968 769 114 883 71 18 18 776 3.9 1969 732 71 803 76 7 10 710 3.6 1970 776 76 852 112 4 11 725 3.6 1971 779 112 891 109 5 19 758 3.7 1972 742 109 851 82 8 12 749 3.6 1974 13 907 138 13 2 754 3.6 1974 794 133 907 1,874 267 47	1976 ²	9,059	22	9,081	33	414	32	8,602	40.4
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					Other c	hicken			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1965	746	102	848	74	46	11	717	3.8
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1966	761	74	835	107	28	8	692	3.6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1967	827	107	934	114	18	11	791	4.1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1968	769	114	883	71	18	18	776	3.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1969	732	71	803	76	7	10	710	3.6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1970	776	76	852	112	4	11	725	3.6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1971	779	112	891	109	5	19	758	3.7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1972	742	109	851	82	8	12	749	3.6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1973	725	82	807	113	10	9	675	3.3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1974	794	113	907	138	13	2	754	3.6
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1975	697	138	835	92	19	4	720	3.4
Turkey19651,5152071,72220058401,4247.419661,6742001,87426747561,5047.819671,8702672,13736749531,6688.619681,6113671,97831741631,5577.919691,6063171,92319240481,6438.319701,7321921,92421943491,6138.019711,7792191,99822327411,7078.419721,9152232,13820842421,8469.019731,9332082,14128154311,7758.519741,9112812,19227543141,8608.919751,8042752,07919553191,8128.61976 ² 2,0551952,25020371181,9589.2	1976 ²	684	92	776	122	37	1	616	2.9
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$					Tur	key			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1965	1 51 5	207	1 722	200	58	40	1 4 2 4	74
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1966	1,515	207	1,722	267	47	56	1,924	7.9
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1967	1,074	200	2 1 3 7	367	47	53	1,504	8.6
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1069	1,670	367	1 979	317	43	63	1,000	7.9
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1060	1,511	317	1,970	102	41	49	1,557	23
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1970	1 732	102	1 923	210	43	40	1,613	8.0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1971	1 779	219	1 998	223	27	43	1 707	8.4
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1072	1 915	223	2 1 3 8	223	42	41	1 846	0.4
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1073	1,913	208	2,130	200	42 54	31	1 775	9.0
1974 1,911 201 2,192 275 43 14 1,860 8.9 1975 1,804 275 2,079 195 53 19 1,812 8.6 1976 ² 2,055 195 2,250 203 71 18 1,958 9.2	1074	1,555	200	2,141	201	10	14	1,775	0.5
1976 ² 195 195	1075	1,911	201	2,192	105	43	14	1,000	0.9
	1976 ²	2,055	195	2,250	203	71	18	1,958	9.2

Table 17-Supply and utilization: Young chicken, other chickens, and turkeys, 1965-761

~

¹Ready-to-cook weight. ² Preliminary.

ltem and year	First quarter	Second quarter	Third quarter	Fourth quarter	Total shell	Processed ¹	Total
	Number	Number	Number	Number	Number	Number	Number
1965	72.0	70.5	70.0	72.6	285	29	314
1966	71.0	68.7	69.4	73.5	283	30	313
1967	71.6	69.1	70.6	74.1	285	35	320
1968	73.5	69.8	69.2	71.2	284	32	316
1969	71.0	68.8	68.8	70.2	279	31	310
1970	69.4	67.7	68.6	71.6	277	34	311
1971	70.3	69.0	68.1	70.5	278	36	314
972	71.1	66.8	66.6	67.6	272	36	308
1973	67.0	65.8	63.4	66.0	262	32	294
974	65.1	62.7	62.2	63.9	254	34	288
1975	63.4	60,2	60.6	63.4	248	31	279
1976 ²	62.1	59.7	59.9	61.0	243	33	276

Table 18-Per capita consumption of eggs by quarters, 1965-76

¹Shell egg equivalent. ² Preliminary.

.

Table 19-Per capita consumption of young chicken and turkeys, 1965-76

Item and	First	Second	Third	Fourth		Other	chicken
year	quarter	quarter	quarter	quarter	Total	Farm	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Young chicken:							
1965	6.7	7.7	8.1	7.1	29.6	3.8	33.4
1966	7.2	8.2	8.7	7.9	32.0	3.6	35.6
1967	7.5	8.6	8.6	7.7	32.4	4.1	36.5
1968	7.6	8.4	8.8	8.0	32.8	3.9	36.7
1969	7.9	9.0	9.2	8.7	34.8	3.6	38.4
1970	8.7	9.8	9.7	8.7	36.9	3.6	40.5
1971	8.7	9.3	9.7	9.0	36.7	3.7	40.4
1972	9.2	10.1	9.9	9.2	38.4	3.6	42.0
1973	8.9	9.6	9.5	9.4	37.4	3.3	40.7
1974	9.3	10.0	9.7	8.5	37.5	3.6	41.1
1975	8.5	9.6	9.6	9.2	36.9	3.4	40.3
1976	9.7	10.4	10.6	9.7	40.4	2.9	43.3
							Total chicken
							and turkey
Turkeys:							
1965	0.7	0.8	1.8	4.1	7.4		40.8
1966	0.7	1.0	2.0	4.1	7.8		43.4
1967	0.8	1.1	2.2	4.5	8.6		45.1
1968	0.9	1.1	1.9	4.0	7.9		44.6
1969	1.0	1.2	2.0	4.1	8.3		46.7
1970	0.9	0.9	2.1	4.1	8.0		48.5
1971	1.0	1.2	2.1	4.1	8.4		48.8
1972	1.1	1.3	2.2	4.4	9.0		51.0
1973	1.2	1.3	2.1	3.9	8.5		49.2
1974	1.2	1.6	2.0	4.1	8.9		50.0
1975	1.1	1.4	2.0	4.1	8.6		48.9
1976	1.2	1.5	2.1	4.4	9.2		52.5

14 and1			T b 1 1	Equate	
Item and	First	Second	Third	Fourth	Tatal
year	quarter	quarter	quarter	quarter	Total
	Pounds	Pounds	Pounds	Pounds	Pounds
eef and Veal:					
1965	25.9	25.2	26.7	26.9	104.7
1966	26.6	26.7	28.1	27.4	108.8
1967	27.4	27.7	27.8	27.4	110.3
1968	28.0	27.7	29.2	28.4	113.3
1969	28.1	27.5	29.4	29.1	114.1
1970	29.1	28.6	29.7	29.2	116.6
1971	28.4	28,7	30.0	28.6	115.7
1972	28.8	29.4	29.9	30.2	118.3
1973	28.5	26.6	27.2	29.1	111.4
1974	28.8	29.2	30.0	31.1	1191
1975	31.2	29.3	31.4	32.4	124.3
1976	33.8	32.0	34.3	32.7	132.8
ork excluding Lard-					
1965	15.9	14.5	12.0	14.6	507
1966	13.0	14.0	13,8	14.0	58./
1967	13.0	13.9	13.9	10.5	58.1
1069	16.5	15.0	15.4	17.2	64.1
1968	16.6	15.8	15.9	17.9	66.2
1969	17.0	16.0	15.5	16.5	65.0
1970	15.4	15.6	16.3	19.1	66.4
1971	18.3	17.8	18.0	18.9	73.0
1972	17.7	16.6	15.8	17.3	67.4
1973	16.0	15.4	14.0	16.2	61.6
1974	16.7	17.2	16.1	16.6	66.6
1975	15.0	14.1	12.3	13.4	54.8
1976	13.9	13.2	14.1	16.8	58.0
amb and Mutton:					
1965	0.9	0.9	1.0	0.9	3.7
1966	1.0	1.1	1.0	0.9	4.0
1967	1.1	0.9	1.0	0.9	3.9
1968	1.0	0.9	0.9	0.9	3.7
1969	0.9	0.8	0.9	0.8	3.4
1970	0.9	0.9	0.8	0.7	3.3
1971	0.8	0.8	0.8	0.7	3.1
1972	0.8	0.9	0.9	0.7	3.3
1973	0.7	0.7	0.7	0.6	2.7
1974	0.6	0.6	0.6	0.5	2.3
1975	0.5	0.5	0.5	0.5	2.0
1976	0.5	0.4	0.5	0.5	1.9
II red Meat:					
1965	42.6	40.6	41.5	42 4	167 1
1966	41.4	41.7	43.0	44 8	170 9
1967	45.0	43.6	44 2	45.5	178 2
1968	45.6	44 4	46.0	47.0	182 2
1969	46.0	44.4	45.0	77.2	100.2
1970	40.0	44.5	45.0	40,4	102.0
1971	43.4	43.1	40.0	49.0	100.3
1072	47.3	47.3	40.0	48.2	191.8
1072	47.3	40.9	40.6	48.2	189.0
19/3	45.2	42.7	41.9	45.9	175.7
1974	46.1	47.0	46.7	48.2	188.0
19/3	46.7	43.9	44.2	46.3	181.1
19/0	48.2	45.6	48.9	50.0	192.7

Table 20-Per capita consumption of red meat by quarters, 1965-76

~

.

¹ Detail may not add exactly to total due to rounding.

		Broilers ¹			Non	broiler chic	ken ¹			Turkey	
Year	Produ	uced ²	Drice nor	Sai	les	Consumed	l on farms	Duine and	Sal	es ²	
	Number	Pounds	pound	Number	Pounds	Number	Pounds	pound	Number	Pounds	pound
	Million	Million	Cents	Million	Million	Million	Million	Cents	Million	Million	Cents
1965	2,334	8,111	15.0	202	969	40	151	8.9	105	1,901	22.2
1966	2,571	8,989	15.3	212	1,032	33	123	9.7	115	2,107	23.1
1967	2,592	9,183	13.3	239	1,157	29	108	7.9	127	2,354	19.5
1968	2,620	9,326	14.2	225	1,090	26	96	8.2	107	2,028	20.5
1969	2,789	10,048	15.2	219	1,063	22	84	9.7	106	2,027	22.4
1970	2,987	10,819	13.6	233	1,118	, 19	74	9.1	116	2,203	22.6
1971	2,945	10,818	13.7	249	1,172	18	68	7.7	120	2,264	22.1
1972	3,075	11,480	14.1	236	1,132	16	63	8.9	129	2,432	22.2
1973	3,009	11,220	24.0	229	1,104	15	57	15.0	132	2,451	38.2
1974	2,993	11,322	21.5	252	1,206	15	57	9.7	131	2,426	28.0
1975	2,933	11,034	26.3	222	1,042	14	52	9.9	124	2,278	34.8
1976 ³	3,280	12,506	23.6	217	1,044	13	51	13.0	140	2,601	31.7

Table 21-Chicken and Turkey: Production, disposition and price, 1965-76

¹Beginning 1970 broiler and nonbroiler data reported as consumption which is less than 1 percent of total production. December-November marketing year. ² Includes home ³Preliminary.

		1			
Item	Unit	May 1, 1975	May 1, 1976	April 1, 1977	May 1, 1977
		Thousands	Thousands	Thousands	Thousands
Total eggs ¹	Case				
Shell	do.	1,110	778	666	704
Frozen	Pound	26	26	42	43
		42,815	29,703	24,660	26,090
Total poultry	do.			·	- 1
Total chicken	do.	340,271	231,548	279,352	264,900
Broilers, fryers and roasters	do.	156,621	114,301	134,534	132,623
Hens	do.	27,757	19,136	26,630	24,769
Other frozen chicken	do.	59,066	32,312	35,679	38,652
		69,798	62,853	72,225	69,202
Total turkey	do.				
Whole	do.	180,222	114,474	142,335	129,817
Other	do.	136,399	74,928	95,187	83,199
		43,823	39,546	47,148	46,618
Ducks	do.			•	
		3,528	2,773	2,483	2,460
All red meats ²	do.				
Beef	do.	775,892	724,335	795,066	833,380
Frozen pork	do.	339,576	390,795	493,209	486.655
Pork in cooler ³	do.	329,380	250,913	222,952	261,019
Total cheese	do.	441,508	393,700	486,911	509,184

Table 22-Cold storage holdings of high protein foods

¹ Frozen eggs converted on the basis of 39.5 pounds to the case. ² Includes other meat and meat products. Does not include cooler beef and pork. ³Not available.

Table 23-Eggs: Production, disposition and value, 1965-76^{1 2}

	Aver200		Eggs							
Year	number lavers on	Produ	iced	Consumed on		Price				
	hand during the year	Per layer on hand during year	Total	farms where produced	Sold	per dozen	Gross Income			
	Millions	Number	Millions	Millions	Millions	Cents	Million dollars			
1965	301	218	65,560	2,056	63.504	33.7	1.841			
1966	304	218	66,205	1,612	64,593	39.1	2,157			
1967	314	221	69,327	1,558	67,769	31.3	1.804			
1968	310	220	68,156	1,393	66,763	34.0	1,931			
1969	307	220	67,546	1,172	66,374	40.0	2,250			
1970	314	218	68,282	1,004	67,277	39.1	2,224			
1971	314	223	70,082	805	69,276	31.4	1,833			
1972	306	227	69,879	682	69,197	30.9	1,800			
1973	293	227	66,579	624	65,955	52.5	2,912			
1974	286	231	66,083	572	65,511	53.3	2,936			
1975	277	232	64,391	526	63,865	52.5	2,815			
1976 ³	276	235	64,821	502	64,319	58.4	3,152			

¹ Data cover both farm and commercial operations. ²1970-76 are for December 1 previous year-November 30 following year. ³ Preliminary.

Table 24-Chicken and turke	ey: Pounds slaughtered,	cut-up, and further processed,	1970-76 ¹

Item	1970	1971	1972	1973	1974	1975	1976
	Million pounds						
Chicken							
Slaughter:							
Total: ²							
Young	7,867	7,724	8,147	8,025	8,127	8,082	9,059
Mature	777	779	742	725	794	697	684
Federally inspected: ³	1						
Young	7,161	7,281	7,823	7,786	7,917	7,966	8,987
Mature Cut-up⁴	516	524	518	521	535	473	491
Young	1,843	2,057	2,317	2,443	2,466	2,582	3,114
Mature	9	5	6	5	7	10	. 8
Further processed:*							
Young	337	383	437	485	496	541	643
Mature	392	428	466	481	423	356	436
Turkey							
Slaughter:							
Total ²	1,732	1.779	1.915	1.933	1.911	1.804	2.055
Federally inspected: ³							_,
Fryer-roasters	82	87	90	91	100	89	92
Young	1,468	1,536	1.690	1.677	1.716	1.612	1.842
Old	16	18	16	19	20	15	17
Total	1,567	1,642	1,797	1,788	1,836	1,716	1,950
Cut-up: ⁴	191	198	300	263	295	313	387
Whole ⁵	1				207	270	
Othox					387	3/2	446
Other	1				509	536	608
Total	479	562	639	791	896	908	1,054

ï

¹Ready-to-cook weight. ²Includes non-federally inspected plants. ⁵Whole carcass turkey which have been injected, basted, slaughter. ³Certified ready-to-cook. ⁴In Federally inspected smoked, etc.

Number of eggs produced Average number of layers Average number of layers State and region 1972 1973 1974 1972 1973 1974 1973 1974 1972 1973 1974 1975 Million Million Million Million Million Thousand T	
1972 1973 1974 1975 1976 1972 1973 1974 1975 Million Million Million Million Million Million Million Thousand Th	
MillionMillionMillionMillionMillionThousand Thousand Thousa	976
Maine 1,443 1,549 1,656 1,650 1,790 6,083 6,328 6,565 6,611 New Hampshire 313 320 275 283 260 1,316 1,347 1,157 1,167 Vermont 128 150 131 105 103 545 649 545 452 Massachusetts 535 522 509 537 442 2,297 2,281 2,172 2,237 Rhode Island 57 52 65 70 65 250 223 274 304 New York 2,271 2,052 2,030 1,884 1,903 9,903 8,916 8,639 8,510 New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,183 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 </th <th>ousand</th>	ousand
New Hampshire 313 320 275 283 260 1,316 1,347 1,157 1,167 Vermont 128 150 131 105 103 545 649 545 452 Massachusetts 535 522 509 537 442 2,297 2,281 2,172 2,237 Rhode Island 57 52 65 70 65 250 223 274 304 Connecticut 924 932 864 817 913 4,028 4,126 3,782 3,519 New York 2,271 2,052 2,030 1,984 1,903 9,903 8,916 8,639 8,510 New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Ohio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629	7,260
Vermont 128 150 131 105 103 545 649 545 452 Massachusetts 535 522 509 537 442 2,297 2,281 2,172 2,237 Rhode Island 57 52 65 70 65 250 223 274 304 Connecticut 924 932 864 817 913 4,028 4,126 3,782 3,519 New York 2,271 2,052 2,030 1,984 1,903 9,903 8,916 8,639 8,510 New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,183 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Chio 3,036 2,770 2,639 2,609 2,774 12,865 11,857 11,271 11,108<	1,081
Massachusetts 535 522 509 537 442 2,297 2,281 2,172 2,237 Rhode Island 57 52 65 70 65 250 223 274 304 Connecticut 924 932 864 817 913 4,028 4,126 3,782 3,519 New York 2,271 2,052 2,030 1,984 1,903 9,903 8,916 8,639 8,510 New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,183 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Ohio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629 Indiana 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809	440
Honder Island 57 52 65 70 65 250 223 274 304 Connecticut 924 932 864 817 913 4,028 4,126 3,782 3,519 New York 2,271 2,052 2,030 1,984 1,903 9,903 8,916 8,639 8,510 New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,183 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Ohio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629 Indiana 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,399 Michigan 1,523 1,539 1,375 1,303 1,293 6,621 6,613 5,947<	1,846
Connecticut: 924 932 804 617 913 4,026 4,126 3,762 3,719 New York 2,271 2,052 2,030 1,984 1,903 9,903 8,916 8,636 8,510 New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,183 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Ohio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629 Indiana 3,036 2,770 2,639 2,609 2,774 12,865 11,857 11,271 11,108 Illinois 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,399 Michigan 1,313 1,267 1,183 1,194 1,159 5,806 5,57	2/8
New Jersey 746 756 736 620 548 3,495 3,414 3,375 2,847 Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,183 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Ohio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629 Indiana 3,036 2,770 2,639 2,609 2,774 12,865 11,857 11,271 11,108 Illinois 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,399 Michigan 1,523 1,539 1,375 1,303 1,293 6,621 6,613 5,947 5,614 Wisconsin 1,313 1,267 1,183 1,194 1,159 5,806 5,574 5,240 5,253 East North Central 9,974 9,300 8,797 8,588 8,531 43,254 </td <td>7 986</td>	7 986
Pennsylvania 3,599 3,576 3,490 3,299 3,153 15,081 15,113 14,686 13,638 North Atlantic 10,016 9,909 9,756 9,365 9,177 42,998 42,467 41,195 39,285 Ohio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629 Indiana 3,036 2,770 2,639 2,609 2,774 12,865 11,857 11,271 11,108 Illinois 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,399 Michigan 1,523 1,539 1,375 1,303 1,293 6,621 6,613 5,947 5,614 Wisconsin 1,313 1,267 1,183 1,194 1,159 5,806 5,574 5,240 5,253 East North Central 9,974 9,300 8,797 8,588 8,531 43,254 40,223 38,073 37,003 Minnesota 2,295 2,141 2,069 2,006 1,949	2,533
North Atlantic10,0169,9099,7569,3659,17742,99842,46741,19539,285Chio2,3242,0602,0571,9991,91310,1588,9018,8068,629Indiana3,0362,7702,6392,6092,77412,86511,85711,27111,108Illinois1,7781,6641,5431,4831,3927,8047,2786,8096,399Michigan1,5231,5391,3751,3031,2936,6216,6135,9475,614Wisconsin1,3131,2671,1831,1941,1595,8065,5745,2405,253East North Central9,9749,3008,7978,5888,53143,25440,22338,07337,003Minnesota2,5842,4742,3852,2092,28910,91710,47910,0309,348Iowa2,2952,1412,0692,0061,9499,9839,4978,9678,608	13,020
Chio 2,324 2,060 2,057 1,999 1,913 10,158 8,901 8,806 8,629 Indiana 3,036 2,770 2,639 2,609 2,774 12,865 11,857 11,271 11,108 Illinois 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,399 Michigan 1,313 1,267 1,183 1,194 1,159 5,806 5,574 5,240 5,253 East North Central 9,974 9,300 8,797 8,588 8,531 43,254 40,223 38,073 37,003 Minnesota 2,295 2,141 2,069 2,006 1,949 9,883 9,497 8,967 8,608	38,300
Initiana 3,036 2,770 2,639 2,074 12,865 11,857 11,271 11,108 Illinois 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,399 Michigan 1,523 1,539 1,375 1,303 1,293 6,621 6,613 5,947 5,614 Wisconsin 1,313 1,267 1,183 1,194 1,159 5,806 5,574 5,240 5,253 East North Central 9,974 9,300 8,797 8,588 8,531 43,254 40,223 38,073 37,003 Minnesota 2,584 2,474 2,385 2,209 2,289 10,917 10,479 10,030 9,348 Iowa 2,295 2,141 2,069 2,006 1,949 9,983 9,497 8,967 8,608	8,233
Inimos 1,778 1,664 1,543 1,483 1,392 7,804 7,278 6,809 6,599 Michigan 1,523 1,539 1,375 1,303 1,293 6,621 6,613 5,947 5,614 Wisconsin 1,313 1,267 1,183 1,194 1,159 5,806 5,574 5,240 5,253 East North Central 9,974 9,300 8,797 8,588 8,531 43,254 40,223 38,073 37,003 Minnesota 2,584 2,474 2,385 2,209 2,289 10,917 10,479 10,030 9,348 Iowa 2,295 2,141 2,069 2,006 1,949 9,983 9,497 8,967 8,608	11,654
Wisconsin 1,323 1,339 1,375 1,303 1,293 6,621 6,613 5,947 5,614 Wisconsin 1,313 1,267 1,183 1,194 1,159 5,806 5,574 5,240 5,253 East North Central 9,974 9,300 8,797 8,588 8,531 43,254 40,223 38,073 37,003 Minnesota 2,584 2,474 2,385 2,209 2,289 10,917 10,479 10,030 9,348 Iowa 2,295 2,141 2,069 2,006 1,949 9,983 9,497 8,967 8,608	5,900
East North Central 9,974 9,300 8,797 8,588 8,531 43,254 40,223 38,073 37,003 Minnesota 2,584 2,474 2,385 2,209 2,289 10,917 10,479 10,030 9,348 Iowa 2,295 2,141 2,069 2,006 1,949 9,983 9,497 8,967 8,608	5,145
Minnesota 2,584 2,474 2,385 2,209 2,289 10,917 10,479 10,030 9,348 Iowa 2,295 2,141 2,069 2,006 1,949 9,983 9,497 8,967 8,608	36,513
lowa 2,295 2,141 2,069 2,006 1,949 9,983 9,497 8,967 8,608	9.607
	8,250
Missouri 1,4/3 1,34/ 1,149 1,241 1,195 6,661 6,024 4,998 5,203	4,973
North Dakota	2 0 4 0
South Dakota	2,040
Kansas 718 673 601 599 564 3,087 2,938 2,648 2,609	2,354
West North Central 8,850 8,348 7,848 7,670 7,476 38.843 36,881 34,252 33,204	31,974
Delaware 130 128 134 115 127 611 590 610 516	569
Maryland 334 327 335 331 314 1,478 1,468 1,477 1,464	1,377
Virginia 825 789 760 765 799 3,661 3,518 3,299 3,246	3,373
West Virginia 261 242 248 256 230 1,136 1,043 1,041 1,090	1,009
North Carolina 3,433 3,213 3,037 2,802 2,756 15,172 14,094 13,011 11,954	11,591
South Carolina 1,381 1,319 1,301 1,384 1,282 5,757 5,615 5,360 5,791	5,271
Georgia	23,066
Fiolida	12,041
South Atlantic 14,669 14,358 14,494 13,716 13,945 64,644 62,857 61,622 58,757	58,297
Kentucky 537 515 527 518 541 2,457 2,328 2,261 2,254	2,365
Tennessee 1,113 1,088 1,026 949 922 4,844 4,700 4,323 4,034	3,923
Alabama	7 203
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15 739
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2831
502 446 428 430 458 230 2117 1.978 1.975	2.061
Texas 2,685 2,496 2,292 2,360 2,357 12,115 11,310 10,609 10,271	10,263
South central 14,509 13,739 13,391 13,167 13,321 64,318 61,019 58,740 56,217	56,742
Montana 217 215 202 196 178 942 926 880 832	768
Igano 167 197 186 184 192 738 844 821 797	833
Wyoming	2 1 2 9
Colorado	1 1 1 5
Arizona 164 154 149 159 143 778 741 713 669	662
Utab 295 306 311 321 283 1.326 1.334 1.369 1.381	1.310
Nevada 3 4 5 4 5 17 19 27 24	28
Washington 1,035 1,063 1,089 1,084 1,060 4,353 4,593 4,597 4,563	4,458
Oregon 554 535 543 519 532 2,337 2,314 2,282 2,219	2,295
California 8,652 7,680 8,485 8,467 8,953 39,201 35,147 38,276 37,940	38,945
West 11,650 10,710 11,582 11,671 12,147 52,264 48,411 51,704 51,548	52,673
48 State Total 69,668 66,364 65,868 64,177 306,321 291,827 285,586 276,014 2	73,869
Alaska	26
Haw⊿il	988 75,473

Table 25-Egg production and average number of layers on hand during the year, by States, by regions and for the U.S., 1972-76

¹December 1 previous year through November 30. Totals may not add due to rounding.

State and		Commerci	al broilers p	produced ¹			Nonbro	iler chicken	s raised ³	
region	1972	1973	1974	1975	1976 ⁵	1972	1973	1974	1975	1976 ⁵
	Thou.	Thou.	Thou.	Thou.	Thou.	1,000 hd.	1,000 hd.	1,000 hd.	1,000 hd.	1,000 hd.
Maine	71,344	75,642	77,426	81,035	86,659	5,886	6,029	6,800	8,300	7,000
New Hampshire						1,255	1,280	1,400	1,300	1,300
Vermont						600	376	346	350	350
Massachusetts						2,200	2,000	2,100	1,701	1,900
Rhode Island						160	154	297	220	285
Connecticut	3,329	2,730	1,836	1,039	1,041	3,320	3,550	3,550	3,330	3,500
New York	1,730	1,650	1,580	1,450	700	9,800	9,750	9,700	8,500	8,400
New Jersey	59 368	61 263	63 649	65 770	75 108	13 300	13 500	14 000	12,200	1,700
North Atlantic	136.421	141.910	144.991	149,294	163,508	38.402	39,339	40,293	38,341	36,235
Ohio	12 700	14.000	11.000	16 666	17400	0.024		0 76 0		0.100
Indiana	13 201	13 5 8 3	11,900	12 205	13 905	11 000	11 800	11800	12 500	13 350
	13,201	13,363	11,079	12,295	13,905	7 300	7 258	6 700	5 500	5 200
Michigan	566	557	577	510	637	5,500	5 700	5,900	6,000	5,600
Wisconsin	13 130	14 795	11 274	11 067	12.285	4 536	4 272	4 500	4 300	4.350
	10,100	1.,, 50			10,200	.,		1000	.,	.,
East North										
Central	39,597	42 <u>,</u> 935	35,430	40,538	44,326	38,720	37,367	38,158	37,200	37,600
Minnesota	11,039	11,149	10,815	10,092	12,600	9,211	10,111	10,460	9,572	8,496
Iowa	2,992	3,889	3,615	3,250	3,835	9,100	9,000	9,800	10,600	9,600
Missouri	23,354	21,533	19,796	23,369	25,256	8,052	8,000	6,661	7,078	6,800
North Dakota						1,044	1,077	1,050	800	750
South Dakota						3,780	3,700	3,640	3,320	2,983
Nebraska	1,733	2,267	2,312	1,720	1,820	2,860	3,083	2,830	2,550	2,300
Kansas	613	703	780	627	0	3,500	3,430	3,300	2,900	3,000
Mar at Mar atta										
Central	39,731	39,541	37,318	39,058	43,511	37,597	38,401	37,741	36,820	33,929
Delaware	131.873	140.967	146.945	136.278	160.046	625	625	510	650	673
Maryland	177.247	190 673	189,709	179 769	199,008	1 815	1 620	1 400	1 500	1.680
Virginia	77.238	77.168	77,200	77.751	88,921	4 700	4 700	4,550	4,400	4,300
West Virginia	15,951	17 301	18 293	15 798	15 129	1,050	1 100	1 150	1,050	1 034
North Carolina	301.772	290,448	286.558	283,986	315.589	17.005	14,794	15.000	14,000	14.020
South Carolina .	28,263	28.853	31.552	27.405	33,404	6.000	5,900	5.360	6.040	5.140
Georgia	442,937	412,986	426,857	416,599	451,531	23,179	29.775	23,100	20,800	20,613
Florida	56,655	56,833	59,727	64,347	74,307	11,016	11,600	11,400	11,300	11,350
South Atlantic	1,231,986	1,215,229	1,236,861	1,201,933	1,337,935	65,390	70,114	62,470	59,740	58,810
Kontualuu	7 957	7 0 2 0	6 9 9 5	E 070	6 716	2 200	3 100	2 100	2 000	2 8 0 0
	54 06 2	52 242	0,000	10 01 2	20,710	3,200	3,100	3,100	3,000	3,800
Alabama	300 27/	300 32/	308 303	305 760	430 225	12,500	14 250	11 550	14 330	15 560
Mississinni	256 264	239 130	227 220	231 301	257 442	13 194	11 801	10,690	10 300	9,967
Arkansas	532 135	501 845	482 399	481 886	540 428	21 884	22 541	23 517	20,092	19 149
Louisiana	55.769	55.509	54,443	50,662	57.578	3,400	3 300	3 250	3 100	3,200
Oklahoma	21,500	23,650	29,560	28,770	31.425	1.964	2,100	2,499	2,100	1,960
Texas	178,511	173,330	173,588	162,769	190,703	11,003	10,300	10,600	11,000	12,000
South Central	1,505,672	1,452,369	1,414,984	1,375,039	1,552,827	71,345	71,282	67,406	66,222	68,536
Mantan						1				
						1,200	1,240	1,200	975	830
						500	/30	/40	/60	970
Colorado						129	122	130	2 20	2 2 2 2
New Mexico						1,090	∠,USB	2,030	2,100	2,200
Arizona						28U 001	704	106	518	1,101
Utah .						830	1 0 7 5	1 024	922	905
Nevada						18	18	21	17	25
Washington	16.396	17.575	16.730	15.235	15.876	4.060	4.040	4,100	4,660	4,650
Oregon	4 17,100	14.000	14.253	14.000	15.150	1,851	1,962	1,972	1,640	1,600
California	86,022	83,193	90,377	95,825	104,950	26,904	27,673	26,457	22,527	23,650
West	119 519	114 769	121 360	125 060	135 076	38 44 9	40 396	38 807	35 602	36 653
48 State Total ²	3.072.875	3.006 195	1 991 444	2 930 922	3 278 082	290 093	296 899	284 975	273 725	271 763
	5,572,075	0,000,130	-,,	2,300,922	5,270,000	200,000	230,033	204,075	210,120	2/1,/00
Alaska	2.046	1 015	1 000	1 700	2 0 2 0	35	35	20	68	68
	2,040	1,915	1,900	1,709	2,039	037	700	110	202	288
United States	3,074,921	3,008,667	2,992,844	2,932,711	3,280,122	290,765	297,634	285,622	274,558	272,419

 Table 26—Chicken:
 Commercial broilers produced and nonbroilers raised, by States, by region and for the U.S., 1972-76

³ Includes production of other meat-type breeds. Excludes States producing less than 500,000. ² Illinois and Arizona included in 48 State total to avoid disclosing individual operations. ³ Does not include young chickens lost. ⁴ idaho included with Oregon to avoid disclosing individual operations. ⁵ Preliminary.

	10510			unu 9.000 mg				
1	Total num	ber raised ¹	Pounds p	roduced ²	Price pe	er pound	Gross	income
·	1975	1976	1975	1976	1975	1976	1975	1976
	1,000 head	1,000 head	1,000 pounds	1,000 pounds	Cents	Cents	1,000 dollars	1,000 dollars
Maine	6	4	114	76	58.0	58.0	66	44
New Hampshire	21	26	441	520	63.0	63.0	278	328
Vermont	7	7	154	147	61.0	61.0	94	90
Massachusetts	125	143	2,375	2,860	58.0	58.0	1,378	1,659
Connecticut	36	10	198	210	58.0	58.0	115	122
New York	145	150	2 886	3 5 4 5	40.0	37.0	1 154	1 2 3 8
New Jersey	74	81	1.539	1.717	55.0	56.0	846	962
Pennsylvania	2,838	3,695	53,922	70,205	37.3	38.0	20,113	26,678
North Atlantic	3,261	4,149	62,385	79,773	54.5	54.3	24,498	31,537
Ohio	2,835	2,760	54,149	52,164	35.3	32.0	19,115	16,692
	5,135	5,188	84,214	93,903	31.8	31.3	26,780	29,392
Michigan	445	441	9,612	· 9,041	37.9	33.0	3,643	2,984
Wisconsin	4 8 9 4	5 1 2 0	95 922	20,910	39.3	30.5	36 738	30,200
East North Control	14,000	14 6 7 0	250.007	92,072	24.0	30.4	01,000	00,002
	14,009	14,679	259,997	274,690	34.9	32.0	91,283	88,228
	22,752	24,370	368,582	397,231	34.6	29.5	127,529	11/,183
Missouri	8 1 2 5	9 7 2 5	118,940	126,900	35.2	28.6	41,867	36,293 54 149
North Dakota	911	960	16.034	16.032	36.0	29.2	5.772	4.681
South Dakota	860	956	18,060	20,650	34.3	29.3	6,195	6,050
Nebraska	487	455	9,545	9,510	34.6	28.7	3,303	2,729
Kansas	154	96	3,850	2,688	36.8	32.0	1,417	860
West North Central	39,549	42,907	688,574	759,731	35.1	29.5	238,448	221,945
Delaware	(2)	(²)			26.0	~~ ~		
Virginia	5 0 7 2	7 207	100 927	1,764	35.9	33.3	302	28 760
West Virginia	1 530	1 793	25,857	29 585	33.5	30.9	8 636	9142
North Carolina	14,400	16,700	241,920	283,900	37.2	35.0	89,994	99,365
South Carolina	2,585	2,618	60,748	60,738	33.2	33.0	20,168	20,044
Georgia	1,216	1,853	22,496	33,910	30.2	30,7	8,783	10,410
Florida	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
South Atlantic	25,742	25,742	452,790	530,298	34.0	32,5	162,097	178,317
Kentucky	(²)	(2)		7.6	22.5	26.5	~~	
Alabama	4	4	/6	76	33.0	34.5	25	26
Mississippi	17	20	212	465	30.0	30.5	02	142
Arkansas	7,100	10,138	134,900	209.857	32.6	32.5	43.977	68.204
Louisiana	2	2	38	38	33.0	33.0	13	13
Oklahoma	1,370	1,800	20,550	28,080	32.0	31.0	6,576	8,705
lexas	8,845	9,300	168,055	186,000	34.0	32.8	54,612	61,008
South Central	17,338	21,270	323,891	424,516	32.4	32.4	105,285	138,090
Montana	$\binom{2}{2}$	$\binom{2}{2}$						
Idaho	$\begin{pmatrix} z \\ z \end{pmatrix}$	$\binom{2}{2}$						
Colorado	2 6 2 0	2 6 0 6	94 709	00 807	25.0	25.0	20 6 4 9	21 014
New Mexico	(2)	$(^{2})$	64,708	90,897	35.0	35.0	29,640	51,014
Arizona	$\langle 2 \rangle$	$\binom{2}{2}$						
Utah	3,446	3,440	75,123	76,024	37.0	33.0	22,346	25,088
Nevada				-				
Washigton	225	235	5,963	5,147	40.1	36.2	2,391	1,863
California	1,025	1,300	18,963	22,880	39.0	34.0	7,396	1,//9
Camprila	13,771	17,506	299,049	332,014	34.1	23.3	102,180	31,430
West	24,087	26,176	484,406	527,562	37.0	33.5	163,961	164,000
Other States ²	269	217	5,711	4,249	36.2	33.9	2,066	1,441
United States	124,255	139,749	2,277,754	2,600,819	34.8	31.7	793,626	823,566

¹Based on turkeys hatched September 1, 1974 through August 31, 1975 for 1975 and September 1, 1975 through August 31, 1976 for 1976. ² Arizona, Delaware, Florida, Idaho,

,

.

		Grade A large egg	s		U.S. grade A fryer	۲S
Item	January 1977	February 1977	March 1977	January 1977	February 1977	March 1977
	Cents per dozen	Cents per dozen	Cents per dozen	Cents per pound	Cents per pound	Cents per pound
10-city Average prices Farm price	64.2 82.5 96.5	71.5 86.4 101.1	54.1 71.6 86.6	27.1 41.2 57.0	29.6 45.5 60.8	32.4 47.7 62.8
Price spreads Farm to consumer Farm to retailer Retail	32.3 18.3 14.0	29.6 14.9 14.7	32.5 17.5 15.0	29.9 14.1 15.8	31.2 15.9 15.3	30.4 15.3 15.1
New York Prices Farm price Price to retailer Retail price	63.5 77.7 104.6	72.6 88.3 112.3	53.7 69.0 92.7	27.4 39.0 58.8	29.4 44.5 64.2	33.8 45.5 65.3
Price spreads Farm to consumer Farm to retailer Retail	41.1 14.2 26.9	39.7 15.7 24.0	39.0 15.3 23.7	31.4 11.6 19.8	34.8 15.1 19.7	31.5 11.7 19.8
Boston prices Farm price Price to retailer Retail price	68.9 84.5 105.4	72.2 86.5 110.2	54.1 68.5 95.3	27.7 43.5 61.0	29.5 44.5 65.3	34.5 48.7 67.6
Price spreads Farm to consumer Farm to retailer Retail	36.5 15.6 20.9	38.0 14.3 23.7	41.2 14.4 26.8	33.3 15.8 17.5	35.8 15.0 20.8	33.1 14.2 18.9
Chicago prices Farm price	65.0 85.0 97.8	71.9 86.5 104.1	52.6 71.5 90.6	25.1 39.0 53.1	27.7 45.0 57.7	30.9 47.0 62.2
Price spreads Farm to consumer Farm to retailer Retail	32.8 20.0 12.8	32.2 14.6 17.6	38.0 18.9 19.1	28.0 13.9 14.1	30.0 17.3 12.7	31.3 16.1 15.2
St. Louis prices Farm price	66.4 80.0 93.8	76.2 86.5 96.3	57.2 67.5 81.3	25.8 37.3 57.1	28.3 44.3 60.0	31.3 45.3 62.2
Price spreads Farm to consumer Farm to retailer Retail	27.4 13.6 13.8	20.1 10.3 9.8	24.1 10.3 13.8	31.3 11.5 19.8	31.7 16.0 15.7	30.9 14.0 16.9
San Francisco prices Farm prices	62.0 76.0 83.9	66.0 80.0 88.7	54.0 68.0 78.8	28.0 51.0 61.5	31.0 54.5 67.5	33.2 52.5 68.6
Price spreads Farm to consumer Farm to retailer Retail	21.9 14.0 7.9	22.7 14.0 8.7	24.8 14.0 10.8	33.5 23.0 10.5	36.5 23,5 13.0	35.4 19.3 16.1
Atlanta prices Farm price	61.0 83.7 96.4	72.0 84.0 96.0	53.0 72.3 88.2	25.3 36.7 51.4	28.0 39.5 57.6	30.9 42.7 54.2
Price spreads	35.4 22.7 12.7	24.0 12.0 12.0	35.2 19.3 15.9	26.1 11.4 14.7	29.6 11.5 18.1	23.3 11.8 11.5

Table 28–Prices and price spreads for eggs and frying chickens, for selected cities and 10-city average

,

(

~

Table 29- Selected poultry and egg statistics*														
ltem	Data in	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Tables 1, 5-6.–N	lumber of I	ayers on f	arms, rate	e of egg pe	oduction	, and tota	ıl egg outp	out on far	ms, 50 St	ates				
Average for the month														
Number of layers on farms														077
1975	Mil.	285	282	280	276	272	271	270	272	275	278	2/9	280	277
1977	Mil.	280	200	276	274	2/1	270	270	212	275	211	200	201	270
Eggs laid per 100 layers		200	277	2.0	271									
1975	No.	1,953	1,771	1,972	1,922	1,991	1,933	1,996	1,991	1,914	1,966	1,905	1,969	233
1976	No.	1,971	1,855	2,005	1,955	2,020	1,961	2,014	1,992	1,916	1,970	1,905	1,971	235
1977	No.	1,956	1,782	2,020	1,974									
1975	Mil. cs.	15.4	13.9	15.3	14.7	15.1	14 5	15.0	15.0	14.6	15.2	14.8	15.3	178.8
1976	Mil. cs.	15.4	14.4	15.5	14.9	15.2	14.7	15.1	15.0	14.6	15.2	14.8	15.4	180.1
1977	Mil. cs.	15.2	13.7	15.4	14.8									
First of month														
Number of layers on farms	MEL	206	201	201	070	074	071	270	270	272	276	270	280	
1976	Mil.	280	284	201	276	274	271	270	270	273	276	278	280	
1977	Mil.	281	278	276	275	270	2.1		2.9	2.3	2.0			
Eggs laid per 100 layers														
1975	No.	62.6	63.2	63.3	64.0	64.1	64.3	64.5	64.1	64.3	63.3	63.3	63.6	
1977	No.	63.5	03.8 62.6	64.2 64.6	65.7	65.2	05.1	05.5	04,4	04.1	7.50	03.4	03./	
Daily rate of egg production			02.0	00	00.7	001								
1975	Mil.	179	179	178	178	175	174	174	173	176	175	176	178	
1976	Mil.	178	179	179	180	177	176	177	174	175	176	176	179	
1977	Mil.	1/9	174	178	180	177								
		Ta	bles 7-9.–	Factors in	n monthly	y supply a	of shell eg	gs, 50 Sta	tes					
Fass produced on farms													-	
1975	1,000 cs.	15,444	13,892	15,317	14,725	15,069	14,528	14,975	15,019	14,608	15,153	14,775	15,325	178,830
1976	1,000 cs.	15,367	14,425	15,472	14,875	15,211	14,711	15,094	15,039	14,611	15,150	14,778	15,403	180,136
1977	1,000 cs.	15,194	13,711	15,425	14,839									
Storage movement of shell eggs	1 000 ~		16	.16	6	12	14	2	.1	.0	-17	.15	.18	-14
1976	1,000 cs.	-8	7	-10	0	-4	1	11	11	-0	-18	-7	3	6
1977	1,000 cs.	1	15	-2	-1									
Eggs broken commercially		1												
1975	1,000 cs.	1,441	1,218	1,215	1,455	1,651	1,898	1,957	1,738	1,698	1,702	1,234	1,229	18,436
970	1,000 cs.	1,257	1,252	1,722	1,690	1,571	1,800	1,752	1,753	1,781	1,755	1,739	1,590	19,720
Equs used for hatching	1,000 03.	1,400	1,400											
1975	1,000 cs.	933	1,096	1,093	1,128	1,069	1,046	1,027	953	965	959	1,025	1,063	12, 357
1976	1,000 cs.	1,043	1,218	1,227	1,251	1,191	1,160	1,132	1,049	1,034	1,030	1,083	1,130	13,548
1977	1,000 cs.	1,061	1,267	1,285										
1975	1 000 cs	13 074	11 562	13 025	12 148	12 307	11 570	11 989	12 332	11 953	12 509	12 531	13 051	148 051
1976	1,000 cs.	13,075	11,948	12,518	11,934	12,453	11,684	12,199	12,226	11,791	12,385	11,963	12,680	146,856
1977	1,000 cs.	12,633	10,944			-						-		
	L	Tables 1	3-14.—Co	mmercial	productio	on of pou	ltry and r	ed meat,	48 States					
Chicken and turkey meat.	1													
Ready-to-cook weight ¹														
1975	Mil. lb.	781	676	736	825	831	884	967	942	978	1,067	834	914	10,434
1976	Mil. Ib.	857	758	912	897	910	1,077	1,045	1,115	1,125	1,094	1,021	928	11,739
Total red meat carcass weight ²	Will. ID.	849	780	330										
1975	Mil. Ib.	3,315	2,880	2,959	3,089	2,873	2,832	2,842	2,860	3,088	3,339	2,978	3,159	36,213
1976	Mil. lb.	3,267	2,907	3,515	3,109	2,928	3,150	3,048	3,350	3,467	3,497	3,453	3,367	39,058
1977	Mil. lb.	3,273	3,084	3,549										
······································	Table 25	Chicker	certified	as whole	some in F	ederally i	nspected	plants, rea	ady-to-co	ok weight				
Young	1									~				
1975	Mil. lb.	646.2	570.2	616.6	688.3	690.1	683.1	714.2	680.5	684.9	739.8	560.7	691.4	7,966
1976	Mil. lb.	712.3	632.3	771.9	742.5	745.4	825.9	766.0	805.2	800.3	769.5	699.2	716.8	8,987
1977	Mit. lb.	713.8	659.2	783.2										
1975	MiLIN	47.9	30 1	43 F	44 F	37.0	39.0	34 5	34.0	38.7	422	31 7	40 5	473
1976	Mil. Ib.	44.1	42.2	46.4	48.9	34.4	41.1	38.6	38.0	42.6	39.6	34.9	40.4	491
1977	Mil. Ib.	43.6	42.6	51.5				-	-	-	-		-	
1977	Mil. Ib.	43.6	42.6	51.5										

Table 29-Selected poultry and egg statistics*-Continued

~

ltem	Data in-	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
	le 25.–Chic	ken certif	ied as wh	olesome i	n Federal	ly inspec	ted plants	, ready-to	-cook we	ights-Co	ntinued	<u> </u>	L	
Total	1			· · ·	·····		·							
1975	Mil. Ib.	694.0	609.4	660.2	732.9	727.0	722.1	748.7	714.6	723.5	782.0	592.4	732.0	8.439
1976	Mil. Ib.	756.4	674.4	818.3	791.4	779.8	867.0	804.7	843.2	842.9	809.1	734.1	757.2	9,479
1977	Mil. Ib.	757.4	701.8	834.7										
<u></u>	Table 26	Turkou	antified				nencetod	alante re	adu to ao					
— <u>—</u>		.— Turkey	centineu	as wholes			ispected	piants, re			<u>.</u>			
Fryer-roasters	NATE IN	70	6.0	7 5	77	60	7 2	0 2	70	6 9	00	0.2	7.0	90
1976	Mil Ib	65	6.4	7.5	69	7.5	9.2	9.5	83	82	79	8.2	5.0	92
1977	Mil. Ib.	3.2	5.8	7.8	0.0	7.0	0.2	0.0	0.0	0.2	7.0	0.2	0.0	
Young turkeys		0.2	0.0											
1975	Mil. Ib.	56.8	39.9	45.8	60.5	73.6	128.3	181.3	194.7	221.1	248.3	211.9	150.1	1,612
1976	Mil. Ib.	68.9	54.5	58.8	72.1	98.3	170.0	200.3	233.1	243.3	248.4	252.8	141.2	1,842
1977	Mil. Ib.	66.1	51.9	71.0										
Old turkeys			•		~								•	4-
1975	Mil. Ib.	1.1	.3	1.2	.6	1.5	2.9	3.7	1.6	1.0	.4	.1	.3	15
1976	Mil Ib.	.8	.8	1.0	.9	./	3.1	4.1	2.4	1.3	.3	.4	.3	17
Total turkeys		1.5	1.1	1.4										
1975	Mil. Ib.	64.9	47.1	54.4	68.7	81.9	138.4	193.2	203.3	229.0	257.5	220.2	157.5	1,716
1976	Mil. Ib.	76.3	61.7	68.6	79.9	106.5	182.2	213.9	243.8	252.8	256.6	261.5	146.4	1,950
1977	Mil. Ib.	70.5	58.7	80.3										
Table 27Du	icks, and to	tal pouitry	certified	as whole	some in F	ederally	inspected	plants, r	eady-to-co	ook weigh	ts			
Ducks														
1975	Mii, lb.	2.5	2.2	2.8	4.7	5.0	5.8	5.3	4.6	4.8	4.7	3.7	3.9	50
1976	Mil. lb.	3.2	2.7	3.4	4.7	5.2	6.4	5.9	6.0	5,9	5.3	4.9	4.2	58
1977	Mil. Ib.	3.4	3.2	3.9										
Total ppoultry														
1975	Mil. Ib.	761.6	658.7	717.6	806.5	814.1	866.5	947.5	922.7	957.5	1,045.6	817.7	893.5	10,210
1976	Mil. lb.	836.0	739.0	890.4	876.1	891.7	1,055.8	1,024.7	1,093.2	1,101.9	1,072.5	1,001.9	908.2	11.491
	Mil. Ib.	831.5	/63.9	918.9										
Table 28.–Chicl	ken and tur	key inspec	ted for fu	urther pro	cessing in	Federall	y inspecte	d plants,	ready-to-	cook wei	ght			
Chicken				-										
Young		20.0				40.0	47.0				0		40.7	
1975	Mil ID.	39.5	35.6	38.4	41.9 52.6	40.9	47.3	48.2	48.0	50.3	55.3	45.4	49.7	541
1976	Mil Ib	50.5	52.9	66.0	53.0	52.2	61.0	04.4	00.3	04.0	54.5	50.0	52.0	043
Mature		00.0	02.0	00.0										
1975	Mil. Ib.	31.2	24.4	25.6	29.1	21.8	28.3	25.5	27.7	31.9	38.3	34.1	38.2	356
1976	Mil. Ib.	43.2	39.6	44.7	40.0	36.8	32.3	26.9	35.5	32.3	33.8	34.0	36.8	436
1977	Mil. lb.	37.8	38.5	43.1										
Total	1													
1975	Mil. lb.	70.8	60.0	64.0	71.0	62.7	75.6	73.8	75.7	82.2	93.7	79.6	87.9	897
19/6	Will, Ib.	95.0	8/.1	100.3	93.6	89.0	93.3	81.3	91.8	86.3	88.1	84.0	89.6	1,079
Turkev	win, to.	00.2	51.4	109.1										
1975	Mil. Ib.	45.8	40.4	44.7	49.1	45.3	69.1	99.1	107.4	111.8	129.1	98.9	67.2	908
1976	Mil. Ib.	47.9	44.4	54.5	49.1	69.0	97.9	113.6	124.9	132.1	133.9	119.0	67.5	1,054
1977	Mil. lb.	50.2	50.8	69.2										
	I		Table		capita co	nsumptio	on of shell	eaas						
Shall an unalanti														
1975		22.0	194	21 Q	20.4	20 F	10.2	20.1	20 E	10.0	20.0	20.0	21 7	749
1976	do.	21.8	19.7	20.6	19.8	20.6	19.3	20.1	20.0	19.5	20.3	19.6	20.9	243
1977	do.	20.9	18.1			20.0					2.4.1		20.0	2.0
	J 1	Tables 3	4-41 Fa	a prices: f	Monthly a	verage p	rice ner de		heli enne		··		<u>,</u>	
I laited States reactived by farmer 3		,												
1975	Cente	5 7	5/ 1	54 1	47 A	471	45 F	46 F	50 P	65 P	E2 0	59.2	63 1	57.8
1976	do.	61.2	58.5	53.5	52.7	54.7	53.3	55.1	60.0	61.4	60.3	65.5	69.5	58.8
1977	do.	65.1	66.2	58.8	55.3	2		20.1	20.0	2	50.0	50.5	20.0	- 010
Grade A large eggs in retail stores ⁴ ⁵														
1975	do.	84.2	83.9	74.9	77.2	70.6	66.9	70.6	73.7	79.9	77.7	78.1	86.1	77.0
1976	do.	89.1	90.1	78.2	77.6	75.2	74.4	80.0	85.7	89.0	87.6	87.3	94.6	84.1
19//	do.	98.6	103.4	89.0	81.2									

Table 29-Selected	poultry and	egg statistics	-Continued
-------------------	-------------	----------------	------------

ltem	Data in-	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
		Tables	34-411	Aonthly a	verage pri	ice per do	zen shell	eggs—Con	tinued					
lowa, received by farmers													_	
Buyer quality and volume incentive	1													
Large														
1975	Cents	50.25	43.34	45.26	36.09	36.86	36.90	39.27	44.64	49.43	45.12	51.05	58.52	44.73
1976	do.	56.21	50.26	44.91	44.20	45.80	45.64	50.31	56.50	57.40	55.68	60.98	66.50	52.87
1977	do.	62.45	59.42	51.13	46.24									
1075		44.00	07.04	07.00	~ ~ ~									
1976	do.	44.32	37.21	37.38	30.48	26.26	25.90	27.89	34.02	39.31	38.55	42.95	53.25	36.46
1970	do.	48.93	43.63	34.78	35.43	39.42	37.52	40.57	45.84	47.71	46.53	55.57	60.52	44.70
Price to volume buyers ⁶	uo.	50.07	04.02	41.90	37,43									
14 Metro areas:														
Large														
1975	do.	67.82	62.49	64.24	55.78	55.37	54 88	56 76	62 28	66 85	62 37	69.08	76.81	62.81
1976	do.	73.30	67.42	62.40	62.05	63.27	62.30	67.38	72.22	73.52	71.44	76.66	82.52	69.54
1977	do.	78.98	76.61	67.99	63,28								02/02	00101
Los Angeles, Grade AA:														
Large														
1975	do.	68.32	68.71	68.55	58.74	60.26	58.50	55.73	61.64	66.78	63.74	70.00	75.48	64.70
1976	do.	75.33	69.00	66.96	66.36	65.75	66.04	69.86	75.00	74.57	68.97	73.67	78.42	70.83
1977	do.	78.29	76.47	70.13	67.29	,								
Medium														
19/58	do.	67.32	67.71	65.67	53.85	54.55	50.50	49.27	52.74	59.78	60.93	69.00	74.48	60.48
1077	do.	74.33	66.56	63.96	62.91	62.50	60.86	59.71	66.23	69.57	63.39	70.19	76.15	66.36
New York wholesale prices white	a o.	/6.81	/3.84	65.96	62.29									
Large 75 percent A														
1975	do.	62.18	55.44	59.24	50.17	49 26	50 55	52 59	58 21	61 56	56 65	65 67	71.95	67 79
1976	do.	68.44	60.50	56.78	55.44	58.38	58.83	63.06	68.56	69.19	67.50	75 19	78.17	65.00
1977	do.	75.06	69.94	63.12	56.92	00.00	00100	00.00	00.00	00.10	07.00	/0.10	/0.17	00.00
Medium														
1975	do.	57.75	50.58	53.24	46.18	40.76	41.43	42.58	48.28	53.07	53.61	59.42	70.50	51.45
1976	do.	64,22	57.94	49.56	49.50	53.88	50.94	55.39	60.83	60.33	61.87	71.94	74.94	59.28
1977	do.	71.19	66.44											
Midwest, paid delivered?														
Large	1.													
1975	do.	66.20	59.62	61.38	53.25	53.20	52.75	55.20	60.50	65.25	60.90	67.75	74.50	60.88
1976	do.	72.75	66.25	60.75	59.85	62.31	61.12	65.85	71.44	72.12	70.20	76.00	81.60	68.35
Medium	d0.	/8.50	/5.38	67.00	62.60									
1975	do	62.00	64 99	55 50	40 50	45 20	44.25	45 60	50.50	FC 20	FC C0	61.00	70.60	E 4 40
1976	do.	68.30	62.62	53.00	52.60	56.88	53 94	40.00 56.65	62.50	63.75	63 20	72 50	72.50	54.49 61.94
1977	do.	74.00	71.38	58.44	54.55	50.00	55.54	50.05	52.20	03.75	03.20	12.50	//.00	01.94
							-							
	т.	ble 42E	gg prices:	Monthly	average p	price per p	ound for	frozen eg	g product	ts				
New York and Philadelphia														

New York and Philadelphia														
Frozen egg														
Whole egg, light colored														
1975	Cents	36.06	33.81	32.48	32.72	37.94	37.59	38.38	39.80	42.31	41.39	42.16	41.79	38.04
1976	do.	41.31	42.75	42.56	40.52	41.84	42.64	43.83	47.86	52,50	52.06	54.02	52.50	46.20
1977	do.	50.47	48.28	45.46										
White														
1975	do.	17.57	16.97	16.41	16.38	18.75	20.44	21.38	22.27	23.11	22.69	22.94	22.92	20.15
1976	do.	22.31	22.59	22.58	21.92	23.88	25.56	26.97	28.75	31.75	32.37	34.28	34.00	27.25
1977	do.	32.31	32.16	31.03										
Yolks, light colored, sugared,														
43 percent solids														
1975	do.	69.39	64.69	60.69	57.69	60.58	61.75	62.69	64.72	67.69	67.42	67.94	68.11	64.45
1976	do.	67.42	67.78	67.50	65.46	66.07	67.40	69.28	76.22	83.34	83.43	84.16	82.02	73.34
1977	do.	79.20	76.62	71.78										
			Tables	44-47	Average h	roiler prid	es per po	hund						

Table 29-Selected poultry and egg statistics*-Continued														
ltem	Data in-	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
		Та	bles 44-4	7.—Avera	ge broiler	prices pe	r pound-	Continue	d	_				
Broilers, weighted average,														
delivered to major areas ⁸														
9-City average ⁹														
1975	Cents	41.64	41.37	40.72	40.06	42.88	48.05	51.20	49.96	49.66	47.73	45.82	41,79	45.07
1976	do.	41.89	42.68	41.93	41.00	42.07	42.11	43.16	41.61	39.72	36,45	34.92	35.00	40.21
1977	do.	38.78	42.13	41.92	41.44									
Chicago			10.0	40.0		40.0				40.0	47.0	45.0		
1975	d0.	42.8	40.9	40.2	39.8	42.3	46.9	50.9	49.6	49.6	47.2	45.6	41.7	44.8
1970	do.	39.7	42.0	41.0	40.9	42.0	41.7	43.3	41.4	39.0	36.2	34.9	35.0	40.1
New York	00.	30.7	41.4	42.0	41.1									
1975	do.	41.6	41.3	40.3	39.7	42.0	47.2	51.4	49.6	49.7	47.6	45.2	40.6	44.7
1976	do.	41.6	41.9	41.3	40.8	41.8	41.6	42.8	41.4	39.6	36.0	34.2	34.2	39.8
1977	do.	38.0	40.7	41.1	41.0									
Los Angeles														
1975	do.	43.4	42.5	42.0	42.0	44.2	48.0	52.2	51.0	50.9	48.9	47.2	43.3	46.3
1976	do.	43.4	44.4	43.7	42.2	43.0	42.6	44.4	43.0	40.9	38.0	36.6	36.9	41.6
1977	do.	40.7	42.9	43.3	42.5									
Frying chicken in retail stores ⁴														
1975	do.	59.3	58.6	58.8	57.6	57.9	61.5	68.3	68.6	69.9	66.9	66.5	65.5	63.3
1976	do.	63.6	61.4	60.8	60.7	59.4	62.0	62.6	60.7	59.4	56.7	54.4	54.3	59.7
1977	do.	1 54./	58,8	61.3	61.2									
1975	do	102.3	1034	102.9	101.3	103.0	107.2	1167	117 1	118.0	116 1	115.8	115 3	109.9
1976	do.	112.3	111.8	102.3	109.6	110.0	111.8	113.7	1119	110.0	107.0	106.0	106.5	101.6
1977	do.	105.9	108.1	110.5	113.0			11017				10010		
		<u> </u>												
			Table	s 50-54.—	Average t	urkey pri	ces per po	ound						
Liveweight ³														
U.S., at farm														
1975	Cents	32.4	31.2	30.7	29.4	31.1	32.7	34.4	35.7	36.3	36.4	36.7	36.2	33.6
1976	do.	33.4	32.1	32.9	31.8	32.1	31.2	31.1	31.1	30.7	30.7	31.1	33.5	31.8
Turkeys in retail stores ⁴	do.	32.4	32.5	34.2	33.0									
1975	do.	69.2	71.6	70.4	69.0	69.1	70.9	71.4	74.5	75.5	76.7	77.4	75.8	72.6
1976	do,	76.6	75.0	73.5	74.4	74.1	74.7	73.9	74.4	72.9	72.8	71.9	70.4	73.7
	d0.	69.7	/0.6	/1.4	63.2									
wholesale frozen (average f.o.d.														
New York														
Young hens, 8-16 pounds														
1975	do.	51.6	46.9	47.3	48.3	51.6	53.4	56.0	58.0	57.2	58.1	57.3	52,6	53.2
1976	do.	47.1	49.1	51.7	48.2	48.9	47.6	49.5	48.1	48.0	47.8	48.4	50.6	48.7
1977	do.	48.7	49.7	52.3	53.6									
Young torns, 14-20 pounds														
1975	do.	49.1	46.0	43.7	43.3	46.9	49.6	52.7	56.2	57.0	57.2	56,7	54.4	51.8
1976	do.	46.8	46.1	49.8	49.4	50.8	47.8	48.5	47.9	46.8	46.9	49.6	54.0	48.7
1977	do.	50.9	51.2	52.1	53.0									
Paid at seller's dock, frozen														
Hans 8-16 pounds														
1975	do	57 5	50.2	57.2	52.3	55.3	57.0	59.3	61.2	61.2	61.2	61.2	57 9	57.0
1976	do.	51.8	51.8	55.3	52.8	52.9	51.4	52.2	52.0	51.6	51.2	51.7	54.8	52.4
1977	do.	51.9	52.6	55.4	56.6	02.0	0	02.2	02.0	01.0	01.2	0,	0.10	0211
Toms, heaviest weights quoted														
1975	do.	59.0	56.7	55.0	52.0	52.6	56.5	59.5	61.8	64.3	66.8	69.9	70.0	60.3
1976	do.	69.0	69.0	69.7	70.0	70.6	71.0	71.0	71.0	71.0	71.0	72.8	73.0	70.8
1977	do.	72.5	72.2	68.8	68.8									
Chicago														
Hens, 12-14 pounds														
1975	do.	58.7	52.2	50.5	50.6	53.3	54.7	57.1	58.8	58.5	59.3	60.5	57.0	55.9
19/6	do.	51.2	50.0	53.5	51.1	50.8	50.2	51.0	50.4	49.7	49.6	50.4	52.9	50.9
Tome beguinet weights guated	40.	0.00	0.00	53.7	55.2									
1975	de	57.0	56.7	55.2	55.0	55.0	56.0	57.0	60.3	62.1	65.1	67.2	68.0	59 6
1976	do.	68.0	68.0	67.8	68.4	69.4	70.0	70.0	69.6	69.6	70.0	70.2	70.5	69.3
1977	do.	70.5	68.3	67.0	66.9				20.0	20.0				
	[]													

~

Tables 57-60.-Prices paid for poults, poultry feed, and feed ingredients; and product-feed price ratios

All poults each														
1975	Cents	68.7	69.5	70.1	70.0	70.2	71.0	73.9	70.6	70.4	68.6	67.6	68.8	69.9
1976	do.	68.9	69.6	70.5	70.5	70.5	70.2	71.3	69.8	68.5	67.7	66.4	67.1	69.3
1977	do.	67.9	70.6	72.9	73.1									

Table 29-Selected poultry and egg statistics*-Continued														
ltem	Data in-	Jan,	Feb.	Mar.	Apr,	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Tabl	es 57-60	Price paid	for poults	s, poultry	feed, and	l feed ing	edients; a	and produ	ict-feed p	rice ratios	-Contin	ued		
Feed per ton														
Laying feed														
1975	Dol.	160	151	143	146	145	144	145	150	149	148	143	143	147
1976	do.	143	143	145	144	146	156	162	158	159	154	151	153	151
1977	do.	156	161	161	163									
Broiler grower feed														
1975	do.	176	167	161	164	161	162	161	163	164	164	158	160	163
1976	do.	158	160	160	159	161	172	181	177	179	170	169	174	168
1977	do.	174	178	179	183									
Turkey grower feed														
1975	do.	178	168	161	165	164	165	163	168	170	170	164	165	167
1976	do.	165	165	165	162	165	178	187	181	181	177	177	179	174
1977	do.	182	186	188	195									
Corn, Chicago No. 2 yellow														
(per bushel)														
1975	Cents	309	300	296	304	288	291	286	317	301	276	264	259	291
1976	do.	262	270	268	268	284	296	296	287	277	249	233	244	270
1977	do.	253	254	252	250									
Soybean meal, 49-50 percent,														
Decatur (per ton, bulk)														
1975	Dol.	138	127	126	132	129	140	134	144	144	136	127	132	134
1976	do.	136	139	136	136	1.62	200	208	187	192	182	193	213	174
1977	do.	224	230	247	299									
Product-feed price ratios														
Broiler ¹⁰														
1975	Lbs.	2.7	2.9	2.9	2.8	3.1	3.4	3.8	3.6	3.6	3.5	3.4	3.0	3.2
1976	do.	3.1	3.2	3.0	3.0	3.1	2.8	2.8	2.7	2.6	2.5	2.3	2.2	2.8
1977	do.	2.5	2.7	2.7	2.7									
Turkey''														
1975	do.	3.6	3.7	3.8	3.6	3.8	3.9	4.2	4.2	4.3	4.3	4.5	4.4	4.0
1976	do.	4.1	3.9	3.9	3.9	3.9	3.5	3.3	3.4	3.4	3.5	3.5	3.7	3.7
1977	do.	3.6	3.5	3.6	3.4									
Egg ^{1 2}														
1975	do.	7.2	7.2	7.6	6.5	6.5	6.3	6.4	6.8	7.5	7.1	8.1	9.0	7.2
1976	do.	8.7	8.4	7.5	7.4	7.6	6.9	6.9	7.7	7.8	7.9	8.6	9.1	7.9
1977	do.	8.3	8.2	7.3	6.8									
		Ta	bles 61-62	2Chick	s hatched	by types	and pulle	t chicks p	laced					
	I				. .									

Chicks hatched														
Broiler-type														
1975	Mil.	253.7	239.0	278.1	275.3	285.1	274.7	270.8	268.3	247.6	249.9	254.6	271.9	3,169.1
1976	Mil.	278.9	268.2	309.5	310.6	321.1	309.2	303.9	295.9	271.9	268.2	267.9	283.0	3,488.3
1977	Mil.	293.3	272.0	322.9	324.4									
Egg-type														
1975	Mil.	34.8	36.6	45.4	47.4	48.0	40.9	38.1	34.9	33.9	34.8	28.4	30.7	453.8
1976	Mil.	35.8	39.6	50.1	51.5	48.2	42.4	38.6	38.3	37.7	37.0	36.3	36.6	492.2
1977	Mil.	40.2	41.3	51.0	54,8									
Pullet chicks placed domestically for														
broiler hatchery supply flocks ^{1 3}														
Total		1												
1975	Thou.	2,211	2,134	2,754	2,492	2,874	2,459	2,466	2,645	2,647	2,449	2,306	2,379	29,816
1976	Thou.	2,423	2,556	2,907	3,104	3,164	2,648	2,797	2,836	2,584	2,668	2,434	2,547	32,668
1977	Thou.	2,585	2,419	2,919	3,275									
Cumulation relevant to														
breeder flock ¹⁴														
1975	Thou.	20,632	20,585	20,490	20,161	19,828	19,093	18,600	18,057	17,666	18,161	18,365	19,079	
1976	Thou.	19,397	19,692	20,035	20,471	20,786	20,338	20,225	19,774	19,871	20,312	20,771	21,288	
1977	Thou.	21,487	21,978	22,435	22,596	22,708	22,235	21,678	21,099	20,870	20,992	21.431		
1978	Thou.													

	Table 63Poults hatched by breeds														
Poults hatched															
Light breeds															
1975	Thou.	1,202	1,367	1,406	1,657	1,526	1,400	1,524	1,319	747	1,008	1,244	1,518	15,918	
1976	Thou.	1,815	1,496	1,977	2,029	1,933	1,930	1,997	1,215	625	955	1,265	1,257	18,494	
1977	Thou.	1,203	1,126	1,270	1,372										
Total heavy breeds															
1975	Thou.	7,487	10,657	14,719	16,960	17,568	16,140	12,734	7,329	3,590	3,457	4,147	6,370 1	21,158	
1976	Thou.	8,767	12,278	16,758	17,872	18,347	17,743	13,425	6,940	3,676	3,934	4,864	6,376 1	30,980	
1977	Thou.	9,568	11,607	16,821	18,139										
All breeds															
1975	Thou.	8,689	12,024	16,125	18,617	19,094	17,540	14,258	8,648	4,337	4,465	5,391	7,888 1	37,076	
1976	Thou.	10,582	13,774	18,735	19,901	20,280	19,673	15,422	8,155	4,301	4,889	6,129	7,633 1	49,474	
1977	Thou.	10,771	12,733	18,091	19,511										

Table 29-Selected poultry and egg statistics*-Continued

Item	Data in-	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
		Table 64	6Cold s	torage ho	Idings of	shell and	frozen eg	gs, first o	f month					
A 11 C														
All trozen eggs											54 0			
1975	Mil, Ib.	54.2	52.1	51.0	46./	42.8	44./	47.8	52.1	51.9	51.0	46.6	42.2	
1976	Mil. Ib.	36.3	31.7	28.7	29.4	29.7	28.9	30.1	31.6	31.0	28.7	28.9	25.5	
1977	Mil. Ib.	26.1	26.9	24.9	24.7	26.1								
Shell eggs	(
1975	1,000 cs.	36	32	48	32	26	68	82	84	80	72	55	40	
1976	1,000 cs.	22	14	21	26	26	22	23	34	45	50	32	25	
1977	1,000 cs.	28	29	44	42	43								
Shell equivalent of all eggs														
1975	1 000 cs	1 408	1 350	1 340	1 214	1 1 1 0	1 200	1 291	1.402	1 393	1.364	1.235	1 108	
1976	1,000 ~	940	818	747	769	778	754	786	835	830	776	764	671	
1977	1,000 ~	680	696	710	675	866	704		000			,	0/1	
	1,000 (3.									•				
		Table	s 68-69	-Cold stor	rage holdi	ngs of po	ultry, firs	t of the m	nonth					
Total frozen														
Turkey														
1975	MiLlb	275.0	267.1	239.9	207.3	180.2	162.7	193.2	248.6	328.3	409.8	4724	286.2	
1076	Mil Ib.	105 2	106.0	160.7	140.7	114.6	120.9	177.2	240.0	270.2	460.0	5122	200.2	
1077	NALL IL	190.2	100.0	100.7	140.7	100.0	120.0	177.3	201.5	370.3	405.7	512.5	290.0	
(9//	IVIII. ID.	203.4	190.2	107.0	142,3	129.0								
Unicken														
Hens														
1975	Mil. Ib.	54.0	55.7	55.6	56.6	59.1	57.1	56.9	54.3	52.9	49.1	44.7	41.6	
1976	Mil. lb.	39.2	34.7	31.4	29.4	32.3	30.1	34.2	36.8	38.6	37.9	40.5	40.3	
1977	Mil. 1b.	42.1	40.5	38.8	35.7	38.7								
Broilers, fryers and roasters														
1975	Mil, Ib.	37.2	31.5	32.9	28.0	27.8	24.1	22.6	21.7	22.5	22.7	21.9	21.5	
1976	Mil. lb.	22.3	20.2	19.7	19.4	19.1	17.4	20.0	25.6	27.4	24.3	24.3	29.1	
1977	Mil. lb.	32.9	27.4	24.6	26.6	24.8								
		I	Table	s 70-71.—	Exports o	f fresh or	frozen po	oultry						
Broilers														
1975	Thou lb	10 268	9 841	9 903	11 620	12 595	11 858	10 861	11 031	10 615	13 046	11 483	13 720	137 731
1076	They lb	16 262	10 001	16 054	17,020	22,050	24.040	20,001	220 400	26.049	26 555	10,403	24 527	137,731
1978	They Ib	07 106	12,001	10,204	17,220	23,990	24,940	20,430	339,409	20,040	20,000	20,900	34,037	207,408
19//	11100.10.	27,105	24,903	10,091										
TURKeys														
1975	Thou. Ib.	1,384	2,551	2,979	2,952	2,851	3,807	4,389	4,023	5,293	7,139	5,368	4,507	47,244
1976	Thou. Ib.	5,135	5,993	7,719	3,958	3,864	6,267	4,050	4.513	4,923	6,327	6,268	6,152	65,170
1977	Thou. Ib.	2,947	3,303	2,138										
	Tables 72	75USD	A contra	cts to pur	chase chic	cken, and	turkey							
Young chickens, ready-to-cook wt.												_		
1975	Mil. lb.	3.8								7.3	6.8	7.0	5.2	30.0
1976	Mil. Ib.	7.6	7.3	8.4		•••			4.5	5.2	3.3	6.2	4.6	47.1
1977	Mil. Ib.	4.9	6.4	4.4										
Canned boned chicken														
1975	Mil. Ib.						2.3			1.3	1.9	2.3	7.3	15.1
1976	Mil. Ib.	5.0	2.9	2.4					1.3	.4	4.1	2.1	1.8	20.0
1977	MiLlb	3.4	3.0	7.6						••				
Canned boney turkey		0	0.0											
1975	Millib	_		-						_		-		
1076	Mil IL										 			20
1077	NALL IN									1.7	.5	.7		3.0
19//	IVIII. ID.													
I UTKEY, FEADY-TO-COOK WT.									. ·					
1975	Mil. Ib.	2.2							2.1	6.9	10.4		•	21.6
19/0	Will ID.						•••		6.6	13.9	14.4	•••		34.9
19//	WILL ID.	3.9	4.6					-						

¹ Chicken and turkey meat, excludes slaughter on farms. ² Excludes farm slaughter, lard and rendered pork fat. ³ Price reported as a price at mid-month. ⁴ Reported by Bureau of Labor Statistics. Prices are collected on Tuesday, Wednesday, and Thursday of the week that includes the first Tuesday of the month. ⁵ Includes price for Grade AA eggs in Anchorage, Los Angeles, San Diego, San Francisco, and Seattle, and Grade AA and ungraded eggs in some small cities. ⁶Weighted average price to volume buyers for Consumer Grade A white eggs in cartons delivered to store door. ⁷ Prices paid by first receivers for cartoned Grade A eggs delivered FOB Midwestern cities. Prior to January 1974, reported as average price paid delivered to Chicago, loose, white, minimum 80 percent A. ⁸ Trucklot sales of U.S. Grade A and plant grade ready-to-cook, ice-packed broiler-fryers. ⁹ Computed by weighting the city averages by their metropolitan area populations. The 9 cities are: Chicago, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, St. Louis and San Francisco. ¹^o Pounds of broiler grower equal in value to 1 lb. of broiler liveweight. ¹ Pounds of turkey grower equal in value to 1 lb. of turkey liveweight. ¹ Pounds of laying feed equal in value to 1 dozen eggs. ¹³ Placements reported by leading breeders. ¹⁴ Sum of domestic placements 7-14 months previous.

QUARTERLY BROILER PRICE PREDICTIVE EQUATIONS

by Gerald R. Rector Commodity Economics Division

ABSTRACT: Equations were developed to predict quarterly broiler prices based upon the factors that influence them. Multiple regression analysis was used to relate wholesale broiler prices to the per capita consumption of beef, pork, young chicken, and turkey, plus per capita disposable income. As expected, per capita consumption of chicken and income had the greatest impact on broiler prices. The equation predicted well in 1976.

KEYWORDS: Broiler prices, consumption, income, predictive accuracy.

Equations were developed to predict quarterly broiler prices based upon the economic environment that generates broiler prices. A set of possible explanatory variables, data, and procedures to analyze the data was assembled from general knowledge of the broiler industry and from examination of previous studies on the subject. The main criteria used in the development and selection of an equation was predictive capability, coupled with ease of use and updating.

Description of the Equation

The equation is a linear, price-dependent equation in which the deflated wholesale broiler prices are specified as a function of the per capita consumption of beef, pork, young chicken, and turkey, plus per capita disposable income expressed in 1972 dollars. Deflated broiler prices and disposable income in 1972 dollars were used in order to minimize the impact of inflation through time. The equation was estimated by ordinary least squares using quarterly data for 1960-75. The equation below is the one selected for presentation. Numbers in parentheses below the equation coefficients are the "t" values, a measure of statistical reliability of the coefficients. The R² (corrected for degrees of freedom), the standard error of the estimate, and the Durbin-Watson statistic are listed below the equation.

DWBP = 70.9978 - .678PCAB - .8856PCP - .38024PCYC (2.79)(5.58)(6.60)-.35038PCT* + 9.3826RPDI - 13.2578S1(1.91)(2.04)(5.49)-11.2413S2 - 10.2682S3 + 2.5818D2 + 7.1269D3(1.61)(1.46)(1.48)(3.88) $R^2 = 8.57$ S.E.E. = 1.41 D.W. = 1.26

The dependent variable (DWBP) was constructed by dividing the reported quarterly average wholesale price by the quarterly consumer price index for all items (1967=100). The explanatory variables PCAB, PCP, and PCYC are the quarterly per capita consumption of beef and veal, pork, and young chicken, respectively. The PCT* variable is the per capita consumption of turkey. The variable enters the equation only in the fourth quarter, the observations for the other three quarters were set equal to zero. This specification resulted from the fact that equations estimated for each quarter showed that per capita consumption of turkey was not a significant variable in the first three quarters but was very significant in the fourth. The variable **RPDI** is quarterly per capita disposable income expressed in 1000's of 1972 dollars.

The variables S1, S2, and S3 are 0, 1 quarterly dummy variables to account for seasonality in demand by measuring changes in the level of demand from one quarter to the next. These dummy variables in effect separate the basic equation into four separate quarterly equations which differ only in the value of the constant term or intercept.

Two dummy variables (D2, D3) were also included for the second and third quarters of 1973 in order to remove the impact of price controls in those quarters. Since these variables have values of zero in every quarter but the second and third quarters of 1973, they are not used when predicting prices for any year but 1973.

Evaluation

The following chart shows how well the equation predicts quarterly broiler prices for 1970-76. The actual and predicted prices are deflated, wholesale broiler prices. The chart shows that the equation catches most of the upturns and downturns. The second and third quarter of 1973 predictive prices are exactly the same as the actual prices because the variables D2 and D3 force them to be.

Good predictive capacity is expected within the period of fit (1960-75), but this equation also predicted well outside the period. The predicted quarterly wholesale broiler prices (in cents per pound) for 1976 were 40.1, 43.5, 40.6, and 36.0. The predicted undeflated prices were calculated by multiplying the predicted deflated prices by the consumer price index for all items (1967=100). The actual 9-city quarterly averages in 1976 were 42.2, 41.7, 41.5, and 35.5. Since this equation is designed with short run forecasting in mind, testing the equation four quarters ahead of the period was considered reasonable. Since its performance is reasonable, this specification should prove useful for future analysis.

Table 1 gives the estimated quarterly flexibility coefficients calculated at the 1960-75 quarterly mean values. At the mean values, the largest percentage changes in the deflated wholesale price of broiler chicken would be from income and the consumption of chicken. Beef, pork, and income show their largest quarterly impact in the fourth quarter. Chicken has about the same impact in the second, third, and fourth quarters; the first quarter was only slightly lower. Given the linear equation used to estimate the flexibility coefficients, these coeffi-

Table 1-Estimated price flexibility coefficients¹

	Percent	age chan from a 1	ge in deflat I percent c	ed chicke hange in :	n price
Quarters	Beef and veal (PCAB)	Pork (PCP)	Young chicken (PCYC)	Turkey (PCT*) ²	Disposable income (RPDI)
1	644 660 668 729	514 502 473 585	-1.004 -1.172 -1.155 -1.145	 553	1.112 1.153 1.128 1.246

¹Based on a linear estimating equation with quarterly values at the 1960-75 average quarterly levels. ² Turkey variable only used in fourth quarter.

cients will vary as the prices and quantities vary at different points in time.

Other Equations

Many other equations were estimated using different variables and different estimating procedures. Similar equations that were estimated using undeflated broiler prices and disposable income expressed in current dollars had better fits, but they did not do as good a job of predicting broiler prices outside of the period of fit. Other equations were estimated separately for each quarter. Some of these equations were acceptable for the first, second, and fourth quarter. However, no third quarter equation was found to be acceptable.



MARKETING AND INTEGRATION IN THE POULTRY AND EGG INDUSTRIES

by George B. Rogers,¹ Leonard A. Voss,² William L. Henson,¹ and Harold B. Jones¹

ABSTRACT: Plants which pack and break eggs or process poultry are a major link in marketing channels. They are the major receivers of farm production, and major suppliers of retail outlets and further-processing firms. Thus, processing plants perform many assembly, storage, and distribution functions. Many of them are part of vertically-integrated firms which also engage in contract or direct production and input-supplying. Ninety-nine percent of the Nation's broilers and 80 percent each of the market eggs and turkeys are produced by integrated firms. Two-thirds of broiler and market egg output reaches consumers in near-original form through retail outlets, compared with only 40 percent of the turkeys and only 12 percent of the fowl. Egg breaking plant output is virtually all manufactured into products, and half the turkeys and four-fifths of the fowl are further-processed.

KEYWORDS: Eggs, broilers, turkeys, fowl, marketing, integration, channels, plants, firm.

Previous articles have summarized assembly, processing, and distribution costs of packing plants. This article summarizes the marketing practices of and the functions performed by such plants and the other functions of firms of which they are a part. Data from sample processing plants were collected under cooperative agreements between the Missouri, Pennsylvania, and Georgia Agricultural Experiment Stations and the Economic Research Service. In subsequent tabulations, this has been supplemented with information from other studies and trade press articles. Sample plant and firm tabulations may vary somewhat from total industry figures.

Processing plants carry out rather diverse marketing programs and they are engaged in many other related functions. Moreover, they are quite typically units in poultry and egg firms that also are involved in contract or direct production and input-supplying. Thus, the poultry and egg industries are already vertically-integrated to a substantial extent. It is likely that vertical integration will expand in future years as more firms take on additional producing, input-supplying and marketing functions.

Egg Marketing Channels

About 67 percent of market egg production reaches consumers through retail outlets, and only 4 percent is sold directly by producers to consumers. Virtually all of these eggs are graded and cartoned. Institutions, such as restaurants and other public eating places, military establishments, schools, and hospitals, use about 17 percent of output. These are mainly received as graded eggs in cases. Less than 1 percent of egg output is destined for net exports and shipments. The remaining 12 percent of egg volume goes to egg breaking plants. This output goes mainly into egg-containing products, although there are a few regular egg or dietary products sold at retail. Eggs received by breaking plants include both graded eggs and Nest Run eggs in cases.

Shell egg packing plants include various types of operations. Some are producer-packers, such as large integrated operations with producing and packing units at one location. Other plants are either independent or units of integrated firms dependent on contract production. Others are plants owned by distributors or retailers. Data in table 1 represent a mixture of packing plant types. Over 70 percent of the output of shell egg packing plants is cartoned. Direct to retailer movement is close to 60 percent.

Distributors of shell eggs receive some eggs in cartoned form and the balance as graded or Nest Run in cases. Some of these may be run through distributor-owned grading and cartoning plants. Retailers and institutions are the major outlets for distributors, with minor quantities going to breaking plants. Retailer-owned plants are primarily to serve company needs.

Commodity Economics Division, ERS

²University of Missouri, Columbia

Table 1-Shell eggs: Marketing practices of sample packing plants, by regions, 1973-76

Item	South 1975	Northeast 1974	Midwest 1973-74 ¹	West Coast 1973-76	Total or average ²
Number of plants	17	41	32	19	109
Volume (mil. cs.) per yr	4.7	11.1	7.5	11.1	34.4
	(Percents)	(Percents)	(Percents)	(Percents)	(Percents)
Type of pack:					
% cartoned	71	72	72	73	72
% loose graded	20	25	20	14	20
% ungraded	9	3	8	13	8
Outlets:					
% to distributors	46	29	32	9	29
% to retailers	42	63	57	70	58
% to institutions	8	6	6	7	7
% to export	1	(³)		2	1
% to breaking	3	2	5	12	5

¹ Includes small number in Mountain region. ² Other information included in percents, where available. ³ Less than 0.5 percent.

Table 2-Egg breaking: Marketing practices of sample plants, by regions, 1973-75

Item	Midwest ³ 1973-74	West Coast 1973-75	Total or average ⁴
Number of plants Volume (mil. cs. shell	14	10	24
eggs) per year	3.2	1.2	4.4
	(Percents)	(Percents)	(Percents)
End product type:	1		
% liquid	27	61	36
% frozen	21	39	26
% dried	52		38
Outlets:			
% distributors	11	15	14
% bakeries, institu-			
tions	28	33	31
% food manufacturers	58	48	52
% export	3	3	3
% other ¹	(²)	1	(²)

¹Other breaking plants and pet food. ²Less than 0.5 percent. ³ Includes Mountain region. ⁴Other information included in percents, where available.

Egg breaking plants may engage in a substantial amount of direct distribution to bakeries and institutional users. Most of what they sell to distributors, as well as some of what they sell to food manufacturers (including dryers), eventually goes to bakeries and institutions.

Data in table 2 include plants which produce a larger percentage of liquid and dried eggs than is true nationally. Nationally, liquid egg output accounts for about one-fourth of egg product production, frozen eggs for over two fifths, and dried eggs for the balance. In total, bakeries use almost half of egg product output, over two-fifths go to food manufacturers, and most of the balance to institutions.

Broiler Marketing Channels

About 66 percent of broiler output reaches consumers through retail outlets. Another 25 percent moves to the insitutional trade, with fast food outlets alone accounting for around three-fourths (about 19 percent of the total). Further-processing uses 6 percent, and the balance of 3 percent is exported, mainly as frozen whole birds and parts.

Data in table 3 approximate current broiler processing plant practices. But in recent years icepacked has probably declined slightly, and the proportions produced in the cut-up and further-processed forms have increased slightly.

Distributors play an important role in broiler marketing. These include not only independent firms but also units affiliated with retail chains and a growing number owned or franchised by processors. The volume of broilers moving to all types of distributors slightly exceeds that moving directly to retailers from processing plants. Distributors supply about 64 percent of the needs of the institutional trade and about 41 percent of the needs of retail outlets. Direct shipments from processing plants supply the balance.

Turkey Marketing Channels

Over half of the national output of turkey meat is now used in producing further-processed items. Whole-bird processed turkeys (includes self-basting) account for over 40 percent of this output and other more extensively further-processed products for the balance. Production of further-processed products by slaughtering firms account for almost 73 percent of total further-processed output and includes about 97 percent of the whole-bird processed turkeys.

Item	South	North-	West Coast	Total or
	1974	1974	1973-75	average ³
Number of plants	16	13	8	37
RTC) per yr	855	411	279	1,545
	(Percents)	(Percents)	(Percents)	(Percents)
Type of pack:				
% ice-packed ¹	57	75	44	59
% deep chill	22	15	43	24
% CO2 ¹	13	5	12	11
% frozen	8	5	1	6
Product form:				
% whole	70	60	55	64
% cut-up	26	34	41	31
% further-pro-				
cessed	4	6	4	5
Outlets:				
% to distributors ²	53	55	19	47
% to retailers ²	31	30	65	37
% to institutions .	9	6	11	9
% to export	3	3	1	2
%to processing	4	6	4	5

Table 3-Broilers: Marketing practices of sample processing plants, by regions, 1973-75

¹May include small amounts of combination packs. ²May include company-owned distributors of processors and other firms. ³Other information included in percents where available.

Data in table 4 appear to include a substantial share of plants which market more turkeys in fresh form, as whole birds, and direct to retailers than many other plants. Nationwide, frozen turkeys account for close to 85 percent of output, and about 17 percent are cut-up.

Table 4–Turkeys:	Marketing pr	actices of sa	mple processing
pla	ants, by regior	ns, 1973-74	

Item	Midwest South 1973-74	West 1973-74	Total or average ²
Number of plants	9	10	19
per year	239	194	433
	(Percents)	(Percents)	(Percents)
Type of pack:			
% ice-packed ¹	12	4	9
% deep-chill ¹	10	14	11
% frozen	78	82	80
Product form:			
% whole	65	57	62
% cut-up	12	14	13
% further-processed	23	29	25
Outlets:			
% to distributors	14	14	14
% to retailers	55	46	51
% to institutions	6	7	6
% to export	2	3	2
% to processing	23	30	27

¹ May include small amounts of other packs.² Other information included in percents where available.

About 84 percent of whole, cut-up and furtherprocessed turkey products reach consumers through retail outlets, 14 percent are used by institutions, and 2 percent are exported. Over four-fifths of retail supplies are obtained directly from processing plants and the balance from distributors. Processing plants probably supply over half the needs of the institutional trade.

Fowl Marketing Channels

Spent fowl from egg producing flocks are the predominant item included in mature chicken slaughter. Over four-fifths of mature chicken slaughter is further-processed and about 30 percent of this is done by slaughtering plants.

Over 12 percent of mature chicken slaughter reaches consumers through retail outlets and under 7 percent goes to the institutional trade. Plants supply almost 60 percent of retail needs and over 40 percent of institutional needs, and distributors the balance.

Data in table 5 include a substantial share of plants which did less further-processing and more selling to distributors and retailers than many other plants.

 Table 5–Fowl: Marketing practices of sample processing plants, by regions, 1973-74

Item	Midwest South 1973-74	West Coast 1973-74	Total or average ²
Number of plants	9	6	15
per year	164	25	189
	(Percents)	Percents)	(Percents)
Type of pack:			
% ice-packed ¹	79	28	70
% deep-chill ¹	8	5	8
% frozen	13	67	22
Product form:			
% whole	75	90	77
% cut-up	1	10	2
% further-processed	25		21
Outlets:			
% to distributors	9	59	18
% to retailers	14	19	15
% to institutions	5	13	6
% to export		3	1
% to processing	72	6	60

¹ May include small amounts of other packs.² Other information included in percents, where available.

Processing Plant Functions (Tables 6, 7, 8, 9, 10)

Many plants surveyed bought some poultry or shell eggs on the open market. This included all of the fowl processing plants but less than one-fourth

Table 6-	Functions	performed	by fir	ns with	shell	eaa	plants.	. bv	/ rea	ions.	1973-76
			_ ,					~ .			

Item			Regions		
	South 1975	Northeast 1974	Midwest 1973-74 ¹	West Coast 1973-76	Total ²
Number of plants	17	41	32	19	109
Plants which:					
Buy eggs	8	28	15	6	57
Assemble eggs	14	27	27	13	81
Grade, pack	17	41	32	19	109
Carton	17	41	32	19	109
Break	1	3	7	8	19
Freeze	1	3	4	6	14
Dry	0	0	1	1	2
Receive, warehouse, store	5	4	13	16	38
Long-distance haul	10	14	16	7	47
Deliver to retailers,					
institutions	14	33	27	17	91
Plants which are part of					
firms having:					
Hatcheries	2	7	5	0	14
Feed mills	7	12	10	5	34
Own production	7	27	18	15	67
Contract production	8	10	7	2	27
Pullet rearing	5	1	8	7	21
Grain production	1	1	2	2	6

¹ Includes small number in Mountain region. ² Some may be associated with poultry processing and breeding flocks.

of the broiler processing plants. Most of the broilers and major shares of the shell eggs and turkeys are produced by integrated firms. Most plants also conducted their own assembly operations, although some used contract haulers. With some egg breaking and shell egg plants, delivery to the plant was sometimes made by the seller.

A substantial majority of the egg breaking, turkey, and fowl plants carried out substantial receiving, warehousing, and storage operations, since much of the output was frozen. With shell eggs and broilers moving in and out of plants more rapidly, receiving, warehousing, and storage was less significant. From less than half of the shell egg plants to almost three-fourths of the fowl plants did long-distance hauling in their own vehicles. Contract haulers carried the balance. Direct deliveries to retailers and institutions were made by a majority of plants, ranging from over threefifths of the shell egg plants to 100 percent of the turkey plants. Some retailers or institutions also picked up supplies at processing plants.

Many egg processing plants carried out both shell egg packing and egg breaking operations. Many plants which break eggs produced both liquid and frozen eggs, and a few produced dried egg. Most broiler processing plants also had cut-up lines, as did almost three-fifths of the turkey plants, and a third of the fowl plants. Less than a third of the broiler plants engaged in further processing. It is likely that more shell egg plants will engage in egg breaking in the future. A modest expansion into cutting-up and further-processing may also occur in slaughtering plants.

Table 7-Functions performed by firms with egg breaking plants, by regions, 1973-75

litere	Regions					
item	Midwest ¹ 1973-74	West Coast 1973-75	Total ²			
Number of plants	15	10	25			
Plants which:						
Buy eggs	13	5	18			
Assemble eggs	9	7	16			
Grade, pack	8	7	15			
Carton	7	7	14			
Break	15	10	25			
Freeze	11	9	20			
Dry	5		5			
Receive, warehouse,						
store	13	9	22			
Long-distance haul	9	5	14			
Deliver to retailers,						
institutions	12	10	22			
Plants which are part of firms having:						
Hatcheries	1		1			
Feed mills	1	1	2			
Own production	6	5	11			
Contract production .	2	1	3			
Replacement rearing .	2	1	3			

¹ Includes Mountain region. ² Some may have breeding flocks.

Table 8-Functions performed by firms with broiler packing
plants, by regions, 1973-75

	Regions						
Item	South 1974	North- east 1974	West Coast 1973-75	Total ¹			
Number of plants	17	13	8	38			
Plants which:							
Buy live or RTC .	2	4	3	9			
Assemble live	10	9	6	25			
eviscerate	17	13	6	36			
Cut-up	15	10	8	33			
Further-process Receive, ware-	2	6	4	12			
house, store	8	5	6	19			
Long-distance haul Deliver to retailers,	5	6	5	16			
institutions	10	11	8	29			
Plants which are part of firms having:							
Hatcheries	17	8	3	28			
Feed mills	17	9	3	29			
Own production . Contract pro-	3	10	6	19			
duction	17	12	5	34			

¹Some may have breeder flocks and be associated with rendering plants.

Firm Functions (Tables 6, 7, 8, 9, 10)

Almost all broiler processing plants belonged to firms which were engaged in contract production and/or produced broilers on their own farms. A majority of the turkey processing and shell egg processing plants also were associated with firms having contract or owned-farm production, as were a sizable (and growing) number of egg breaking plants. Nationally, it is estimated that 90 percent of the broilers are produced under contract and 9 percent are produced on company-owned farms. For turkeys, 52 percent are produced under contract and 28 percent are produced by large integrated firms. For eggs, about 43 percent are contract production and 37 percent are produced by owner-integrated operations.

About three-fourths of the firms with broiler processing plants had hatcheries and feed mills. Substantial numbers of firms with shell egg processing and turkey processing plants also had feed mills and hatcheries. Some firms maintained breeder flocks and raised replacements.

A few firms were engaged in grain production. This may expand in future years and feed ingredient storage capacities at feed mill sites may increase. Some poultry firms owned rendering

 Table 9-Functions performed by firms with turkey packing plant

 by regions, 1973-74

	Regions		
Item	Midwest, So. Northeast 1973-74	West 1973-74	Total ¹
Number of plants	13	10	23
Plants which:			
Buy live or RTC	8	7	15
Assemble live	12	8	20
Slaughter, eviscerate .	13	8	21
Cut-up	9	6	15
Further-process Receive, warehouse,	10	5	15
store	11	10	21
Long-distance haul Deliver to retailers, in-	7	6	13
stitutions	12	10	23
Plants which are part of firms having:	E		
Hatcheries	4	4	8
Feed mills	6	4	10
Own production	5	5	10
Contract production .	7	6	13
Breeder flocks	2	4	6

¹ Some may also be associated with rendering plants.

Table 10—Functions performed by firms with fowl packing plants, by regions, 1973-74

	Regions		
Item	Midwest, South 1973-74	West Coast 1973-74	Total ^I
Number of plants	9	6	15
Plants which:			
Buy live or RTC	9	6	15
Assemble live	9	4	13
Slaughter, eviscerate	9	4	13
Cut-up	1	3	4
Further-process	4	1	5
Receive, warehouse,			
store	6	6	12
Long-distance haul	8	3	11
Deliver to retailers, in-			
stitutions	8	6	14
Plants which are part			
of firms having:			
Hatcheries		2	2
Feed mills	1	1	2

¹Some may also be associated with rendering plants.

plants for directly recycling poultry byproduct meal into feed milling operations. Many firms with production operations were selling manure and litter to crop farmers. A few were producing dried fertilizer, and, in some instances, manure and litter were going to cattle feeding operations.

UNITED STATES DEPARTMENT OF AGRICULTURE WASHINGTON, D.C. 20250

POSTAGE AND FEES PAID U.S. DEPARTMENT OF AGRICULTURE AGR 101 FIRST CLASS



OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300

NOTICE: If you don't want future issues of this ERS publication, check here _____ and mail this sheet to the address below.

If your address should be changed, write your new address on this sheet and mail it to:

Automated Mailing List Section Office of Plant and Operations U.S. Department of Agriculture Washington, D.C. 20250

5074 TRRERO#50A422 18012 0001 TRI-AGENCY READING RM USDA A #505 GHI BLDG WASHINGTON DC 20018

PES-294

JUNE 1977

LIST OF TABLES

Title

Title

Page

1	Poultry and Egg Situation at a Glance
2	Egg-type chick hatchery operations
3	Forced molt layers as a percent of hens and pullets of laying age, first of month, selected
	States, 1976-77
4	Shell eggs broken and egg products produced under federal inspection, 1976-77
5	Egg supplies available to civilians for food, January-March 1976-77
6	Estimated January-June 1978 egg price/production relationships
7	Broilers: Eggs set and chicks placed weekly in 21 commercial broiler producing
	States, 1975-77
8	Estimated 4th quarter 1977 broiler price/consumption relationships
9	Young chicken: Supply and utilization, fourth quarter 1965-7615
10	Turkey hatchery operations, United States and 9 States, 1975-77
11	Turkeys: Monthly hatchings by breed type, advanced to indicate prospective month
	of marketing, 1975-77
12	Gross farm income from poultry and eggs, 1965-76
13	Estimated costs and returns for markets eggs
14	Estimated costs and returns for broilers
15	Estimated costs and returns for turkeys
16	Eggs: Supply and utilization, 1965-76
17	Supply and utilization: Young chicken, other chickens, and turkeys, 1965-76
18	Per capita consumption of eggs by quarters, 1965-76
19	Per capita consumption of young chicken and turkeys, 1965-76
20	Per capita consumption of red meat by quarters, 1965-7624
21	Chicken and Turkey: Production, disposition, and price 1965-76
22	Cold storage holdings of high protein foods
23	Eggs: Production, disposition and value, 1965-76
	Chicken and turkey: Pounds slaughtered, cut-up, and further processed, 1970-76
25	Egg production and average number of layers on hand during the year, by States, by
	regions and for the U.S., 1972-76
26	Chicken: Commercial broilers produced and nonbroilers raised, by States, by region
	and for the U.S., 1972-76
27	Turkeys: Production and gross income, 1975-76
28	Prices and price spreads for eggs and frying chickens, for selected cities and 10-city average
29	Selected poultry and egg statistics