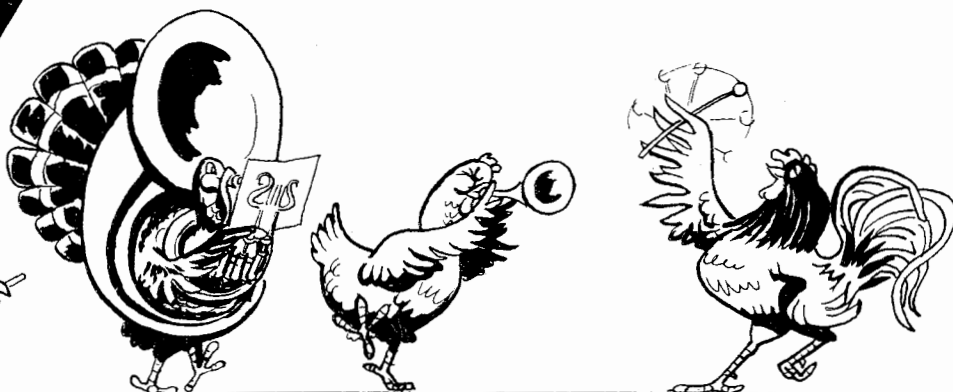


POULTRY PARADE



Riverside Campus

November 23, 1965

THE EGG MARKET SITUATION

Producers as individuals can do very little about the egg market situation. Average price received can be raised by selling a part or all of his supply directly to retailers or consumers, but the larger California commercial producer must depend almost entirely on the established wholesale market and its contingent pricing system.

This does not mean that producers can ignore production-consumption statistics and trends or the basic economic concepts involved in price-supply-demand relationships. Both short and long range plans and management decisions are best made with as complete a picture as possible of the economic factors affecting the present and future market situation. Any cooperative marketing effort of producers likewise must be based on sound economic facts and principles.

This issue of POULTRY PARADE is devoted to a review of the egg market situation from a national, regional, and local viewpoint. Some brief comments are given to supplement the data in the tables, followed by a summary of the 1966 Outlook and several statements of economic principles that could provoke much thought and discussion. You may wish to adapt this material to your newsletter. If you want some help in conducting a producer or egg dealer meeting on the egg market situation, please call on us.

U. S. Egg Production - Consumption

1. Note that in 1965 we had one million fewer layers than back in 1940, yet we will produce this year 61.7% more eggs. In 1944 we had 100 million more layers than we have today!

2. A rise in eggs per layer from 134 to 217 has made it possible to supply 62½ million more people with eggs without increasing layer numbers. This is a reflection of advances made through application of scientific principles (genetics, nutrition, disease control, management) to egg production.

3. If all the eggs produced in 1965, (64.2 billion) were placed in one dozen

cartons laid end to end, the cartons would form a line over one million miles long! Our marketing job is a big one.

4. Average price per dozen received by the producer includes hatching eggs and direct sales to retailers, the institutional trade, and consumers. Therefore the "average price" will always be higher than that received by the commercial operator selling his eggs to wholesale dealers.

5. Per capita consumption has been on the decline since World War II. Change in breakfast habits, the coffee break, competition from cold cereals, health fads, the need for less calories, and other explanations have been offered.

But note that per capita consumption now appears to be tapering off at about pre-World War II levels.

1964 Egg Production By States

1. California, No. 1 in egg production, out-produces its closest rival (Iowa) by more than 2 to 1.
2. The states with the largest percentage increases from '63 to '64 (Arkansas, Mississippi, Arizona, Alabama) are normal competitors for California's out-of-state markets.
3. Six states are ahead of California in eggs per hen, but cost per dozen may be a more important criterion of efficiency.
4. Thirty-five states have a higher average egg price to the producer than California. In many of these states a higher proportion of direct sales to hatcheries and consumers accounts for the difference. Surplus producing states tend to be below the national average, although there are exceptions.
5. Hens and pullets, January 1, 1965, includes pullets not yet laying.

Regional Egg Production

1. Note the regional shift in egg production from the upper mid-west and northeastern states to the south and west. Greatest decline has been in the West North Central States (Minnesota, Iowa, Missouri, The Dakotas, Nebraska, and Kansas). The southeastern states increased production by 50% in six years. Most of the West's increase is the result of California expansion.
2. The same trend in regional shifts appears to be taking place in 1965. However, it is not expected to continue to the point where egg production is concentrated to the same degree as broiler and turkey production. Relative transportation costs for feed vs. eggs indicate that egg production will tend to be oriented to population centers rather than feed supply.

Egg Surplus - Deficit Rank By States

1. California ranks high (third) among the states with calculated egg surpluses. Note that most of the other surplus states are located in the South and the Upper Mid-West where they are in favorable position to compete with California for markets in states to the east of us.
2. California's surplus, together with small excesses from Washington and Idaho, is large enough to supply all the deficiencies in Arizona, New Mexico, Oregon, Hawaii, Alaska, Montana, Wyoming, Colorado, Utah, and Nevada plus 36% of the shortage in Texas.

Trends In California Egg Production

1. Note the plateaus in number of layers at 18 million (1950-52) and 20 - 22 million (1953-59), followed by a rapid acceleration in the sixties to nearly 35 million.
2. Eggs per layer also increased (192 to 225) to give a production increase of $2\frac{1}{4}$ times.
3. California egg prices were above the U. S. average during the years this state was consuming more eggs than it produced (1950-1959). In the sixties when the state joined the surplus ranks, prices dropped below the national average.
4. Management income is not dependent on price alone. Note the disaster year of 1954 with eggs at 38.5¢ per dozen.

Southern California Egg Production

1. San Bernardino, Riverside, and San Diego are the leading egg production counties not only in the southern region but in the entire state. San Bernardino produces more eggs than any other county in the U. S. Riverside County is expanding at the most rapid rate. Orange and Los Angeles Counties will continue to decline in importance because of urbanization.
2. Of the state's total layer population, nearly two-thirds (63.6%) are found in the counties south of the Tehachapies.

3. On a calculated basis, five of the eight southern counties produce more eggs than they consume. Percentage surpluses are as follows: Riverside, + 84.6%; San Bernardino, + 81.1%; Ventura, + 71.5%; San Diego, + 59.6%; Orange, + 8.3%. Despite the large deficiency in Los Angeles County, the southern counties produce 30.7% more eggs than they use. This surplus of 1.61 billion eggs is slightly larger than the surplus for the entire state (1.57 billion). This means that the supply - demand situation for the 50 northern counties should be very nearly in balance.

4. Projected human population figures for California suggest that the home market for eggs will continue to grow at a rapid rate. This may not necessarily mean a similar growth in our total market, for competition from the South and Midwest for some of our present out-of-state customers will increase rather than diminish.



Milo H. Swanson
Poultry Specialist

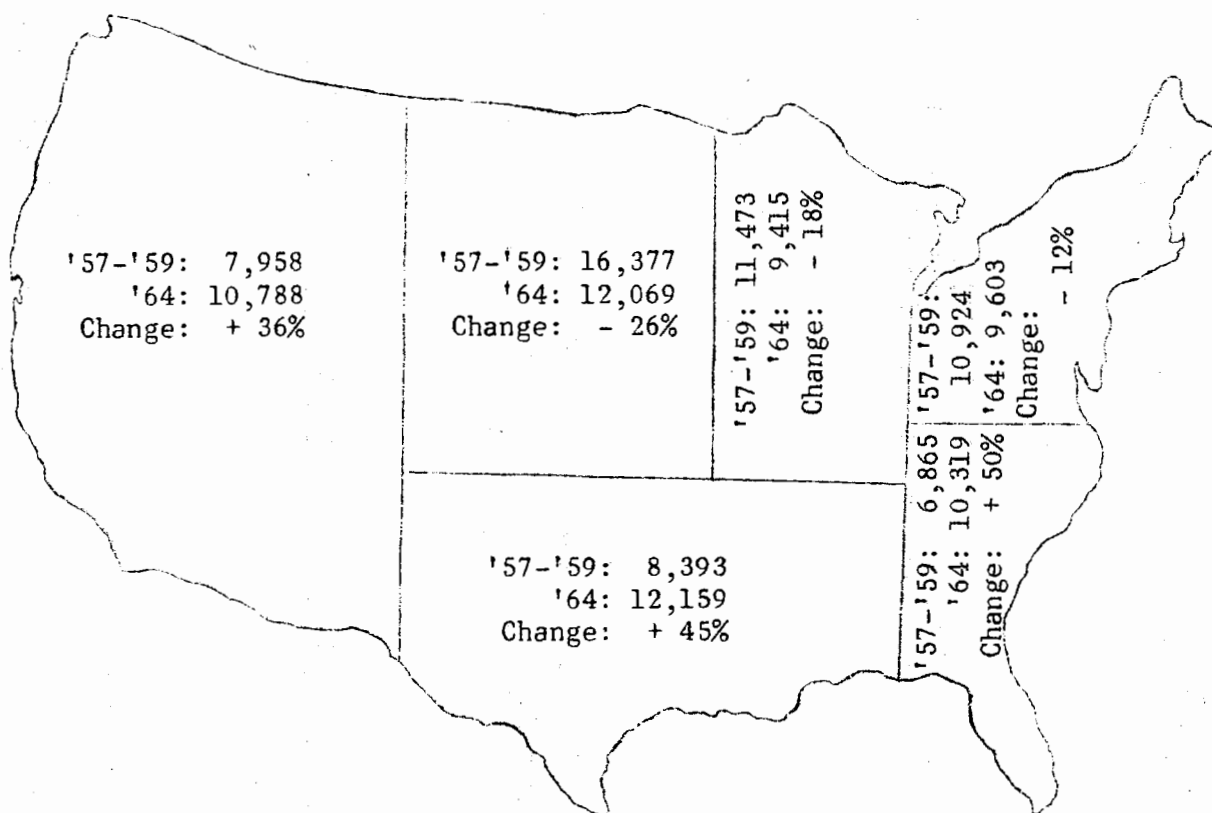
U. S. EGG PRODUCTION AND CONSUMPTION
1940 - 1965

<u>Year</u>	<u>No. of Layers</u> Millions	<u>Eggs per Layer</u> Number	<u>Total Production</u> Millions	<u>Price to Farmer</u> ¢/doz.	<u>Retail Price</u> ¢/doz.	<u>Total Population</u> Millions	<u>Per Capita Consumption</u> Number
1940	297	134	39,707	18.0	33.1	132.1	319
1941	301	139	41,894	23.5	39.7	133.4	311
1942	342	142	48,610	30.0	48.4	134.9	318
1943	383	142	54,547	37.1	57.2	136.7	347
1944	396	148	58,537	32.5	54.5	138.4	354
1945	369	152	56,221	37.7	58.1	139.9	403
1946	358	156	55,962	37.6	58.6	141.4	379
1947	345	160	55,384	45.3	69.6	144.1	383
1948	332	166	54,899	47.2	72.3	146.6	389
1949	331	170	56,154	45.2	69.6	149.2	383
1950	340	174	58,954	36.3	60.4	151.7	389
1951	328	177	58,063	47.7	73.7	154.3	393
1952	320	171	58,068	41.6	67.3	157.0	390
1953	312	186	57,929	47.7	69.8	159.6	379
1954	314	188	58,933	36.6	58.5	162.4	376
1955	309	192	59,526	39.5	60.6	165.3	371
1956	311	197	61,113	39.3	60.2	168.2	369
1957	307	199	61,026	35.9	57.3	171.3	362
1958	304	202	61,607	38.5	60.4	174.1	354
1959	306	207	63,335	31.4	53.0	177.1	352
1960	295	209	61,491	36.0	57.3	179.9	335
1961	295	210	62,080	35.5	57.3	183.8	326
1962	298	212	63,144	33.6	54.0	186.7	324
1963	297	213	63,186	34.4	55.1	189.4	316
1964	298	217	64,546	33.8	53.9	192.1	314
1965	296	217	64,200	33.0	52.0	194.6	307

1964 EGG PRODUCTION BY STATES

<u>State By Rank</u>	<u>Egg Production Millions</u>	<u>Change from '63 %</u>	<u>% of U. S. %</u>	<u>Eggs Per Hen Number</u>	<u>Av. Price Received ¢/doz.</u>	<u>Hens & Pullets Jan. 1, '65 Thousands</u>
1. Calif.	7,801	+ 5.29	12.09	225	31.5	42,262
2. Iowa	3,818	- 3.10	5.92	226	25.3	18,852
3. Ga.	3,299	+ 9.46	5.11	213	40.9	22,588
4. Pa.	3,143	+ 0.93	4.87	216	36.6	17,195
5. Minn.	2,791	- 4.58	4.32	224	25.4	13,542
6. Tex.	2,592	+ 3.93	4.02	204	35.9	14,885
7. Ohio	2,424	- 0.45	3.74	220	31.8	12,492
8. No. Car.	2,388	+ 2.75	3.70	216	38.8	14,418
9. Ark.	2,242	+21.72	3.47	214	37.3	13,443
10. Ind.	2,182	- 2.63	3.38	216	30.8	12,282
11. Ala.	2,177	+11.64	3.37	217	40.5	13,207
12. Miss.	2,160	+18.10	3.35	220	40.5	12,942
13. N. Y.	1,909	+ 5.30	2.96	215	36.5	10,653
14. Ill.	1,863	- 7.50	2.89	213	28.2	9,681
15. N. J.	1,632	-10.08	2.53	199	35.9	8,318
16. Wisc.	1,630	- 8.63	2.53	222	29.0	8,599
17. Fla.	1,611	+14.09	2.50	231	34.1	9,643
18. Nebr.	1,397	- 3.39	2.16	217	24.6	7,103
19. So. Dak.	1,383	- 4.36	2.14	218	24.3	7,262
20. Mo.	1,366	- 7.95	2.12	206	27.7	7,005
21. Mich.	1,316	+ 4.03	2.04	223	30.7	7,170
22. Va.	1,237	- 1.04	1.92	214	39.2	6,521
23. So. Car.	1,053	+ 3.13	1.63	213	39.4	6,237
24. Wash.	1,041	- 0.95	1.61	226	31.9	5,624
25. Tenn.	973	+ 5.65	1.51	194	36.3	5,837
26. Me.	952	+ 6.13	1.47	230	43.4	4,745
27. Ky.	943	+ 3.29	1.46	193	30.3	5,934
28. Kans.	927	- 4.43	1.44	210	25.4	4,885
29. Conn.	773	+ 5.46	1.20	220	46.1	4,034
30. Mass.	607	+ 3.41	0.94	225	45.7	2,958
31. Ore.	550	- 2.65	0.85	226	36.1	2,801
32. La.	542	+ 7.32	0.84	195	39.4	3,388
33. Okla.	530	+ 2.12	0.82	201	31.0	2,872
34. No. Dak.	387	- 0.78	0.60	198	25.7	2,057
35. N. H.	348	+ 3.57	0.54	222	43.0	1,793
36. W. Va.	327	- 0.61	0.51	210	39.0	1,809
37. Md.	276	+ 2.22	0.43	206	39.5	1,606
38. Utah	273	- 8.70	0.42	225	32.8	1,419
39. Colo.	262	- 0.76	0.41	208	34.1	1,363
40. Ida.	260	+ 3.59	0.40	224	33.8	1,342
41. Ariz.	193	+14.88	0.30	212	36.2	1,086
42. Mont.	189	- 3.08	0.29	207	34.4	1,035
43. Hawaii	188	+10.59	0.29	224	54.3	1,020
44. Vt.	156	+ 3.31	0.24	228	40.8	764
45. N. Mex.	149	- 6.87	0.23	203	33.8	857
46. Del.	128	+ 3.23	0.20	207	46.4	766
47. Rhode I.	83	+ 1.22	0.13	217	46.1	423
48. Wyo.	60	+ 3.33	0.09	210	35.9	310
49. Nevada	10	-10.00	0.02	208	36.6	54
50. Alaska	5	---	0.01	208	82.0	38

REGIONAL EGG PRODUCTION
Millions



'65 VS. '64 REGIONAL EGG PRODUCTION
January - July

<u>Region</u>	<u>1964</u>	<u>1965</u>	<u>% Change</u>
	<u>Millions</u>		
North Atlantic	5,637	5,565	-1.3
East North Central	5,651	5,550	-1.8
West North Central	7,510	7,085	-5.7
South Atlantic	6,131	6,312	3.0
South Central	7,184	7,511	4.6
West	6,230	6,356	2.0
48 States	38,343	38,379	.1
Alaska and Hawaii	113	116	2.7
United States	38,456	38,495	.1

EGG SURPLUS - DEFICIT RANK BY STATES

1964

Rank & State	Egg Production Millions	Market Eggs* Millions	Human Population Thousands	Egg Consumption** Millions	Market Egg Surplus or Deficit Millions
1. Iowa	3,818	3,568	2,756,000	865	+ 2,703
2. Georgia	3,299	3,083	4,294,000	1,348	+ 1,735
3. California	7,801	7,290	18,234,000	5,725	+ 1,565
4. Minnesota	2,791	2,608	3,521,000	1,106	+ 1,502
5. Arkansas	2,242	2,095	1,933,000	607	+ 1,488
6. Mississippi	2,160	2,019	2,314,000	727	+ 1,292
7. So. Dakota	1,383	1,292	715,000	225	+ 1,067
8. Alabama	2,177	2,034	3,407,000	1,070	+ 964
9. Nebraska	1,397	1,305	1,480,000	465	+ 840
10. No. Carolina	2,388	2,232	4,852,000	1,524	+ 708
11. Maine	952	890	989,000	311	+ 579
12. Indiana	2,182	2,039	4,825,000	1,515	+ 524
13. Wisconsin	1,630	1,523	4,107,000	1,289	+ 234
14. So. Carolina	1,053	984	2,555,000	802	+ 182
15. Kansas	927	866	2,225,000	698	+ 168
16. No. Dakota	387	362	645,000	203	+ 159
17. New Hampshire	348	325	654,000	205	+ 120
18. Washington	1,041	973	2,984,000	937	+ 36
19. Idaho	260	243	692,000	217	+ 26
20. Vermont	156	146	409,000	128	+ 18
21. Delaware	128	120	491,000	154	- 34
22. Montana	189	177	705,000	221	- 44
Hawaii	188	176	701,000	220	- 44
24. Wyoming	60	56	343,000	107	- 51
25. Utah	273	255	992,000	311	- 56
26. Oregon	550	514	1,871,000	587	- 73
27. Alaska	5	5	250,000	79	- 74
28. Missouri	1,366	1,277	4,409,000	1,384	- 107
29. Kentucky	943	881	3,159,000	992	- 111
30. Nevada	10	9	408,000	128	- 119
31. Connecticut	773	722	2,766,000	869	- 147
32. New Mexico	149	139	1,008,000	317	- 178
33. Rhode Island	83	78	914,000	287	- 209
34. Virginia	1,237	1,156	4,378,000	1,375	- 219
35. Dist. of Col.	---	---	808,000	254	- 254
36. W. Virginia	327	306	1,797,000	564	- 258
37. Oklahoma	530	495	2,465,000	774	- 279
38. Tennessee	973	909	3,798,000	1,193	- 284
39. Florida	1,611	1,505	5,705,000	1,791	- 286
40. Arizona	193	180	1,581,000	496	- 316
41. Colorado	262	245	1,966,000	617	- 372
42. New Jersey	1,632	1,525	6,682,000	2,098	- 573
43. Louisiana	542	506	3,468,000	1,089	- 583
44. Pennsylvania	3,143	2,937	11,459,000	3,598	- 661
45. Maryland	276	258	3,432,000	1,078	- 820
46. Texas	2,592	2,422	10,397,000	3,265	- 843
47. Ohio	2,424	2,265	10,100,000	3,171	- 906
48. Massachusetts	607	567	5,338,000	1,676	- 1,109
49. Michigan	1,316	1,230	8,098,000	2,543	- 1,313
50. Illinois	1,863	1,741	10,489,000	3,294	- 1,553
51. New York	1,909	1,784	17,915,000	5,625	- 3,841

* Market eggs = egg production minus those used for hatching or for other reasons did not reach the consumer market (6.55% of total production).

** Based on national per capita consumption of 314 eggs.

TRENDS IN CALIFORNIA EGG PRODUCTION
1950 - 1965

<u>Year</u>	<u>Av. No.</u>	<u>Eggs per</u>	<u>Eggs</u>	<u>Production</u>	<u>Price Received</u>		<u>Mgt. Income</u>
	<u>Layers</u>	<u>Layer</u>	<u>Produced</u>	<u>Index</u>	<u>Calif.</u>	<u>U. S.</u>	<u>Per Hen*</u>
	Thousands	Number	Millions		¢/doz.		Dollars
1950	18,043	192	3,469	100	41.5	36.3	
1951	18,112	192	3,485	100	54.2	47.7	
1952	18,111	197	3,574	103	47.0	41.6	
1953	20,639	203	4,183	121	53.2	47.7	2.01
1954	20,854	209	4,350	125	38.5	36.6	- .02
1955	20,847	211	4,404	127	41.7	38.9	1.24
1956	20,608	218	4,500	130	39.6	38.7	.95
1957	20,761	222	4,603	133	36.9	35.8	.78
1958	21,624	225	4,871	140	38.9	38.3	1.32
1959	22,884	229	5,236	151	31.5	31.4	.08
1960	25,260	225	5,678	164	35.6	36.0	1.26
1961	27,846	224	6,232	180	33.7	35.4	.94
1962	30,838	224	6,907	199	30.4	33.6	.58
1963	32,936	225	7,409	214	31.4	34.4	.73
1964	34,617	225	7,801	225	31.5	33.8	.68

* Based on Poultry Management Studies

SOUTHERN CALIFORNIA EGG PRODUCTION

1964

County County	No. of <u>Ranches*</u>	No. of <u>Layers</u> Millions	Value of <u>Eggs</u> \$ Millions	Egg <u>Production</u> Millions	Human <u>Population</u> Thousands	Egg Surplus or Deficit** Millions
Los Angeles	361	1.7	9.9	376	6,702	- 1,753
Orange	108	1.6	9.0	385	1,046	+ 32
Riverside	215	5.7	34.2	1,369	385	+ 1,158
San Bernardino	462	6.5	38.6	1,568	617	+ 1,271
San Diego	268	4.5	25.1	1,076	1,164	+ 641
Santa Barbara	8	0.3	2.0	72	230	- 5
Ventura	14	1.7	10.2	410	288	+ 293
Imperial	---	< 0.1	< 0.1	2	84	- 24
Total	1,436	22.0	129.0	5,258	10,516	+ 1,613

*1963 estimate of ranches with 5,000 or more layers

**Based on average per capita consumption of 314 eggs and failure of 6.55% of total egg production to reach consumer market (hatching eggs, loss, etc.)

PROJECTED HUMAN POPULATION - 1960 TO 1980*

<u>County</u>	<u>1960</u>	<u>1965</u>	<u>1970</u> Thousands	<u>1975</u>	<u>1980</u>
Los Angeles	6,002	6,800	7,501	8,256	9,024
San Diego	1,022	1,220	1,380	1,570	1,770
Orange	684	1,070	1,430	1,780	2,120
San Bernardino	501	602	720	868	1,040
Riverside	303	397	490	598	725
Ventura	196	287	404	540	701
Santa Barbara	162	255	320	386	460
Imperial	73	81	87	94	102
14 Southern Co.	9,905	11,816	13,567	15,477	17,497
44 Northern Co.	5,669	6,725	7,753	8,923	10,203
Total California	15,574	18,541	21,320	24,400	27,700
Arizona	1,318	1,641	2,011	---	---

* Los Angeles Chamber of Commerce Estimates

OUTLOOK FOR 1966

1. Layer Numbers and Production

	Hens		Laying Pullets		Pullets Not Yet Laying		Total	
	Mil.	%	Mil.	%	Mil.	%	Mil.	%
Oct. 1, '64	160	41.9	142	37.1	80	21.0	382	100
Oct. 1, '65	<u>170</u>	45.5	<u>130</u>	34.8	<u>74</u>	19.7	<u>274</u>	100
% Change	+6.25		-8.45		-7.50		-2.1	

- a. For the first half of 1966, numbers of layers will run below the comparable period for 1965. In the table above, note the reduction in total layers and potential layers on Oct. 1, 1965 and the larger proportion of older birds compared to 1964. This will be partially offset by increased hatchings during July - December of 1965.
- b. Number of layers for the last half of 1966 will largely depend on replacement hatchings the next 6-7 months. Improved egg-feed price ratios will encourage expansion. Rate of lay in July - December 1966 will be higher than 1965 because of younger flocks.
- c. Egg production in the first half of 1966 will be slightly under that of 1965, but during the July - December period of 1966, production will exceed that of 1965. Overall output for the full year of 1966 is expected to be up about 1%.

2. Price Levels

- a. Egg prices to producers for the first six months of 1965 averaged substantially below the same period of 1964. This was a reflection of some increased production in late 1964 and a sudden upsurge in early 1965 rather than a sharp reduction in demand. There were no U.S.D.A. purchases this year.
- b. By mid-July 1965 prices were comparable to those of 1964 and closely parallel them through August into September. Fourth quarter prices have been and will continue to be substantially higher than for those of 1964. Recent Defense Department purchases of dried egg solids equivalent to 1% of October - December shell production and a decline in total supply of eggs are mainly responsible for the higher prices.
- c. Nationally egg prices for all of 1965 will average about 1¢ per dozen below 1964.
- d. The price pattern for 1966 is expected to be the reverse of that for 1965. Prices for the first half of 1966 will remain relatively strong. Additional Defense Department purchases will be a factor. With a seasonal

increase in supply, prices for the second quarter will begin a decline.

- e. Prices for the second half of 1966 will probably be well below those of 1965 because of younger flocks and some expansion. Output during this period could be up by more than 2% over 1965.
- f. The overall egg-price for 1966 is expected to average very close to that for 1965.

SOME ECONOMIC CONCEPTS REGARDING EGG PRODUCTION - CONSUMPTION - PRICE RELATIONSHIPS

Egg Demand Inelastic

Consumer demand for eggs is relatively constant because eggs have no real substitute. When the retail price shifts up or down, the housewife and institutional trade continue to buy about the same number of eggs. We call this, in economic terms, an inelastic demand. Studies show that a 4% decrease in retail price results in only a 1% increase in sales.

Because of this constancy of demand, the wholesale egg market is extremely price sensitive. It can be stabilized only by holding supply in line with demand.

Elasticity of Supply

When short-run egg prices are favorable, producers can increase supplies quickly by holding hens longer and/or force molting before final disposal. If favorable prices continue, additional replacement chicks can be started. Thus, supply of eggs is relatively elastic on the rising side of the egg price cycle.

Unfortunately, when egg prices decline, egg supply is much more inelastic--that is, producers are reluctant to reduce flock size to bring supply in line with demand. The result is continued overproduction, prolonged depression of prices, and failure of individual producers to survive because of the price-cut squeeze.

The Egg Price Problem

Suggestions for solving the egg price dilemma are many and varied. Most of them have possibilities of industry benefit but none can be considered a panacea for the price problem. Ralph L. Baker, Extension Poultry Marketing Specialist, Ohio State University, did an excellent job of analyzing this situation in a recent newsletter. The following quotation is from his discussion:

"One suggestion to improve long-run egg prices was through development of new products, research promotion, and consumer education. There is little

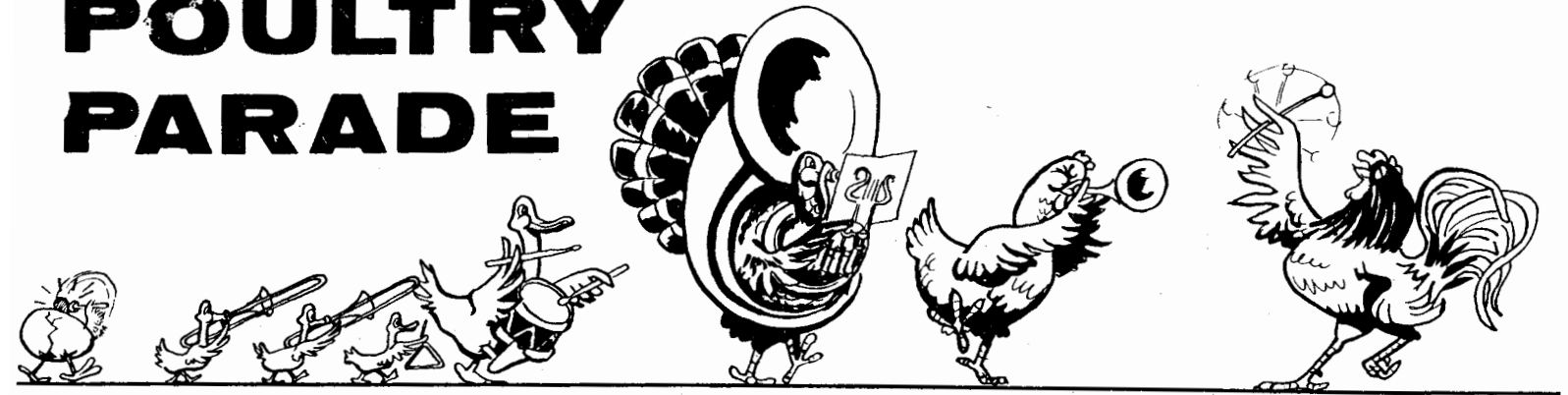
or no question but the market for eggs can be broadened through new products. In fact, new products and new ways of merchandising will need to be developed to maintain the current share of the total market. If the industry continues promotional programs, the decline in egg consumption is likely to be less rapid than without a good promotional program. Those with investment in the industry will need to do this to protect their investment. But this will not solve egg price problems. Regardless of what is done from a promotional standpoint, there will be occasional market gluts and resulting low egg prices.

"Government purchase and diversion programs fit into a similar category. Products may be shipped out of the country. This increases demand for industry services and has a definite effect upon the economy as a whole. But purchases become part of the expected demand. So supply builds up to where prices in the long run about equal cost of production. Occasional gluts would occur which may be partially removed by a purchase program. But this is not a long-run price solution unless the program is used as a guide to projected demand with the government being responsible for maintaining prices at a given level.

"Market education can do a relatively good job of indicating the consequences of particular actions. The individual is usually unable to affect market price by making an adjustment in his own operation. Education is in the same category as voluntary supply control. If there were all like-minded people in the industry who were interested in the industry as a whole, then such an operation would work. We have not reached that stage of development, however. In fact, this is the opposite to the philosophy of perfect competition.

"Grades and product differentiation will not solve basic price problems. Grading is a must in the egg industry and some producers or even some sections might gain through sectional grades. But the total quantity of eggs will determine prices. Only by controlling production through elimination of x percent of lower quality eggs would this sort of thing raise prices generally. Then what would prevent expansion for later destruction?"

POULTRY PARADE



Riverside Campus

December 20, 1965

Cost of Production

The end of the year brings with it the usual summary of records and their analysis to determine profits or losses and overall performance. One statistic that always creates a great deal of interest is "cost of production," whether it be for a dozen of eggs or a pound of poultry meat. Because cost figures are often used in comparing one ranch with another or one section of the county with another, it is most important that our definitions be clear.

"Cost" or "Total Cost" can be broken down in several ways, e.g. into cash and non-cash costs. Cash costs are generally those involving an actual outlay of money, as for feed, chicks, medications, etc. Some accountants would include depreciation as a cash cost since a cash outlay at some time was involved. Non-cash costs are the "normal profits" one assigns to unpaid management, labor, land, and capital supplied by the one assuming the risk. Decisions as to what are normal profits should be based on estimated returns from alternative opportunities for each input. Many poultry cost studies include family labor and depreciation in non-cash costs. Both cash and non-cash costs must be considered in the total cost picture.

Costs can also be classified as fixed and variable. Fixed costs are those which continue even if there were no production (taxes, depreciation, insurance, etc.) Variable costs (feed, medicines, etc.) depend upon output. This division of total cost is useful in periods of low prices when decisions must be made on whether or not to sell a flock and let facilities stand idle.

Marginal cost may be defined as the cost when production is continued for an extra unit of time. For example, if a flock is kept for 61 weeks instead of being sold at 60, cost per dozen for that 61st week may be quite different from the average variable cost for the first 60 weeks. Marginal cost becomes important in deciding when to sell a particular flock.

Poultry Science Annual Meeting

Poultry Farm Advisors should begin making plans now to attend and participate in the 1966 annual meeting of the Poultry Science Association to be held at Utah State University, Logan, August 22-26. This is the first meeting of the Association to be held in the Western States since 1960, when California was the host at Davis.

Dan Andrews, Extension Poultry Specialist for Washington State, is program chairman for the Extension Section, and Dan is anxious to develop a program that will be both interesting and educational. We would urge each of you to seriously consider presenting a paper on some phase of your field research or on some extension teaching technique that you may have developed. Watch the January issue of Poultry Science for instructions on submitting an abstract. Usually abstracts are due by about May 1.

Many of you Advisors now belong to the Association and know that the annual meeting is a "family affair", making it possible to combine it with a vacation trip. If you've let your membership lapse, this would be a good time to renew it. Let us know if we can help you with reinstatement or in the preparation of a paper.

List of People in Poultry and Related
Fields, University of California, Davis
and Berkeley, 1965

Poultry Husbandry

- Prof. C. R. Grau - Embryo nutrition.
Prof. F. H. Kratzer - Nutrition of Turkeys. Deleterious components of food materials.
Prof. S. Lepkovsky - Regulatory mechanism of food intake.
Prof. L. W. Taylor - Incubation and genetics.
Prof. W. O. Wilson - Photoperiodism. Thermal effects.
Assoc. Prof. U. K. Abbott - Incubation. Poultry breeding.
Assoc. Prof. H. Abplanalp - Animal Breeding.
Assoc. Prof. R. E. Burger - Neural control of respiration. Neuromuscular system.
Assoc. Prof. D. W. Peterson - Flavor components of poultry products.
Asst. Prof. E. E. Kriekhaus - Brain mechanisms and behavior.
Asst. Prof. F. X. Ogasawara - Regulation cell metabolism. Avian cell and tissue growth.
Prof. Emer. V. S. Asmundson - Breeding of turkeys and meat birds.
Prof. Nutr. Emer., Lec. & Res. Assoc. L. C. Morris - Vitamin and mineral requirements.

Agricultural Engineering

- Assoc. Prof. S. A. Hart - Waste disposal.

Animal Physiology

- Prof. F. W. Lorenz - Reproductive physiology.
Prof. A. H. Smith - Space physiology.

Food Science and Technology

- Prof. R. E. Feeney - Biochemistry of avian proteins.
Lect. A. W. Brant - Poultry products technology.

Nutrition

- Prof. F. W. Hill - Energy nutrition.

Avian Medicine

- Prof. H. E. Adler - Mycoplasma of chickens and turkeys. Paracolon (Arizona) - Salmonella.
Prof. R. A. Bankowski - Nature, control and prevention of ornithosis in turkeys and chickens. Virus diseases, particularly of the respiratory system, of chickens. Leukosis. Studies of two new viral agents on turkey reproduction and fertility.
Assoc. Prof. L. G. Raggi - Studies on virus #18011. Effects of infectious bronchitis on pituitary and genitalia of layers. Effect of Newcastle disease virus on adult turkeys. Leukosis.
Lec. R. Yamamoto - Epizootiology of infectious coryza in chickens. Studies on Mycoplasma ("N" type) in turkeys.

Public Health

- Assoc. Prof. W. W. Sadler - Salmonellae and Salmonellosis (ecology). Erysipelas in turkeys.

LOOKING AHEAD

- Jan. 4 - 21 Short Course in Statistics, Riverside Campus.
Jan. 13 - 14 Western "Quickie" Workshop, Disneyland Hotel, Anaheim.
Jan. 19 Economic Training Conference, Riverside Campus.
Mar. 24 - 26 Pacific Dairy & Poultry Assn. Convention, Palm Springs.
Apr. 27 - 29 Annual Meeting of PENB, Statler Hilton Hotel, Los Angeles.
May 21 Mt. San Antonio College Field Day
Aug. 22 - 26 Poultry Science Assn. Annual Meeting, Logan, Utah.

We wish you all the joys and blessings
of the Holiday Season.

New Publications

Egg Production

Grain Sorghums In Commercial Poultry Rations, OSU Extension Facts 8001, Oklahoma State Univ (2 pp.)

Use of Wheat in Poultry Rations, OSU Ext. Facts 8000, Oklahoma State Univ. (2 pp.)

Managerial Aspects of Least-Cost Feed Formulation with Linear Programming, Marketing Research Report No. 729, USDA Economic Research Service (19 pp.)

The Metabolizable Energy of Feed Ingredients for Chickens, Research Report, Univ. of Connecticut (11 pp.)

Caution in Using Feed Additives for Laying Birds, MF-148, Kansas State Univ.

Table Egg Production, OSU Ext. Facts 8202, Oklahoma State Univ. (2 pp.)

Producing High Quality Eggs on the Farm, Cornell Ext. Bull. 1138, Cornell Univ. (15 pp.)

Raising Poultry for Eggs, Circular 4-H, 140, Univ. of Wisconsin (9 pp.)

Louisiana's Commercial Poultry Industry, Louisiana State Univ. (26 pp.)

Disposal Pits and Incinerators for Poultry, OSU Ext. Facts 8200, Oklahoma State Univ. (4 pp.)

Emergency Warning Systems for Poultry Houses, Ext. Bull. 1145, Cornell Univ. (12 pp.)

Ventilation for Poultry Houses, Ext. Bull. 1140, Cornell Univ. (31 pp.)

Lighting for Increased Egg Production, OSU Ext. Facts 8201, Oklahoma State Univ. (2 pp.)

Lighting Programs for Growing Pullets and Egg Production, Fact Sheet 169, Univ. of Maryland.

Lighting Programs for Pullets and Layers, Leaflet 272, Pennsylvania State Univ.

GUIDE - Electric Heat Cable for Farm and Home Use, Ag. Engineering 2, Univ. of Missouri.

Poultry Management Decisions and Calculated Considerations of Prospective Income Expense Items, Pennsylvania State Univ. (29 pp.)

Turkeys

Contracting and Other Integrating Arrangements in the Turkey Industry, MRR #734, USDA Economic Research Service (43 pp.)

Turkey Feed Consumption: Weight Gains and Conversion Costs, TA #30 (Rev.), Univ. of California (4 pp.)

Turkey Artificial Insemination Layout, AXT-71, Univ. of California (4 pp.)

Let's Talk Turkey, Poultry & Egg National Board, 8 S. Michigan Ave., Chicago, Ill. 60603, (35 pp.)

Broilers

Costs and Returns for Commercial Broiler Farms in Maine, Delaware, and Georgia, 1964, FCR-33, USDA Economic Research Service (20 pp.)

Technology in Broiler Production: Impact on Feed Conversion and Market Weight, ERS-246, USDA Economic Research Service (16 pp.)

Environmental Control For Broilers, No. 27, Univ. of Maryland (6 pp.)

Cost and Performance of Electric Chick Brooders Under Missouri Conditions, Special Report 46, Univ. of Missouri.

West Virginia's New Housing and Management System for Raising Broilers, Bulletin 508, West Virginia Univ., (15 pp.)

Insulation and Mechanical Ventilation of Delaware Broiler Houses, Coop. Bull. No. 2, Univ. of Delaware (20 pp.)

Disease - Parasites - Fly Control

A Manual of Poultry Diseases, B-1031,
Texas A & M Univ. (46 pp.)

Report of the Second Study Group Confer-
ence on Mycoplasma Gallisepticum Infec-
tion in Chickens and Turkeys, ARS 91-55
USDA Agricultural Research Service (16
pp.)

Fumigation Cabinet and Procedure for
Fumigating Turkey Eggs, Leaflet #506
Texas A & M Univ.

External Poultry Parasites Are Costly,
OSU Ext. Facts 7004, Oklahoma State
Univ. (2 pp.)

GUIDE - Fly Control in Poultry Buildings,
Univ. of Missouri.

Processing - Marketing

Related Demand for Broiler Meat In The
U. S., by Geographic Regions, by States
and Urbanization by States, Projected
to Years 1960, 1975, and 1980, Tech.
Bull. N.S. 45, Univ. of Georgia (66 pp.)

Mechanized Weighing and Packing of Broil-
er Parts to Exact Weights, Marketing Re-
search Report No. 700, USDA, ARS, and
Univ. of Georgia (12 pp.)

Poultry Grading Manual, Agricultural
Handbook No. 31 (Rev.), USDA Consumer
and Marketing Service (39 pp.)

Quality Control of Poultry Products,
Univ. of Connecticut (39 pp.)

Egg Handling, A Guide for Retailers,
Pub. 524, Univ. of Tennessee (6 pp.)

Miscellaneous

GUIDE - Fallout Protection for Live-
stock and Poultry, Univ. of Missouri.

Ducks and Geese, Circular 4-H, 138,
Univ. of Wisconsin (9 pp.)

For-What-It's-Worth Department

In answering inquiries from Farm Advisors Extension Specialists often use words and phrases that appear to have their usual meanings, but in reality if the full truth were known, their definitions would be quite different. To help Advisors better understand their memos, the following clarifications are offered:

"It is in the process": So wrapped up in red tape that the situation is almost hopeless.

"We will look into it": By the time the wheel makes a full turn we assume you will have forgotten about it too.

"Under consideration": Never heard of it.

"Under active consideration": We'll look in the files for it.

"Reliable source": The guy we just met.

"Informed source": The guy who told the guy we just met.

"Unimpeachable source": The guy who started the rumor originally.

"We are making a survey": We need more time to think of an answer.

"Give us the benefit of your present thinking": We'll listen to what you have to say as long as it doesn't interfere with what we have already decided to do.

"We will advise you in due course": If we figure it out, we'll let you know.

"Forwarded for your consideration": You hold the bag for a while.



Milo H. Swanson
Poultry Specialist