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SAN DIEGO COUNTY

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INTRODUCTION

This is the fourth annual report of the San Diego County turkey egg enterprise study. This study was undertaken by a group of local turkey egg producers in cooperation with the Agricultural Extension Service for the purpose of learning more about this rather unusual enterprise. Although the cost information obtained may be quite useful in working out a marketing program, it is not presumed that costs shown by these records should be made the basis for pricing hatching eggs but rather that the information developed may help local growers to obtain a profit at whatever price they are able to receive for their eggs.

There are three steps in turkey production: (1) securing the eggs, (2) hatching them, and (3) raising the poults. To a considerable extent each of these phases or steps is being undertaken by some producers who specialize more in that one line. The local climate allows early hatching of poults and early egg production and enables local turkey growers to produce more eggs than they need for their own meat production. Since few other turkey districts obtain such early egg production, there is a rather good market for the eggs from this district, and their production and handling has become quite a business. It is hoped that this study may assist in the development of this industry by improving the quality and timeliness of the eggs and their efficiency and economy of production and marketing.

This report covers the production of hatching eggs only and hence is for only part of the year. Cooperators have, therefore, reported only the costs which are incurred in the production of eggs. Where land and equipment also serves for meat turkey production, costs have been allocated to both uses as carefully as can be done. The date each record was started and the date it was closed are shown in Table 3. Interest and depreciation on buildings and equipment, for purposes of simplicity have been figured for half a year in all cases where facilities were used for both meat and egg production. Breeding stock was either purchased at about the time the record opened or was selected from stock previously raised by these same growers. In the latter case it was given a value slightly higher than the probable returns if it had been sold for meat. The ultimate sale of this breeding stock at considerably lower prices at the close of the laying season usually results in rather a considerable net cost of stock, as shown in Table 3.

Inspection of the five individual flock records for 1941 shows wide ranges in profits obtained and in methods followed. Table 1 shows the main factors which determine profit. These factors are the egg production per hen, the per cent of total eggs salable as hatching eggs, the price received for hatching eggs, and the net cost per hen of the hatching eggs sold. The first three determine the income per hen from hatching eggs sold, while income less costs determines net income or profit. To understand the various profit or earning figures which are shown in Table 1, it will be necessary to read the definitions or explanations on the next page (Page 2). Table 1 shows egg production per hen to have had a greater influence on profits than any other factor and Table 3 shows some of the important factors influencing egg production. Costs are next in importance in determining profits and are shown in detail in Table 2.

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EXPLANATION OF TERMS

Average number of hens. The turkey egg producer starts the breeding period with a certain number of hens but some die and others are sold before the close of the period so the number of hens is best expressed as an average for the period. The average number is obtained by dividing the total hen days by the number of days in the breeding period. The average number is usually about 5 to 10 per cent less than the starting number. All production, cost, and income figures are shown for the average hen.

Eggs laid per hen is the total eggs laid during the period divided by the average number of hens. Not all of these eggs meet hatching requirements, however, so the hatching eggs sold per hen is the significant production figure in terms of the main product. Eggs used for home hatching are considered as hatching eggs sold. On the average, about 80 to 90 per cent of the eggs laid were used or sold for hatching. The cull eggs are considered a by-product in this study and an income other than from hatching eggs.

Income not hatching eggs is income from cull eggs sold or eaten in the home and from sacks and fertilizer. This income is deducted from total costs to get the net cost of hatching eggs.

Hatching egg income is the amount received from hatching eggs sold and used for hatching. The per-hen figure is the product of the eggs sold per hen and the average price per hatching egg sold.

Net stock cost is the amount by which the value of all breeding turkeys at the start of the period exceeds the value of such turkeys when sold or on hand at the close of the period. Death losses, the seasonal decline in the value of turkeys, and the decline in their condition or quality combine to account for this item of cost.

Total expense of production is composed of all cash expenses and the value of farm-provided items including the value of the operator's own labor, depreciation on the facilities used, and interest on the investment. The net cost is this total with income not hatching eggs deducted.

Management income is the amount by which the total income from hatching eggs exceeds their net cost.

Labor income is the amount by which income exceeds all net costs except the value of the operator's labor, or it is management income plus the value of that labor. It is the amount received for management and labor.

Farm income is the labor income plus interest on investment. It is the operator's total net income from his enterprise and is composed of interest for the use of his capital, wages for the labor performed, and profit for his management.

Capital and management income is the management income plus the interest on investment. Where all labor is hired it is the operator's net income composed of the return to invested capital and a reward for good management.

Net profit is the net income as computed by the producer himself and because of differences in method, may not conform to any one of the four standard earning figures above.

TABLE 1 - General Summary of Turkey Egg Records

	13	7	3	25	9	1941 Average	1940 Average	1939 Average	1938 Average
Average number of hens	222	103	226	1311	199	2061	2591	5337	3572
Eggs laid per hen	87.4	84.4	64.1	72.0	69.9	73.2	53.5	57.1	48.5
Hatching eggs sold per hen	75.1	71.7	55.3	64.9	59.6	64.8	43.4	50.6	44.6
Per cent sold as hatching eggs	85.7	84.7	86.3	90.1	85.3	88.5	81.1	88.6	92.0
Average price per hatching egg	12.4¢	12.1¢	12.3¢	11.2¢	10.2¢	11.4¢	11.2¢	13.9¢	13.9¢
Net cost per hatching egg	6.2	6.3	5.7	6.7	8.1	6.6	10.0	8.8	10.6
Management income per egg	6.2	5.8	6.6	4.5	2.1	4.8	1.2	5.1	3.3
Hatching egg income per hen	$9.30	$8.68	$6.80	$7.24	$6.09	$7.38	$4.87	$7.06	$6.22
Net cost per hen	4.61	4.54	3.19	4.30	4.83	4.28	4.33	4.44	4.76
Management income per hen	4.69	4.14	3.61	2.94	1.26	3.10	.54	2.62	1.46
Plus value of operator's labor	.95	1.50	.08	.57	2.09	.75	.43	.43	.57
Labor income per hen	5.64	5.64	3.69	3.51	3.35	3.85	.97	3.05	2.03
Plus interest on investment	.14	.17	.11	.10	.15	.11	.12	.12	.16
Farm income per hen	5.78	5.81	3.80	3.61	3.50	3.96	1.09	3.17	2.19
Capital & management income per hen	4.83	4.31	3.72	3.04	1.41	3.21	.66	2.74	1.62
Investment per hen	5.65	6.68	4.27	4.09	5.89	4.58	3.73	4.94	6.27

A general summary of the five individual turkey egg records for 1941 is shown above, along with the study averages for the last four years. 1941 shows the highest efficiency and greatest profit for any year of the study, although the number of records is few. This higher efficiency results from a considerably higher egg production per hen, which resulted in more hatching eggs being sold per hen and hence, a lower net cost per egg. Average egg price was little better than in 1940, so increased profit was due largely to the lower cost per egg or the higher income per hen.

TABLE 2 – Costs per Average Breeding Hen in Detail, 1941

	13	7	3	25	9	1941 Average	1940 Average	1939 Average	1938 Average
Pounds of mash and pellets per hen	67.5	77.7	60.1	80.6	63.3	75.1	97.4	71.3	73.8
Pounds of grain per hen	49.5	45.6	12.8	35.2	63.3	37.5	16.6	26.3	28.8
Total pounds per hen	117.0	123.3	72.9	115.8	126.6	112.6	114.0	97.6	102.6
Total pounds per hen per day	.58	.62	.48	.51	.58	.52	.56	.52	.61
Average price mash and pellets per cwt.	$2.24	1.99	2.34	2.60	2.03	2.45	2.49	2.24	2.40
Average price grain per cwt.	1.37	1.44	1.40	1.69	1.12	1.52	1.56	1.38	1.60
Average price all feed per cwt.	1.87	1.59	2.17	2.32	1.57	2.14	2.36	2.01	2.18
Per cent of feed mash and pellets	57.7	63.0	82.4	69.6	50.0	66.7	85.4	73.0	71.9
Hours of labor per hen	2.4	4.3	2.4	1.1	5.7	2.0	2.0	2.0	2.2
Cost of mash and pellets per hen	$1.51	1.36	1.41	2.09	1.28	1.84	2.43	1.60	1.77
Cost of grain per hen	.68	.61	.18	.60	.71	.57	.26	.36	.46
Cost of other feeds, greens, shell, etc.	.76	.13	.19	.32	.28	.34	.14	.20	.32
Total feed cost per hen	$2.95	2.10	1.78	3.01	2.27	2.75	2.83	2.16	2.55
Cost of hired labor per hen	–	–	.77	–	.15	.10	.20	.18	.09
Value of operator's labor per hen	.95	1.50	.08	.57	2.09	.75	.43	.43	.57
Miscellaneous costs per hen	.26	.29	.38	.41	.44	.39	.24	.30	.32
Depreciation on equipment	.32	.25	.29	.04	.10	.12	.13	.10	.12
Interest on investment at 5 per cent	.14	.17	.11	.10	.15	.11	.12	.12	.16
Net stock cost per hen, table 3	.19	.53	.00	.37	-.22	.26	.61	1.27	1.03
Total cost per hen	$4.81	4.84	3.41	4.50	4.98	4.48	4.56	4.56	4.84
Less income not hatching eggs	.20	.30	.22	.20	.15	.20	.23	.12	.08
Net cost hatching eggs per hen	$4.61	4.54	3.19	4.30	4.83	4.28	4.33	4.44	4.76
Hatching eggs sold per hen	75.1	71.7	55.3	64.9	59.6	64.8	43.4	50.6	44.6
Net cost per hatching egg	6.2¢	6.3¢	5.7¢	6.7¢	8.1¢	6.6¢	10.0¢	8.8¢	10.6¢

The 1941 records show a higher use of grain, which is cheaper, and hence tended to reduce costs below what they would have been if more mash and pellets had been used. The average feed per day per hen was .52 pound, which was slightly lower than in 1940 and 1938, but the same as in 1939. Net stock cost was low in 1941. In fact, No. 9 had a net stock income instead of a net stock cost.

TABLE 3 – Production and Net Stock Cost Factors

	13	7	3	25	9	1941	1940	1939	1938
Date record began, 1940	Nov. 4	Nov. 1	Dec. 1	Nov. 1	Nov. 1				
Date closed, 1941	May 23	May 19	Apr.30	June 17	June 4				
Total days	200	200	151	229	216	215	202	189	168
Date of hatching hens, 1940	Apr.19	Mar.22	May 15	Apr.&May	Apr.25				
Date production reached 10%	Dec.27	Nov. 9	Jan.	Jan.	Feb.				
Lights used	Yes	No	Yes	?	Yes				
Total eggs laid per hen, period	87.4	84.4	64.1	72.0	69.9	73.2	53.5	57.1	48.5
Per cent during entire period	43.8	42.2	42.2	31.1	32.5	34.1	26.5	30.3	28.4
Number of hens started	228	104	228	1425	206	2191	2942	5882	3847
Av. number of hens for period	222	103	226	1311	199	2061	2591	5337	3572
Av. number of hens per tom	7.1	7.4	5.2	10.9	6.9	8.7	8.0	9.7	7.7
Per cent mortality, hens	3.2	1.9	2.2	8.5	4.5	6.5	7.0	3.9	3.6
Per cent mortality, toms	0.0	0.0	2.3	36.1	3.3	19.6	10.8	12.2	7.0
Av. value per bird, start	$2.37	2.45	2.12	2.13	2.25	2.27	1.96	2.94	2.93
Av. value per bird, close	$2.23	2.03	2.54	2.04	2.55	2.17	1.59	1.99	2.24
Value of stock per hen at start	$2.78	2.81	2.99	2.54	2.67	2.64	2.50	3.58	3.84
Less – Income stock sold & at close	$2.59	2.28	2.99	2.17	2.89	2.38	1.89	2.31	2.81
Net stock cost per hen	$ .19	.53	.00	.37	* .22	.26	.61	1.27	1.03

The above table shows some of the most important factors influencing production and also net stock cost. The higher the total production, the higher the income and the greater the profit. Records No. 13 and 7 were the most profitable of the 5 and they show the highest egg production over a fairly long period. No. 3 with a shorter period had as high a percentage production for the period but didn't obtain so many total eggs per hen so had a lower income and profit. Nos. 25 and 9 had long periods but a lower rate of production. No. 25 had high mortality from cholera.

* Net stock cost was low in 1941 the value per bird of breeding stock being almost as high at the close of the period as at the beginning, higher in flock No. 9 which had a net stock income of $.22 instead of a net stock cost. Death losses were low too, except in No. 25.