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LEGHORN CAPONS

by

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Leghorn cockerels are necessarily produced annually in great numbers as a by product of the pullets required to replace the commercial egg flocks of the state. The most economical disposition of these cockerels has been a bothersome question to poultrymen for years. A few poultrymen kill their Leghorn cockerels as soon as they can distinguish them from pullets. Most of the cockerels, however, are disposed of as broilers when they attain a live weight of from  $1\frac{1}{4}$  pounds to  $1\frac{1}{2}$  pounds. Since Leghorn hatching is concentrated during a few spring weeks, it follows that the males reach broiler weight over a correspondingly short period during early summer. Such large numbers of them are marketed during this brief period that markets frequently become glutted, prices fall to levels at which often it is questionable if a poultryman recovers his investments in them.

In an attempt to lengthen the period for Leghorn male marketing, and at the same time supply a reported demand during the fall months for light roasting chickens, the Poultry Department of Oregon State College has conducted two tests in caponizing Leghorn cockerels. The first test was run during the 1933 season and the second during the 1934 season. This report gives the findings of these tests.

1933 TEST

On May 22, 1933 there were purchased from a commercial poultryman 202 six-weeks old cockerels. These cockerels were from a lot of day-old chicks purchased by him from an Oregon hatchery. They were moved to two chambers of the college brooder house, from which chambers early hatched pullets had just been moved to range. On June 2, 1933 the cockerels indicated by their appearance that they were suffering from coccidiosis. One died and an autopsy revealed the correctness of this diagnosis. The caponizing had to be postponed until recovery was partially effected.

The 199 males remaining were caponized on June 14, 1933. Seven died during the operation, and 21 others died during the following three weeks. Undoubtedly the mortality during this period was partially attributable to caponizing having been done while some of the birds were in a weakened condition from the effects of coccidiosis. The remaining 171 birds were moved to range July 6 where they remained until September 25. On that date they were moved into the brooder house because the weather was so stormy that it interfered with food consumption on the range. On October 9, 1933 the 142 birds then remaining were marketed.

Throughout the test the birds were weighed (random sample of 25 birds) at bi-weekly periods. A record was kept of all food consumed and of the amount of time required daily for care. The following table presents the data necessary for a calculation of the cost per pound live weight at the time of marketing for the 1933 birds:

Initial cost 202 White Leghorn cockerels 6 weeks old . . .	\$ 20.00
Caponizing 199 males @ 5¢ each . . . . .	9.95
Grain eaten 2092.5 pounds @ \$30.00 per ton . . . . .	31.39
Mash eaten 1888.5 pounds @ \$35.00 per ton . . . . .	33.05
Milk 404.5 pounds @ 3¢ per gallon (8 lbs.) . . . . .	1.52
Straw, 1277 pounds @ \$5.50 per ton . . . . .	3.51
Labor, average 10 minutes per day for 182 days at . . . .	
25¢ per hour . . . . .	<u>7.58</u>
Total Cost . . . . .	\$107.00

## Statement of bird numbers:

Marketable capons produced . . . . .	92
Marketable slips produced . . . . .	<u>50</u>
Birds shipped . . . . .	142

Loss during period from coccidiosis, paralysis,  
picking and other such causes . . . . . 60

Number birds at start . . . . . 202

The 142 birds weighed 620 pounds on arrival at market (Portland). They weighed 639 pounds when shipped from Corvallis. The shipping shrinkage was slightly less than 3 per cent. The 620 pounds of capons and slips cost \$107.00 to produce. The cost per pound was 17.2¢.

1934 TEST

During the 1934 season the test was re-run. Three weeks old Leghorn cockerels were purchased from the same poultryman who had purchased day old chicks from the same Oregon hatchery. On April 5, 280 cockerels were purchased and placed in the same college brooder house under the same management as those of the 1933 test. Younger birds were purchased than in 1933 because it was felt that coccidiosis, which is likely to appear where young birds are moved to quarters just relinquished by older birds, could be controlled before the caponizing age was reached. No recognizable symptoms of coccidiosis appeared, so on May 8 the remaining 270 cockerels were caponized. Nine died during or immediately after the operation leaving 261 that were returned to the brooder house. On May 25, 254 were removed to range seven having died in the meantime. On August 28, 1934, the marketable birds left totaled 231 and these were shipped direct from the range to market at Portland. The following table gives the cost data for the 1934 birds:

Initial cost 280 White Leghorn cockerels 3 weeks old . . . .	\$ 28.00
Caponizing 270 males @ 5¢ each . . . . .	13.50
Feed Cost:	
Grain eaten 3215 pounds @ 25.00 per ton . . . . .	40.19
Mash eaten 3593.5 pounds @ 34.00 per ton . . . . .	61.08
Milk 692.5 pounds @ 3¢ per gallon (8 lbs.) . . . . .	2.60
Straw 755 pounds @ 5.50 per ton . . . . .	2.02
Sawdust 50 cu. ft. @ 3.00 per unit (200 cu. ft.) . . . . .	.75
Labor, av. 15 minutes daily for 146 days @ 30¢ per hour . .	<u>10.95</u>
Total Cost . . . . .	\$159.09

Statement of bird numbers:	
Marketable capons produced . . . . .	167
Marketable slips produced . . . . .	<u>64</u>
Birds shipped . . . . .	231
Loss during period from paralysis, going light, picking, and other such causes . . . . .	
	<u>49</u>
Number of birds at start . . . . .	280

The 231 birds weighed 995.75 pounds at Corvallis and 955 when they reached Portland thus showing a 4 per cent shrinkage during the trip. The cost of producing 955 pounds of capons and slips was \$159.09. The cost per marketed pound was 16.7¢ or  $\frac{1}{2}$ ¢ per pound less than the 1933 cost.

Since birds of this kind are not usually offered for sale during September and October in this section of the country, no regularly published quotations are available for use in determining what price might be expected for them by a poultryman. The experimental birds were marketed through a Portland firm which reported in 1933 that the 17.2¢ per pound cost was too high to permit the return of a profit when the birds were sold on the prevailing retail market. In 1934 the experimental birds were handled by the same firm and although the cost per pound was (16.7¢) only slightly less than the 1933 cost (17.2¢) the market was higher and the return of a small profit was possible.

In both years of the tests the mortality was high. In 1933 the loss was 29.7 per cent of the birds. In 1934 the mortality amounted to 17.4%. It is more difficult to handle a group of males than a corresponding number of females. For this reason it is believed that the losses incurred during these two years is no greater than will prevail in large flocks under farm conditions.

Leghorns are more difficult to caponize successfully than heavy breeds. This is associated with the rapid sexual development that has been bred into them. It results in the production of a higher percentage of slips than would be expected with the heavier breeds.

It will be noted that there are included in the cost tables certain items which under farm conditions would not require the outlay of actual cash. The caponizing and labor for care of the birds are items of this nature. In other words, as this cost figure is derived, a farmer who sold at cost would be receiving compensation for the labor he had expended on his birds. Anything he could get above cost would be a clear profit.

The feed prices which obtained in 1933 and 1934 and which represent 64% of the total cost when both years are combined, will in all likelihood differ considerably from those which will obtain in any future year. For the benefit of any who may desire to compute the probable cost per pound of producing Leghorn capons when feed prices differ greatly from the 1933 and 1934 levels, there is included in this report Table I which shows for each two-week period the amounts of feed consumed and Table II which shows the body weights for the birds which were in the test. For purposes of comparison weight figures are included also for a check group of Leghorn males which were kept in 1934 without having been caponized.

Contrary to popular belief the body weight attained by capons is usually not as great at six months as that attained by uncaponized males. Extreme weights are not generally attained until the capons are more than a year old.

Table 1. Capon grain and mash consumption.

Feed Consumed by 100 Capons During Two-Week Periods  
(Based on both 1933 & 1934 tests)

Weeks of Age	Grain	Mash
7 & 8	63.3	109.2
9 & 10	69.3	109.4
11 & 12	113.1	117.8
13 & 14	90.0	104.0
15 & 16	168.2	173.3
17 & 18	152.0	138.2
19 & 20	199.1	151.0
21 & 22	132.9	107.4
23 & 24	137.6	130.4
25 & 26	193.2	151.7

Table II. Weights attained at bi-weekly periods by capons and Leghorn males not caponized.

Age in Weeks	Average Weight per Bird in Pounds		
	Capons 1933	Capons 1934	Leghorn Males not caponized 1934.
6	.77	.80	.80
8	1.22	1.40*	1.40
10	1.46*	1.73	1.80
12	1.80	2.23	2.43
14	2.08	2.72	2.91
16	2.60	3.20	3.30
18	3.00	3.48	3.63
20	3.32	3.88	3.90
22	3.46	4.19	4.25
24	3.83	4.30	4.44
26	4.43	----	----

\* Indicates age at which caponized.