

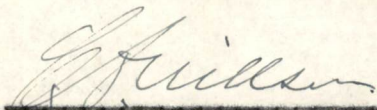
August 1, 1933

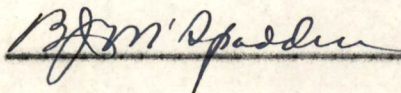
To the Committee on Graduate Study:

I submit herewith a thesis by T. L. Mayes, "A Comparison between the Income from Flocks of Barred Plymouth Rocks and Single Comb White Leghorn Hens", and recommend that it be accepted for twelve quarter hours credit in fulfillment of the requirements for the degree of Master of Science, with a major in Animal Husbandry.

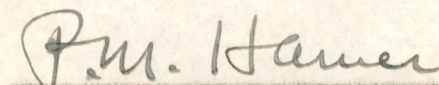

Major Professor

At the request of the Committee on Graduate Study, I have read this thesis, and recommend its acceptance.





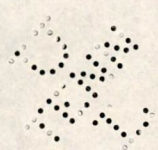
Accepted by the Committee


Chairman

A COMPARISON BETWEEN THE INCOME FROM
FLOCKS OF BARRED PLYMOUTH ROCKS AND SINGLE COMB
WHITE LEGHORN HENS

-o-
A THESIS

Submitted to the Graduate Committee
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science



by
T. L. Mayes

August 1933

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INTRODUCTION

The purpose of this paper is to give some figures which will help to determine the efficiency of a dual purpose breed and an egg breed. The Barred Plymouth Rock has been selected as the dual purpose breed, and the Single Comb White Leghorn has been selected as the egg breed. These breeds have been selected for comparison, because many farmers in the state of Tennessee are unsettled as to which of these breeds is most profitable for the small farmer.

PLAN OF PROJECT

This project was started in February, 1931 on the farm of Lincoln Memorial University, Harrogate, Tennessee. The land on which this poultry ranged was lime stone soil with a blue grass sod. The houses were located on well drained lots with every precaution for sanitary conditions. There was no effort made to keep the birds confined in any definite range. Both breeds were kept housed night and day during the winter months. The dropping boards and roost poles were cleaned daily. New litter was placed on the floor of each house twice each month. The project was begun with 464 Barred Plymouth Rock hens weighing an average of 5.3 pounds per hen, and 262 Single Comb White Leghorn hens weighing an average of 4.05 pounds per hen.

A commercial grain and mash ration was fed during the entire project. The laying mash was kept before the birds all the time. This mash was fed in hoppers so constructed that the birds could not waste the feed or contaminate it with their feet. The birds were fed grain night and morning in the litter. Fresh clean water was kept before both flocks at all times. The hens were kept carefully culled. The birds that were nonproducers were sold to the school to be used by the dining hall. The eggs were gathered daily and sold to the dining hall at a price of 40¢ per dozen. As will be noticed this was a price that was above the market for this year, but these eggs were infertile, and the dietician was better satisfied to pay a higher price for clean infertile eggs than to buy on the general market.

Table (a)

EGG RECORD PER MONTH

Barred Rocks			White Leghorns	
Month	No. Birds	No. Eggs	No. Birds	No. Eggs
Feb.	464	6605	262	4311
March	454	6618	261	5119
April	420	6162	255	5190
May	401	5237	249	5150
June	378	3718	246	4166
July	350	2509	242	2643
August	323	2788	234	2642
Sept.	320	1887	230	2486
Oct.	294	1341	217	1450
Nov.	278	677	217	321
Dec.	247	220	217	52
Jan.	231	1148	217	1753
Total		38,910		25,283

EGG RECORD PER MONTH

A careful study of tables (a) and (b) will show that these flocks produced the highest egg record during the winter and early spring months. During February, March, April and May the Barred Rocks produced 24,623 eggs or an average of 14.13 eggs per hen per month. Four thousand two hundred and eighty-seven eggs were produced by the Barred Rock flock during the last eight months of the year, or 36% of the total year's production was made in the last eight months. During the same four months period the White Leghorn flock produced 19,760 eggs or an average of 19.27 eggs per hen per month. In the last eight months of the year the White Leghorn flock produced 22% of the total year's production, which indicates that the egg production of Barred Rocks is more evenly distributed over the year than the production of Leghorns. These tables also show that the number of eggs produced per hen per month by the Leghorns during the summer months is greater than that for the Rocks. A further study will show that the decrease in egg production during the months of October, November, and December is more abrupt for the Leghorn breed than for the Rocks.

The writer also noticed that any change in the daily schedule of these flocks affected the production record of the Leghorns more seriously than it did the Rocks.

Table (b)

EGGS PRODUCED PER HEN PER MONTH

Barred Rocks			White Leghorns		
Month	No. Birds	Eggs per Hen	No. Birds	Eggs per Hen	
Feb.	464	14.23	262	16.45	
March	454	14.58	261	19.61	
April	420	14.67	255	20.35	
May	401	13.05	249	20.68	
June	378	9.83	246	16.93	
July	350	7.17	242	10.92	
August	323	8.63	234	10.52	
Sept.	320	5.89	230	10.81	
Oct.	294	4.56	217	6.68	
Nov.	278	2.43	217	1.48	
Dec.	247	.89	217	.24	
Jan.	231	4.96	217	8.08	
Total		100.89		142.75	

Table (c)

NUMBER AND VALUE OF HENS SOLD PER MONTH

Month	Barred Rocks			:	White Leghorns		
	No. Hens	No. Hens Sold	Value of Hens Sold		No. Hens Sold	No. Hens Sold	Value of Hens Sold
Feb.	464	6	6.00	:	262	:	:
Mar.	454	29	31.50	:	261	4	3.80
Apr.	420	14	15.12	:	255	3	2.16
May	401	5	4.80	:	249	:	:
June	378	17	18.19	:	246	1	.64
July	350	24	20.32	:	242	5	3.04
Aug.	323	1	.80	:	234	:	:
Sept.	320	24	20.	:	230	8	4.32
Oct.	294	15	13.40	:	217	:	:
Nov.	278	28	16.	:	217	:	:
Dec.	247	12	10.56	:	217	:	:
Jan.	231	11	9.60	:	217	:	:
Total	186		166.29	Total	21		13.96

Table (c) gives a monthly record of the number of hens sold per month from each flock. A study of this table indicates that the Barred Rocks are more in demand for table use. This was found to be true in this work because the dietician expressed a preference for the Rocks.

This table would lead one to believe that there was a larger percentage of culls in the Rock flock than the Leghorns, but this was not actually true, because there was a greater demand for the larger breed for table consumption.

Table (d)

PER CENT OF FLOCK IN PRODUCTION

Barred Rocks			White Leghorns		
Month	No. Birds	Per cent in pro- duction	No. Birds	Per cent in pro- duction	
Feb.	464	50	262	58	
March	454	47	261	63	
April	420	48	255	68	
May	401	41	249	66	
June	378	32	246	56	
July	350	23	242	35	
August	323	27	234	33	
Sept.	320	19	230	35	
Oct.	294	14	217	21	
Nov.	278	8.9	217	50 ²³	5
Dec.	247	2.9	217	.8	
Jan.	231	16	217	26	

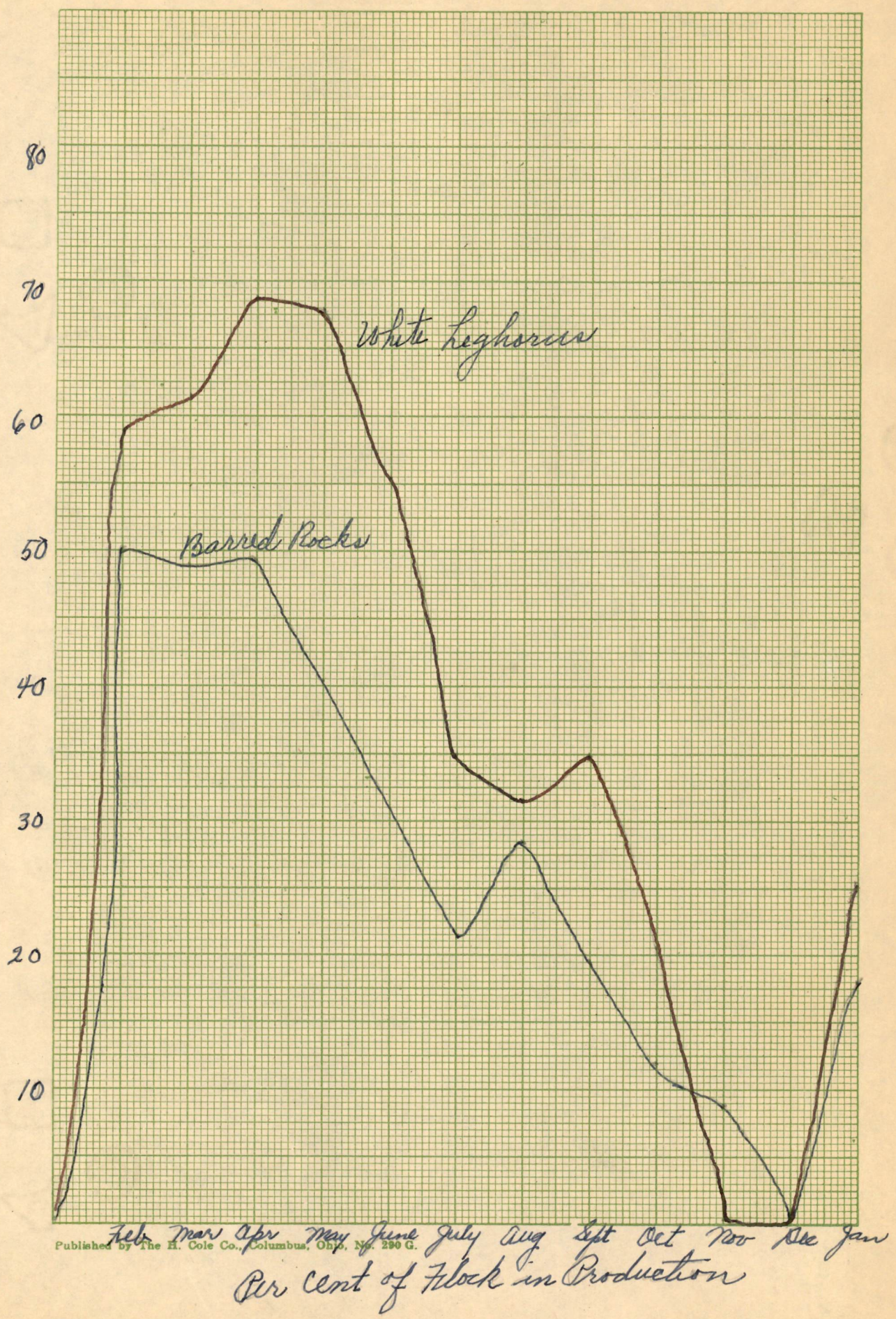
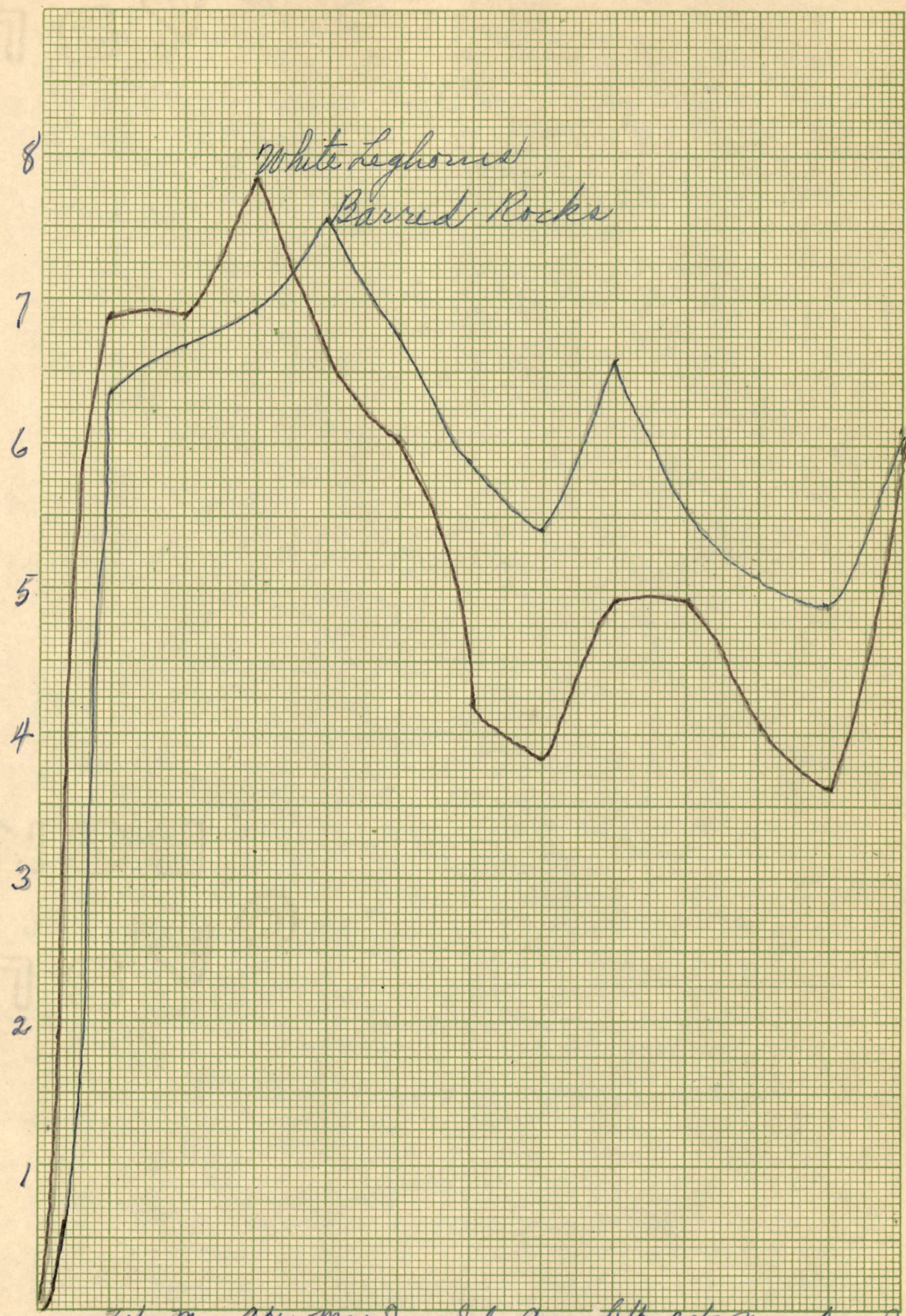


Table (e)
AMOUNT AND VALUE OF FEED CONSUMED PER MONTH

Barred Rocks				White Leghorns			
Month	No. Hens	Feed Consumed	Value of Feed	Month	No. Hens	Feed Consumed	Value of Feed
Feb.	464	3178 lbs.	\$71.86	Feb.	262	1633	37.04
Mar.	454	3083	62.48	Mar.	261	1773	37.47
Apr.	420	3245	66.95	Apr.	255	1778	37.87
May	401	2647	57.26	May	249	1878	42.69
June	378	2298	53.16	June	246	1661	39.04
July	350	1364	33.09	July	242	1425	32.04
Aug.	323	1229	19.08	Aug.	234	1286	20.37
Sept.	320	1568	23.27	Sept.	230	1540	23.10
Oct.	294	1444	21.66	Oct.	217	1200	18.00
Nov.	278	1136	17.04	Nov.	217	1112	16.29
Dec.	247	823	13.79	Dec.	217	1050	18.22
Jan.	231	1424	24.74	Jan.	217	1342	23.09
Total		23439	464.38	Total		17678	345.22



Feb Mar Apr May June July Aug Sept Oct Nov Dec Jan
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 Feed Consumed per Bird

Table (f)

AMOUNT AND VALUE OF GRAIN CONSUMED PER MONTH

Barred Rocks				White Leghorns			
Month	No. Birds	Grain consumed	Value	No. Birds	Grain Consumed	Value	
Feb.	464	1350 lbs	\$27.81	262	674 lbs	\$13.88	
March	454	1663 $\frac{1}{2}$	29.11	261	698	12.21	
April	420	1550	27.12	255	690	12.07	
May	401	1312	22.96	249	713	12.47	
June	378	988	20.15	246	586	11.95	
July	350	770	15.42	242	580	11.60	
August	323	744	11.16	234	626	9.51	
Sept.	320	788	11.67	230	660	9.90	
Oct.	294	744	11.16	217	620	9.30	
Nov.	278	616	9.24	217	592	8.88	
Dec.	247	534	8.01	217	556	8.34	
Jan.	231	747	11.20	217	750	11.25	
Total		11806 $\frac{1}{2}$	205.01	Total 7745		131.36	

Table (g)

AMOUNT AND VALUE OF MASH CONSUMED PER MONTH

Barred Rocks				White Leghorns			
Month	No. Birds	Mash consumed per Month #	Value	No. Birds	Mash consumed per Month #	Value	
Feb.	464	1828	\$44.05	262	961	\$23.16	
Mar.	454	1420	33.37	261	1075	25.26	
Apr.	420	1695	39.83	255	1098	25.80	
May	401	1335	34.30	249	1165	28.94	
June	378	1310	33.01	246	1075	27.09	
July	350	588	15.57	242	845	20.66	
Aug.	323	485	7.92	234	660	10.80	
Sept.	320	780	11.60	230	880	13.20	
Oct.	294	700	10.50	217	530	8.70	
Nov.	278	520	7.80	217	520	7.41	
Dec.	247	289	5.78	217	494	9.88	
Jan.	231	677	13.54	217	592	11.84	
Total		11627	257.27	Total		9945	212.74

Table (h)

AMOUNT AND VALUE OF FEED CONSUMED PER HEN PER MONTH

Barred Rocks				White Leghorns			
Month	No. Hens.	Feed Con- sumed #s	Value of feed con- sumed	No. Hens.	Lbs. feed consumed	Value of feed con- sumed	
Feb.	464	6.84	.154	262	6.23	.147	
March	454	6.78	.137	261	6.79	.143	
April	420	7.73	.159	255	6.97	.148	
May	401	6.60	.142	249	7.54	.171	
June	378	6.08	.140	246	6.75	.158	
July	350	3.89	.094	242	5.89	.132	
August	323	3.80	.068	234	5.49	.086	
Sept.	320	4.90	.073	230	6.69	.110	
Oct.	294	4.91	.074	217	5.54	.083	
Nov.	278	4.08	.061	217	5.12	.074	
Dec.	247	3.33	.056	217	4.83	.083	
Jan.	231	6.16	.107	217	6.18	.106	
Total		65.10	1.265		74.02	1.441	

FEED CONSUMED

Table (e) shows that as production increases the amount of food consumed increases. In a previous discussion on Table (a) it was shown that a larger percentage of the eggs were produced in Feb., Mar., April, and May. This table will show that feed consumption was heaviest in these months. More than 50% of the total feed consumed by the Barred Rocks was consumed in these four months. The Leghorns consumed in this same period of time 7062 lbs of feed which was about 40% of the total feed consumed for the twelve months. The large amount of food consumed during this period was also perhaps due to the hens being housed during the winter months. Tables (f) and (g) will show the consumption of grain and mash separately and will show that when production was high more grain and mash was consumed. Table (h) shows that there is a larger feed consumption per hen per month in case of White Leghorns than Barred Rocks. The Leghorns consumed annually 8.92 lbs per hen per year more feed than the Barred Rocks. The difference in consumption is much more marked in the summer months than the winter months. The Leghorns consume one to two more lbs. more feed per month per hen during the summer months than the Rocks. This is perhaps true because the Leghorns are more active than the Rocks. Tables (i) and (j) give a summary of the grain and mash consumed per bird and show a wider variation in the consumption of mash than of grain. The Leghorns consumed 3.07 lbs more grain per hen per year than the Rocks and 9.50 lbs more mash per hen per year than the Rocks.

Table (1)

AMOUNT AND VALUE OF GRAIN CONSUMED PER HEN PER MONTH

Barred Rocks				White Leghorns			
Month	No. Hens	Amount of grain consumed lbs.	Value of grain consumed \$	No. Hens	Amount of grain consumed lbs.	Value of grain consumed \$	
Feb.	464	2.91	.059	262	2.57	.053	
Mar.	454	3.66	.064	261	2.67	.046	
April	420	3.69	.064	255	2.70	.047	
May	401	3.27	.057	249	2.86	.050	
June	378	2.61	.052	246	2.38	.048	
July	350	2.20	.044	242	2.40	.048	
Aug.	323	2.30	.034	234	2.68	.040	
Sept.	320	2.46	.036	230	2.87	.043	
Oct.	294	2.53	.038	217	2.86	.042	
Nov.	278	2.22	.033	217	2.73	.041	
Dec.	247	2.16	.032	217	2.56	.038	
Jan.	231	3.23	.048	217	3.46	.052	
Total		33.24	.561		30.17	.548	

Table (j)

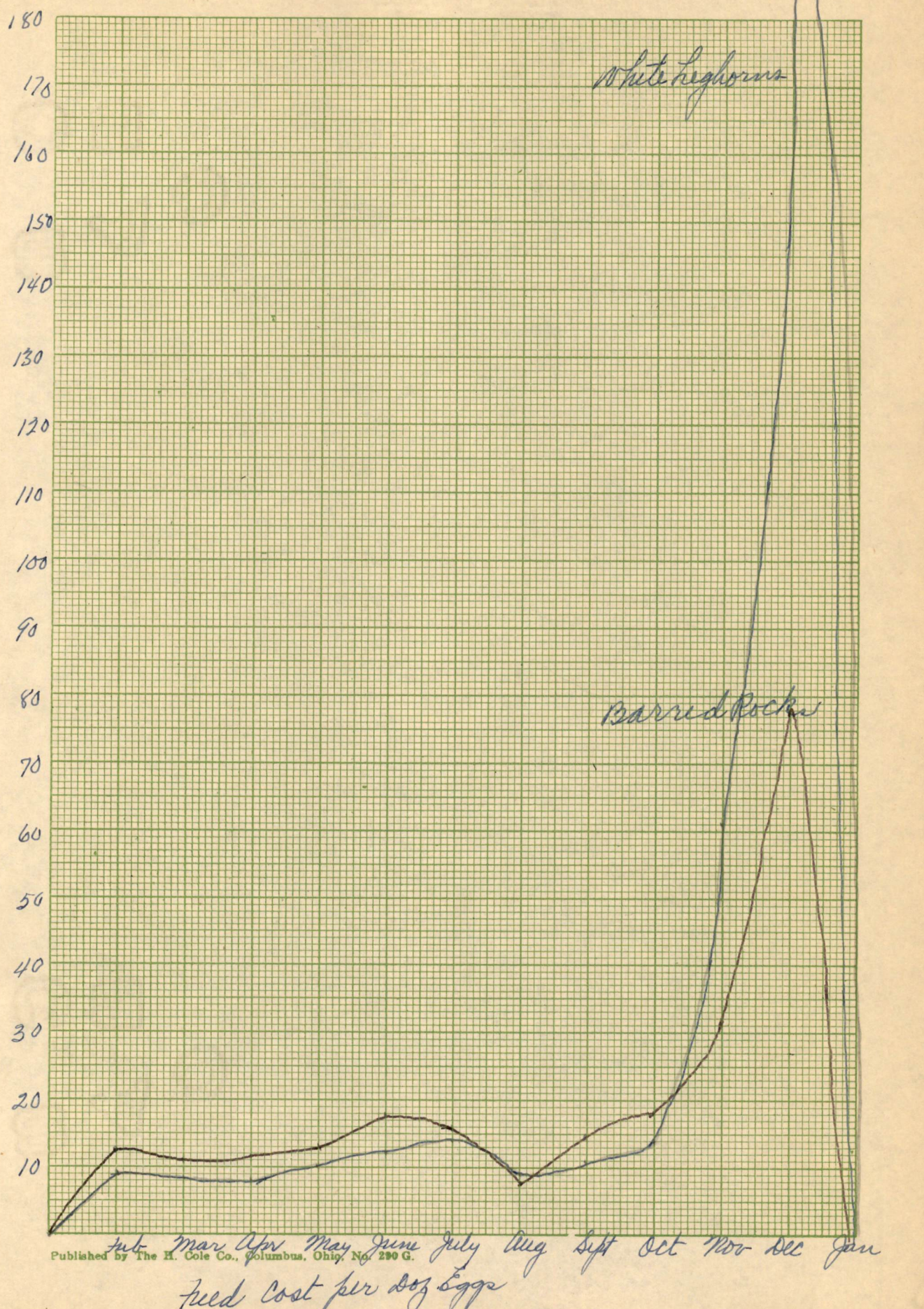
AMOUNT AND VALUE OF MASH CONSUMED PER HEN PER MONTH

Barred Rock					White Leghorn	
Month	No. Hens	Amt. of mash cons. lbs.	Value of mash cons. lbs.	No. Hens	Amt. of mash cons. #	Value of mash cons.
Feb.	464	3.93	.095	262	3.66	.088
Mar.	454	3.12	.073	261	4.11	.097
Apr.	420	4.03	.094	255	4.30	.100
May	401	3.32	.085	249	4.67	.120
June	378	3.47	.087	246	4.37	.110
July	350	1.68	.044	242	3.49	.085
Aug.	323	1.50	.024	234	2.82	.046
Sept.	320	2.43	.036	230	3.82	.057
Oct.	294	2.35	.032	217	2.67	.040
Nov.	278	1.87	.027	217	2.39	.034
Dec.	247	1.17	.023	217	2.27	.045
Jan.	231	2.93	.058	217	2.73	.055
Total		31.80	.678	Total	41.30	.877

Table (k)

COST OF FEED PER DOZEN EGGS

Barred Rocks				White Leghorns			
Month	No. Birds	No. Doz.	Feed Cost	No. Birds	No. Doz.	Feed cost	
			per doz.			per doz.	
Feb.	464	550.41	.13	262	359.25	.10	
Mar.	454	551.50	.11	261	426.58	.08	
April	420	513.50	.12	255	432.50	.08	
May	401	436.41	.132	249	429.17	.10	
June	378	309.83	.17	246	347.17	.11	
July	350	209.08	.158	242	220.25	.14	
Aug.	323	232.33	.083	234	205.50	.09	
Sept.	320	157.25	.15	230	207.17	.11	
Oct.	294	111.75	.19	217	120.83	.15	
Nov.	278	56.41	.31	217	26.75	.60	
Dec.	247	18.33	.74	217	4.33	4.20	
Jan.	231	95.66	.26	217	146.09	.16	



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COST OF FEED PER DOZEN EGGS

When production is low feed cost per dozen eggs is high. Table (k) gives a comparison between the feed cost per dozen of these two breeds. December was the month in which production was lowest and it will be noticed that cost per dozen eggs was highest in this month, ranging from .74 per dozen for Rock to 4.20 per dozen for Leghorns. March and April were the high producing months for these breeds and it will be noticed that there is much less variation in the cost per dozen in these months than in the low months. This work indicated that when production was high Leghorns would produce at a lower cost per dozen than Rocks. Table (l) shows a much wider variation in the cost of mash per doz eggs produced than grain. This would naturally be expected because the Leghorns consumed 9.50 lbs more mash per hen per year than the Rocks. A study of Tables (o, p, q) will give a comparison between the income of each of the clocks and the income per bird above mash and grain cost and above total feed cost. These tables will show that the Rocks will come nearer furnishing an income above feed cost each month than will the Leghorns. Leghorns lost in November and December while Rocks lost only in December.

Total 1.321 1.337 Total 3.732 3.451

Table (1)

COST OF GRAIN AND MASH PER DOZEN EGGS

Month	No. doz.	Cost of grain per doz.	Cost of mash per doz.	No. doz.	Cost of grain per doz.	Cost of mash per doz.
Feb.	550.41	.055	.080	359.25	.038	.064
Mar.	551.50	.052	.060	462.58	.026	.059
Apr.	513.50	.052	.077	432.50	.027	.059
May	436.41	.052	.078	429.17	.029	.067
June	309.83	.065	.106	347.17	.034	.077
July	209.08	.074	.074	220.25	.052	.093
Aug.	232.33	.048	.034	205.50	.046	.049
Sept.	157.25	.074	.074	207.17	.047	.064
Oct.	111.75	.099	.094	120.83	.076	.272
Nov.	56.41	.163	.138	26.75	.330	.277
Dec.	18.33	.430	.310	4.33	1.920	2.281
Jan.	95.66	.117	.142	146.09	.077	.089
Total		1.281	1.267	Total	2.702	3.451

Table (m)

INCOME FROM EGGS AND BIRDS SOLD PER MONTH

Month	Barred Rocks				White Leghorns		
	No. Hens	Income from eggs	Income from hens sold		No. Hens	Income from eggs	Income from Hens sold
Feb.	464	220.16	6.00		262	143.70	
Mar.	454	220.60	31.50		261	170.63	3.80
Apr.	420	205.40	15.12		255	173.00	2.16
May	401	174.57	4.80		249	171.67	
June	378	123.93	18.19		246	138.87	.64
July	350	83.64	20.32		242	88.10	3.04
Aug.	323	92.93	.80		234	82.07	
Sept.	320	62.90	20.00		230	82.87	4.32
Oct.	294	44.70	13.40		217	48.33	
Nov.	278	22.57	16.00		217	10.70	
Dec.	247	7.33	10.56		217	1.73	
Jan.	231	38.26	9.60		217	58.43	
Total		1296.99	166.29	Total		1170.10	13.96

Table (n)

INCOME PER HEN PER MONTH

Barred Rocks			White Leghorns		
Month	No. Birds	Income per hen	No. Birds	Income per hen	
Feb.	464	.474	262	.547	
Mar.	454	.490	261	.652	
Apr.	420	.490	255	.680	
May	401	.440	249	.690	
June	378	.330	246	.564	
July	350	.240	242	.364	
Aug.	323	.290	234	.354	
Sept.	320	.196	230	.360	
Oct.	294	.152	217	.222	
Nov.	278	.081	217	.050	
Dec.	247	.029	217	.007	
Jan.	231	<u>.1165</u>	217	<u>.269</u>	
Total		3.277	Total	4.759	

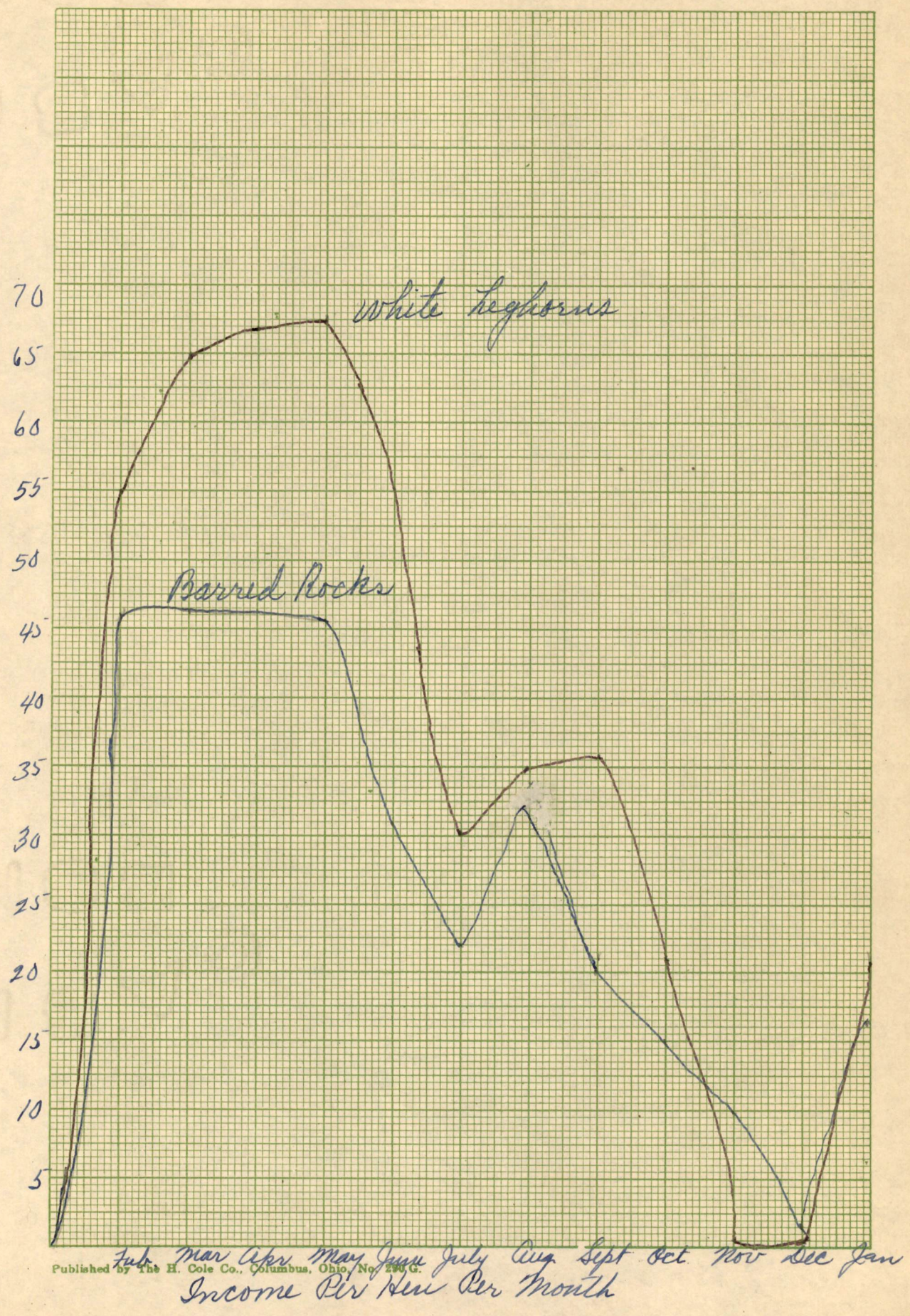


Table (c)

FLOCK INCOME PER MONTH AND INCOME PER HEN PER MONTH ABOVE FEED COST

Barred Rocks				:	White Leghorns		
Month	No. Hens	Flock Income	Income per Hen	:	No. Hens	Flock Income	Income Per Hen
Feb.	464	154.81	.314	:	262	106.66	.409
Mar.	454	189.62	.353	:	261	136.95	.507
Apr.	420	153.31	.331	:	255	137.29	.432
May.	401	122.11	.298	:	249	128.98	.519
June	378	88.96	.180	:	245	100.47	.402
July	350	70.87	.145	:	242	59.10	.188
Aug.	323	74.65	.231	:	234	61.76	.264
Sept.	320	59.63	.126	:	230	64.09	.260
Oct.	294	36.44	.076	:	217	30.53	.138
Nov.	278	21.53	.019	:	217	15.50 loss	.025 loss
Dec.	247	4.10	.036 _{loss}	:	217	16.49 loss	.076 loss
Jan.	231	23.16	.063	:	217	35.34	.154
			21.00				
Total		999.19			Total	838.98	3.172

Table (p)

FLOCK INCOME PER MONTH AND INCOME PER HEN ABOVE GRAIN COST

Barred Rocks				White Leghorns		
Month	No. Hens	Flock Income	Income per Hen	No. Birds	Flock Income	Income per Hen
Feb.	464	198.36	.411	262	143.70	.497
Mar.	454	222.99	.426	261	174.43	.604
Apr.	420	193.14	.426	255	175.16	.633
May	401	156.41	.383	249	171.67	.640
June	378	121.96	.277	246	139.51	.512
July	350	88.54	.196	242	91.14	.273
Aug.	323	82.56	.256	234	82.07	.309
Sept.	320	71.23	.164	230	87.19	.317
Oct.	294	46.94	.112	217	48.33	.178
Nov.	278	29.33	.047	217	10.70	.009
Dec.	247	9.86	.002 loss	217	1.73	.031 loss
Jan.	231	<u>36.67</u>	<u>.112</u>	217	<u>58.43</u>	<u>.208</u>
Total		1258.01	2.818	Total	1184.06	4.211

Table (q)

FLOCK INCOME AND INCOME PER HEN ABOVE MASH COST

Barred Rock				White Leghorn			
Month	No. Hens	Flock in- come a- bove mash cost	Income per Hen above mash cost	No. Hens	Flock in- come a- bove mash cost	Income per hen above mash cost	
Feb.	464	182.12	.375	262	120.54	.482	
March	454	218.73	.417	261	149.17	.553	
April	420	180.43	.369	255	149.36	.580	
May	401	145.07	.355	249	142.73	.570	
June	378	109.11	.243	246	112.42	.450	
July	350	87.39	.196	242	70.48	.235	
Aug.	323	85.81	.266	234	71.27	.304	
Sept.	320	71.30	.164	230	73.99	.303	
Oct.	294	47.60	.118	217	39.63	.180	
Nov.	278	30.77	.053	217	3.29	.016	
Dec.	247	12.11	.007	217	8.15	.038	
Jan.	231	34.33	.112	217	(loss)	(loss)	
					46.59	.205	
Total		1294.77	2.675		971.32	3.840	

Table (r)

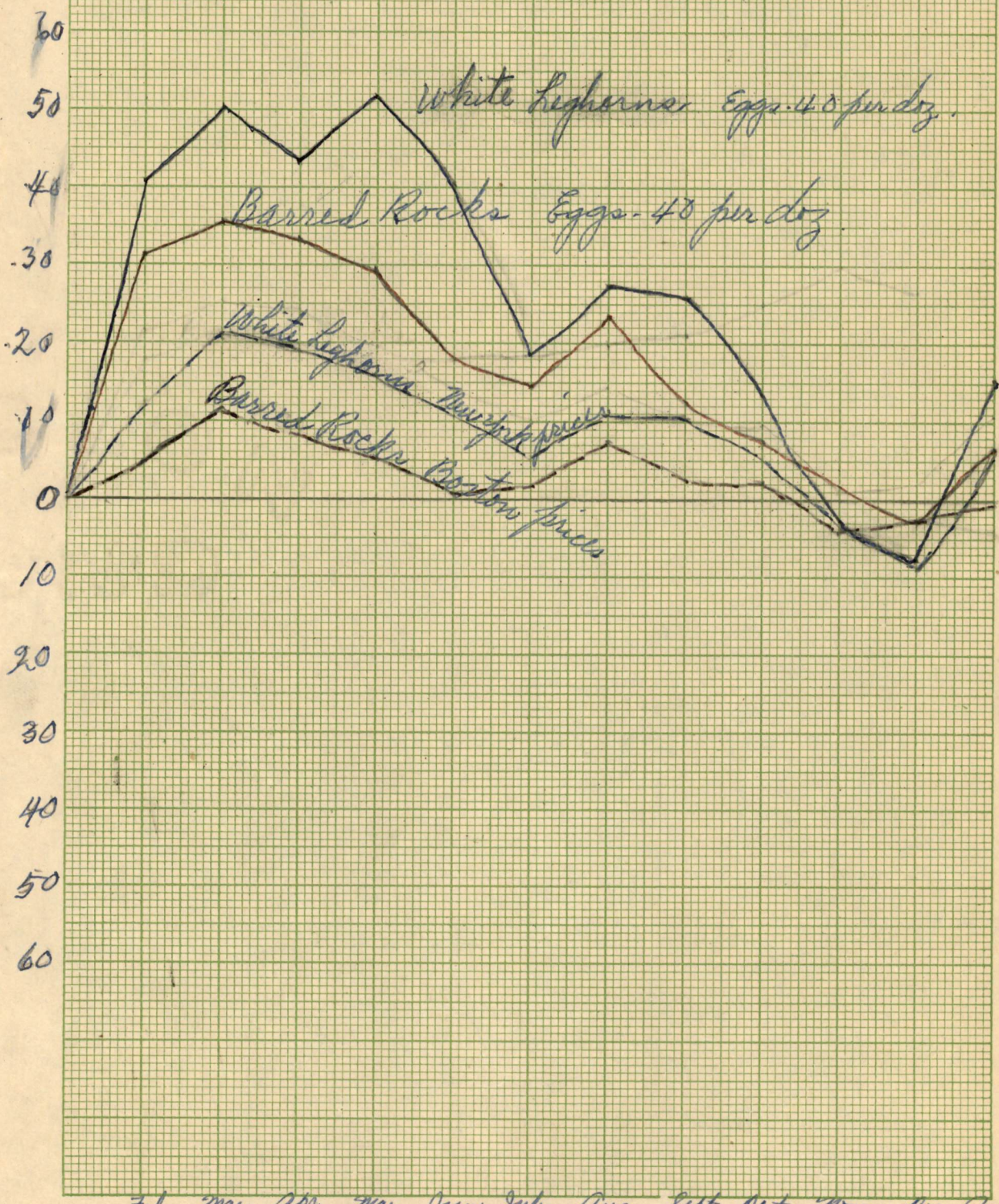
FLOCK INCOME AND INCOME PER HEN AT NEW YORK AND BOSTON PRICES

Barred Rocks					Boston		White Leghorns					New York	
Month	No. Hens	Doz. eggs	Price per doz.	Flock Income	Income per Hen	No. Hens	Doz. eggs	Price per doz.	Flock Income	Income per Hen			
Feb.	464	550.41	.18	99.07	.213	262	359.25	.20	71.85	.27			
Mar.	454	551.50	.21	115.81	.255	261	462.56	.22	101.76	.359			
Apr.	420	513.50	.20	102.70	.244	255	432.50	.20	86.50	.339			
May.	401	436.41	.18	78.55	.195	249	429.17	.19	81.54	.327			
June	378	309.83	.18	52.67	.145	246	347.17	.19	65.96	.267			
July	350	209.06	.19	39.72	.111	242	220.25	.20	44.05	.182			
Aug.	323	232.33	.20	46.46	.143	234	205.50	.22	45.21	.192			
Sept.	320	157.25	.21	33.02	.102	230	207.17	.24	49.72	.216			
Oct.	294	111.75	.25	27.93	.095	217	120.83	.24	28.99	.133			
Nov.	278	56.41	.30	16.92	.017	217	26.75	.28	7.49	.034			
Dec.	247	18.33	.27	4.94	.020	217	4.33	.27	11.69	.005			
Jan.	231	95.66	.25	23.91	.103	217	146.09	.24	35.06	.161			
Total		641.70	1.643				2961.59		629.82	2.439			

Table (s)

EGG INCOME AND INCOME PER HEN ABOVE FIXED COST AT NEW YORK AND BOSTON PRICES

Month	Barred Rocks Boston			White Leghorns New York		
	No. Hens	doz eggs	Price per day	No. Hens	doz. eggs	Price per doz. Income per hen
Feb.	464	550.41	.18	262	353.25	.20
Mar.	454	551.50	.21	261	462.58	.22
Apr.	420	513.50	.20	255	432.50	.20
May	401	430.41	.18	249	429.17	.19
June	378	309.83	.17	246	347.17	.19
July	350	209.08	.19	242	230.25	.20
Aug.	323	232.33	.20	234	205.50	.22
Sept.	320	157.25	.21	230	207.17	.24
Oct.	294	111.75	.25	217	120.83	.24
Nov.	278	56.41	.30	217	23.75	.28
Dec.	247	18.33	.27	217	4.33	.27
Jan.	231	95.68	.25	217	146.09	.24
Total		3242.46			2961.59	
			164.06			.532
						274.69 1.048



Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan.
Published by The H. Cole Co., Columbus, Ohio, No. 290 G.
Income per Hen Above Feed Cost (Eggs 40¢ per doz)
" " " " " " " (Boston and New York prices)

FLOCK INCOME AND INCOME PER HEN AT NEW YORK AND BOSTON PRICES

The Boston market was selected as a good representative market for brown shell eggs and New York as a good market for white shell eggs. The 1931 price for each of these markets is given in (r) which was taken from the census report of the U.S. Department of Agriculture. A graph on the next page shows a curve that is about as uniform as the one for the eggs which were sold at .40 per dozen. By referring to Table (m) it will be seen that there was an annual income of \$1296.10 for white Leghorns. The same Rock eggs sold at Boston prices would have brought \$641.70 and the Leghorns at New York prices \$629.82. As was stated in the plan of this project .40 was higher than the market price for eggs when this work was done, but at the prices on these two markets the income is in favor of the Leghorns, although they show a loss in November and December. Had the Boston price been received for these eggs the Rocks would have lost in November, December and January.

Table (t)

SUMMARY OF TWELVE MONTHS PRODUCTION OF BARRED ROCK HENS

Boston										New York	
No.	Hens	Eggs	Value	Hens Sold	Value	Feed Cons.	Cost	Hens Died	No eggs per hen per mo.	Income per hen per mo.	
Feb.	464	6605	220.17	6	6.00	3178	71.86	4	14.23	.47	
Mar.	454	6618	220.60	29	51.50	3083	62.48	5	14.56	.49	
Apr.	420	6162	205.40	14	15.12	3235	66.95	5	14.67	.49	
May	401	5237	174.57	5	4.80	2647	57.26	16	13.05	.44	
June	378	3718	123.93	17	18.19	2298	53.16	11	9.83	.33	
July	350	2509	83.64	24	20.32	1564	33.09	3	7.17	.24	
Aug.	323	2788	92.93	1	.80	1220	19.08	2	8.63	.29	
Sept.	320	1887	62.90	24	20.00	1568	23.27	2	5.89	.20	
Oct.	294	1341	44.70	15	13.40	1444	21.66	1	4.56	.15	
Nov.	278	677	22.57	28	16.00	1136	17.04	3	2.43	.08	
Dec.	247	223	7.33	12	10.56	823	13.79	4	.89	.03	
Jan.	231	1148	38.27	11	9.60	1424	24.71	2	4.96	.17	
Total	33910	1297.01	186		166.29	23639	464.35	60	100.89	3.38	

Table (u)
1951

SUMMARY OF TWELVE MONTHS PRODUCTION OF WHITE LEGHORN HENS

Month	No. Hens	Eggs	Value Sold	Hens Value	Feed cons. 100 #	Cost	Hens Died	No. Eggs per hen per Mo.	Income per Hen per Mo.
Feb.	262	4311	143.70		16.35	37.04	1	16.43	.33
Mar.	261	5119	170.63	4 3.80	17.73	37.47	2	19.61	.65
Apr.	255	5190	173.00	3 2.16	17.78	37.87	3	20.35	.68
May	249	5150	171.67		18.78	42.69	3	20.68	.69
June	246	4166	133.87	1 .64	16.61	39.04	3	16.93	.56
July	242	2643	83.10	5 3.04	14.25	32.04	3	10.92	.32
Aug.	234	2462	82.07		12.86	20.31	3	10.52	.35
Sept.	230	2486	82.87	8 4.32	15.40	23.10	5	10.81	.36
Oct.	217	1450	43.33		12.00	18.00		6.68	.22
Nov.	217	321	10.70		11.12	16.29		1.48	.05
Dec.	217	562	1.073		10.50	18.22		.24	.07
Jan.	217	1731	58.44	21 13.96	13.42	23.09	6	8.08	.26
Total		35103	1176.78		176.80	245.16	30	142.75	4.76

CONCLUSIONS

1. This work indicated that the Barred Rocks were more desirable and more in demand as a meat fowl than Leghorns.
2. Under the conditions of this project White Leghorns produced more eggs per hen per year than the Barred Rocks.
3. When housed or when running on range the White Leghorns consumed more feed per hen per year than did the Barred Rocks.
4. The Barred Rocks have a more uniform distribution of egg production throughout the year than the White Leghorns.
5. There was a greater mortality in the Barred Rock flock than in the White Leghorn flock.
6. This work indicated that the White Leghorns produced a greater income per year from eggs than the Barred Rocks.
7. The feed cost per hen per year was greater for the White Leghorns than for the Barred Rocks.