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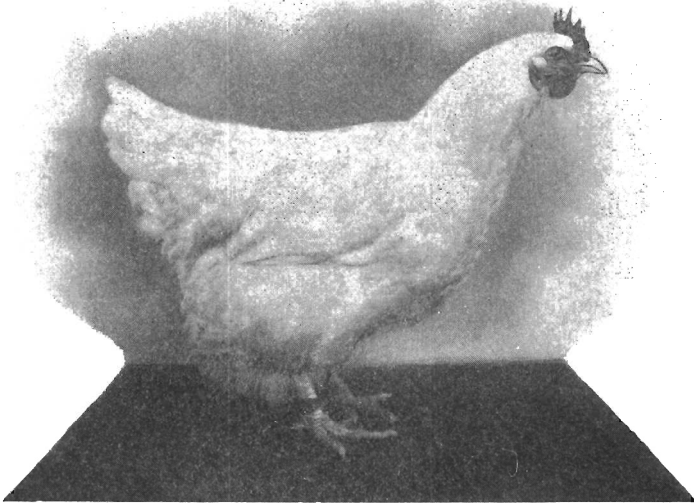


Fig. II. Compact Meaty Type.

Poultry Under Confinement.

By JAMES WITHYCOMBE.

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POULTRY UNDER CONFINEMENT.

JAMES WITHYCOMBE.

The data submitted in this bulletin are for the purpose of illustrating the financial returns from a small flock of poultry kept under confinement to show the percentage of eggs hatched, chickens grown to marketable age and the proportion of sexes.

There seems to be little danger from an over supply of poultry and eggs in the principal markets of this state. Large numbers of eggs are annually shipped in from outside points which indicates that the home supply is not equal to the demand. Thus a stable market at satisfactory prices is assured to our poultry growers. Dressed and live poultry are always in demand, hence the poultry industry as a whole has a bright financial future.

There is scarcely a large poultry farm in the state, but there are a number of small ones that are successfully conducted. It is doubtful if there is a single agricultural industry that presents a better field for profitable endeavor than does poultry farming. The price of success is eternal vigilance, especially so in the warfare of exterminating parasitic pests. This feature of the industry on the ordinary farm is oftentimes woefully neglected. Little if any attention is bestowed on the cleanliness of the hen-house or an effort made to destroy the mites (*Dermanyssus gallinae*). This pest is easily responsible for greater financial losses in poultry than any single disease, or perhaps more than all of the common ailments of poultry combined.

The breed represented in the test herein recorded was White Plymouth Rocks—comprising twenty-four pullets, three one-year-old hens and two two-year-old hens and a two-year-old cock.

While no account of the laying of individual hens was kept, it was very evident that some of the hens were more persistent layers than others. Form and function seem to go hand in hand in the laying hen, for, as a rule, the rather long, slender bodied hens were better layers than the more compact, meaty type. The former is illustrated in Fig. 1 and the latter in Fig. 2. There is evidently an important field for work in the breeding up of a class of hens that are heavy egg producers. This line of work has been systematically conducted at the Maine Station for several years, with the result that a Barred Plymouth Rock hen has been bred which laid two-hundred and fifty-one eggs in one year.

A very generous system of feeding was employed. In the morning a hot mash consisting of ground wheat, oats and barley, with cracklings or meat meal was fed, and in the evening they were fed all the whole wheat they would pick up. Granulated bone and crushed oyster shells were kept within their reach at all times, and clean drinking water was supplied once and oftentimes twice daily. They had the run of a little less than one-half acre, with plenty of shed room and shade trees. The hen-house was well lighted, ventilated and kept reasonably clean. The roosts were treated with kerosene about once a month, which seemed to effectually control the mite pest. There

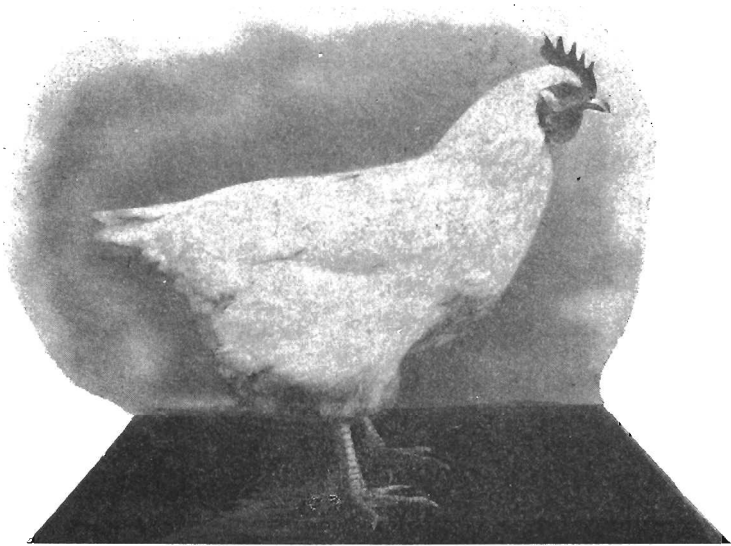


Fig. 1. The Laying Type.

was no attempt in the management of the flock to exceed common practical treatment. The hens employed for hatching were confined in a separate building, and those not wanted for this purpose when desirous of sitting were placed in a comfortable coop for a few days and then turned with the flock again.

Each evening the eggs were carefully collected. The daily record is given to illustrate the variations from day to day, and the prices quoted were taken from the Daily Oregonian each Saturday.

Date.	No. of Eggs.	Per Dozen.	Value.	Date.	No. of Eggs.	Per Dozen.	Value.	Date.	No. of Eggs.	Per Dozen.	Value.
Jan. 1	5	.30		Feb. 21	9			April 14	18		
2	8			Feb. 22	14			April 15	13		
	13		.32½	23	16			16	12	.18	
3	5			24	13				91		1.36
4	7			25	11						
5	6			26	14			17	15		
6	6			27	14	.21		18	17		
7	7				91		1.59	19	14		
8	7			28	18			20	15		
9	4	.27½		29	14			21	13		
	42		.96	Mar. 1	9			22	13	.19	
10	9			2	13			23	18		
11	5			3	9				100		1.58
12	8			4	12						
13	8			5	12	.19		24	16		
14	8				82		1.29½	25	12		
15	6			6	11			26	15		
16	6	.27		7	10			27	12		
	50		1.12½	8	11			28	16	.18½	
17	6			9	12			29	13		
18	8			10	12			30	11		
19	6			11	8				95		1.46
20	6			12	10	.15½		May 1	10		
21	6				74		.95½	2	10		
22	5			13	11			3	11		
23	10	.28		14	12			4	8		
	47		1.09½	15	11			5	11		
24	9			16	12			6	11	.18	
25	13			17	12			7	16		
26	9			18	14				77		1.15
27	9			19	12	.16½		8	9		
28	10				84		1.15	9	12		
29	10			20	7			10	12		
30	10	.27½		21	11			11	10		
	70		1.60	22	10			12	12		
31	9			23	15			13	10	.18	
Feb. 1	12			24	8			14	16		
2	10			25	13				81		1.21
3	12			26	10	.17½		15	13		
4	10				74		1.07½	16	10		
5	10			27	13			17	13		
6	10	.26		28	11			18	11		
	73		1.58	29	7			19	13		
7	8			30	10			20	9	.18	
8	10			31	8			21	9		
9	14			April 1	11				78		1.17
10	12			2	11	.18		22	11		
11	8				71		1.06	23	10		
12	11			3	9			24	9		
13	14	.27½		4	13			25	13		
	77		1.76	5	11			26	11		
14	9			6	12			27	12	.18	
15	15			7	8			28	9		
16	12			8	13				75		1.12
17	12			9	14	.18		29	9		
18	14				80		1.20	30	8		
19	13			10	14			31	10		
20	11	.26		11	11			June 1	11		
	86		1.86	12	14			2	12		
				13	14			3	11		
								4	10	.17½	
									71		1.03

Date.	No. of Eggs.	Per Dozen.	Value.	Date.	No. of Eggs.	Per Dozen.	Value.	Date.	No. of Eggs.	Per Dozen.	Value.								
June	5	10	1.82	July	28	6	.94	Sept.	18	6	.25								
	6	15			29	8			19	9									
	7	12			30	8			20	8									
	8	12		.18½	Aug.	81		1	6	21		9							
	9	12						2	7	22		9							
	10	12						3	8	23		6							
	11	13		.20	4	9		24	10	25		10							
	12	10			.19½	5		9	75	57		26	8						
						13		9				27	11						
				14		11		28				9							
	15	10		1.25	6	8		29	10	.25		74	.25						
	16	11			.21	7		4	30					11					
	17	10							8					11					
	18	14		9					10										
	July	19		12	1.25	10		5	.21	.85½		Oct.	1	15	.25				
		20		11		11		7								2	5		
		21		12		12		6								3	11		
		22		14		.19½		13				6	4	11		77	70	1.45½	
23		9	.20	14			9	5			10								
24		9						15			8								
25		10				16		11											
26		10	1.28	17		7	9	11			.20	62	1.03						
27		14		.21		18	4	10						6					
28		11						19						7					
29		12	20					8											
30		7	.20	21		9	51	.89			11	12	5						
1		12												.23		22	8	13	8
2		11																23	8
July		3	8	1.03		24	7	.23			1.18½	16	8					.27	
	4				11				17	8									
	5				9				18	6									
	6	9	.20	25	8	62	1.18½	17	8	.28									
	7	7									19	9							
	8	10									20	8							
	9	8	1.03	26	10	28	1.10	21	9	.28									
	10	10									.20	27	12	22	13	13			
																	11	10	.20
			12	8	.20	29	12												
	13	9						1.10	16	8	.28								
												14	9	.20	17	8			
15			10	1.03	18	6													
	16	10					.20	19	9										
										17	8	1.10	20	8					
18			10	.20	21	9													
	19	6					1.03	22	13										
										20	6	.21	62	1.03					
21			7	.20	16	8													
	22	6					1.03	17	8										
										23	6	.21	18	6					
24			6	.85½	19	9													
	25	6					1.03	20	8										
										26	6	.21	21	9					
27			9	.85½	22	13													
	28	6					1.03	23	8										
										29	6	.21	24	10					
30			7	.20	25	12													
	Sept.	1					6	26	10										
										2	6	.25	27	11					
3			5	1.10	28	13													
	4	8					.25	29	12										
										5	6	1.10	30	4					
6			5	.25	31	7													
	7	4					1.10	1	14										
										8	4	.24	2	9					
9			4	.70	3	10													
	10	4					.24	4	11										
										11	4	.21	5	10					
12			4	.85½	6	12													
	13	5					1.03	7	12										
										14	4	.21	8	16					
15			4	.85½	9	10													
	16	4					1.03	10	10										
										17	4	.21	11	12					
18			4	.85½	12	12													
	19	4					1.03	13	15										
										20	4	.21	14	4					
21			4	.85½	15	4													
	22	4					1.03	16	4										
										23	4	.21	17	8					
24			7	.85½	18	12													
	25	8					1.03	19	16										
										26	8	.21	20	10					
27			9	.85½	21	10													
	28	8					1.03	22	9										
										29	9	.21	23	10					
30			8	.85½	24	16													
	Sept.	28					.58	25	9										
										29	8	1.18½	26	10					
30			8	.25	27	10													
	Nov.	1					.70	28	13										
										2	9	1.18½	29	12					
3			10	.25	30	4													
	4	11					.85½	31	7										
										5	10	1.03	1	14					
6			12	.25	2	9													
	7	12					.85½	3	10										
										8	16	1.03	4	11					
9			10	.21	5	10													
	10	12					.85½	6	12										
										11	12	1.03	7	12					
12			15	.21	8	16													
	13	5					.85½	9	10										
										14	4	1.03	10	10					
15			4	.21	11	12													
	16	4					.85½	12	12										
										17	8	1.03	13	15					
18			8	.21	14	10													
	19	8					.85½	15	16										
										20	8	1.03	16	10					
21			8	.21	17	8													
	22	8					.85½	18	12										
										23	8	1.03	19	16					
24			8	.21	20	10													
	25	8					.85½	21	10										
										26	8	1.03	22	9					
27			9	.21	23	10													

Date.	No. of Eggs.	Per Dozen.	Value.	Date.	No. of Eggs.	Per Dozen.	Value.	Date.	No. of Eggs.	Per Dozen.	Value.
Nov. 10	10			Nov. 27	12			Dec. 16	8		
11	13			28	11			17	7	.32½	
12	17	.30½		29	11				59		1.59½
	90		2.28½	Dec. 1	14			18	7		
13	10			2	9			19	6		
14	9			3	13	.32½		20	5		
15	9				6		2.05½	21	5		
16	11				7			22	7		
17	6			4	13			23	5		
18	16			5	7			24	6	.32½	
19	12	.31½		6	11				41		1.11
	73		1.91½	7	8			25	5		
20	12			8	10			26	5		
21	9			9	8	.32½		27	4		
22	11			10	8		1.76	28	4		
23	9				65			29	4		
24	9			11	9			30	1		
25	12			12	8			31	3	.31	
26	10	.31½		13	11				26		
	72		1.89	14	8						.67
				15	8						

Total number of eggs.....3529
 Total receipts for eggs.....\$67.58
 Average price per dozen.....23½ cents

Financial Statement.

3529 eggs.....\$37.58
 48 pullets and cockerels at 50 cents each.....24.00
 \$91.58

EXPENDITURES.

100 eggs for setting at 23½ cents per dozen.....\$ 1.95
 2 dozen eggs fed to chickens......47
 70 lbs. granulated bone at 2 cents per lb..... 1.40
 7 lbs. diamond grit......15
 100 lbs. ground oyster shells and freight..... 1.40
 75 lbs. cracklings at 1 cent per lb......75
 50 lbs. meat meal and freight..... 2.55
 10 lbs. dried blood......60
 2307 lbs. wheat at 1½ cents per lb.....34.61
 1001 lbs. wheat chop at 1½ cents per lb.....12.52
 84 lbs. oat chop at 1½ cents per lb..... 1.05
 84 lbs. barley at 1½ cents per lb..... 1.05
 400 lbs. middlings at 1 cent per lb..... 4.00
 2 quarts of coal oil......12
 Loss, 4 hens at 50 cents each..... 2.00 \$64.62
 Net return.....\$26.96

Date of Hatching.

Date of Setting.	No. of Eggs	Date of Hatching.	No. Chicks Hatched.
1904			
January 11.....	13	February 2.....	8
17.....	13	8.....	10
March 4.....	15	March 26.....	11
8.....	13	30.....	7
12.....	15	April 2.....	8
* 25.....	16	15.....	16
*April 1.....	15	22.....	15

*Eggs secured from other yards.

Total number of eggs set 100. Number of chicks hatched 75. Percentage of hatch 75.
 Number of chicks grown to marketable age 48. Percentage of total number hatched 64.
 Number of pullets 27. Number of cockerels 21. Percentage of pullets 56. Percentage of
 cockerels 44.

The low percentage of hatch of home produced eggs was evidently due to too many hens to one male.

Predatory animals and birds were responsible for greater losses of young chicks than from natural causes.

Four hens died during the year, one Jan. 27, from dysentery; one Nov. 20, cerebral ailment; two Dec. 25—one from apoplexy and the other from pneumonia. Thus making a loss of 13 per cent. This loss was probably augmented on account of the birds being excessively fat.

The profits from the flock would certainly have been greater had the older hens been disposed of early in the Fall, or about the time that the early hatched pullets began to lay.

The first pullet began laying July 10, when she was five months and eight days old. The second Aug. 21. About this time several began to lay.

Management of the Young Chicks.—About twenty-four hours after the chickens are hatched they should be removed with the hen to a clean coop, one that has been thoroughly disinfected, so that every form of parasitic life is destroyed. The little chicks should be fed a small amount of hard boiled eggs for the first two days, then they may receive bread crumbs, or cracked wheat. Clean water should be supplied in a shallow vessel. It is a good plan to cover the floor of the coop with sand, by so doing the young chicks in picking up their food will get more or less sand which will prove beneficial. After the chicks are a week old they will enjoy a moderately soft mash of ground wheat to which small amounts of sand and bone meal have been added. It is essential that young chicks receive more of the mineral nutrients than exist in ordinary foods. The organic forms of phosphate as found in ground bones will prove more efficient than the rock phosphate. Experiments have demonstrated that it is not advisable to mix ground oyster shells with the food of young chicks, although it is a good plan to permit them to partake of it at their own volition.

Early hatched chicks will prove less troublesome to rear than late hatched. They escape in a measure the torments of parasites that are usually so common during the warm season, and the pullets will lay well in the Fall when eggs are a good price.

Hens having free range and proper food will usually give much better results with their chickens than hens which are confined in yards.

These suggestions are simply intended for the management of small flocks, as the modern and most desirable method of handling chickens on a commercial scale is with the incubator and brooder.

Failures with poultry are generally due to improper rations, bad sanitation, over-crowding and parasites. Keep their roosting places clean, light and airy and supply the poultry with properly balanced rations, with mineral matter, grit and dust boxes and they will yield a handsome revenue for capital invested.

Conclusions.—This test demonstrates conclusively that a small flock of poultry may be profitably kept under confinement.

That early hatched pullets are more profitable than late hatched ones.

Although the cost of feeding this flock was abnormally high, it yielded a net profit of 180 per cent on the original investment of fifteen dollars.