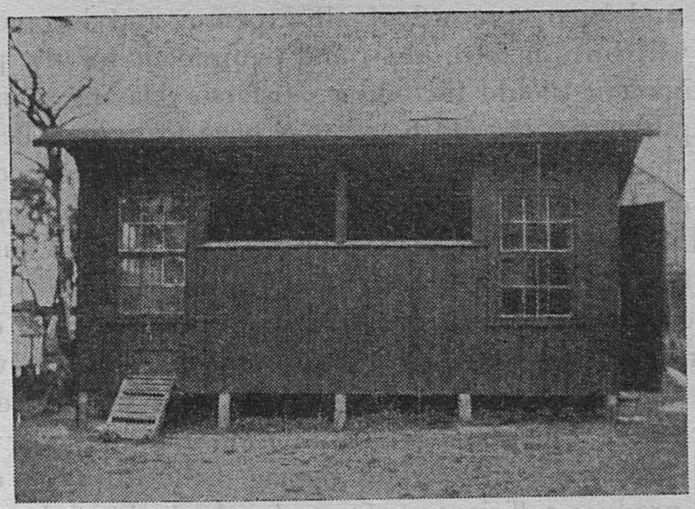
Poultry Project for 4-H Club Members

LAYING FLOCK MANAGEMENT



Circular 382

UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE AND HOME ECONOMICS
EXTENSION SERVICE

Thomas P. Cooper, Dean and Director

REQUIREMENTS FOR THE PROJECT

The laying flock project is for 4-H boys and girls who can take over the management of the laying flock on the farm. This means that the club member shall feed and water the hens, keep the hen house clean and comfortable, see that the hens are free from lice and mites, gather the eggs daily, sell them at least once a week, and keep a record of all expenses and income. The parents will furnish feed, hens, and equipment for the project. The equipment should include a satisfactory laying house. To meet requirements the old house may have to be remodeled.

The club member should receive a certain agreed-upon proportion of the income from the flock. The proportion suggested is that the club member receive 20 to 25 percent of the gross income from eggs and 10 percent of the income from the sale of chickens. Gross income includes the estimated value of eggs eaten or used for hatching and of chickens used, as well as receipts for those actually sold. The division should be made after each sale. This is a suggested division, but any other agreed upon may be used. By careful management the flock can be made to produce sufficient profit so that both the club member and parents will benefit from this cooperative arrangement.

The County Agricultural Agent will be glad to consult with you on problems of culling, feeding, house remodeling, or disease and parasite control.

A Word to Parents

Your cooperation with your boy or girl in this project will not only create an interest in poultry but, if properly done, will increase your own income because of improved management. By giving your boy or girl the entire responsibility of flock management you encourage him or her to assume greater responsibility.

Poultry Project for 4-H Club Members
LAYING FLOCK MANAGEMENT

By Stanley Caton and C. E. Harris

Profitable egg production depends greatly on the management the laying flock receives. Feeding, housing, culling, and disease and parasite control are important points to consider in securing maximum economical production.

FEEDING

Rations.— For good egg production the flock must be fed a balanced ration. Meat scrap, soybean oilmeal, or milk must be used in addition to home-grown grains for best results. One of the following rations may be used. Select one system of feeding and continue with it; don't switch from one feed to another abruptly. All feeds should be kept before the hens at all times. In addition plenty of clean water and ground limestone or oystershell should be available to the hens all the time. On rainy or cold days, keep the hens in the henhouse; they will eat better and thrive better than if they were out in the weather.

Ration 1: Skimmilk or buttermilk, shelled corn.

Ration 2: Meat scrap, shelled corn. Six level tablespoonfuls of salt should be added to each 10 pounds of meat scrap (or 2 pounds of salt to each 100 pounds of meat scrap).

Ration 3: Ground corn, 4 pounds; mill feed or ground wheat or barley, 4 pounds; meat scrap, 2 pounds (1 pound of meat scrap may be replaced by 1 pound of soybean oilmeal); and salt, 3 level tablespoonfuls. Mix thoroly and feed in a hopper, with shelled corn in another hopper.

Ration 4: A commercial laying mash.

Ration 5: Corn (or corn, wheat and oats) and a commercial or home-made supplement mash containing 26 to 32 percent protein. Keep both the grain and the protein supplement in hoppers before the hens at all times. Do not limit the amount of grain fed.

Green feed.— Green feed should be a part of all rations. Rye, wheat, or barley are good green feeds, especially in the fall, winter, and spring. When hens must be kept up, feed them liberally alfalfa or lespedeza hay in racks.

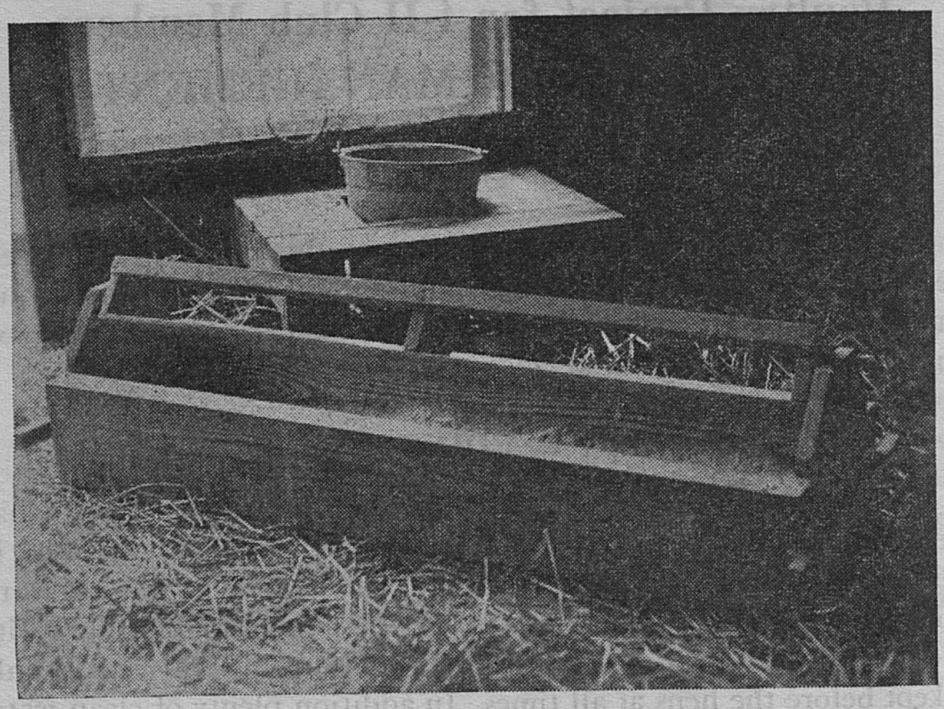


Fig. 1.—Reel-type feed hopper, constructed so as to keep the feed clean; and a simple arrangement for a waterer.

Feeder space.— Provide 1 foot of feeder space for each 3 or 4 hens. The type of feeder shown in Fig. 1 and Fig. 2 is easy to build. It is four feet long and large enough to take care of 25 to 30 hens.

Water. — A 12-quart bucket may be used as a water container. It should be set on a platform 18 inches off the floor, as shown in Fig. 1.

Don't let the feeders or water containers get empty. If they do egg production may be lowered.

LICE AND MITE CONTROL

Lice and mites can greatly reduce egg production of a flock. Inspect the hens and henhouse frequently to see whether or not these pests are present.

Treatment for lice.— Lice live on the hens and may be gotten rid of by dusting them with sodium fluoride or by putting nicotine sulfate on the roost poles about half an hour before the hens go to roost.

In using sodium fluoride put a pinch on the fluff, thigh, back, breast, neck, and under the wings. Be certain to work the material

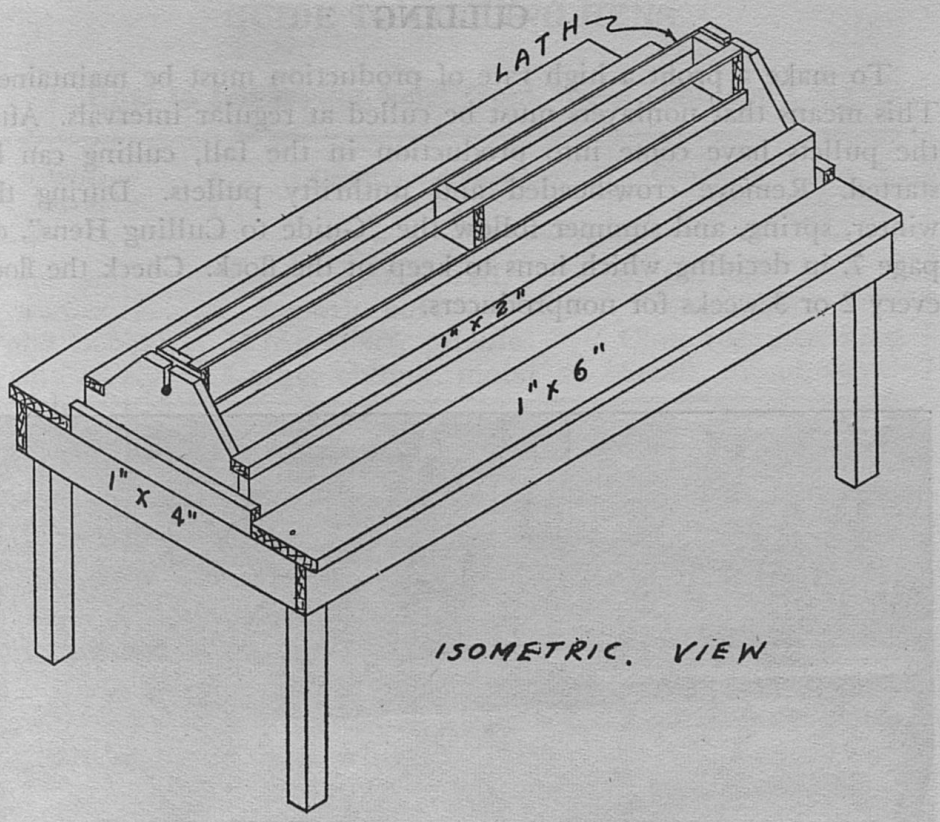


Fig. 2. — Details of construction of mash or grain hopper. A piece of 3-inch down-spouting is as satisfactory as the lath reel. A small circular block may be placed in each end of the spouting to support the screws which serve as spindles.

well into the feathers. Repeat this treatment each week until the flock has been treated three times.

If nicotine sulfate is used, put a thin stream from an oil can on each roost pole about half an hour before the hens go to roost. Be sure that all the chickens go on the roosts. Repeat the treatment each week, for three treatments.

Treatment for mites.— Mites live in the cracks and crevices of the dropping boards, roost poles, and nests. They get on the chickens at night, suck their fill of blood and then hide in these dark places during the daytime. Treatment consists of cleaning the house thoroly, removing all the droppings, litter and the like. Follow the cleaning by painting the roost poles and dropping boards with used engine oil and kerosene mixed half and half. Be sure to saturate all possible places where the mites could stay. Repeat the treatment until all the pests are destroyed.

CULLING

To make a profit a high rate of production must be maintained. This means that nonlayers must be culled at regular intervals. After the pullets have come into production in the fall, culling can be started. Remove crow-headed and unthrifty pullets. During the winter, spring, and summer follow the "Guide to Culling Hens", on page 7, in deciding which hens to keep in the flock. Check the flock every 2 or 3 weeks for nonproducers.

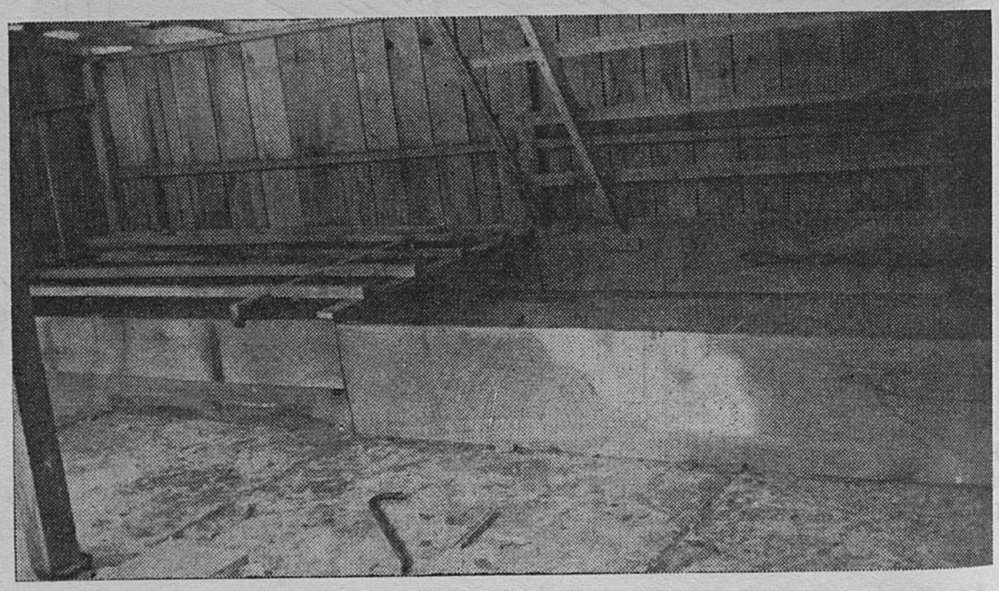


Fig. 3. — A dropping pit with hinged roosts makes cleaning an easy job.

GENERAL SANITATION

1. Keep the hen house as clean and dry as possible.
2. Keep deep litter of straw, planer shavings, shredded fodder, or ground corn cobs on the floor.
3. Keep the young chickens on a different range from the old chickens.
4. Kill and burn sick chickens as soon as they are noticed in the flock.
5. Feed all feed from hoppers. Don't scatter feed on the floor of the chicken house or on the ground.
6. Keep containers for milk and water clean.

GUIDE TO CULLING HENS

1. How to tell laying hens from those that don't lay

What to examine	Condition if hen is laying	Condition if hen is not laying
Comb and wattles	Large, glossy, red, smooth, soft	Small, pale, scaly, rough, hard
Pubic bones	Wide apart, pliable	Close together, hard
Vent	Large, oblong, moist	Small, round, dry

2. How to tell whether the laying period of a hen has been long or short

What to examine	Condition if laying period was long	Condition if laying period was short
Vent	Bluish white	Flesh colored
Eyelids	Edges white	Edges yellow
Beak	Completely faded white	Yellow tinted
Shanks	White, flat, fine scale	Round, yellow, coarse
Plumage	Worn, broken, soiled	Molting, new plumage

3. How to tell whether a hen produces many or few eggs in a laying period

What to examine	Condition if hen is a good producer	Condition if hen is a poor producer
Capacity of abdomen	Deep—4 or more fingers	Shallow—2 fingers
Skin	Soft, pliable, silky, free from fatty deposits	Thick, harsh, underlaid with fat
Abdomen	Soft, pliable	Hard, fatty
Pubic bones	Thin, pliable	Thick, fatty deposits on ends
Body	Deep, broad over ribs and back	Shallow, narrow over ribs and back

Fig. 4.—A house like this is small, dark, and poorly ventilated. Hens kept in such houses lay very few eggs in late fall and winter.

MAKE THE LAYING HOUSE COMFORTABLE

A comfortable house is essential for satisfactory egg production and is absolutely necessary for good fall and winter production. A good laying house need not be expensive. On many farms there are houses that can be converted easily and cheaply to satisfactory laying quarters. Just a little change, such as cutting an opening at the proper place or putting in a dropping pit may be all that is necessary to make an existing house into a good, comfortable laying house. A suggestion of what can be done with an old house is given in Figs. 3, 4, and 5.

In checking your hen house for needed remodeling, or in building a new one, keep in mind the following essentials for proper poultry housing:

1. The house should be faced away from prevailing winds and so that it will get as much direct sunlight as possible (facing south, or east is usually best in Kentucky).

2. To give enough room for the hens, there should be 3½ square feet of floor space for Leghorns and 4 square feet per hen for the

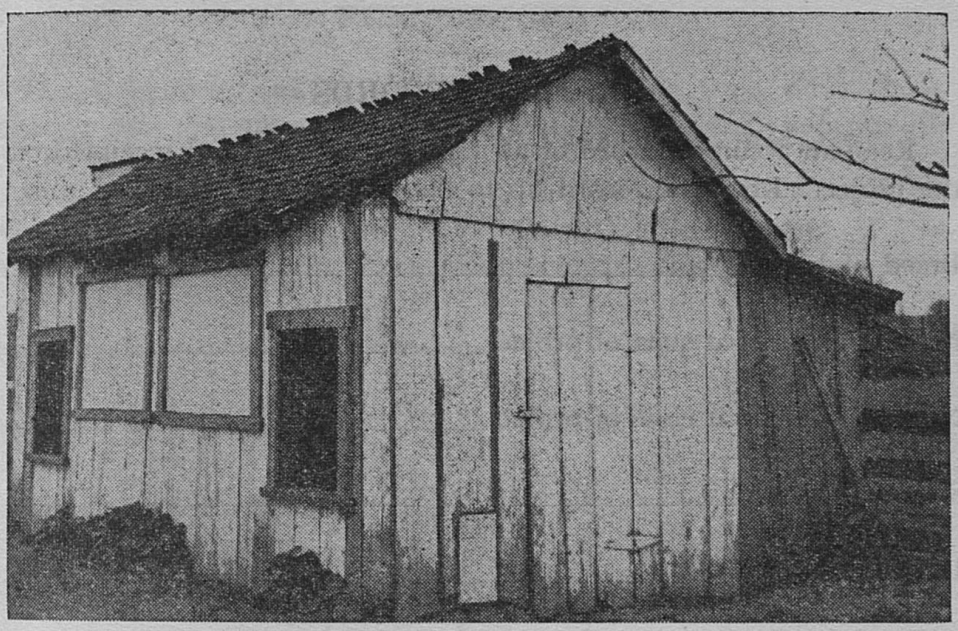


Fig. 5.—The same house shown in Fig. 4, after remodeling. Means for ventilation and sunlight have been provided in front, and 5 feet more depth has been added.

larger breeds. Eight or 10 inches of roost space should be provided for each hen.

3. A dropping pit is needed in the back part of the house.

4. An opening should be provided in the front of the house to permit circulation of fresh air.

5. Windows should be placed where necessary for even distribution of light.

6. All cracks should be covered so that the house will not be drafty.

7. Drainage away from the house should be provided so that the house can be kept dry.

NESTS

Provide one nest for every 4 hens. Orange crates may be used for nests. Nests should be made so the hens enter from the side next to the wall, with drop doors on the front side for gathering the eggs. This keeps the nests fairly dark, so that the hens scratch about in the nest less and fight each other less than when the nests are well lighted. Clean nesting material, such as straw, hay, and shavings, should be kept in the nests all the time.

PROJECT RECORDS

Keep an accurate record of all items of expense and receipts from the project. Keep the record up to date.

Breed of hens_____

Number of hens at start of project_____

Number of hens at close of project_____

Size of house_____

Date project started_____

Date project completed_____

Approximate Weights of Various Feeds per Quart Measure

	Pounds per quart
Shelled corn	1.7
Ground corn	1.5
Whole oats	1.0
Ground oats	0.7
Whole wheat	1.9
Ground wheat	1.7
Wheat mixed feed	0.6
Wheat middlings	0.8
Meat scraps	1.6
Soybean oil meal	1.6

FEED RECORD

Weigh feeds in quantity; keep them separate from other feeds; enter the date and amount when a new supply is added. Subtract the amount on hand when closing this record.

Date	Kind and amount	Value	Date	Kind and amount	Value
		$			$
Total...					

Transfer each month's total to the summary sheet on page 19.

FEED RECORD (Continued)

Weigh feeds in quantity; keep them separate from other feeds; enter the date and amount when a new supply is added. Subtract the amount on hand when closing this record.

Date	Kind and amount	Value	Date	Kind and amount	Value
		$			$
Total...					

Transfer each month's total to the summary sheet on page 19.

EGG RECORD

(Number of eggs gathered)

Day of month	October	November	December	January	February	March
1.....						
2.....						
3.....						
4.....						
5.....						
6.....						
7.....						
8.....						
9.....						
10.....						
11.....						
12.....						
13.....						
14.....						
15.....						
16.....						
17.....						
18.....						
19.....						
20.....						
21.....						
22.....						
23.....						
24.....						
25.....						
26.....						
27.....						
28.....						
29.....						
30.....						
31.....						
Totals ..						

Transfer each month's total to the summary sheet on page 19.

EGG RECORD (Continued)

(Number of eggs gathered)

Day of month	April	May	June	July	August	September
1.....						
2.....						
3.....						
4.....						
5.....						
6.....						
7.....						
8.....						
9.....						
10.....						
11.....						
12.....						
13.....						
14.....						
15.....						
16.....						
17.....						
18.....						
19.....						
20.....						
21.....						
22.....						
23.....						
24.....						
25.....						
26.....						
27.....						
28.....						
29.....						
30.....						
31.....						
Totals ..						

Transfer each month's total to the summary sheet on page 19.

SALES RECORD Year_____

Oct.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $_____
				Chickens used at home..Number_____ $_____
				Chickens sold.....Number_____ $_____
				Hens that died.....Number_____
Total..				

Nov.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $_____
				Chickens used at home..Number_____ $_____
				Chickens sold.....Number_____ $_____
				Hens that died.....Number_____
Total..				

Dec.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $_____
				Chickens used at home..Number_____ $_____
				Chickens sold.....Number_____ $_____
				Hens that died.....Number_____
Total..				

SALES RECORD (Continued) Year_____

Jan.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $___
				Chickens used at home..Number_____ $___
				Chickens sold.....Number_____ $___
				Hens that died.....Number_____
Total..				

Feb.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $___
				Chickens used at home..Number_____ $___
				Chickens sold.....Number_____ $___
				Hens that died.....Number_____
Total..				

Mar.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $___
				Chickens used at home..Number_____ $___
				Chickens sold.....Number_____ $___
				Hens that died.....Number_____
Total..				

SALES RECORD (Continued) Year_____

April	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $_____
				Chickens used at home..Number_____ $_____
				Chickens sold.....Number_____ $_____
				Hens that died.....Number_____
Total..				

May	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $_____
				Chickens used at home..Number_____ $_____
				Chickens sold.....Number_____ $_____
				Hens that died.....Number_____
Total..				

June	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $_____
				Chickens used at home..Number_____ $_____
				Chickens sold.....Number_____ $_____
				Hens that died.....Number_____
Total..				

SALES RECORD (Continued) Year_____

July	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $___
				Chickens used at home..Number_____ $___
				Chickens sold.....Number_____ $___
				Hens that died.....Number_____
Total..				

Aug.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $___
				Chickens used at home..Number_____ $___
				Chickens sold.....Number_____ $___
				Hens that died.....Number_____
Total..				

Sept.	Eggs sold			Other items
	Dozens	Price	Value	
				Eggs used at home.....Number_____ $___
				Chickens used at home..Number_____ $___
				Chickens sold.....Number_____ $___
				Hens that died.....Number_____
Total..				

SUMMARY

(Your County Agricultural Agent will be glad to help you make up this summary.)

Month	Number of hens	Hens culled	Hens died	Total eggs	Average number of eggs per hen	Receipts	Expenses	Gain or loss
October								
November								
December								
January								
February								
March								
April								
May								
June								
July								
August								
September								
Total								

Total receipts from sales and home use.....$_____

Total expenses for the 12 months.....$_____

POULTRY PROJECT OF

Name ..... Age.....

County ..... Date.....

Post Office .....R. F. D.....

Years in club work .....Years in this project.....

Approved .....
County Agent

Date .....

Lexington, Kentucky September, 1942

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