THE
POULTRY CLUB—II
FLOCK MANAGEMENT CLUB

Boys' and Girls' Club Circular 16

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COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED
STATES DEPARTMENT OF AGRICULTURE COOPERATING
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Poultry Club II.
Flock Management Club

Poultry Club II is a project for groups of five or more boys and girls between the ages of 10 and 21 years who desire to own and to manage a flock of laying hens.

The goal of the 100 egg first year club was to mature at least 20 pullets. In the second year club, the member will take at least 20 pullets, house and feed them separately from other farm flocks, and keep an accurate account of the feed and sales.

**REQUIREMENTS**

**Object.**—The object of the second year poultry club work is to organize boys and girls into groups for the purpose of stimulating interest in the proper management of laying stock, to demonstrate the profit in purebred stock for egg production; and to train the members in rural leadership.

**Work Required.**—Each member of the second year poultry club is required to feed, care for, and keep a full year’s record on at least 20 laying pullets.

**Records Required.**—Each club member is required to keep farm flock records, which will be furnished by the Extension Service of the Missouri College of Agriculture. This includes a report on the number of eggs gathered, the amount of feed used, the value of the stock on hand, the value of the products sold or eaten, and a story of club work for the year.

**Ownership Required.**—Each club member is required to own a club demonstration flock and to provide the feed used. The pullets for the second year club should cost approximately $1.50 each, if purchased, and will require approximately $1.50 per bird to keep the pullets during the year. If the pullets are mature by November 1, with reasonable care and proper balancing of the feed, they should return an income above feed costs of $2.50 or more per bird. These birds must be housed separate from the farm flock.

**Time Required.**—Time to feed and care for a club demonstration flock.

Time for attendance at at least six club meetings.

Time to take part in a try-out for the club demonstration team.

Time for attendance at the club round-up or achievement exercise at the close of the year’s work.

Organization.—The second year’s club work will extend throughout the entire year, beginning at the close of the first year’s work on November 1 and ending October 31. It is recommended that the second year club be composed as nearly as possible of the members who have completed the first year poultry club work.

RESPONSIBILITIES OF DIFFERENT PERSONS IN POULTRY CLUB WORK

<table>
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<th>Things to be done in the year's program</th>
<th>Time and Place</th>
<th>Duties of: local leaders of the community</th>
<th>Duties of: agent, or project leader, or Co-Supt. of Schools</th>
<th>Duties of: Specialists of Extension Service of Missouri College of Agriculture</th>
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<td>Enroll members to do club work</td>
<td>Date ________</td>
<td></td>
<td>Notify leaders.</td>
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<td></td>
<td>In Oct. or Nov. of one community</td>
<td>See boys and girls. See parents. Use newspapers. Explain club work in public meeting.</td>
<td>Supply leaders with enrollment blanks. Assist in making financial arrangements, if necessary</td>
<td>Provide county with enrollment blanks.</td>
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<td>Conduct six or more club meetings</td>
<td>To be decided by leader and club</td>
<td>Arrange. Notify members. Instruct. Secure assistance from community. Visit members.</td>
<td>Attend one or more regular club meetings.</td>
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<td>Select demonstration team</td>
<td>In June or July at community center</td>
<td>Arrange. Help outline plans. Conduct tryout. Select team of 2 or 3 members</td>
<td>Assist leaders if necessary.</td>
<td>Provide county with demonstration score card and suggested outlines.</td>
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<td>County Fair</td>
<td>Depending upon county date and place.</td>
<td>Arrange locally for exhibits and dem. team. Be responsible for local club.</td>
<td>Arrange. Notify leaders. Secure awards. Conduct</td>
<td>Specialist may be provided, depending upon conditions.</td>
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I. Organization of the Club

MEETINGS

Standard clubs are required to hold at least six regular meetings during the club year. These meetings may be held as often as the local club leader and the members desire, however, the meetings usually are held once each month.

Below are subjects suggested for a number of club meetings. It may be necessary to devote two or more meetings to some of the subjects. It is suggested that these subjects be followed in the order named. Local club leaders and clubs are expected to adapt these subjects to local community conditions.

Suggested Subjects of Meetings for the Club Year

| I. Organization of the Club | 5 |
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Suggested Programs for Poultry Club Meetings

1. **Organization of the Club.**—Page 3, Club Secretary’s Record Book.
   1. The business meeting.—The local club leader in charge.
      1. Election of club officers from the membership of the club; President, Vice-President, Secretary, Song and Yell Leader, and Club Reporter.
      2. Selection of a name for the club. (It is suggested that the name be selected so as to identify the club and the project).
      3. Selection of time and place for regular club meetings.
      4. Setting a club goal.
      5. Appointment of a committee to work up or select an appropriate song and yell for the club.
      6. Assignment of the 4-H club pledge to be learned by all members before the next meeting.
      7. Adjournment of business meeting for instructions in club work.
   2. Instructions.—The local club leader in charge.
      2. Distribution of club literature, and explanation of its use as follows: a. A club circular and a club record book, to each member.
         b. A club secretary’s record book, to the club secretary.
         c. The club books on songs and yells, to the song and yell leader for the club.
      3. Explanation of standard 4-H club requirements.
(4) Explanation of club project requirements for Poultry II.
(5) Discussion of main club events for the year. (See page 3.)
(6) Stating specifically what each member must do to start the home project work.
(7) Assignment of work for the next meeting, including the bringing of record books to the meeting.

II. Feeding for Egg Production.

(1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge, as follows:
“As a true club member, I pledge my head to clearer thinking, my heart to greater loyalty, my hands to larger service, and my health to better living for my club, my community, and my country.”
(2) Roll call by the secretary, the members responding by giving a progress report of their home project work and by having the club record book in hand for use in the meeting.
(3) Reading of the minutes of the last meeting by the secretary, which should be adopted as a permanent record by the club when approved.
(4) Old business:
   a. Unfinished business from the last meeting.
   b. Report of the committee on club songs and yells.
(5) New business:
   a. Appointment of a social committee to plan for some games at future club meetings.
   b. Anything for the good of the club.
(6) Songs and yells, led by the song and yell leader.
(7) Adjournment for work.

2. Instruction and demonstrations.—The local club leader in charge.
(2) Demonstration: Mixing an egg mash.
(3) Explanation of keeping the record book.
(4) Assignment of work for the next meeting, including the bringing of record books to the meeting.

Demonstration team outline for this subject found on page 20.

III. Housing the Laying Hen.

1. The business meeting.—The club president in charge.
(1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
(2) Roll call by the secretary, the members responding by reporting on a previously assigned topic, and by handing in the record books for use in the club meeting.
(3) Reading of the minutes of the last meeting by the secretary.
(4) Old business:
   a. Unfinished business from the last meeting.
   b. Report of the social committee.
(5) New business:
   a. Appointment of committees.
   b. Anything for the good of the club.
(6) Songs and yells.
(7) Adjournment for work.

2. Instruction and demonstrations.—The local club leader in charge.
   (1) Discussion—Housing the Laying Hen, page 11.
   (2) Demonstration—On constructing the interior equipment for the poultry house.
   (3) Finding out who is getting best results in feeding laying hens, and why.
   (4) Assignment of work for the next meeting, including the bringing of record books to the meeting.

Demonstration team outline for this subject found on page 21.

IV. Parasites and Diseases of Laying Hens.
1. The business meeting.—The club president in charge.
   (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge.
   (2) Roll call by the secretary, the members responding by reporting on a previously assigned topic, and by handing in the club record books for use in the club meeting.
   (3) Reading of the minutes of the last meeting by the secretary.
   (4) Old business:
   (5) New business:
      a.
   (6) Songs and yells.
   (7) Adjournment for work.

2. Instruction and demonstrations.—The local club leader in charge.
   (1) Discussion—Parasites and Diseases of Laying Hens, page 12.
   (2) Demonstration—On treating the roosts and dropping boards for mites, and dusting the hens for lice.
   (3) Finding out who is getting the most eggs, and why.
   (4) Assignment of work for the next meeting, including the bringing of record books to the meeting.
   (5) Social hour—games, refreshments, etc.

Demonstration team outline for this subject found on page 22.

V. Production and Selection of Quality Market Eggs.
1. The business meeting.—The club president in charge.
   (1) Meeting called to order—members repeating the 4-H club pledge.
   (2) Roll call—members responding by reporting on a previously assigned topic, and by handing in the club record books for use in the club meeting.
   (3) Old business:
      a.
   (4) New business:
      a.
   (5) Songs and yells.
   (6) Adjournment for work.

2. Instruction and demonstrations.—The local club leader in charge.
(2) Demonstration—Grading eggs.
(3) Making a study of the record books to see who is holding down the club average.
(4) Assignment of work for the next meeting, including the bringing of all record books to the club meeting.
Demonstration team outline for this subject found on page 23.

VI. Culling for Egg Production.

1. The business meeting.—The club president in charge.
   (1) Meeting called to order—members repeating the 4-H club pledge.
   (2) Roll call—members responding by reporting on a previously assigned topic, and by handing in the record books for use in the club meeting.
   (3) Old business:
      a. 
   (4) New business:
      a. Appointment of a committee to help plan for the round-up or achievement exercise.
   (5) Songs and yells.
   (6) Adjournment for work.

2. Instruction and demonstrations—The local club leader in charge.
   (1) Discussion—Culling for Egg Production, page 16.
   (2) Demonstration—Culling a flock of hens.
   (3) Making a study of the record books.
   (4) Assignment of work for the next meeting, including the bringing of record books, and each member coming prepared to give an individual demonstration of some practical work that he or she has learned to do in poultry club work.

VII. Demonstration Team Work

1. The business meeting.—The club president in charge.
   (1) Meeting called to order—members repeating the 4-H club pledge.
   (2) Roll call—members responding by reporting on a previously assigned topic, and by handing in the record books for use in the club meeting.
   (3) Old business:
   (4) New business:
      a. 
   (5) Songs and yells.
   (6) Adjournment for work.

2. Instruction and demonstrations.—The local club leader in charge.
   (1) Tryout for the demonstration team by individual club members.
   (2) Selection of the demonstration team to represent the club.
   (3) Final instructions on completion of the club record books for the year's work.
   (4) Final instructions on the club round-up or achievement exercise.
   (5) Instructions to the club reporter on news items for the local papers.
VIII. The Club Round-up or Achievement Exercise.

The club round-up or achievement exercise should be held at the close of the work for the club year.

Each club member should hand in to the local club leader the completed record book so that the results of all the work of the club may be summarized for the year in the Club Secretary's Record Book.

At the round-up, each club member should bring the best producing hen that he or she has. These hens should be judged on a production basis both by the club members and by a judge in order to select the highest producing hen.

Suggested Public Program

1. A typical club meeting by the club.
2. A brief history and a short statement of the club's achievements by a club member or by local club leader.
3. One or more demonstrations by club teams.
4. A talk on 4-H club work.
5. Awarding a 4-H achievement button, if given, to each member of the club who hands in a completed record book to the local club leader.
6. Announcement of club plans for the coming year.
7. Adjournment.

Suggestions

Only club members who make a complete report or have their records up-to-date should be eligible to take part in county or state contests.

The events of the club round-up and the results of the club work for the year should be carefully prepared and offered to the local newspapers for publication.

II. Feeding for Egg Production

The problem now before the club member is to make an egg machine out of a pullet. Grains, mash, water and minerals are required to keep the bird alive and give her a surplus from which to produce eggs. An egg is composed of 65.9% water, 5.83% protein, 10.83% ash, and 10.59% fat. In feeding for egg production, the body requirements are first taken care of by the hen, and after that her food is turned to egg production or to laying on of fat.

The food a laying hen receives is divided into grains, mash, green food, minerals and water. Roughly speaking, the grains supply the energy and food for keeping her body alive, the mash goes toward egg production, the green food to keep her physically fit, the minerals and water for both eggs and body needs.

The hen is very fond of practically all farm grains. Corn is the most commonly fed grain in this State. It can be fed cracked or shelled but never on the cob. Kafir corn has almost the same feeding value as corn. Wheat is a popular poultry grain, it is well liked by the hens but is usually higher priced than corn. Oats makes a good grain when mixed
with corn or wheat. It should not be fed alone. A good grain mixture is two parts corn, one part wheat or oats.

Grains do not supply the necessary protein for the hen to make eggs. When the hen was a wild jungle fowl she picked up bugs and worms to supply this egg producing protein. We imitate nature by mixing a rich protein feed such as meat scrap or tankage with ground feed such as bran, shorts, ground oats or corn meal. This mixed feed is called a mash. Animal protein can also be furnished by milk. The mash is ground fine so that the hen can eat larger quantities and digest it more easily. A simple formula for mash is 100 pounds bran, 100 pounds shorts, 50 pounds tankage, 2½ pounds salt. Other ground feeds can be added so long as the same proportion of ground feeds to tankage is used. For example, 50 pounds bran, 50 pounds shorts, 50 pounds corn meal, 50 pounds ground oats, 50 pounds tankage, 2½ pounds salt. If milk is kept before the hens at all times the tankage can be left out.

Green feed helps the hen digest her food and keeps her intestines in good order. When the weather permits the hens to run out-doors, bluegrass or winter wheat supply this. When the birds are housed closely, alfalfa hay, cabbage, large beets or germinated oats are suggested. A small bundle of good green alfalfa hay placed in one corner of the house is a very cheap and satisfactory way to supply green food.

There is just as much in how to feed as in choosing the right feeds. First the mash should be thoroughly mixed. It can then be placed in a hopper and left before the hens at all times. Grain should be fed twice each day. A small amount the first thing in the morning and a heavy feed just before the birds go on the roost for the night. Grain should always be scattered in the straw litter so the hen must scratch and exercise to find it. The exercise a hen is forced to take in this way not only keeps her from being lazy but also develops such an appetite that she will eat more of the mash. There is no set rule regarding just how much to feed. A good laying hen will eat twice as much grain as mash except in the summer when she loses her appetite for grain and eats more of the mash. An average flock of 100 hens will eat 15 pounds of grain and 7½ pounds of mash each day. So long as the hens are eating plenty of mash they should be given all the grain they want. See that the crop is full when they go to roost at night.

Wet mash can be made by mixing water or milk with the dry mash. It never should be fed sloppy but in a crumbly form. Wet mash is best used in the fall to start the pullets to laying and in the hot summer months to keep the hens from losing their appetite. Around noon is the best time to feed it.
Oyster shell and limestone grit should be kept in a small hopper or box all the time. This supplies the hens with mineral matter.

The practical exercise suggested for this club meeting is to mix a laying mash, use a large box or wagon bed and shovel.

III. Housing the Laying Hen

In order to produce eggs at a low cost your pullets must be comfortably housed. A good poultry house should be dry, well lighted and ventilated, and reasonably warm.

First let us consider the size of the house, for birds never do well when crowded. For light breeds 3 square feet, and for heavy breeds 4 square feet of floor space should be provided. Since each second-year club member must have at least 20 pullets, the house should be at least 8 by 10 feet in size, while a 10 by 12 foot house is better. The Missouri Colony Brooder house makes a very satisfactory house for the club member.

Fig. 2.—The 10x12 Missouri type brooder house offers splendid quarters for the laying hen during the second and third years of poultry club work.

The floor of a laying house must be dry. For a small house a board floor is best, but for a larger house a cement or dirt floor properly constructed is recommended. For this type of floor a layer of crushed rock or cinders at least 6 inches thick should be spread over the ground. This is to prevent ground moisture from coming up into the house. Water rises here just like the oil rises in the wick of a lamp. On top of the rock or cinders a layer of cement or well-packed clay can be placed.
Keep the floor of the house covered with a layer of straw at least 6 or 8 inches thick.

A poultry house needs fresh air but must not have any draughts. By building the house tight on three sides and leaving openings in the south side this is accomplished.

In a large house light should come from all four sides, but in a smaller house windows from three sides are sufficient. Too many windows result in uneven temperatures in a house. It warms up too much when the sun is shining and cools off too rapidly when there is no sunshine. The Colony Brooder house calls for four windows, two in front and one on each side. The windows are arranged so that they can be taken out in the summer. The front windows should be placed at the top of the sash when used for housing laying hens. This leaves the lower half of the sash open for ventilation. In a large house a small window should be placed near the floor at the back.

Whether the house be large or small a straw loft will help to keep it cooler in summer and dryer and warmer in winter.

Inside the house the feed hopper and water stand should be placed at least 18 inches above the floor. At the back of the house construct a dropping board wide enough to support two roosts. It should be at least 2½ feet high so as to allow space for nests underneath. One nest for each 4 or 5 hens should be built.

IV. Parasites and Diseases of Laying Hen

The most common and one of the most disastrous diseases that attacks mature poultry is roup. Technically there are three different kinds of roup but the practical poultryman calls all troubles with the comb, nose, mouth, throat and eye membrane by the one name roup. The first signs are watery and swollen eyes, loss of appetite and a thin watery discharge from the nostrils. In severe cases the discharge becomes thick, the eyelids stick together and a rattle or noise develops in the throat. Roup is very contagious for the infected bird scatters the germs by means of the watery discharge. Other birds get them through the drinking water, feed hoppers, straw, etc. thus spreading the disease rapidly. It is very important to separate the roup cases from the rest of the flock, particularly the first few that appear. Failure to do this will often cause a severe outbreak of the entire flock. Proper management in feeding and housing the flock are very important measures in controlling roup. Wet floors, damp litter, drafts on the roosts are always to be avoided.

Success in treatment depends largely on treating the bird as soon as it shows the first symptoms. If the case gets well developed treatment is
not worth while unless it is an especially valuable bird. One simple treatment is to make a solution of potassium permanganate by dropping the crystals in water until it is a dark purple color. Next dip the head of the bird in this solution holding it there a short time. This can be repeated daily.

Another remedy is to make a mixture of 8 ounces of olive oil, 1 ounce gum camphor and 1 ounce of carbolic acid. To prepare this mixture heat the olive oil and add the gum camphor, when it has completely dissolved, mix in the carbolic acid thoroughly. Grease the affected parts of the head, comb, wattles and around the eye. In extreme cases hold the mouth open and put a few drops in the slit in the roof of the mouth.

The best way to escape the losses that so often result from roup is to prevent its getting started. If another bird is brought into the flock be sure that it is free from disease. Disinfect and clean the house frequently. The use of vaccines for roup is not generally recommended.

LICE AND MITES

Hens that are forced to fight against lice and mites cannot be expected to lay many eggs. Lice live on the body of the bird and lay their eggs in the feathers. They multiply very rapidly. The most common treatment is to apply sodium fluoride to the bird by the pinch method. This consists of taking eight pinches of the powder, or what one can get in between the thumb and finger and rubbing it into the skin at eight different places on the hen. Care should be taken not to get this dust into your nose for it is very irritating.

Another method of using sodium fluoride is as a dip. One ounce of the powder should be added to a gallon of water. The bird should be held by the wings, with the entire body under water. The head can be pushed under once or twice and the water allowed to drain a few seconds from the feathers before turning the bird loose. This should be done on a warm sunny day.

Mites are active in warm weather, they harbor in the cracks on the roosts, dropping boards and nests. They crawl on the birds at night and suck the blood. That is why they are called the “chicken bed bug.” To rid a house of mites clean and disinfect it thoroughly then paint the roosts and dropping boards with crude oil or waste oil out of the automobile.

INTESTINAL PARASITES

There are two kinds of worms that live in the intestines on the food that the bird eats. They are round worms and tape worms. Round worms are the most common and easiest to get rid of. A specially pre-
pared tobacco dust which can be purchased from drug stores and 
poultry supply houses will practically free your flock from these. This 
edust is mixed with the laying mash at the rate of 1 pound of tobacco to 
50 pounds of mash. It should be fed for at least 3 weeks, then skip a 
week, then feed the tobacco mash again. When feeding this tobacco the 
dropping boards should be cleaned daily. For tape worms, the lye mix-
ture treatment is recommended. Take a gallon of a mixture of wheat and 
oats and add a small teaspoonful of concentrated lye. Put in a small 
amount of water and cook the mixture slowly for 2 hours. The birds 
must be starved for at least 15 hours, then fed all this lye grain they will 
eat. A dose of epsom salts, 1 pound for each hundred hens mixed with 
wet mash, should be given the following day.

SCALY LEG

Scaly leg is easily recognized by the enlarged roughened appearance 
of the feet and legs. It is caused by a little mite which burrows under-
neath the scales. Treatment consists in dipping the feet and legs in oil 
or a mixture of \(\frac{1}{2}\) kerosene, \(\frac{1}{2}\) linseed oil. For extremely bad cases the 
legs should first be soaked in warm soapy water. The oil treatment 
should be repeated every few days until the legs are smooth.

V. Production and Selection of Quality 
Market Eggs

In practically every section of Missouri you will find the egg 
buyers quoting a first and a second grade price. Every club member 
wants to produce only first grade eggs for more money will be received 
for them. One of the first points to look for is the size of the egg. In 
order for an egg to grade as No. 1 it must be 2 ounces in weight. (1\(\frac{1}{2}\) 
lbs. to the dozen). Pullets lay smaller eggs than yearling hens, but 
throughout the pullets’ first laying year, there is a gradual increase in 
the size of her eggs. Well matured and strongly developed pullets lay 
larger eggs than those that are stunted and poorly developed. A hen 
that is fed all she needs of a balanced ration lays more of the larger eggs 
than one that is turned loose to rustle her living. It never pays to be 
 stingy with the feed when you have a balanced ration. Some varieties 
of chickens naturally lay a larger egg, the Black Minorca, for example, 
but any breed of chickens except the bantams can be bred to lay a 2-
ounce egg.

An egg must be clean to be classed as first grade. A few eggs are 
bound to get dirty by accidents but if you supply the proper number of 
estests, keep fresh clean straw in the nests and most important of all keep 
plenty of straw on the floor of your poultry house you will have very few 
dirty eggs. By putting the nests at the back of the house and keeping the
floor covered with straw you make the hen walk through the straw and wipe her feet even though she wades through the mud outdoors.

You cannot wash an egg and make it a clean egg for in washing you open up the small holes or pores in the shell and wash the dirt inside. In washing you dirty up the inside and clean up the outside. Any produce man can tell when an egg has been washed.

The most important point in the summer time is to produce infertile eggs. It is almost impossible for you to market first quality eggs in the summer time if you allow the roosters to run with the hens. The male birds do not make the hens lay. They make the eggs hatch. The summer sun gives the same heat as the incubator, and fertile eggs when taken to market are partly hatched. Pen the rooster by himself if he is a valuable bird and you wish to hatch from him another season; if not sell him as soon as you gather the last setting of eggs. In this way you save the money spent for his feed bill and produce first grade infertile eggs.

If you look at an egg through a light you will see an open space inside the shell at the large end. This is called the air cell. The longer an egg is kept the larger this cell becomes. A first grade egg must have an air cell no larger than a dime. To keep eggs from drying out they should be kept in a cool place until taken to market. You must not hold them
in a damp moldy cellar for the mold will grow into the eggs and spoil them. Eggs should be taken to market at least once each week and twice or three times a week if possible.

An egg to grade as No. 1 must be:
- Large (2 ounces or over).
- Clean (cannot be washed).
- Fresh (an air space no larger than a dime).
- Infertile (no chick growth inside).

**VI. Culling for Egg Production**

Every farm boy or girl can look at a cow and tell whether she is dry or fresh. Culling is this same test applied to poultry. You examine the hen to see if she is laying.

You cull out the low producing hen to save feeding her. There is a certain season best suited for this. Your good pullet started laying in the fall before cold weather set in. She certainly will lay a few eggs in the spring, for this is the natural laying season for all birds. The wild birds lay a few eggs in the spring to hatch out their young. Now if the hen is given the proper feed and is a high producer, she will lay right on through the summer and up into the fall months. If she is a low producer she will stop during the summer and sometimes not start until the next spring—just like the wild birds. The time of the year to cull, then, is between July and November. Think of a number of pullets starting out November 1 just like you would think of a number of horses starting a mile race. Those horses that run fast or the hens that are heavy layers will be ahead as they start down the home stretch. The “home stretch” for hens is from July to October. By culling the hen out and selling her you save feeding her for several months until she starts laying again; also, she does not lay as many eggs as a good hen for the amount of food she eats even during the spring season. Any old hen will lay in the spring—the good high producer starts early in the fall and keeps on laying until late in the summer.

One of the first points in culling is to learn how to hold the hen. In holding the hen properly you run less danger of causing an injury to her and you are able to observe the different points more easily and accurately. If you are right-handed, hold the hen in the left hand. Turn the palm upward with fingers extended. Let the breast bone of the hen rest on the palm, the head being toward the elbow. The extended fingers should grip the legs, the thumb and first finger being on the outside, the second finger in between the legs. We are now ready to take up the different culling points.
Vigor is always important in any kind of stock. A good producing hen has a vigorous appearance. She is strong and healthy and is a gentle, friendly bird. A poor layer is wild or cross, lazy and inactive.

The eye of a laying hen has a bright snappy appearance. Her comb is red and waxy. A hen that is not laying shows her comb and wattles small, dried up, and covered with a powdery white substance.

For birds that have yellow skin and legs, the next test applies. If they belong to a white-skinned variety, such as the Orphingtons, the test cannot be used. A bird takes yellow color into her body from yellow corn, green food, etc. This color either goes into egg yolks or is thrown off through the skin. If the hen is producing eggs regularly, the skin, beak, and shanks will be bleached out. The color first fades in the skin around the vent. The beak starts to fade next to the head and takes about three to four weeks of steady laying to bleach out completely. The legs are slower to change than other parts of the body due to the thick scales. It takes about six months to bleach the legs.

Quality is the next point to look for. By a good quality we mean a hen that has a soft, loose, velvet-like skin, her breast bone is fine, and the pin bones thin and pliable. A good producing hen shows fine quality, while a poor producer will be coarse and thick-skinned.

The laying condition of a hen is very closely connected with the quality. A hen in good laying condition will be soft and pliable in the abdomen and will show a depth of three or four fingers between the pin bones and the end of the breast bone. The pin bones will also be expanded two or three fingers in width. A poor layer will feel hard and tight in the abdomen. The breast bone will be drawn up showing little body depth, and the pin bones will be close together.

One other point to observe in culling is the molt. The hen uses the same feed to make feathers and eggs. If she starts changing her feathers she slows up or completely stops egg production. A good layer holds her feathers until late in the fall; she is too busy laying eggs to stop and dress up. A poor layer changes her feathers, or molts, early in the summer and lays few if any eggs during this time. Now an early molter takes a long time to change her feathers, while a late molter only stops making eggs for a very short time. The late molter is always the most profitable, because she lays more eggs and lays them at a time when prices are high. The early molter does not get her feathers changed and come back into egg production in time to make high priced eggs.

The molt of a hen can be forced by a sudden change of feed. For this reason in culling you should not depend on the molt alone. In culling never throw a bird out on one factor alone. If she is a low producer she will show it on two or three different factors.
CULLING CHART

High Producers
Strong, healthy, friendly.  
Full and waxy; red.  
Shanks, beak, skin bleach out.  
Velvety, soft skin.  
Pin bones fine.  
Abdomen soft, body deep, pin bones spread.  
Late, fast molter.

1. Vigor
2. Comb
3. Color
4. Quality
5. Condition
6. Molt

Poor Layers
Lazy, wild, weak.  
Shrunken, pale color.  
Shanks, beak, skin yellow.  
Coarse, dry skin.  
Breast bone and pin bones thick.  
Abdomen hard, body bones closed up, pin bones close together.  
Slow, early molter.

Demonstrations

In so far as possible, all club members should be instructed in the regular club meetings by the demonstration method. As a usual thing one or more members of each club can begin doing useful phases of the work program before the club soon after the processes have been demonstrated by the club leader.

After two or three months of practical experience in handling real things, all mature club members should be able to give public team demonstrations. The scope of the team demonstration usually should be limited to the essential processes of some phase of the club work of the current year on one subject. A team of two or three of the best demonstrators, according to the number needed, should be selected from the membership of one club, either by mutual consent or by competition. All teams should have an opportunity to demonstrate before the local club group and the people of the home community, and the championship team should represent the local club at the county round-up.
### SCORE CARD FOR JUDGING DEMONSTRATION TEAMS

<table>
<thead>
<tr>
<th></th>
<th>Perfect Score</th>
<th>Actual Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Subject Matter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Importance of the subject matter presented and relation to fundamental problems of home or farm.</td>
<td>30</td>
<td></td>
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<tr>
<td>(2) Accuracy of statements made in oral presentation and proper methods in doing the work.</td>
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<tr>
<td>(3) Completeness with reference to the giving of all steps necessary to clear understanding of process.</td>
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<tr>
<td>(4) Clearness and definiteness of statements made in simple language easily understood.</td>
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<tr>
<td>(5) Replies to practical questions. Judges' questions only should be considered in team scores. Team should give authority for subject matter presented.</td>
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<tr>
<td><strong>2. Team Work</strong></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>(1) Preparation, arrangement and use of materials. The team will be responsible for the arrangement and preparation of equipment and its use.</td>
<td></td>
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<tr>
<td>(2) Organization of work, each member in so far as practical to be kept busy with a definite part so that the work and instructions given will proceed without delay, but each member of the team should be able to demonstrate the whole process.</td>
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</tr>
<tr>
<td>(3) Appearance and conduct of the team. Appearance and conduct includes the personal appearance of the members, and of the team as a whole. They should be business like, pleasant and so far as possible, a unit in action and appearance.</td>
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<tr>
<td>(4) The team member not actually directing the demonstration should re-inforce the point at hand or at least should not detract from the theme of the demonstration.</td>
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<tr>
<td><strong>3. Skill</strong></td>
<td>20</td>
<td></td>
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<tr>
<td>(1) Ease in procedure.</td>
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<tr>
<td>(2) Workmanship and efficiency of manipulation.</td>
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<tr>
<td>(3) Neatness and cleanliness in doing work.</td>
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<tr>
<td>(4) Speed, system or dispatch.</td>
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<tr>
<td><strong>4. Results</strong></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>(1) Effect upon the audience, and also upon materials used in the demonstration, as may be shown in the finished product.</td>
<td></td>
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<tr>
<td>(2) All processes made clear.</td>
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<tr>
<td><strong>5. Practicability</strong></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>(1) Value of principles given for the home and community.</td>
<td></td>
<td></td>
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<tr>
<td>(2) Actual club practices shown.</td>
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</tbody>
</table>

Total Score 100
SUGGESTED OUTLINE OF A DEMONSTRATION ON POULTRY FEEDING

This demonstration is arranged for a team of two members from the same club, designated as "A" and "B".


Equipment: Small open mash hopper, mixing box, shovel, clean water, grit, oyster shell and feeds for a daily ration of 100 hens.

The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.

It is suggested that each demonstrator wear a 4-H club cap, made up in the national club colors of green and white.

In as far as practicable, members should arrange their own equipment and stage and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

| Procedure | B
| --- | --- |
| **A** addresses the audience; makes a brief statement about the club which the team represents; leads in repeating the 4-H club pledge or in giving the song or yell; and introduces team mate and self. | B stands at attention; joins in repeating the 4-H club pledge or in giving the song or yell; and stands at attention while being introduced.

**A speaks**

Discusses and demonstrates:

1. Poultry feeding—
   (1) Importance of.
   (2) Proper selection of feed, right proportion of grain and mash. Why abundant supply is necessary.

**A assists**

Assists B in demonstrating as B explains the work.

**B assists**

Assists A in demonstrating as he explains the work.

**B speaks**

Discusses and demonstrates:

2. Ingredients of a ration—
   (1) Scratch feeds, mashes, protein feeds, mineral feeds, succulence and water.


**A speaks**

Gives a brief summary of points made in the demonstration.

Asks for questions pertaining to the demonstration.

Leads in giving a spirited club song or yell.

Thanks the audience for its attendance and attention.

**B assists**

Assists A, if necessary.

Quietly collects equipment and cleans up the table, if time permits.

Stands at attention.

Joins in giving club song or yell.

Stands at attention.


**SUGGESTED OUTLINE OF A DEMONSTRATION ON POULTRY HOUSING**

This demonstration is arranged for a team of two members from the same club, designated as "A" and "B".


Equipment: A model Missouri poultry house so constructed that it can be put together and equipped in view of audience, a hammer.

The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.

It is suggested that each demonstrator wear a 4-H club cap, made up in the national club colors of green and white.

In as far as practicable, members should arrange their own equipment and stage, and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

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</table>

**A speaks**

Discusses and demonstrates:

1. Proper housing—
   (1) Importance of.
   (2) Location.
   (3) Kinds of material used.
   (4) Type of house advocated.

**B assists**

Assists A in demonstrating as he explains the work.

**A assists**

Assists B in demonstrating as he explains the work.

**B speaks**

Discusses and demonstrates;

2. Requirements of a good poultry house.—(1) Dryness (2) Ventilation (3) Sanitation (4) Sunlight (5) Cost

(Continued on Next Page)
A speaks
Gives a brief summary of points made in the demonstration.
Asks for questions pertaining to the demonstration.
Leads in giving a spirited club song or yell.
Thanks the audience for its attendance and attention.

B assists
Assists A if necessary.
Quietly collects equipment and cleans up the table, if time permits.
Stands at attention.
Joins in giving club song or yell.
Stands at attention.

SUGGESTED OUTLINE OF A DEMONSTRATION ON CONTROL OF LICE AND MITES

This demonstration is arranged for a team of two members designated as “A” and “B”.


Equipment: Hand spray, whisk broom, disinfectant (kerosene and lard, crude oil or coal tar preparation), sodium fluoride, grease, blue ointment, box with roost poles, three hens and three young chicks for treatment.

The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.

It is suggested that each demonstrator wear a 4-H club cap, made up in the national club colors of green and white.

In as far as practicable, members should arrange their own equipment and stage, and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

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<table>
<thead>
<tr>
<th>A speaks</th>
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<tbody>
<tr>
<td>Discusses and demonstrates:</td>
</tr>
<tr>
<td>1. Mites—</td>
</tr>
<tr>
<td>(1) How they feed.</td>
</tr>
<tr>
<td>(2) How they hide.</td>
</tr>
<tr>
<td>(3) How to disinfect the poultry house.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B assists</th>
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</thead>
<tbody>
<tr>
<td>Assists A in demonstrating as he explains the work.</td>
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</tbody>
</table>

(Continued on Next Page)
A assists
Assists B in demonstrating as he explains the work.

B speaks
Discusses and demonstrates:
2. Lice—
   (1) Sodium fluoride on hens.
   (2) Sodium fluoride and grease mixed.
   (3) Blue ointment.
   (4) Treating young chickens for head lice or chiggers.
   (5) How to prepare solution for dipping hens.
   (6) How to dip a hen.
   (7) How to give treatment for scaly legs.

A speaks
Gives a brief summary of points made in the demonstration.
Asks for questions pertaining to the demonstration.
Leads in giving a spirited club song or yell.
Thanks the audience for its attendance and attention.

B assists
Assists A, if necessary.
Quietly collects equipment and cleans up the table, if time permits.
Stands at attention.
Joins in giving club song or yell.
Stands at attention.

SUGGESTED OUTLINE OF A DEMONSTRATION ON GRADING AND PACKING EGGS
This demonstration is arranged for a team of two members from the same club, designated as "A" and "B".
Equipment: Three dozen eggs, one dozen uniform in shape and color, one thirty-dozen egg case, new fillers, flats and six excelsior pads, small electric candle, egg case, nails, and hammer.
The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.
It is suggested that each demonstrator wear a 4-H club cap, made up in the national club colors of green and white.
In as far as practicable, members should arrange their own equipment and stage, and should clean up after the demonstration.
Time: Twenty to forty minutes.

<table>
<thead>
<tr>
<th>A</th>
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<td></td>
</tr>
<tr>
<td>A assists</td>
<td>B assists</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
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<td></td>
</tr>
<tr>
<td>Discusses and demonstrates:</td>
<td>Assists A in demonstrating as he explains the work.</td>
<td></td>
</tr>
<tr>
<td>1. Grading eggs—</td>
<td></td>
<td></td>
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<tr>
<td>(1) As to size.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) As to shape.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) As to color.</td>
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<td></td>
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<tr>
<td>2. How eggs are transported for different purposes.—</td>
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<td></td>
</tr>
<tr>
<td>(1) Parcel post direct to small families in cities in packages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Shipment of hatching eggs from one breeder to another.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Express shipment of quality eggs to quality markets, showing package, mailing, and billing of case.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>A assists</th>
<th>B speaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assists B in demonstrating as he explains the work.</td>
<td>Discusses and demonstrates:</td>
</tr>
<tr>
<td></td>
<td>3. Eggs—</td>
</tr>
<tr>
<td></td>
<td>(1) Infertile eggs.</td>
</tr>
<tr>
<td></td>
<td>(2) Grade for interior quality by candling. (air space, appearance of yolk, blood ring and black rot.)</td>
</tr>
<tr>
<td></td>
<td>(3) Break eggs and show different stages of germination.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A speaks</th>
<th>B assists</th>
</tr>
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<tbody>
<tr>
<td>Gives a brief summary of points made in the demonstration.</td>
<td>Assists A, if necessary.</td>
</tr>
<tr>
<td>Asks for questions pertaining to the demonstration.</td>
<td>Quietly collects equipment and cleans up the table, if time permits.</td>
</tr>
<tr>
<td>Leads in giving a spirited club song or yell.</td>
<td>Stands at attention.</td>
</tr>
<tr>
<td>Thanks the audience for its attendance and attention.</td>
<td>Joins in giving a club song or yell.</td>
</tr>
<tr>
<td>Stands at attention.</td>
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</table>

**Suggested Outline of a Typical Demonstration on Poultry Culling**

This demonstration is arranged for a team of two members from the same club, designated as “A” and “B”.


Equipment: Two yearling hens from the same flock; one representing a high producer, the other a low producer. One chicken coop, the floor of which is well covered with litter.
The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.

It is suggested that each demonstrator wear a 4-H club cap; made up in the national club colors of green and white.

In as far as practicable, members should arrange their own equipment and stage, and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

<table>
<thead>
<tr>
<th>A</th>
<th>Procedure</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
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<td>B stands at attention; joins in repeating the 4-H club pledge or in giving the song or yell; and stands at attention while being introduced.</td>
<td></td>
</tr>
</tbody>
</table>

_A speaks_

Discusses and demonstrates:
1. Culling—
   (1) Importance of.
   (2) Relation between proper feeding and successful culling practices.
   (3) How to handle a hen.

_B assists_

Assists A in demonstrating as he explains the work.

_A assists_

Assists B in demonstrating as he explains the work.

_B speaks_

Discusses and demonstrates:
2. Vigor, pigmentation, and molt.
3. Egg type and body conformation.
4. Indicates whether or not the birds are in laying condition, giving reasons for conclusions.

_B assists_

Assists A, if necessary.
Quietly collects equipment and cleans up the table, if time permits.
Stands at attention.
Joins in giving club song or yell.
Stands at attention.
**SUGGESTED OUTLINE ON A POULTRY CLUB JUDGING DEMONSTRATION**

This demonstration is arranged for a team of two members from the same club, designated as "A" and "B".


Equipment: Cockerels and several pullets of one breed, a cockerel and pullet from each club member, exhibition coops (home made or otherwise).

The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.

It is suggested that each demonstrator wear a 4-H club cap, made up in national club colors of green and white.

In as far as practicable, members should arrange their own equipment and stage, and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

**Procedure**

<table>
<thead>
<tr>
<th>A speaks</th>
<th>B. Assists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discusses and demonstrates:</td>
<td>Assists A in demonstrating as he explains the work.</td>
</tr>
<tr>
<td>1. How to handle birds.</td>
<td></td>
</tr>
<tr>
<td>2. Standard requirements.</td>
<td></td>
</tr>
<tr>
<td>Standard disqualifications for the variety at hand.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>A assists</th>
<th>B speaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assists B in demonstrating as he explains the work.</td>
<td>Discusses and demonstrates:</td>
</tr>
<tr>
<td>3. Good and bad types of the same breed and of different breeds.</td>
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<tr>
<td>4. Places birds and tells why placings are made.</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>A speaks</th>
<th>B assists</th>
</tr>
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<tbody>
<tr>
<td>Gives a brief summary of points made in the demonstration.</td>
<td>Assists A, if necessary.</td>
</tr>
<tr>
<td>Asks for questions pertaining to the demonstration.</td>
<td>Quietly collects equipment and cleans up the table, if time permits.</td>
</tr>
<tr>
<td>Leads in giving a spirited club song or yell.</td>
<td>Stands at attention.</td>
</tr>
<tr>
<td>Thanks the audience for its attendance and attention.</td>
<td>Joins in giving club song or yell.</td>
</tr>
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<td></td>
<td>Stands at attention.</td>
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