

Oregon State Agricultural College Extension Service

Corvallis, Oregon

Culling for Production

By

F. E. Fox

Associate Professor of Poultry Husbandry

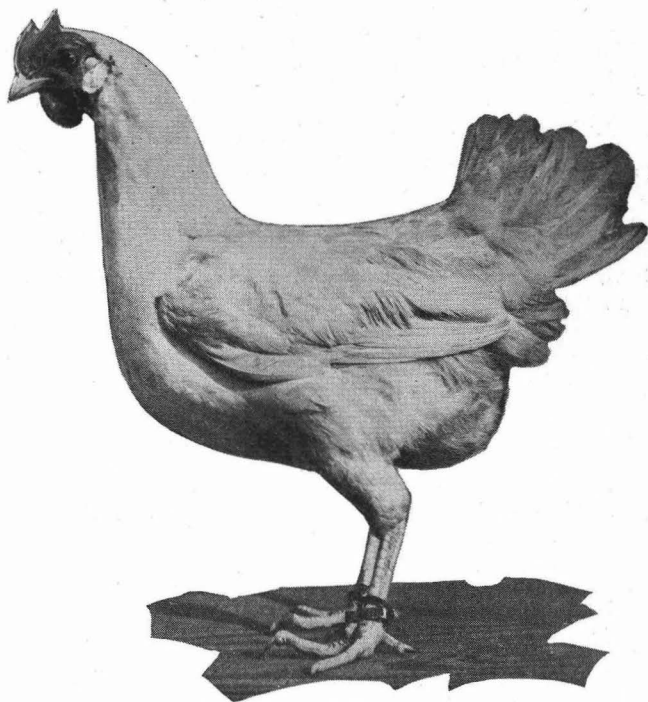


Fig. 1. A 300-Egg Hen.

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TABLE OF CONTENTS

	Page
Introduction	3
When to Cull	3
Points in Culling	4
Vigor and Health.....	5
Body Capacity and Body Changes.....	5
Color Changes or Pigmentation.....	6
Molting	9
Other Indications of Production.....	10
How to Cull.....	10

Culling for Production

INTRODUCTION

THE value of culling has never been greater than at the present time. Productive hens are a necessity under present economic conditions if egg production is to be profitable.

Culling on a definite, recognized plan is a means of weeding out the low, unprofitable producers. A culling program points out those indications of production or the lack of it.

Culling should be used in addition to other factors of management such as feeding, housing, breeding, etc., that are so necessary to the success of the enterprise. The failure in any one of these may overshadow the success of the remaining factors.

Culling requires judgment and its accuracy or efficiency is dependent on the one doing the work. A trap-nest record is not available to verify the judgment as in the case of the breeder. Environmental conditions, previous rearing conditions, even the breed or variety, enter in to add complexity to the problem. Pigmentation or molting are more helpful at certain times than at others. Certain indications merely mean present production, others probable continued production.

Undoubtedly, many good producing hens are marketed through inability of the culler properly to interpret conditions. Though probably to a less degree than formerly, hens that cannot become money makers are kept and some are even kept at a loss.

One should be familiar with the previous flock management of any flock that is to be culled—how they were fed, housed, use of lights, moving, etc.—or many mistakes are likely to be made.

The body changes that come with production or the lack of it, the pigmentation changes, molting, development, and color of comb and wattles, the vigor, health, and activity of the birds are indications that may be used in judging whether to cull or keep. These factors determine profit or loss.

Culling will not take the place of sound, sensible management, good breeding, proper disease control, suitable housing, etc. It is not a cure-all for the evils that have gone before. The degree of culling necessary or the percentage of culls may be an indication of faulty management.

Culling will not make high producers of a low producing flock.

WHEN TO CULL

Culling should start with the parents of the present flock, greater care in the selection of eggs for producing the flock, culling the chicks as they are placed in the brooders, and continuous culling through the growing stage. Most poultrymen make some sort of selection or culling when placing the pullets in the laying house, but a certain number fail to main-

tain satisfactory production and hence there should be a small amount of culling throughout the year.

Culling or a rather complete examination of the flock should take place the latter part of May or June and again in August. The birds that pass the tests at these periods, barring the small percentage that break down, should be kept. It is assumed that the flock has, and will have, normal care if this plan of culling is followed.

Culling should leave only those that have a chance to return a profit.

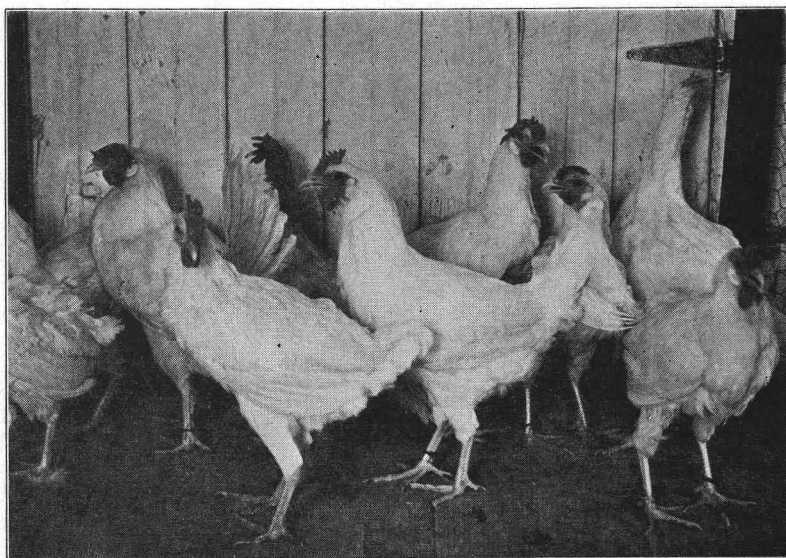


Fig. 2. Low production a question of breeding. Not bred for production. Note small, shallow bodies. Not the egg type.

POINTS IN CULLING

In culling hens that have gone through at least one laying season the following points are considered: Vigor and Health, Body Capacity and Body Changes, Color Changes or Pigmentation, Molting, and Other Indications of Production. These will be discussed in turn.

Many of these body changes merely indicate present production. Certain indications point to probable continued production. Therefore, too much weight should not be given any one consideration but rather the birds culled out or kept on the basis of a combination of considerations.

Questionable birds may be given the benefit of the doubt.

Many good birds are culled out without sufficient justification. After all, it is not efficient management or economical to operate a plant at half or two-thirds capacity. Many of the overhead costs remain the same.

Vigor and health. Small, undersized, runty, emaciated birds, or birds with crossed beaks, crooked backs, crooked legs, or any deformity that would handicap the individual in getting and using a large amount of raw materials for the manufacture of eggs, are handicapped at the start and had best be disposed of, making extra room and allowing more attention for the good birds. A bird with physical weakness, such as a long, narrow head, narrow body, sunken eye, or indication of disease, is not desirable. Lack of energy, droopiness, and rough plumage indicate a lack of thrift. Vigor is the very foundation of the poultry business. An active disposition,

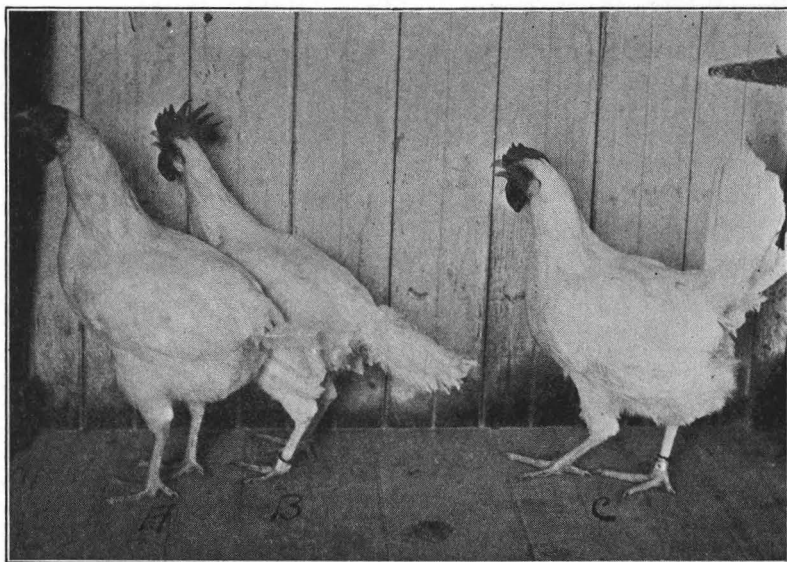


Fig. 3. A—Coarse beefy type.
B—Masculine head.
C—Feminine type, a good producer.

bright, clear eye, and well-worn toe-nails indicate health. The coarse, masculine type of hen is the low producer. Generally in the poor layer there is a coarse head and full face, beefy type of body with a tendency to put on fat. Health and activity go hand in hand.

Keep only those that have a good chance to make a profit by starting with a sound body and a good appetite.

Body capacity and body changes. The keel or breast-bone should be long and straight. As the hen comes into laying the free end of the keel toward the abdomen drops down away from the pelvic bones. Distance from the pelvic to keel should be from four to six fingers, depending on the breed, variety, and strain or family, as well as laying condition. This is a relative distance only and also varies with the person making the test as some have large hands and fingers, others small. The body should be wide and deep, allowing plenty of room for the organs of digestion and space

to handle large quantities of food or raw materials for egg manufacture. The abdomen should be soft and pliable and not hard and firm, indicating large masses of fat deposited there. The pelvic bones should be thin and pliable and have a spread of about three fingers. Thick, blunt, crooked pelvic bones and deposits of hard fat in the abdomen indicate either low production or a long period of time since profitable production. A tendency toward breaking down or baggy abdomen is not desirable.

The vent should be large and moist, free from wrinkles in the case of a good layer as contrasted with a small, dry, puckered vent of a non-laying bird.

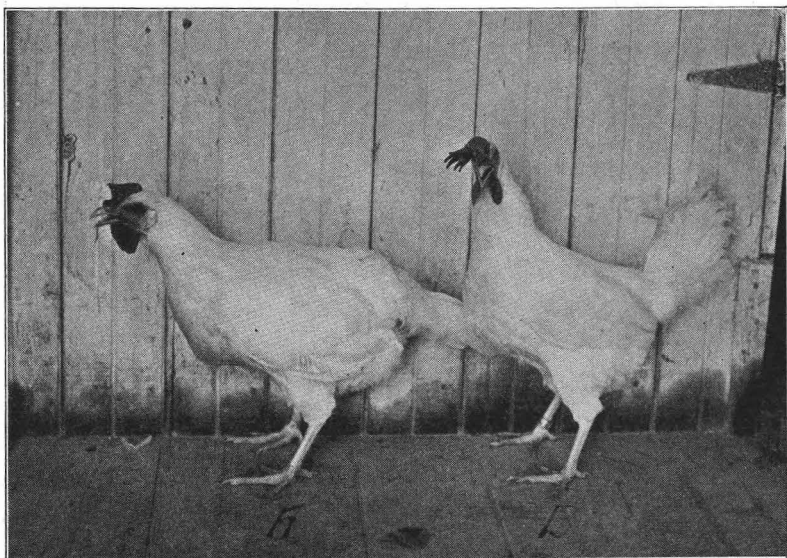


Fig. 4. A—A low producer, coarse head, beefy body.
B—A good producer. Neat, trim, active.

Color changes or pigmentation. In some breeds one may use the fading or bleaching of the yellow color of certain parts of the body as an indication of production, presence of color indicating the lack of production. Certain breeds with shanks and skin other than yellow do not lend themselves to this means of telling the layers.

Pigmentation should be observed by natural light or in the daytime. The yellow pigment found in the feed colors the body fat and yolks of the eggs. As the fat is used up in laying and feed taken for egg manufacture, the yellow color disappears from the body. In breeds normally having yellow skin the lack is quite noticeable in certain sections. In breeds with white skin and white shanks or black shanks, or in coarse, thick-skinned breeds, such as some of the heavy breeds, the pigment changes are difficult to observe. Sick hens lose the color irrespective of production. Stock raised on dry, sandy yards free from vegetation or fed rations devoid of

yellow corn and green feeds have pale, bleached shanks and this test cannot be accurately applied.

The sections of the fowl more liberally supplied with blood circulation are the first to show the bleaching of the yellow color. The yellow color disappears from the skin around the vent with production of only a week to ten days. At the same time, color is leaving the earlobes, the beak, and the shanks but at a slower rate owing to less circulation. It takes longer, therefore, for it to disappear from these sections. Rather definite periods of production have been worked out by experiment stations for bleaching of these sections.

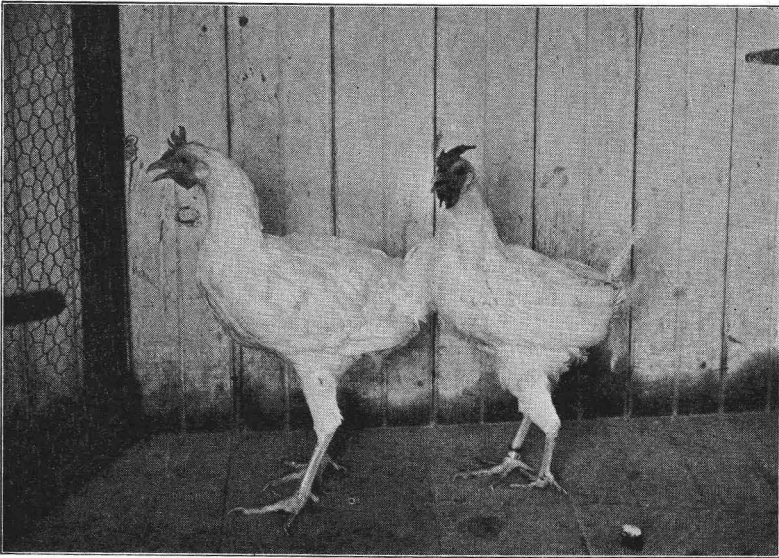


Fig. 5. Typical cull birds. Small heads, long legs and shallow bodies.

Pigmentation in the earlobes can be applied to only a few breeds having white earlobes, such as Leghorns and Minorcas. Plymouth Rocks or Rhode Island Reds have red earlobes and the yellow pigment cannot be seen. Usually the earlobe bleaches after ten to fifteen eggs or a period of three to four weeks.

The bleaching of the beak is not so rapid as in the sections just mentioned. The color fades from the base of the beak first and returns to the same section first when production ceases. The base is the section attached to the head. The lower beak fades more rapidly than the upper. Six to eight weeks are required generally to bleach the beak entirely. Reddish brown as found in Rhode Island Reds should not be confused with yellow color.

White shanks where yellow are normal, because of the slowness of the bleaching, are indications of production of from fifteen to twenty weeks. Color disappears from the front of the shanks first. The hock joint is the

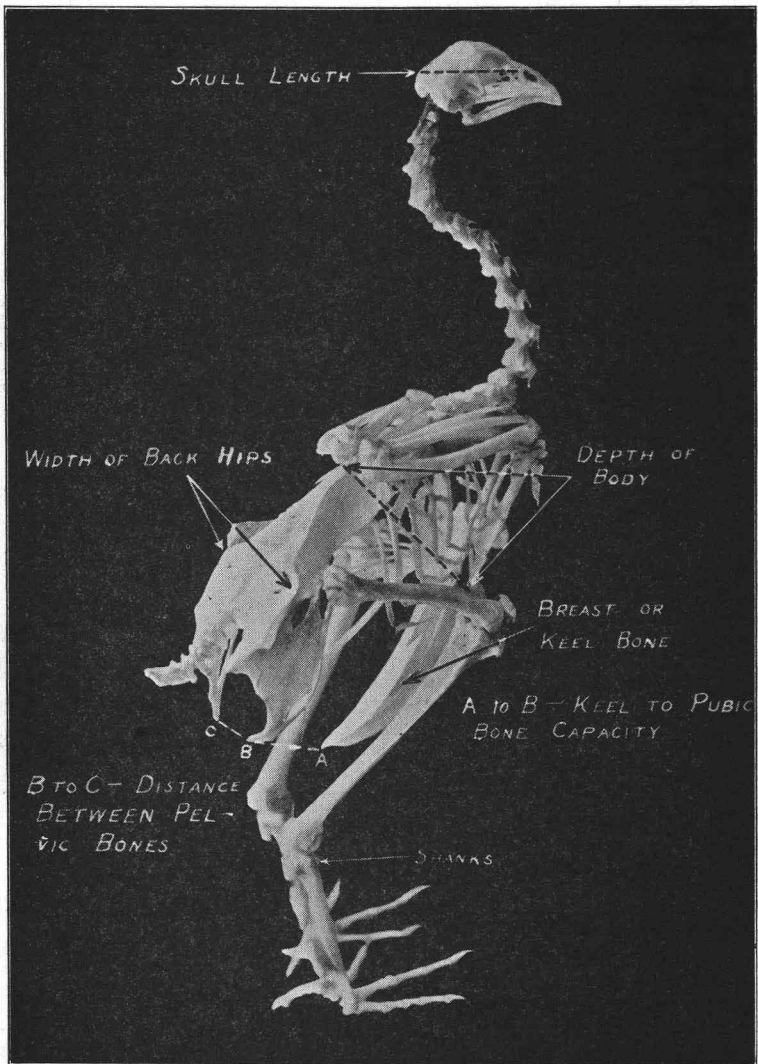


Fig. 6. Skeleton showing measurements taken in culling.

last portion of the leg to lose color and may be used at times as a guide as to the depth of color originally. Some breeds such as Plymouth Rocks may not show color loss as clearly as Leghorns where there are no dark spots on the legs.

Pigmentation or the lack of it is more valuable as a guide at certain times than others and should not be used as the sole means of determination of a cull or good bird.

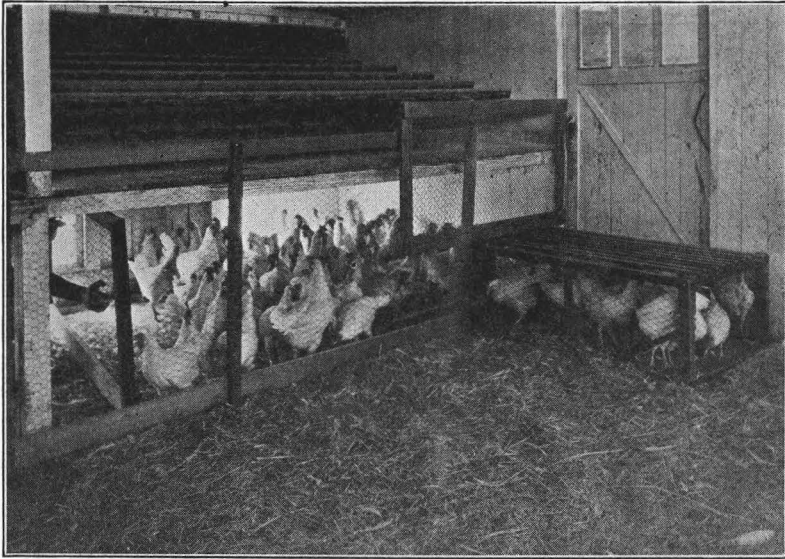


Fig. 7. Catching crate and panels used for catching hens when culling.

Molting. Normally a hen molts once a year—at the end of the laying season. Early molting indicates a short laying season; late molting, a long one. If, through mismanagement in feeding, housing, etc., the hen is forced to quit laying, she is apt to molt at any time during the year. The order of molt is neck first, then back and body. Heavy layers sometimes lay through the molt; poor layers seldom do. Hens of general purpose or meat breeds may lay and molt at the same time.

The large wing feathers are sometimes taken as a measure of the length of time a bird has been molting or the time remaining until molt will be completed. Starting at the axial feather between the primaries and secondaries, normally the first feather to molt requires six weeks. Inasmuch as more than one feather is generally molting at a time, one can estimate six weeks for the first and two weeks for each additional primary. Where two are equal length, indicating the same degree of molt, only one two-week period is allowed for both. Sometimes in heavy layers several primaries molt at the same time; hence any estimate of time elapsed is confusing. The complete body molt is particularly helpful in culling during

summer or early fall months. Summer molting indicates early quitting of production if management has been normal.

When used with other considerations for culling, molting is a valuable indication.

Old, worn, frayed plumage in late spring, summer, and fall indicate the good producers still at work. The nice clean, new plumage of the molting hen may have nicer appearance but she isn't paying the bills.

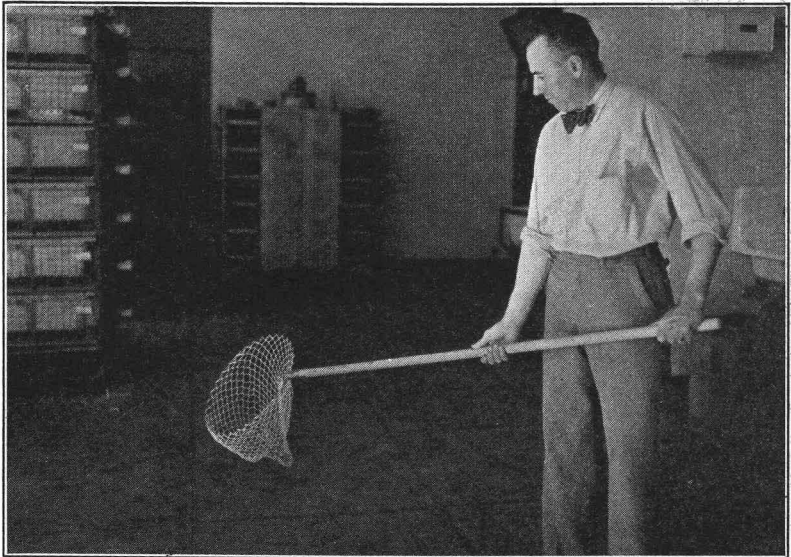


Fig. 8. Catching net. Convenient for catching a single bird or two.

Other indications of production. A good bird has a broad back, width carried out well back to the tail; breast is well filled, not shallow; and there is good spring of ribs. A bird that is laying will have a large, red comb that is warm and free from whitish crust or scales as contrasted with a small, shriveled, cold comb of a bird not laying. Bright red color indicates good blood circulation and health. The good layer is active, nervous and generally is not afraid. She has a good appetite and well-worn toe-nails from scratching for food. The shy, moping hen that squawks when caught is the poor layer. The busy, singing hen first off the perches in the morning and last on at night is the paying hen.

HOW TO CULL

Do not cull if the management has not been normal, or if conditions have been such that the hens have not had a fair chance for production. Inherited poor laying ability cannot be overcome by culling. In culling,

use the average of the flock as a guide. Culling is a comparison one with another.

With panels confine all the birds beneath the dropping boards. Place the catching crate at one end of the dropping board. Using a short panel beneath the dropping board, force the birds gradually toward the end and into the catching crate. From the catching crate, handle the birds individually for the culling examination. The good birds may be released where desired and culls placed in shipping crates.

The proper way to grasp the birds is by the wings on either side of the body—not by the legs. With the head toward you, slip one or more fingers between the bird's legs up close to the body, resting the keel or breast of the bird on your hand. Your other hand is thus free to make the examination.

In catching a single bird or two occasionally, the catching net is quite satisfactory.