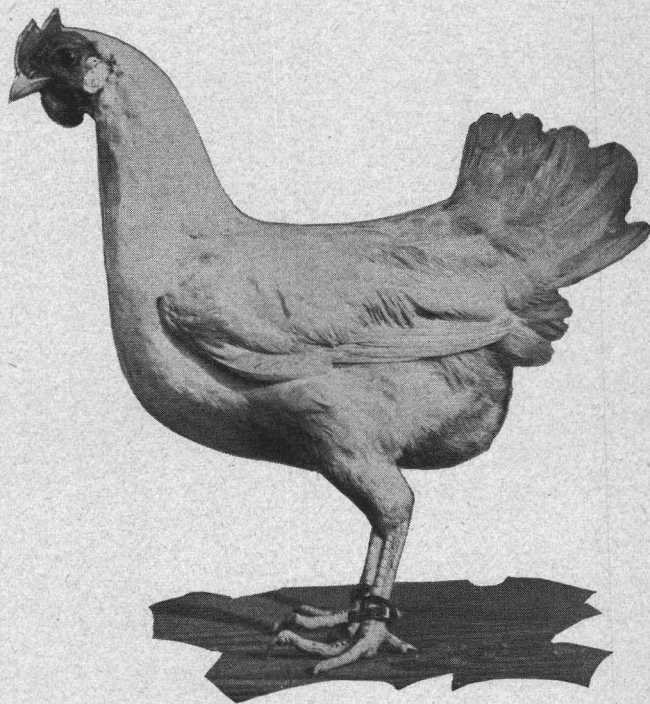


# Culling the Poultry Flock

By

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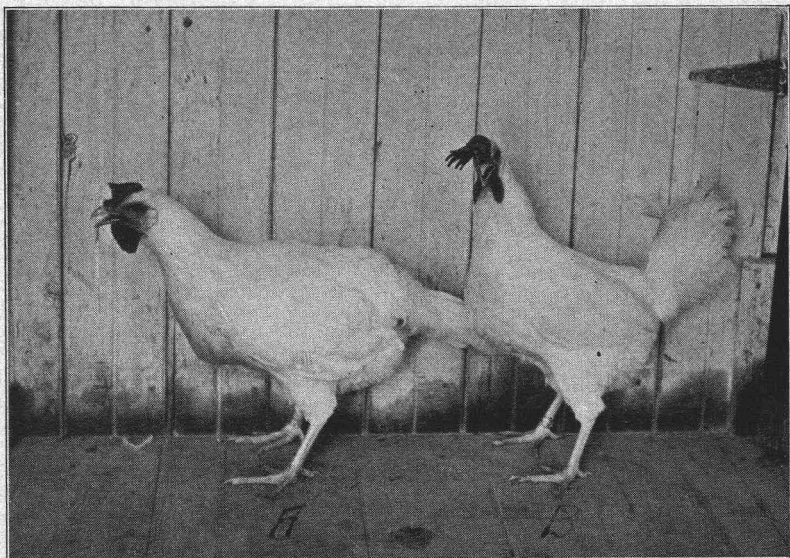


Figure 2. *At left (A):* Low-producing, beefy-type hen. *At right (B):* High-producing hen.

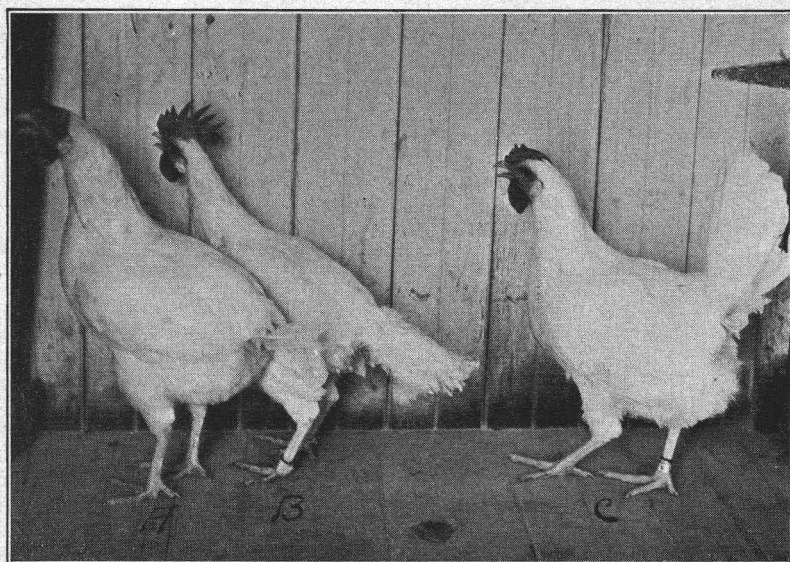


Figure 3. *From left to right:* A—Coarse beefy type. B—Masculine head. C—Feminine type, a good producer.

*Illustration on Cover—*

Figure 1. A 300-egg hen.

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## INTRODUCTION

**C**ULLING in a practical sense means examining each hen in the flock at intervals near the close of the year's production and eliminating those of low vitality, beefy disposition, and unmistakable evidences of low production. In any kind of plant or animal breeding there always exists a number of low-producing, unprofitable individuals. The detection and elimination of these low-producing individuals is called culling.

Culling is but one of several necessary phases of successful poultry management. It has no more relative importance than proper feed and feeding methods, control of external and internal parasites, time of hatching, good housing facilities, and other factors.

Trap-nesting is the only accurate method of determining the exact egg production of the hen. This method is only economical for the poultryman doing careful, accurate, pedigree breeding work. Trap-nesting under ordinary conditions is not practical for the general farmer or commercial poultryman. The poultryman has to make one of three choices: first, to trap-nest; second, to study and apply the principles of culling; or, third, to continue keeping at a loss low-producing, money-losing hens. A hen's past egg-production performance is evidenced by her vigor, fleshy, temperament, absence or presence of yellow pigment, depth and pliability of abdomen, time of year in which she molts, and other factors the poultry student soon learns to evaluate.

Careful, systematic culling of the entire flock will not transform poorly housed, lousy, crowded, and improperly fed hens into high producers. Culling is profitable only when the flock has and will continue to receive uniform and sensible care. Accuracy in culling depends upon the judgment of the poultryman, and his judgment must be based upon definite knowledge relative to the management of that flock during the preceding year. Any factor, such as moving the flock, sickness, forcing under lights, partial molt, crowding, or change in feed or feeding methods, if not taken into consideration will result in many errors of judgment. Many profitable hens have been sold as culls, not that the methods of culling as herein described were at fault, but because the poultryman failed to consider all the characteristics of the hen and the care she had received. A daily egg record of the flock during the preceding season discloses the care the flock has received and is a valuable asset in doing intelligent, accurate culling. The flock owner is the only person in possession of all the information concerning his flock and for this reason he should do a more efficient job of culling it than anyone else.

## TIME TO CULL

Culling should begin at the time eggs are selected for incubation; weak, malformed, and undesirable chicks should be culled when transferring from the incubator to the brooder; chicks that are of low vitality should be culled as soon as discovered during the developing period; and pullets that are a few months later in starting to lay than the average of the flock should be culled. Individual cull hens should be removed at any season of the year they are definitely detected.



In addition to spot culling of individuals, the commercial flock owner should schedule two approximate dates for carefully examining every hen in the flock. The first flock-culling date should be approximately June 1. At this season the peak of spring production has past and a sufficient number of late starters, early quitters, and beefy hens will be culled out so as amply to justify the chore. The June-culled flock should be examined again during the first half of August. At this time the owner knows the number of pullets he will have to house and can cull the older stock according to the number of fowls his equipment will accommodate.

It is easier to see, interpret, and place proper values on the various culling factors when the work is done in midsummer. There is as definite a time for culling the poultry flock as there is a seasonal time to plant corn.

Following the second culling in August, it is as important to stop culling as it is to start it. Even the best hens will molt and go out of production during fall and winter. Culling the laying flock in December on the basis of principles that apply in August is most difficult and too often results in a severe depletion of the flock.

## SELECTING BREEDING HENS

Breeding hens may be selected between September 15 and October 15 from the flock which was carefully culled both in June and August.

IT ISN'T THE NUMBER OF HENS THAT PAYS; IT IS THE KIND.

## FACTORS TO BE CONSIDERED IN CULLING

### 1. Value of vigor and health

Vigor is the very foundation of a successful poultry business. An active disposition, bright, clear eye, and well-worn toenails indicate health. Small, weak, deformed, inactive hens with long beaks and heads lack vigor and should be culled. Hens with baggy abdomens have broken down and become very fat; when they stop laying they seldom start again and the death rate is very high.

Hens that are large and coarse with small sunken eyes are big eaters, poor layers, and rightly belong to the "beef" class.

### 2. Value of yellow pigment in culling

In yellow-skinned breeds the same yellow pigment that colors the yolk of the egg colors the vent, eye ring, beak, skin, and shanks. As the hen starts laying this yellow pigment begins to disintegrate and disappear. The different parts of the body fade out white in proportion to the amount of pigment stored in those parts, the kinds of feed fed, the weight of the body, the size of egg laid, and the length of the production period.

After production begins the skin around the vent is the first to whiten, then the eyelids, the earlobes, the beak, and last the shanks. When a hen stops laying the color returns in the same order that it leaves, only very much more rapidly. The loss of yellow color in the shanks indicates a long laying period, which varies from three to six months, depending on the breed, the rate of production, size of egg, and kind of feed. The presence or absence of yellow pigment in the vent, eyelids, earlobes, and beak denotes a shorter laying or resting period, varying from a few days to four or five weeks.

Sick hens and hens in a dry yard, fed little or no yellow corn and green feed, will have faded beaks and shanks even though not laying.

The person culling a flock of Orpingtons, Minorcas, Dorkings, or other breeds that do not have yellow skin must disregard yellow-pigment indications and make the selection on the value of the other characteristics.

### 3. Value of molt in culling

A hen usually starts molting at any time of the year she stops laying. Poor inherent breeding or poor management may cause her to stop laying. The later a hen lays in the summer the greater has been her annual production and the later she will molt. Hens of poor breeding stop laying early and start to molt; contrary to old-time opinion, these hens do not make the fall and winter layers. Hens of general-purpose or meat breeds frequently lay and molt at the same time. High-producing hens usually molt more rapidly than low producers. The best layers have dry, ragged, frayed, and brittle feathers, and the tail feathers are badly worn during summer and fall months. The number of new or old feathers in the wing primaries is a safer guide in determining the molt of hens that can be found in other parts of the body. It takes about six weeks to renew the primary feather next to the axial feather and an additional two weeks for each subsequent primary feather. If more than one growing primary feathers are the same length they should be credited only with the growing time of one feather. The poor layers will have more new primaries in July and August than the high layers.

Heavy fall and winter egg production should be expected only from early-hatched, well-matured pullets. There is no practical value derived from forcing a flock of hens into an early summer molt in an attempt to obtain from them a high fall and winter production.

While late-molting hens are practically certain to be the best layers during the following year, it is not advisable to go to extremes in selecting the laying flock by this factor. The net returns from the medium-late molters may be as great or greater than from the extremely late molters.

Loose feathering is usually a characteristic of the coarse, late-maturing, and low-producing hens. Loose feathering is often a characteristic of birds reared in confinement and of hens kept in laying cages.

Any factor of mismanagement that checks egg production in summer will force the molt, and such conditions must be given due consideration by the person culling the flock.

IT IS POOR JUDGMENT TO CULL ON THE BASIS OF MOLT ALONE.

### 4. Value of body changes in culling

The laying hen has a large, moist, dilated vent as contrasted with a round, dry, puckered vent in the case of a hen not laying. In order to lay well a hen must be able to consume and digest a large amount of feed. The reproductive and digestive organs require a large amount of room. When a hen starts laying the entire abdomen becomes dilated; the pelvic bones, between which the egg must pass, become wide spread; the keel is forced down, and the lateral processes are sprung outward. When a hen stops laying the measurements are materially reduced. Poultrymen measure a hen's capacity by the perpendicular distance between the pelvic bones and the posterior end of the keel. This measurement, whether two fingers or six fingers, is influenced by the size of the bird, length of keel, size of eggs laid, and whether the hen is laying or not laying at the time of examination.

With high production the fat goes out of the skin and the hen has a soft, velvety skin and very soft and pliable abdomen. 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.

The back should be broad and flat, and its width should be carried well back to the tail. A back that is narrow, curved, cushioned on top, tapering toward the rear or sloping down, indicates very poor capacity.

IT IS NOT GOOD BUSINESS TO CULL ON BODY CHANGES ALONE.

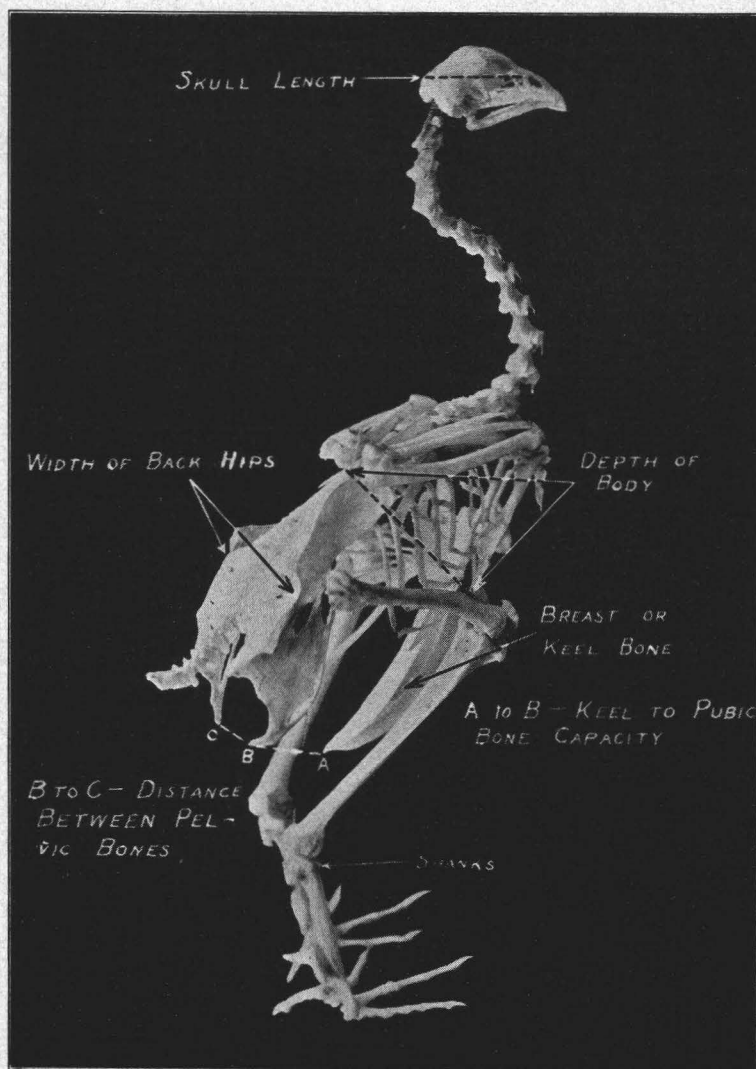


Figure 4. Skeleton showing measurements taken in culling.



### 5. Value of head and adjuncts in culling

Fineness of the head is an indication of a good laying hen. The face is clean cut; the eye round, bold, prominent, and set in an oval socket; and the wattles and earlobes fit close to the head. The comb is fine in texture, soft, and pliable; serrations are broad at the base and follow, usually, the general curvature of the head. The beak is short and well curved.

Unprofitable hens usually have long, narrow serrations on the comb, shrunk, hard to the touch, and covered with whitish scales. The eye is usually sunken, not prominent when viewed from the front, and has a dull, listless expression. The long beak and narrow, crowlike head are never found on a high-record hen.

DON'T CULL ON THE BASIS OF HEAD DEFECTS ALONE.

### 6. Value of temperament and activity in culling

A high-producing hen is more active and more nervous than a poor layer, yet more easily caught and handled. The high producer is friendly, while the poor layer is sly, stays on the roost or outer edge of the flock, and squawks when caught. The first hens off the roost in the morning and the last to go to roost at night are the best layers.

## PRECAUTIONS TO OBSERVE IN CULLING

Culling is an intelligent comparison between hens of the same flock that have had equal opportunity to lay so far as housing, feeding, and management are concerned. No set rule or rules will apply to all flocks because culling is a matter of intelligent judgment based on uniform management of the flock.

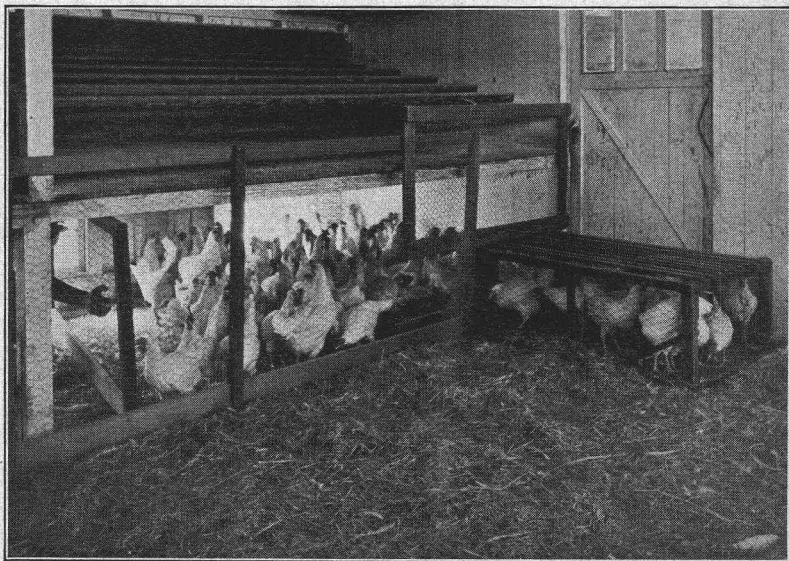


Figure 5. The catching crate and panels used to confine the flock in a restricted area simplify the catching problem.

It is not safe to judge a hen solely by any one of the indications previously discussed. Such procedure will result in untold errors. Only when all indications are applied to each hen can intelligent judgment be passed.

Unless hens have been kept under conditions favorable to egg production no one can do accurate culling work. Parasitic infection, improper feed or irregular feeding methods, poor housing conditions, crowding, and forcing for egg production at some season of the year will cause many otherwise good hens to be classed as culls. There are culls that are so because of poor inherent ability to produce, and there are hens easily mistaken for such because of the poor care they have received.

In culling for egg production, give the questionable hen the benefit of the doubt.

The age of the hens to be culled should be given careful consideration. Culling February-hatched pullets that have been in production twelve to fourteen months presents a slightly different problem from culling April-hatched pullets that have been in production ten to eleven months, or fall-hatched pullets that have been in production only five months prior to the August culling.

Hens that have been forced into molting, or kept under all night lights during the fall and winter, do not conform as uniformly to the culling principles described herein as do hens that have received normal treatment.

Fowls to be culled should be caught with the least amount of fright and disturbance. The best method is to use a catching crate. The crate may be placed outside the laying house on a level with the exit door. The fowls are driven into the crate, the exit door closed, and each fowl removed through the door in the top of the crate. The crate may be used more conveniently inside the laying house where the hens are penned under the droppings board by the use of panels and forced through the catching crate as illustrated in Figure 5.



Figure 6. Catching net used throughout the year for catching individual fowls.

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