

MN2000 FSP 32

University of Minnesota

FACT SHEET

Agricultural Extension Service • U. S. Department of Agriculture

Poultry Judging Contest Series No. 3

POULTRY NO. 32

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Judging Egg Production Classes

Two classes of four birds each will be judged in the FFA contest; three classes of four birds each will be judged in the 4-H contest. Birds will be judged by comparison for past production qualities. The bird that has been the best egg producer will be placed first, the next best second, the next third, and the poorest fourth.

Classes in the national 4-H contest will be selected from Leghorns or Leghorn hybrids in their first year of production. The national FFA contest will use Leghorns, Rhode Island Reds, or New Hampshire breeds. Training classes for contestants should utilize the appropriate breeds as much as possible.

JUDGING PROCEDURE

Before you handle any birds, look them over while they are in the cages. Observe their body conformation, head type, health, and vigor. You often can get a general idea of the class placing from this preliminary observation. Remember that birds that have been handled a number of times may appear somewhat tired and lack vitality. After this preliminary observation, you are ready to handle each bird.

Always remove a bird from the cage head first and replace it head first. To remove a bird, grasp its wing with your right hand over its back and gently move the bird toward the front of the cage. Place your left hand beneath the bird's body with one or two fingers between its legs, letting the bird rest on the palm of your hand. Now you can quietly lift the bird off its feet and out of the cage. You can easily examine and control a bird while holding it in this manner.

Develop a definite system for examining a bird. For example, examine in order the head, abdomen, and vent to determine present laying condition. Then check pigmentation and molt for judging past production.

After you have handled the birds and made comparisons of their egg production qualities, you should be able to place the class. It often is easiest to pick the top and bottom bird and then, using the same judgment factors, to place the better of the remaining pair second and the other third.

In the national 4-H contest and in some training sessions, you will have to give reasons for your placings. Make some notes on each bird's

characteristics so you can develop these reasons.

DETERMINING PRESENT LAYING CONDITION

Whether or not a hen is in production is relatively easy to determine. Check the condition of the comb, pubic bones, abdomen, and vent. If a hen is laying, her comb and wattles should be large, red, soft, and waxy; the pubic bones should be flexible and wide apart; the abdomen should be full, soft, and pliable; and the vent should be large, moist, and free of pigment. A good layer should have more than two fingers spread between the pubic bones and four or more fingers spread between the pubic bones and the tip of the keel.

When a hen is out of production, her comb and wattles may be small, pale, and shriveled; the pubic bones are rigid and close together; the abdomen is hard and tight; and the vent is small, dry, and pigmented.

Do not confuse a fatty abdomen with one that is soft and pliable due to laying condition.

ESTIMATING PAST PRODUCTION BY PIGMENTATION

You can make an estimate of past production by noting the time and rapidity of molt and the amount of yellow pigment left in the bird's body (breeds used in the contest will be yellow-skinned). A hen will have yellow pigment in the vent, eyering, earlobe (Leghorns), beak, shanks, and feet when she begins to lay. Less pigment is deposited in these body areas as she goes into her egg production cycle, so the yellow color gradually fades.

The yellow pigment is bleached from the body parts in a definite order. After a hen has laid just a few eggs, the pigment is bleached from the edges of the vent. The edges of the eyelids (called the eyering) will be bleached next, followed by the earlobes (Leghorns). The pigment of the beak fades first at the corners of the mouth, progressing toward the tip as production continues. Complete loss of pigment in the beak takes 4 to 6 weeks.

The feet and shanks take from 4 to 6 months to completely lose their pigmentation. Color is first lost from the bottoms of the feet, then from the front of the shanks, then from the rear of the shanks, and finally from the tops of the toes and the hock joint.

When a hen stops laying, the pigment returns to her body parts in the same order that it leaves but at a much faster rate. Pigmentation is thus a good indicator of egg production for the first 6 months that a bird has been laying. And, when a bird has stopped production long enough for pigment to return to some body parts, it is an indicator of how long the bird has been out of production.

The reddish-horn color present in the beak and shanks of the New Hampshire and Rhode Island Red breeds does not fade as a result of egg production. The presence of this pigment often makes it difficult to determine changes in the yellow pigmentation of these breeds.

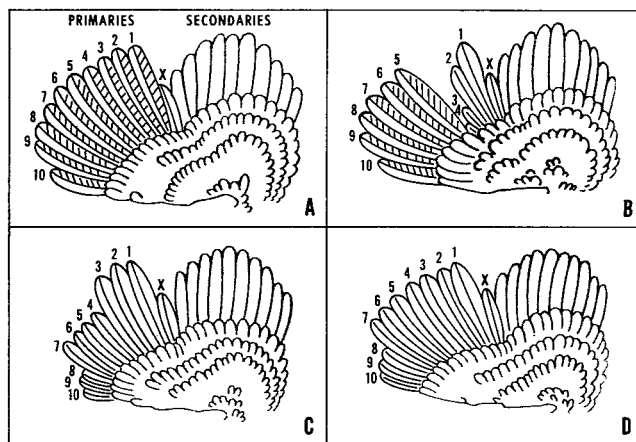
There is some variation in the rate of fading and return of pigment to the body parts. Pigmentation changes generally take place faster in small hens than in heavies. The more pigment there is at the start, the longer it will take for all the pigment to fade.

Low vitality birds may have faded pigment due to abnormalities and disease and yet not be good producers. The amount of pigment in the ration also may affect to some extent the rate of departure or return of the pigment. Even though these variations exist, pigmentation still is the best estimator of past production.

MOLT AND PLUMAGE CONDITION

When a hen molts, she usually stops laying. A poor producer often will go through a slow molt, taking 16-18 weeks. A high producer will delay molt for a longer period and may take only 8 weeks to complete the molt. Generally, a hen will start to drop her head, neck, and body feathers before she loses any wing feathers. A hen loses her primary wing feathers first, followed by the main tail and wing secondaries.

The best way to determine time and rate of molt is to spread open and examine the wing. The first feather to be molted is the primary next to the axial feather (the short feather at the middle of the wing separating the primaries and secondaries). Molt of primaries continues outward toward the wing tip. A good layer will drop her wing feathers three to five at a time and molt much more rapidly than a poor producer that loses only one or two feathers at a time.



- A.** Normal wing showing primary feathers (1 to 10), axial feather (x), and secondary feathers (right).
- B.** Wing of a slow molter at 6 weeks. Primary feather 1 is fully grown. Feather 2 is 4 weeks old, 3 is 2 weeks old, and 4 has just appeared. Other primaries have not been dropped.
- C.** Wing of a fast molter at 6 weeks. All primaries have been dropped. Feathers 1 to 3 are fully grown; 4 to 7 (which were dropped in a group) are 4 weeks old; 8 to 10 are 2 weeks old.
- D.** Wing of a fast molter at 8 weeks. Feathers 1 to 7 are fully grown; 8 to 10 are two-thirds grown. Hen completed molt at 10 weeks.

It takes about 6 weeks to grow a new feather. The wing of a rapid molter will have groups of growing feathers of the same length, whereas the slow molter will have feathers in many stages of maturity. New feathers usually will be clean, smooth, and more attractive than old feathers, which may be worn, soiled, or broken.

MAKING YOUR DECISION

Through your examination, you should be able to determine whether or not a bird is in present production, how long she has been laying, how long she has been out of production if she is not now laying, and her rate of production. If you have correctly evaluated the characteristics of a good layer and the physical changes that take place as a bird starts or stops her egg production cycle, you should now be able to place the class.

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