

1973

EC73-1416 Selecting Good Layers

David Holder

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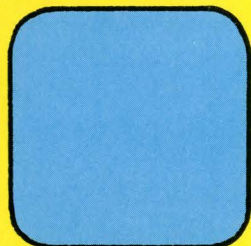
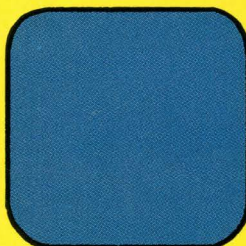
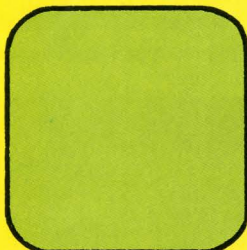
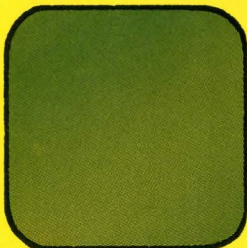
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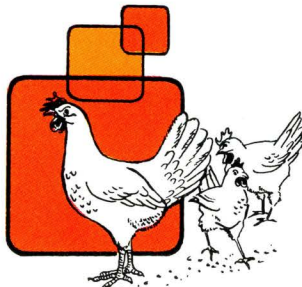
● GOOD
LAYERS



EXTENSION SERVICE, UNIVERSITY OF NEBRASKA-LINCOLN COLLEGE OF AGRICULTURE COOPERATING WITH THE
U. S. DEPARTMENT OF AGRICULTURE AND THE COLLEGE OF HOME ECONOMICS
E. F. FROLIK, DEAN J. L. ADAMS, DIRECTOR

selecting.. GOOD LAYERS

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Culling is the process of identifying and removing non-laying and low producing birds from a poultry flock. Culling keeps the egg production rate of the flock high, saves the cost of feeding unproductive birds and reduces feed cost per dozen eggs produced. Culling also protects the health of the flock by removing unthrifty hens most likely to fall prey to disease organisms and parasites.

Cull when you place pullets into the laying house. Remove all unhealthy or crippled birds. Cull again during the period of peak production (first six months after production begins), removing all diseased, injured or unthrifty birds. After six months of production, low producing hens can be identified and removed.

A persistent layer maintains a plump, deep-chested body and is alert, inquisitive and active. She will have a clean-cut, strong, refined head and large, bright, prominent eyes (Figure 1).

The poor layer (Figure 2) has lost weight, is shallow-chested, unthrifty, sleepy and



Fig. 1. A persistent layer.



Fig. 2. A poor layer.

listless. She has a thin, weak-appearing head. Her comb and wattles are dull, dry and shriveled.

As a pullet develops sexually, her comb and wattles enlarge and redden. Thus, alert eyes with waxy, red combs are evidence of a good egg layer. When egg production begins the hen withdraws yellow pigment from her body to maintain yolk color. The first few eggs remove pigment from the vent and eye ring. The pigment is next removed from the beak (starting from the back part of the beak). It takes about six weeks to completely remove the yellow pigment from the beak. If a hen continues to lay eggs, the pigment is last removed from her legs. After six months of heavy production, the major portion of the yellow pigment is removed from the legs. When a hen stops laying, the pigment returns to her body in the same order that it was removed.

Figure 3 shows a small vent with the skin showing a lot of pigment. This is proof that the hen is not laying. (The first few eggs laid will usually remove all the yellow pigment from the vent.) The well expanded, moist vent (Figure 4) shows that this hen is laying. Notice this vent has lost all of its yellow color.



Fig. 3. Vent of a nonlayer.

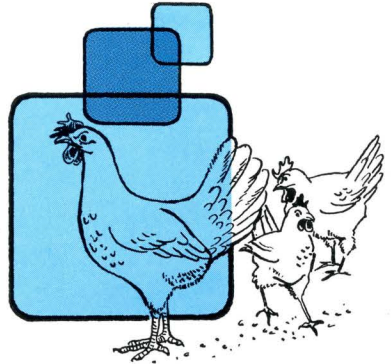


Fig. 4. Vent of a laying hen.





Fig. 5. Well developed head with beak showing pigmentation.



Fig. 6. Well developed head with beak showing no pigmentation.

Hens shown in Figures 5 and 6 show well developed heads. Their eyes are alert and their combs are large, red and waxy. However, the hen in Figure 5

has not laid many eggs as evidenced by her yellow beak. The hen in Figure 6, as indicated by her white beak, has laid for several weeks.

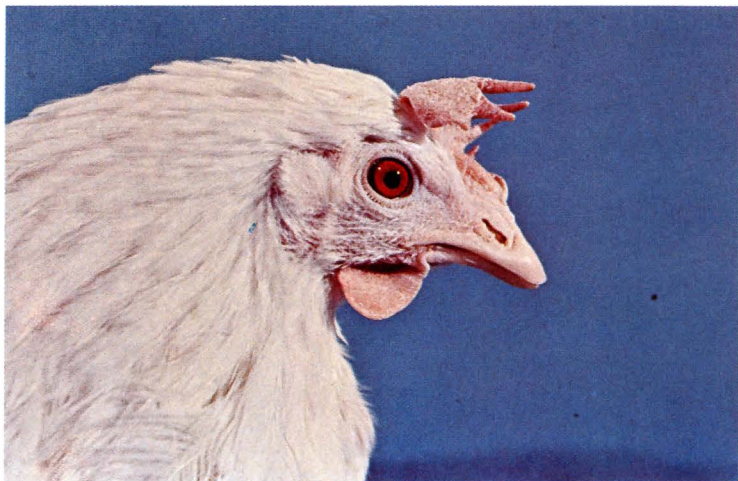


Fig. 7. Hen with poorly developed head.

The hen in Figure 7 shows a poorly developed head. The comb and wattles are dull, dry and shriveled. She also has a coarse, crow-like head.

After a short period of production, some hens will go through a partial molt (especially in fall or early winter). Usually only neck and tail feathers will be shed. With the onset of a partial molt, egg production drops and returns to normal after a few weeks. The hen in Figure 8 has recently gone through a partial molt losing her old hackle feathers.

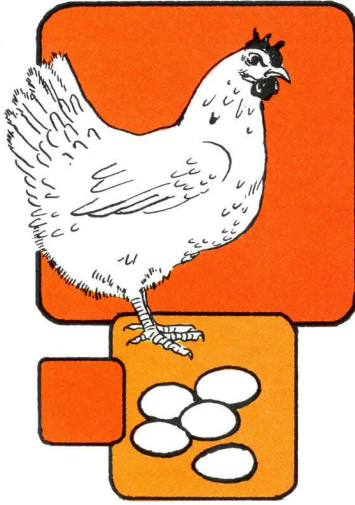


Fig. 8. Hen showing partial molt.

Figure 9 illustrates the difference in pigmentation between a high and low producer. The legs on the right show almost a complete absence of yellow pigment, indicating a hen that has laid a large number of eggs.



Fig. 9. Differences in pigmentation.



The legs on the left still have a considerable amount of yellow present (with only a little yellow gone from the toes) indicating a hen that has not laid very many eggs.

Body capacity is a good indication of whether a hen is laying or not. This is determined by measuring the width between the pubic bones and the distance between the pubic bones and keel bones. The two small bones on either side of the vent are the pubic bones. These bones are close together when a hen is not laying and spread apart when egg laying begins. The pubic bones become thin and pliable during continuous production. As a hen lays more eggs, the depth between the pubic bones and the keel bones will increase (Figures 10, 11, 12, 13).

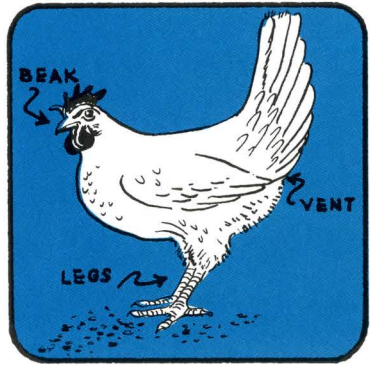


Fig. 10 & 11. Pubic bones of a nonlayer (upper) are close together; pubic bones of a good layer (lower) are wide apart.





Fig. 12 & 13. Pubic bones and keel of a nonlayer (upper) are close together; pubic bones and keel of a good layer (lower) are wide apart.



Let us review the factors used in culling:

1. **Pigment:** As a bird lays eggs, she removes pigment in the following order—vent, beak and legs. Pigment returns to her body in the same order when she stops laying. So, pigmentation is the best indication of how many eggs a hen has laid and also how long a particular hen has been out of production.

2. **Appearance of Head:** The head shows the degree of development of sexual maturity. The head is a good indicator of potential laying ability as well as a guide to whether or not hen is currently laying.

3. **Vent:** The vent is another indicator of whether or not a hen is currently laying.

4. **Body Capacity:** Body capacity is a third indicator of present production.

With these facts in mind, non-producing hens can easily be separated from good layers.

