

Past Egg Production vs. Certain External Measurements

By GAY E. M'MULLEN, '25

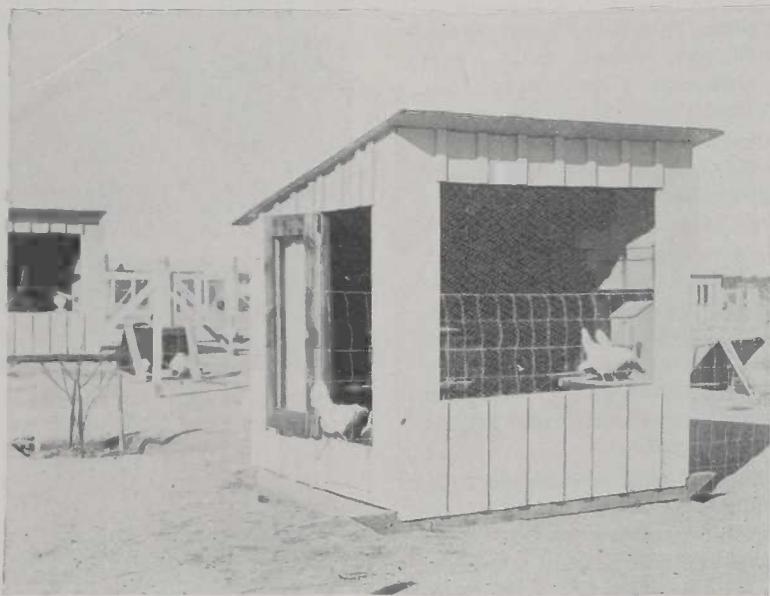
Is There a Correlation Between Past Egg Production and Certain External Measurements? If So, the Poultryman Can Materially Increase the Production of His Flock by Proper Culling

IT IS a well known fact that estimates of production based on certain external measurements and indications enable the poultry keeper, to a great extent, to determine those birds that are layers and those that are non-layers. It is not claimed that these estimates are exact, but by their aid the poultry keeper can increase his profits with fewer birds by culling out those of low production and keeping only those that are high producers or those whose production shows a profit.

Culling, as the term is commonly used, refers to the examination of fowls and their classification as layers and non-layers on the basis of certain external characteristics. In carrying out an experiment, to find some correlation between past egg production and certain external characteristics, culling was practiced. Fifteen White Leghorns and fifteen Barred Rocks were chosen at random from the flocks, their external characteristics were observed and recorded upon a chart, and the results compared, to see if there really did exist a correlation between past egg production and certain external characteristics. The extremes, high and low, were the only records compared.

White Leghorn classes were those birds above a 125 egg average (high), averaging 136 eggs; while the (low) class birds were those below a 64 egg average, averaging 61 eggs. They were previous season's birds, in their first egg laying season, ending October 31, and their egg laying records were taken only up to July 31.

There was one bird, D-395, that only produced 43 eggs, and was only recorded for three months' laying,



Portable type of laying house where trapnest records are obtained.

From all external indications this hen had possibilities of high production, but, having a crippled foot, was unable to reach the trap-nests, and must have been laying her eggs upon the floor. The findings were treated by points, and each point compared as to high and low production as found:

Point 1. It was shown that high production carried with it comb and wattles of high or medium size, waxy in texture and bright red in color, the comb being lopped; while low production carried combs and wattles that were small, dry and faded, the comb either slightly lopped or up-standing.

Point 2. Short beaks were noted with high production, and long beaks with low production.

Point 3. Large earlobes seemed to indicate high production, and small earlobes low production.

Point 4. No conclusions could be drawn from the findings of the eyes.

Point 5. High production carried with it a well shaped head, not too long nor too wide, with a wide-awake, keen, thin looking face; while low production showed narrow heads of poor appearance and not a wide-awake, keen looking face, as did the high producers.

Points 6 and 7. The abdomen and pelvic arches of the high producers showed good spread, capacity, pliable abdomens, soft skin, and pelvic bones thin and pliable; while the poor producers had very small spread, capacity, unpliant light abdomens, and thick, hard pelvic arches.

Point 8. Moisture and size of the vent gave no indications of high or low production, for fowls may show

(Cont'd on page 14)

PAST EGG PRODUCTION VS. CERTAIN EXTERNAL MEASUREMENTS

(Continued from page three)

a moist vent and not be high producers.

Point 9. No conclusion could be drawn from the backs.

Point 10. Skins of the high producers were loose, velvety and pliable, while the skins of the low producers were tight and rather drawn.

Point 11. All of the birds had rather long nails, which gave no indications, because these birds were kept in small pens and did not have to forage for their food.

Point 12. No indications were shown by the legs, plumage or body fat.

Point 13. Very little could be told by the pigment changes due to past production, for all of the birds were pretty well bleached out.

Point 14. The high producers had not started into their moult, while all of the low producers were pretty well in their moult.

Point 15. High production was shown where the birds started to lay very early in the year, while with low production they started rather late.

The (high) class of the Barred Rocks were those birds averaging over 115 eggs and a general average of 121 eggs, while the (low) class were those birds averaging 68 eggs or under, with a general average of 61 eggs, the year ending October 31 and their egg records taken up to July 31.

As with the White Leghorns their character findings were taken up point by point:

Point 1. The character of the combs and wattles gave no indications as to high or low production.

Point 2. The beak characteristics gave no indications as to production.

Point 3. Those earlobes which contained traces of white were the only indications of high production; all other characteristics were much the same as the low producers.

Point 4. Characteristics of the eyes gave no clue as to production.

Point 5. Rather a long, wide head, having a good, wide-awake appearing face, seemed to go with high production; while a wide, medium short head seemed to go with low production.

Points 6 and 7. Both high and low producers showed good spread of pelvic arches and abdomen, but in the case of high production the pelvic arches were rather thin and

not as stiff as they were in the case of the low producers.

Point 8. The character of the vent gave no indications of production.

Point 9. Character of the back give no indications for comparison.

Points 10 and 11. No conclusions were drawn from the character of the skin or the length of the nails, they being all either long or medium long.

Point 12. Short legs, having no fat, seemed to indicate high production, while long legs and some fat went with low production.

Point 13. Both high and low producers showed absence of pigment.

Point 14. Both classes, high and low, were in molt, so no conclusions were drawn.

Point 15. Early layers showed high production, while late layers showed low production.

Conclusions: The heavier breed

of Barred Rocks did not seem to show the extent of their past production by mean of certain external characteristics, as did the White Leghorns, according to this experiment. But in general it can be said that if the external characteristics and indications are studied carefully, and culling rigidly practiced, the poultrymen can double their profits on many less birds.

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