

eastern men have little or no first hand information.

It has seemed entirely feasible in the event of a meeting in the West for eastern men to travel more or less together, and with very little extra expense to make a few stops en route to see and learn, under the guidance of the local member the big outstanding thing about poultry in the state that is being visited. It has been suggested, furthermore, that such a party might, with the consent of the department in the state visited, have a day's judging school at one or two institutions on the way. This suggestion has been made with the thought that conditions differ in widely separated sections.

At the meeting in Guelph last summer one western member who had not been present for five years was heard to say that he felt more or less out of touch with the most recent activities of the Association. It is probably true that along some lines of work the easterners are from one to two or three years behind their fellows who live further west, and possibly along some other lines of endeavor the reverse may be true.

As for the expense involved an investment of three or four hundred dollars is after all, negligible. One good idea is worth the price, to say nothing of the larger prospective, the national viewpoint, which would seem to be surely worth while to any department anywhere.

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THE RELATIVE POSITION OF YOLKS IN EGGS NOT TURNED FOR A PERIOD OF THREE WEEKS

We were unable to find any experimental data bearing on the subject of the position of the yolk of the egg at the time it is laid or of the position of the yolk at any subsequent time. This induced us to try two series of experiments to decide in our own minds if turning egg while saving them for sitting purposes was really necessary.

On June 24th, 1919 24 eggs were selected from trap nests of Single Comb White Leghorns. Two eggs were boiled at the time the eggs were collected and these eggs sectioned transversely to determine the location of the yolk. We also experimented to see if suspending them in a wire basket in boiling water would coagulate the albumin equally on all sides and not make a possible disturbance within the egg while boiling and dislocate the yolk. All of our tests lead us to think that the heat was applied equally on all sides. We find almost invariably that the yolk is not in the center of the egg, at the time it is laid, but a little to one side as shown

in Fig. 1. In egg No. 1 the albumin in the thinnest place was but two and one-half mm. and in egg No. 2 two mm. in thickness. In egg No. 1 the albumin in the thickest place was 8 mm. and in No. 2 six mm. thick.

On June 7, or a three day period, two eggs were boiled. All eggs were marked and kept in a constant position taking care not to rotate the egg in placing it in the wire basket for boiling. In the thinnest place the albumin, in the three day-old egg, was 2 mm in thickness and in the thinnest place it was 5 mm. thick.

Tests were run to determine if the yolk always stays uppermost, whether it follows around the greater curvature of the egg, when the egg is turned, or if turned half over if the yolk will pass up through the albumin. The tests all showed that the yolk once superficial always after that is superficial and that if an egg is turned over the yolk follows the greater curvature of the egg. Figure No. 2, shows an egg which had been lying on its side for a period of 20 days and placed on its small end at the time it was placed in the wire basket to be boiled. The yolk in this short time has passed toward the large or top end and is at the left upper quadrant. There is 0.5 mm. of albumin between the yolk and the shell membranes or to be more accurate between the vitalline membrane and the inner shell membrane.

On June 10, or at the end of the 6th day period the second test was made to determine the position of the yolk of a resting egg. In each of the two tests there was 0.6 mm. albumin between the vitalline and the inner shell membrane and 11 mm. in thickness in the thickest place.

On July 13, or at the end of the 9 day period, two test eggs were examined. There was still approximately 0.5 mm. of albumin in the thinnest place between the vitalline membrane and the inner shell membrane.

On July 17, at the end of thirteen day period, two more of the test eggs were examined with similar results as before. Likewise tests were run on the 20th and 24th. days, all giving similar results. At the end of 20 days there yet remained approximately 0.5 mm. albumin on the upper side between the vitalline membrane and the inner shell membrane.

Summary

The yolk, in a resting egg, gradually assumes a superficial position of the egg always staying superficial after that time.

The yolk is not always centrally located at the time it is laid.

The yolk becomes most superficial, in eggs saved for sitting, at about the sixth day.

When an egg is turned the yolk fol-

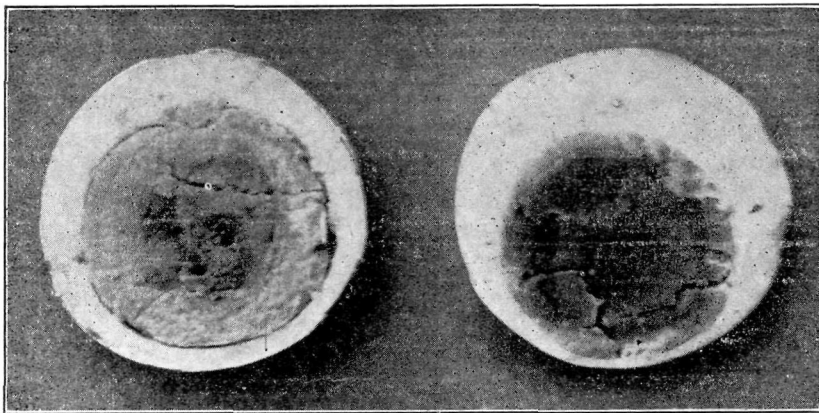


Fig. No. 1—Left hand fresh egg just laid. Right hand egg six days old. Note the position of the yolks and their relation to the albumin.

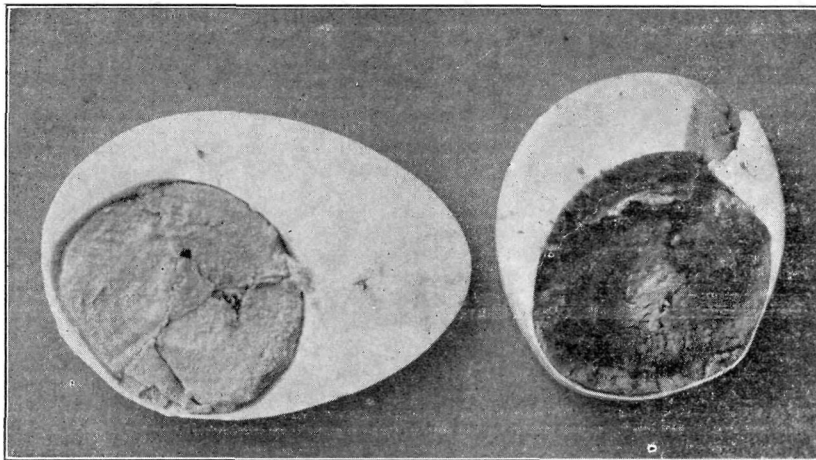


Fig. No. 2—Left hand egg 20 days old. Turned on small end just five minutes before boiling. Right hand a section of another egg at 20 days of age. Note position and relation of yolk to albumin.

lows the greater curvature of the egg gradually assuming a superficial position at the top of the new position of the egg.

In none of these tests would it have been possible for the blastoderm to become adherent to the shell membrane.

These tests rather indicate that it is not necessary to turn eggs that are being saved for hatching.

Practical Tests on Hatchability

In these tests to determine what influence, if any, turning eggs while saving for sitting has upon hatchability 7 incubators, 7 operators and 800 eggs were used. The following tabulation is a summary of the results.

Date	No. Eggs	Turned while Saving	No. Inf. Eggs	No. Fertile	No. Hatched
9-15-'19	100	+	29	71	48
9-15-'19	100	+	53	47	20
9-15-'19	100	—	16	84	56
9-15-'19	100	—	35	65	44
9-20-'19	200	+	57	143	80
9-20-'19*	100	+	53	147	107
	100	—			

*In this case a two tray incubator was used. In one tray 100 eggs not turned while saving for hatching in which there was 19 dead embryos, and in the other tray containing 100 eggs turned while saving for incubating there were 23 dead germs.

Summary

From these tests it does not appear that turning eggs while saving for incubation is necessary. These eggs varied, in age, from one day to ten days old.

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REPORT OF THE COMMITTEE IN INTERCOLLEGIATE STUDENTS JUDGING CONTESTS.

The Committee met at the Prince George Hotel in New York City on Saturday, November 8th, and after careful consideration made the following suggestions:

1. In order to have a definite basis on which to work in the planning of Contests of this kind, it is necessary to have a set of rules and regulations that will outline the general government of such Contests, therefore, the following tentative schedule is offered.

Tentative Rules and Regulations for the Government of an Annual Intercollegiate Students' Poultry Judging Contest

1. This contest shall be known as the Intercollegiate Students' Poultry Judging Contest.

2. This Contest shall be in charge of a Committee appointed by the President of the American Association of Instructors and Investigators in Poultry Husbandry.

3. It shall be held annually in connection with a well-known Poultry

Show, on such day of the show as shall be convenient to the Management of the Show and to the Committee in charge. The Committee shall have the power to select the Show at which the Contest shall be staged.

4. Each college entering this Contest shall be represented by a Judging Team composed of three members, who shall be regularly enrolled in collegiate classes in the Institution from which they come and which they represent.

5. The instructor in charge of each team shall be responsible for the credentials of that team.

6. Each team shall be on hand at the designated place at least by eight o'clock on the morning of the contest.

7. Each student on each team shall be required to judge the following classes of birds, placing all birds, and indicating all disqualifications found:

A. Standard Judging classes.

Barred Plymouth Rock Pullets
(Four birds in class)

White Wyandotte Hens
(Four birds in class)

Rhode Island Red Cockerels
(Four birds in class)

S. C. W. Leghorn Cocks
(Four birds in class)

B. Utility Judging Classes.

Barred Plymouth Rock Pullets
(Four birds in class)

Rhode Island Red Hens
(Four birds in class)

S. C. W. Leghorn Pullets
(Four birds in class)

White Wyandotte Hens
(Four birds in class)

8. The actual supervision of the Contest during the period of the judging shall be in the hands of a superintendent selected by the Committee in Charge.

9. Each student judge shall be required to write his placings on a form which shall be provided for that purpose, the same to be handed to the superintendent as soon as a class has been judged. The report must bear the class number, placings, disqualified birds, with brief reasons, and the student judges name.

10. Twenty minutes shall be allowed for the judging of each class.

11. The birds in the classes to be judged shall be brought to the show for this particular purpose, and arrangements made for the same by the Committee in Charge. They shall be shipped so as to reach the Show at least one full day, and preferably two, before the opening of the Judging Contest. They shall be cooped in a separate room, if possible, and in single tiers of coops, arranged so as to obtain the best light possible and in most convenient manner to facilitate handling.

12. The birds in the Standard classes