

bull. In other words, a three-fourths grade Hereford does not as a rule show this characteristic mark. I am not prepared to say this spot will be always removed in the first generation; it takes several more crosses to permanently remove it, but from 10 cows bred having white faces (4 with eye circles and 1 with spot on nose) not a calf shows a sign of these marks. The keeping of records of the transmission of color and color markings will be continued and further reports, comprising larger numbers of cattle and extending over several generations, will be made to the Association. It is as yet too early to attempt to draw definite conclusions, but from the results given above, the writer feels encouraged to continue, as the road to definite knowledge is now cleared.

## THE TURKEY AS AN EGG PRODUCER\*

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From the settlement of our country until the present time the turkey is the only native<sup>b</sup> that has been brought under domestication. In our economic system the turkey has been used almost exclusively as a bird for our table on Thanksgiving Day and other holiday occasions. It has for this purpose earned a justly popular place in the minds of our people.

According to the U. S. Census Report we had on June 1, 1900, 6,599,367 turkeys in the United States. These were undoubtedly breeding stock, since there is no record of their being kept anywhere for the sole purpose of producing eggs for the table, as is the case with chickens and ducks.

In forty years' experience on farms in Ohio and Kansas, where we were never without a small flock, the writer never knew or even heard of turkeys laying more than one or two settings, and that always in the early spring. I was ignorant of the *fact* that in some parts of our great country there were *some* turkeys that continued to lay more or less throughout the season from the latter part of March to January.

After living in Washington a few years I began the study of fruit varieties grown in the vicinity by walking through the market lines Tuesdays, Thursdays, and Saturdays, where the farmers within a radius

\* Mr. Irwin prepared this paper shortly before his death, which occurred June 24, 1911.

<sup>b</sup> Both ducks and geese have at different times and in limited numbers been domesticated, but are now so mixed up with Asiatic and European species that it is very doubtful if there is a single variety of purely American origin.

of twenty-five miles bring every conceivable product of the farm and woods. Early in July, about 1900, I saw some turkey eggs, but scarcely glanced at them, thinking some one had found an abandoned spring nest and that they would not be in condition for the table. On another trip through the market I saw turkey eggs on two or three different stands. Having tasted of turkey eggs in my boyhood days, and remembering their delicious quality, I purchased some, and after enjoying eating them, began a systematic search for all I could find. From March to June, inclusive, the eggs are worth \$1.50 to \$2.50 per dozen for hatching purposes. From July to January, inclusive, they are sold at about 5 cents per dozen above the price for chicken eggs. For about ten years my family, as well as many of our friends whom I have supplied, have been enjoying this truly native American luxury. In no single year since I began have I purchased less than twenty-five dozen eggs, while one year, 1903, from June 27 to December 31, I was able to secure 130-2/3 dozen, for which I paid \$42.57. In 1902, between July 15 and December 18, 53-2/3 dozen were purchased for \$18.34. These eggs were bought from farmers whom I found to be honest and truthful, one-half dozen to a dozen per week, running along through the season. These farmers are holding today many of the same customers they had when I began with them. One farmer, Mr. Benj. Groves, informed me of a hen that began laying the latter part of March and continued almost continuously until the latter part of November. He was sure she had laid 200 eggs. Having bought his eggs every week, I had no cause for doubting his estimate. Other men have told me of birds having laid as many as 150 eggs during the season.

This trait of the turkey here has been going on for so long a time that people think it quite commonplace to see the eggs in the market here. Many of my friends are buying and using them in preference to chicken eggs.

Turkey eggs, which usually sell at 5 cents per dozen above the price of chicken eggs, are more economical than any other, since they average about 2½ pounds per dozen against 1½ pounds for chicken eggs and seven-eighths of a pound for guinea eggs, which sell about 5 cents less per dozen than chicken eggs.\*

\*COMPARATIVE WEIGHTS OF EGGS PER DOZEN.

	OUNCES
Plymouth Rock.....	26
White Wyandotte.....	27
Guinea.....	13
Turkey.....	42
Pekin Duck.....	36
Chinese Geese.....	64

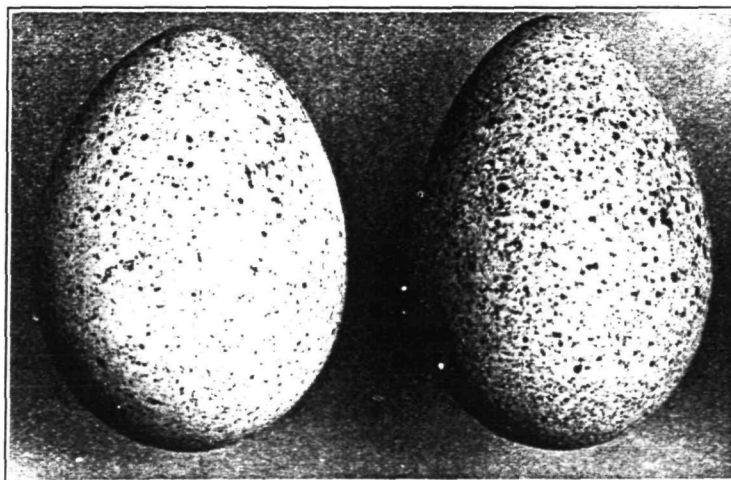
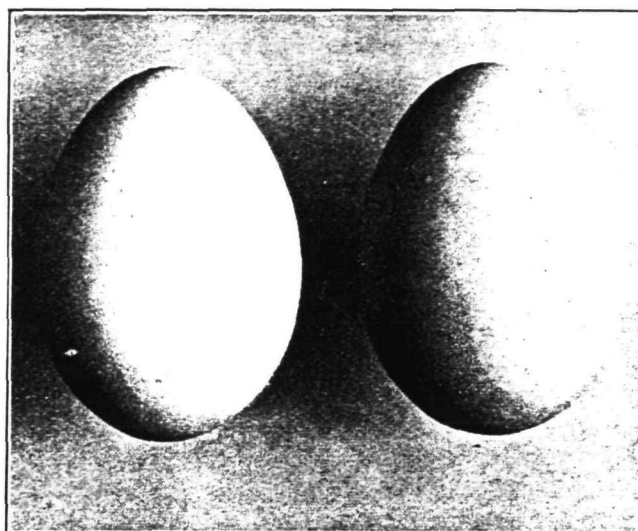


FIG. 1.—COMPARISON OF EGGS AS TO SIZE.

Two White Leghorn eggs laid second week in February, 1911, weight 8½ ounces. Two Turkey eggs laid in October, 1910, weight 13½ ounces. Slightly reduced. Photographed by E. L. Grandall.

On account of the thicker shell and membranes surrounding the contents they retain their good quality very much longer than chicken eggs, which have thin shells and membranes.

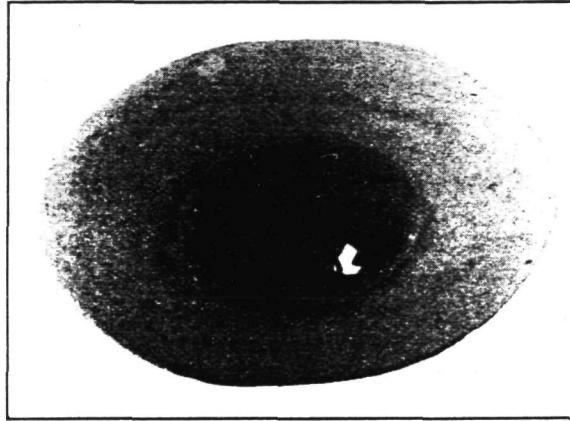


FIG. 2.—YOLK OR VITELLUS OF WHITE LEGHORN EGGS.  
Natural size. Photographed by E. L. Crandall.

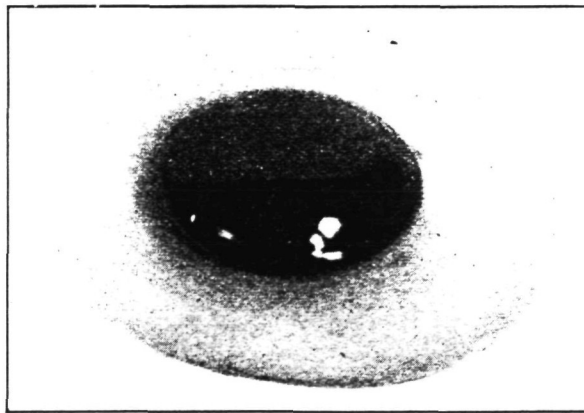


FIG. 3.—YOLK OR VITELLUS OF TURKEY EGG.  
Natural size. Photographed by E. L. Crandall.

We have kept eggs purchased in September and October until March when, on opening, the yolks would drop out round and plump, and the white or albumen be perfectly normal.

In Allegan County, Michigan, and in one locality in Massachusetts turkeys are reported to me by thoroughly reliable parties as laying quite regularly throughout the season, in the latter case continuing into January.

If we can in a few decades breed up the turkeys to 100 eggs per bird, which I believe is possible by proper selection from known good layers, our six million turkeys would produce approximately 450,000,000 more eggs than we now are getting from them. At 3 cents per egg this would add \$13,500,000 to our annual wealth, besides materially strengthening our national supply of better foods.

The effort will not, or need not, cost much, so that in case of failure we are no worse off than when we began.

Turkey chicks, 2 to 3 pounds in weight and certain to be from late laying birds, are on the market here throughout the winter at eating prices; \$1 to \$2 each ought to buy the best of these baby birds, crated for shipment, where 3 or 4 are found at one time.

There are only a few female turkeys in this locality that lay eggs out of the usual season; but from the fact that one of my friends reports a similar case in Michigan and another in Massachusetts, it would seem that there is a possibility or even a probability that there are a few of these good layers scattered possibly all over the country.

That this proposition will be ridiculed by wise men, laughed at by fools, discussed by intelligent people, and finally adopted and a new and profitable enterprise added to our poultry industry, I have not the slightest doubt. Every proposition for the betterment of man's condition on the earth, from the time Christopher Columbus started out to discover the New World to the present time, has received like treatment. When Marcus Whitman in the winter of 1842-3 rode on horseback from Oregon to St. Louis and thence by boat and stage proceeded to Washington to protest against Great Britain securing control of our Pacific Coast country, that great and wise statesman, Daniel Webster, to whom as Secretary of State Mr. Whitman appealed, took from his pocket a copper cent and flipping it on his fingers said: "Whitman, I would not give that for all beyond the Rocky Mountains; we could never defend it, nor get across the mountains to it." If Mr. Webster could return and view the millions of happy and prosperous people enjoying a contented life in that salubrious climate, and could know how helpful that country was to the east in shipping its 50,000 to 75,000 cars of fruit a year, he would, I think, admit that his conception of the value of that country had been very poor indeed.