

UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE

Extension Division

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CIRCULAR NO. 349

GOOD EGGS FOR MARKET



Lexington, Kentucky

June, 1940

Published in connection with the agricultural extension work carried on by cooperation of the College of Agriculture, University of Kentucky, with the U. S. Department of Agriculture, and distributed in furtherance of the work provided for in the Act of Congress of May 8, 1914.

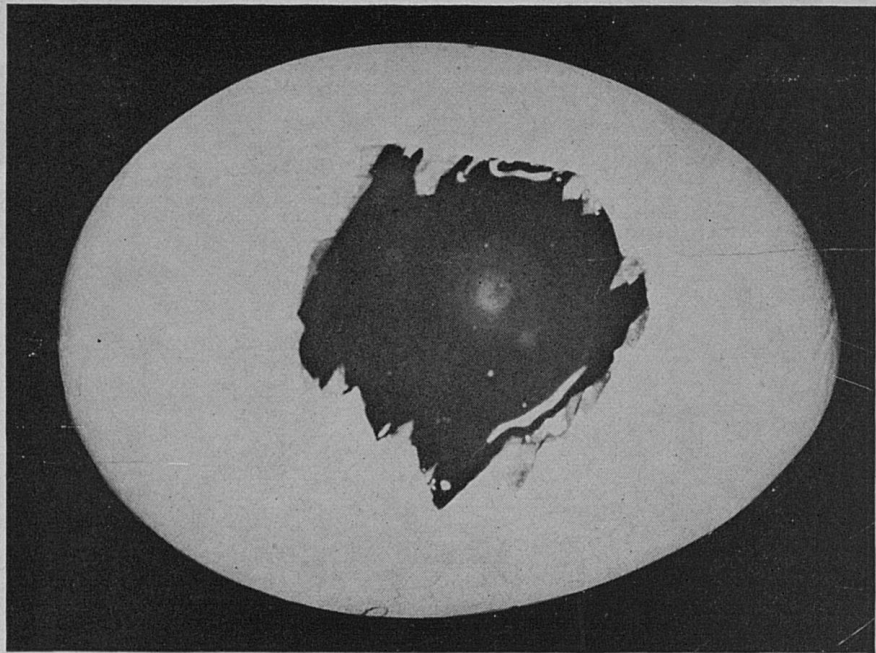


FIGURE 1. An infertile egg which has been kept at 103 degrees F. for 48 hours. It is still good for food. The white spot in the center is found in all eggs.

**GOOD MARKET EGGS
ARE**

1. Large, 24-26 ounces per dozen
2. Egg shaped
3. Clean
4. Infertile
5. Marketed weekly or oftener
6. Uniform in color
7. Strong shelled
8. From properly fed hens

**POOR MARKET EGGS
ARE EITHER**

1. Small, less than 22 ounces per dozen
2. Round or long
3. Dirty or bloody
4. Fertile
5. Marketed infrequently
6. Mixed in color
7. Thin shelled
8. From improperly fed hens

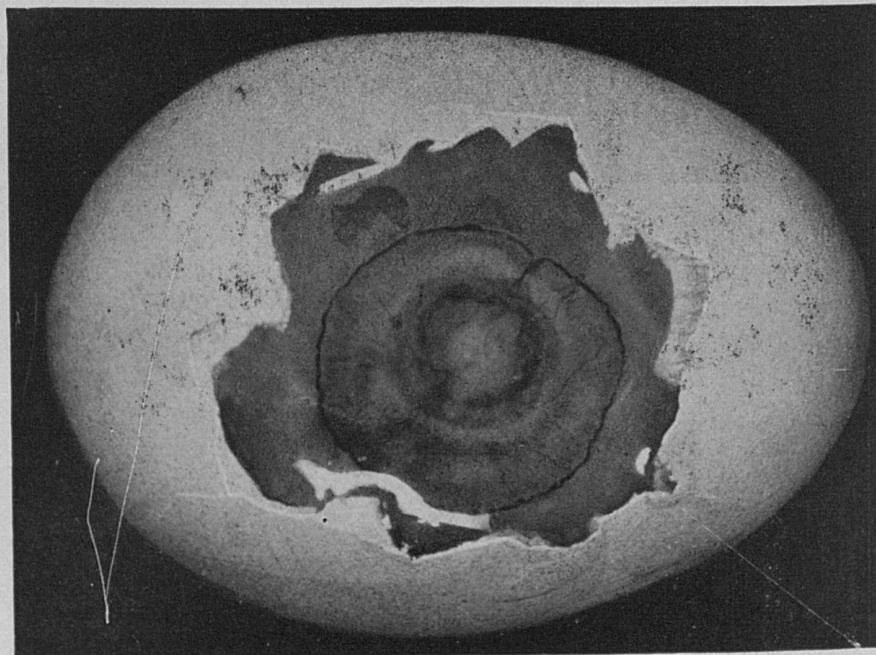


FIGURE 2. A fertile egg which has been kept at 103 degrees F. for 48 hours. Blood has formed and made the egg unfit for food.

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GOOD EGGS FOR MARKET

By STANLEY CATON

In the production of good market eggs the producer should realize that eggs must have the best of care before marketing. The interior condition of the egg cannot be improved after it is laid, but improper care will result in very rapid lowering of quality. Both exterior condition and interior quality must be considered in producing good eggs for market. Exterior condition is determined by cleanliness and strength of shell, size, and uniformity of shape and color.

Clean Eggs. Regardless of freshness, eggs do not command the highest price if they are not clean. Figure 3 shows a package of eggs in anything but an attractive condition. Such eggs do not appeal to the customer and are difficult to sell.



FIGURE 3. Dirty eggs are unattractive and hard to sell.

The most common causes of dirty eggs are mud from the hens' feet in wet weather, dirty hen-house floors, broken eggs caused by hens crowding on the nests, and gathering the eggs infrequently and in dirty containers.

To have clean eggs, hens should be confined in the laying house until one or two o'clock in the afternoon, if the ground is muddy. Most of the eggs will have been laid by that time and the flock will have ample time to range after that.

Wire netting stretched under the roost poles, above the dropping board, will keep the hens from carrying filth to the nests. This arrangement also helps in the control of parasites and diseases. One and one-half inch mesh, 14 gage, poultry netting is a good size.

A deep litter on the floor of the laying house helps to keep the hens' feet clean. The nests should be kept bedded and clean. One broken egg in a nest may soil other good market eggs. Provide at least one nest for every four hens and gather the eggs frequently, especially in the forenoon when most of the eggs are laid.

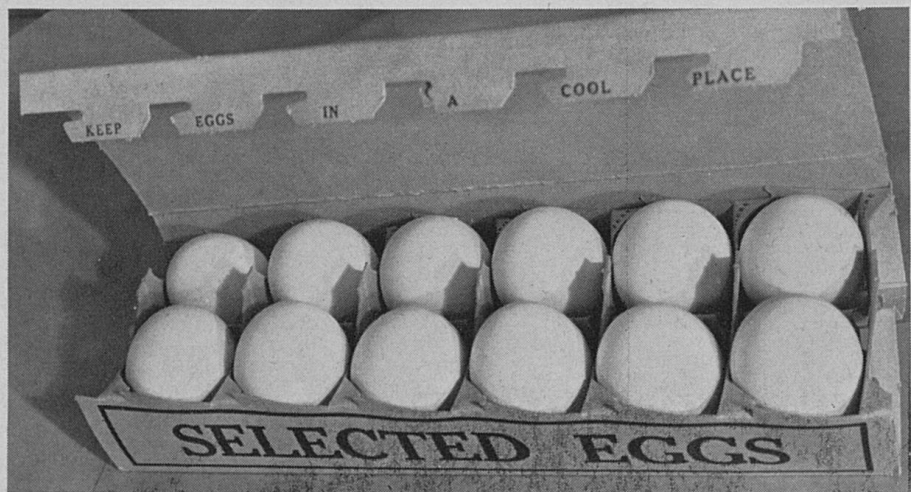


FIGURE 4. Clean eggs increase the consumer's egg appetite. Contrast the eggs in this picture with those in figure 3.

Clean eggs appeal to the consumer and are easier to sell. It is very difficult to have all the eggs clean. Use every precaution possible to produce clean eggs and clean the few dirty ones with emery cloth or fine steel wool. Do not wash dirty eggs as washing removes the protective "bloom", permitting rapid evaporation.

STRENGTH OF SHELL

Eggs with strong shells stand shipping and handling much better than those with thin shells. Plenty of shell-forming material, such as limestone or oyster shell, should be kept before the hens

constantly. Hens should receive direct sunshine (or cod liver oil) if the shell-forming material is to be deposited properly.

SIZE, SHAPE AND COLOR

The size, shape and color of eggs are largely determined by breeding. Weight is an important factor in determining the grade of eggs. Weight usually is expressed in ounces per dozen eggs. Eggs of high quality, which bring the best prices, weigh at least 24 ounces per dozen. Small eggs (22 ounces per dozen or less) should not be sold with the larger eggs as they lower the grade. Very large eggs, which often have two yolks, should not be marketed. Market eggs should be oval and uniform in shape. Long eggs are easily broken when packed in an egg case and if broken are likely to soil other eggs.

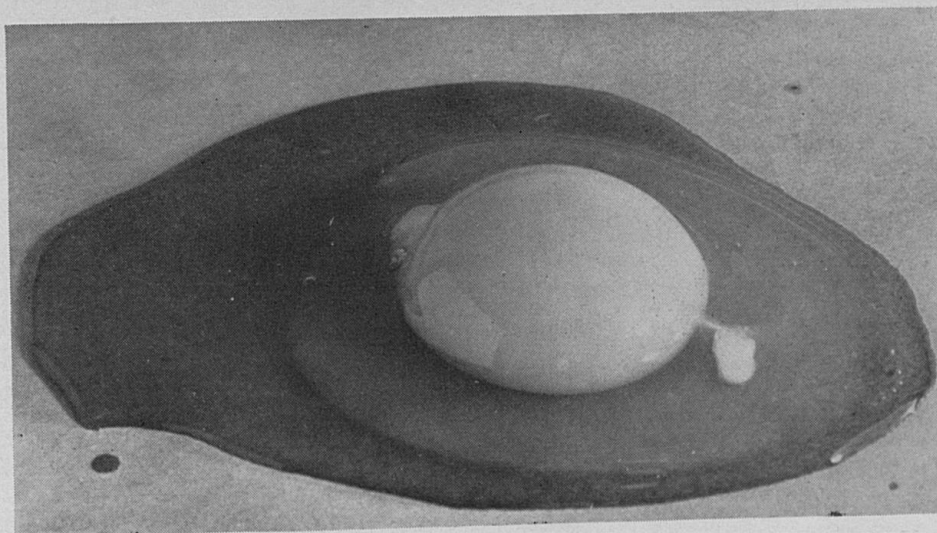


FIGURE 5. Strictly fresh. Note the condition of the thick albumen and the yolk.

The color of the shell is no indication of the quality or food value of the egg. Some buyers, however, prefer brown-shell eggs and others white. Brown-shell and white-shell eggs should not be placed in the same carton or egg case as it breaks the uniformity of the package and makes it unattractive in appearance.

INTERIOR QUALITY

Interior quality is judged by the use of an egg candle. However, few farmers have an egg candle so they must rely on the precautions necessary to prevent deterioration before eggs are marketed.

The air cell in the large end of the egg is used as a guide to determine whether the egg is fresh or properly cared for before marketing. In a good egg this air cell is small, not much more than one eighth of an inch in depth and about the size of a dime. As the egg ages, evaporation takes place and the air cell becomes larger. Keeping eggs in a dry, warm room results in such rapid evaporation that the egg soon loses its good quality. The air cell should not be movable but should remain in the large end of the egg. A freely mobile or bubbly air cell lowers the grade of the egg. This defect is often the result of careless handling and packing.

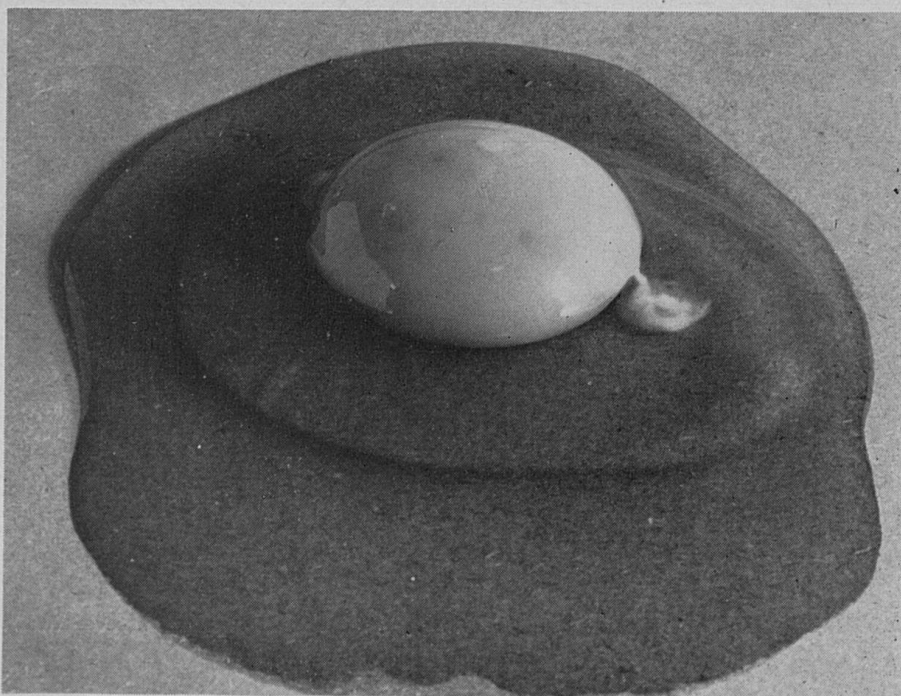


FIGURE 6. This egg was kept where temperature and humidity were right, for four days.

Figure 5 shows the characteristics of a fresh egg. The yolk stands up well and there has been no breaking down of the albumen. The dense layer next to the yolk is firm and distinct from the thinner layer. Figure 6 shows that by properly cooling a fresh egg and keeping it cool the good interior condition can be preserved. This egg was kept in a cooler at 34° F. for four days. Figure 7 shows an egg that was kept at room temperature for four days. Note how the yolk has flattened out and the larger area covered

by the thick albumen which has also begun to break down. The yolk is held in the center of the egg by the thick white. (See figure 5.) As the egg ages in a warm, dry room the white becomes more liquid (see figure 7) allowing the yolk to move freely when the egg is twirled before the candle. Some eggs which are strictly fresh may have these characteristics but only occasionally, not as a rule.

The color of the yolk is influenced by the feed. Hens which do not receive an abundance of green feed or yellow corn produce eggs with pale yolks. Alfalfa, clover or lespedeza hay have the same effect on yolk color as green feed. Some consumers prefer eggs with pale yolks. In most instances the only reason for this preference is that the high-quality eggs which they have been using happened to have pale yolks. The food value of eggs with deep yellow yolks is equal or superior to that of eggs with pale yolks.

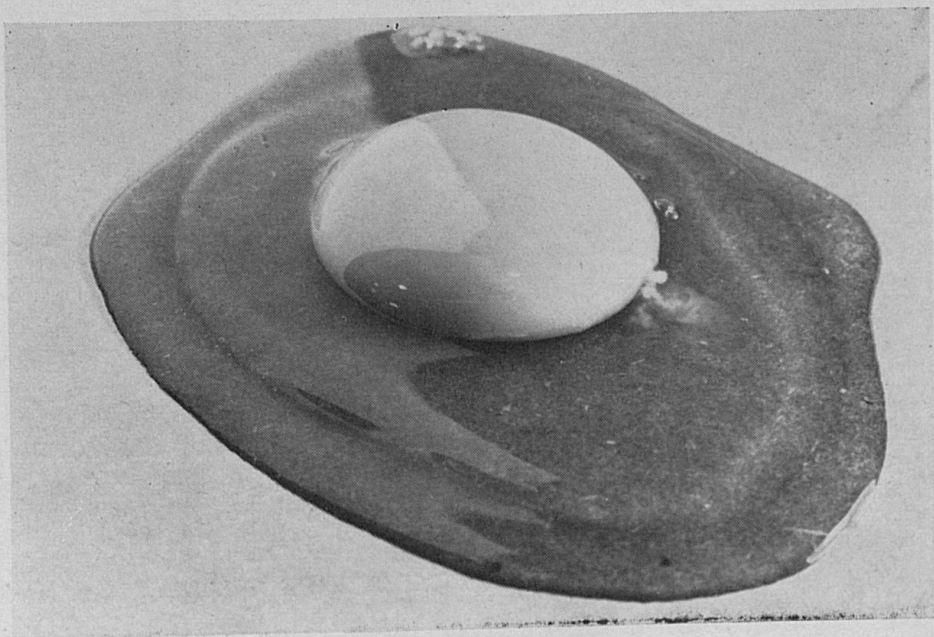


FIGURE 7. Flattened yolk and liquid albumen indicate the egg has been kept at too high a temperature.

Fertile eggs incubate slowly at a temperature as low as 68° F. After a short period of incubation, blood appears, rendering the egg unfit for use. Much of the loss in Kentucky eggs may be attributed to their fertility. Infertile eggs deteriorate much more slowly than fertile eggs when the temperature exceeds 68° F., as in

summer. Occasional meat or blood spots are factors influencing quality which the producer cannot control. These are the result of some disorder in the organs of the hen.

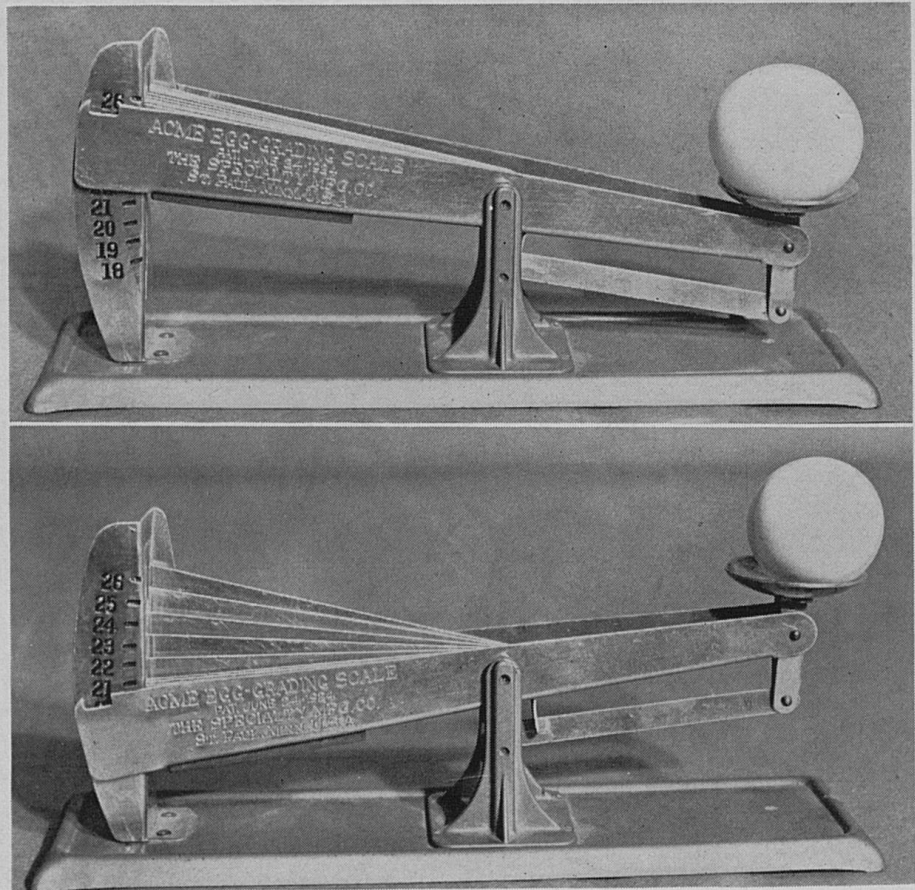


FIGURE 8. Large eggs, 24 to 26 ounces per dozen, are desirable for market. Small eggs, less than 22 ounces per dozen, are discounted on many markets.

FARM PRACTICES THAT INFLUENCE QUALITY

There are certain practices which the flock owner must follow if he is to produce eggs of high quality.

Breeding. Size, color and shape of the egg are inherited characters. Select for breeding stock hens that lay large eggs, and use roosters known to be from parents which were selected for large eggs.

Feeding. Proper feed is essential in producing eggs of best quality. If feed is deficient in the necessary nutrients such as protein,

minerals or vitamins, not only fewer eggs will be produced but these also will have lower food value.

The egg shell is particularly affected by feed. A good source of lime such as oyster shell or ground limestone should be kept before the hens at all times. Cod liver oil in the laying mash in winter aids in producing strong shells. A complete ration of grain, mash and water or milk should be kept before the hens at all times in addition to the oyster shell or limestone.

Housing. Poultry-house equipment on farms is too often inadequate for maximum production as well as for production of good eggs. The house should be large enough so that the hens may be confined during wet weather. Dirt floors are not conducive to health or quality egg production. The floor should be of wood or concrete. Equipment such as nests, mash, grain and water containers, roosts and dropping boards, of proper construction, should be provided. A deep litter should be kept on the floor at all times. Proper housing aids greatly in producing clean eggs. With few exceptions eggs are clean when laid; keep them clean.

Roosters. Egg quality can be greatly improved by the production of infertile eggs after the hatching season or during warm weather. A fertile egg starts germ development at 68° F. As soon as blood forms the egg is unfit for food and a total loss to the producer. Infertile eggs have no germ development. Sell or confine the roosters immediately after the hatching season.

Care of Eggs. Gather the eggs frequently, especially in hot weather. Four times a day is not too often. Breakage and the number of dirty eggs will then be greatly reduced. A wire basket is ideal for gathering and holding eggs, as it allows air to circulate around the eggs which cools them quickly. Use only clean containers for gathering eggs.

Market eggs should be kept in a moist, cool room. A cellar is good. Do not keep them in a place where the temperature exceeds 68° F. or goes below freezing. After the eggs have cooled for 8 to 10 hours they may be packed in cases, placing the small end of the egg down. Do not keep market eggs where they will absorb foreign flavors such as kerosene and onion.

Marketing Eggs. Eggs deteriorate with age. Market them as soon as possible; at least twice a week. In bringing eggs from farm

to market careful packing and handling are necessary to prevent breakage and interior damage. If enough eggs are not available at one time to fill a 30-dozen case, a 15-dozen fiber case may be used (see cut on title page).

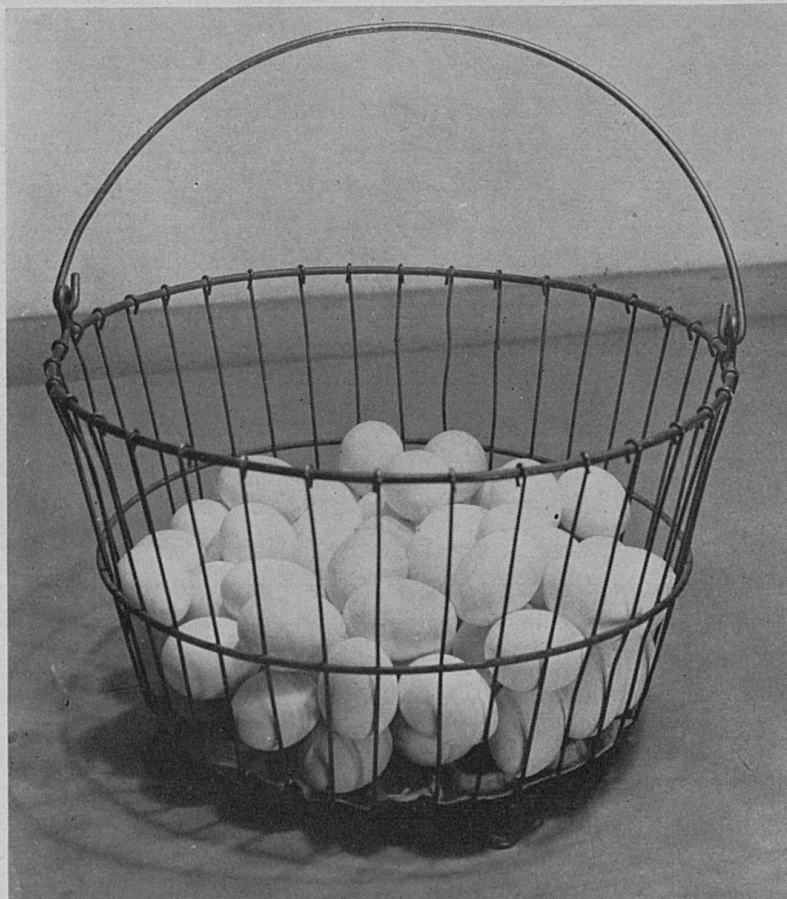


FIGURE 9. This wire basket is ideal for gathering and cooling eggs.

Kentucky farmers who are making poultry an important source of income should be interested in producing and selling eggs of the best quality. In Kentucky the country storekeeper, huckster and produce buyer pay for eggs according to count, regardless of quality; therefore, in self protection, they must pay a lower price. It is known that eggs from the middle west do not bring so good a price on the major markets as those from certain other sections of the United States. Poor quality is the principal cause of this discrimination. Farmers who are producing high-quality eggs should be

paid for them accordingly. If the local market does not pay more for eggs of high quality than for poorer grades, the producer should try to find a better market. Under existing conditions the lapse of time from producer to consumer is so great that the quality of the egg is lowered decidedly when it reaches the consumer. Many flocks are too small to justify the producer making frequent trips to a market other than the country store. The development of larger flocks in local areas would provide sufficient volume to make frequent trips to a market economical.

Do Not Sell

Very small or double-yolk eggs.
Very long or round eggs
Soiled eggs
Thin-shelled or soft-shelled eggs

Sell

Normal-sized eggs
Good-shaped eggs
Clean eggs
Strong-shelled eggs

