

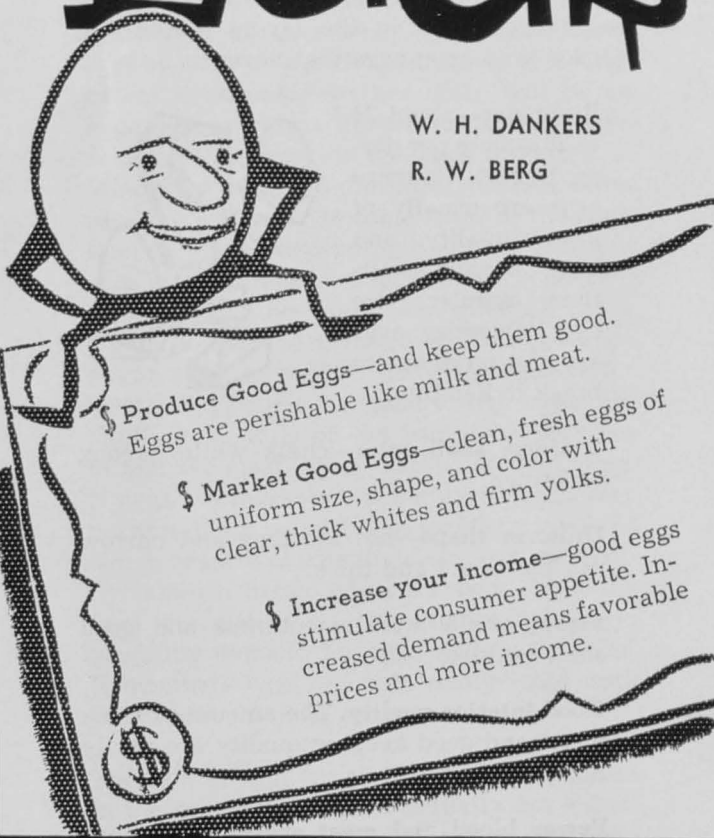
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more ^{COPY 2} INCOME from EGGS



W. H. DANKERS

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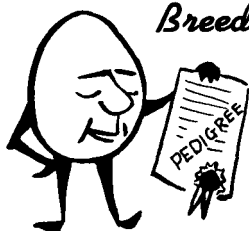
§ Produce Good Eggs—and keep them good.
Eggs are perishable like milk and meat.

§ Market Good Eggs—clean, fresh eggs of
uniform size, shape, and color with
clear, thick whites and firm yolks.

§ Increase your Income—good eggs
stimulate consumer appetite. In-
creased demand means favorable
prices and more income.

Buy Good Chicks

Breeding Is Important

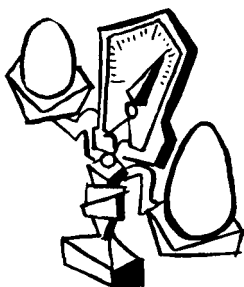


Good breeding means good quality eggs, as well as more eggs per hen. But don't expect absolute perfection from a breeding

program *alone*. Although improvement from good breeding is slow, little can be expected without it.

You should buy your chicks from stock bred (1) for early maturity so they will lay large eggs early in the laying season and (2) for producing eggs that have:

Right size—about 24 to 26 ounces per dozen is best. Oversize eggs are usually of lower quality, and have weaker shells than regular size eggs. Oversize eggs are also more apt to break in handling.



Uniform shell color—chalk white, cream, or brown.

Uniform shape—not too long and narrow nor too round and thick.

Strong shells with smoothness and good shell texture.

Good interior quality. The amount of thick white and good keeping quality are partly inherited.

Fewer blood and meat spots. Inheritance is *one* of the reasons for blood spots. Other reasons include disease, nutrition, and stress factors.

All hatcheries operating under the National Poultry Improvement Plan have minimum standards for interior quality, egg weight, color, shape, and shell quality. Many other breeders are also giving attention to breeding for good quality.

Feed Your Flock Well

You Get What You Give

A good feeding program is necessary for early sexual maturity, high production, and good market-quality eggs.



FOR BETTER EGG FLAVOR AND UNIFORM YOLK COLOR, always confine hens and feed them a uniform ration. Some feeds give unpleasant flavors and undesirable yolk colors, especially those feeds that chickens pick up when they are scavenging around the yard.

FOR STRONGER SHELLS, include enough calcium, phosphorus, manganese, and vitamin D in the ration. And follow these directions:

- Place shell hoppers near the mash feeders so hens can eat shell freely.
- Feed extra shell or extra vitamin D when egg shells appear weak.
- Keep hens cool because high temperatures cause thin shells.
- Keep hens healthy. Bronchitis, or Newcastle disease often result in weak egg shells and poor interior quality.
- Do *not* keep old hens. They usually lay eggs with lower quality and thinner shells.

FOR GOOD MANAGEMENT AND GOOD FEEDING PRACTICE

Have enough feeders—two 6-foot troughs per 100 hens or three 6-foot troughs with free-choice feeding.

Keep a good mash before hens at all times. Use any good standard formula.

Feed grain as needed for the type of mash that is used.

Have fresh water available at all times.

Give Your Flock a Chance

*Good Management
Pays*



✓ **Use labor-saving and health-promoting methods and equipment. Remember:**

A well-insulated, well-ventilated poultry house stays dry.

Built-up litter in a well-insulated and well-ventilated house saves labor, and if it is occasionally stirred, it stays clean and dry. Community or roll-away nests reduce the work of gathering eggs.

Feed should be handled in bulk. Free-choice feeding reduces the cost of feed. Automatic waterers in the laying house eliminate the time-consuming and hard job of carrying water.

✓ **Protect your laying flock against high temperatures.**

Keep hens confined in a well-ventilated house all the time, and especially during hot weather. High temperatures cause egg size to drop. In a special study it was found that hens lay smaller and fewer eggs and eggs with thinner shells during heat waves.

✓ Produce infertile eggs.

Consumers want eggs, not embryo chicks.

Germ development continues in fertile eggs for a considerable time until the germ dies, as long as the temperature is above 80° F. A fertile egg, held at 100° F. is inedible in 3 days.

If you keep male birds for meat, keep them separate from the laying flock.

Males are *not* needed, except in hatching flocks and then only during the hatching season.

✓ Produce clean, high quality eggs. To do so, you need to:

Have a dry hen house.

Keep hens confined in the house.

Have screened platforms under waterers to keep the hens out of the wet areas, or put the waterers above the dropping pits.

Put 1½- to 2-inch mesh screen under the roosts to keep hens out of the droppings.

Don't let hens roost in the nests.

Use deep litter in your nests, unless you have the roll-away type.

Use wire baskets for gathering eggs. Failure to remove animal heat fast enough is the chief reason for loss in quality and therefore in grade.

Gather eggs frequently—at least by 10 a.m. each day and again about 1 p.m. and 4 p.m.

In a special study it was found that producers who gathered eggs four times a day sold 80-percent Grade A eggs and less than 2-percent dirty or stained eggs. Producers who gathered eggs twice a day sold only 57-percent Grade A eggs and 12-percent dirty or stained eggs. Breakage was more than double when eggs were gathered twice daily than if they were gathered four times daily. The body temperature of the hen is about 104° F. Eggs left under the hen for 8 hours are in effect 3 days old in quality when gathered.

✓ Egg cleaning is time consuming, and involves certain hazards.

On the average an egg has about 7,500 tiny pores or openings in the shell. The greatest hazard from improperly cleaned eggs is bacterial spoilage. So, if you must clean eggs, do it in the least harmful way. Remove *small* dirt spots with an emery cloth or fine sandpaper brush. If you must wash eggs, do not use ordinary water, soapy water, or vinegar. Use a washing compound in water that was especially formulated for cleaning eggs. Always be sure that the wash water is at least 20° F. warmer than the eggs. Water temperatures of 100° to 120° F. are not too high. However, do not let the eggs “soak” in the solution. Dry the eggs rapidly.

Spraying eggs with oil or an oil and water emulsion aids in quality preservation by “sealing in” the natural carbon dioxide of the egg. However, some egg buyers do not accept “oil processed” eggs.

In the spring flush production season many of the eggs produced in the Midwest are moved into storage. *Cleaned eggs*, regardless of how they are cleaned, and especially washed eggs, deteriorate more rapidly in storage. Storage losses and quality deterioration in storage are reflected in lower egg prices to producers.

Keep Your Eggs Good

Bad Eggs Can't Be Made Good

A mechanical egg cooler is practically a must if an egg producer wants to sell uniform high quality eggs the year around.

Eggs should be gathered in a wire basket and placed in the egg cooler immediately when they are gathered. Then as soon as the eggs are cooled down to 60° F. they should be packed in precooled egg cases, with the

small end down. If you don't have a mechanical refrigerator be sure to cool eggs down to as close to 60° F. as possible in the baskets in which they are gathered before placing them in the case. If eggs are put in the case before the body heat escapes, the result is the same as partial incubation. From a special experiment it was found that it takes four times as long for eggs to cool in cases and twice as long in a can or pail as in wire baskets.

HOLD EGGS AT LOWER TEMPERATURES—As close to a range of 50° to 60° F. as possible. In a special study it was found eggs will deteriorate just as fast in 3 days at 99° F. as in 23 days at 61° F. or in 65 days at 45° F.

KEEP HUMIDITY HIGH—Provide conditions of relative humidity of 70 to 80 percent.

When high humidity is maintained in the egg storage room, there is less evaporation from the contents of the eggs, and the air cells remain smaller. Eggs with small air cells grade higher.

KEEP CASES, FILLERS, AND FLATS IN A CLEAN, MOIST, AND COOL PLACE—Cases, fillers, and flats should always be clean. They should not be too dry, because if they are too dry they will absorb moisture from the eggs. They should also not be too warm when the eggs are packed because if they are too warm, then egg quality will deteriorate.

In a special experiment it was found that a very dry egg case would draw as much as a pound of water from 30 dozen eggs in 48 hours. However, packing materials should also not be so wet that there is danger of mold.

KEEP EGGS AWAY FROM BAD ODORS—Eggs absorb odors readily from such materials as decaying vegetables, onions, apples, and kerosene. The eggs become "off flavor" and unappetizing.

Pack and Market with Care

Eggs Are Fragile

- Always place the eggs in the case with the small end down. The yolk remains centered longer when eggs are packed with the small end down. A well-centered yolk is a mark of good quality.

The air cell is located in the large end of the egg. When eggs are placed with the large end down, the air cells are much more likely to shake loose or break while eggs are enroute to market. If the air cells are broken or loose, the eggs are graded down.

In a special study it was found that when eggs were packed correctly, small end down, 50 percent more of the eggs graded A when they reached the market than if they were packed with the small end up. Eggs also look better in the case with the large ends up.

- Don't pack oversized and weak-shelled eggs in cases. There is too much danger of breakage. Keep as many as possible of the irregular shaped, over-sized, and weak-shelled eggs for home use.
- Handle eggs carefully and avoid excessive jarring and vibration. Cracked eggs and eggs with broken air cells bring lower prices.
- Market your eggs at least twice a week. Most Midwest eggs have a long road to travel before they reach their market. More than two out of every three eggs produced in Minnesota are sold outside of the state.
Don't let the eggs get old and deteriorate in quality on the farm. If you get the eggs on the way to the market just as soon as possible, the quality will be better when the eggs reach the final consumers.

Eggs should be covered while enroute to market, to protect against high temperatures, sun, wind, and rain. They will also stay much cleaner that way.

When eggs are transported long distances, refrigerated trucks should be used.

Sell the Kind of Eggs Consumers Want

. . . When They Want Them

Eggs compete with many other foods for the consumer's dollar. Whether eggs are of top quality or of lesser quality will have a direct bearing on whether Mrs. Consumer will buy eggs or other foods. The consumers to a large extent determine whether there will be an expanded or only a limited market for eggs. A limited number of the eggs produced in Minnesota can be sold in local markets. More can be sold locally in some areas of the state than in others, depending upon the relationship between total production and total consumption in the area. For the state as a whole, a large percentage of the eggs produced must be sold in markets that are *far away*. Regardless of where the eggs are *finally* sold, it is of the utmost importance to find *the most direct method of marketing*. If eggs are marketed in the most direct way possible there is much less handling involved which reduces marketing costs, and the quality is much better when the eggs reach the final destination. If the quality is always good, the demand for eggs will be stronger. Remember—eggs are not “really” sold until they reach the *final* consumers.

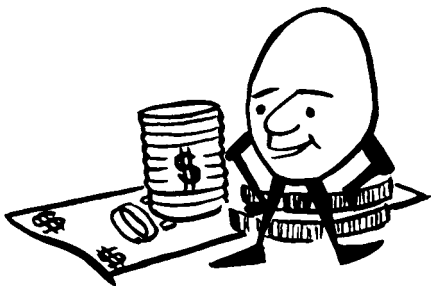
The sale of eggs by producers to assemblers in the production area is actually not a final sale but merely the first step in the long process of getting the eggs to the final destination. What is all important to the egg producers is whether the final consumers “on

the other end of the line" first of all want eggs, secondly, have the purchasing power to buy them, and thirdly, find that *the eggs are of top quality* when they get them.

Egg production is seasonal, but consumption is fairly even throughout the year. Total egg production is considerably less in the fall than in spring. Consequently prices are usually higher during the fall months, compared to other seasons of the year, and especially higher in fall than in late winter and spring. If you obtain your chicks in late winter and early spring, or if you get two or more lots of chicks during the year, you'll have more eggs to market during the high-price months.

If you follow good practices in the hen house and use the proper handling methods on the farm, the eggs you have for sale will be of top quality. Then investigate and try to find the best possible market. The price for high quality eggs compared to the price for lower quality eggs may at times not appear sufficient to cover the extra effort and costs involved, but over the longer period, it definitely provides the basis for staying in business and competing in the market place with other food items.

If an egg producer is "Certified," or through some other program is specially recognized for the high quality eggs he places on the market, he is more apt to get paid for doing a good job and for the extra effort involved.



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