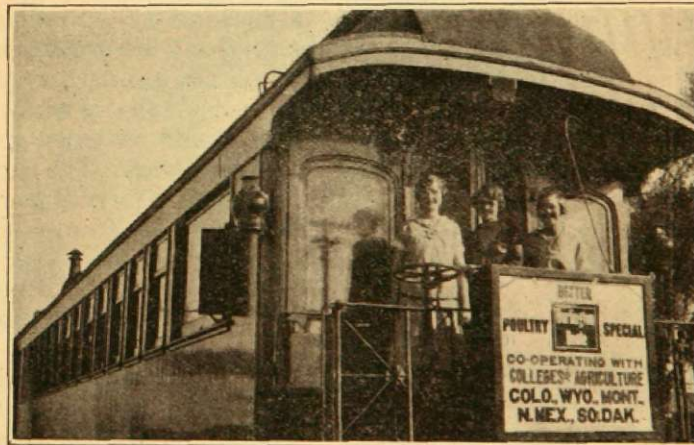


November, 1927

No. 267-A

## POULTRY MANAGEMENT

AS PORTRAYED BY  
"THE BETTER POULTRY SPECIAL"



MARY LOUISE HOFFMAN, MRS. NELLIE WIRSIG AND BEULAH WIRSIG—THE TWO GIRLS DEMONSTRATED BETTER POULTRY MANAGEMENT ON THE TRAIN

COLORADO AGRICULTURAL COLLEGE  
EXTENSION SERVICE  
FORT COLLINS, COLORADO

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## POULTRY MANAGEMENT

AS PORTRAYED BY "THE BETTER POULTRY SPECIAL"

Raise better poultry!

Not MORE poultry, but BETTER poultry was the big idea which confronted us as we visited the "Better Poultry Special." From the time we entered the train until we passed out of the sixth exhibit car, we couldn't escape the compelling plea for better poultry, produced more economically.

All of us took the hint that there was greater need for poultry improvement than for poultry expansion in the five states thru which the Burlington-Colorado and Southern train was scheduled; namely, New Mexico, Colorado, Wyoming, Montana and South Dakota. The exhibits in the train were based upon the results of scientific investigation and actual practices followed on demonstration farms. Colorado and Wyoming furnished birds from farm flocks to verify the truth of assertions appearing upon the posters above the exhibit pens.

Agricultural agents of the two roads made it clear that better handling of our poultry, which would give us greater profit, would result very satisfactorily for them. The agricultural colleges of the five states interested furnished cooperation in the form of exhibits, bulletins and talks by their specialists.

In bringing to us the story of a successful farm poultry flock, the train emphasized certain principles and practices which are absolutely necessary if better poultry is to be produced more economically. These points were:

1. Careful selection of the breeding stock.
2. Culling.
3. Proper housing.
4. Correct feeding.
5. Sanitation of house and grounds.
6. Intelligent marketing of poultry products.

These points emphasized on board the train were still



THIS OLD BIRD, THE TALKING ROOSTER, KEPT MOST OF US GUESSING—DID YOU GUESS RIGHT?

CO-OPERATIVE EXTENSION WORK IN  
AGRICULTURE AND HOME ECONOMICS, COLORADO AGRICULTURAL COLLEGE  
AND U. S. DEPARTMENT OF AGRICULTURE CO-OPERATING  
DISTRIBUTED IN FURTHERANCE OF ACTS OF CONGRESS  
OF MAY 8 AND JUNE 30, 1914



more forcibly brought home to us thru the demonstration given by two rural girls of Logan County, who won the state championship in poultry demonstration at Colorado state fair in 1927. Adults present at the demonstration were convinced that children, thru their 4-H club work, can learn the principles of profitable poultry raising just as thoroly as the grown-ups can.

#### Selection of the Flock

A splendid contrast between the standard-bred flock and the mongrel flock was depicted by O. C. Ufford, poultry specialist of the Colorado Agricultural College Extension Service, in his exhibit showing work accomplished thru his demonstration-farm flocks. In the pen of mongrels we saw birds which were underweight, lacking in uniformity and wholly undersirable because of their low production, averaging only 70 eggs per year. These birds were accompanied by the typical farm poultry house, unsanitary, overcrowded and poorly ventilated. The house was drafty and did not admit sunlight.



MARY LOUISE, LEFT, AND BEULAH, THE 4-H CLUB GIRLS WHO GAVE US SO MUCH TO THINK ABOUT IN THEIR DEMONSTRATION



WE MUST ADMIT GOOD CHICKENS MAKE MORE MONEY

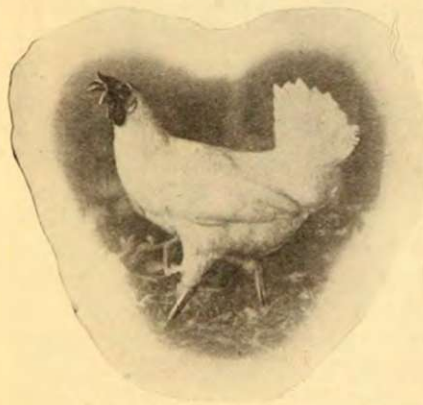
Directly opposite this discouraging picture we paused to appreciate the alertness, smooth appearance and well-formed bodies of the birds in the standard-bred pen. The ideal poultry house, surrounded by clean runs of green feed, completed the contrast.

### Culling

Recommendations for selection of an early maturing flock thru proper culling were:

KEEP the hen which:

- 1—Moults quickly.
- 2—Moults late in September or early in October.
- 3—Shows faded beak and legs from heavy laying.
- 4—Has large, moist vent.
- 5—Has soft abdomen.
- 6—Is wide across the back.
- 7—Is deep bodied
- 8—Has plenty of width between the pelvic bones.
- 9—Has thin, straight pelvic bones.



LADY SKYLINE, WHO LAID 235 SUCCESSIVE DAYS, IS THE TYPE TO KEEP

- 10—Has strength, health and activity.

Get rid of the hen which does not meet the above requirements.

**Cull young stock** to dispose of all weak or deformed birds as soon as hatched. Sell all weak, late-hatched or under-developed pullets.

**Keep** all mature, vigorous, healthy pullets.

**Cull old stock** to dispose of all male birds that lack constitutional vigor and vitality. Cull all aged hens that do not show exceptional qualities as egg producers.

In his culling talk, which was one of the most popular features of the "Better Poultry Special," Wm. H. Lapp, director of Research and Extension of the Live Poultry Transit Company of Chicago, made an important point when he said: "It is no use to cull hens or pullets until you have given them a chance to show what they can do by feeding them a well-balanced mash from four to six weeks."

### Housing for Profit

Interest in better housing was evident from the thousands of requests for bulletins describing an adequate poultry house for our western climatic conditions.





WE CAN FEED OUR MACHINES BETTER AT NO GREATER COST

The house recommended for the farm flock and actually shown on a flat car, appealed to us because of its simple construction. It was of the shed-type, 20 feet deep, 8½ feet high in front and 4½ feet to 5 feet high in the rear. The attendant in charge of the flock in the poultry house explained that the width of the house depends upon the number of birds to be housed. He proved to us that we should allow 3 feet of floor space for Mediterranean breeds (Leghorns, Minorcas, etc.) and 4 square feet for all others. He urged that no house should be made less than 20x20 feet.

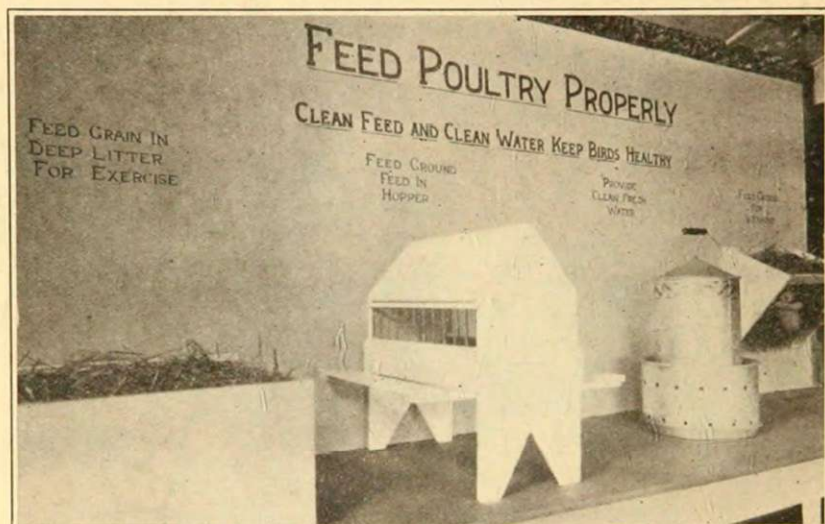
The roosts recommended by the "Better Poultry Special" were 2x4's on edge, rounded a little at the top and hinged at the back to facilitate cleaning the dropping boards below. These dropping boards, we noticed, were 30 inches from the floor and 8 inches wider than the roosts.

Dark nests were shown to be preferred by the hens. These were equipped with double hinged doors in front, the top one for gathering eggs and the bottom for cleaning the nests. The runway at the back gave the birds easy access to the string of nests.

Hoppers and drinking fountains were all mounted on legs to prevent the birds from filling them with litter and to allow more floor space.

At least 10 inches of clean straw covered the floor of this approved poultry house.

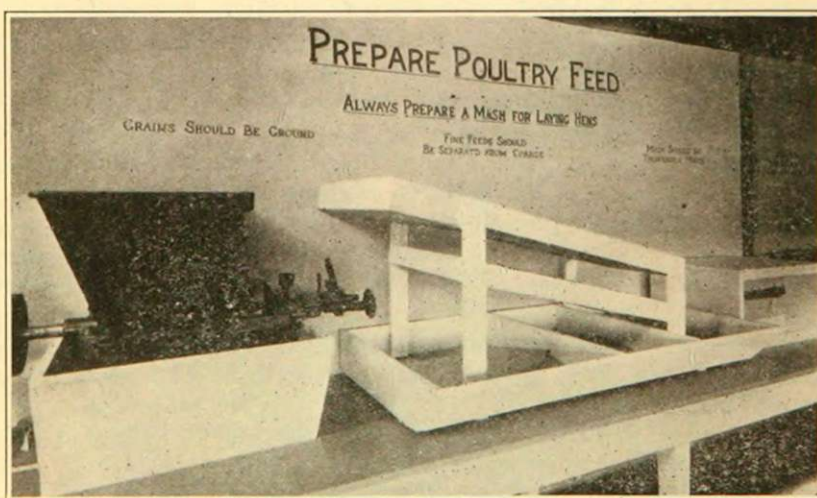
Recommendations for commercial houses varied slightly from the above, mainly in dimensions.



WE KNOW HOW TO FEED PROPERLY BUT DO WE DO IT?

### Feeding For Profit

Why not quit 'keeping chickens' and make the chickens 'keep us?' We asked ourselves this as we watched the baby chicks eating their mash from the hoppers in the brooder house. We asked it again when we noted the contrasts in fowls properly fed and those improperly fed.



A SMALL MILL AND FEED GRADER ARE HANDY ON ANY FARM

Two men at Longmont, Colorado, caught the idea of balanced rations so quickly that they promptly decided to discard \$40.00 worth of screenings they had just purchased because they didn't know just what they had in that mixture.

Recommendations for balanced rations were:

**Scratch;**

- 200 pounds cracked corn
- 200 pounds wheat
- 100 pounds oats or barley

**Mash;**

- 200 pounds ground wheat or
- 200 pounds mill run (50 percent shorts) or
- 100 pounds wheat bran and
- 100 pounds wheat middlings
- 100 pounds corn meal or chop
- 100 pounds ground oats or ground barley
- 100 pounds meat meal or beef scraps or
- 2000 pounds skim milk (16 quarts a day for 100 hens) or
- 50 pounds meat meal and
- 1000 pounds skim milk (8 quarts a day for 100 hens).

Conditions may vary to make other combinations more advisable for different sections of the country. The main idea which we carried away was that we should have a balanced ration. It was suggested that Colorado Extension bulletin 234-A might help in figuring balanced rations.

**Sanitation**

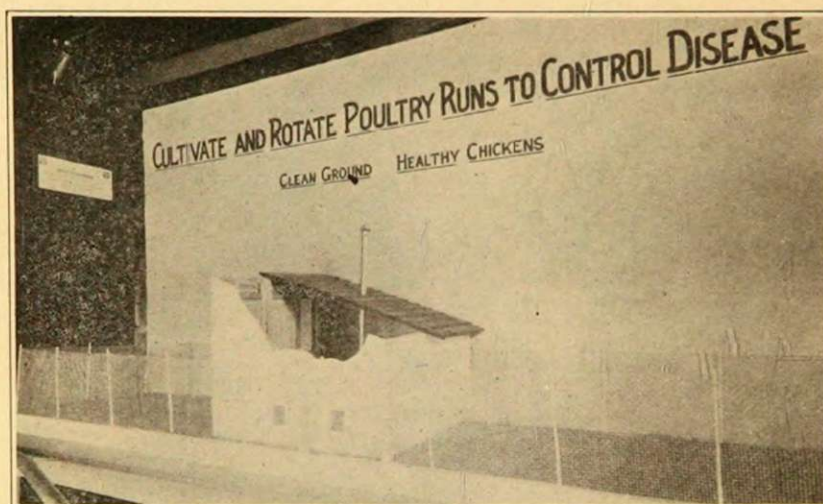
Sanitation to prevent disease, rather than "dope" to cure disease was one of the best lessons we learned on the train. With the easily cleaned dropping boards, the movable roosts allowing spraying on all sides, and the clean litter recommended in the approved poultry house, sanitation seemed comparatively simple. The exhibits on the train convinced us that prevention of disease, thru sanitation, was far more economical than any cure.

Sprays were said to be most effective for killing mites.

Crank-case oil and kerosene, mixed half and half, was shown to be the cheapest and one of the most efficient sprays, but several commercial sprays were named which give equal satisfaction and avoid the dark, greasy effect.

Sanitary grounds for the growing chicks were provided for in the exhibit of cultivated runs on either side of the brooder house. Wheat, oats or rye was urged as good green feed for the runs. Rotation of the flock on new ground was recommended.





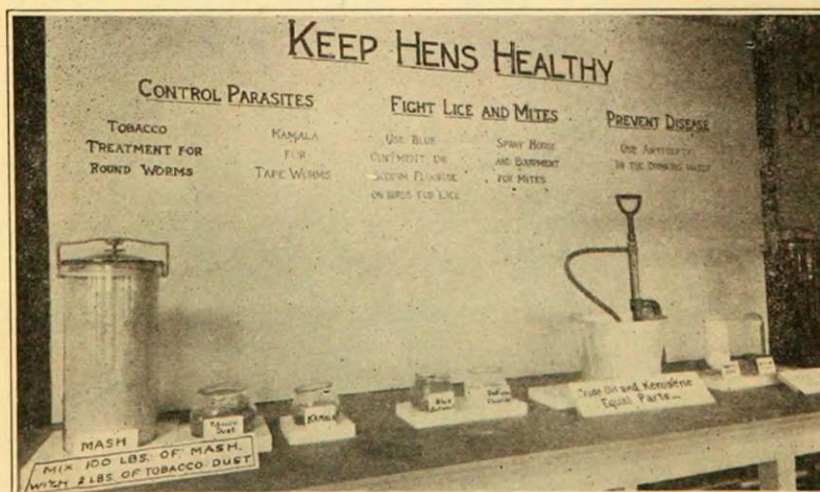
WE KNOW THIS BUT HOW MANY OF US DO IT?

### Treatments For Worms and Body Pests

**Worm Treatment.**—Mix thoroly 100 pounds mash and 2 pounds tobacco dust, testing 1½ percent nicotine.

**Tape Worms.**—Powdered Kamala in capsules, one gram (15 grains) for each bird.

**Lice.**—Sodium fluoride used as a dust, or Blue Ointment as a grease.



PREVENTION OF DISEASES IS MUCH CHEAPER AND EASIER THAN CURING THEM



**Mites.**—Spray with crude oil and kerosene as recommended above or use good commercial sprays.

#### Caponizing

**Caponization** of the heavier breeds was recommended to us as a profitable practice enabling us to produce a high-quality meat at a reasonable cost and with assurance of a ready market.

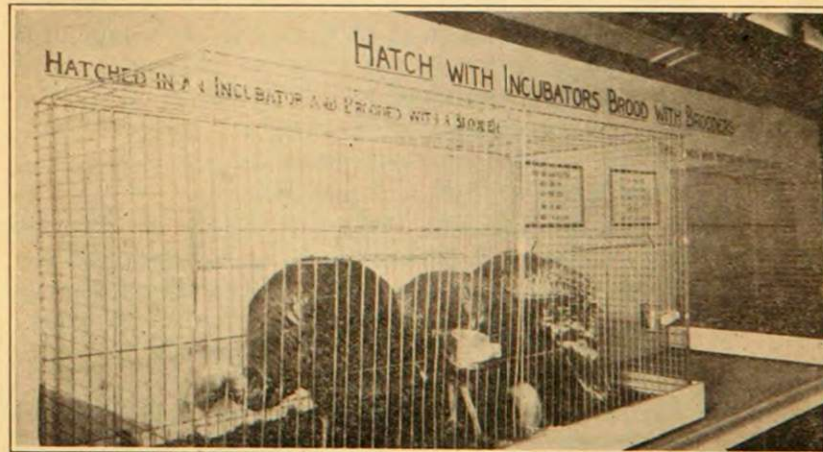
**Tatooing** as well as leg banding was shown to be a satisfactory means of identification. The tatooing was done on the under side of the wing in the loose skin or on the web of the foot.

#### The Turkey Industry

The turkey car, equipped by the University of Wyoming, re-echoed the same principles of selection, culling, feeding, housing and sanitation necessary to success in any poultry venture.

**Early Maturity** pays! In one pen we saw the early maturing birds, healthy and vigorous, weighing more than 10 pounds at the age of 5 months. Why defer the marketing time? The lesson in economy in producing early maturing birds was proved by the contrasting pen of birds of the late-maturing type, requiring from 7 to 8 months to attain the market condition.

**Artificial brooding of turkeys**, a phase of the industry yet in its infancy, was pointed out as a measure of economy in that one brooder stove could brood 125 poults. The birds which had been artificially incubated and brooded weighed 16 pounds each at the age of 5 months. In an adjacent pen were shown some



THIS SUGGESTION MAY MAKE A DIFFERENCE IN OUR TURKEY PROFITS



SANITATION IS VERY IMPORTANT IN TURKEY RAISING

5-months-old poults weighing less than 6 pounds. These birds brooded by hen were handled in unsanitary conditions and suffered the consequences. Advocates of artificial brooding point out that one brooder stove can accomplish the work of ten hens in brooding 125 poults.

**Crooked Breast Bones.**—Crooked breast bones are largely prevented by correct feeding of turkeys, we learned. One bird, receiving a ration containing 20 percent animal protein, strutted in his pen to show us his weight of 15½ pounds at the age of 5 months. In contrast, a turkey of the same age, fed on a ration lacking in animal protein, weighed only 5 pounds.

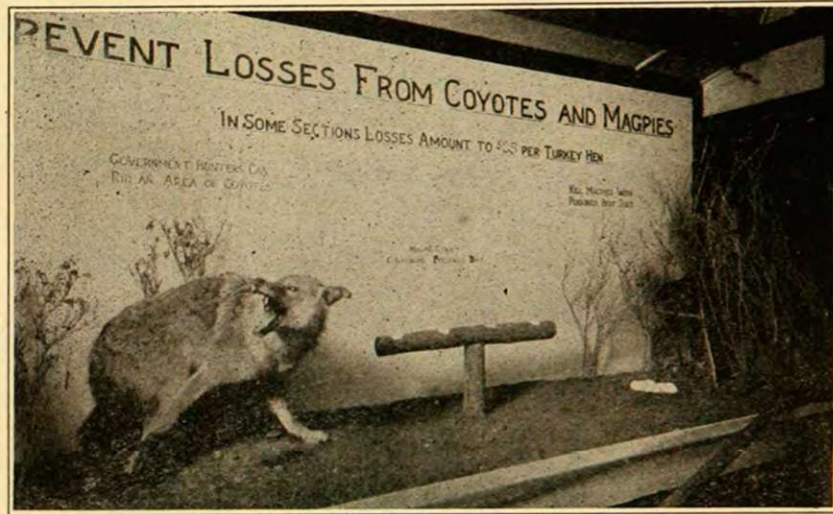
**Animal proteins** recommended included:

Dried Milk	Semi-solid buttermilk
Bone Meal	Meat scrap

**Blackhead Can be Prevented.**—Prevent, rather than try to cure blackhead. That one command was worth the trip for many visitors, they remarked. Sanitation and regular worming reduce the losses from blackhead. Clean grounds, clean drinking water and clean troughs for that water make the difference between the healthy and the unhealthy turkey.

**Coyotes and magpies** are enemies of the turkey industry. The train advised a clean-up on coyotes by the government hunter. When we stopped at Trinidad, Colorado, one of the women





THE MAGPIE STICK IS SHOWN IN THE CENTER

who came thru told of her flock of 500 turkeys on open range in charge of a mounted herder, a Mexican, who carried a rifle. No coyotes bother her flock.

The magpie stick, narrow poles crossed in T shape, with the top bar containing finely chopped, poisoned beef suet, attracted considerable attention. Every school boy who came thru the train said, "Why I can make one of those magpie killers, myself."

#### How Live Poultry Travels

Let your chicken ride in a Pullman palace sleeper! Interesting indeed was the shipping car furnished by the Live Poultry Transit Company of Chicago. This car accommodates from 3,500 to 5,000 birds without any crowding. Its average tonnage under load, is 18,000 pounds. On either side of the narrow center aisle we noted 128 coops, capable of holding from 20 to 40 chickens, depending upon their size.

An attendant, housed with all the comforts of home in an 8x8 compartment, feeds and waters the birds enroute.

#### Grading and Shipping Eggs

Dirty nests, dirty eggs, ungraded eggs weighing from 16 to 24 ounces per dozen, were called to our attention as some of the vital reasons why we put money into our flocks but fail to get it back.

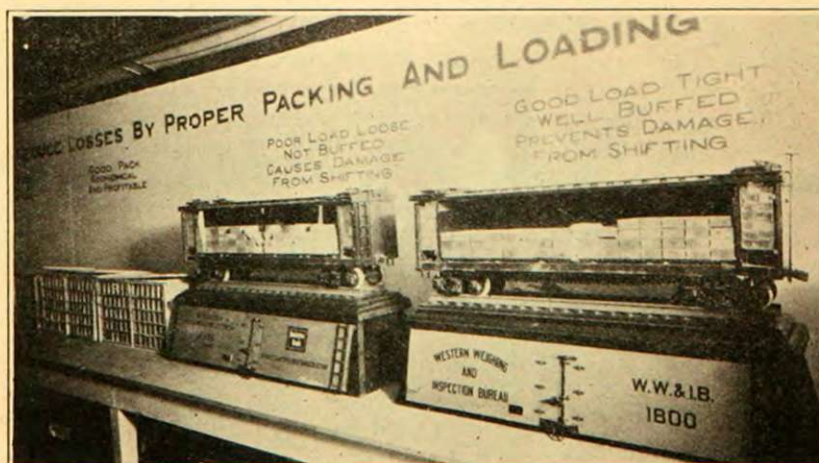
The "Better Poultry Special" recommended:

1. Frequent gathering of eggs from clean nests.
2. Cleaning eggs with steel wool rather than by washing.
3. Grading eggs according to color and size.
4. Weighing eggs to get the standard of a 24-ounce dozen.
5. Shipping in 30-dozen wooden cases with each egg lying, small end down, in its section of a "cup flat" inserted between the layers of the case.
6. Candling to test for freshness and condition of eggs.

An excellent exhibit, in charge of the Western Weighing and Inspecting Bureau of Chicago, gave all of us a chance to see the U. S. standards and grades of eggs. Announcement was made that we might secure detailed information on this subject by writing to the U. S. Department of Agriculture, Washington, D. C.

Why Leghorns and other small breeds are discriminated against in the dressed-poultry market was no mystery to us as we paused before the interesting exhibit of dressed poultry neatly packed in refrigerator cases. Contrasts between the grades of dressed poultry were clearly shown.

Both railroads and their cooperating parties gave credit for large attendance at each stop to the local committees of each town. These committees were headed by county agents, Smith-Hughes teachers or prominent poultrymen.



OUR LOSSES ARE OFTEN DUE TO POOR PACKING IN CASES AND CARS