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EC1481 Revised with no date The Flock Owner's Part in Pullorum Eradication

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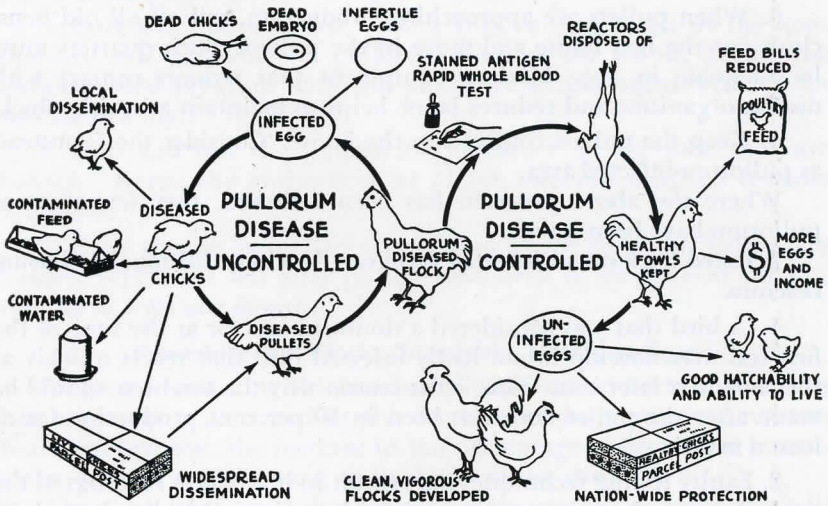
Pullorum Is Costly

FLOCK OWNERS as well as hatcherymen have good reasons for eradicating pullorum. Poultry infected with pullorum can be expected to perform as follows:[1]

1. Egg production is reduced 25 per cent.
2. Adult livability is decreased 15 per cent.
3. Fertility of eggs is 18 per cent lower.
4. Hatchability of fertile eggs is cut 12 per cent.
5. Death loss among chicks from infected parents is approximately 50 per cent.

[1] Report of L. A. Welhelm of Purdue University at 1951 convention of American Poultry and Hatchery Association.



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Pullorum Can Be Eradicated

Pullorum has been eradicated in a number of Nebraska breeding flocks. Flock owners have learned to avoid sources of reinfection. Chick losses during the first three weeks of brooding have averaged less than 2 per cent. Since 1949, more than 50 per cent of the flocks in Nebraska from which records are available have had no pullorum reactors on first test. Confidence in the pullorum eradication program has developed. Without the cooperation of flock owners these goals would not have been reached. This circular outlines the flock owner's part in a pullorum eradication program. Rapid progress can be anticipated when a pullorum eradication program is adopted.

Nebraska records show that a number of hatcherymen have made progress in their program to eradicate pullorum from the chicks they produce. A well planned and organized program helped them reach the goal. The National Poultry Improvement Program established the pullorum-passed or pullorum-clean rating as an incentive for producers of hatching eggs as well as hatcherymen who operate under its supervision. It takes accurate testing, complete records, education, and cooperation on the part of both flock owners and testing agents to eradicate pullorum from a group of flocks.

To keep a flock pullorum-clean, the following program is recommended:

1. Start with chicks that are free of pullorum.

2. Grow them on clean range entirely separated from other fowl.

3. When pullets are approaching production, sell off all old hens, clean out the hen house and move in the pullets. Such quarters must be adequate in size. Modern equipment that reduces contact with disease organisms and reduces labor helps to maintain a healthy flock.

4. Keep the pullets confined to the house. Consider the farmstead as pullorum-infected area.

Where the above program has been followed, very few cases of pullorum have been found.

A tested flock on an infected farm can develop additional pullorum reactors.

1. A bird that was considered a doubtful reactor at the time of the first test may develop into a badly infected bird that reacts quickly at the time of a later test. This is the reason why the final test should be made after the pullet flock has been in 50 per cent production for at least a month.

2. Faulty testing techniques may result in inaccurate readings of the tests. Improved testing equipment with antigen that has been held under refrigeration reduces faulty readings of the test to a minimum.

3. Pullorum infection can be picked up by healthy hens ranging on infected ground. Flocks confined in a poultry house having recom-

mended equipment have remained free of reactors. Soon after flocks are turned out and allowed to range over the farmstead, pullorum reactors often develop.

4. Infection is frequently spread by placing one untested bird that carries the disease into a flock of disease-free hens.

5. Infection is picked up by allowing a pullorum reactor to escape and be returned to the main flock.

Premises have become reinfected by one or more of the following practices:

1. Adding some infected chicks to a brood of clean chicks.
2. Raising an additional brood of infected chicks.
3. Bringing untested adult chickens to the farm.
4. Moving the flock to an infected farm.

Recommended Procedure for Breeding Flocks

The following procedure is recommended for the first year in which a breeding flock is to be kept under a pullorum eradication program.

1. Adopt a closed-flock program. This means that no other poultry will be brought to the farm except the baby chicks of the one strain which is to be used for reproduction. This eliminates risks of bringing diseases to the farm.

2. Follow the program suggested on the preceding page to avoid introducing pullorum into the growing flock.

3. Cull and pullorum-test during July or August all of the hens that are still on hand. If pullorum reactors are found, discuss the recommended program with the pullorum testing agent with whom you are dealing.

4. Cull and test the pullets for pullorum at the time they are housed. Retest the entire flock at 21-day intervals until no reactors are found.

5. Even though no reactors are found at the time the pullets are housed, repeat the test after pullets have been in 50 per cent production for at least one month.

Procedure for Flocks Supplying Hatching Eggs

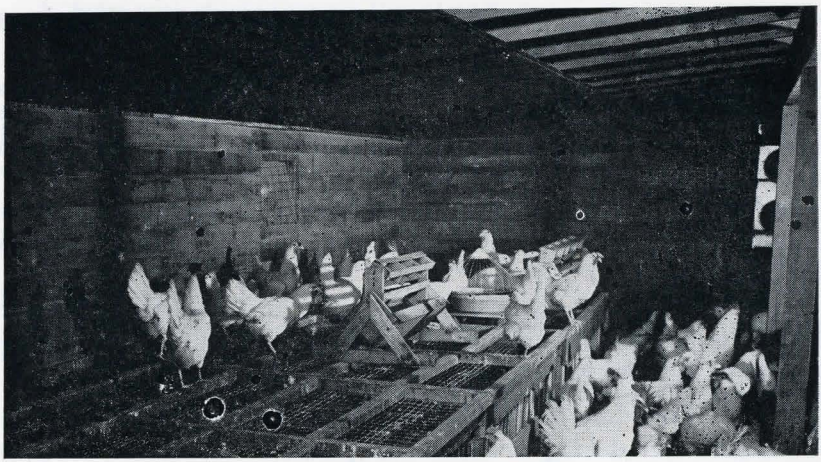
Progress in reducing the amount of pullorum in flocks that supply hatching eggs is measured by the decrease in the number of reactors found on first test, the increase in the percentage of flocks that remain clean, and the improvement in livability of the chicks.

The chief obstacles in developing a large number of flocks that will remain free of pullorum on first test are the lack of cooperation by flock owners and the necessity of attracting new flock owners. Hatcherymen should make a determined effort to keep desirable flock owners as

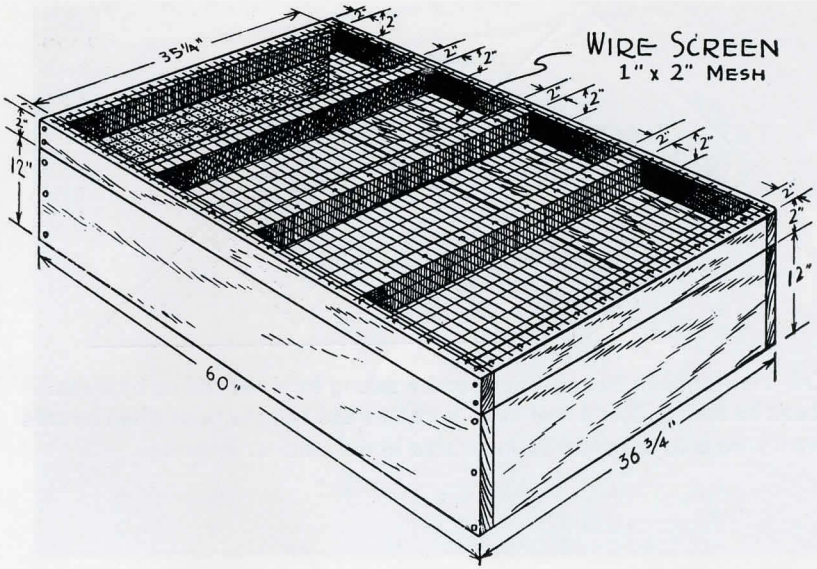
continuous suppliers of hatching eggs. When new flocks must be added, the preliminary arrangements should be made for them to adopt the pullorum eradication program at the time the chicks are obtained.

The report of 2,026 flocks tested in Nebraska for the 1952 hatching season shows that 71.7 per cent of the flocks had no reactors and that the number of reactors in more than a half million birds tested was less than 1 per cent. The 1952 chick livability records indicate that less than 2 per cent died during the first three weeks of brooding.

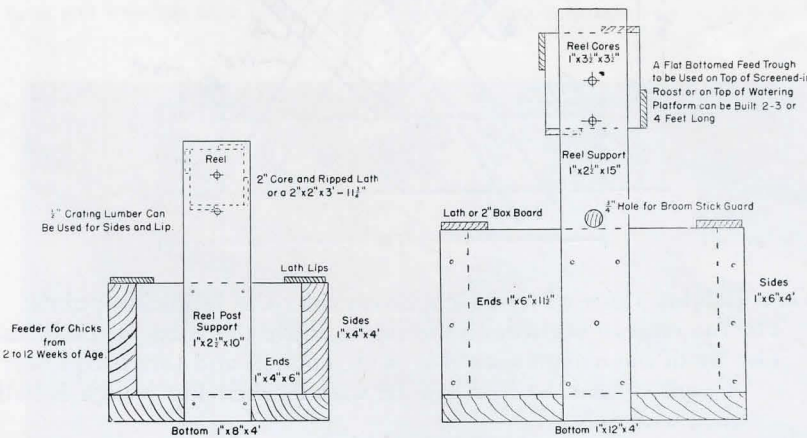
A change in the system of raising chickens is necessary on all farms where 80 healthy, plump, and richly pigmented pullets have not been raised per 100 pullet chicks started. It makes little difference whether the cause of stunted, sharp-breasted, pale-pigmented pullet culls has been coccidiosis, worm infection, leukosis, or fowl cholera—the system that has failed in the past needs to be changed. Turkey growers have succeeded by keeping poults confined to the brooder house and sun porches until the young turkeys are 8 to 10 weeks old. They are then moved to range shelter sheds and clean range with adequate green feeds. The plans for building the 9 x 12 Nebraska-type range-shelter shed for pullets are illustrated in Extension Circular 1486.



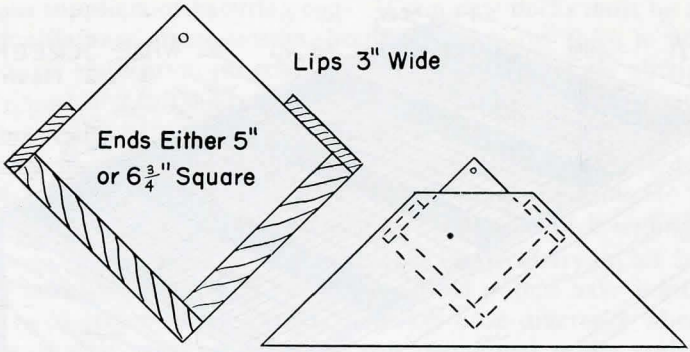
The panels for the roosting rack are each 36¾ inches wide and five feet long. The 2″ x 2″ x 35¼″ are used for the roosts. The side pieces are 1″ x 2″ x 5″. The wire is 14-gauge electric-welded with mesh 1″ x 2″. The wire is stapled firmly to the frames. There is little clogging when this size wire is used as here illustrated. Two types of roost feed troughs and one covered water pan are shown in this picture.



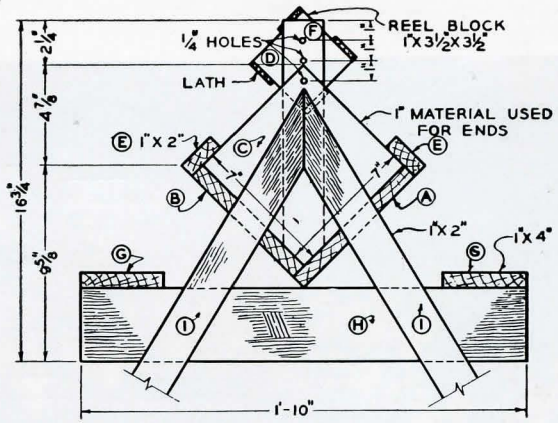
The frame is used as a feeding or watering platform with wire side up; as a roost with wire side down.



Flat-bottom feed troughs for growing stock are popular with some broiler growers. Width and depth can be varied for chicks of different sizes. An additional guard to prevent chicks from getting into the feeder can be placed midway between the lips of the trough and fastened to the tops of the end pieces.



End view of open trough which can be swung from the ceiling by wires. It can be built 2,3,or 4 feet long. It can be used on the floor when boards are nailed onto the ends as illustrated in the smaller drawing.



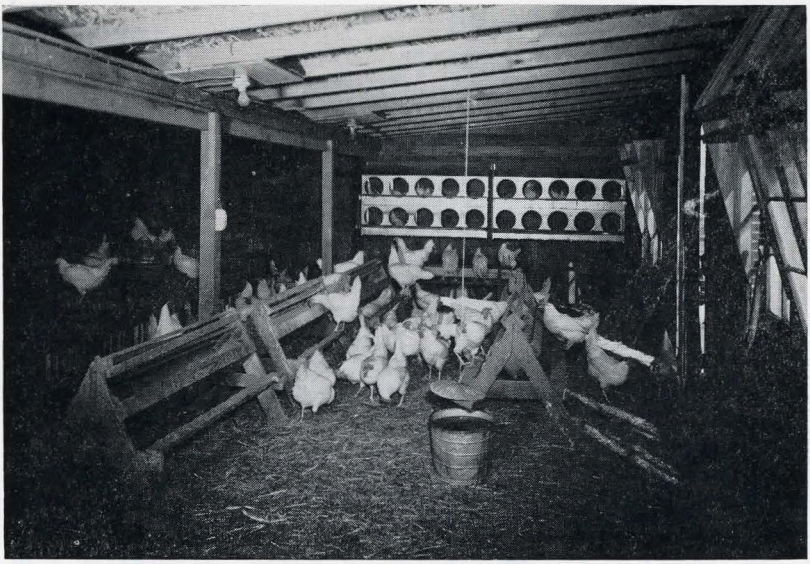
When judging value of feed troughs consider the following points:

The top edge of the trough should be above the vents of the birds.

The lip of the trough should be wide enough and the trough deep enough so that no feed can be wasted when the trough is half filled with mash.

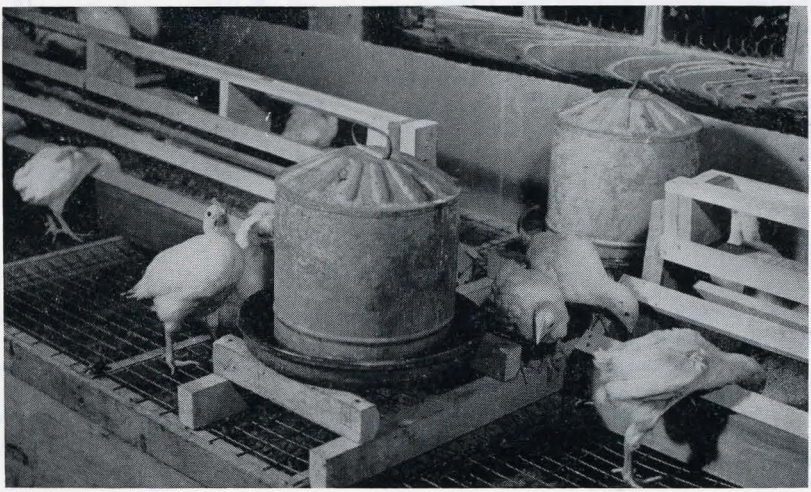
The reel or grid cover of the feed trough should discourage the chickens from walking over or roosting on top of the feeders.

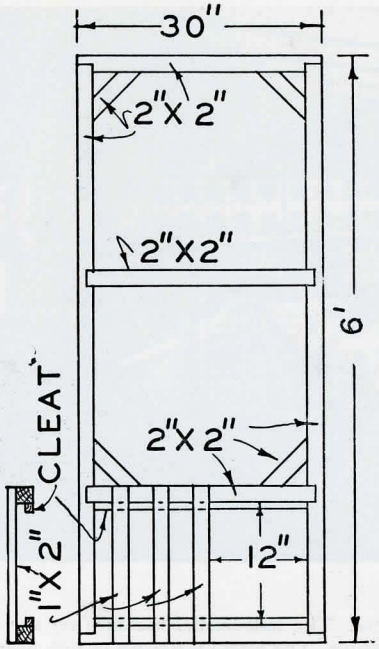
The guard rail, reel, or grid, should furnish the chickens head room but not body room.



Three types of waterers are shown here. The half-bushel measure on the floor is protected by a weight suspended by a string. The metal watering trough near the nests is protected by wire grid. The watering pan on the roost sits on a platform that raises the edge of the pan above the vents of the hens.

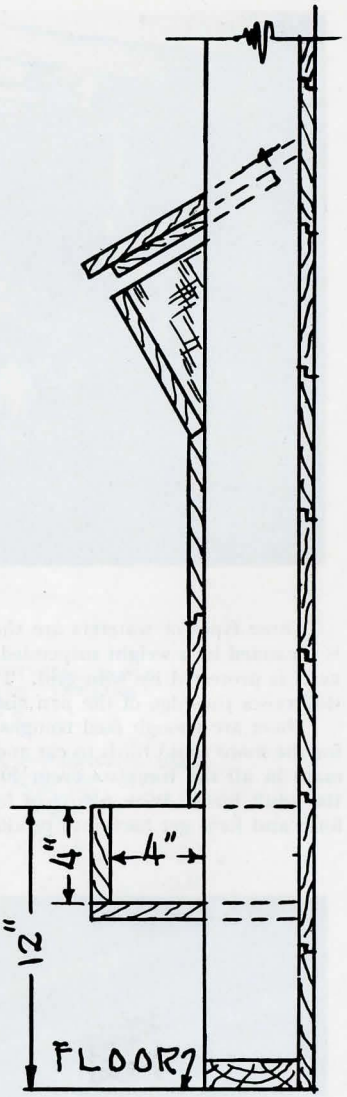
There are enough feed troughs on the floor and on the roosts to provide space for the more timid birds to eat and permit the feeding of whole grain on top of the mash in all the troughs. From 40 to 50 feet of feeding space is required for each 100 adult birds. With plenty of feeders, the weights of the hens remain more uniform and hens get back into production quickly after a slump.





SCREEN DOOR

The use of screen doors is usually the easiest way to flood the poultry house floor with direct sunlight during the winter months. When hung on the outside of the building and held in place by a spring, they prevent pigs and calves from entering the chicken house. The sliding board placed at the bottom allows hens to have free exit and entrance while keeping livestock out. It is necessary to have doors as well as windows screened if sparrows are to be kept out of the chicken house. Screen doors are usually covered with either hardware cloth or one-inch poultry netting.



GRIT AND SHELL HOPPER

A hen will eat about three pounds of oyster shell and ¾ pound of grit a year. Relatively small hoppers can be used.

Where the hen house is not boarded up on the inside of the studding, shell hoppers can be made between two studdings.

The bottom board should first be nailed to the boards that are to be the sides and front of the feed trough. The side boards are then nailed to the studding. Cover is held in place by cleats.