

Raising Poultry in America---Making It a Profitable Business

Some of the common chick troubles which cause heavy loss to poultrymen each season, together with methods of controlling them, are discussed by Professor Stoneburn in the following article. Every producer of eggs and every consumer of eggs must be interested in any plan whereby the fine, cheap eggs of Spring may be inexpensively carried over for use during the Fall and Winter, when eggs are scarce and prices are high. The most satisfactory plan is given in detail.

BY PROF. FREDERIC H. STONEBURN

POUTRYMEN are now most interested in successfully growing their flocks of chicks and other duties are subordinated to this vital one. Failure to carry a reasonable number of youngsters to maturity simply means that little or no profit can be made from the season's operations.

From the number of letters which reach my desk, containing requests for information regarding certain chick diseases, it is evident that many of our readers are experiencing the usual amount of trouble this season. It seems best, therefore, to briefly discuss at this time the best means of overcoming certain of the more common ailments.

Leg weakness—Many individual chicks, and frequently whole broods, "go off their feet," being unable to stand, and hobbling around on their hock joints. This is most commonly found in brooder chicks, and while it is not a disease, it causes a great amount of trouble and considerable loss. Chicks so affected seem to lack the strength to carry their weight, and their development will be arrested unless the condition is corrected.

Avoid Too High Temperature.

Continuous overheating in the brooder may bring on the trouble. In such cases the cause should be removed and the birds hardened to lower temperature, which will assist in restoring strength and vigor.

Confinement for long periods in bone-dry pens will frequently cause the shanks and feet to dry up and weaken. Get the stock out on moist ground or provide damp earth or sand in which to scratch.

The most fertile source of trouble lies in the feeding ration which is lacking in some of the essential elements needed to promote even development. Overfeeding of fat-producing foods, as corn, causes rapid gains in weight, but bone is lacking.

If this is the cause, feed plenty of green food, oats, wheat and bran, reducing the amount of corn accordingly. Supply animal food, as milk, beef scrap or fish scrap. Add bonemeal to the mash or supply granulated bone in hoppers.

Gapes—The distressing symptoms of this disease are constant gaping, coughing, sneezing and apparent suffocation. The cause is a Y-shaped worm, about a half inch in length, which is located in the windpipe of the sufferer.

Many strong chicks will throw off the trouble unassisted, but where hocks are affected the mortality is high.

The best preventive measure is to grow the chicks on fresh ground where the gape worm is not present. In certain stages of development this parasite is found in earth worms, and when the chicks eat the latter the trouble appears. Chicks may also pick up the gape worms which have been expelled by afflicted chicks. This indicates the necessity of keeping feed and water dishes in strictly sanitary condition and preventing the food and water supply from becoming contaminated. Frequent and thorough cultivation of the yards is also recommended.

The worms may be drawn from the throats of the sufferers by use of gape worm extractors or loops of horse hair.

In all cases the affected individuals should be removed from the rest of the flock and kept in separate quarters in order to check the spread of the disease.

White diarrhea—Much has been said about this scourge of baby chicks, which, unfortunately, bears the name of a single symptom which is commonly observed in many other disorders. Poultrymen too often jump at the conclusion that true white diarrhea is present in their flocks because they observe the whitish discharge, while as a matter of fact the trouble is something entirely different.

Bacillary White Diarrhea.

The contagious form of this disease, the true white diarrhea which sweeps through the season's crop of chicks and causes extremely high mortality, is due to the activities of a specific kind of bacteria. For this reason the trouble is commonly called "bacillary white diarrhea," and the organism struggles under the name "bacterium pullorum."

This disease usually appears when the chicks are very young and does its work within two or four weeks. The affected chicks are weak and stunted, have ruffled feathers and drooping wings, eat but little, discharge much whitish material—which is sticky or glairy in character. Post-mortem examination reveals livers spotted and streaked with red, and in-

testines which are light or pale in color and usually nearly empty.

The source of infection is the ovary of the mother hen. Infected hens produce infected eggs. The latter hatch infected chicks, and these spread the disease through their droppings. The surviving pullets harbor the organism, which locates in the ovary, and the disease is thus perpetuated from year to year.

Prevention seems to be better than attempted cure. Use none but clean breeders from flocks where the disease has not appeared. Keep the incubator dark at hatching time, so the normal chicks cannot pick up infected droppings. Protect feed and water dishes during the first week so their contents cannot be contaminated. Remove all chicks which show symptoms of the disease, and, if any reach market maturity, dress and sell them so they cannot by any chance prove a fertile source of trouble another season.

Sour Milk an Excellent Food.

Give sour milk freely from the first feed until the chicks are at least a month of age. Sour-milk feeding is most desirable. The lactic acid does much toward keeping the troublesome organism in check and the milk has a marked effect upon growth and vigor. It is one of the best feeds for chicks, sick or well.

I would like to again drive home the thought that uniform success in the rearing of considerable numbers of chicks, especially in large flocks and under intensive conditions, depends in great measure upon cleanliness and the maintenance of strictly hygienic surroundings. So many diseases are fostered and intensified by filth that no one can afford to permit these unfavorable conditions to exist. There is comparatively little expense involved in keeping everything right, particularly if the work is carefully planned and systematically performed.

Preserve Eggs Now.

All over the country the hens are now doing their heaviest laying. All factors are conducive to egg production, and the neglected farm flocks, as well as the pampered pets of the fanciers, are visiting the nests with commendable regularity.

This egg flood will continue for a few weeks, then production will gradually decrease as the hot weather comes on, reaching the low level when the old stock goes into molt and before the early-hatched pullets get down to work.

Year after year this fluctuation is observed. Maximum production in the Spring, minimum production during the late Fall and early Winter. And egg quotations, changing in obedience to the law of supply and demand, always rule low during the Spring months and reach the highest point in early Winter.

Prior to the perfection of cold-storage methods Spring prices of eggs invariably went to a ruinously low figure, because

the output exceeded consumption and there was no satisfactory method of carrying the surplus over until needed. I have personally sold great quantities of fine fresh eggs as low as 9 and 10 cents a dozen right in New York State. And poultrymen in the Mid-West could not do as well as that. Director Quisenberry, of the Missouri State Poultry Experiment Station, once said to me that he had offered Spring eggs in his market town at prices as low as 5 cents per dozen without finding buyers.

But the great demand for prime stock for storage use has changed all this. Spring quotations are now usually double those which maintained in the "good old days"; and this has certainly been a powerful factor in the betterment of the poultry industry. It is quite possible that Winter prices for strictly fresh eggs would be somewhat higher if there was no storage stock on the market. But the business poultryman may accept this situation philosophically, since he has so many more dozens to sell in the Spring and the loss of Winter income is more than made good by the increase in Spring prices.

Storage Eggs Generally Good.

The fastidious consumer frequently regards storage eggs with contempt, but if he buys his Winter supply on the open market he is quite sure to use some eggs of this kind, and will, unless decidedly expert, consider them most satisfactory.

As a commercial proposition, the cold-storage method of holding eggs for several months is all right. But the individual consumer cannot adopt this plan because of many obvious reasons. However, it is possible to successfully preserve eggs at home at low cost and with little trouble. Fresh eggs treated as described below will retain their flavor and appearance for many months, and will be found excellent for household purposes, either for cooking or table use. This plan is generally recommended by the various agricultural institutions, and I can personally certify that it gives excellent results, since I have followed it for years in my own home.

The preservative is merely a solution of water glass, a syrupy liquid which the chemists call sodium silicate. This material can usually be secured at drugstores and poultry supply houses in any desired quantity. There is no standard price. I have known it to sell occasionally as low as 80 cents per gallon and as high as \$2 per gallon. But even at the latter figure it may be profitably used because of the saving one may make on the family egg bill.

When purchasing water glass in the liquid form one should be certain that it is of the proper grade, as certain grades are too alkaline to give best results. Also, that it is in the right condition, as it deteriorates unless carefully stored; and

under such conditions the resulting solution may not be entirely effective.

The Egg Preserving Solution.

The preserving solution is made by adding one part, by measure, of the water glass to nine parts of boiled water, stirring vigorously to insure uniformity of the mixture. There is nothing troublesome or complex about this work. Any one can do it.

Select the eggs with care. Use none but fresh stock, clean and with perfect shells. Eggs of doubtful quality will not be improved by the preservative.

Place the eggs in clean receptacles of suitable size and pour the solution over them, covering the top layer to a depth of two or three inches. Cover closely and set in a reasonably cool place until needed. Examine occasionally to be sure that the liquid has not evaporated and left some of the eggs exposed to the air. Add more of the solution if necessary.

Or, if preferred, the solution may be placed in the container and the eggs added at intervals as secured. The latter plan is best for poultry keepers who gather eggs daily and for consumers who prefer to buy a few dozen at a time.

The money saving which may be made through the adoption of this simple plan is easily estimated. During the Spring fine, big eggs can be purchased at 18 to 24 cents per dozen, prices varying in different sections. During the Winter egg prices range from 40 to 60 cents per dozen, an increase of 20 to 30 cents per dozen. Therefore, on each case of 30 dozens, preserved at a cost of a few cents, the provident egg user makes a saving of \$6 to \$9.

Test the scheme this season, if only in a small way. A half gallon of water glass of the right quality is sufficient to preserve 30 dozen eggs.

Before boiling eggs which have been thus preserved prick a few pin holes in the large end of the shells. Otherwise they will burst, since the preservative tightly seals up the shell pores.

Copyright, 1915, by Matson-Menz Adv. Co. Inc.

High Cost of Fighting.

Four super-dreadnoughts,
Sailing o'er the sea,
Along came a submarine—
Then there were three.

Three super-dreadnoughts,
Spick and span and new,
One shot from a torpedo—
Then there were two.

Two super-dreadnoughts,
Cost ten million bones,
Struck against a floating mine—
Gone to Davy Jones.

Fifty million dollars sunk
In the deep, deep sea,
While the little submarine
Puffs on in her glee.

—Louisville Evening Post.

WHITE COCHIN BANTAMS.



Most bantams are miniature copies of the larger breeds, having the same type and plumage color and being about one-fifth the size. Size is most important, the tendency being toward overweight, especially in the newer kinds. If the breeder can successfully handle this matter, he usually finds it comparatively easy to secure the desired shape and color. There is much pleasure to be had from breeding bantams, and when conditions are favorable a nice profit may be secured from them. These tiny fowls can be maintained on a surprisingly small area of land, housed in simple and inexpensive coops and fed on a fraction of the grain required to support the same number of chickens of ordinary size. Among the many dwarf kinds of fowls the Cochin Bantam stands first in point of popularity and usefulness. These interesting and attractive little fowls are the exact counterparts of the massive Cochins, save in the matter of size. As bred at present, adult males weigh but 30 ounces; cockerels, 26 ounces; hens, 26 ounces; pullets, 24 ounces. The Cochin Bantams were not produced in Europe and America through reducing the size of the large fowls. They originated in China, in just what way is unknown to us, and in crude form were taken from China to England shortly after the middle of the last century. The original importation was from Pekin, and for a long time the name Pekin Bantams stuck to them. While Bantams are generally regarded as being pets for children or a hobby for fanciers, the little Cochins have real utility value. The hens are surprisingly good layers and their eggs are large enough for table use. They are also much prized as sitters and mothers by breeders of pheasants and other game birds.