

# Baby Chick Troubles and Their Control

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**P**ROPER care of the chicks during the brooding season will do much to stop one of the important "leaks" in the poultry business. Chicks given the right kind of a start in life have many advantages over those receiving only indifferent care. The first six weeks of a chick's life is the most critical period. The largest percent of the losses occur during this time. A large part of these losses can be avoided by giving a little additional attention to the chicks early in the season.

The use of large colony brooder stoves makes it possible to raise chicks in larger numbers and with less labor than can be done when the chicks are brooded with hens. In the use of the colony brooder, however, several problems arise which do not have to be considered where the care of the chicks is left to the hen. Following are some of the common baby chick troubles, together with methods of prevention and cure.

## CROWDING

One of the large losses among chicks that are brooded artificially results from crowding. If for any reason the chicks become chilled they are apt to crowd together in order to keep warm. This piling up usually results in the death of several chicks on the bottom of the pile. Even tho they do not die they will be stunted. Their digestive systems will be so upset that they will not eat as they should and growth will stop. The lowered vitality which results will cause the chicks to be susceptible to many diseases and ailments which do not affect strong, healthy chicks. Following are some practices which will do a great deal to reduce the losses from crowding:

1. Do not try to brood too many chicks together. The capacity of many of the brooder stoves on the market is overestimated. For best results not over 400 chicks should be brooded together. Better results are usually secured where less than this number are kept together, while if this number is increased the losses are apt to be excessive.

2. Run the brooder stove two or three days before the chicks are to be put in the brooder in order to be sure that the temperature is properly regulated. *Avoid extremes in temperatures!* At the start have a temperature of 100° Fahrenheit under the edge of the hover; this allows the chicks to move closer to the stove if it should cool off during the night. If it is found that the chicks settle close to the stove at first they will crowd if the stove should cool off. The brooder house should be large enough so that in case the stove becomes too hot the chicks can move away from the heat. Care should be taken, however, not to allow the stove to get so hot that the chicks go to the corners of the house, because when the stove cools off the chicks will often remain there, and will crowd together in an attempt to keep warm.

3. Do not shake the fire down or start it up at night unless absolutely necessary. This is apt to result in too much heat. There should be a heavy bed of coals in the stove at night. Hard coal is by far the most satisfactory.

4. The chicks must be prevented from wandering too far away from the stove during the first three or four days; they have not yet learned the location of the source of heat, and will not know enough to go back to the stove when they get cold. They can be kept near the stove by placing a piece of  $\frac{3}{4}$ -inch mesh chicken wire, or preferably  $\frac{1}{2}$ -inch mesh hardware cloth, 1 or 2 feet high around the stove about a foot from the edge of the hover. The circle can be enlarged a little each day until the chicks have the run of the entire house, when the wire can be removed. It may be advisable to cover this wire with cloth or to use in its place strips of roofing paper in order to break up floor drafts.

5. Round off the corners of the house with wire, boards, roofing paper, or by stuffing straw in them to remain thruout the brooding season. This will prevent the chicks from piling up in the corners.

6. Late in the brooding season when it is no longer necessary to use the stove continuously there will be several cold nights when it will be necessary to start a fire in the stove. If this is not done the chicks will become chilled and will crowd.

7. Teach the chicks to roost early. This can be started when the chicks are about a month old. Place the roosts about 8 inches above the floor. Nail chicken wire to the underside of the roosts to prevent the chicks from falling thru. Construct the roosts so that the chicks cannot get under them. Gradually raise the roosts as the chicks become older.

While the above practices will do much to reduce crowding, they will not as a rule entirely prevent it. The only way to be sure that the chicks are properly spread out for the night is to be in the brooder house when they are settling down and scatter them out if they tend to crowd.

## DIARRHEA

There are two kinds of diarrhea which affect baby chicks; bacillary white diarrhea and ordinary white diarrhea.

### BACILLARY WHITE DIARRHEA

This is an infectious disease and is transmitted to the chick by infected hens. The only satisfactory method known at present to overcome this disease is to remove the infected hens. This necessitates testing a sample of blood from each hen.

### ORDINARY WHITE DIARRHEA

This is often mistaken for bacillary white diarrhea. This form of diarrhea is caused by:

**Overheating.**—The brooder stove may get so hot that the temperature in the house is too high even in the coolest corners. This throws the chicks off feed and results in a large number becoming “pasted up.” A high mortality usually results and all will have a weakened vitality.

**Chilling.**—The results of chilling are the same as those of overheating. Careful attention to the operation of the brooder stove is the only prevention.

**Improper feeding.**—Feeding the chicks too soon causes diarrhea. The egg yolk enters the chick’s body shortly before the chick hatches. The chick should have time to use up this yolk before it is given any other feed. If the chick is fed before the yolk is absorbed, the yolk will remain in the body and decay or putrify, causing the digestive system to be upset, and diarrhea will

result. For this reason the chick should not be fed for at least 48 hours after hatching.

Sour skimmilk or buttermilk kept before the chicks at all times will help prevent diarrhea. If liquid buttermilk or skimmilk is not available, it will pay to buy condensed semi-solid buttermilk at least for the first six or eight weeks of the chick's life. This is now available at several points in Ohio and is being fed on many farms. Milk should not be fed in galvanized containers because of the possibility of poisoning.

The only satisfactory treatment after the chicks become affected is to give them Epsom salts. This should be given in the drinking water at the rate of 1 pound of salts to 4 gallons of water. This should be kept before them for one day, giving fresh water in the late afternoon of the day treatment is given.

### CANNIBALISM

In order to get pullets that will lay during the winter months it is necessary to brood chicks at a season of the year when they must be confined to the brooder house most of the time. Under such conditions there is apt to be some trouble with the chicks eating one another. This habit usually starts when one chick accidentally pulls the toe nail off another. The blood attracts the other chicks, with the result that they start picking at this chick and then at others, until several chicks may be so chewed up that they die. In addition to toe picking, they may develop the habit of picking the tails and wings also. If this habit is not stopped the mortality is apt to be quite high.

The remedies and prevention of cannibalism are:

1. Do not place too many chicks in one brooder. The habit is most frequent in flocks that are overcrowded.
2. Keep sour milk before the chicks from the start. This furnishes animal protein required by the chicks, the craving for which they may try to satisfy by eating the other chicks if it is not supplied.
3. Get the chicks out of doors as soon as possible, even tho it be for only an hour at a time.
4. Give the chicks green feed such as sprouted oats, dandelions, and vegetables, chopped fine. This not only furnishes a succulent feed but also helps to keep the chicks busy.
5. Dig up chunks of green sod and place in the house. They will eat the green leaves and tender roots and will also be kept busy.
6. When the habit has been formed the feeding of fresh pork liver may help to cure it. Cut the raw liver into small pieces and feed all the chicks will eat. This not only serves as food which they crave, but also helps to keep them busy.
7. Painting the bleeding parts with tar, thus covering up the blood, will sometimes break up the habit. It is safest, however, to remove such chicks until the wounds have healed.

### LEG WEAKNESS

Leg weakness is common in early hatched flocks that are kept confined for several weeks. This ailment is due to a deficiency in the ration, resulting in improper development of the bones.

Leg weakness can be prevented by feeding cod liver oil or egg yolk to the chicks. Cod liver oil should be mixed in the mash at the rate of 2 percent of the mash. This should be mixed fresh once a week, as the cod liver oil loses its strength when mixed with the mash. In feeding eggs, boil and chop up fine the infertile eggs and eggs with dead germs from the incubator and feed in a moist mash 3 times daily, giving what they will clean up in a short time. The eggs should make up 20 to 30 percent of the mash.

The feeding of cod liver oil and eggs is an emergency measure and is necessary only while the chicks are confined. When the chicks can get outside, the sunshine has the same effect.

In addition care should be taken to avoid floor drafts, damp floors, and overheating, as these may also cause leg weakness.

#### COCCIDIOSIS

Coccidiosis is the cause of very large losses in chicks from 2 to 8 weeks of age. It is an infectious disease, and is caused by the presence of minute parasites in the intestines. The disease is spread thru water, feed, or soil that has been contaminated by the droppings of infected chicks. These parasites will remain alive in the soil for a year or more. The best known treatment is sanitation, moving of the brooder house to fresh ground, and feeding heavily of milk.

#### GAPES

Gapes is caused by a parasite which attaches itself to the membranes of the air passages, and death usually results from suffocation. This parasite passes part of its life history in ground worms, and one preventive is to move the chicks to ground where chicks have not been raised.

#### INTERNAL PARASITES

Internal parasites cause a large amount of loss in growing chicks, either by stunting growth or, in the more severe cases, by causing the death of the affected birds. This becomes a more serious problem if chicks are reared on the same ground year after year.

**Symptoms.**—The affected birds are thin and emaciated, the feathers may become ruffled, and slow growth and development are obvious. These, however, are general symptoms; the only certain means of detecting the presence of worms is by postmortem examination of the intestines.

**Treatment.**—1. Move the chicks to fresh ground.

2. Feed tobacco dust in the mash at the rate of 2 percent of the mash. Keep the tobacco in the mash as long as the chicks have worms. Do not buy too much tobacco at one time, as it loses its strength.

Give a dose of Epsom salts occasionally at the rate of 1 pound to 4 gallons of water.

#### LICE

Where the chicks are brooded by hens the hens should be dusted with sodium fluoride when first put on the nest and again before the chicks start hatching. If preferred, instead of dusting, a small amount of blue ointment may be applied in the region of the vent.

If chicks are brooded artificially there should be no trouble with lice provided the brooder is kept clean and sanitary. The only treatment for chicks that have lice is to apply one drop of vaseline or grease to the top of the head. Care should be taken not to apply too much, as it often does more harm than good.

#### SORE EYES

One form of eye trouble in baby chicks resembles contagious eye roup in fowls. This is due to a deficiency in the ration, and may be prevented by furnishing a plentiful supply of green feed. It will be necessary to supply green feed to chicks on range in case the grass on the range is dried up or too tough for the chicks to eat.

Eye trouble may be caused by irritation due to dust becoming lodged in the eye. This can be prevented by keeping the floor of the brooder house clean and by using clean litter.