

## Coccidiostat

The first things most likely to kill chicks are lack of or too much heat in the brooder, no water, or poor feed. All the above will kill chicks in the first week, when not much else will. A lot of people worry about vaccination, but in reality it is difficult and expensive to vaccinate small flocks. Different for larger operators with hundreds of chicks. However the next most likely problem tends to show itself in the period around 6 – 12 weeks of age.

All poultry are effected by a gut parasite called coccidiosis (eimeria), sometimes called coxy or cocci (pronounced *cocs*). This little protozoan parasite is sort of like dysentery in humans, it gives them the runs. Most people don't see this disease until it gets to the stage the chicks have what we call "sick chick look". The chicks stand huddled with eyes half closed, and at that stage a careful look shows they have stained backsides from runny droppings. The trouble is by this stage, it's too late.

The key to this disease is seeing it when it starts, when the droppings first become loose and soft. At this stage there is no long term harm to the chicks, but when it is left until the sick chick look and streaky blood in the droppings, the chick has its gut compromised. It may never recover the gut capacity.

So the key is observation. At the first sign of loose or runny droppings in any of the chicks, start a treatment program. This disease is simple to control, and mostly it gets out of control by misunderstood management.

This becomes apparent usually in the 6-12 week period, and the usual cause goes like this.

There is a product put into chick feed, called a *coccidiostat*. It is intended to protect the chick until its immune system can identify and cope with the eimeria parasite. The medication in the feed has 2 levels, starter feed and grower feed. The starter feed has a high level of preventative in it so that any infection in the first 6 weeks is suppressed to almost nothing and the little infection that may be present is unlikely to overwhelm the immune system of the chick.

The grower feed is designed to allow some infection but much lower than what would affect the now maturing immune system. That infection is needed to allow the lifetime development of the immune system. The problem starts because this critical period tends to coincide with several other events. Usually people tend to take the birds off heat between 4 and 6 weeks, and this often adds a little stress to the birds.

The birds at this time are changed from starter to grower food, and if this is done abruptly the chicks often don't take well to the diet change and so slow up in their eating. This reduces the amount of preventative they are eating also.

Then the birds are also often fed grass and other foods which further dilute the food and with it the level of medication. In addition there is usually the increased ingestion of the coccidiosis eggs which will be in the environment if chickens have been kept there before.

Altogether this means the level of medication is low and the immune system is reduced by the stress. The result is the coccidiosis gets the upper hand. So successful treatment of coccidiosis consists of 3 parts:

**Part 1** Careful attention to management, heat to reduce stress, diet to make sure medication levels are correct and reduction of challenge from coccidiosis organisms in the soil.

**Part 2** is careful observation. It is important to treat early when the first symptoms arise. Even the best management will still sometimes require extra management by way of medication.

**Part 3** is Medication. There are now only 2 medications (apart from the infeed medications) which are suited to home use. These are Amprolium and Baycox. Baycox is a great medication, and works well, but we still regard it as the drug of last resort, it works when nothing else will. But we do not want to build resistance to this drug so we try to limit its use. It also only comes in 1 litre bottle for some hundreds of dollars so it's very expensive. Other drugs used have now become vets script only.

[Amprolium](#) is a derivative of thiamine and so is very safe, and works by causing the coccidiosis to starve. In order to do this the medication works best used continuously for 5-7 days. Often in bad cases we will use a high dose for 5 days then a half dose for another 5 days. But the key to success is continuous treatment, started early. By the time the birds are 12 weeks of age, if reared on the floor, they will be immune to coccidiosis. Amprolium is a prevention treatment and curative.

#### *Notes for larger breeders*

Coccidiosis vaccines are now available, administered at day old. They consist of drops in the eyes of the day old chicks so they get very weak strains of coxy early, and the immune system can recognise the parasite without being overwhelmed by it. The weak strains are very easily killed by both the bird's immune system and any medication we might want to use. This technique suits those who want to use undedicated feed and who have enough chicks to justify the vaccine price.

For breeders who have a relatively small property, one problem which starts to arise is the build-up of coxy eggs in the soil. With the right conditions the coxy eggs live longer than 1 year meaning the new birds are producing coxy eggs which add to the previous generation. Even when the birds are immune to coxy, they still shed some eggs. This means with time the level of challenge increases, and the higher the level of challenge the harder for the bird's own immune system to control.

More recently [Molodri](#), one of the organic products, has come onto the market reduces the level of coxy eggs excreted by the birds, and over time reduces the level of challenge to the birds. Molodri also reduces the shedding of worm eggs as well.

Bellsouth products for [controlling coccidiosis](#)