

## BITS AND PIECES - 2

**Dr. Colin Walker BSc BVSc MRCVS**

### **Steaming feathers**

It can be very frustrating to find that a race bird has bent one of its primary feathers during the season. A quick and easy solution is to boil a kettle and, while holding the bird, wave the affected flight through the jet of steam. The combination of moisture and heat causes the feather to straighten out in seconds, as if by magic.

### **Dead-in-shell youngsters**

Although the full analysis of a dead-in-shell youngster problem can be complicated, I use the following as a basic guide. A small percentage (less than 5%) of all eggs resulting in dead-in-shell youngsters is normal. Where larger numbers than this occur, it is likely to be either a result of disease or an incubation problem.

If it is a disease, the two most likely causes are either Salmonella or Chlamydia. Both of these can be carried by the hen in her ovary and can be incorporated in the egg at the time of its formation. They then infect the growing embryo and either kill it during incubation or, alternatively, the embryo may develop to the hatching stage but being weakened, either dies during hatching or in the first few days of life. If these diseases are the cause, it is likely that the hen will be a bit unwell as breeding progresses and that other birds in the loft will show other signs associated with these diseases. If this is not the case, it is likely to be an incubation problem.

If it is an incubation problem, the two most likely causes are either too low temperature or too low humidity in the nest bowl. Low temperatures occur through the parents failing to sit on their eggs properly, with the result that the eggs chill. It is likely to be younger, inexperienced parents that are involved here. If this happens to a number of eggs over a short time, think of some disturbance, particularly through the night, that may have unsettled the birds, eg a cat on the outside of the loft or mice in the nest box. Too low humidity, ie excessive dryness, causes the egg shell to become too dry, interfering with gas and fluid exchange through it, which compromises the health of the developing embryo. Dry egg shells are also harder and therefore more difficult for a hatchling to get out of. Usually if breeding stock birds have access to a flight and rain, or alternatively a bath, experienced parents tend to know that the conditions in the nest bowl are too dry and will take moisture back on their feathers into the nest. Alternatively, and this does no harm, the eggs can be lightly misted with water occasionally through incubation and at the time of hatching. It's interesting reading some of the older bird magazine articles, which mention fliers licking eggs at hatching, presumably to achieve the same result.

### **Egg bound**

When a hen is unable to lay an egg, she is said to be egg bound. This is a serious condition, which is almost always fatal. Calcium is necessary for strong coordinated contractions of the oviduct and if the hen has been egg bound for less than 24 - 48 hours, it is worth giving her some calcium in case she is deficient. Usually 20 mg of calcium is given every 24 hours. Calcium tablet can be obtained from a pharmacist or veterinarian and a



proportion of these given, eg 1/5<sup>th</sup> of a 100 mg tablet, alternatively calcium syrup (1/2 ml of Australian Pigeon Company Calcium Syrup ) can be given neat direct to the beak, or failing that, several big pinches of PVM Powder can be placed in the back of the throat. If this does not work in 24 - 48 hours, or if the hen starts to become distressed, she should be taken to a vet. Injections are sometimes given, which stimulate the oviduct to contract. Alternatively, a hypodermic needle is passed through the wall of the cloaca (the sac inside the bottom, into which the oviduct enters) into the egg and its contents aspirated. Once empty, the egg shell is then collapsed inside the oviduct. With ongoing calcium supplementation, most hens are able to pass this collapsed shell. It is important to empty the egg prior to collapse, otherwise the egg shell can lacerate the wall of the oviduct, causing egg content to leak into the abdominal cavity, which can be fatal. If these measures fail, then under anaesthetic, the abdomen and oviduct can be opened and the egg shell surgically removed.

An older technique suggestion is to put paraffin oil into the cloaca in an attempt to lubricate the egg and make its passing easier. This practice is not encouraged. Oil can only safely be put into the cloaca. However, this is not an advantage because if the egg has been able to reach here, it will be passed. If the oil is inserted too deeply and enters the oviduct, it runs the risk of introducing infection, which in itself could be fatal or damage the oviduct, affecting subsequent fertility.

Fortunately, in hens that are in good condition, egg binding is not very common, but do ensure that palatable calcium supplements are always available before and during breeding to minimise problems. If individual hens do develop problems, it is worth trying direct calcium supplementation for a short, but if this does fail, your vet can help.

### **Abnormal egg shell surface**

Occasionally, eggs with abnormal egg shells are produced. These can range from ones that have an irregular rough texture on the surface through to eggs that have virtually no shell at all. Although there are a number of possible causes, and indeed occasionally a quite normal healthy hen will lay an egg like this, if it is becoming a common problem through the loft or one hen does it persistently, it is usually due to one of two reasons. The Shell gland sits in the wall of the oviduct (the tube that carries the egg to the exterior) and secretes the egg shell onto the expanding egg. A healthy functional Shell gland cannot produce a normal shell if the pigeon is deficient in calcium. It is therefore important that before and during breeding, palatable sources of calcium are always available, such as mineral blocks, pink minerals and shell grit. For some birds, it may be necessary to add calcium syrup to their water. If problems persist despite adequate calcium supplementation, it is likely that the Shell gland is diseased. If it is diseased, the most likely problem is an infection. The usual bacteria that cause these infections are ones that live in the bowel and backtrack from the cloaca into the oviduct. If the infection has been there for a long time (several weeks), they respond poorly to treatment. However, if caught early, they can respond quite well. The usual antibiotic we use in Baytril and I usually recommend separating the problem hen, treating her with Baytril (three drops twice daily for 10 days) and then waiting a further 2 weeks before reintroducing her to the cock, while all the time making calcium supplements available.