



BY DR ROB MARSHALL

FRENCH MOULT AKA BUDGERIGAR FLEDGLING DISEASE AKA POLYOMAVIRUS



In my opinion, French Mould is the most serious disease of the modern day exhibition budgerigar. However, most experienced fanciers do not consider it so and continue to select birds with signs of French Mould for breeding. Feather abnormalities are usually the only sign of French Mould and the majority of youngsters regrow new healthy feathers very quickly. This is why most fanciers are not concerned about French Mould.

However, it is the permanent damage inflicted by the French Mould virus - Polyomavirus, on the immune system of the chicks that makes it such a serious disease. Infected youngsters are susceptible to many other diseases; notably Chlamydiosis and Megabacteria that eventually lower the reproductive and show performance of the entire aviary.

There are no drugs to treat French Mould, but the fact that French Mould infects baby birds and not adult birds helps us to combat this complex disease. The disease is controlled and prevented by selecting birds for breeding which are free of the French Mould disease.

The Disease

French Mould is a peculiar viral disease infecting budgerigars under the age of three weeks. It appears that the virus,

Polyomavirus, by itself is relatively harmless and the apparent random nature of French Mould in the breeding cages is explained more by the immune response of the individual birds to the virus rather than the virus being particularly nasty. French Mould places the entire health of a stud at risk, because the virus inflicts permanent damage to the immune system of the young birds. They remain infected for life and perpetuate the French Mould to future generations of nestlings. The elimination of French Mould from the budgerigar aviary is a high priority and one of the most important steps for creating a healthy aviary.

The Symptoms

The symptoms of French Mould vary according to the age and condition of the budgerigar when it is exposed to the virus and include.

- Addled eggs or dead in shell.
- Swollen abdomen and retarded growth in 10-15 day old babies.
- Deaths of babies.
- Feather abnormalities.

There are more baby deaths when the infection occurs under the age of 15 days. Some die at the time of hatching and others develop normally for 10-15 days then die

suddenly without warning signs. The dead babies may have a distended abdomen, haemorrhage under the skin and reduced formation of down and contour feathers. They may also show nervous signs of tremors, fits and staggers before dying.

Budgerigars infected when older than fifteen days of age are considered relatively resistant to the disease. They rarely die but show varying degrees of feather abnormalities. It is not known how much the virus damages the immune system of these older chicks. Many adult carriers of the virus show a loss of flight feathers or tail feathers. Frayed and bent tails are also seen in many carrier birds as a result of other health problems.

The Causes of an Outbreak of French Mould

As a rule, Polyomavirus infections reside in a latent state and infections become active following periods of stress.

Each breeding season most aviaries experience one or two nests with French Mould. This is not an outbreak situation, but the babies from these nests are best culled before they reach the young bird aviary. One or both of the parents must be a carrier and the carrier bird(s) must also be culled. An outbreak is present when many

nests experience French Mould in an aviary previously free of the disease.

Most importantly, an outbreak of French Mould indicates a damaged or tired immune system. The cause of the weakened immune system must be identified and rectified before the outbreak can be controlled. The cause of a damaged immune system is usually one or more of the following:

- French Mould itself. Using birds with French Mould or carrier birds as breeders is the starting point for an outbreak.
- Poor food (mould disease possibly from mould spores on seed) damages the immune system, predisposing the flock to Polyomavirus. Other diseases (especially Chlamydiosis and Megabacteria) damage the immune system.
- Inadequate nutrition during breeding.
- Over-breeding. Most modern day budgerigar families can only tolerate rearing two rounds of babies unless special energy rich food is provided daily when rearing young. The exertion of rearing a third round of chicks lowers the natural resistance and is usually the trigger for an outbreak.
- Red mites. These bloodsucking mites weaken the immune system of the breeding birds.
- Poor hygiene and excessive dust levels. The massive amounts of feather dust produced in the budgerigar aviary must be reduced. It creates an infectious atmosphere not only for French Mould but also for other airborne diseases such as Circovirus, Chlamydiosis, Mycoplasmosis and Staphylococcus.

The Cause of a First Round Outbreak

The most common causes of a first round outbreak are:

- New breeding birds with French Mould - first year breeders are most contagious.
- An underlying disease - most commonly Chlamydiosis or food related disease (Mould Disease).
- A nutritional problem.

The Cause of a Second or Third Round Outbreak

More often outbreaks occur in the third round with the earlier rounds experiencing one or two nests only having French Mould. The underlying causes of such outbreaks are:

- Another disease (Chlamydiosis, Megabacteria, Red Mite, Mould Disease).
- Over-breeding and inadequate nutrition.
- A build-up of dust levels in a breeding room with one or two French Mould nests creates a Polyomavirus and Chlamydiosis rich environment, which may then quickly infect previously healthy nests.

The Treatment of an Outbreak of French Mould

The following treatment starts after the cause of the immune system damage is understood:

- Identify the infected and 'carrier' birds by looking at each nest carefully for signs of French Mould. Record the results of previous rounds and the details of nests with French Mould. Write down the ring numbers and breeding details of those birds without French mould. The nests

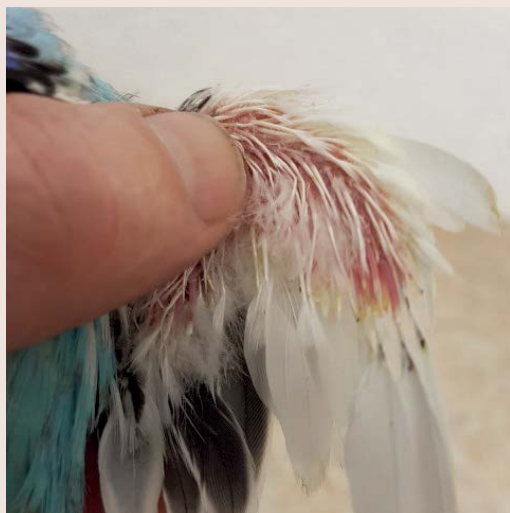
with no French Mould will be your foundation pairs for future breeding seasons.

- Cull every chick with French Mould in the nest boxes and aviary.
- Check every parent for signs of French Mould. Cull adults with signs of French Mould.
- Remove and vacuum clean all dust, sand, food, grit from breeding cages.
- Disinfect the breeding cages, breeding room, aviary, food and water containers. Repeat each week for four weeks.
- Identify and treat the underlying cause of the immune system damage. For example, get new food or treat for Chlamydiosis and so on.
- Fortify the nutrition of the birds with vitamins, protein and energy during and for four weeks after the treatment programme.
- Re-pair selected pairs. Monitor results carefully.
- Control re-entry of French Mould by careful new bird selection and quarantine.

The Control of French Mould

Keeping the aviary free of French Mould is achieved by applying the following rules:

- New birds with French Mould are not to be used for breeding.
- Good nutrition and the prevention of other disease allows the flock to naturally resist French Mould.
- Regular cleaning and disinfection will minimise the levels of virus in the breeding cages and aviary.
- Every baby and adult bird with feather signs of French Mould is culled.



(French Mould photographs courtesy Ipswich BS)

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