



The Avicultural Society of New South Wales (ASNSW)

(Founding in 1940 as the Parrot & African Lovebird Society of Australia)

Preventative Medicine in Aviculture

(The Avicultural Review September 1983 Vol. 5 No. 9)

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Introduction

I will very briefly try to present preventative medicine in Aviculture in a logical and complete format. Finnie has very correctly stated that Preventative Medicine is a multi faceted science. I believe it is an area where aviculturists and veterinarians meet and work together and where veterinarians have an important role in the dissemination of information.

I should very briefly look at the major causes and losses in aviculture. I would like to list these under four broad groups with many sub groups.

1. Accidents - *trauma, theft, escapes, etc.*
2. Parasites - *intestinal, external, respiratory, etc.*
3. Other Infectious Diseases - *bacterial, viral, fungal, etc.*
4. Suboptimal Reproductive Rate - *nutrition, true pairs, compatibility, infertility, environment, destruction of young, contentment, affinity with owner.*

At this point I think it would be wise to define a very important term - "Stress". It is a word we all use and we all know what it means. At least I thought I did until I tried to write down a definition for the word. The most suitable definition for the word that I could find was "some adverse force or influence"; and therefore I would like to suggest that stress should be used to cover all the causes of loss in aviculture and is not an individual cause of loss.

There are many factors that affect the production from a given pair of birds, e.g. nutrition, compatibility, parasites, etc. By constant attention to these various elements, especially those that are least desirable, the overall production will be increased. This I see is the role of preventative medicine.

My experience is influenced largely by my clientele, several large collections owned by very experienced aviculturists, and a large number of beginners desperately looking for guidance, and usually with some very basic medical problems.

Preventatives

1. Housing - Aviary Design

Walkways:

- Essential for any standard row of parrot aviaries and advantageous for finch aviaries.
- Provide security against accidental escapes as well as reducing disturbances from cats, dogs and children jumping on the front of the aviaries.
- They also make it harder for your average thief.

Several Styles

- Narrow, wire or enclosed walls.
- In front of or behind aviaries.
- A wide planted aviary - aesthetically very pleasing, psychologically more satisfying for the birds?

Wire Sizes:

- 3/8" mouse proof.
- 1" square maximum size - keeps sparrows out, small lorikeets will put their heads through this and back through the next space and effectively strangle themselves.
- 1/2" Square or 1/2" x 1" for finches.
- Heavy gauge for parrots and cockatoos.

Enclosed Roofs:

- Important especially where cats, owls and eagles, etc., are a problem.
- They reduce the introduction of disease by wild birds.
- They keep aviaries dry.

Concrete Floors:

- Probably the most important feature in intestinal parasite control in parrot aviaries.

Electric Fences:

- To keep cats and thieves off the roof; and
- can be combined with an alarm.

All Wire Cages:

- They are cheaper;
- low maintenance;
- aid in disease control; and
- especially suitable for lorikeets, mask lovebirds and as holding cages.

Sun Porches:

- Are particularly valuable for feeding; and
- leads to improved hygiene.

Feed and Water Dishes:

- Made from easily cleaned material, e.g. stainless steel; and
- covered to reduce faecal contamination.

Feeding Stations:

- To catch birds in large aviaries, will make the task easier and reduce disturbances to the rest of the birds.

Large Aviaries:

- It is difficult to control birds and therefore difficult to control diseases.

Nest Boxes and Logs:

- Replace nest boxes annually for budgies, cockatiels, African lovebirds and other species with a high reproductive rate. Once a pair of the larger parrots has nested in a log, don't replace it.
- Logs are harder to obtain than nest boxes. Remember for each log a person uses it means one less possible nesting site in the wild. Regular nest box inspections are advisable, daily or twice daily.

Perches:

- Two per aviary at opposite ends;
- suitable diameter for different species; vary diameter; and
- keep clean.

2. Parasites

Internal:

- Panacur 2.5, 0.2ml per 100gm bodyweight daily for three days for sick parrots.
- Panacur 2.5, 0.2ml per 100mg bodyweight as a single dose and repeat in 2 weeks; repeat this procedure annually when parasites are under control.
- If parasites are a problem repeat at least every 3 months.
- Deliver via a stomach tube.
- Conures will regurgitate a lot of medication.
- All wire cages are useful for control in species prone to worms.
- Finches - Panacur 2.5, 2ml per litre of water for 3 days. I believe Telmin is toxic in itself to finches.
- Monitor the worm population by regular faecal flotation and by post mortem.

External:

- Regular spraying of nest boxes or logs to control red mite in particular.
 - o [Carbaryl](#)
 - o [Pyrethrins](#)
 - o [Coopex](#) (from Cooper)
- Pest Strips

Respiratory air sac mite:

- It is considered by many to be impossible to irradiate. In small enclosed spaces, pest strips are the most convenient control measure. British breeders maintain they have eradicated air sac mite by using pest strips.

3. Other Infectious Diseases

Bacterial:

- e.g. [Psittacosis](#)
- Avoid wild trapped birds.
- Quarantine.
- Long courses of [Chlortetracyclines](#)*.
- Facilities for cultures and sensitivities are essential particularly for flock problems.

Viral:

- All wire cages is the only recommendation that I can give currently in areas where it is suggested that a virus is a major cause of mortality such as with the mask lovebirds.

Fungal:

- e.g. [Aspergillosis](#). I don't recognise this as a major problem. I have seen Aspergillosis plaques on the air sacs of soft bills kept in small planted aviaries. Ingestion of fungal toxins may lead to other problems. Sun porches and all-wire cages are possible answers to this problem.

Post Mortem:

- A post mortem carried out by an Avian Veterinarian enables you to monitor the health status of the entire collection. You can monitor the parasite population, discover if trauma is an important problem, pick up early outbreaks of [Trichomonosis](#)** and [Coccidiosis](#) and also monitor the nutritional status of the collection. A good [Histopathology](#) service is essential.

Quarantine:

- It is very difficult to get people to be conscientious about this. Forty days is probably ideal during which time the birds should be cleared of intestinal parasites and be adapted to the new diet. I am sure that a number of birds die of starvation if they are placed directly into a new aviary and their food consumption is not monitored.
- Carry boxes are probably an important part for breakdown of a quarantine programme. They should be replaced regularly.

Hygiene:

- The importance of cleaning aviaries and equipment cannot be overstressed. I find it difficult to give objective advice on the topic of disinfectants but those of an iodine base are preferred and [Hibitane™](#) is another favourite. In all cases I like the aviaries to be rinsed and dried afterwards.

4. Suboptimal Reproductive Rate

Compatibility and true pairs (surgical sexing):

- Some birds remain incompatible for a long time, most pair bonds are usually formed very early in a bird's life.

Behavioural problems:

- Can be associated with a number of environmental shortcomings. These include not attempting to breed, laying and not incubating, hatching and not rearing, feather plucking chicks, etc. Many of these can be circumvented by artificial incubation and hand raising. As a general rule aviary bred birds make for better parents than wild caught birds. There is an increasing amount of information becoming available on artificial insemination, incubation and hand rearing of a wide variety of birds.

Nutritional problems:

- A tremendous amount of work needs to be done in this area. Provide as wide a variety as possible, especially fresh fruit and vegetables. Make sure they are readily available. Do not change the diet when parents are rearing young. Most species will benefit from protein vitamin and mineral supplementation.
- Be aware of the special diets required for lorikeets and softbills.
- Calcium deficiency can occur in large parrots resulting in nutritional hyperparathyroidism in young chicks.
- There is a need for more work with protein feeds rather than live food for insectivorous birds. This will provide the most satisfactory long term control of tapeworm.
- Veterinarians have the opportunity to assist aviculturists record and interpret data on many aspects including nutrition, growth ratios, incubation and breeding records.

Conclusion

I try to offer objective advice to aviculturists at the same time keeping an open mind on all aspects of management and a few new ideas. Above all we are only just starting to scratch the surface, not only with avian medicine, but avian husbandry.

* Chlortetracycline, an older member of the tetracycline family, formerly used to treat psittacosis (Chlamydia), oral preparation, however Doxycycline is preferred. [Avian Medications A to Z](#).

** Trichomonosis plague spread through bird baths is killing flocks. [Read more...](#)

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