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by Rainer Erhart, Ph.D. Kalamazoo, Michigan

In breeding any species of birds, there are always critical periods. One of these critical periods, for instance, occurs shortly after hatching, because at that stage success depends not only on a steady and experienced breeding pair, but success also depends on the weather, on the health and strength of the youngsters and on an acceptable and nutritious feeding formula.

In lovebirds, the first anxious moments occur even before hatching. Thus, a common complaint is the high rate of dead in shell just a few days before hatching. Such repeated disappointments seem to give rise to many hypotheses, and the length to which some breeders go to solve the problem is remarkable.

Lovebird eggs, with the exception of those of the Madagascar, are very hard shelled. Rarely are they broken, punctured or otherwise damaged within the nest. I always marvel how a nest full of nearly fledged, active young can avoid breaking the eggs their mother had layed to start her second clutch.

Because of the toughness of the shell, it is easy to come to the conclusion that a dry, hard eggshell is the culprit of dead in shell. Most articles one reads emphasize the importance of moisture, and to assure high moisture many breeders have gone to absolute extremes. The first suggested remedy is the humidifier, but of course those would work only in an indoor facility. A second measure is the spraying of eggs or even dipping them in lukewarm water. Some even immerse the entire nestbox and still others provide for a double bottom nestbox into which they insert a tray of water.

There is no doubt that the proper humidity plays a role in the hatching of eggs, but I suggest that other factors play an even more important role, and by ignoring these factors not even the wettest nest will produce good hatching results. These factors are nestbox materials, cleanliness, breeding condition of adult

birds and nutrition.

One way to assure proper humidity within the nest box is to use natural wood, not laminated materials such as plywood. Pine boards, for example, are easy to work with, they are relatively inexpensive and they breathe and effectively hold moisture. A nestbox built of pine or fir better simulates a natural cavity found in trees.

Along with a natural wooden nestbox, you should also offer plenty of fresh nesting material such as willow, palm leaves, corn stalks or any other soft branches acceptable to your birds. Never let them build a nest with newspaper; it will literally withdraw water from the eggs. Furthermore, offer fresh nesting material even during incubation. Females tend to use some of it, soak it in water and then carry it into the nest to add moisture.

Cleanliness in both your aviaries and nestboxes cannot be overemphasized. Too often breeders reuse an old nestbox that has not been thoroughly cleaned after previous use. Ideally, all nestboxes should be discarded after the breeding season and this goes particularly for plywood boxes. But if you want to reuse them, I suggest a thorough cleaning, soaking them in hot water to which has been added bleach or any other effective germicide, and a thorough drying in the sun. I have also used the kitchen oven (on days when my wife was out of town), heated to 250-300 °F to ensure sterility. Remember that birds in the wild rarely use the same nest more than once, so why should you do differently in the confines of an aviary or bird room. Also remember that nature is a much more effective cleanser through the action of rain, temperature, bacteria and time. Most of these natural ingredients are missing in your bird room.

Why do I stress clean nest boxes? The nest box is a fertile ground for the growth of all sorts of mites, bacteria and especially fungi. Since the egg is quite

porous, some contamination can take place and research shows that the spores of fungi are particularly vicious. Such contamination obviously can bring about the death of the embryo in the shell. The risk of contamination increases significantly with the continued use of a nestbox.

Breeding should never begin before the birds are in prime condition. They should be at least ten months old, in excellent feather, and if possible, of proven stock. For example, avoid breeding with birds whose parents were poor breeders, had low fertility clutches or were known feather pickers. I would also avoid inbreeding unless you have special goals in mind.

Finally, I want everyone to look closely at their feeding program. Improper nutrition, I feel, causes more problems in successfully hatching young than any other single cause. It's what goes into the egg that counts. A healthy and nutrition-rich lovebird egg will most likely produce a healthy and strong chick which will have little trouble cracking the egg.

Although this is not the place to suggest in length a proper feeding program for lovebirds, I do want to emphasize that variety is still the best approach to assure proper nutrition for your lovebirds. Ordinary parakeet mix simply will not do. For example, I found that most lovebirds really like finch seed of all types. I also will add some oily seeds (safflower, sunflower, a little hemp), buckwheat and a good brand of wild bird mix. Occasionally I will also give a small amount of ground up dry dog or cat food, mixed right into the seed dish. Aside from a variety of seeds, I always offer clean, well-rinsed, sprouted seed, greens of all types (chickweed, dandelion, spinach, endive lettuce), some fresh or frozen corn and a little bit of apple. During the raising of young, I also offer some nestling food, shredded carrots and once a week, a hard-boiled egg.

A special, occasional treat for all my birds is a small piece of sod from my garden which I moisten slightly and place on the aviary floor. Fischer's lovebirds in particular will literally attack the grass, the roots as well as the soil. Surely they must find something very nourishing in that treat.

Many of the suggestions I have given here may seem to many to be too much bother or busy work. It really isn't. Good nutrition and hygiene should become a routine practice in a hobby or business, and once you are organized to do so, it isn't really any more work. The rewards will convince you.

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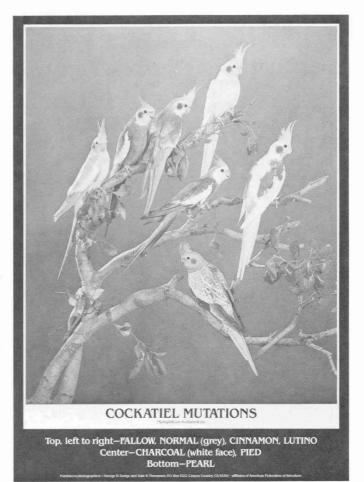
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