

Are You Feeding Your Myna to Death?

by Susan Boyer, Julian, California

The Hill Mynas, *Gracula religiosa*, make fabulous pets. They are playful, happy birds; they don't bite (hard); they can be very affectionate; and, boy, can they talk! Buyers of my babies have told me their myna babies are superior to the parrots they previously owned. The demand is so great that there are not enough breeders to supply the renewed interest in this species and the prices are soaring. So why was my husband dismayed when I told him I was going to cut back on my parrots and get more myna birds? Because of the high mortality rate. I have lost about one out of every three myna birds I have owned. While I've heard of a number of mynas who lived to be 15 to 18 years old and a few who lived into their 20s, most don't make it that far. The main cause of death in younger birds is Hemochromatosis or Hemosiderosis.

Hemochromatosis or iron storage disease is a metabolic disease affecting many softbills besides myna birds. These include toucans, tanagers and birds-of-paradise, just to name a few. Birds with this condition store excessive amounts of iron in the liver causing the liver to enlarge which can lead to difficulty breathing and death. The disease is very poorly understood. One of the few treatments available is phlebotomy or the letting of blood. For birds the treatment consists of removing blood equal to 1% of the body weight, or 10% of the blood. The bird's body is then forced to take iron from the liver to make new blood, thus reducing the amount of iron stored in the liver. Possible causes or contributing factors are diet, genetics and stress. It is possible that in the wild there is little iron in their natural diet, so they have evolved to use it more efficiently and therefore need much

less. The unnatural diets we feed may be much higher in iron than the birds are used to or may be lacking something like a chelator that helps them to eliminate the excess iron.

At this time there is no sure test for the disease. Blood tests and liver biopsies are used with varying success. The results from one test alone are inconclusive, but when looked at together can give a better diagnosis. The most reliable test is done using imaging technology. It is used successfully in humans but is cost prohibitive in birds.

In my opinion, attempting to screen for birds at risk is both too expensive and too risky, therefore, I have chosen to control the disease by feeding a low iron diet to my entire flock. For years I tried to limit the iron my birds consumed by using a commercial food labeled low in iron, by feeding fruits low in iron, and by making sure the water they drank was low in iron.

But when the losses did not stop, I consulted with my avian veterinarian and he recommended having the food tested for iron at a lab. Needless to say, I was shocked and upset when the results came back over twice the acceptable limits for iron and double what the "guaranteed analysis" stated. After getting no satisfactory answers from the manufacturer, I began a search for another product to feed my birds. I was no longer willing to trust the labels so had all the foods tested. Other softbill owners who have faced these same problems went in with me in purchasing and testing a number of commercial softbill and myna diets.

When we began looking for foods to test, I was amazed at the number of different products marketed specifically for softbills or myna birds. Most are pelleted or extruded diets coming in a wide range of colors, shapes, and sizes; some are dry, some are moist. Others

are mixes of grains and insect parts. Prices range from \$1 to \$6 per pound or more if purchasing small quantities.

Even with all the products available, some people still feed other foods like dog food, so we tested a few of these products as well. Although there are many softbill diets on the market, few, if any, are available locally. Most have to be ordered from a mail order catalog or direct from the manufacturer. Even mail order houses carry only one or two brands.

The foods were all tested at CAHFS (previously CVDLS), California Animal Health & Food Safety Laboratory System - Davis. They can be reached at PO Box 1770, Davis, CA 95617, and telephone 530-752-8700. For each sample, less than a cup of food was sent and a heavy metal screening was done for nine heavy metals at a cost of \$20 for California residents. The results were ready in about a week. Here are the results we got:

Product	ppm iron
• Mazuri ZuLife Bird Gel 5ME4	67
• Prettybird Select Softbill Diet	68/90*
• Hagen Softbill	68
• Zeigler's Bird of Paradise	69
• Prettybird Handfeeding Formula	101
• Harrison's	118
• Bogena Myna Food	121
• Quiko Myna Bird food	142
• Bogena Myna Granules	193
• Wayne's Dog Food	202
• Reliable Protein Products	
Low Iron Softbilled Bird-Fare	203
• Kaytee Exact Original	
Softbill and Myna Pellets	208/220*
• Higgins Vita Crunch	221
• Scenic Apple Paradise	228
• 8N1 Ultra Blend	241
• Science Diet Feline	249
• RAFF Realpato Universal with Fruit	299
• Zupreen Monkey Chow	302
• 8N1 Tasty Dinner	362
• Piki Crumble	465
• Kaytee Handfeeding Formula	48

* These products were tested at 2 different labs

No responsible manufacturer of softbill diets would add iron to the bird food. More than enough iron is in the food components which go to make up the diets. Iron levels are going to vary in

different batches of the same feed because the iron in the ingredients can vary. For instance, the amount of iron in grains depends on the soil conditions, which can vary from crop to crop. For this reason some of the manufacturers list a minimum and maximum level of iron in their food. Mazuri tests every batch and displays the results on their web site.

Feed manufacturers with higher than published amounts of iron have several explanations. They tell me that

our lab is not as good as their lab. They tell me that much of the iron comes from the manufacturing process and goes through the digestive system like a penny would that we swallowed. And they tell me that there is no proof that a diet high in iron can cause Hemochromatosis.

These excuses do not satisfy me. First, the Davis lab is one of the best in the country. Second, while it may be true that some iron is introduced during the manufacturing process, it can

only be a small amount, like 20-30 ppm. If the equipment were shedding large amounts of metal, the equipment would be rapidly worn down.

It is true that there are several forms of iron. Bioavailable iron is the form of iron that the body is able to use. The iron in vegetable matter is less readily available than the iron found in animal products. But testing for the different types of iron is either difficult or impossible and how they are used in the body is not entirely understood. For these reasons veterinarians recommend a level of less than 100 ppm (parts per million) of total iron, regardless of its form. And finally, a study on starlings was done at the Brookfield Zoo that showed that a low iron diet (100 ppm) reduced the iron stored in the liver. There is even concern that a diet too low in iron may eventually cause anemia.

I cannot tell you which of these products to feed your birds. There is much to consider besides iron levels. I personally want a food that the birds like, that is good for them, and that is affordable. Unfortunately I have not been able to find a food that meets all these criteria. My birds like Kaytee Exact Softbill and it is at the lower end of the price range, but it is too high in iron and the Kaytee people are not willing to take our concerns seriously.

Prettybird is low in iron and is also affordable, but there is a great deal of waste because the birds only like certain colors and all that food coloring cannot be good for them. The rest of the foods that tested low in iron are more expensive.

Mazuri, in my opinion, is the most innovative and concerned of all the manufacturers. Their diet is a powder that is mixed with water and allowed to set up and then is cut into cubes to feed to your birds. It has a texture of fruit and most birds take to it readily. The food takes some preparation time and it is expensive.


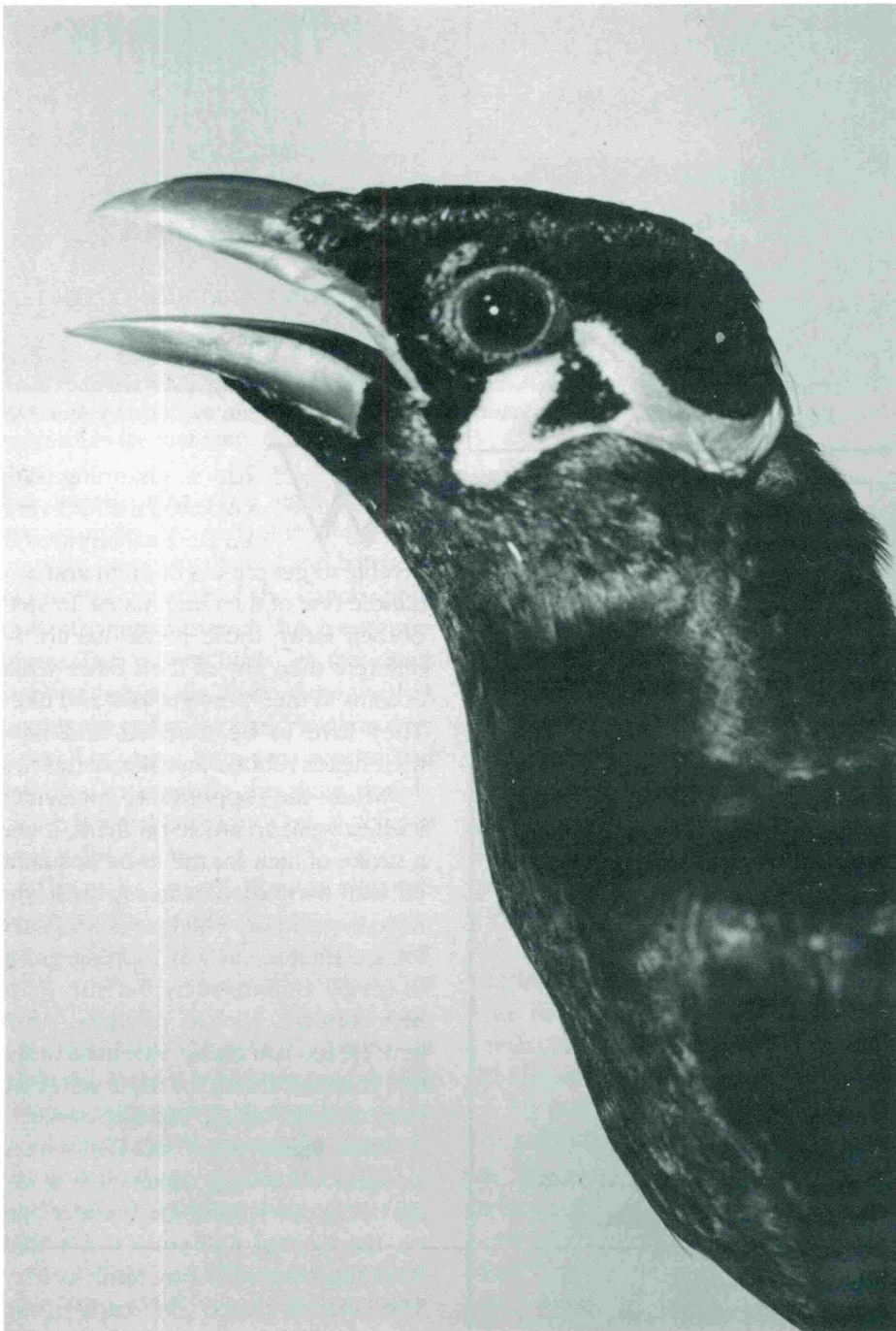
Unfortunately we cannot abandon the processed foods and go back to seeds as some have done with parrots. We can only hope that sometime soon a manufacturer will come out with a healthy, affordable food for our special birds. 

Photo by Elayne Kodroff



Hemochromatosis or iron storage disease is a metabolic disease affecting many softbills besides the Indian Hill Myna pictured above.