Letter to the Editor

From:

   Birgit Puschner, DVM, Ph.D.
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   Toxicology Section Head
   CAHFS - Toxicology
   University of Davis  Davis, CA
   August 27, 2000

To:

   Sheldon Dingle, Editor
   the American Federation of Aviculture
   - Watchbird

As a veterinary toxicologist and section head of the Toxicology Laboratory at the California Animal Health and Food Safety Laboratory System, I feel compelled to respond to Susan Boyer's article "Are you feeding your myna to death," published in your July/August 2000 issue.

Mrs. Boyer correlated iron storage disease directly to the concentration of iron in food/feed. But the etiology of hemochromatosis in mynah birds is still not clear, and may not be diet induced. Studies have shown that iron storage disease in mynah birds shared most of the important histopathologic characteristics with idiopathic or hereditary hemochromatosis in man, and was not induced by dietary iron. Thus, the role of dietary iron in the development of iron storage disease has not been established. However, it is important to offer mynah birds appropriate, non-toxic concentrations of iron in their diet. As Mrs. Boyer pointed out, veterinary diagnostic laboratories offer testing for metal concentrations, and CAHFS is one of the service organizations in the Western US providing this service.

It is important to mention other factors affecting the absorption of iron from the gastrointestinal tract. Ascorbic acid (vitamin C) enhances the bioavailability of iron in avians. Citrus fruits and green leafy plants can contain large amounts of ascorbic acid and may lead to an increased uptake of iron. Therefore, feeding of citrus fruits can lead to increased absorption of iron.

Once a mynah bird is diagnosed with iron storage disease by a veterinarian, specific treatments have to be initiated. It is correct that a diagnosis of hemochromatosis is often difficult and involves invasive techniques (liver biopsy). But successful therapy is possible.

The data listed in Mrs. Boyer's article were only partly generated by the Toxicology Laboratory of CAHFS and were not part of a research study. The concentrations reported are based on one sample from each feed, and may not reflect representative and accurate sampling methods. The data can only be used as a guideline. If a diagnosis of hemochromatosis has been established in a bird, feed, fruit, water and other potential sources should be analyzed for iron in order to potentially reduce iron intake during treatment. Please note that a typographical error occurred in the article. The Kaytee Handfeeding Formula contained 485 ppm of iron, not 48 ppm as published in the article.

Sincerely,

   Birgit Puschner
   DVM/Ph.D./Dipl. ABVT
   cc: Dr. Ardans, Director CAHFS

[Editor's Note: The typographical error pointed out by Dr. Puschner was made by the typesetter. The correct data was supplied by author Boyer. The chart is reproduced here with the correction made.]

Product       ppm iron
   • Mazuri Zulife Bird Gel 5ME   67
   • Prettybird Select Softbill Diet  68/90* 68
   • 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     203
   • Low Iron Softbilled Bird-Fare 203
   • Kaytee Exact Original Softbill and Myna Pellets 208/220* 221
   • Higgins Vita Crunch           221
   • Scenic Apple Paradise        228
   • 8N1 Ultra Blend               241
   • Science Diet Feline          249
   • RAFF Realpasta Universal with Fruit 299
   • Zupreen Monkey Chow           302
   • 8N1 Tasty Dinner              362
   • Piki Crumble                  465
   • Kaytee Handfeeding Formula    485

* These products were tested at 2 different labs