

Veterinary Viewpoints

Edited by Amy B. Worell, DVM Dipl. ABVP
Woodland Hills, California

Question #1: My cockatiel passes whole, undigested seeds in the stool. I have not changed his seed brand and he otherwise seems fine. Why does this happen and what do I need to do about it? It is even a problem?

M. Cartwright, CA.

Answer #1: The presence of whole seeds in the stool is never normal and suggests a problem with either the proventriculus (glandular stomach) or ventriculus (gizzard) where seeds are softened and crushed. Causes of proventricular and ventricular disease include bacterial infections (gram negative *Enterobacter megabacteria* and spirochetes), fungal infections, parasites (giardia and roundworms), proventricular dilatation syndrome (also known as PDS or Macaw Wasting Disease) and rarely cancer. A thorough physical exam including fecal cultures, radiographs, and possibly surgical biopsy, may be needed to determine the cause.

Nicole VanDerHeyden, DVM Dipl. ABVP. Indianapolis, IN.

Answer #2: The passing of whole and undigested seed in the feces is generally an indication of hypermotility of the gastrointestinal tract in which the seed is passed so quickly through the gastrointestinal tract that there is no time for digestion to take place. Abnormalities in the crop in which food storage time is altered can also be associated with passing whole undigested seed. Pancreatic insufficiency can be a cause as well.

Since all of the above mentioned conditions can be harmful to the bird, it is advisable to have your bird examined by an avian veterinarian to determine the severity of the problem.

Robert B. Altman, DVM Dipl. ABVP. Franklin Square, NY.

Answer #3: The passage of undigested seed in the stool is not a normal finding. I strongly recommend that the bird go to a veterinarian with special interest in avian medicine and have a medical assessment and workup. Be sure to collect fresh feces and bring them to your appointment so that they can be checked.

James M. Harris, DVM. Oakland, CA.

Question #2: It has been suggested to me by several aviculturists to add a small amount of Nolvasan® to the drinking water of my birds. Is there any benefit that you know of in doing so? Can it be harmful?

S. Robinson. New York, NY.

Answer #1: The addition of Nolvasan® (chlorhexidine) to drinking water has been suggested by many as a method of controlling unwanted bacteria and yeast from building up in the drinking water. The primary benefit in doing so is to the seller and the manufacturer of the product. Used according to the directions, chlorhexidine would not be harmful. However, there is no substitute for proper sanitation. Clean, scrub, and sanitize water and food containers daily. If tap water is used as your source of drinking water, let the water flow for one minute before using to clear stale water from the pipe.

James M. Harris, DVM.

Oakland, CA.

Answer #2: The addition of Nolvasan® or one of the generic chlorhexidine products to the drinking water of birds, is thought to decrease the number of bacteria and prevent the occurrence of the yeast *Candida albicans* in birds. Whether this actually works at the small amounts that are added to the drinking water, is fairly unlikely. When it is used at small amounts it is not harmful to birds, but once again the benefit is extremely questionable. A number of aviculturists through the years have added chlorhexidine to handfeeding formulas in an effort to reduce the possibility of *Candida* overgrown in babies. As the amount of chlorhexidine that is added varies with the hand-feeder, it is anecdotely thought to be of benefit in some situations. Through cleaning and rising water bowls with a solution such as bleach, is a better method than the use of chlorhexidine in the drinking water.

Amy B. Worell, DVM Dipl. ABVP. West Hills, CA.

Question #3: Could you please explain all of the diagnostic tests that can be performed with a bird's droppings?

M. Judge, NM.

Answer #1: Bird droppings, a mixture of both urinary tract and digestive tract waste can have great diagnostic value. The feces can be checked for the ova (eggs) of intestinal worms and for a variety of gastrointestinal parasites. The organism that is responsible for psittacosis (Parrot Fever) can be screened for and isolated in culture from feces if it is present. Pathogenic (disease producing) bacteria can be cultured from the stool as well as yeast. Blood, which can be the result of a variety of insults from tumors to infections to toxic substances, can be detected from fecal analysis.

The color of the droppings is an indicator of health and disease. Change in color may indicate infection, liver disease, or pancreatic dysfunction. Change in consistency is also significant. The liquid portion (urine) with its associated uric acid crystals (the white powdery material) can also be analyzed. Tests and cultures for renal (kidney) function and disease can be done as well. Blood in the droppings is significant and may signal tumors or heavy metal poisoning. Testing the droppings is a most useful non invasive procedure.

James M. Harris, DVM.

Oakland, CA.

Answer #3: The droppings of a bird originate from both the urinary system and the gastrointestinal or digestive system. The cloaca, the common sac in which the droppings are deposited prior to their release from the body, also is the endpoint for the reproductive system and its products, as well.

A large variety of diagnostic testing can be performed on the droppings of a bird. A partial list is included here.

- Fecal parasite examination - determines the presence or absence of internal parasites (worms) and protozoa (single celled organisms) that can parasitize a bird's body.
- Cultures and gram stains - determine the presence of bacteria, fungi, and yeast in the intestinal tract. These organisms can either be part of the normal flora (bacteria), opportunistic organisms, or pathogens.
- Fecal acid fast - can identify the passing of the causative organism of avian tuberculosis, *Mycobacterium avium*.
- Urinalysis - from the urine part of a bird's dropping an analysis of the urine can be performed. This

can indicate such findings as kidney disease, presence of excessive glucose or sugar in the urine (may be suggestive of diabetes), kidney function, and possibility of heavy metal poisoning.

- Polyomavirus - This deadly virus disease may be identified with use of the DNA probe test, from the droppings of affected and shedding birds.
- Liver disease - Decreased function, inflammation of, or infection or insult to the liver may be suggested by a change of the droppings (usually the urate portion, which normally is white in coloration, is affected). Further diagnostic tests such as serum chemistries or specific tests for psittacosis may be warranted.
- Psittacosis (Parrot Fever) - several diagnostic tests are available that detect the presence of or react to the presence of the causative organism of psittacosis, Chlamydia psittaci.

Amy B. Worell, DVM Dipl. ABVP.
West Hills, CA. ➔

Conservation and Aviculture

by Rick Jordan
Kutztown, Pennsylvania

What is conservation? Webster defines the word as "the act of keeping from depletion." How does this relate to breeding birds in captivity? If you ask this question of an aviculturist they will say they are breeding birds so they will exist when the habitat has been totally destroyed and no more specimens exist in the wild. That certainly qualifies as "the act of keeping from depletion." If you ask a conservationist how aviculture is related to conservation they will usually tell you there is little correlation between the two. So who is the most correct? Are we, as aviculturists, wasting our time or are we actually

doing some good for the future of certain bird species?

A controversy has arisen between aviculture and "in the wild" conservation. Suddenly there seems to be competition between the captive breeders and the field biologists who both seek the same goal, to save birds in the wild. This competition is not helping the birds but, instead, hampering captive breeding efforts for many rare and endangered birds. Birds that are in need of assistance if they are to survive in their natural habitat for years to come.

The relationship between captive breeding and conservation in the wild

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