FEEDING HERBIVOROUS REPTILES

Scott J. Stahl, DVM, DABVP (Avian)
Eastern Exotic Veterinary Center, Fairfax, Virginia 22033, USA

Abstract: Recommendations for feeding reptiles can be difficult due to the diversity in the more than 6,500 species and the limited nutritional research. The clinician must be able to identify the species of reptile presented and then research the reptile's natural history in order to give appropriate advice (Obst, et al, 1988; Frye, 1991). Typically, dietary recommendations are based on natural diets, clinical history, and comparative feeding strategies.

Nutritional disorders in reptiles are often related to inappropriate husbandry. It is imperative to obtain a thorough history on housing and heating and lighting, as well as diet and feeding protocols. The clinician may need to counsel on proper husbandry and management along with dietary specifics to successfully help the patient (Frye, 1991; Stahl and Donoghue, 2000).

Generally, reptiles are grouped into three categories for feeding strategies: herbivores, carnivores, and omnivores. This talk will focus on the feeding recommendations for herbivorous reptiles, which include tortoises, green iguanas and chuckwallas, prehensile tail skinks, and desert spiny tail lizards.

Herbivorous reptiles rely primarily on carbohydrates and protein as exogamous energy sources. Dietary fat makes up only a small portion - usually less than 10% on a dry matter basis - of their energy requirements. Fermentation of fiber occurs in the lower bowel of herbivorous reptiles resulting in the formation of fatty acids, which are also utilized for energy. Nutritional disorders are common in herbivorous reptiles and are usually the result of feeding diets deficient in calcium, vitamin A, and protein, or less commonly feeding diets with excessive levels of these same nutrients (Donoghue and Langenberg, 1996; Stahl and Donoghue, 2000).

The basic diet for herbivores consists of a staple of dark green leafy vegetables such as collard greens, romaine and leaf lettuce, dandelion greens, parsley, turnip greens, and Swiss chard. Timothy and alfalfa hay or pellets and grass clippings can be added to increase fiber in the diet. Owners should be cautioned not to feed excessive amounts of greens that contain oxalates, such as spinach, or goitrogens, such as kale (Donoghue and Langenberg, 1996). Because fruit is generally high in water content and fructose - which could dilute the diet - it should be fed sparingly. Commercial diets for herbivorous reptiles can be used as a portion of the diet (30-50%).

Herbivorous diets may also need to be supplemented with calcium and vitamins and minerals (multivitamin powders) to help provide proper balance. Juveniles may need to be supplemented more often, daily to every other day with calcium, and several times weekly to once weekly with a multivitamin. Adults may only need calcium supplementation several times weekly to once weekly, and multivitamin supplementation weekly to every other week. If diets include 30-50% commercial formulated foods, supplementation may not be necessary (Stahl and Donoghue, 2000).

Key words: reptiles, nutrition, feeding, herbivores, lizards, tortoises, nutritional disorders.
REFERENCES


