Nutrition

The nutrition of reptiles in captivity presents a challenge for veterinarian and breeders. Each specie has particular needs and some diseases are directly or indirectly caused by and inadequate ration or an inadequate diet.

Transit time of food:
The ambient temperature affects the transit time, it is important to respect the needed temperature for each reptile.

Turtles:
Galapagos tortoise: 7-20 days;

Lizards:
European green lizard: 32-45 hours;
Green iguana: 6-8 days.

Snakes:
Burmese python: 38 days;
European water snake: 6-7 days;
Spotted rattlesnake: 5-6 days;
Rattlesnake: 9 days.

Chemoreception:
It is a vomeronasal system that allows lizards and snakes to scent a prey very quickly.

Suggestions of ration to propose to reptiles:
Food to give to snakes:
- Terrestrial carnivorous snake
  • Little mammals essentially (mice, rats, hamsters, gerbils, guinea pigs, rabbits)
  • Birds for tree snake species (chicks)

Meat frequency:
From 2 times a week to once every 3 weeks according to size and age.
- Piscivorous water snakes
  • Fresh whole fish essentially (salmon cubes, minnows, roach, guppies, eels and launch)
  • To vary the diet, if possible propose amphibians (frogs, newts, tadpoles) and mice impregnated in fish smell.

Meat frequency:
Once or twice a week.
Prefer dead preys to avoid bites during constriction (freshly sacrificed preys or frozen and reheated), from a serious breeder (avoid wild rodents as they can have parasites or be victims of pesticides).
Be careful to hypovitaminosis B1!
Avoid freezing and fish high in thiamin: smelt, sardine, common carp, herring, chub, catfish and goldfish.

Food to distribute to lizards:
- Herbivorous lizards
  • Plants and fruits essentially (Hibiscus leaves and flowers, dandelion leaves, chard, watercress, mache, chicory, figs, kiwi, mango, papaya, orange...)
• Completed iguanas pellet food based forum dehydrated alfalfa (Iguana food forum “Zoo Med Laboratories Inc.”): 1/3 of the total ration only because there are risks of chronic dehydration!

**Meal frequency:**
Once a day for juveniles.
Once every 2 days for adults.

- **Insectivorous lizards**
  - Insects essentially (Crickets, locusts, grasshoppers, mealworms, hive moth larvae, butterflies).
  - Sprinkle insects with calcium carbonate (without D3) right before the meal.
  - Place in the terrarium a cup containing calcium and phosphorous powder (Example: Reptiles-Calcium N
  - Feed the insects with food rich in calcium avec in vitamin A precursor. (Cricket food, dandelion, kitten food)

**Meal frequency:**
Once a day.

- **Carnivorous lizard**
  - Small mammals essentially (mice, rats).
  - Eggs

**Meal frequency:**
Two or three times a week.

- **Omnivorous lizards**
  - Insects (See “insectivorous lizards” section).
  - Plants (See “green iguana” section).
  - Mice for some species (ex: Asian water dragon).
  - Pellets for omnivorous lizards (Ex. Bearded dragon food).

**Meal frequency:**
Once a day.

Do not forget UVB in the terrarium!

Careful to hypovitaminosis H caused by the ingestion of non-embryonated eggs (ex. Quail eggs from the grocery), low in biotin and rich in avidin, which has an anti-biotin activity!

**Food to distribute to turtles:**
- Terrestrial herbivorous turtles
  [90 % plants + 10 % fruits]
  - Plants : dandelion, romaine, beet leaves, broccoli leaves, turnip leaves, endives, chard, watercress, alfalfa hay, clover and clover flowers, parsley, hibiscus flowers and leaves, blackberry leaves, lettuce and endive occasionally.
  - Fruits: orange, fresh fig, kiwi, melon, mango, papaya, banana et apple, strawberry and other red fruits occasionally.
  - Mushrooms: White mushroom cut in small slices, for example.
  - Terrestrial turtle food (ex: Tortoise Food by Zoo Med Laboratories, Inc.).

The meals can be occasionally sprinkled with calcium carbonate.

**Meal frequency:**
Many small meals every day.
- Carnivorous aquatic turtles
  (70-90 % of meat + 10-30 % of plants according to species)
  • Fresh whole fish essentially: minnows, roach, guppies, eel, launch… Avoid fish rich in anti-vitamins.
  • Piece of fish flesh (ex. salmon dices, hake filet). Be careful with freezing! It decreases the amount of vitamin B1 in food and increases the activity of enzymes that break down vitamin B1.
  • Earthworms, bloodworms.
  • Mice more than 3 days old, freshly sacrificed, impregnated with fish mucus.
  • Veal liver pieces
  • Aquatic plants (algae, watercress, water hyacinths, spirigorias…)
  • Seafood (Except mussel, particularly rich in thiamin)
  • Pellet aquatic turtles (ex: Aquatic turtle food by Zoo Med)

**Meal frequency:**
Once a day for juveniles;
Once every 2-3 days for adults.

- Semi-aquatic omnivorous turtles
  (50 % meat + 50 % plants)
  • Slugs
  • Earthworm
  • Fruit worms
  • Snails
  • Plants : dandelion, romaine, beet leaves, broccoli leaves, turnip leaves, endives, chard, watercress, alfalfa hay, clover and clover flowers, parsley, hibiscus flowers and leaves, blackberry leaves, lettuce and endive occasionally.
  • Fruits especially in tropical species (orange, fig, kiwi, melon, mango, papaya, banana and apple occasionally
  • mushrooms
  • Mice more than 3 days old
  • Pieces of poultry heart
  • Pieces of fish flesh or whole fresh fish.
  • Pellets for semi-aquatic turtles (Ex.: Box turtle food)

**Meal frequency:**
Once a day for juveniles and adults.

Do not forget UVB if the turtle is not living outside!