



# Desert Tortoise Diet Requirements

These feeding guidelines have been developed using the last 15 years of Desert Tortoise Diet research. A desert tortoise should be allowed to forage and graze on a variety of naturally growing plants to facilitate exercise, muscle development, and beak and nail growth control.

For captive desert tortoises, the basic diet should be 80-90 percent grasses and forbs (weeds) and the only fruit they should be given is the tuna (apple) from Opuntia (prickly pear) cactus.

Below you will find food plants that can be easily grown to provide a balanced diet for your desert tortoise. There is also a short list of acceptable greens that may be purchased to supplement their diet should you be unable to grow a large enough variety of foods. However, there is no replacement for a natural diet.

Seed mixes, live plants and cuttings can be purchased online for the recommended grasses, weeds, leaves and flowers on the following page.

 Desert Seed Store - [Tortoise Seed Mixes](#)

 Desert Natives Nursery - [Live Plants & Cuttings](#)

Further information can be obtained at:

 [www.kerncttc.org](http://www.kerncttc.org)

 [www.tortoise.org](http://www.tortoise.org)





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## Grasses

-  Bermuda
-  Fescue
-  Mediterranean
-  St. Augustine
-  Orchard
-  Needle Grass
-  Mexican Feather Grass
-  Desert Indianwheat
-  Arizona Cottontop
-  Indian Ricegrass
-  Curly Mesquite
-  Desert Galetta

## Assorted Weeds, Leaves and Flowers

-  Clover
-  Owl's Clover
-  Dandelion
-  Desert Dandelion
-  Common (Cheese) Mallow
-  Apricot Globe Mallow
-  Beavertail Cactus (*Opuntia basilarus*)
-  Rock Hibiscus
-  Hibiscus Flowers
-  Nasturtiums
-  Rose petals
-  Mulberry Leaves
-  Grape leaves
-  Evening Primrose
-  Brown Eyed Primrose
-  Fremont's Pincushion
-  Trailing 4 O'Clock
-  Plains Coreopsis
-  Mojave Coreopsis
-  California Poppy
-  Sweet Alyssum
-  Tidy Tips
-  Desert Marigold
-  Desert Plantain
-  Mojave Spurge
-  Stork's Bill
-  Heron's Bill
-  Desert Chia
-  Sow Thistle
-  Goldfields
-  Chickpea
-  Shepherd's Purse
-  Senna
-  Thistle Sage

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## Acceptable Supplemental Foods

Supplemental foods are not as nutritious as the natural graze items listed above. If you feed your tortoise these items, they would need to be supplemented with other dried or ground grasses shown below.

### Supermarket Greens

- \* Chicory
- \* Endive
- \* Kale
- \* Dandelion
- \* Turnip Greens
- \* Watercress

### Dried / Ground Grasses

- \* Bermuda
- \* Orchard
- \* Timothy Hay

## Vitamins and Minerals

### Calcium

In nature, tortoises mainly obtain their calcium requirement by grazing on calcium rich vegetation. In most captive situations, the gross calcium content of the diet rarely, if ever, approaches that of wild diets and the calcium-to-phosphorus (Ca:P) ratio of captive diets is typically lower than in the wild. This can be achieved through feeding plants with high Ca:P ratio, such as *Opuntia* cacti and using calcium supplements.

-  Cuttlebone with the hard backing removed is ideal, as it facilitates beak health and allows the tortoise to self-regulate calcium ingestion.
-  Cuttlebone that is grated to a fine powder can be sprinkled on food.
-  Calcium carbonate based ground calcium powder, which is phosphorus-free and vitamin D3-free, can be sprinkled on food.

### Vitamin D3

Desert Tortoises need to live outdoors in sunshine with shade, burrow and water. Never give a tortoise housed outdoors vitamin D3 supplements. However, if a tortoise has to be kept indoors due to health or other reasons, it is recommended that calcium with Vitamin D3 be used on all food 1 or 2 times a week.

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## Foods to Avoid

Vegetables and fruits provide an incomplete, unbalanced and often harmful diet. They can be high in protein, low in fiber, high sugar content and a reversed calcium-to-phosphorus ratio. Relying excessively on vegetables and fruits is implicated in various "ills" of captive desert tortoises, such as pyramiding; lumpy, sunken and soft shells; bladder stones, kidney stones and goiters; and hyperparathyroidism and renal insufficiency.

## Special Cautions

-  Oxalic Acid: beet greens, spinach, chard and purslane can bind calcium into calcium oxalate, an insoluble form unavailable for metabolism.
-  Goitrogenic compounds: Brassica family (collards, cabbage, kale and broccoli) in excess may inhibit uptake of iodine, enlarging the thyroid and causing goiter. As only a small part of a varied diet, it is often not a problem, but should be very sparingly used.
-  High sugar/water content: Fruits, corn and excessive water foods, including "empty food" such as iceberg lettuce can lead to diarrhea, digestive flora upset and excessive parasites (parasite "bloom").

## References:

Caparoso, Fred. "Tortoise Diet Information." California Turtle & Tortoise Club. <https://tortoise.org/general/tntdiet.html#captivefood>

Highfield, Andy C. "Promoting Proper Bone Development." Tortoise Trust. <https://www.tortoisetrust.org/articles/calcium.htm>.

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