

#### FEEDING YOUR MEDITERRANEAN TORTOISE

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Tortoises require a diet that is **high** in fibre, vitamins and minerals and **low** in fats, carbohydrates and proteins.

Mediterranean tortoises are vegetarians and **meat products should never be fed**. They contain high levels of urea and fats resulting in subsequent kidney and liver disease. They also contain high levels of phosphorus which can lead to Metabolic Bone Disease.

The best things to feed a tortoise are non-toxic, uncontaminated weeds. A small amount of vegetable matter can be fed in moderation but should not be required.

Head lettuces such as iceberg lettuce are not advisable as the main constituent of a tortoise's diet as they contain very limited quantities of vitamins and minerals.

Food such as cabbage, spinach, chard, bok choy, peas and beans and any vegetables related to these are probably best avoided as they inhibit the absorption of calcium from the diet – a very important aspect of tortoise nutrition. Peas and beans are also high in proteins.

Pelleted foods are available and are good for debilitated tortoises but their energy and protein levels are generally quite high and should not be used as long-term diets.

A well balanced diet should ensure that your tortoise meets all of its nutritional requirements, with dandelions being ideal, but vitamin and mineral supplementation is advisable. Sprinkling your tortoise's daily meal with a **calcium supplement** (such as calcium carbonate powder) will help to meet their calcium requirements. If they are young then also supplementing with Vitamin D every other day is recommended (e.g. Nutrobal, Vetark).

Another important constituent of tortoise diets is Vitamin A. This can also be added to the diet sparingly (due to the risk of toxicity) as a multi-vitamin powder (e.g. Arkvits, Vetark).

Below is a brief list of plants that can be offered to a Mediterranean tortoise. When preparing a diet please remember that **variety** is key.

Numbers in brackets refer to accompanying pictures

#### **Edible Wild Flowers**

Please ensure that plants are correctly identified before offering to your tortoise.

Where miss-identification of a plant could result in feeding a toxic counterpart distinguishing features have been noted.

- Dandelion <sup>(1)</sup>
  - Long deeply divided leaves,
  - Large yellow flowers on long stalks.
- Smooth/Prickly sow-thistle (2)
  - Medium-size yellow flowers,
  - Ridged stem,





• Spiked leaves with 2 projections at the base of the leaf that clasp around the stem



## • Smooth hawk's-beard (3)

- Many small flower-heads in branched clusters <sup>(3a)</sup>,
- Lower leaves hairless with triangular or oblong lobes <sup>(3b)</sup>,
- Many leaves surround the base of the stem,
- 20—90cm long.





## • Cat's-ear (4)

- Many hairy leaves surround the base of the stem,
- Yellow flowers,
- Wiry stem with multiple tiny, dark spikes (4a),
- 20-60cm long.











### • Red Valerian (5)

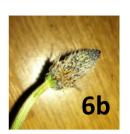
- Flower head has branched clusters of multiple long slender flowers with 5 petals (5a),
- At the base of the flower is a long slender spur (5b),
- Stalkless upper leaves, often toothed and joined to each other (5c).
- Avoid:
  - Common Valerian = multiple leaves per branch rather than single leaf.











- Plantain <sup>(6)</sup>
  - Multiple deep veins run up each leaf (6a),
  - Tall stem carries a densely flowered dark head <sup>(6b)</sup>.











- Alexanders <sup>(7)</sup>
  - Flower head has branched clusters of multiple green-yellow flowers (7a),
  - Shiny leaves divided into 3 dark green, toothed, diamond shaped leaflets (7b).
  - Avoid:
    - Hemlock/Cow Parsley = white flowers, finely divided leaves,
    - Hogweed = **white** flowers; **broad**, lobed leaves.







# • White/Red Dead-Nettle (8)

- White/pinkish-purple flowers forming a dense spike at the top of the plant,
- Wrinkled, heart-shaped leaves in opposite pairs (Red Dead-Nettle can have red upper leaves),
- Square stem on cross-section (often purple for Red Dead-Nettle).
- Avoid:
  - Henbit = edges of upper leaves fused to form a dish,
  - Hemp Nettle = stem swells near leaves, dark markings on lower lip of flower.









- Campanula <sup>(9)</sup>
  - Broad, 5-petal flower in the shape of a bell <sup>(9a)</sup>
  - Clusters of long-stalked, heart-shaped, toothed leaves.







- Cleavers FEED IN MODERATION (10)
  - Square stem with backward pointing spines causing it to cling to clothing.





- Garlic Mustard FEED IN MODERATION (11)
  - Small white flowers (11a),
  - Tall, unbranched, stalked leaves with hairs on the underside,
  - Lower leaves are heart shaped (11b),

Upper leaves are triangular (111c),





- Smells of garlic when crushed,
- Fruits are cylindrical pods (do not feed).







- Short plant with multiple small leaflets,
- Small white flowers,
- Smells of cress when crushed,
- Fruit are cylindrical pod of seeds (do not feed).





## • White/Red Clover – FEED IN MODERATION (13)

 Leaves have three leaflets with a white V-shaped band.









### **Edible Flowering Plants**





- Pansy (15),
- Geranium (16),
- Nemesia (17),
- Hebe <sup>(18)</sup>,
- Hibiscus <sup>(19)</sup>,
- Fuchsia (20),
- Petunia <sup>(21)</sup>,
- Bergamot (22).





















### **Edible Store Bought Leaves**

During the summer months there should be no need to offer these but during winter they can help bulk out a tortoises diet.

- Kale,
- Romaine Lettuce,

- Red Leaf Lettuce,
- Watercress FEED IN MODERATION
- Rocket FEED IN MODERATION

#### **Further Information**

**www.thetortoisetable.org.uk** - a site "dedicated to the provision of information on good, not-so-good and poisonous plants for tortoise keepers.

www.tortoisetrust.org - A site dedicated to the conservation and captive care of tortoises.

Reader's Digest, *Field Guide to the Wild Flowers of Britain*, Reader's Digest Association Limited; ISBN-10: 0276425065, ISBN-13: 978-0276425066 - A guide which identifies and illustrates more than 500 species of British wild flowers. It includes look-alike charts to help readers distinguish between easily-confused species.