

## Moringa oleifera syn M. pterygosperma – Miracle Tree / Drumstick Tree / Horseradish Tree

This is a fast growing ornamental small to medium tree that grows 6 - 15m tall with an open umbrella shaped crown, a pale grey single trunk with rough bark that exudes a white to reddish gum when damaged and has an enlarged underground rootstock - this has a horseradish flavour.

These trees can grow really fast when young - 3 - 4m in the first year!

The leaves are light green ovate to oblong feathery leaflets on tripinnate leaves that can be deciduous during the dry season, fragrant white spoon shaped flowers with prominent veins, sometimes with a yellow streak in the centre and waxy yellow to orange anthers occur in Summer on spreading panicles 8 - 30cm long in the leaf axils.

In Autumn to Winter following flowering, large elongated pods start off as green, slightly hairy when young and turning brown as they mature grow 18 - 50cm long x 1 - 3cm wide, these are dehiscent and split open via three valves when fully mature. There are approximately 20 dark grey to blackish coloured seeds in each pod, they are slightly 3 angled 7 - 15mm across with 3 papery wings.

Trees start flowering early, in about 2 years and are best grown in subtropical, tropical, Warm temperate, semi arid, arid or monsoonal climates in full sun. It tolerates a wide range of soils and conditions and quickly establishes itself. It responds very well to a hard prune so it is best cut back to 2m every year so the flowers and seedpods are easier to reach and harvest.

Moringa oleifera is thought to be native to the sub-Himalayan tracts of northern India, also other parts of India, west Asia and into northern Africa.

Basically all plant parts are edible and used for food - roots, leaves, flowers and fruit; the leaves and pods have considerable nutritional value. It is also used as a fodder tree, there is potential as a biofuel, oil can be extracted from the seeds, erosion control and just as a lovely ornamental tree for the home garden.

### Propagation

Propagation may be carried out from both seeds or cuttings. Seed germinates readily with or without the need for pre-treatment.

**PRETREATMENT** – Soak seeds for 24 hours before sowing and sow in a good quality seed raising mix in individual tubes or pots. Do not over water during this time as the seeds may rot so only keep lightly moist in a warm area. It is not necessary to soak the seeds but it does hasten germination if you do. Note that Moringa oleifera often has a low germination rate, it is not unusual to only get 50% seeds to sprout.

**SOWING** – Best sown in Spring when weather is warmer.

When large enough to be transplanted (about 7.5cm tall), pot on into larger pot and leave in this one for one year so the root ball will form a bark and become hardy to transplant the next warm season.

During the cooler months the stem that would have grown might die off but the root ball will still be under the soil, when the weather warms it will send out more shoots. If the stem is still intact but it back and this will encourage new growth which means multiple stems on a lower trunk with more leaves!

