

Moringa Tree

Scientific Name: Moringa Oleifera

Hardiness Zone: Hardiness Zones 9 and 10 outdoors. With the right conditions, it can grow in Zone 8 as well.

Hazards: The roots of Moringa have the aroma of horseradish and should not be eaten, since they contain toxins

Description:

Moringa is a resilient tree. It can survive in a variety of climates and substandard soils. It is as fast growing as it is hearty. Normal growth ranges from 3-5 meters per year if left uncropped. It is one of the fastest growing biomasses on the planet when properly nourished. A fully mature Moringa tree can grow to 35 feet. Moringa is an ideal plant to start indoors or, depending on where you live, or in your own backyard. Moringa seeds are about the size of a large pea and have wings. The seeds don't need sunlight in order to germinate.

Habitat:

For those who live in the United States, particularly the southern and western states, you are in luck and can grow Moringa outdoors. The Philippines cultivates most of its Moringa during the summer, though, it can be grown year-round, in any tropical, sub-tropical, temperate or equatorial climate. Moringa does not like the cold and loses its leaves in colder climates, when the average temperature drops below 70 degrees.

Cultivation:

Choosing a suitable environment is essential for Moringa to grow well. Direct exposure to sunlight, warmth and water with loamy soil is crucial for this tree.

For those who have a true winter, where it freezes and snows, we recommend that you plant Moringa in pots, keeping them outside in the spring and summer and bring them inside when it gets cold. With the exception of tropical climates, Moringa goes dormant in winter. If it gets too cold outside, the tree will die unless kept warm inside. When Moringa goes dormant the leaves fall off and branches shrivel. A greenhouse is ideal in most areas. The plant will die if it freezes completely, but it can withstand a mild frost.

Propagation:

From seeds to trees

1. Soak the seeds for 24 hours in water; the seeds will use the amount of water it needs. Remove the seeds pat dry with a paper towel.
2. Put the seeds in a plastic sandwich bag and store in a warm, dark place like a drawer or cabinet. Germination times range from 3-14 days. Do not add extra water to the bag.
3. Check them every two days. Once the seeds have broken loose from the winged shell, you will notice two shoots protruding from the seed.
4. Do not let the shoots get too long as they may get fragile and break when handled. One of the shoots will have some ruffled growth at the extremity; this is the shoot that contains the first leaves (cotyledons) and should be the shoot exposed to the sun. Fill a 10 US gal (38 L) pot with 85% soil, 10% sand, and 5% compost. Moringa's need a well-draining potting mixture, otherwise, the seeds will become waterlogged. Mixing potting soil with sand and compost will create a nutritious and well-drained mix for your new moringa seeds. Plant the seeds about $\frac{3}{4}$ inch beneath the soil surface (or in a peat moss starter) with the ruffled extremity to the sun. Sandy loamy soils work best. Use a pot that is at least 18 inches deep if this is the final home for the tree. Moringa loves the sun so make sure they get plenty of direct sun. Although the tree is drought tolerant, they may be watered daily, just don't allow the roots to get soaked for extended periods of time. If you live in a particularly hot zone, don't expose the baby plants to all day sun. Keep an eye on them, they will tell you if they are getting distressed from too much sun, water or lack of food.



5. It is a good idea to use pots to get the trees started since you have more control over the care of the tree. Critters will eat the Moringa starters if given the opportunity. We recommend that you let the potted plants grow at least eight weeks or longer before transplanting into the ground. When transplanting, try not to disturb the root system. Like many plants the roots are very vulnerable until they are established in the ground.

6. Transplant moringas grown from seeds when they are 6 to 8 in (15 to 20 cm). If using a plastic pot before transplanting to the ground, use a long thin blade to loosen the soil from the inside edges of the pot. Turn the band or pot upside down to allow the entire plant and soil to slide out of the container. This prevents disturbing the roots. If you are planting more than one tree, space the plants 7-10 feet apart for optimum access to the mature tree. The tree will branch out 3-4 feet from the trunk so this spacing will allow you to walk between trees and let the sunlight to do its job. Of course, if you want a windbreak, just plant them all at one-foot intervals, as they do in Africa and India. Moringa is like any plant that appreciates plant food and fertilizers and an ample supply of water.

Plant a cutting

Moringas can grow from a healthy branch cut from a mature tree. Cut off a branch 3 feet (0.91 m) long and 1 inch (2.5 cm) in diameter. Choose a healthy looking branch from the tree to remove. Use pruning shears to make a diagonal cut on the branch at both ends. Keep the branch at least 3 feet (0.91 m) long. Fill a 10 US gal (38 L) pot with 85% soil, 10% sand, and 5% compost. Use more or less sand and compost depending on the soil you use. Expose the nodes of a cutting and push it $\frac{1}{3}$ of the way into a 15 US gal (57 L) pot.^[7] Pack the dirt tightly with your hands so that the cutting is able to stand on its own and so the potting mixture is firm around it

Water the soil with a watering can until it is damp. The soil should be saturated, but not overwatered. If there is standing water on the top of the soil, you've watered too much and your soil likely has poor drainage. Check the moisture by sticking your finger into the soil down to the first knuckle. Water once a week or more depending on your climate so the soil stays damp.

Care for Moringa:

To grow healthy and strong, your moringa tree will need around 6 hours of direct sunlight. Moringa trees are from a tropical climate, so they need the maximum amount of sunlight you can provide. Keep them in an area that receives full sun throughout the day.

Even though moringas are drought-tolerant, they should still have a weekly watering while they are establishing. Put your finger into the soil up to the second knuckle. If it feels dry, water. Be careful not to overwater the soil, or else the roots will become waterlogged and possibly develop rot. If it has rained during the week, your moringa has gotten enough water for the week.

When Moringas start to grow, they will grow rapidly over the course of a year. Once the trees reach 8 to 10 feet (2.4 to 3.0 m), cut them back so they are at your desired level. Any branches you remove can be dried and propagated to plant another tree.

If you live in a temperate climate, you will want to store your tree inside your home or in a greenhouse during the winter. Moringas are susceptible to the frost and will not survive through the winter.

- Moringas can grow up to 6 feet (1.8 m) tall in a year, so plan accordingly with how much space you have available.
- Moringa can be restarted each year with cuttings taken from the previous season. Cuttings from moringa trees are the same age as the tree it was cut from.

Harvest:

Harvest seed pods when they are $\frac{3}{8}$ to $\frac{1}{2}$ inch (9.5 to 12.7 mm) in diameter. The seed pods, or “drumsticks,” can be pulled and used in recipes and teas. If you wait until they ripen, the inside may have a stringy and less desirable consistency.

- Boil the seed pods until they are soft and squeeze the inner flesh out to eat. The exterior of the pod is fibrous and inedible.

Pull leaves after the moringa is 3 feet (0.91 m) tall. Moringa leaves are considered a “superfood” and can be pulled at any time once the tree is over 3 feet (0.91 m) tall. This way, as you pull the leaves off by hand, the branches will have grown strong enough and won’t break. ^[18]

- Steep the moringa leaves to make an herbal tea, or add them to your smoothies or salads for added nutrients.

Grind the leaves into a powder. Dry the leaves in a dehydrator or by hanging them. Once the leaves feel crinkly and crispy, remove them from the stem by hand. To grind them into a powder, use a food processor or grinder until it is fine.

- Moringa powder can be added to any meal 1 tsp (3 g) at a time.
- The leaves can also be dried or eaten fresh.

Nutrition:

Gram for gram, Moringa can have three times the potassium you would find in a banana, four times the vitamin A found in a carrot, and seven times the vitamin C found in an orange. Moringa is also rich in minerals, vitamins, essential amino acids, phytochemicals, vegetable proteins, anti-oxidants, anti-inflammatory agents, and carbohydrates.

Use Moringa for medical and nutritional needs. Moringa is filled with antioxidants as well as necessary vitamins and minerals. People have eaten moringa to help combat

inflammation, arthritis, stomach pains, and asthma. The seeds, fruit, and leaves can all be consumed.

Uses:

Moringa is an ideal plant to start indoors or, depending on where you live, or in your own backyard. Once mature, fresh Moringa, leaves from your tree make a delicious addition to your salad. The leaves can be dried to make a delicious green tea. You can also make tea with the leaf powder in a traditional coffee maker. If you have enough leaf, you can dry it and make it into moringa powder, and use it 's concentrated nutrition to balance your diet for increased energy and sense of well being. The leaves can be used an ingredient in a variety of chicken, meat and vegetable dishes.

<https://moringafarms.com/growing-moringa/>

<https://www.wikihow.com/Grow-a-Moringa-Tree>