



The moringa tree is well-known but many people know little about its many advantages. It is not called the “miracle tree” for nothing!

*Moringa oleifera* grows well in the desert. It is very drought resistant. It is often used for fences and it can grow up to 15 metres.

Moringa is called the “never die” tree, because the more you cut it the more it grows. You can even cut the main stem. It is also called “mother’s best friend” because it is very nutritious.

Moringa has very many uses; it provides nutritious food and medicine, it nourishes and treats animals including fish, it improves the soil and is used to purify water.

### **Propagation and cultivation**

Moringa is loved by goats and sheep – so protect your plants well. The more you cut the plants, the more they branch and the more leaves they have.

- a) Make cuttings of thick stems of about 3 cm in diameter and about 1 metre long. Allow the cut end to dry for 3 days in the shade so that the liquid dries – otherwise this liquid attracts termites. Then plant using wood ash – this ash is also to deter attack by termites.

Cuttings continue at the stage at which they are taken, e.g. if the tree is in flower, the cutting will flower. The best time to take cuttings, therefore, is when the plant is growing vigorously.

- b) Seeds:
  - i. Soak overnight and sow, or
  - ii. Crack the shell of the seed without damaging the seed itself, and sow, or
  - iii. Take off the shell and sow directly into soil that is just a little bit moist, or
  - iv. Plant directly in the shell – but this needs a lot of water.

The earth should be damp but not wet. The seeds germinate after 5 days. Leave in the shade for 3 days and then transplant into a hole lined with wood ash, again to deter termites.

When transplanting make sure the roots are not too long – the tap root must grow vertically downwards.

### **Harvesting**

Harvest leaves every 3 weeks. Harvest morning or evening. If harvested in the heat of the sun, once in a pile the leaves may generate extra heat and become very hot. They are then useless for eating, but make excellent manure.

Wash in fresh water, then in salt water, and again in fresh water. Shake, hang to dry on a string in the shade, finish drying with a solar drier. When quite dry separate the leaves from the stems, pound them and sieve. Store in an air-tight, opaque container in a cool, dark and dry place. In sunlight moringa loses colour and vitamins.

### **Use for nutrition**

Moringa is quite unique! The leaves are one of the most nutritious foods in the world! The leaves contain vitamins, proteins (including all the essential amino acids) and minerals.

#### **Leaves for nutrition**

Caution, be careful, do not eat too much! You can put on too much weight! You can lower your blood pressure too much.

Eat as a vegetable, but do not overcook, add to the pot last and boil in salted water for only one or two minutes. Slices of raw onion may be added.

#### **Moringa leaf powder:**

Caution: sieving moringa powder with no mouth covering is very soporific. You sleep well afterwards!

Moringa leaf powder can be added to any food, e. g. to porridge or sauces, and to the flour when making bread or cakes. Leaves boost the immune system. Separate out the stems carefully, they are fibrous and may cause diarrhoea. (This could be useful, however, for people with constipation!)

The powder may also be taken as tea, or be used to make a delicious cold drink – see the picture. The drink may contain moringa, cinnamon, ginger and hisbiscus (or beetroot). Hisbiscus or beetroot lend a very rich colour to the drink. One of the following fruits may also be added to give alternative flavours; mango, banana, jack fruit or pineapple. This drink tastes better than any soda and is 100 times healthier.

**Bread:** Only add a small amount of leaf powder. The bread should be eaten within one or two days because the moringa leaf powder causes the bread to go dry, hard and mouldy more quickly.



George Zokli in Tema, Ghana with his delicious and very popular health drink that he makes and markets.

Moringa leaf powder is excellent for

- under and mal-nourished children.
- AIDS patients.
- pregnant mothers – but be careful that the baby does not grow too big in the womb! It is not advisable to take the powder after 7 months of pregnancy.
- breast feeding mothers – moringa stimulates milk production

**Seeds:** When young, cook like peas.

**Pods:** Young, tender pods may be cooked like French beans.

**Roots:** The root contains all spices! Like salt, pepper and horse radish – so boil it with your meat.

**Flowers:** Cooked flowers taste like mushrooms, can be used in omelettes.

**Caution:** Flowers are rich in calcium and progesterone. For this reason the flowers increase the sperm count in men and can cause abortions in pregnant women.

## Medicinal uses

### Leaves

1. **Diabetes.** George Zokli in Ghana: Chronic diabetics should mix a heaped tablespoon of moringa leaf powder mixed with their food three times a day. New diabetic patients and those wishing to prevent diabetes should take one teaspoon mixed with their food three times a day. The moringa stimulates the function of the pancreas.

**Peter Kuria in Kenya:** The patient should first drink one litre of “detoxification tea”, which is made by taking handfuls of asthma weed, guava leaves, pawpaw leaves and fresh young mango leaves, boiling them vigorously in a litre of water for two minutes and allowing the mixture to stand for half an hour. Then, every day, take two tablespoonfuls of moringa leaf powder and 4 moringa seeds. It is important that the sugar levels are checked regularly.

2. **High blood pressure.** Treatment as for diabetes.
3. **Deep cuts:** put a poultice of leaves on the cut.

**Experience:** George walked through a glass door and had very deep wounds on his leg. He wrapped a poultice of fresh moringa leaves around the cuts. After 5 days he removed the poultice and a piece of glass fell out with the poultice. He made a fresh poultice of moringa leaves. The wound healed in two weeks with no sign of infection.

**Experience:** The navel of a new born baby was bleeding. A moringa leaf poultice was applied. The bleeding stopped.

The poultice is made either by rubbing fresh leaves between the hands, or by rubbing with a clean stone (not cement). Dried powder may also be used after mixing with water.

4. **Eye infection (pink eye).** Put fresh, washed leaves in a clean, white cloth. Crush with a wooden or clay tool. Squeeze one or two drops of juice in the eye twice daily for three days. For a minute or two it is very painful.
5. **Bleeding following giving birth.** Pound fresh leaves, add a little water, give to drink.
6. **Swollen breast.** Pound leaves to a paste and put on the swelling.
7. **Chronic diarrhoea:** Add moringa leaf powder to the ORS to replace the lost potassium.
8. **Stress relief.** Use the fresh leaves as a vegetable – but do not overcook!

9. **Skin problems.** Dried moringa leaves may also be added when making soap to help with skin problems.
10. **Fever, rashes, measles and chickenpox.** Rub fresh leaves between the hands, place in a bucket of water, add wood ash and put in the sun for 4 hours. Put on the skin or bathe in it.
11. **Ringworm.** Mix fresh leaves with shea butter or good vegetable oil and apply. Or apply pounded seeds.
12. **Whitlows.** Pound leaves, add salt and apply.

Caution: Too much moringa tea may cause the blood pressure to reduce rapidly, which may lead to dizziness and headache.

### Roots

In general roots should be used very soon after cutting as they lose their vitality very quickly. They are stronger if taken from a mature tree and if not washed. They are also very strong in the dry season. Root and root bark should only be taken in small amounts because they contain toxins.

1. **To revive someone in a coma**, e.g. in an epileptic fit. Put thin freshly chopped slices of root into a clean cloth and place very close to the nostril. The root must be freshly cut, otherwise it loses its power.  
Experience: An epileptic soldier in Congo started coughing in less than two minutes after being on the floor with a fit.
2. **Sinusitis**, headache and migraine. Treat as described above for relieving a coma.
3. Constipation. Chew a piece of root. (or drink leaf powder which contains fibrous stems)
4. **Snake and scorpion bites.** Chew roots and apply the chewed root to the bite. Also apply pounded leaves to the bite. These treatments stop the poison from spreading. Go to hospital for a check.

Caution:

- a) Neither children nor pregnant women should take the root or root bark internally.
- b) The root burns the skin if in direct contact.

### Root bark

We distinguish between the outer brown bark and the inner white bark.

1. **Instant relief for rheumatic pains** (but not a treatment). Pound the inner white bark together with salt and apply to the affected area.
2. **Broken bones.** Arrange the broken bones with great care. Heat a plantain leaf in the fire and wrap round the break. Apply pounded outer bark to the leaf, and then secure in place with another leaf or woven palm fronds. Do not let the bark come into contact with the skin. Also use a splint.

Once this dressing has been removed, a poultice of leaves may be applied.

### Pods

Some people say that if one cooks young moringa pods and eats them like French beans they help to prevent tumours and destroy cancer cells. This can also help undernourishment and diarrhoea.

### Flowers

Good for colds as tea

To remove the after-birth, boil the flowers in water and drink the fluid.

Once contractions have begun flower tea helps the birth to take place. As stated above, flowers should not be eaten by pregnant women for fear of causing abortion.

### Seeds

**Fever.** Chew two seeds in the morning and 4 at night.

**To cleanse the blood:** Chew one seed every day.

**Candida:** Chew two seeds per day for one week.

**Hard to heal wounds:** Fill with pounded seeds and leave overnight. Next day use a poultice of leaves.

**Whitlow.** Apply pounded seeds. – they help one to identify the centre of the infection. Then use the leaves or the roots as described above.

**Deworming:** Take two moringa seeds twice daily for three days.

**Constipation:** Take two seeds in the morning on an empty stomach.

## Uses in agriculture

Increase productivity by 30% by preparing a foliar spray. Grind fresh leaves to a paste, stir into water and filter. Add carbolic soap. To the moringa you may also add neem, garlic, chilli or tobacco as an insecticide. Spray the plants as they are growing strongly.

If you wish to grow moringa intensively, plant close together – at intervals of 20cm. You can start harvesting two months after sowing. Such intensive cultivation gives a high yield. The plants need irrigation. After one year dig it in, it becomes fertiliser for another crop, and start again in another field. Alternatively, inter-crop with cow pea or mucuna, which replace the nitrogen taken by the moringa. Do not intercrop with egg plants as they take the same nutrients as moringa from the soil.

Dogs. Add moringa leaves to their food and use the leaves for any skin problems. This also deworms them.

Fish. Make powder into pellets.

## Further note

Never grind moringa on cement – the moringa will be rendered ineffective because cement is toxic.

## Experiences of Mr Asare in Kumasi, Ghana

1. After taking moringa leaf powder regularly, several older people who used to struggle to get out of bed in the morning now leap out of bed with no problem at all.
2. Moringa leaf powder brings the sugar levels of diabetic patients right down.
3. He treats epileptics with 50% leaf powder and 25% root. The other 25% is seeds which he gives separately.
4. Many children who had skin problems now have healthy skin with moringa soap.
5. He himself suffers from MS and moringa leaf powder has stabilised it.



Moringa trees that have been cut back and are now producing many branches with many leaves.

6. Mr Asare has a chicken farm. He adds 1 kg of leaf powder to 1 ton of chicken feed. In the afternoon he gives them an extra amount of fresh leaves – he finds that this stops the chickens pecking each other due to the extra vitamins in the fresh leaves.



Add fine moringa leaf powder to soap.

The chickens eat moringa, and he uses the chicken manure to fertilise the moringa trees!

He purifies the water from the well that he gives to the chickens with moringa seeds. He pulverises the seeds and stirs it into the water at 4p.m. and leaves the water overnight to settle out.

With moringa the laying chickens lay eggs with strong shells and very yellow yolks.

## Other uses of moringa

1. As a dye. Cut a mature tree and use the sap.
2. Moringa trees flower all the year, which make them very attractive to bees and therefore excellent for honey production.

## Clarification of dirty water

To treat 20 litres of water (the amount carried in the average large bucket) one needs about 10 dry seeds. Remove the light 'wings' and shells of the seeds and finely pound them. Put into a bottle, add a little clean water and shake for 5 minutes.

Filter this solution through cotton cloth into a bucket of the water you want to purify. Stir rapidly for 2 minutes, followed by slow stirring for 10-15 minutes. During this slow mixing period, the moringa seed binds together (coagulates) the fine particles and bacteria into larger particles which sink and settle on the bottom of the bucket. The effect is sometimes immediate!

**Disclaimer:** Discover has compiled this information with the best possible interests of its readership at heart. Discover cannot be held responsible for any negative consequence of following the procedures described in this paper.