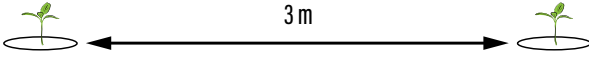
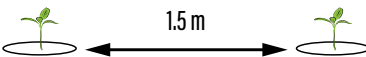
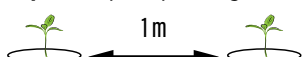


Moringa

Preferred climactic conditions	
Air temperature	Between 25–35°C
Soil type	Well-drained sandy or loamy soils, but will tolerate clay soils with good drainage
Climate conditions	Hot-dry
Sun/shade tolerance	Full sun
Drought tolerance	High
Flood tolerance	Low

Seed sowing and spacing	
Direct seeding	Soak the seeds overnight, crack and remove the shells. Plant only the kernels. Dig a planting pit 50 cm deep and wide and fill with compost. The day before seeding, water the pit. Sow 1–2 kernels per pit. Thin to one healthy plant per pit when seedlings reach 30 cm.
Transplanting	For seedling production, 18 cm x 12 cm poly bags (thick plastic bags) should be filled with a mixture of three parts soil to one part sand. Soak seeds overnight, crack and remove the shells. Plant only the kernels. Seedlings can be transplanted into a compost-filled pit or garden when they are 60–90 cm high. The day before transplanting, water the pit or garden. Trees can also be established from hard wood cuttings (not green wood). The cuttings can be planted in nursery sacks and transplanted after two to three months or planted directly in soil. For planting directly, cuttings that are 45 cm to 1.5 m long and 10 cm thick can be planted directly in light, sandy soil. Plant one-third of the cutting length in the ground. Do not over-water or the roots may rot.
Seed depth	2 cm
Between-plant spacing: 3m	<p>If mature trees are desired, space pits 3 m x 3 m apart.</p>  <p>For intensive leaf harvesting, space plantings 1.5 m x 1.5 m apart.</p>  <p>For living fence posts, space plantings 1 m apart in a line.</p> 

Cultivation	
Irrigation needs:	Although moringa is relatively drought tolerant, insufficient water will reduce yield. Gently irrigate after sowing to reduce seed displacement. Water daily to support seedling growing.
Fertilizer:	Start with a well-fertilized pit. Apply additional compost or well-rotted manure around the base of each plant 1–2 times per year to aid growth.
Special cultivation practices:	As moringa seedlings grow, consistent pruning in the first three months will encourage bushy trees that produce many pods and leaves. To prune, when seedlings reach a height of 60 cm, pinch the terminal growing tip 10 cm from the top. Secondary branches will appear within one week. When these branches are 20 cm long, cut them back to 10 cm. Tertiary branches will appear and should be pinched in the same way. Always use a sharp knife to prune and make a slanting cut. Trees grown for leaf harvesting should be regularly pruned to maintain a height of 1–1.5 m. Moringa seedlings planted to make a living fence should be pruned when they reach 1–1.5 m. Moringa seeds have no dormancy period, so they can be planted as soon as they are mature and they will retain the ability to germinate for up to one year. Edible parts of the tree are the fresh leaves and the seed pods. Fresh leaves can be eaten as salad greens, cooked and combined with staples such as rice or wheat, or pickled and added to curries and soups. Dried leaves can be stripped from the tough stems and rubbed into a powder to add to soups or porridge. Young pods can be boiled, steamed, fried or shelled. Immature seeds can be eaten like peas or fresh beans. Mature seeds can be fried or roasted. Fresh or dried flowers can be used for making teas.

Harvesting	
When to harvest:	Leaves can be harvested when plants grow to 1.5 m tall, roughly one year after planting. Harvest pods when they are young, tender and green. Young pods will be about 1 cm in diameter. Older pods are fibrous and develop a tough shell, but their pulp and immature seeds remain edible until shortly before the ripening process begins.
How to harvest:	Harvest leaves by snapping leaf stems from branches. Harvesting young shoot tips will promote growth of side branches.



Moringa pods



Moringa leaves



Harvested moringa leaves