Eggplant

(brinjal / aubergine)

Preferred climactic conditions	
Air temperature	Hot temperatures up to 30°C
Soil type	Well-drained sandy loam to clay loams
Climate conditions	Hot-dry
Sun/shade tolerance	Full or partial sun
Drought tolerance	Low
Flood tolerance	Low

Seed sowing and spacing		
Direct seeding	Plant 2-3 seeds per planting hole. Thin to one healthy seedling when plants have 4-5 leaves.	
Transplanting	Sow one seed per container. Healthy seedlings can be transferred four to six weeks after sowing or when they have 4–5 leaves. One week before transplanting, harden off seedlings by gradually increasing exposure to full sunlight.	
Seed depth	0.5–1 cm	
Between-plant spacing: 50 cm		
Row spacing: 50 cm	50 cm	

Cultivation

Irrigation needs: Eggplants are sensitive to drought conditions and will suffer yield losses from insufficient water. Gently irrigate after sowing to reduce seed displacement and then water daily. Once eggplants have started to flower they become very sensitive to soil moisture deficit. Adequate irrigation at this time will reduce flower drop and increase yield.

Fertilizer: Start with a well-fertilized bed. If leaves appear yellow, apply one bottle cap of inorganic nitrogen fertilizer around the base of each plant or use a liquid foliar fertilizer.

Harvesting

When to harvest: Fruits will start to ripen roughly two months after transplanting. Color of ripe fruits depends on the variety. Harvest fruits that are still tender and not woody or mushy.

How to harvest: Harvest ripe fruits by cutting a short piece of stem above the cap of the fruit using a sharp knife. Harvesting is done as fruits mature over the course of a few weeks to months. When harvesting, also remove all over-sized and damaged fruits to prolong the fruiting period of the crop. Harvest frequently to promote a heavier fruit yield. Protect fruits from the sun, rain, and mechanical damage after harvest. Old plants that are starting to dry off can be cut back at the base (ratooned) and young shoots will grow and produce fruits after 2–3 months.



Flowering stage



Harvesting stage



Round purple eggplants



Long purple eggplants



Round white eggplants



Round green eggplants

Eggplant pests

APHIDS

Nymphs and adults feed on plant sap and mainly settle on tender shoots and lower leaf surfaces. Aphids secrete honeydew on which sooty mold can grow, which in turn blocks the amount of sunlight needed for the leaves to photosynthesize and thus slows plant growth. Severe infestation causes stunting and leaf curling.

CONTROL

· Remove infested plants and release predators (e.g. ladybird beetle, hover flies, lacewings) to control aphid population.









LEAFHOPPER

Both nymphs and adults inject toxic saliva into plants during feeding, which causes yellow to brown lesions called hopper burn. High amounts of leafhoppers on the plants may reduce photosynthesis, which in turn may have a negative effect on fruit production.

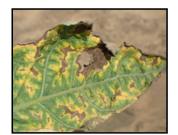
CONTROL

- Use tolerant or resistant varieties with hairy leaves.
- · Use yellow sticky traps or trap crops (e.g. okra) to control leafhoppers.









SPOTTED BEETLES

Grubs and adults scrape the chlorophyll from the epidermis, which results in a ladder-like window on leaves, flowers and fruits. Heavy infestations can completely destroy young plants.

CONTROL

- Manually collect eggs, grubs and adults and destroy.
- · Release predators, such as spined soldier bugs, to control grubs.









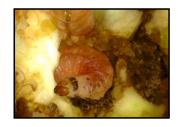
EGGPLANT FRUIT AND SHOOT BORER

Larvae bore into plant parts to feed on flower buds, shoots and fruit and fill entry holes with excreta (frass). This insect mainly feeds on fruits. The damage leads to a delay of crop maturity.

CONTROL

· Remove the infested plant parts and release parasitoids (e.g. Trathala flavoorbitalis, Trichogramma chilonis).









WHITEFLY

Nymphs and adults feed on plant sap and colonize undersides of the leaves. The damage causes plant vigor reduction and whitefly can also transmit eggplant yellow mosaic virus infection.

CONTROL

- Grow eggplant seedlings under insect-proof (50-64 mesh) net houses.
- · Control whitefly population using plant barriers (maize, sorghum or pearl millet) and yellow or blue sticky traps.









RED SPIDER MITE

Larvae, nymphs, and adults prefer to feed on plant sap from the underside the leaves, which causes white or yellow speckles. In severe infestations, they produce a spider web that covers the plants and forms a ball-like mass at the tip of the plant that can be carried by wind to new plants.

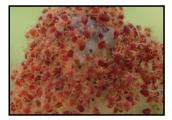
CONTROL

- · Regularly spray plants with water to keep spider mites in check and remove and destroy infested plants.
- Release predators such as predatory mites, ladybugs, pirate bugs, six spotted thrips or green lacewings.









THRIPS

Thrips attack a wide range of crops. Thrips mostly feed on foliage, but sometimes suck sap from fruits as well. Infested leaves have silvery feeding scars on the lower leaf surface, especially along the mid-rib and veins, where thrips have sucked the sap. If infestation is severe, leaves turn yellow or brown, and infested fruit is scarred and deformed.

CONTROL

- Grow eggplant seedlings in insect-proof (50-64 mesh) net houses, or plastic houses to avoid early infestation.
- Use blue sticky traps to monitor thrips and determine when other pest management is required.
- · Use mulch and reflective material to reduce thrips incidence.







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