

PREPARING A VEGETABLE SEEDLINGS NURSERY

A nursery is a specially prepared portion of land put aside for raising seedlings. It acts as a temporary home for young plants until they are eventually planted in a permanent garden. Seeds which need extra care should be grown in a nursery. It is also cheaper to grow your own vegetable seedlings than buying from commercial nurseries.

Vegetables such as Cabbage, Onion, Tomato and Eggplants are best raised in the nursery bed.

Advantages of establishing a nursery include:

- Makes planting, watering and maintaining seedlings easier because everything you need is in one place.
- Provides seedlings with protection from hot sun, hard rains, strong winds and animal disturbances.
- Allows seedlings to grow healthier, because there is enough healthy soil and nutrients available and they get enough water.
- Easy to control pests, diseases and weeds.

Site selection

The nursery should:

- Be located near the planting site so that the transplants are taken to the main garden to reduce damages that may occur where distances are long.
- Be located near a water source because watering will be necessary.
- Be protected from strong winds.
- Should not be located on a slope unless it is terraced since this may lead to erosion of fertile top soil but also the plants as well.
- Should not to be located in a water-logged area.

Preparation of the Nursery

- Dig the nursery area deeply (at least 15cm) and wait for weeds to dry.
- After the weeds have dried, spread one wheelbarrow of compost/farmyard manure every 3 meters (about 7cm layer) and dig it into the soil.
- The nursery bed should be about 1m wide, this makes tending the seedlings easy as it is possible to reach all parts easily.
- The length of the beds will vary depending on amount of seed to be planted (but 3-10m is common).
- Leave a space of 30 - 40 cm between two beds. This walking area is important and help in weeding, nursery care against diseases and insect pest and also for draining out the excess rain water from the nursery beds.
- Raise the beds 15-20 cm high from the ground (particularly in high rainfall areas) to prevent water logging.
- Remove all the clots, stones and weeds from the bed and level it.
- Water the bed

Planting seeds

- Use good quality certified seeds.
- Plant the seeds in rows (some seeds such Spinach should be soaked in cold water for 24 hours before sowing).
- Make the lines at a spacing of 15 cm apart (use a string to make straight lines).
- Make shallow furrows not more than 2 cm deep along the marked lines.
- Spread the seeds thinly along the rows and cover with a thin layer of soil.
- Mulch the bed with dry grass, then water. The mulch will help to maintain soil moisture and temperature for better seed germination, suppress weeds, protect bed from direct sunlight and raindrops, and protect seed against bird damage.
- To prevent seeds and seedlings losses in nursery bed, drench nursery with a mixture of a fungicide (such as TRINITY GOLD, PEARL EXTRA) and an insecticide (such as LOYALTY, ACCENT) immediately after sowing.

Germination

- The seeds will start germinating after 5 – 7 days
- Remove the grass and then put a shade over the nursery bed
- The bed shade should be 1m high, with grass on top but let some sun light go through

Watering

- Water the bed whenever it is necessary.
- Do not over-water the bed. This can create environment for diseases and the leaching (washing away) of nutrients from the soil.
- Under watering will slow growth and wilting of seedlings.

Thinning

- This is the process of removing weak, unhealthy, diseased, insect pests damaged and dense plants from the nursery beds. It aims to have seedlings spaced about 0.5 - 1.0 cm from plant to plant.
- Thinning facilitates light and air to reach all seedlings. It also makes it easy to monitor for diseased and insect pest attacked seedlings.
- Thinned weak but otherwise healthy seedlings can be planted in another bed.

Diseases caused by fungus

- Seed decay before germination
- Seedling rot
- Stem rot at the base

Weed control

- Timely weeding in nursery is very important to get healthy seedling. If there are some weeds in the seed bed, remove them manually by hand.

Hardening Seedlings before Transplanting

Hardening is the process in which seedlings are given some artificial shocks 7-10 days before up-rooting and transplanting them. This makes them better withstand the more harsh conditions of the field. Hardening is done gradually over several days and involves:

- Exposure to the full sunlight by removal of the shading.
- Reducing watering gradually.

Trans-planting

- Seedlings will be ready for trans-planting 21 –30 days after sowing.
- To reduce stress to seedlings, transplant early in the morning or late in the evening.
- Just before transplanting (2 hours before transplanting) water the nursery fully so that you will be able to remove each seedlings easily.
- Take out the seedlings with a ball of soil.