Seedlings produced in tunnels

Purpose of planting in tunnels

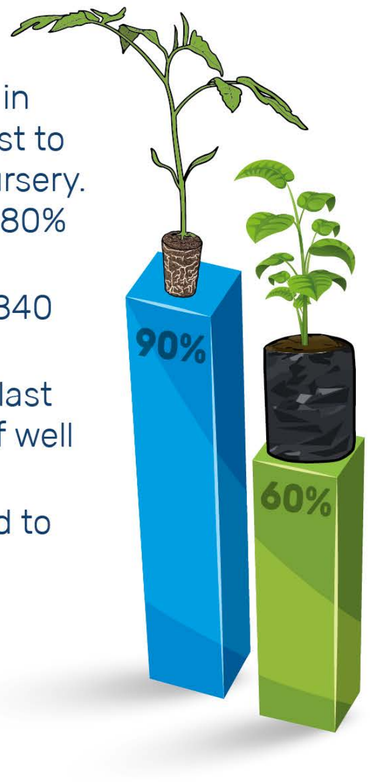
- To create favourable conditions for the seedlings and adverse ones for pests and diseases.
- To guarantee healthy and high-quality seedlings, free of viral diseases or damage from wind or insects which cannot get through the micromesh or penetrate the interior of the tunnel.
- To avoid seed loss.
- To use water efficiently.
- To produce seedlings throughout the year, independently of weather conditions.

Possible limitations:

- The initial cost of a tunnel is relatively high ($150 USD) and would not be profitable for a single vegetable farmer unless he can sell his seedlings to other farmers. In this project, the tunnels are meant to provide healthy seedlings to family gardens in a whole community.
- Every three to five years, according to wear and tear, the micromesh must be replaced for a new one. You'll need 20 square metres (cost: about $40 USD).

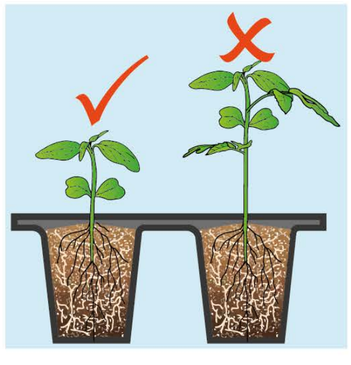
Advantages

- 90% of seedlings planted in tunnels survive, in contrast to only 60% of plants in a nursery. Besides, out of that 60%, 80% will have virus infections.
- It takes up little space (3,840 plants in 6 m2).
- The tunnel structure can last some eight to ten years, if well taken care of.
- Not much water is needed to water the trays.



Recommendations

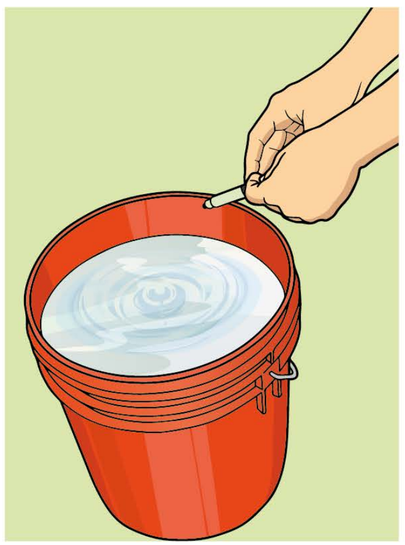
- During the rainy season, you have to protect the micromesh with transparent plastic so that drips won't fall on the trays and the micromesh doesn't rot with decaying leaves.
- In fact, it's good to locate the tunnel somewhere away from trees that could fall on the tunnel or cover it in leaves that rot and damage the micromesh. Besides, if there's too much shade, the seedlings might not develop well and get leggy.
- Prevent seedlings from getting leggy in the trays.
- When more than one seed is planted and germinates in a seed hopper, five days after germination you must remove the additional seedlings until there's only one, and transplant them into seed hoppers where the seeds have not germinated.



Step by step: Planting in trays

1. Disinfecting the trays:

- Fill a bucket with clean water.
- Add chlorine (10 ccs in 20 litres of water).
- Submerge the tray in the bucket and leave for a few seconds.



2. Filling the trays:

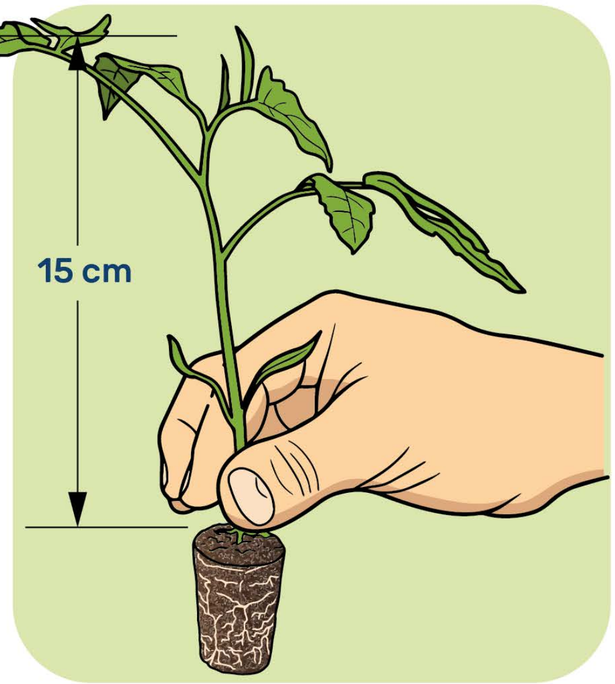
- Prepare de substrate mixture that you're going to use in the trays with:
  - Two shovels-full of vermicompost.
  - One shovel-full of burnt rice chaff.
- Fill each tray cell evenly with this mixture and tap the tray so that the substrate settles and compacts a little.

3. Planting:

- Make a hole in the middle of each seed hopper with a stick or pencil. Each hole should be the same depth, about two or three times greater than the size of the seed.
- Place a single seed in each hole.
- Cover the seeds with a bit of substrate.
- Water the trays daily in the morning and evening so that the seeds can germinate. Use a watering can or splash by hand.

4. Transplanting:

- Tomato seeds begin to germinate 3 to 4 days after planting. Peppers 7 to 9 days, onions 11 to 15 days.
- Transplant the seedlings to the field 22 to 28 days later according to the crop. As a general rule, you can transplant when the seedlings have their first two true leaves or are about 15 cm. tall.
- The seedlings should come easily out of the tray with substrate and all.



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