



# BEST MANAGEMENT PRACTICES IN HIGH TUNNEL PRODUCTION

## Optimal Spacing for High Tunnel Tomatoes

Proper spacing is a common concern of high tunnel growers. In an effort to achieve the greatest production, plants are often set too closely together. More plants does not necessarily mean more yield.

Crowded plants compete with each other for water and nutrients; their dense foliage reduces air circulation creating ideal conditions for foliar diseases; and maneuvering through the crop for

harvesting and training is more difficult. Fewer plants, grown better, will out-yield more plants, grown under crowded conditions.

Spacing includes both the distance between plants in the row as well as distance between the rows. Determinate varieties are spaced and trained differently than indeterminates, and grafted plants need more room than non-grafted. See reverse side for a summary and diagram of suggested layouts for each type of tomato.

A well-spaced planting allows room for the grower to move down the aisles for harvesting, training and scouting for pest and disease problems.



**Photo on left:** June 14. This tunnel shows good spacing; the plants will become even more dense as the season progresses. These plants also need diligent training to focus plant energy on fruit production rather than excess leaf production.



**Photo on right:** July 13. Same tunnel. Optimum use of space.

**Photo on right:** Aug 10. In this tunnel, the rows were set only 2 feet apart so the plants quickly filled all available space making harvesting and managing the crop a real challenge, and there is still over a month of growth and harvest to come.



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## **Between row spacing:**

For all types of tomatoes the between row spacing ('center-to-center', or bed spacing); is a minimum of 4 feet, preferably 5 feet (see diagram B).

This is a bit site specific as tunnels come in different widths.

- For a 20' wide tunnel you can squeeze in 5 rows (4' spacing)
- For a 30' wide tunnel you can fit in 6 rows (5' spacing)

Avoid crowding your plants – you'll get more yield with fewer plants well trained. Disease pressure is reduced, harvesting is efficient, air circulation is increased.

## **In-row spacing:**

**For determinate types:** (see Diagram A)

- Train using the basket weave method
- Set plants 18" apart in a single row
- Set a stake between every 2 plants

**For indeterminate types:** (see Diagram B)

- Train plants to a single leader
- Set plants in a double staggered row
- Set plants 24" apart in row

**For grafted plants:** - train to double leaders (result is a V-shaped plant)

- Option A – a double staggered row
  - 24" from each leader which means 48" between the central root stock.
  - This comes down to the same stalk density as the 24" double row of indeterminates, above.
- Option B – a single row
  - Set plants 24" apart in a single row

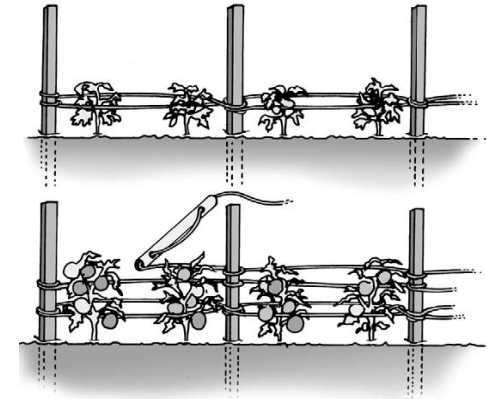


Diagram A: the basket weave method of training determinate tomatoes

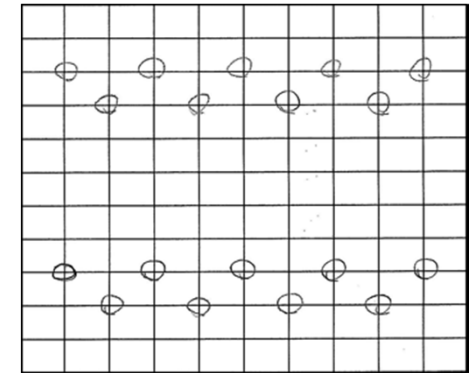


Diagram B: the proper bed spacing for all types of tomatoes and the in-row spacing for a double staggered row of indeterminates  
Scale: 1 square = 1 foot

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