



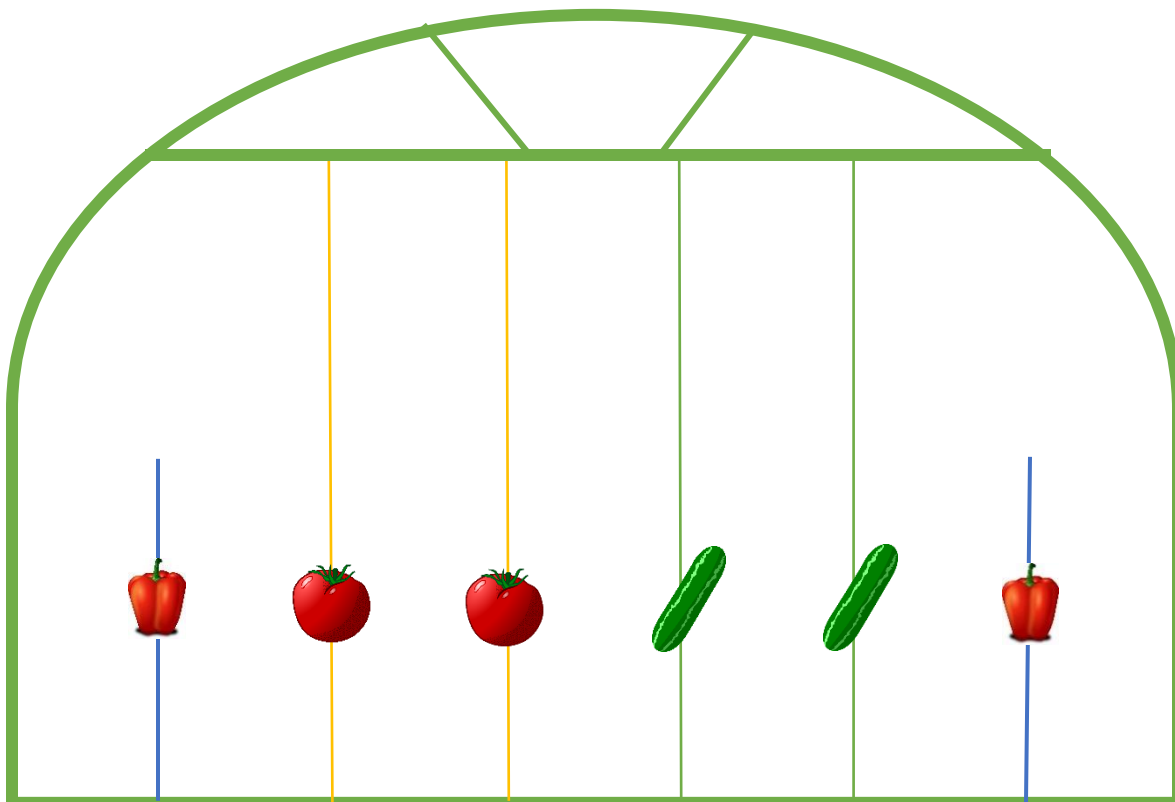
Spring Warm Season Crops: High Tunnel Production

Planning for crops in your tunnel requires some information, a little math, and knowing your constraints. For this exercise, we will be considering a 30' x 96' high tunnel being used for spring production of warm season crops with a target planting date of March 1st. A standard bed width is 30" or 2.5 feet. The high tunnel is 30' across. A recommended pathway width is 1.5'. This leads to the beds being 4' on center, 6 of which fit comfortably in the 30' high tunnel. Due to the nature of warm season crops, putting more than 6 beds in a 30' tunnel could have negative impacts on airflow and shading.

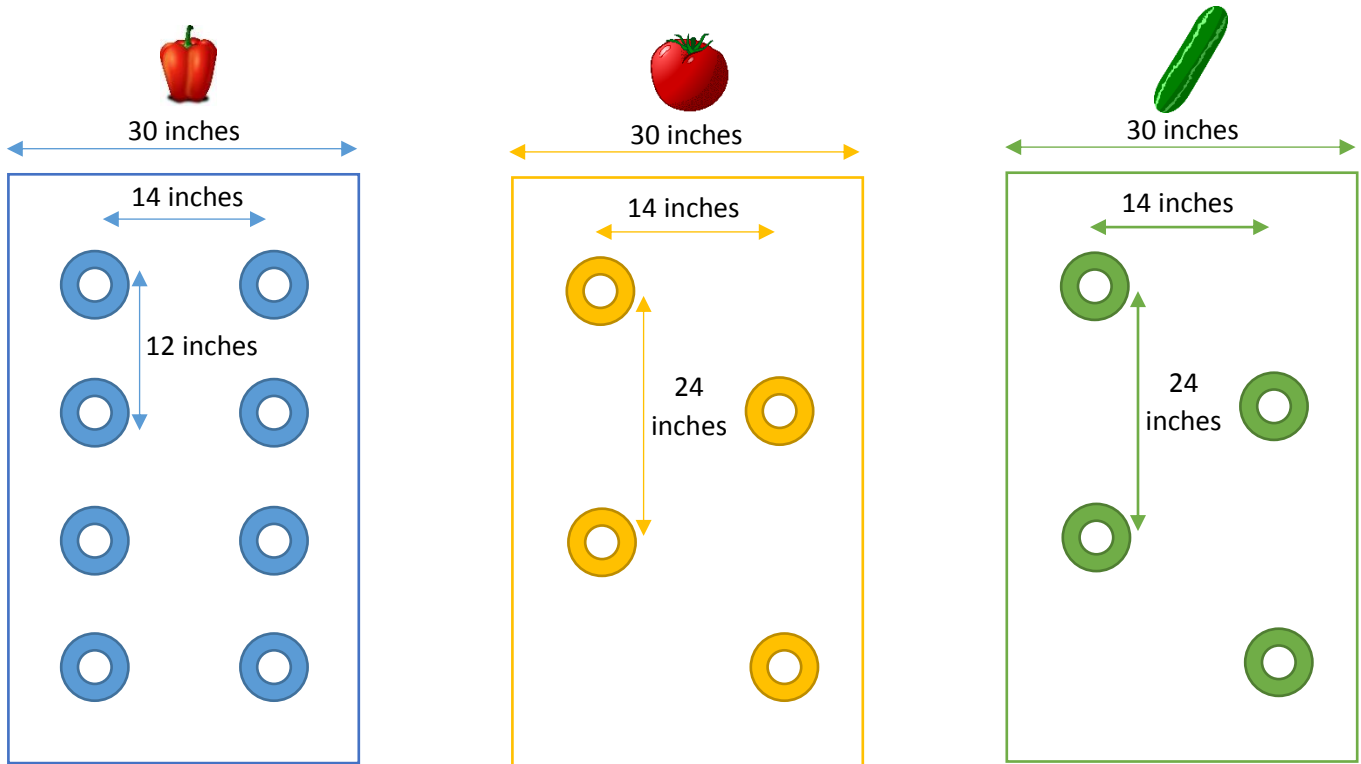
Crop and variety selection are important and getting the necessary information on desired crops is needed to effectively plan crop placement and spacing. Make sure to research all crops that are going into the high tunnel. Three warm season crops that do exceptionally well in tunnels are tomatoes, cucumbers and peppers.

1. Big Beef is an indeterminate tomato with high yields and disease resistance. Best when planted 18-24" in-row and 18-24" between-row spacing. Best trellising system: roller-hook.
2. Socrates is a seedless slicer type cucumber. Best when planted 18-24" in-row and 18-24" between-row spacing. Best trellising system: roller-hook.
3. Sprinter is a green to red bell pepper that produces large abundant fruit. Best at 12-18" in-row and 12-20" between-row spacing. Must be trellised, does best with Florida-weave trellising.

High Tunnel Crop Placement



A Closer Look at Plant Spacing



How to Calculate Plant Amounts

Peppers: First calculate the number of pepper plants in each row (remember there are 2 rows per bed at 14" between-row spacing). The bed/row length is 90' and the in-row spacing is 12" or 1'. Divide 90' by 1' to get the number of pepper plants per row which equals 90 plants per row. Since two rows of plants can fit in one bed, multiply 90 by 2 which equals 180 plants per bed. This can further be multiplied by the number of beds desired for pepper production. In this example there are two beds devoted to pepper production so a total of 360 pepper plants are needed.

Cucumbers and Tomatoes: In this example the cucumbers and peppers are being planted at the same in-row and between-row spacing. By staggering the plants each plant is roughly 19.8" away from the next plant which satisfies between row spacing requirements. This close spacing will only work with roller-hook trellising. If using cages or Florida weave trellising, the best plant spacing is 18" in-row with only one row per bed.

The bed/row length is 90' and the in-row spacing is 24" or 2'. Divide 90' by 2' to get the number of pepper plants per row which equals 45 plants. Since two rows of plants can fit in one bed, multiply 45 by 2 which equals 90 plants per bed. This can further be multiplied by the number of beds desired for pepper production. In this example there are two beds for each tomato and cucumber production so the plants totals are as follows: 180 tomato plants and 180 cucumber plants.

NOTE: If producing your own transplants, start seeds roughly 4-5 weeks before the planting date of March 1st. It's a good practice to start 20% more seed than needed to account for germination issues.

www.carolinafarmstewards.org/high-tunnel-consulting/

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