Pruning and Spacing Tomatoes, Cucumbers and Peppers in High Tunnels
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Project Funding

- Northwest Minnesota Sustainable Regional Partnership
- Northwest Minnesota Foundation
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Training tomatoes, peppers and eggplants:

• Increases marketable yield.
• Increases fruit size
• Earlier Harvest
• Reduces disease pressure.
• Increases harvest efficiency.
• Improves spray efficiency.
Stages of a Tomatoes Life

Planting - Rapid increase in vegetative mass
1st flowering
Flower bud initiation begin heavy K drop
This is prior to you seeing the first buds
Development of fruit
P drops rapidly as fruit begin to size
Ripening of fruit
Continued development of flowers and fruit
(indeterminate plants only***)
Determinate types 2nd fruiting potential
Tomato Varieties Very with Pruning:

- Market yield (lbs/plant)

<table>
<thead>
<tr>
<th>Variety</th>
<th>Not Pruned</th>
<th>Pruned</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHN 543'</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>SW10250'</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Sunstar'</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Florida 91'</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Cobra'</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Big Bear'</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Trust'</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Pruning is most practical for...

- Small tomato plantings.
- Indeterminate tomato varieties.
- Late-season determinate varieties.
Figure 2.

Leave this sucker below the first flower cluster. Do not prune higher on the plant.

Remove all other suckers below.
Non-pruned

Pruned
Add strings as the plant gets taller (every 6”).
Material Costs per 1000 ft²

- Stakes & Twine: $48.00
- Labor: $50.00
Pruning Cucumbers
## High Tunnel Cucumbers (3 plots with 4 plants)

<table>
<thead>
<tr>
<th>Variety</th>
<th>Total Count</th>
<th>Total Weight</th>
<th>Average Weight</th>
<th>Total Cull Count</th>
<th>Total Cull Weight</th>
<th>Cull Weight (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>224</td>
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<td>0.62</td>
<td>4</td>
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<tr>
<td>Excelsior</td>
<td>193</td>
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<td>0.52</td>
<td>4</td>
<td>1</td>
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<td>Katrina</td>
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<td>20</td>
<td>9.28</td>
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<tr>
<td>Lisboa</td>
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<td>Picolino</td>
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<tr>
<td>Rocky</td>
<td>213</td>
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</tbody>
</table>
Pruning and Trellising Peppers
Pruning and Trellising Peppers

- Very Little Pruning
- Remove first Crouched Peppers
- Trellising in Key to good high tunnel production
Trellising eggplants reduces fruit breakage.
Spacing Tomatoes, Cucumbers, Peppers Eggplant

• It depends on different circumstances
  – Soil Fertility
  – Disease Management
  – Harvest.
Tomatoes

• Small determinant 18 inches
• Larger determents 24 inches
• Indeterments 24 inches

Row width 48 to 60 inches
Cucumbers

- Mostly 12 – 18 inches apart
- Row width 48 – 60 inches
Peppers

Option 1
12 inches apart single row

Option 2
Double row - in row 18 inches 6-12 inches between rows.

Rows 4 foot apart
Know You Water

Test water 1st use for:
  pH*
  Alkalinity*
  N, P & K
  Clogging particulates
  Fe

Regularly test for pH and Alkalinity
Well vs. Spring vs. Stream vs. Pond
Questions