Pruning for Productivity

High Tunnel Cherry Tomato Trial 2016
Cornell Willsboro Research Farm
Amy Ivy, Eastern NY Commercial Horticulture Program

Project Team: Amy Ivy, Judson Reid, Michael Davis with help from Lauren Fessler and Calvin Arno
Tomatoes thrive in high tunnels
Proper Spacing and Training

- Makes for healthier, more productive plants
- Greater yield
- More efficient work
It is easy for things to get out of hand
We have learned a lot about training and pruning slicing tomatoes.
Cherry Tomatoes are challenging to train
Cherry tomatoes are the first to ripen for earliest sales.
Cornell Willsboro Research Farm
Video – early August – different grower
We know it’s possible to prune them well, but is it worth the effort to train like this?
This is what we studied in this trial.
July 10

- Planted May 25
- 3 treatments, 4 reps
- Harvested 3x/week
- July 13 - Sept 10
- Supersweet 100
Single Leader
remove every sucker
Keep ALL suckers pruned off
Double leader
start with ‘strong Y’
July 29

Single Leader

Double Leader

4 Leaders Plus
July 29
1 leader/2 leader, 2 leader/4 leader
Aug 2
4 on left, single on right
August 31

2 leader, 4 leader

Single leader, 4 leader
**Pruning & Training Time**

Key:
- **blue line** - single leader
- **green line** – double leader
- **red line** – 4 leaders

**Total Pruning, Training and Harvest Labor (hrs)**

- 18" spacing, four leaders: 12 hrs
- 18" spacing, double leader: 8 hrs
- 12" spacing, single leader: 6 hrs
Harvest Time

Key:
- blue line - single leader
- green line – double leader
- red line – 4 leaders

Harvest Time (minutes)

Total Pruning, Training and Harvest Labor (hrs)

- Total Pruning and Training Time (hours)
- Total Harvest Time (hours)
Yield (lbs)

Total Marketable Harvest (lb)

- 18" spacing, four leaders: 250.00 lb
- 18" spacing, double leader: 200.00 lb
- 12" spacing, single leader: 150.00 lb
Net Revenue by Treatment

Net Revenue by treatment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot; spacing, four leaders</td>
<td>$800.00</td>
</tr>
<tr>
<td>18&quot; spacing, double leader</td>
<td>$700.00</td>
</tr>
<tr>
<td>12&quot; spacing, single leader</td>
<td>$600.00</td>
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</tbody>
</table>
Variety Trial of Leaf Mold Resistant Cherry Tomatoes
Early symptoms of leaf mold
Esterina, Natures Bites, Sakura, Sungold*

* Sungold is the variety susceptible to leaf mold
Variety trial at the Cornell Willsboro Research Farm
4 reps, 4 varieties
Marketable Yield
7/13 – 9/10

Total Yield Per Plant (lbs)

<table>
<thead>
<tr>
<th>Variety</th>
<th>Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sakura</td>
<td>15.3</td>
</tr>
<tr>
<td>Esterina</td>
<td>15.0</td>
</tr>
<tr>
<td>Nature's Bite</td>
<td>12.1</td>
</tr>
<tr>
<td>Sungold</td>
<td>10.8</td>
</tr>
</tbody>
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Marketable Yield (lb)
Cherry Tomato Trial yield over time

Esterina  Natures Bites  Sakura  Sungold
Thank you!

- Northern NY Agricultural Development Program
- Mike Davis, manager of the Cornell Willsboro Research Farm
- Judson Reid, Cornell Vegetable Program
- Lauren Fessler, Cornell Summer Intern
- Calvin Arno, summer farm employee
- We have funding to repeat the pruning trial in 2017

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