Hop Yard Trellis Design

Stephan Schmidt
SCHMIDT FARM
Layout Selection

Straight
In-Line V
High Density V
Straight Design

- Pole Spacing every 35’
- Plant Spacing every 3’ 6”
- Row width 10’-12’ (Varies on equipment)
- ½ acre or less
- Hobby / Showcase
Straight In-Line V Design

- Pole Spacing every 35’
- Plant Spacing every 6-7’
- Row width 10’-12’ (Varies on equipment)
- ½ acre or less
- Hobby / Showcase
9 Plants

105 ft.

70 ft.

35 ft.

Poles

0 ft.

Rows

Feet

A 1

12 ft.

A 2

12 ft.

A 3
High Density V-Design

- Pole Spacing (Grid)
- Plant Spacing every 3’ 6”
- Row width 12’-14’ (Varies on equipment)
- ½ Plus
- Serious / Commercial
## Design Comparison

<table>
<thead>
<tr>
<th></th>
<th>Straight Design</th>
<th>Straight In Line V</th>
<th>V Design</th>
</tr>
</thead>
<tbody>
<tr>
<td># Poles</td>
<td>110</td>
<td>110</td>
<td>60 / 87 / 110</td>
</tr>
<tr>
<td># Plants</td>
<td>819</td>
<td>572</td>
<td>907 / 892 / 693</td>
</tr>
<tr>
<td># Strings Per Plant</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Bines Per String</td>
<td>3/4</td>
<td>3/4 x 2</td>
<td>3/4 x 2</td>
</tr>
<tr>
<td>Yield (North East)</td>
<td>.5 0 - .75lb per plant</td>
<td>1 – 1.5lb per plant</td>
<td>1 – 1.5lb per plant</td>
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<tr>
<td></td>
<td>410 - 615 lbs Dry</td>
<td>572 – 858 lbs Dry</td>
<td>693 – 1,360 lbs Dry</td>
</tr>
<tr>
<td>Recommended</td>
<td>1/2 Acre or Less</td>
<td>1/2 Acre or Less</td>
<td>1/2 acre +</td>
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<tr>
<td></td>
<td>Hobby / Showcase</td>
<td>Hobby / Showcase</td>
<td>Serious Grower</td>
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### Poles (4’ in ground / 18’ in air)

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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<tbody>
<tr>
<td>Pressure Treated</td>
<td>- $50-$90 ea.</td>
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<tr>
<td></td>
<td>- Red Pine (Bad)</td>
</tr>
<tr>
<td></td>
<td>- Lodge Pole Pine</td>
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<tr>
<td></td>
<td>- Southern Yellow Pine</td>
</tr>
<tr>
<td>20 – 25 Years</td>
<td></td>
</tr>
<tr>
<td>Treated (No Organic)</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>- Interior (4”-5”)</td>
</tr>
<tr>
<td></td>
<td>- Exterior (6”-7”)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Trees (Free / $35 - $50)</td>
<td>- Black Locust (30+ Years)</td>
</tr>
<tr>
<td></td>
<td>- Red Cedar (20/25 Years)</td>
</tr>
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<td></td>
<td>- Tamarack / Larch (15/20 Years)</td>
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<tr>
<td>Harvest</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Only in winter</td>
</tr>
<tr>
<td></td>
<td>- Summer – 5 Years</td>
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<tr>
<td>Treating</td>
<td></td>
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<tr>
<td></td>
<td>- Strip Bark (all)</td>
</tr>
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<td></td>
<td>- Foundation Tar Bottom 5’</td>
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</tbody>
</table>
Cable

1x7 (Yes)
7x7 (ok)
7x19 (Straight ok / V NO)

V Design Cable Cross
Anchors

• Helix
  • Soil type (Sand, Clay, Gravel)
  • Check soil 4’ deep (Shale)
  • Row Length will determine size
  • Min. 4’ x 6”
  • Install
    • By Hand
    • Skid Steer
    • NO Tractor

• ArrowHead
  • Soil type (Sand, Clay, Gravel, Rocks)
  • Rocks 12” and less
  • Larger rocks (??)
  • Row length will determine size
  • Min. 4’ x 4”
  • Install
    • By Hand (Sledgehammer)
    • Jackhammer
Other Supplies

**Tools**
- Cable Cutter / Angle Grinder
- Havens Grip
- Come A-Long
- Applicator Tool

**Hop Yard Parts**
- Eye Bolts
- Staples (3”)
- Post caps
- Tensioners
- Rope Clips
- Coir
- W-Clips
Plants vs. Rhizomes

• Plants
  • Clean Network
  • No Virus / Disease
  • 1 Plant per Hill
  • SAFER but.....

• Rhizomes
  • Roots from Main Hop Plant
  • Multiple Rhizomes per Hill
  • % infected with Virus/Disease
  • DO NOT BUY
Cost

• Acre
  • $15,000 - $20,000

• Variables
  • Yard Size
  • Poles
  • Plants/Rhizomes/Propagation
  • Design (Straight vs V Design)
  • Labor