**Economics of High Tunnel Vegetable & Strawberry Production in the Central Midwest**

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Atlas ® High Tunnel, Farmington, MO  
Conley Greenhouse Mfg  
24 ft. x 96 ft.  
0.72

FarmTek ® High Tunnels, St. Louis, MO  
Haygrove® Multi-bay High Tunnel, St. Louis, MO  
Stuppy® Polar Cubs, Columbia, MO  
Zimmerman High Tunnel, Dittmer, MO  
Mobile PVC High Tunnel, Troy, MO

**Costs of High Tunnels (frame only) Used by Growers in the Central Midwest:**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Dimensions</th>
<th>Cost ($/ft²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlas Greenhouses</td>
<td>30 ft. x 96 ft.</td>
<td>0.74</td>
</tr>
<tr>
<td>Conley Greenhouse Mfg</td>
<td>24 ft. x 96 ft.</td>
<td>0.72</td>
</tr>
<tr>
<td>FarmTek</td>
<td>26 ft. x 96 ft.</td>
<td>1.16</td>
</tr>
<tr>
<td>Haygrove Tunnels</td>
<td>24 ft. x 200 ft.</td>
<td>1.03</td>
</tr>
<tr>
<td>Shuppy Greenhouse</td>
<td>20 ft. x 96 ft.</td>
<td>0.96</td>
</tr>
<tr>
<td>Zimmerman Welding</td>
<td>20 ft. x 96 ft.</td>
<td>1.00</td>
</tr>
<tr>
<td>Average</td>
<td>25 ft. x 96 ft. (2400 ft²)</td>
<td>0.94 (1.44)</td>
</tr>
</tbody>
</table>
Greenhouse Capital Requirements: ≈ $6.50 per square foot

Wide and walls for passive ventilation of the high tunnels:

Crops being grown within high tunnels in the Central Great Plains:

Source: 2004-05 Central Great Plains High Tunnel Survey
Wholesale Cooperative Produce Auctions

**High Tunnel Tomato Production Costs**

**Pre-harvest Costs:**

- **Stakes & Twine:** $48.00
- **Labor:** $50.00

- **Cages:** $170.00-340.00
- **Labor:** $20.00
Ventilation (air movement) is important for tomato pollination.

Pruning may be necessary to promote earliness and reduce biomass within the high tunnel.

Drip irrigation

In-line fittings

Soluble fertilizer
Row or Crop Covers: 1.5¢ per ft²

Mulching for weed control:

Intercropping can increase productivity per ft².
Pest Management Costs

60 man hours per commercial high tunnel

Beneficial Insects

Total Production Costs: $5.50/plant
How profitable are high tunnel tomatoes?

<table>
<thead>
<tr>
<th>Price/lb. ($)</th>
<th>Net Revenue/1000 ft² ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1000</td>
</tr>
<tr>
<td>0.5</td>
<td>1000</td>
</tr>
<tr>
<td>1</td>
<td>1000</td>
</tr>
<tr>
<td>1.5</td>
<td>1000</td>
</tr>
<tr>
<td>2</td>
<td>1000</td>
</tr>
<tr>
<td>2.5</td>
<td>1000</td>
</tr>
<tr>
<td>3</td>
<td>1000</td>
</tr>
<tr>
<td>3.5</td>
<td>1000</td>
</tr>
<tr>
<td>4</td>
<td>1000</td>
</tr>
<tr>
<td>4.5</td>
<td>1000</td>
</tr>
</tbody>
</table>

For different plant weights:
- 8 lbs/plant
- 10 lbs/plant
- 12 lbs/plant

Break Even Price

How profitable are high tunnel tomatoes?

Leafy greens
Melons
Spring/Winter
Fall
Summer
Tomatoes
Broccoli
Strawberries
Mixed Crops

VINE CROPS
High Tunnel Cucurbit Pre-harvest Costs

Trellising:
- Improves harvest efficiency.
- Increases marketable yields.
Mulch:

Pollination

Pest Management
How profitable are high tunnel cantaloupes?

Wholesale Cantaloupe Prices (4 year avg.)

Wholesale Cucumber prices (4 year avg.)

Prices at MO Wholesale Cooperative Produce Auctions
http://agebb.missouri.edu/hort/auction/index.htm

High Tunnel Strawberries

Plant Costs
How profitable are high tunnel strawberries?

$1.28/lb break even price

-$0.85/lb Avg. price from test mkts.

$3.00/lb Avg. Price

0.75 lbs/plant

1.0 lbs/plant

1.2 lbs/plant

Thank you, and please visit the high tunnel web site: