Small Scale Commercial Vegetable Production

Wenjing Guan
Horticultural Specialist
Southwest Purdue Agriculture Center
- **Target market**

- **Primary crops**
<table>
<thead>
<tr>
<th>Warm-season Crops</th>
<th>Cool-season Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomato</td>
<td>Spinach</td>
</tr>
<tr>
<td>Eggplant</td>
<td>Lettuce</td>
</tr>
<tr>
<td>Pepper</td>
<td>Cabbage</td>
</tr>
<tr>
<td>Cucumber</td>
<td>Kale</td>
</tr>
<tr>
<td>Squash</td>
<td>Broccoli</td>
</tr>
<tr>
<td>Cantaloupe</td>
<td>Cauliflower</td>
</tr>
<tr>
<td>Watermelon</td>
<td>Garlic</td>
</tr>
<tr>
<td>Beans</td>
<td>Onion</td>
</tr>
<tr>
<td></td>
<td>Collard</td>
</tr>
<tr>
<td></td>
<td>Radish</td>
</tr>
<tr>
<td></td>
<td>Carrot</td>
</tr>
</tbody>
</table>
Production

Season extension

Vegetables as examples
Production

- Plant nutrition and soil fertility

• Soil test and fertilizer needs

Nitrogen: 100 to 120 lb/a
Preplant (30 lbs/a N), sidedressing or fertigation (1 lb/a N per day)

Phosphorus:
Preplant (0 to 240 lb/a P$_2$O$_5$)

Potassium
Preplant (0 to 300 lb/a K$_2$O), fertigation (1.5 to 2.5 lb/a K per day)

https://ag.purdue.edu/agry/extension/Pages/soil_testing.aspx
Production

- *Fertilizers and organic soil amendments*

• Compost and cover crops
• Compost and cover crops
Diseases, insects and weeds

- Fungi, bacteria, viruses

Disease Identification

Purdue Plant & Pest Diagnostic Laboratory

https://www.ppdl.purdue.edu/PPDL/index.html
• *Insects*
• Nematode
Weeds
- Other problems

http://www.extension.umn.edu/gardening/yard-garden/vegetables/growing-broccoli-cabbage-and-
Production

Resources

https://ag.purdue.edu/hla/Extension/Pages/Vegetable-Crops.aspx
Production

Season extension

Vegetables as examples
Season extension

- Succession planting
- Early maturing varieties
- Protected culture

Scheduling Vegetable Plantings for Continuous Harvest

By Janet Bachmann
NCAT Agriculture Specialist
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Market gardeners try to schedule their planting so they can offer customers a continuous supply of fresh flowers, herbs, and vegetables throughout the growing season. This publication helps growers plan planting times and succession planting.
Vegetable as examples

Tomatoes

- Choose varieties
- Fruit characteristics: Beefsteak, cherry and grape tomato, plum, different color

Pictures were from Johnny’s Selected Seeds
• Plant growth habits

Determinate vs. Indeterminate
• Heirloom vs. F1

• Disease resistance

Disease Resistance Codes:
HR: F2, TMV, V

SKU: 11886-00-01

72 Days to maturity.
Red Deuce tomato is an excellent second early variety to follow Primo Red with. The determinate plants produce big yields of large to extra-large fruit that have great eye-appeal and good eating quality. The fruit are globe-shaped, uniform ripening and ripen to a deep red color. Red Deuce lends itself well to stake cultivation and has resistance to Verticillium Wilt, Fusarium Wilt (races 1, 2), Tobacco Mosaic Virus and Stemphylium. Growers using Mountain Spring in their program want to compare the performance of Red Deuce next to it.

Supplied as treated seed.
Cultural practices
Scion Rootstock Grafted plants

Tomato, Eggplant, Pepper
Watermelon, Cucumber, Melon,
Tomato grafting
Vegetable as examples

Cucumbers

- Choose varieties
  - Slicer, Picklers, English (long), Beit Alpha
Parthenocarpic: do not need pollination

Gynoecious: all female flowers
Vegetable as examples

Retail prices for fresh strawberries (2011)

[Bar chart showing the retail prices for fresh strawberries from January to December 2011, with the highest prices in January and the lowest in December.]
**June-bearer:** require short day to initiate flower buds

**Day-neutral:** Insensitive to day length

**Everbearing:** initiate flowering under long days

( Integrated Pest Management for Strawberries, 1994)
<table>
<thead>
<tr>
<th>Varieties</th>
<th>Marketable yield (lb/plant)</th>
<th>Average fruit weight (oz.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albion</td>
<td>1.70</td>
<td>0.87</td>
</tr>
<tr>
<td>Benicia</td>
<td>2.08</td>
<td>0.70</td>
</tr>
<tr>
<td>Camarosa</td>
<td>1.42</td>
<td>0.56</td>
</tr>
<tr>
<td>Camino Real</td>
<td>1.89</td>
<td>0.76</td>
</tr>
<tr>
<td>Chandler</td>
<td>2.17</td>
<td>0.54</td>
</tr>
<tr>
<td>Festival</td>
<td>1.88</td>
<td>0.72</td>
</tr>
<tr>
<td>Radiance</td>
<td>2.86</td>
<td>0.86</td>
</tr>
<tr>
<td>San Andreas</td>
<td>2.37</td>
<td>0.72</td>
</tr>
<tr>
<td>Sweet Ann</td>
<td>1.62</td>
<td>0.97</td>
</tr>
<tr>
<td>Sweet Charlie</td>
<td>1.69</td>
<td>0.59</td>
</tr>
</tbody>
</table>