Introduction

- A temperate juicy fruit of excellent appearance and quality.
- Grown both in temperate and subtropical conditions.
- Comes in the market early in the season, particularly low chilling cvs. grown in warmer regions.
- First good crop obtained within 4-5 years of planting.
- Production is highest among all the stone fruits.
Origin & Distribution

- Originated in China.
- In India, peach occupies an area of 19,510 ha with a production of 1,59,640 tonnes.
- In H.P., area under peach is 5,134 ha and production is 8,173 MT.
Botany

• Botanical Name: *Prunus persica*
  Family: Rosaceae
### Recommended Cultivars

**Mid hills**

<table>
<thead>
<tr>
<th>Early</th>
<th>Mid</th>
<th>Late</th>
</tr>
</thead>
</table>

**Low hills & valley areas**

| Sharbati, Shan-e-Punjab, Florida Sun Florida Prince Early Grande | Summerset |
Varieties of Nectarine

• Snow Queen, May Fire, Silver King, Red Gold.
• Other vars.: Sunred, Sunrise, Sunripe, Nectared, Sunlight
Climate

- Peach requires the warmest climate of all the temperate fruits.
- Generally grown in lower and mid-hills (1000-2000 m amsl) except for varieties belonging to Florida group which can be grown under sub-tropical conditions.
- More susceptible to spring frost.
- Chilling requirement is 650-1000 hours.
- Rainfall or irrigation is desirable during summer season but high humidity is conducive to the attack of pest and diseases.
- Areas situated in deep valleys are not suitable.
- Select slightly sloppy areas for proper air drainage.
- Select north eastern aspect.
- Areas experiencing frequent hail storms should not be selected.
- Dry winds during flowering adversely affect the fruit yield and lowers the productivity.
• Peach thrives on a wide range of soil types but does best on light sandy, gravelly and clay-loam, which are fairly fertile.
• Do not thrive on water-logged soils.
• The soils must be well drained.
• Fertile to heavy soils are hazardous to peach.
• The pH of the soil should vary from 5.8-6.8.
Rootstocks

- Wild peach: Most commonly used in H.P.
- Peach x almond hybrids (GF 556 and GF 677)
- Nemaguard, Nemared, Okinawa, Floridaguard, Shalil are resistant to nematodes.
Propagation Method

- Tongue grafting: January–February
- Cleft grafting: January–February (Top working method)
- T-budding: May–June

Planting

- Distance: 4.5 m
- Time: December – February. Early planting is desirable
• Peaches are trained on Open Center System of training.
• Peach requires the heaviest pruning.
• In young trees, more of heading back and in older trees, more of thinning of shoots should be done.
• In case of full grown July Elberta cultivar, pruning should be done to retain 40 fruiting shoots (600 nodes) per tree. Each shoot headed back to 15 nodes for higher yields.
• Where heavy pruning is required, ¾ heading back + 40 % thinning out should be done.
Orchard Soil Management

- Atrazine or Diuron @ 4.0 kg/ha is effective in controlling weeds for 4-5 months in peach orchards.
- Oxyfluorfen @ 0.5 kg/ha or Diuron @ 2.0 kg/ha is effective in peach nurseries.
- The herbicides should be applied in the month of April as pre-emergence to weeds.
- For post-emergence, application of gramoxone @ 2 L/ha or glyphosate @ 800 ml/ha (700 L water is sufficient for one hectare) is used in orchards.
- To conserve soil moisture, mulching of dry grass or hay 10-15 cm in thickness in the tree basin should be done.
<table>
<thead>
<tr>
<th>Age of tree (years)</th>
<th>FYM (kg)</th>
<th>CAN (g)</th>
<th>N (g)</th>
<th>SP (g)</th>
<th>P$_2$O$_5$ (g)</th>
<th>MOP (g)</th>
<th>K$_2$O (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>10</td>
<td>280</td>
<td>70</td>
<td>220</td>
<td>35</td>
<td>165</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>560</td>
<td>140</td>
<td>440</td>
<td>70</td>
<td>335</td>
<td>200</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>840</td>
<td>210</td>
<td>660</td>
<td>105</td>
<td>500</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>1120</td>
<td>280</td>
<td>880</td>
<td>140</td>
<td>670</td>
<td>400</td>
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<tr>
<td>5</td>
<td>30</td>
<td>1400</td>
<td>350</td>
<td>1100</td>
<td>175</td>
<td>835</td>
<td>500</td>
</tr>
<tr>
<td>6</td>
<td>35</td>
<td>1680</td>
<td>420</td>
<td>1320</td>
<td>210</td>
<td>1000</td>
<td>600</td>
</tr>
<tr>
<td>7 &amp; above</td>
<td>40</td>
<td>2000</td>
<td>500</td>
<td>1560</td>
<td>250</td>
<td>1170</td>
<td>700</td>
</tr>
</tbody>
</table>
Method of fertilizer application

- Apply FYM during Dec.- Jan. along with P and K
- Apply half N in spring before flowering and remaining half N one month later, if irrigation facilities are available.
- Under rainfed conditions, N fertilizer should be applied in one lot about 15 days before bud break.
Pollination

- In case of peach, all commercial cultivars are self-fertile except J.H. Hale, Halberta, Chinese Cling and Giant.
- A self-sterile cv. needs to be planted in double rows alternating with 2 rows of self-fertile cvs.
Irrigation

• 2-3 irrigations from April to June.

Thinning

• Best blossom thinning can be obtained with the spray of 300 ppm Ethephon (1ml/1 L water).
Harvesting & Yield

- Season is May to August
- For local market - little soft fruit and for distant market - before fruit shows signs of softness, proper size, flavour and colour.
- Proper color development in fruits and pit browning - reliable guides.
- July Elberta cultivar requires 101±3 days from full bloom to maturity.
- In low chilling cultivars like Flordasun, fruits should be harvested at 50% color development stage.
- All fruits do not ripe at same time so many pickings are required.
- Handle the fruits carefully to avoid cuts and bruises.
- Yield: 7-10 tones per hectare.
<table>
<thead>
<tr>
<th>Grade</th>
<th>Fruit size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special</td>
<td>55-63 &amp; above</td>
</tr>
<tr>
<td>Grade I</td>
<td>46-55</td>
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<tr>
<td>Grade II</td>
<td>Below 46</td>
</tr>
</tbody>
</table>

Extra padding may be given for tight packing.
• Peaches can be stored for 2-4 weeks at a temperature of 0°C with 85-90% relative humidity.