Delayed Harvest and Extended Storage of Gloria Peaches

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Support from:
New Jersey Agricultural Experiment Station, and New Jersey Peach Promotion Council
Peach Harvest and Storage Considerations

- Peach fruit ripen quickly and non-uniformly on the tree.

- How ripe should you pick them, so that they can still withstand handling and storage?
  - Too ripe > bruising and deterioration
  - Too unripe > poor flavor, mealiness development during storage

- The fruit lose quality quickly in storage.
Ripening range* (warmer = faster ripening)

‘Killing Zone’ range (chilling injury occurs)

Ideal storage range
Types of peach/nectarine flesh texture

- **Non-Melting Flesh** – includes clingstone canning peaches. These fruit never melt. They often become rubbery as they age (e.g. ‘Lovell’). Some freestones may also be non-melting.

- **Melting flesh** – Includes most fresh-market varieties. Flesh softens and bruises easily as they ripen
  1. **Traditional melting flesh** (e.g. ‘Redhaven’, ‘Bounty’, ‘Raritan Rose’)
  2. **Slow melting** (e.g. ‘Big Top’, ‘White County’, ‘White Diamond’)
  3. **Stony-Hard** – Now available. Fruit stays firm when ripe (e.g. ‘Gloria’ perhaps ‘White Rock’, ‘Scarlet Rose’)


Previously we saw that

Letting ‘Gloria’ fruit hang longer:

- Lets fruit get sweeter
- Lets fruit get larger
- Loses some firmness
- Loses acidity
Gloria™ Peach
(NJ 351)

A large, yellow-fleshed, freestone, non-melting peach
Ripens August 19-22, late blooming.
From Rutgers/NJAES.
Very firm flesh with low acid and good sweet flavor.
A unique variety because of its very attractive color, low acidity and very firm flesh.
'Gloria'
## Experimental Procedure

### Days in Storage

<table>
<thead>
<tr>
<th>Days Harvest Delayed</th>
<th>1</th>
<th>7</th>
<th>14</th>
<th>21</th>
<th>28</th>
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<tbody>
<tr>
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Samples of commercially mature fruit were obtained from Circle M and Summit City Farms from established, bearing trees.

Harvest when: Mature (day 0) and after 3, 7, 10, 16 days.

All fruit and then stored overnight in conventional cold storage.

Each harvested sample (n=100) was immediately hydro-cooled, then divided into five groups and placed into cold storage

Held in Cold Storage for 1, 7, 14, 21, or 28 days then evaluated.
2016 Gloria Total Soluble Solids

Days after harvest:
- 1
- 7
- 14
- 21
- 28

Total soluble solids (degrees Brix):
- a
- ab
- bc
- c
- bc
### Tally of Ratings for Flesh Defects

<table>
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<tr>
<th>Flesh Rating</th>
<th>Percentage</th>
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<tr>
<td>0</td>
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<td>1</td>
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<td>0.48</td>
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<td>3</td>
<td>0.36</td>
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Only small frequency of flesh defects.
No significant effects of harvest delay or storage time on flesh defects.
2016 Gloria Harvest 0 (no delay) Storage 28 Days
‘Gloria’ Peaches

Can hang on the tree for 5-7 days after they reach commercial maturity.

Hanging longer than 7 days reduces their storage life significantly and is not recommended.

The fruit will soften on the tree if left for 5-7 days after reaching commercial maturity, but only slowly.
Thanks to industry cooperators:

Circle M Farms – Mr. Santo John Maccherone
Summit City Farms – Dr. Lewis DeEugenio

And to our technical help:
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Ms. Courtney Lepping
Mr. Jeff Hammerstedt