MaluSim Carbohydrate Model*

Simulation location: Winchester, VA
Simulation date: May 20, 2013 12:00PM

Greg Peck

*Developed by Drs. Alan Lakso and Terence Robinson, Cornell University
MaluSim Carbohydrate Model for Winchester, VA
May 20, 2013

- Recorded Data
- Intellicast.com forecast
- 4-day Running Average

Silver Tip
Pink
Petal Fall

7.2 mm
11.5 mm
19.1 mm

11.8 mm
Interpreting the MaluSim Model: look for three-to four-day trends

<table>
<thead>
<tr>
<th>Thinning Index</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;20 g/day</td>
<td>Expect little or no response to normal rates of chemical thinners. You will need to thin more aggressively than normal</td>
</tr>
<tr>
<td>+ 20 to -20 g/day</td>
<td>Expect normal thinning responses to standard rates of chemical thinners</td>
</tr>
<tr>
<td>-20 to -40 g/day</td>
<td>Expect normal to slightly aggressive responses to standard rates of chemical thinners</td>
</tr>
<tr>
<td>-40 to -60 g/day</td>
<td>Expect aggressive responses to standard rates of chemical thinners. Consider reducing rates to avoid over thinning</td>
</tr>
<tr>
<td>-60 to -80 g/day</td>
<td>Expect very aggressive responses to standard rates of chemical thinners. Reduce rates to avoid over thinning</td>
</tr>
<tr>
<td>&lt; -80 g/day</td>
<td>Standard rates of thinners will result in severe over-thinning. Reduce rates by at least 50 percent.</td>
</tr>
</tbody>
</table>

(Table developed by Dr. Steve McArtney (NCSU). Additional input from Drs. Alan Lakso and Greg Peck)
Calcium Recommendations

- Season long, want 20-50 lbs CaCl₂
  - 2-8 lbs CaCl₂ spray
  - For calcium disorder prone cultivars, need higher range

- With greater heat and water stress, increase chance of disorders, as well as phytotoxicity

- Calcium moves into the soil by mass flow
  - Dry soil conditions reduce calcium uptake
Magnesium Recommendation

- 1-3 applications of Epsom Salts at 15 lbs/100 gal at petal fall, 1st and 3rd cover

- Epsom salts can be tank mixed with Solubor but not with calcium chloride
Boron Recommendations

Foliar Applications

- Many Virginia orchard soils are low in boron

- Foliar application of 3-4 lbs of Solubor at petal fall or first cover usually helps to correct low boron levels

- You can also split the Solubor applications into two sprays, e.g., petal fall and 2nd cover or 1st and 3rd cover

- Boron may precipitate out of solution when mixed with calcium chloride
We are a collaborative team of Extension specialists and agents who deliver year-round programming for the Commonwealth’s tree fruit producers. We provide our stakeholders with the latest research-based information for making sustainable management decisions on their farms. We also develop resources for beginning farmers and home fruit enthusiasts. Our information is disseminated through this website, Extension publications, workshops, on-farm meetings, and one-on-one conversations.

Commercial tree fruit production updates

05/15/2013
Apple scab/rust infection period Apr 29-30, and fire blight update

From: Tree Fruit Disease Update

We recorded our third apple scab infection period Apr 29-30, with 18 hr wetting at 50-66°. This was also a likely quince rust and cedar-apple rust infection period.

FIRE BLIGHT: Below is the updated graphic from the...

04/29/2013
Apple scab infection period April 28-29

From: Tree Fruit Disease Update

At our AREC we recorded split wetting periods totaling 18 hours starting at 34° at 11 AM Apr 28 and

http://blogs.ext.vt.edu/tree-fruit-horticulture/

http://www.anr.ext.vt.edu/tree-fruit/

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