

MaluSim Carbohydrate Model*

Simulation location: Winchester, VA
Simulation date: May 16, 2013 6:00AM

Greg Peck

*Developed by Drs. Alan Lakso and
Terence Robinson, Cornell University

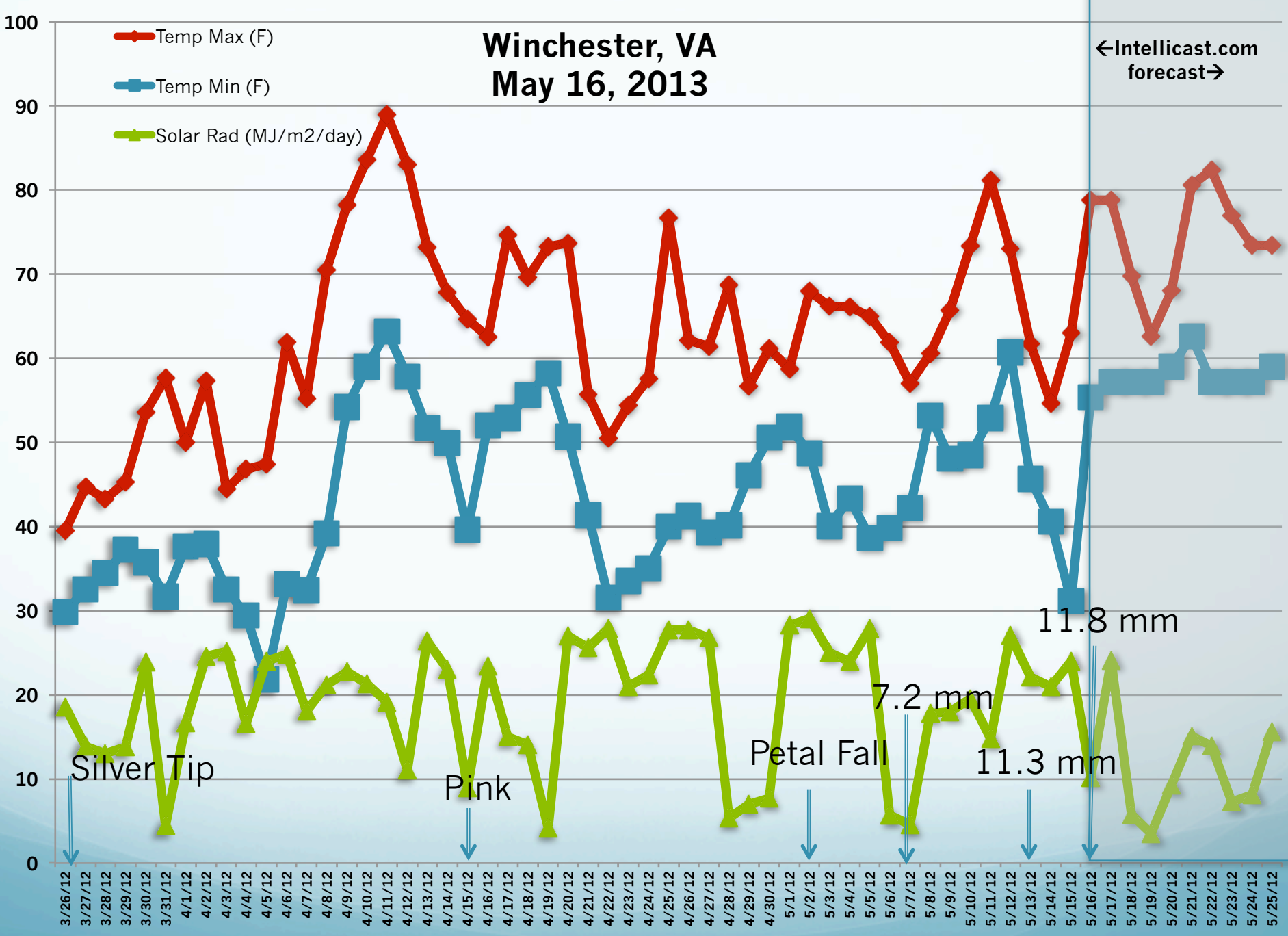
Fruitlet Sizes at the Winchester AREC

Cultivar	Fruitlet Size (mm)	Fruitlet Size (mm)
	13-May	15-May
Empire	11.8	11.8
Fuji	8.6	8.7
Gala		9.8
Ginger Gold		11.5
Golden Delicious		8.7
Golden Supreme		8.7
Honeycrisp	8.8	9.2
Idared		10.3
Jonagold		10.3
Pink Lady	9.2	9.6
Red Delicious		9.4
Rome Beauty		6.3
Suncrisp	8.4	9.2
York	8	8.6

Winchester, VA May 16, 2013

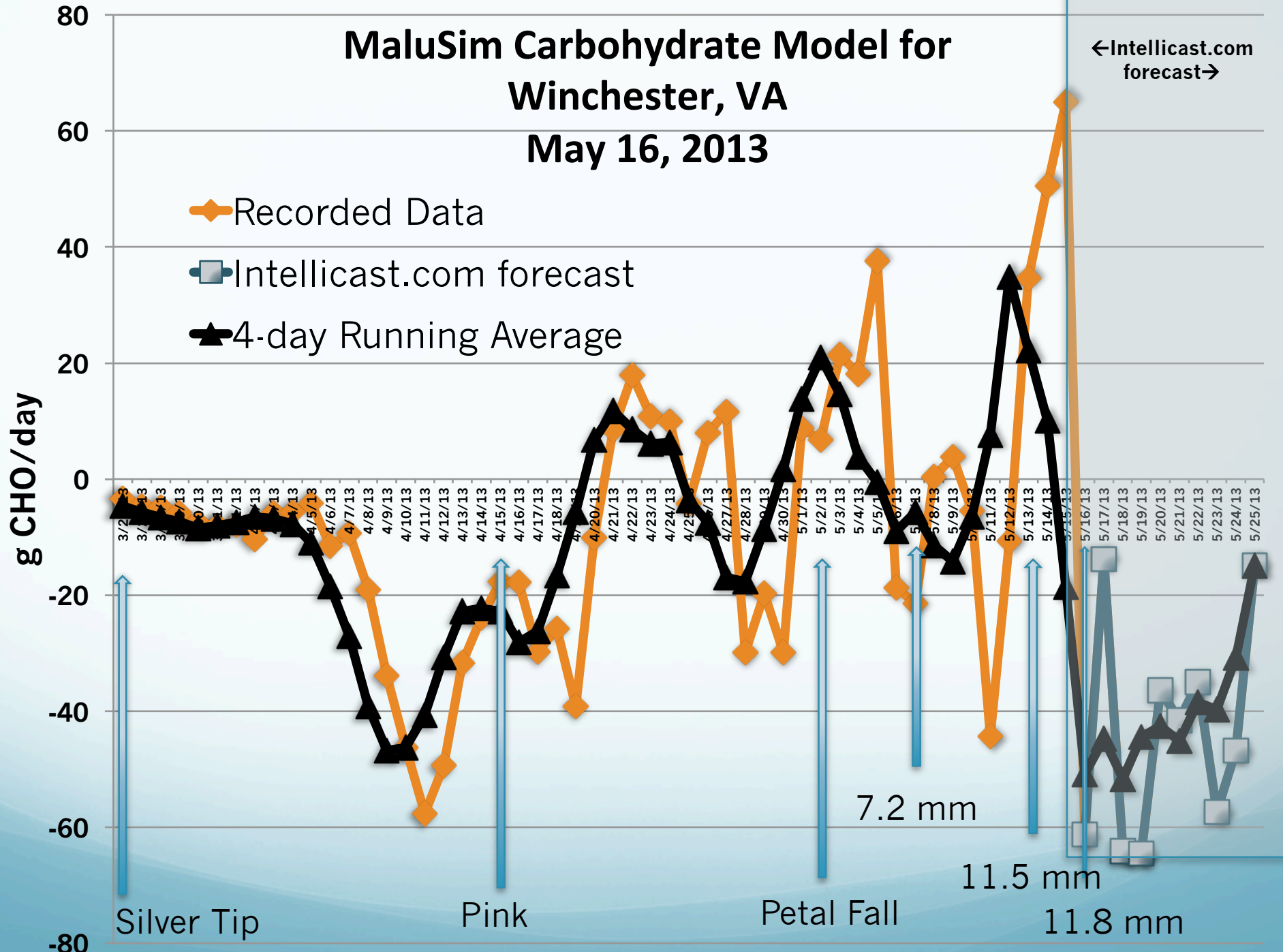
←Intellicast.com
forecast→

- Temp Max (F)
- Temp Min (F)
- Solar Rad (MJ/m2/day)



MaluSim Carbohydrate Model for Winchester, VA May 16, 2013

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

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

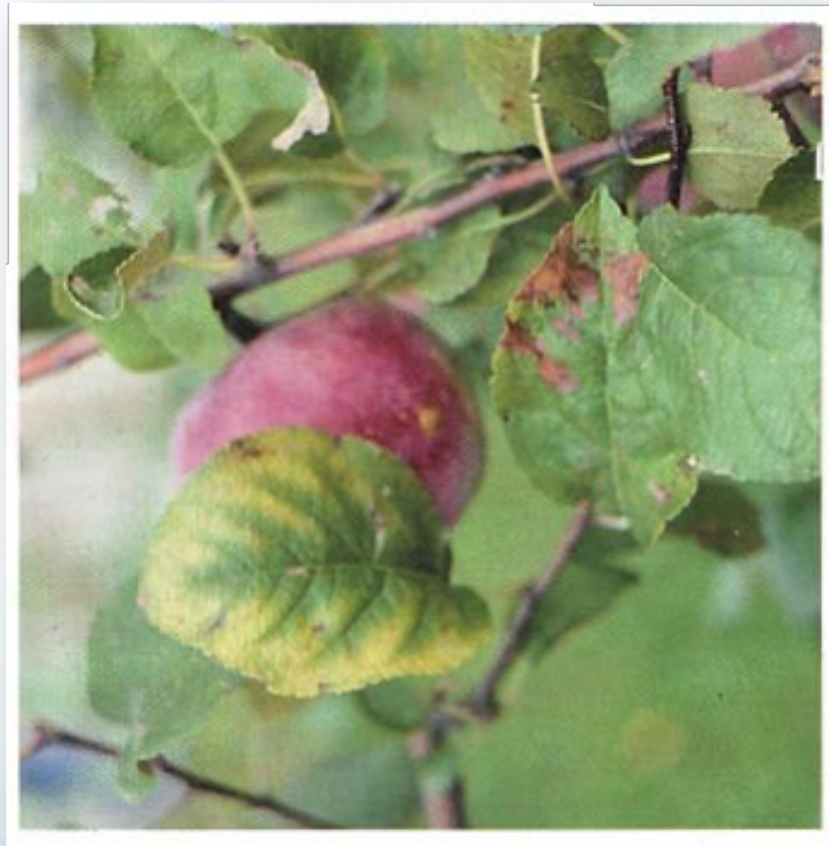
(Table developed by Dr. Steve McArtney (NCSU). Additional input from Drs. Alan Lakso and Greg Peck)

Calcium Recommendations

- Season long, want 20-50 lbs CaCl_2
 - 2-8 lbs CaCl_2 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

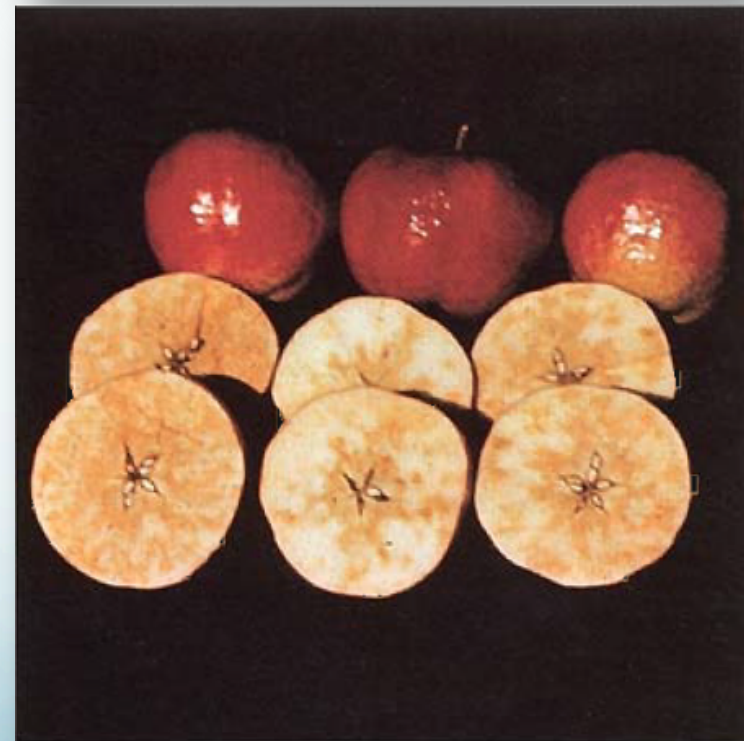
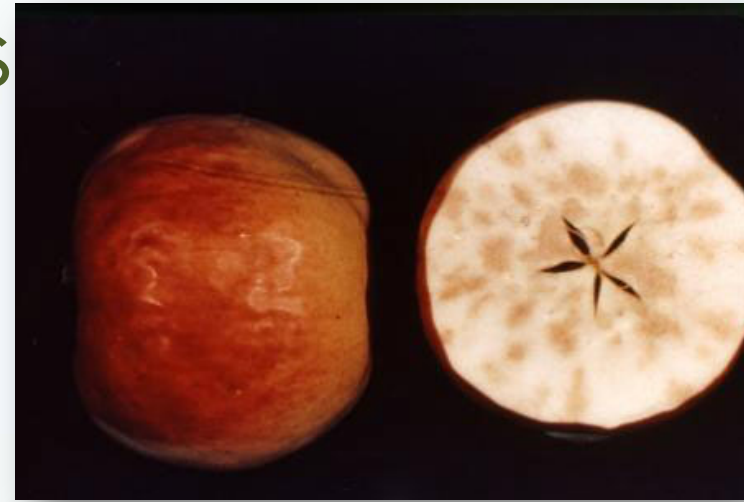
- 1-3 applications of Epsom Salts at 15 lbs/100 gal at petal fall, 1st and 3rd cover
- Epsom salts can be tank mixed with Solubor but not with calcium chloride



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



Boron deficiency—apple

Tree fruit extension and outreach



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.

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MaluSim Carbohydrate Models for May 2: Winchester and Central Virginia | Tree-Fruit Horticulture Update
blogs.ext.vt.edu

Past updates: disease | entomology | horticulture

Commercial tree fruit production updates

05/01/2013
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 50-56°. 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 totalling 18 hours starting at 54° at 11 AM Apr 28 and

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- Entomology updates
- Horticulture updates
- Upcoming programs & events
- VCE publications
- Additional resources
- Home fruit production
- Tree fruit extension team

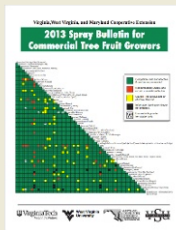


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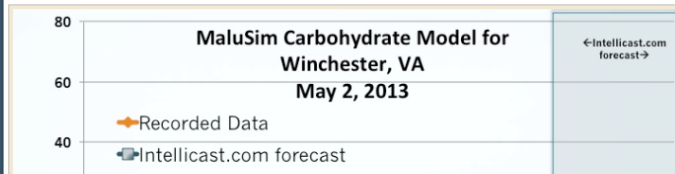
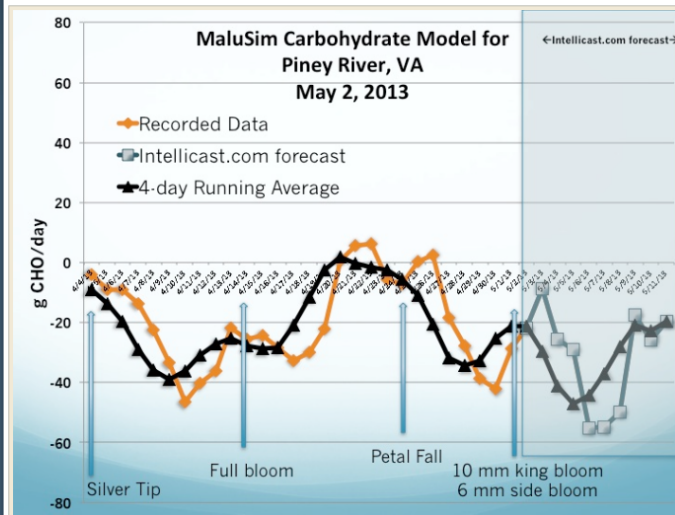


The Mid-Atlantic Regional Fruit Loop:
The Virginia Fruit Page



MaluSim Carbohydrate Models for May 2: Winchester and Central Virginia

Posted on May 2, 2013 by gmpeck



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