

# MaluSim Carbohydrate Model\*

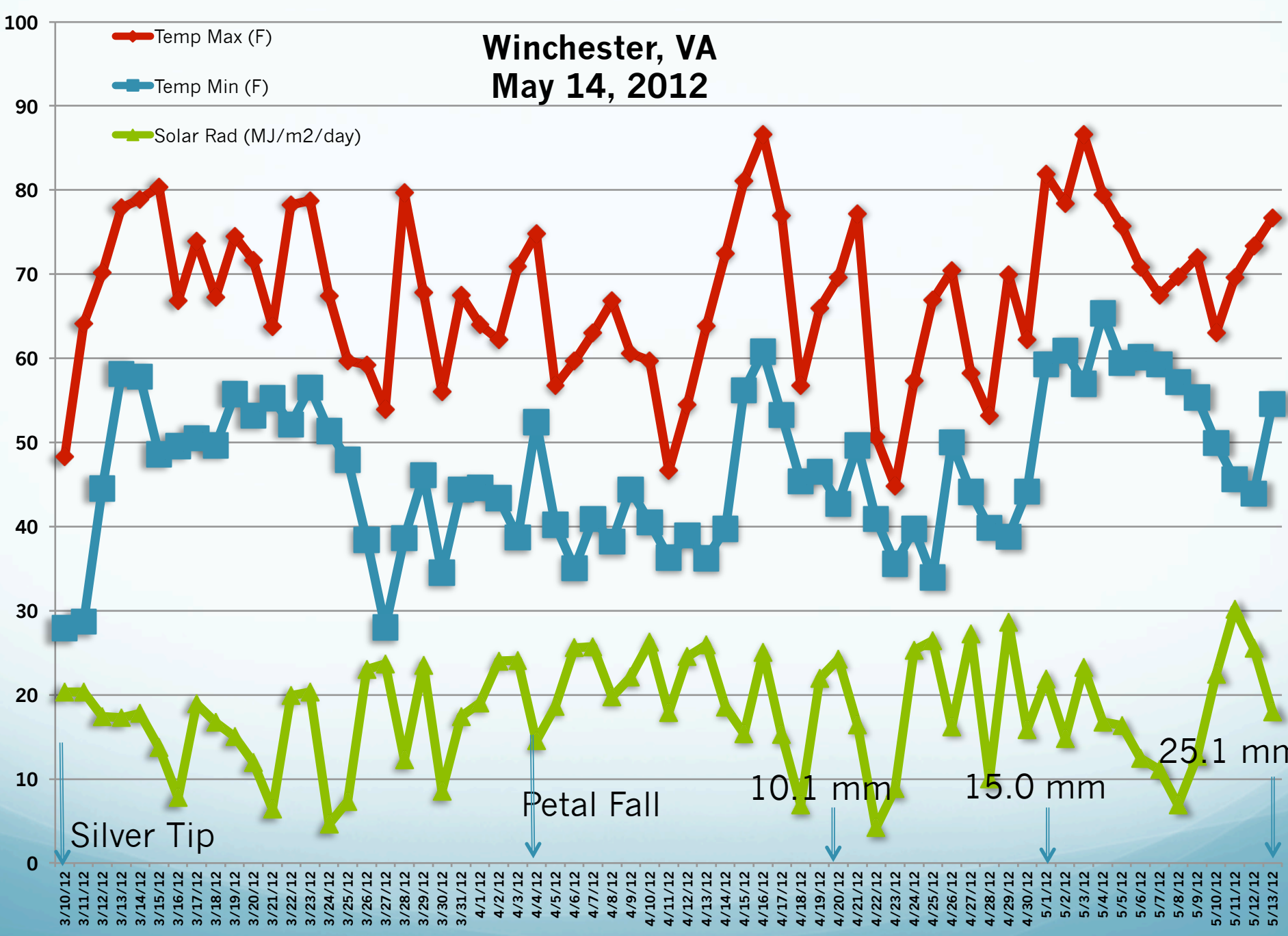
**Simulation location: Winchester AREC**  
**Simulation date: May 14, 2012 3:00PM**

**Greg Peck**

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

# Winchester, VA May 14, 2012

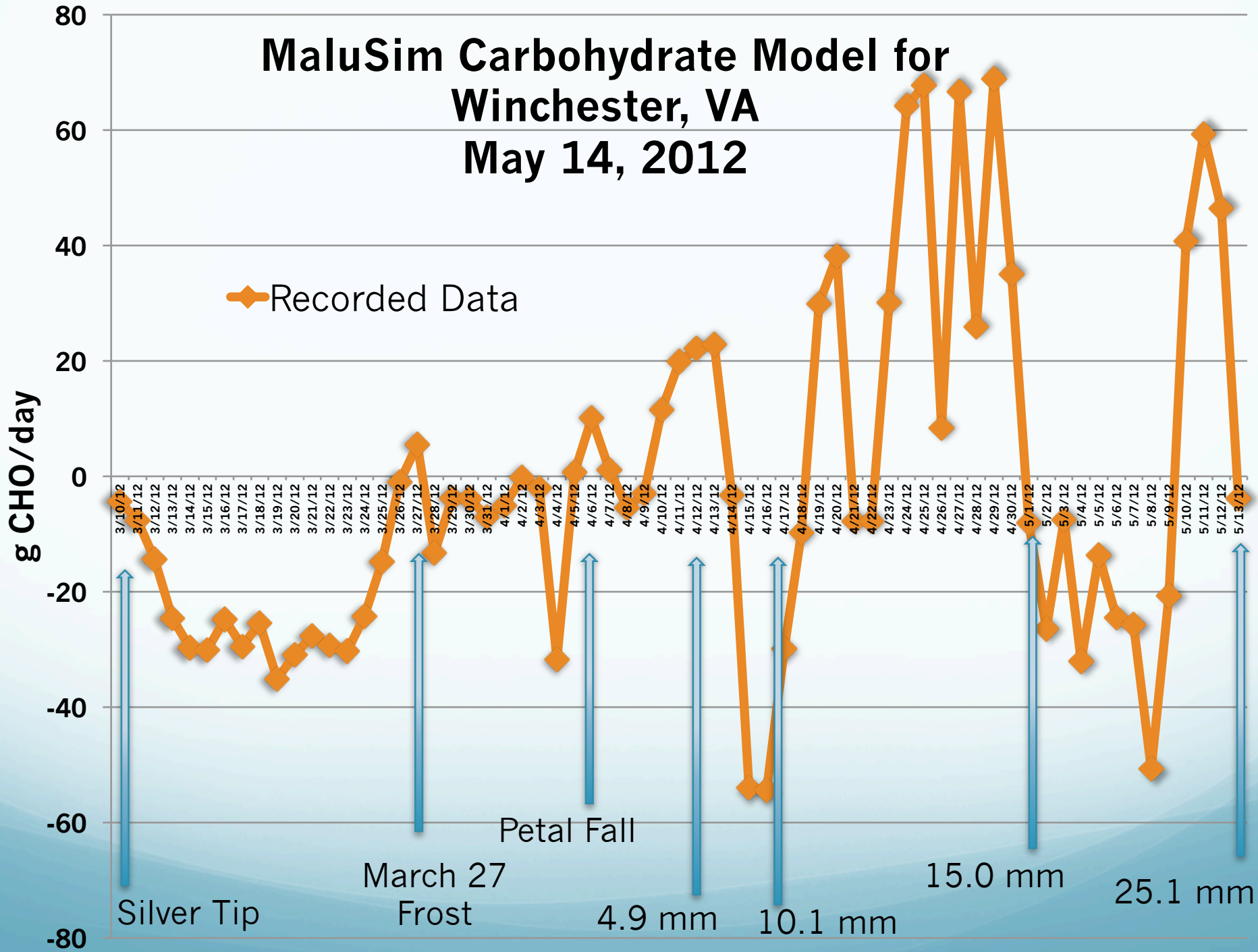
- Temp Max (F)
- Temp Min (F)
- Solar Rad (MJ/m2/day)



# MaluSim Carbohydrate Model for Winchester, VA

## May 14, 2012

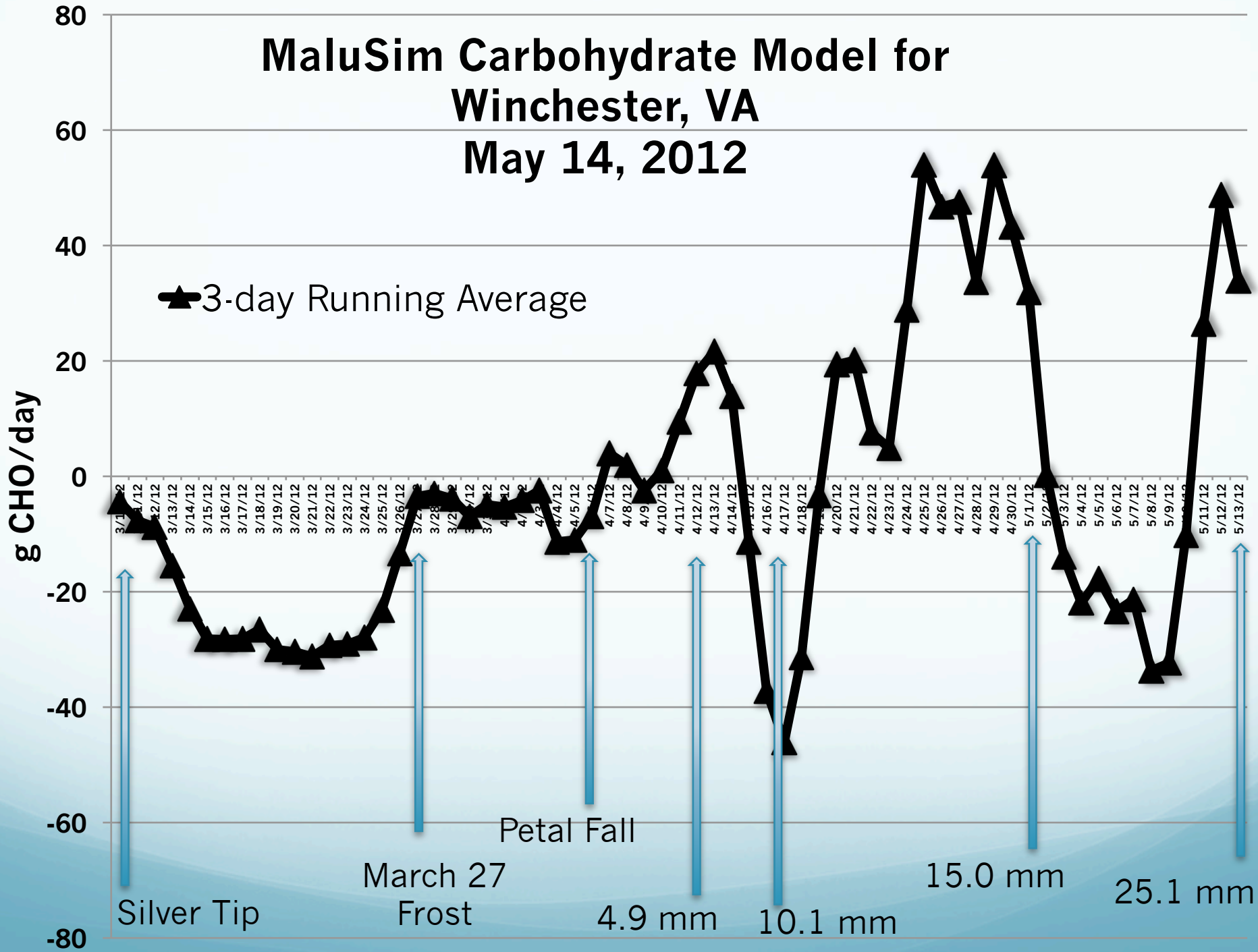
Recorded Data



# MaluSim Carbohydrate Model for Winchester, VA

## May 14, 2012

▲ 3-day Running Average



# Interpreting the MaluSim Model: look for three-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)

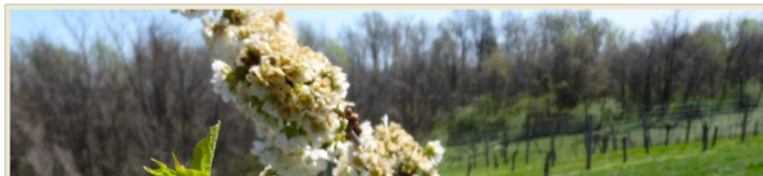


### Frost Damage

Posted on March 27, 2012 by gmpeck

At our lab in Winchester, we got down to 28F for 2 hours this morning between 6 and 8 AM. I'm seeing damage to king bloom in early blooming apples, but side blooms look like they'll fair much better. However, I've been hearing reports down to 25F in some orchards, with much worse damage. Sweet cherries were in full bloom, and many petals are showing damage. Peaches were past petal fall, and the trees in the lowest area on our farm are probably going to loose some fruit.

It's going to be a difficult thinning year if we loss a large percent of the king bloom...Unfortunately, we still have about a month where we can potentially have another frost...



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- Recent Posts**
- Frost Damage
  - National Weather Service Issues Freeze Alert
  - Early bloom and potential frost damage
  - Proposed Schedule for 2012 Orchard Meetings in Central Virginia
  - 2012 Rappahannock County VCE Office In-Orchard Meetings

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[www.nvdaily.com](http://www.nvdaily.com)  
 Area orchardists are reporting Tuesday morning's freezing temperatures did some damage to their fruit trees.  
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**Fruit growers brace for freeze | Local News**  
[www.nvdaily.com](http://www.nvdaily.com)  
 Mother Nature may have played a cruel trick on fruit trees and flowers in the Shenandoah Valley -- teasing them out early only to freeze them in the first week of spring.  
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VTech Pomology added a new photo.

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