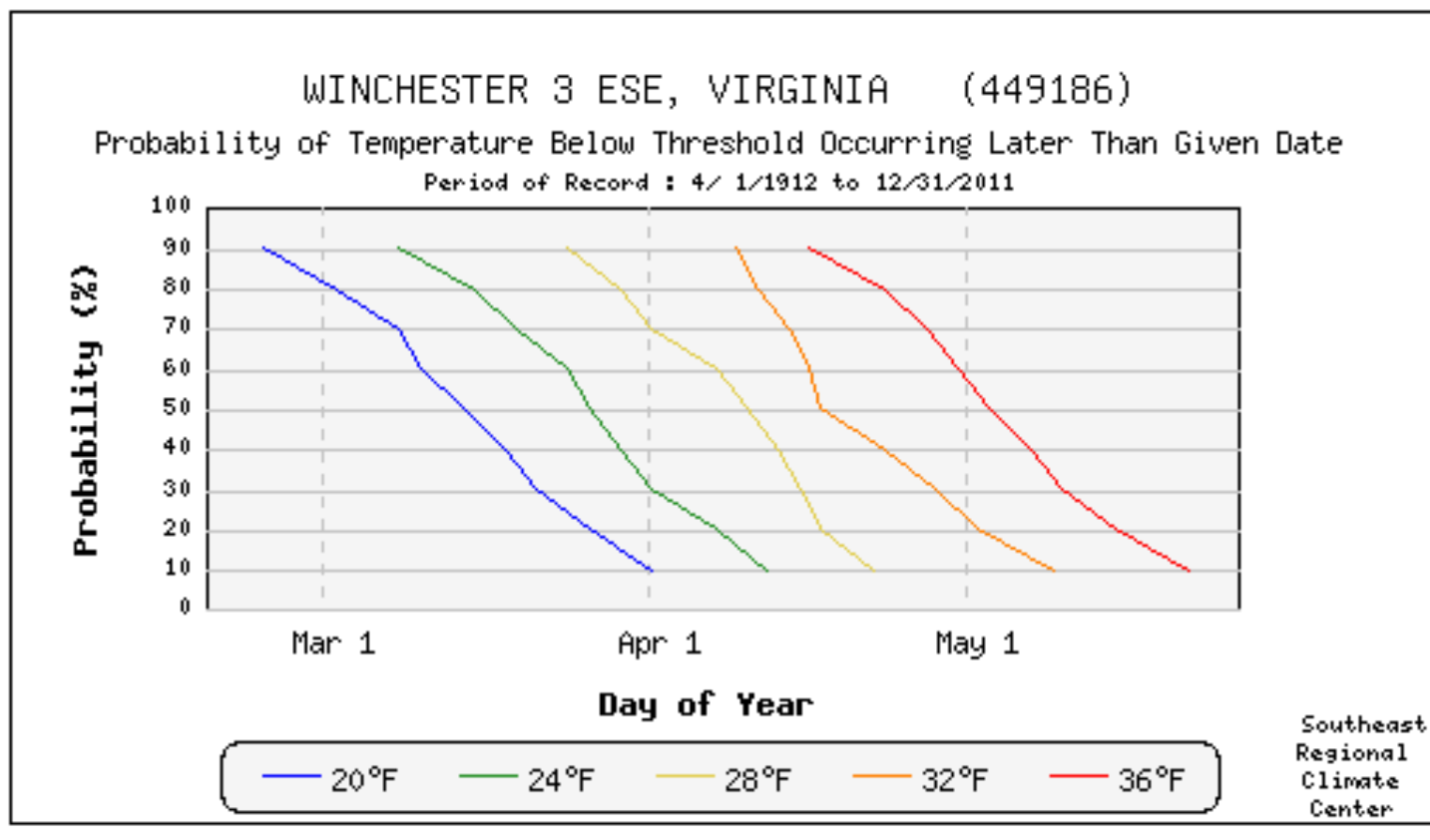


# Morning Update Winchester AREC

Greg Peck  
April 12, 2012

# WINCHESTER 3 ESE, VIRGINIA

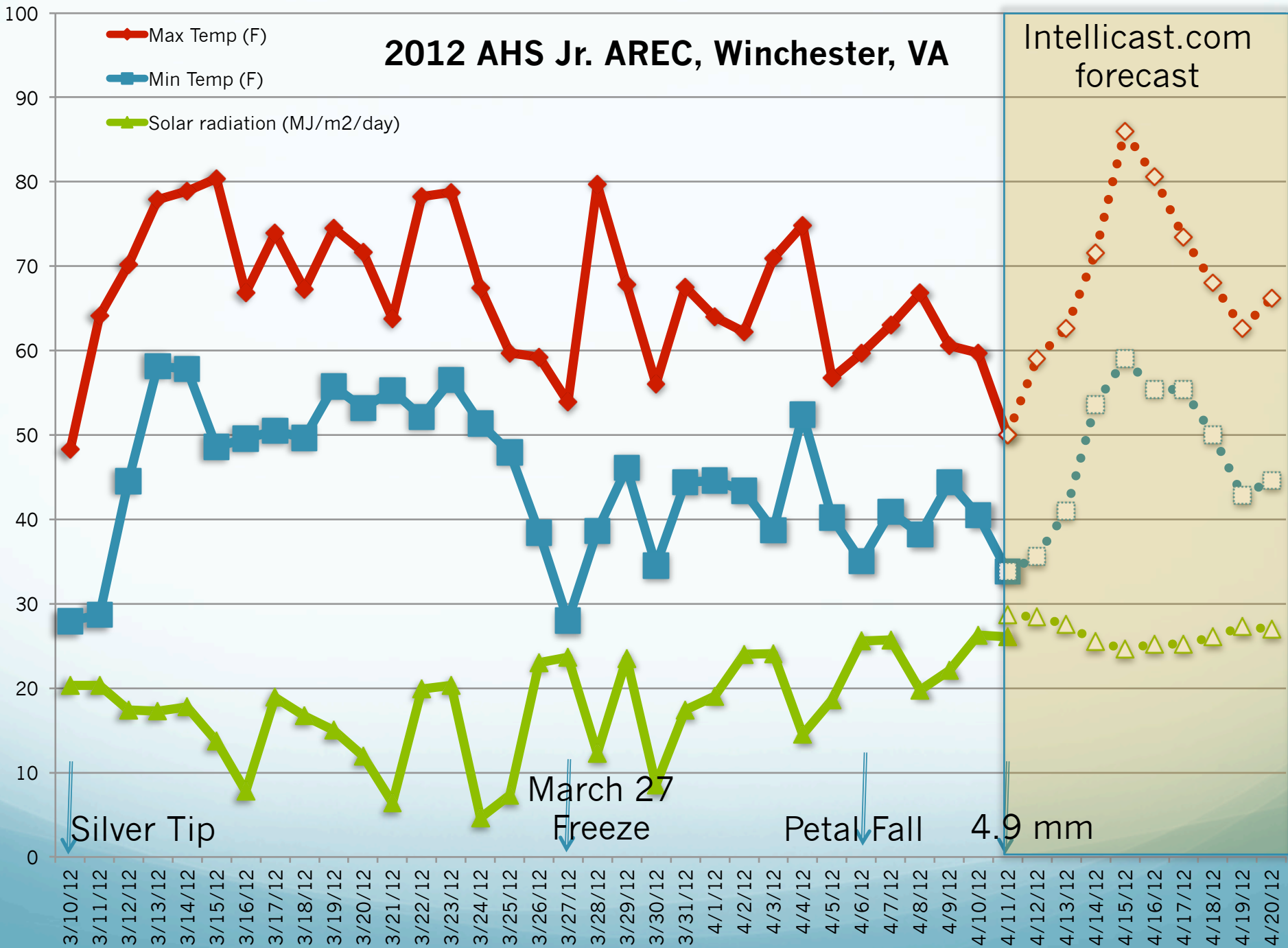
## Spring 'Freeze' Probabilities (Jan. 1 - Jul. 31)



# 2012 AHS Jr. AREC, Winchester, VA

Intellicast.com  
forecast

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

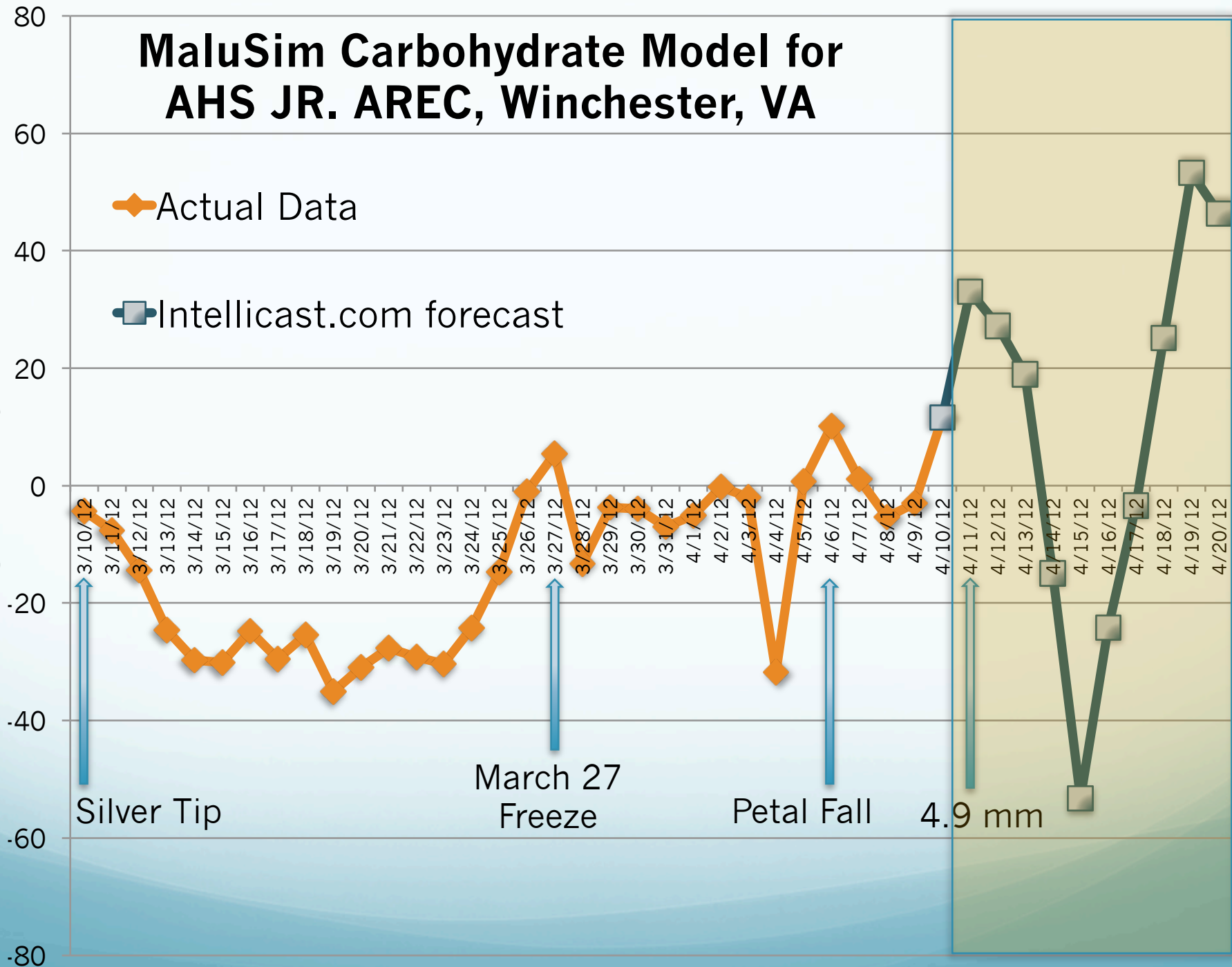


# MaluSim Carbohydrate Model for AHS JR. AREC, Winchester, VA

Actual Data

Intellicast.com forecast

g CHO/day



# 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.

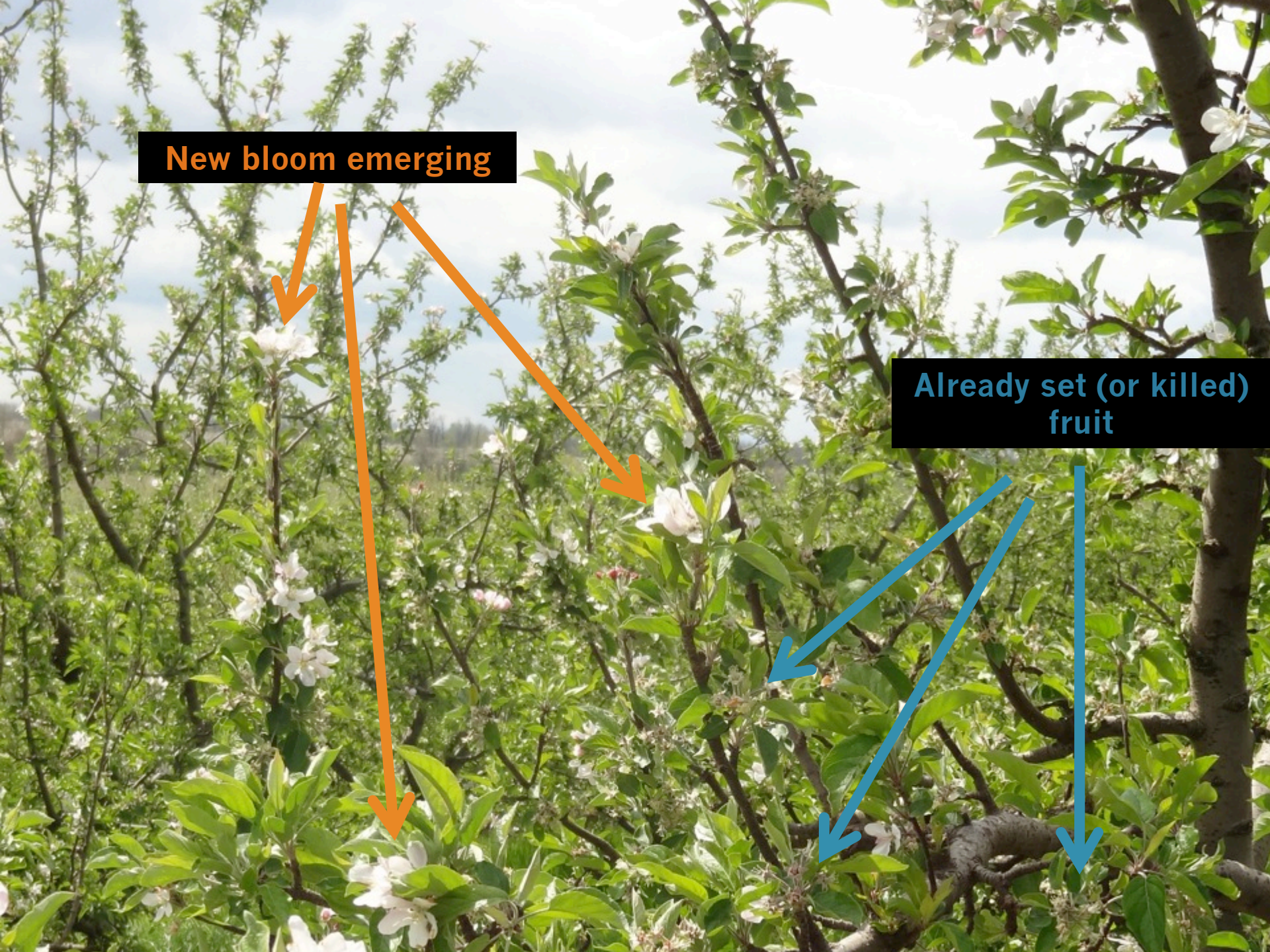
(Table developed by Dr. Steve McArtney (NCSU). Additional input from Drs. Alan Lakso and Greg Peck)

# What a difference a year makes

Cultivar	April 28, 2011 Fruitlet size (mm)	April 11, 2012 Fruitlet size (mm)
Golden Delicious	5.6	3.6
Red Delicious	6.0	4.0
Pink Lady	6.3	4.2
Gala	6.5	4.3
Empire	7.1	4.9

**New bloom emerging**

**Already set (or killed)  
fruit**



No bees!

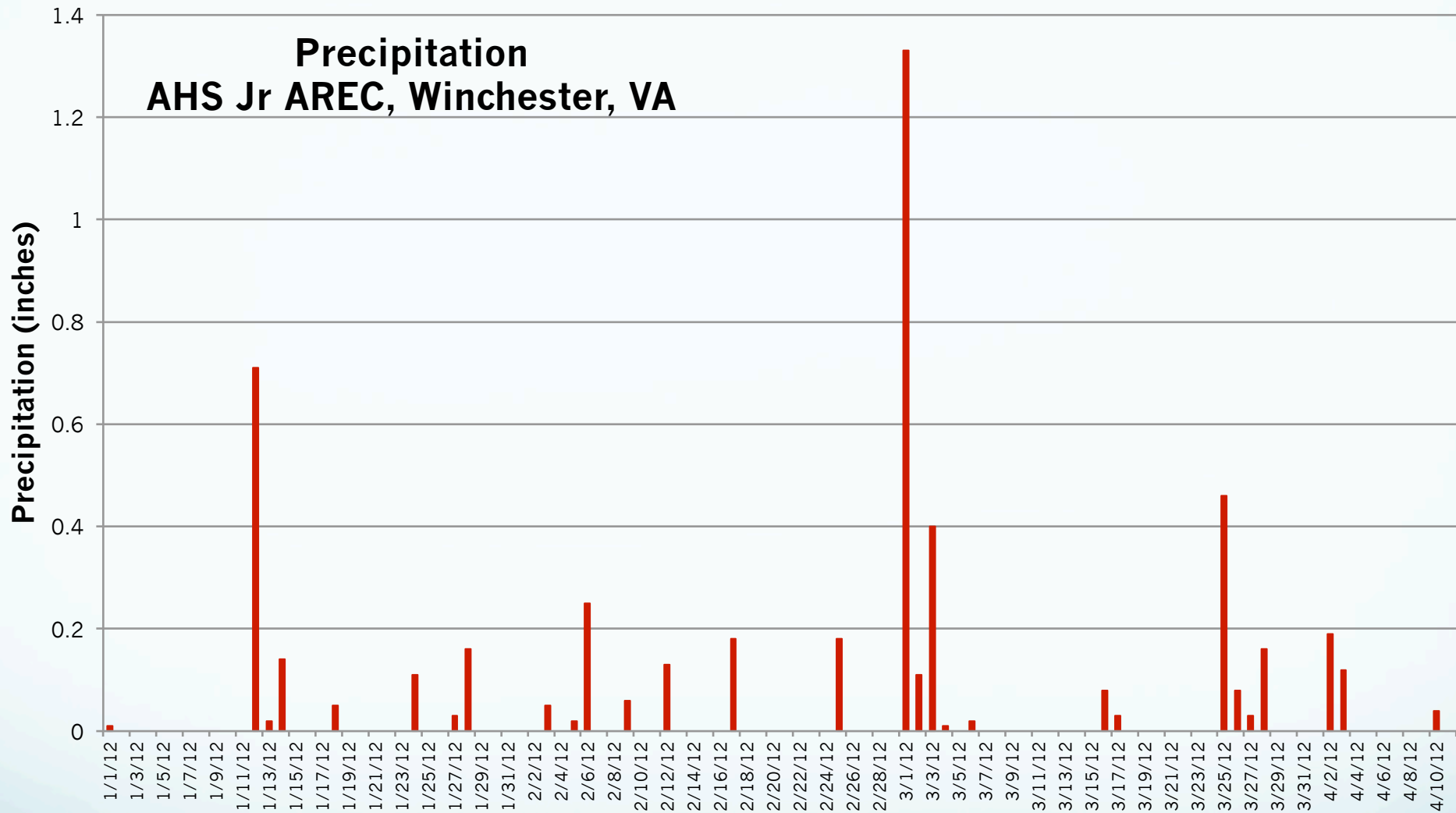


# Some thoughts on thinning in 2012

- Only need 10-30% of flowers for a full crop
- Ideally, one fruit every other cluster
- Should be able to see effects of frost, similar to testing for thinner application efficacy
- Many king bloom are gone, but clusters still have side bloom
- Earlier thinning (e.g., bloom) results in larger fruit
- 6-BA products (MaxCel, Accel) can increase final fruit size by increasing cell division
- In frosted orchards, where you are trying to thin side bloom reduce rates and don't use adjuvants/oil

# Precipitation

## AHS Jr AREC, Winchester, VA



	Jan	Feb	March	April
1971-2000 Average	2.6	2.5	3.2	3.1
2012	1.2	0.9	2.7	0.4
Amount below Average	1.4	1.6	0.5	2.7

# Nutrition & Ground cover Management

- For orchards with low boron content, use 3-4 lbs of Solubor at petal fall or first cover.
  - Do not tank mix with  $\text{CaCl}_2$  because boron may precipitate out of solution. This is especially true when pre-mixing in a small volume of water.
- Petal fall or first cover is also a good time for foliar zinc applications
- In lightly cropped trees, reduce or eliminate nitrogen applications
  - Though some research suggests that petal fall urea applications (3 lbs. urea/100 gal) may be beneficial in damaged trees
- Herbicide updates from Dr. Rakesh Chandran are available directly from him ([RSChandran@mail.wvu.edu](mailto:RSChandran@mail.wvu.edu)), or on the VT Horticulture blog.

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

facebook

VT

You cannot preview or publish your Page Timeline while using Facebook as Use Facebook as Gregory

**VTech Pomology**  
Education · Winchester, Virginia · Edit Info

Wall

Share: Status Photo Link Video Question

What's on your mind?

VTech Pomology  
[http://www.winchesterstar.com/articles/view/cold\\_damages\\_but\\_doesn\\_t\\_devastate](http://www.winchesterstar.com/articles/view/cold_damages_but_doesn_t_devastate)  
The Winchester Star  
www.winchesterstar.com  
Like · Comment · Share · 19 hours ago

VTech Pomology  
<http://www.mtdaily.com/news/2012/03/fruit-growers-report-damage-from-freeze.php>  
Fruit growers report damage from freeze | Local News  
www.mtdaily.com  
Area orchardists are reporting Tuesday morning's freezing temperatures did some damage to their fruit trees.  
Like · Comment · Share · 19 hours ago

VTech Pomology  
<http://www.mtdaily.com/news/2012/03/fruit-growers-brace-for-freeze.php>  
Fruit growers brace for freeze | Local News  
www.mtdaily.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.  
Like · Comment · Share · 19 hours ago


VTech Pomology added a new photo.

Search Site

Virginia Cooperative Extension  
VirginiaTech  
Invent the Future  
VSU

Home About Links Stay Connected Contact Alson H. Smith, Jr. AREC


**Tree-Fruit Horticulture Updates**



**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...



VTech Pomology on Facebook  
Like You like this.

VTech Pomology  
[http://www.winchesterstar.com/articles/view/cold\\_damages\\_but\\_doesn\\_t\\_devastate](http://www.winchesterstar.com/articles/view/cold_damages_but_doesn_t_devastate)  
The Winchester Star  
www.winchesterstar.com  
20 hours ago

Facebook social plugin

**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

email:  
[greg.peck@vt.edu](mailto:greg.peck@vt.edu)

Twitter:  
<http://twitter.com/VTechPeck>

<https://www.facebook.com/VtechPomology>