

Orchard Outlook



Vol. 16, No. 2

March 29, 2016

Green Tip Prediction	Peach Leaf Curl	Horticulture
	Events	

Fortunately, March has brought us rather seasonal temperatures and to date, the monthly average is nearly bang on the 1981-2010 normal – so much for those Environment Canada seasonal forecasts! This has essentially paused bud development over the past couple of weeks which has allowed the calendar to catch up a bit with the rate of development we had seen at the end of February.

Green Tip Prediction – Jeff Franklin, AAFC Kentville

With the cooler temperatures, we have not moved very far from where we were at the end of February. As you can see in the graph below we are now very close to the position we were in in 2012 (Figure 2). We are forecast to experience a warming trend again this week. As we are currently at 1350 degree hours (base 4.4°C) it is possible that the next bout of warm temperatures will bring us closer to green tip.

Looking at the early crab again at Kentville, it has moved slightly from where it was on February 29th and you could now call it full green tip (Figure 1).



Figure 1: Buds of early crab apple at Kentville AAFC on February 29, 2016 (left) and March 24, 2016 (right).

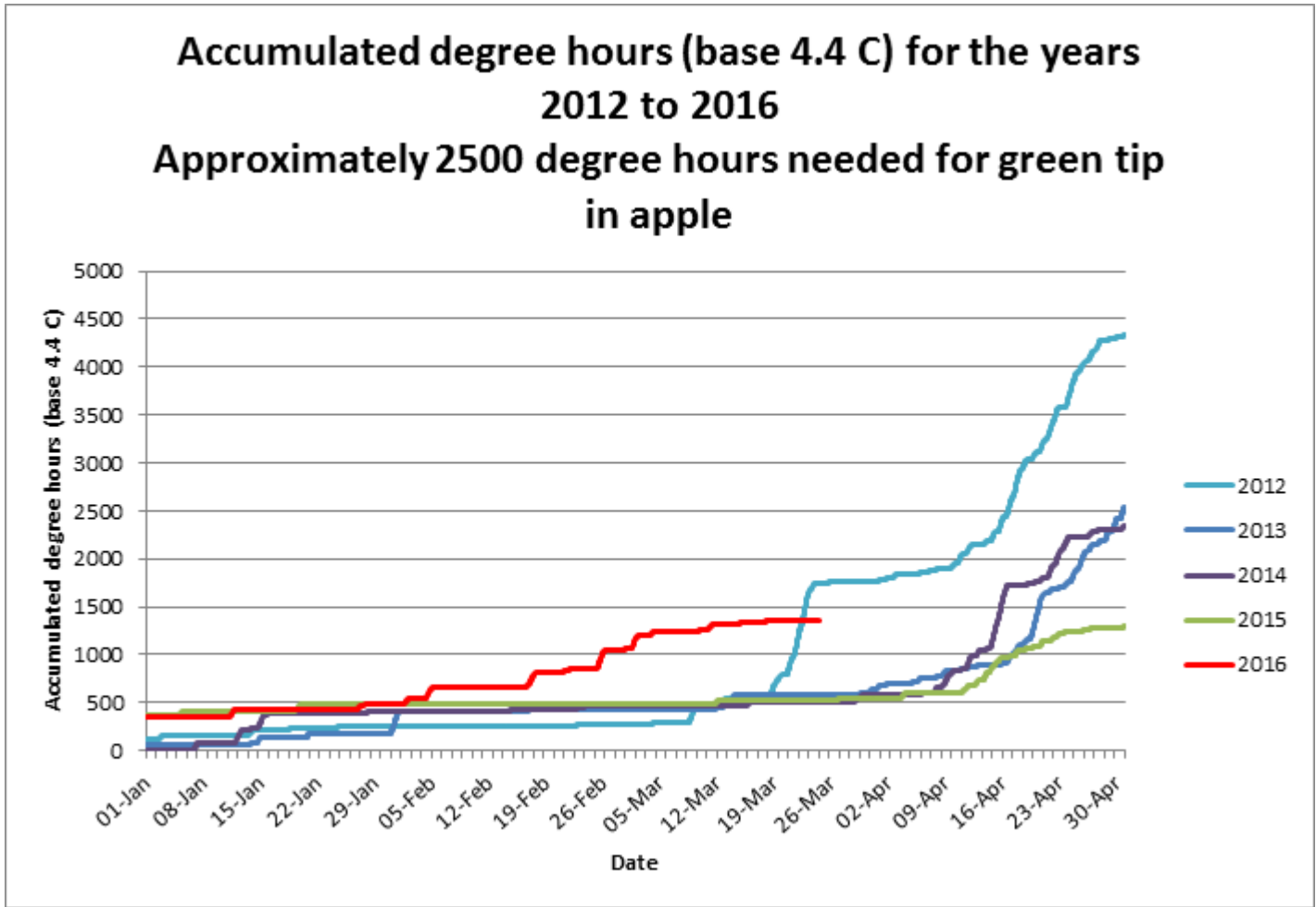


Figure 2: Accumulated degree hours (base 4.4°C) from tree dormancy through April for the past 5 season. The Cornell University model indicates 2500 degree hours are required for green tip.

Peach Leaf Curl

Peach leaf curl causes deformation of leaves and premature leaf drop which can reduce yield, fruit quality, and overall tree health (Figure 4). This can totally defoliate trees when infection is severe. It is a fungal disease caused by *Taphrina deformans* which overwinters as conidial spores in cracks and crevices in the bark. As buds begin to swell in the spring, conidia are washed into the bud and the developing leaves and begin to infect. Unlike apple scab, these infections can take place even before the bud scales are gone and green tissue is present. Only young tissues are susceptible to infection so a cool prolonged bud break can increase the severity of this disease.

Peach leaf curl is typically managed with a fall and/or spring fungicide application. A spring application is recommended just prior to bud swell. I observed cracking of bud scales and initial bud development on several different peach cultivars on March 16th in western Annapolis County (Figure 3). Bud development is typically advanced in this area over more eastern areas of Annapolis Valley. I have yet to observe much bud movement in Kings County, however, I expect that with some warm temperatures bud movement will progress rapidly.



Figure 3: Peach bud with cracked bud scales in Annapolis County on March 16th, 2016.

If you have not applied a fall application for peach leaf curl, or if you applied a fall spray and typically have high peach leaf curl pressure, a spring application **just prior** to bud swell is recommended. Chlorothalonil products (Bravo ZN or Echo 90 DF) have typically worked best in Nova Scotia conditions when applied at 5.0-7.0 L/ha (Bravo ZN) or 2.8-3.9 kg/ha (Echo 90 DF). Alternatives are Ferbam 76 WDG at 1.75-3.5 kg/ha or fixed copper products such as Copper Spray Fungicide. Organic producers should be able to use the fixed copper products.

Chlorothalonil products for peach leaf curl can only be applied once per season so if a fall spray was applied use another product if you're doing a follow-up spring application. Also note chlorothalonil should not be applied within 10 days of dormant oil to avoid any phytotoxicity issues. Peach leaf curl control should be maintained on young, non-fruiting trees as well to minimize leaf drop and maximize their growth. As peach buds will soon be swelling, leaf curl applications should be made in the next week in most areas.



Figure 4: Peach leaf curl infections beginning to curl and blister leaves after bloom.

Photo: <http://www.omafra.gov.on.ca/IPM/english/tender/diseases-and-disorders/peachleafcurl.html>.

Horticulture

- **Sprayers** – With peach leaf curl coming up and pear psylla and delayed dormant sprays right around the corner, it is time to dig out the sprayer again and get it tuned up for the season. Dr. Jason Deveau of OMAFRA has written a good article on pre-season airblast sprayer maintenance on his website here: <http://sprayers101.com/airblast-maintenance-pre-season-and-winterization/>
- **Scionwood** – It is a good time to be collecting your scionwood for grafting as all apples are still dormant. However, it won't be long with a week or two of warm temperatures to bring trees to green tip.

Events

NSFGA Spring Tree Fruit Workshop

Berwick Fire Hall, Berwick

Tuesday, March 29th, 2016 – Indoor Session

1:00 pm	NSFGA Introductions	Topic
1:15 pm	Mario Miranda Sazo, Cultural Practices Cornell University Cooperative Extension Lake Ontario Fruit Program	Precision Pruning & Fruit Bud Identification
1:45 pm	Chris Duyvelshoff, Horticulture Specialist Perennia	Bud Count Pruning & Mechanical Pruning Trials in NS
2:15 pm	Dr. Suzanne Blatt, Research Scientist - Entomology AAFC	Stinging Bugs – Who's Who
2:45 pm	Break	
3:00 pm	Mario Miranda Sazo, Cultural Practices Cornell University Cooperative Extension Lake Ontario Fruit Program	Critical Practices For Young Orchard Establishment
3:30 pm	Kendra McClure, Ph.D Candidate University of Guelph	Mechanical Thinning in Apples & Peaches
4:00 pm	Chris Duyvelshoff, Horticulture Specialist Perennia	Fire Blight Management & Product Updates for 2016
4:30 pm	Wrap Up	

Wednesday, March 30th, 2016 - Field Workshop

9:00 am	Meet @ Birchleigh Farms (Waldo Walsh) 254 Bentley Road, Rockland	Precision Pruning Discussion & Tall Spindle Management
10:30 am	Meet @ Crisp Growers Inc. 220 Prospect Road, Morristown	Critical Practices in Young Orchard Establishment

Editor: *Chris Duyvelshoff, Perennia*



perennia