

Managing Peach Blocks with No Crop

Win Cowgill

Professor Emeritus Rutgers University

Win Enterprises International, LLC

2023 has proven to be a difficult season for peaches weather-wise, especially northern peach-growing states. February 4, minimum cold temperatures reached minus 12 to minus 16 in the NY Hudson Valley at some locations. Similar low temperatures in Massachusetts and Connecticut were observed. New Hampshire and Vermont had minus 19 to minus 21F. Below minus 10F, most peach buds are gone, zero degrees F for many of the white flesh peach varieties from California. The lows in New England took out virtually every peach flower bud.

NJ lucked out this winter with most areas in Northern NJ on Feb 4 ranged from 1F to 4F at the coldest weather stations in Pittstown, Sussex, Hackettstown.

The focus of this article is how to manage peach blocks that have 100% crop loss.

Pruning- prune hard and well! This is the time to do any corrective pruning to get trees down to their optimal height and shape. Do the fine pruning to eliminate the small shoots that would not have been able to support a good peach this season. The focus of your pruning is to let adequate sunlight into the canopy to form good pencil size fruit shoots this season for next year and to form strong fruit buds on these same shoots this fall. On an open center vase peach tree, 125 pencil size fruit shoots are optimal. Shaded shoots will be weak and not be productive next year. Make sure to remove any and all dead or diseased wood, no matter how small. Dead wood allows disease to enter the scaffolds and trunk.

Summer Prune-In a year with no fruit this will be the season to definitely summer prune in mid-June to early July. It will be essential to keep adequate sunlight into the trees to keep fruiting wood healthy. Upright poles should be removed completely. Remember peach buds are formed in September on this season's growth.

Fertility- Reduce your nitrogen fertilization by 50%. My goal is to have 50% of my nitrogen applied in a complete fertilizer, based on soil and leaf tests, three weeks prior to anticipated bloom date. The second half of the nitrogen is applied (as nitrogen only) after shuck split once you know you have a crop, on fruiting blocks. ON non-fruiting blocks, no additional nitrogen should be applied this season!

Note: I do have a peach fertility fact sheet if you wish to request a copy.

Diseases- We are most concerned about the opportunistic fungi. Most important this spring will be *Cytospora* canker know as leucostoma or perennial canker. In the northeast, control of this disease is essential if the peach blocks are not to decline prematurely. In North Jersey we can maintain peach blocks for **20 years plus** if we manage this disease. The disease can only enter the peach tree (host) by a wound or dead tissue. *Cytospora* invades healthy tissue through an injury (pruning wound, peach borer), or dead tissue (winter injury, dead twigs from shade). Controlling peach borers and Oriental fruit moth is essential. There are no whole tree sprays to control *cytospora* canker directly, rather an integrated whole approach is necessary to control it.¹

Cytospora management for a no crop season:

- Prune to manage light, remove all dead wood, twigs now. Only prune in dry weather. Prune to promote wide branch angles
- Control peach borers and Oriental fruit moth. Mating disruption can provide very good control.
- Prune as late as possible up till normal bloom time.
- Paint big pruning cuts on any of the scaffold branches with, with Black Tree Paint containing Topsin M-WSB (Thiophanate-methyl)
- Excise (mechanically with a box cutter) can-

kers on main scaffolds and trunks, back to green tissue, paint the excised cankers with Black Tree Paint containing Topsin WSB (Thiophanate-methyl)

- Essential to paint the trunks/lower scaffolds every fall with the cheapest exterior white latex paint available as a white wash, 50/50 with H₂O to prevent winter and southwest injury (Cytospora follows this injury)

Brown Rot- with no fruit no sprays are needed unless you have identified brown rot overwintering in the fruiting wood (this is why we remove any mummies after harvest). If some fruit remains (partial crop) full schedule is needed.

Rusty Spot— with no fruit infection of fruit is not an issue, adding sulfur in for peach scab and Rally 40WSP (myclobutanol) 3oz/A at first cover timing will help.

Peach Scab- it will be important to control this disease even with no fruit in order to limit the buildup of inoculum on the peach twigs. Fungal sporulation begins at pink, according to Dr. Norm Lalancette, Rutgers Extension Fruit Plant Pathologist. I normally use Bravo WS (chlorothanil (at Petal Fall and Shuck split timings to get a good start on scab control. Normally Captan fungicide applications begin at Petal Fall and continue through June to prevent scab. He suggests Captan 80 WDG at 2.5 lbs. per acre from petal fall through June. Sulfur is also effective against Scab, same timings but more applications may be needed if washed off by rainfall.

Bacterial Spot Control- Even with no fruit it will be important to limit the buildup of inoculum of bacteria of this disease in the tree. Bacterial spot control can begin with using a full rate of fixed copper for peach tree Leaf Curl in the fall after leaf drop and again next spring before bud swell. This reduces the bacterial inoculum levels. For controlling bacterial spot on peach fruit, either low rates of copper are used, beginning at petal fall or antibiotics, FireLine and Mycoshield are the two oxytetracycline products available for stone fruit. With no fruit I would not use the antibiotics, they are short lived, rather I would consider using a low rate of copper as in the NJ program.

Dr. Lalancette, Rutgers, worked out a copper program for controlling Bacterial Spot with very low rates of

copper on peach. Use this NJ program for controlling the foliar phase of Bacterial Spot this season on blocks with no fruit. His program, ‘Copper Bactericides for Peach Bacterial Spot Management’ can be found on line at:

<http://plant-pest-advisory.rutgers.edu/copper-bactericides-for-peach-bacterial-spot-management>

Insects-There are insects that must be controlled this season, even with no fruit.

Peach Borer Complex- lesser and greater borers are our main concern. With the loss of Lorsban mating disruption is the best choice. This would be a good year to learn to use mating disruption for peach borer control in stone fruit. I have used the ISOMATE PTBDual mating disruption ties for over 12 years with 100% success in my research orchards. Make sure to use the labeled rate of ties per acre and get them out on time. CBC(America) is the manufacturer of ISOMATE mating disruption products. Or Checkmate OFM dispenser from [Suterra](#).

To minimize peach borer infection, make sure to remove all dead wood, and paint the trunks with interior white latex paint straight paint or make a whitewash, to avoid south west winter injury to trunks.

Oriental Fruit Moth (OFM) - will cause flagging on trees and that can provide a site for infection by Cytospora canker. Multiple insecticides are needed for controlling this pest timed with growing degree days. I have used mating disruption ties most effectively on peach and apple for this pest, yes OFM can impact apple. In apple you can use ISOMATE CM/OFM which covers Codling moth and OFM or Cidetrack CM-OFM Combo from [Trece](#) Note there are many brands of mating disruption products available. This pest can also build up from year to year if not controlled.

Note: Make sure to follow all state and federal labels when using any pesticide, the label is the law!

References:

- 1) Compendium of Stone Fruit Diseases, 1995 APS, Pages 28,29
- 2) <http://plant-pest-advisory.rutgers.edu/copper-bactericides-for-peach-bacterial-spot-management>

Jon Clements and I held a peach pruning demonstration meeting at Carlson Orchard in Harvard, MA to demo how to prune peaches with no crop, April 12, 2023 Figures 1,2,3. Massachusetts growers experienced minus 15 to minus 21 F in February and had no peach crop this year.

Jeremy Delisle, UNH, hosted me at the New Hampshire



Figure 1: Win Cowgill and Jon Clements at [Carlson Orchards](#).



Figure 2: Win Cowgill demonstrates the fruiting zone of a mature peach tree at UMass peach pruning demo at [Carlson Orchards](#). Photo Credit: [Clements Facebook Livestream](#).

Fruit Growers Meeting April 13, 2023 at [McKenseys Farm](#) in Milton, NH. I lectured on PGR'S for apple branching and demonstrated tall spindle apple training. We did pruning demonstrations on how to prune peaches with no crop, Figures 4,5,6.

NH growers experienced down to minus 21 F and had no peach crop this year.

Win Cowgill is Professor Emeritus from Rutgers University. He retired April 1, 2016 after 38 years of service. He now owns and operates Win Enterprises International, LLC. A Pomological and horticultural consulting company. He continues to do contract research on tree fruit and work with commercial fruit growers. He can be reached at 908-489-1476, email: wincowgill@mac.com.



Figure 3: Win Cowgill discusses the importance of making selected big cuts in Peach pruning and treating the pruning wounds to prevent Cytospora Canker in the scaffold limbs. Treatment of wounds with fungicide is necessary immediately after removal.



Figure 4: Win Cowgill Demonstrates Peach Pruning on trees with no crop at [McKezie's Farm, NH](#).



Figure 5: Win Cowgill Demonstrates Peach Pruning on trees with no crop at [McKezie's Farm, NH](#).



Figure 6: Win Cowgill Demonstrates Peach Pruning to maintain the fruiting zone at [McKezie's Farm, NH.](#) Photo Credit: Jon Clements.

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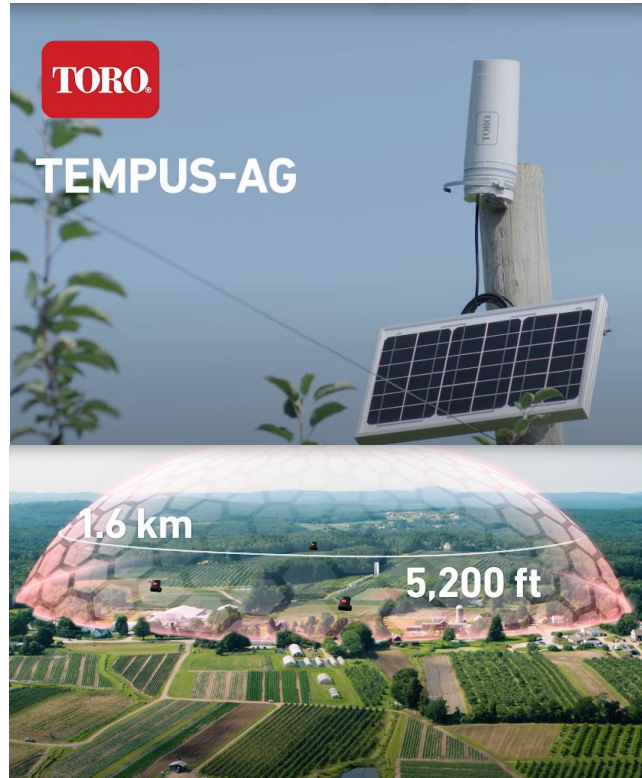
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