

## Spray Cherries for Bacterial Canker

Win Cowgill, Agricultural Agent

**B**acterial Canker is a serious bacterial disease of cherry in New Jersey, and all other regions where the climate is humid. Bacterial canker has been very active this season in New Jersey in both sweet and tart cherry blocks.

**Bacterial canker** or bacterial gummosis of sweet cherry is caused by several *Pseudomonas* bacterium. This disease infects flower buds and spurs. It can completely kill new spurs and leaves and then move into the trunk on cherry. This is especially problematic with our new Geslia Dwarf cherries as losing a scaffold or getting infection into the trunk will limit production as the tree rapidly declines.



### Control Now

Begin spraying now to control Bacterial Canker. Cankers get started mainly in the fall after most of the leaves have fallen and the trees are beginning to go dormant. The only effective way to control this disease is to reduce the number of bacteria before the trees enter their susceptible period, avoid large, dormant pruning cuts, and use summer pruning to minimize the impact of the disease. The bacteria that start these cankers are found on the surfaces of mature leaves and other green tissues, and *do not* come from existing cankers.

The only successful control we have found is repeated applications of the old Bordeaux mixture in September, October, and November and repeated again in the spring. Bordeaux Mix consists of hydrated lime and Copper Sulphate. The rates and methods of mixing are important. We began our sprays the first week in September. Note, however that sprays of Bordeaux applied to green leaves must be *saftened* with vegetable oil (canola) to avoid burning the foliage. *The rate is three quarts of canola oil per 100 gallons.* The four additional sprays 14 days apart will be applied. Bordeaux mix will also be applied in the spring with several applications before bud break.

It would be my recommendation that in all cherry blocks a program of Bordeaux Mix applications should be made this September. Careful observation and scouting of older blocks should be done now to determine if this bacterial disease is present and control warranted. It is my observation to date that if any

Bacterial Canker is observed in sweet cherry I would plan a spray program of Bordeaux mixture.

### Other Coppers

In a research trial at the Rutgers Snyder Farm, Champ DP copper was also evaluated against Bordeaux mix for phytotoxicity on cherry. The oil equally saftened Champ DP as it did Bordeaux. Caution, Champ2 Flowable may not be compatible with the vegetable oil.

For additional information please do not hesitate to contact me at 908-788-1339 or cowgill@aesop.rutgers.edu.

**Note:** In our humid climate in New Jersey the cankers can continue to develop in lateral branches and the central leader. In some cases the cankers have grown to girdle and kill two-year wood. I have observed central leader dieback as a result. In older wood the canker looks very much like a fire blight canker in apple. In most cases the canker begins to ooze a brown to amber exudate. It appears that under our humid conditions this disease is very hard to control and can be devastating if control measures and the proper horticultural practices are not followed. Many growers who did not think they had bacterial canker are beginning to see it on three and four year old trees.

The source of inoculum may come from wild cherry trees in our hedgerows, Black Cherry, *Prunus serotina* may be one source of inoculum for the *Pseudomonas* during wind and rainstorms in the spring and summer months. Removal may be beneficial.

### Fact sheets on Bacterial Canker

Overall, the best information on this disease is from a fact sheet from Ontario Canada written by W.R. Allen "Bacterial Canker of Sweet Cherry" NO. 88-0886.

You can find it online at <http://www.gov.on.ca/OMAFRA/english/crops/facts/88-086.htm>. It has good color plates and lists control measures, however, it appears that under our humid conditions this disease is very hard to control and can be devastating. This bacterial disease is most troublesome in young plantings where it can cause losses of up to ten percent of the trees. On mature trees it can reduce yields from 10–50%.

There are numerous fact sheets online for Bacterial Canker; many include color photographs for reference. Below are the listings for several: Ontario Canada written by W.R. Allen "Bacterial Canker of Sweet Cherry" NO. 88-0886.

<http://www.gov.on.ca/OMAFRA/english/crops/facts/88-086.htm>

West Virginia University  
[http://www.caf.wvu.edu/kearneysville/disease\\_descriptions/bactcank.html](http://www.caf.wvu.edu/kearneysville/disease_descriptions/bactcank.html)

Comparison of healthy trees vs. diseased trees:  
[http://www.caf.wvu.edu/kearneysville/disease\\_descriptions/disease\\_images/fig129c.jpg](http://www.caf.wvu.edu/kearneysville/disease_descriptions/disease_images/fig129c.jpg)

University of California  
<http://www.ipm.ucdavis.edu/PMG/r105101511.html>