

Subject: New England Grape Notes - April 20, 2018

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See below for some good articles on early season insect and disease considerations from Virginia. Please note that they are phenologically ahead of us here in New England, so this information is in anticipation of bud swell here. ~ SGS

Early Season Disease (Phomopsis and Anthracnose) Management Tips

Mihuzo Nita, Virginia Tech.

[Early season disease \(Phomopsis and Anthracnose\) management tips](#)

Our Chardonnay and some of the hybrid vines are in bud swell stage as of this week [*in Virginia*], and others are tagging along. It looks like we will see bud break very soon with warmer temperature (but next week should be cooler).



One of the diseases you need to consider this time of the year is **Phomopsis cane and leaf spot**. It causes minor leaf spots, which is more obvious to our eyes, but the more important damage is caused by necrotic lesions on shoots and rachis. It also causes berry rot; however, it is not common with wine grapes because of our spray programs. Materials for black rot and downy mildew are often effective against Phomopsis. Thus, the fungicide coverage for these diseases is also working as management of Phomopsis, especially later in the spring and early summer. Some cultivars, such as Viognier and Seyval Blanc, are more susceptible to Phomopsis than the others.

Phomopsis takes a while to establish in the vineyard. It may take 5–6 years for Phomopsis to become noticeable if you start a new vineyard. However, once established in a vineyard, it is difficult to get rid of this disease. Phomopsis tends to become noticeable as a vineyard gets older because of its life cycle. The fungus survives in canes and trunks that were infected in previous years. During the spring, it will produce spores on the surface of infected tissues, and these spores are splashed by rain onto new shoots or leaves. Luckily, the pathogen (*Phomopsis viticola*) produces spores mainly during the springtime. Thus, unlike the other diseases we face, there is only one major infection period throughout the season. Because of that, the spread of Phomopsis does not happen rapidly as other grapevine fungal diseases, such as downy mildew.

Phomopsis spores can cause infection under the relatively cooler environment (the upper 40s). Thus, springtime rain events are ideal for Phomopsis to produce spores and cause infection. Unfortunately, we do not have curative fungicides for Phomopsis management; therefore, it is important to protect young tissues when they come out from the older canes and trunks. Since shoots will grow rapidly, you may need to spray 1–2 times against Phomopsis, depending on how much rains we receive.

If rain events are coming into the picture after bud break, mancozeb (FRAC=M3, Penncozeb, Dithane, Manzate, etc.), Ziram (FRAC = M3), and captan (FRAC = M4) are effective protective materials against Phomopsis. In a typical year, one or two applications from 1–2 inch shoot growth will be sufficient, because your downy mildew or black rot applications, which happens in the late spring, will cover Phomopsis. QoI (FRAC = 11), such as Abound and Pristine, as well as SDHI (FRAC = 7), such as Luna Experience and Aprovia, work too. However, you don't want to use them this early in the season because you will need these materials for the latter part of the season to control other diseases. Once again, protection is the only mean of chemical management because no materials are effective after the infection.

The other disease that you may need to consider around this time of the year is **Anthracnose**, which is more common with a certain hybrid species. Typical symptoms are black necrotic lesions on leaves, shoots, and fruits, and often time, the black lesion has an ash-colored center, as if you burnt the leaf or shoot tissue with a cigarette. The management strategies will be similar to that of Phomopsis, and Topsin-M (FRAC = 1) is also known to be effective. For more information on Anthracnose, please refer to this link ([Michigan State's Extension Website on grape Anthracnose management](#)). [Editor's Note: you can also refer to the [New England Small Fruit Management Guide](#) for more information.] (Source: Virginia Tech Grape Disease Update, April 14, 2018)

Bud Swell in Grapes: Grape Flea Beetle and Climbing Cutworms

Douglas Pfeiffer, Virginia Tech.

[Bud swell in grapes: Grape flea beetle and climbing cutworms](#)

Hello, everyone,

At yesterday's vineyard IPM workshop in Madison County, vines were at bud swell. This is a key time for a couple of pests.



Grape flea beetle adults feed on primary buds at this time. This is mainly a problem in parts of blocks near wooded edges - but in such rows I have seen 40% of the primary buds destroyed. This is a metallic blue-green beetle that is almost 5 mm long. Adults overwinter in debris in and near the vineyard. They become active early in the spring and lay eggs in cracks in the bark, at bases of buds, between bud scales, and on leaves. Eggs are light yellow and are laid in masses; they hatch in a few days and larvae feed on grape leaves for 3-4 weeks. Larvae are brown with black spots, and reach a length of 10 mm. Larval feeding damage consists of characteristic chain-like feeding marks on leaves, although occasionally this injury may appear more extensive. However, the damage by adult grape flea beetles is more important. The beetles eat holes into the sides of buds and gouge out the contents as the buds swell. Such injury occurs most prominently on thick-leaved grapes which have large buds, such as the American cultivars 'Concord' and 'Niagara'. It should be noted that climbing cutworms can cause similar damage. However, damage by the latter pest complex is usually more ragged in appearance. Adults also feed on the unfolding leaves. For more information, visit

<http://www.virginiafruit.ento.vt.edu/GFB.html>.

Climbing cutworms also attack primary buds, but injury can be more generally distributed throughout the block. The biology of the various climbing cutworms varies considerably but the peak flight periods and generations for some of the common species are listed above. The most common species have one or two generations per year and overwinter as half-grown larvae on the soil in leaf litter and orchard debris. A few other species overwinter as eggs or even as adults. The species which overwinter as larvae begin to become active as the weather warms, generally in mid-April. This group of moths derives its name from the larval habit of climbing trees to feed on buds and young foliage during the night, and then crawling back down to the ground to seek shelter under leaf litter, [killed grass](#), or debris on the vineyard floor during the day. The larvae often curl up tightly when disturbed. Hundreds of larvae may feed on a single tree. The larvae mature by May and enter the soil to construct pupal chambers. In two-generation species, second generation feeding is minor.

Most injury from climbing cutworms occurs in the spring when they feed on primary buds or young shoots. In severe cases, all buds may be killed, so that [growth is delayed considerably](#) compared to [uninjured cordons](#). While growth will likely resume later from secondary or tertiary buds, yield from such shoots is reduced, and harvest maturity is erratic, especially when considering bunches produced on other, uninjured vines. For more information, visit <http://www.virginiafruit.ento.vt.edu/cutwormsgrape.html>. [Editor's Note: you can also refer to the [New England Small Fruit Management Guide](#) for more information.]

(Source: *Virginia Tech Fruit Insect Update, April 18, 2018*)

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