



Every month has new things we need to do in the vineyard to get the best grapes for harvest.

This is the month we start early on disease control and start the regular, season-long programs for protection.

Imidacloprid

Pierce's disease is one of the most serious threats to our vineyards, especially here in Southern California. This is the disease that wiped out over half of Temecula's vineyards in a few years in the late 90's. The threat is a bacterium that is resident in almost all the native plants around our vineyards. It is vectored into the vineyard by Glassy Winged Sharpshooters (strong flyers) and Blue-Green Sharpshooters (weak flyers).

It is imperative to protect your vineyard, **EVEN IF YOU HAVE NOT SEEN A PROBLEM YET**. Imidacloprid is the same chemical used for your dog's flea control in "Advantage". It is systemic in the plant and kills the sharpshooter on first encounter before Pierce's disease can be transmitted.

There are three ways to apply it: (1) through your drip system - fertigation, (2) ground spray or (3) foliar application. There are several chemicals available from Grangetto's. **Nuprid, Admire** or **Merit 2F**. Read the label for each to determine correct amounts ! If you buy anything on-line **BE SURE** that it is approved for grape application.

Fertigation: if you have an injection system on your drip irrigation you can inject a few ounces per acre of Admire or Nuprid. You must get the ground wet first, then apply the chemical, then wash it into the ground with continued drip.

Ground Spray: It is possible to spray the same amount of the chemical directly on the ground along the rows - **IF AND ONLY IF** rain will wash it into the ground immediately after application. This is easier but it requires about a quarter inch of rain sometime during April.

Foliar: This is also the time when we start a powdery mildew program of foliar sprays. Merit 2F is designed to be tank-mixed with other chemicals for direct spraying on the leaves. It takes about 8 applications of Merit 2F throughout the first part of the season to reach the same protection.

Imidacloprid also stops the dreaded vine whitefly which has gotten to be endemic in the valley. The whitefly is also a sucking insect so the systemic action gets it too. The whitefly does not kill the plants but heavy infestations can affect ripening and are bothersome to harvesters.

Powdery Mildew Control

PM must be stopped early and continuously through the season. Each vineyard is more or less susceptible, but almost all may have an attack as the moisture/fog/rain conditions fluctuate

throughout the year. IF you wait til you see it, it's too late. It is always present in the atmosphere here.

The key to PM control is rotation of attack strategies. The PM reproduces quickly. After each treatment the few organisms that are resistant to that spray will dominate and take over the vineyard. You must use alternating chemicals. Start when the cane growth is about 6 inches.

I spray every two weeks with a rotation of sulfur / Rally / sulfur / Quintec / sulfur / Luna and back to the beginning. If pressure is low I might hold the Luna out of the rotation in case a mid-summer rain storm hits after the fruit is set. Luna is really good for late season Botrytis and bunch rot.

Any blocks that are susceptible to Downey Mildew will get Pristine and Nordox added to the rotation.

See the attached document for a full discussion of available chemicals and prices per acre. Except for group 2, most things cost about \$15-\$20 per acre per application.

Western Grape Leaf Skeletonizer

The WGLS will remove every leaf off your vineyard and eat the skins off the grapes if allowed to run wild. I know, I've seen it. The good news is: it is easy and inexpensive to control them before they get started. I add 1/2 pound of an organic pesticide called **Dipel** to each acre's spray program, every time I spray any foliar PM protection. This kills the youngest caterpillars just as they hatch. We'll talk next month about spot sprays to attack any which sneak through and get bigger.

Fertilizer

I like to use a Biolink organic fertilizer program on my vineyard. It is a foliar spray. The first application needs about 6" of leaf so it matches nicely with the first PM spray. The next application will be much later in the season.