

## HOW TO: PREVENT LOSSES FROM PIERCE'S DISEASE

Over the last 5 years a protocol has been developed to prevent the spread of Pierce's Disease (PD) in southern California vineyards. A cooperative USDA-UC-CDFA-Industry team has worked together in the Temecula area to define and test the new management practice. The new practice is simple and cost effective. It will enable growers in Southern California to operate without the significant losses from PD that have impacted vineyards since GWSS became established.

When the team surveyed the Temecula area, they found that the vineyards that have been treated for the last three to six years were effectively disease free, even in the presence of low to moderate levels of Glassy-winged sharpshooter (GWSS). The neighboring untreated vineyards have sustained losses of as much as 20% to 80+% over the same period. In San Diego County many viticulture areas have been heavily damaged while other areas have not yet been impacted. However it is recommended that growers that have yet to experience damage should not be complacent. The necessary components are present, sources of bacterium in the infected plants, grapevines as susceptible plants and the glassy-winged sharpshooter as the vector, so sudden and significant damage from PD could happen in these areas. The cost of treatment has come down dramatically in recent years. It makes good economic sense to prevent losses.

In southern California there is a window of vulnerability to the transmission PD that we now know begins in late May or early June and continues through August. If vineyards are chemically protected during this vulnerable period, with a systemic neonicotinoid insecticide such as Imidacloprid, losses from PD can be prevented. It has also been documented that one application of Imidacloprid properly applied in mid-May will persist at effective levels through the rest of the growing season, protecting the vineyard from PD.

The team is recommending the following three actions:

1. Apply a systemic insecticide such as Imidacloprid or one of the chemicals listed below at the recommended concentration in mid-May.
2. Monitor the vineyard for diseased vines at the end of the growing season (when symptoms are readily observable) and remove them.
3. Monitor your area to prevent population outbreaks of GWSS. Cooperative management programs in a growing area are very beneficial.

Your licensed PCA can apply one of the following chemicals:

Chemical	Application
AdmirePro (imidacloprid)	14 oz/acre PHI-30 days
Alais (imidacloprid)	32 oz/acre PHI-30 days
Assail WSP (acetamprid)	1.1 oz/acre PHI-7days Only 2 applications allowed per season for a total of 2.2oz season
Platinum (thiamethoxam)	8-17 oz/acre PHI-60 days Maximum Platinum allowed during growing season is 17acre
Venom (dinotefuran)	5-6 oz/acre (0.226-0.264 lb/acre). PHI-28 days Can not apply more than 0.754 lb of Venom per season.

PHI=Post harvest interval

As new products and methods become available this information will be updated on the San Diego County Ag Commissioner's web site:



Treated: This healthy three year old vineyard has been treated using the new management protocol. The fallow land behind the vineyard is where vineyards were lost to Pierce's disease, and removed during the epidemic of 1996 to 2000.



Untreated: The many blue stakes in this four year old untreated vineyard are where vines have been lost to Pierce's Disease and are being replanted.