

Gleanings

Hill Country Vineyard Update

September 2010

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Around the region harvest 2010 is almost complete; with a few red varieties hanging. There are so many topics to talk about this time of year but I've chosen a few of particular interest.

TOPICS INCLUDE:

- In the Vineyard: Powdery Mildew
Cotton Root Rot
- Crop Estimation: A How-To
- Variety Potential: Aglianico
- Announcements

In the Vineyard: **Powdery Mildew**



Figure 1. Powdery Mildew in Grape Clusters

Powdery mildew (PM), one of the most damaging pathogens of grapevines, impacted grape quality in our regional vineyards this season. Although it can infect all green vine tissue its name comes from the powdery, dusty-



like symptoms commonly found on the upper leaf surfaces. These are the mycelium or sporulating bodies of PM. Damage is dependent upon time of primary infection.

Increased late season infections throughout the region this season were caused by :

- Humidity from late June tropical moisture
- Cooler temps(lives at 59°-90°, but prefers 68° – 77° F) for extended periods
- Gaps in grower spray program
- Lack of good spray coverage throughout heavy canopies

PM overwinters in grapevine bark crevices and needs rainfall for primary infections. Thereafter, secondary infections need only wind to be dispersed, repeating the cycle.

Growers need to become more knowledgeable about canopy management techniques and implement them during the 2011 growing season for improved control of late season PM and other diseases of grapes.

High temperatures and increased grape sugar levels usually reduce spore germination and lesion growth. However, infections late season can cause berries to split open (See Figure 1) and predispose them to secondary bunch rot infections.

Bunch rot organisms, including aspergillus and penicillium and are more difficult to control due to impending harvest dates. Several growers experimented with Oxidate, with varied success.

Crop Yield Estimation: A How-To

Did your crop estimates match your actual yield this year? Crop yield estimations are important for both the grower and winery purchasing the grapes. Accurate estimations not only provide for a smooth harvest process and good winery relations, they provide valuable information to the grower for managing crop yields for quality fruit and healthy vines.

Each “block” in the vineyard should be estimated separately, taking into consideration not only grape variety, but clones, rootstocks, soil type, etc.

Step 1

Determine the total number of bearing vines within each block of vines.

Example-

Using 10' x 6' vine spacing

726 (Total potential number of vines)

Less 30 (# of non-bearing vines)*

Equal 696 Vines

*Can also calculate using a % of total vines that are non-bearing

Step 2

Determine average # clusters per vine.

If you have primary and secondary clusters will you be harvesting them together? Remember you need a true representation of the block. Count cluster # from ~ 10 vines per acre/block depending upon uniformity of vines. For this example we will use 40

Step 3

Using vineyard site historical average cluster weights or published average cluster weights per the variety being sampled, **calculate crop estimate.**

Example- Syrah variety avg. cluster wt. (historical avg.)= 0.33 #/cluster

Calculation of Crop Estimate

$696 \times 40 \times 0.33 = 9,187.2 \#$

$9,187 \div 2000 \#/\text{Ton} = 4.59 \text{ tons of grapes}$

Note that this same randomization of sampling for crop yield estimates should be utilized when sampling for crop maturity.

Why do errors occur? In my experience, there are two main sources of error with crop estimates.

First, many vineyards are not uniform and non-bearing vines are unaccounted for in the estimates. Second, size differences of primary and secondary clusters distort estimates. At harvest growers should compare estimates to the actual number of clusters harvested per vine. Clusters can also be weighed, or yields per vine checked against actual crop harvested and weighed before delivery to the winery.

Cotton Root Rot Raring its Ugly Head



Cotton root rot fungus (*Phymatotrichopsis omnivorum*) is one of the most serious soil-borne fungal diseases of both annual and perennial crops, including grapevines.

Increased incidence of grapevine death due to CRR in the Hill Country can be attributed to early spring rainfall.

Common symptom expression includes: sudden wilt, yellowing of leaves and death. It can be described as “patchy” throughout the vineyard, moving across and down rows.

Although most common on higher pH soils, we have identified it in vineyards with moderately lower pH granite sand soils. This disease has been studied by researchers for decades with no resolve.

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Diagnosis is easy, but growers should have Cotton Root Rot positively identified in a lab before taking further action. Submitting vines for diagnosis is easy. First, cut the dying vine just above the ground level, then dig out as much of the root system as possible. Shake away any soil from the roots, place in plastic bag. Prior to sending the sample contact the Texas Plant Disease Diagnostic Lab (979-845-8032) to let them know the sample is being sent. Include Form D1178 found at the TPDDL web site: <http://plantclinic.tamu.edu>. Include prepayment before shipping via overnight delivery early in the week.

Variety Potential: Aglianico

Aglianico, pronounced as “ah-LYAH-nee-koe” is a black grape originating from Greece. This variety produces a supreme grape in the hot climates and volcanic soils of the Basilicata region of Italy.

Aglianico resembles Nebbiolo (think Barolo and Barbaresco’s of Piedmont) in that it is late-ripening, producing highly tannic wines with good acidity and inky-black color. Sometimes considered rustic and harsh in their youth, they exhibit good aging potential.

Some believe it has a place in Texas wine production, and have planted limited vines in the Hill Country today. The vines are still young, and not yet producing for adequate wine trials.

Aglianico buds early and ripens late, which may not be well suited to the Hill Country region due to late spring frost potential and tropical moisture during the ripening period. References also note that Aglianico tends to be excessively tannic if over cropped.



Announcements

FREE TCEQ Collection Event

Do you have unwanted pesticides?

Bring them in for proper disposal: including herbicides, insecticides, fungicides, etc.

Thursday, September 30, 2010

8:00 a.m. – 1:00 p.m.

Gillespie County Fairgrounds
530 Fair Drive, Highway 16 South
Fredericksburg, TX

SAVE THE DATE>

Annual TWGGA Grape Camp

Nov. 7-8, 2010

Fredericksburg, TX

Go to the TWGGA website for more information:

<http://www.txwines.org> or call (817) 424-0570

Please don't hesitate to contact me if you have any comments or suggestions for this newsletter
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Notice

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