

Hill Country Vineyard Update October 2007

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TOPICS INCLUDE:

- 1.) Post-Harvest Disease Management
- 2.) Esca or Black Measles Presence?
- 3.) Announcements

Post-Harvest Disease Management

Every vineyard in the region experienced high incidence of **Downy Mildew (DM)** this season, including primary infections on leaf, rachis, pedicle and berry.

Despite the relative dry September, vineyards continue to experience secondary infections of DM on new shoot tip growth due to consistently falling below dew point each night.

Cooler than normal temperatures, combined with afternoon showers and morning dew have contributed to favorable DM conditions.

Maintaining healthy canopy during this acclimation period between harvest and dormancy is critical to your vines ability to survive low winter temperatures in our region. Reduced cold hardiness is associated with large, dense (shaded) canopies; canes with long internodes and/or large internode diameters and vines with persistent lateral canes.



Downy Mildew Lower Leaf Surface



Downy Mildew Upper Leaf Surface

Additionally, heavy fruit loads or defoliation (early leaf fall due to stress, disease or pest activity) inhibits acclimation, probably through reduced availability of photosynthates (Mullins, et al., 1992.) Carbohydrates produced by the leaves are stored in the vine roots, trunks, and cordons and affect winter hardiness and uniformity of bud break the following year.

According to Wayne Wilcox **Downy Mildew is a classic “Compound Interest” disease** with next year’s disease “yield” dependent upon 1) initial “deposit” of over-wintering inoculum, 2) “rate of interest” or susceptibility of varieties/clones, weather conditions and spray program next year.

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This season has given growers the perfect opportunity to **evaluate your varieties and clones**. Significant differences between sensitive and somewhat resistant varieties/clones to DM, Black Rot and Phomopsis were evident in many vineyards this year. Hopefully, you have recorded these differences, including the increased inputs of spray materials and canopy management practices including shoot thinning, leaf thinning and hedging.

The goal of a good vineyard manager should be to reduce the total number of vineyard “passes” needed to accomplish ALL tasks throughout the season for economic success.

The **best post-harvest fungicides** include mancozeb such as Dithane, Phos-acids such as Pro-phyte and Phostrol, and Captan because they are the least susceptible to disease resistance, cover most all of our disease issues and are relatively inexpensive. Apply several applications between now and leaf drop but do not go over the maximum allowable per acre, per season:

Dithane 19.2# Active Ingredient (AI)

Captan 80WDG 15# AI

Captan 50W or WP is 24# AI

Phos-acids no limit

Due to the increased amount of disease inoculum from 2007, all vineyards throughout the region will need to be vigilant about removing old clusters (mummies) from the vines between now and 2008 budbreak. Disease inoculum from DM, Phomopsis, etc. remaining on vine structures in cluster mummies, etc. are then spread through rain splashing events the following season. Keep it clean in the vineyard!

The stage has been set for a “bad” disease year in 2008 and as Jim Kamas has told growers for many years: “**An ounce of protection is worth a pound of cure**” is sure relevant today. Start reviewing your records from this season and develop your strategy for next season.

Esca or Black Measles

For several years in vineyards throughout the Hill Country we have seen what is believed to be *Esca* in Cabernet Sauvignon, Cabernet Franc, Malbec and Merlot varieties. Observations of tiger striping of leaves (see photo) in mid to late season and eventual cluster raisining have been noted. This year some vineyards have graciously participated in a small research sampling to help identify this potential pathogen. Thirteen samples from 4 different vineyards were sent to Dr. Doug Gubler, Plant Pathologist, U.C. Davis for testing and identification *gratis*. Dr. Gubler and his team have been researching *Esca*, *Eutypa* and *Botryosphaeria* in California vineyards and presented several papers on these pathogens this summer at the First National Viticulture Research Conference held in July this year at U.C. Davis. **Measles** (syn. *Esca*, Black Measles or Spanish Measles) has plagued California vineyards for many years because of the inability to identify the causal organism(s) and because of its cryptic nature. **Symptoms are random, showing up one year and not the next**, which has been the case here in Texas. Recently, two genera of fungi have been isolated and identified as the causal organisms; *Phaeoaniella chlamydospora* and *Phaeoacremonium* spp. Understanding the disease cycle and developing a potential management program is currently being determined through their work. Samples collected this season are still being analyzed and will be posted here at a later date.



Tiger stripe symptom of Esca

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Announcements

-Hill Country Post-Harvest

Roundup is scheduled for Tuesday, November 20, 2007, from 9 a.m. to noon at our Gillespie County Extension office located at 95 Frederick Road. I will present a program on **A Review of 2007 Disease Issues** and Jim Kamas will present a program on **Physiology of the 2007 Disease Issues**. All growers are welcome to join us for this educational event. For information or directions please don't hesitate to contact our office at 830-997-7047.

-Upcoming Vineyard Survey

My Grower Advisory Board requested a simple survey from growers; to collect information regarding current varieties grown, clones, your successes or failures of these combinations and more. Results will provide useful guidelines for future plantings in our area by current and prospective growers. **Watch for the survey**, your participation is requested and will be appreciated!

-Vineyard Site Visits

The Texas Hill Country covers 14,000 square miles, and all or part of 25 counties. My region has 75 growers (that we know of) and countless numbers of people interested in growing grapes commercially to support our industry. As a part of my job I am responsible to all of these clients for questions relating to viticulture. If you have questions or concerns that I can assist you with in your vineyard please don't hesitate to call me and **make an appointment** or contact me via e-mail at the information listed below. I am happy to meet you at your vineyard or visit with you by phone or e-mail. Take some digital photographs of the symptoms and send to help with identification of problems. Also, it is helpful if you gather the following information prior to our visit:

What variety are the symptoms expressed in? What rootstock is this vine on? What part of the vine are these symptoms being expressed on— young or old tissue? How long has this been occurring? Do you see any pattern of spread within the vine or between vines? Does it appear to be a response related to any vineyard activity? I will ask you these things, just as a doctor would upon trying to diagnose the issue at hand. If I don't know the answer, I will find out, and in most cases it will be discussed with Jim Kamas to get his thoughts on the issue as well. This season had me on the road making many vineyard visits with the growers who made appointments throughout the region, addressing disease identification and management strategies, vine training, canopy management, vine nutrition, etc.

-National Grape Registry

A very good website for information on grape varieties for wine, juice and table grapes, raisins and rootstocks available in the United States is www.ngr.ucdavis.edu. Growers, nurseries, winemakers and researchers can find background information and contact sources for vine material. I had the pleasure of meeting Ms. Nancy Sweet, Manager, National Grape Registry, Foundation Plant Services while attending the NVRC 2007 Meeting in July. Please make use of this fine resource in your vineyard planning.

-Gillespie County Cleanup

Set for Thursday, December 13th, at the Gillespie County Warehouse, 2254 N. U.S. Highway 87. Collection Times 8:00 am to 1:00 pm. Open to **ALL Texas** residents who apply pesticides or other agricultural chemicals for the production of agricultural products in Texas or who currently have banned or unwanted agricultural chemicals. For more information go to the TCEQ website: www.tceq.state.tx.us/assistance/AgWaste/agwaste.html or call 512-239-3143 for more specifics on what is accepted or to find collection date in your county.

-TWGGA Grape Camp 2007

Scheduled for November 9-10 in Fredericksburg, grape growers and those interested in our industry will be gathering for educational meetings. Issues for current growers, including frost protection and disease management will be the focus for Friday's program and Saturday's focus will be for new and potential growers. For more info contact the TWGGA office at 817-424-0570 or at <http://www.txwines.org/industry/index.php>

-Comments or Suggestions

Please don't hesitate to contact me if you have any comments or suggestions at my contact information listed at the top of this newsletter.

-Notice

This publication may contain pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are possible. Questions concerning the legality and/or registration status for pesticide use should be directed to the appropriate Extension Agent / Specialist or state regulatory agency. Read the label before applying any pesticide. The Texas A&M University System and its employees assume no responsibility for the effectiveness or results of any chemical pesticide usage. No endorsements of products are made nor implied.

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