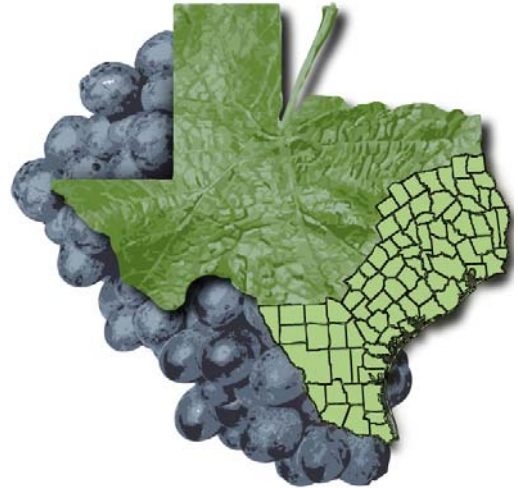


Texas Gulf Coast Vineyard Update June 2009



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Greetings Gulf Coast Regional grape growers and winery affiliates! As I finish writing this newsletter, Houston is experiencing record breaking heat in the triple digits. Not a good time to be out in the vineyards of course, but if all early season canopy management and disease management had been dutifully carried out to this point, there should not be a great deal of physical labor until harvest. Harvest of Blanc du Bois has already occurred in the Rio Grande Valley and further north into Goliad, with the central Gulf Coast not far behind them. In this newsletter I will discuss some late-season disease management for those reds still hanging half green on the vines. I have also been traveling much in this past month and will share some of my observations from the central coast and on down to the Rio Grande Valley.

Mid to Late-Season Disease Management

In most of the central to northern Gulf Coast region, Blanc du Bois is softening and beginning

to take on its characteristic golden hue, and Black Spanish and other red varieties are now just on the cusp of veraison (Figure 1).



Figure 1: Black Spanish in middle of veraison.

The last spray that most growers applied was at berry touch or post-cluster closure. Some growers applied Captan or Captan + Rally as the last spray, the latter of which should cover the full spectrum of fungal pathogens. The drought we have been in since early May has in no doubt contributed to the low incidence of fungal diseases reported. Most vineyards I have visited in the past week are still showing spray residue

on leaves and clusters from fungicide applications made two weeks ago, which is normal during dry conditions (Figure 2). Recall that Captan is a protective fungicide and is subject to wash-off (loss of coverage) in heavy rainfall and will need to be re-applied as necessary for your current situation.



Figure 2: Black Spanish cluster showing thorough coverage after veraison fungicide spray.

Broad spectrum systemic fungicides such as Pristine and Abound are limited to 2 sprays per season in order to reduce the onset of resistance development to downy or powdery mildew. Most growers have already used the first application of these products at or just before bloom. The second application is typically used just prior to cluster closure or at veraison. This year, weather conditions were dry, thus many growers chose to use contact fungicides during cluster closure. If this is the case in your vineyard, veraison is the last opportunity to get in a final systemic spray for late season bunch rots and foliar diseases. Remember that Pristine and Abound have the same chemical ‘mode of action’ and are not suitable as rotation partners.

I have been recommending Pristine over Abound for the late season spray, as it contains Boscalid, which adds extra protection for botrytis bunch rot. There is a higher labeled rate (18.5 to 23 oz/acre) for bunch rot protection. Please read the label and keep in mind that there is a two-week pre-harvest interval (PHI) for Pristine, thus it may be too late for application in some early ripening white wine grape vineyards.

If the current dry weather and breezes continue for the next few weeks, growers should “coast” into a clean harvest on early season varieties. One can hope that this will also be the case with later season reds. In the event of a tropical storm, I would presume that a vineyard sprayed

with Pristine during veraison would fare better with regards to bunch rots. Phosphorous acid products, such as Rampart or PhoPhyt, are also a good option for late season downy mildew protection. For more information on phosphorous acid products see the June 2008 Vineyard Updates Newsletter: http://winegrapes.tamu.edu/news/regionalnews/GulfVineyardUpdate_June08.pdf

As a final note, I will mention here (as I have in the past) that pre-harvest Captan sprays are suspected to have a role in stuck fermentations in the winery. No winery or grower would want to spray Captan too close to harvest, but the label does allow use of this product until harvest. Use of good judgment and communication with the winemaker will help to avoid any potential friction. Most vineyards stop spraying Captan 30 days before harvest to err on the safe side.

Please apply the above considerations to your specific conditions and don't hesitate to call or write if you are looking for a second opinion. If you experience a disease outbreak in your vineyard, please contact me for more specific control options.

Grape Growing in the Rio Grande Valley

The Gulf Coast viticulture region covers a vast range of Texas territory, much of which is not currently planted with vineyards. As vineyard acreage increases in some of the lesser planted areas of the region, so too will my travel to those regions. The southern tip of the state or “Rio Grande Valley” is one of the lesser know and newly emerging grape growing regions in Texas. I currently travel there once each year to meet with an enthusiastic group of researchers and new growers. There is a rich history of grape growing in South Texas, much of which has not been documented. In this article I will discuss the current situation in the Rio Grande Valley and some of the highlights from my last visit there in May of 2009.

Advantages of South Texas

Phenologically speaking, South Texas and the Rio Grande Valley have the potential to be the most advanced growing region in the state. That is to say, growers in the Rio Grande Valley have the ability to ripen fruit as many as 2 to 3 weeks sooner than the rest of the state. The relatively mild winters and early bud-break (about mid-

February) are the main contributing factors to the early harvest. Late spring frosts have never been reported in vineyards to this date, thus reducing one of the major viticulture risk factors faced by the majority of the state.

Being the first to market has obvious advantages. Tanks in the winery can be filled first by fruit from the South Texas region. It would not be unreasonable to see Blanc du Bois being harvested in Mid-June (Figure 3), shipped north, crushed, and finished with primary fermentation before wineries received the same fruit from their vineyard counterparts in Austin, Colorado, or Fayette County. Harvest of Blanc du Bois this year at Rio Farms Inc., Monte Alto Texas was on June 22nd with brix levels at 21.7 and pH 3.4. Harvest was considered to be “late” in the Rio Grande Valley this year as we now know that Blanc du Bois can make very good quality wine harvested with brix in the range of 17 to 18.



Figure 3: Blanc du Bois ready for harvest in Mid-June at Rio Farms Inc., 2008.

Suitable soil and water availability are also factors that will allow for vineyard expansion in the Rio Grande Valley. Many of the soils currently planted to citrus and other vegetable and row crops are deep, sandy to sandy loam (well-drained) soils (Figure 4). Most of the current vineyards on those soils are tapping into the water from flood irrigation canals a few times per year to meet the seasonal water demands during the dry summer months. In the future, I believe a combination of flood and drip irrigation will be the best approach. Such a combination would allow quick access to large quantities of water via canals, while also allowing more fine-tuned application of fertilizers or pesticides through the drip system.



Figure 4: First leaf Black Spanish vineyard on old citrus orchard site in Rio Grande Valley. Trellis not yet installed.

Based on the spray program used by researchers and farmers in the Rio Grande Valley, it would appear that the potential for a low-input fungicide program is greater in South Texas than in other parts of the Gulf Coast Region. Occasional rainfall during the growing season may increase the need for fungicide use, however it is not uncommon for growers to get by with a total of 3 fungicide sprays per season with Blanc du Bois or Black Spanish grapes: one dormant lime sulfur spray, followed by one spray of mancozeb plus Rally near bloom, and a final spray with a strobilurin (Pristine) from cluster closure to veraison.

Challenges in South Texas

The challenges with grape growing in the Rio Grande Valley mirror those found in most of the Gulf Coast. Pierce’s Disease (PD) is the number one limiting factor with regards to grape variety selection. Currently all of the production in the valley is limited to the proven PD tolerant varieties, specifically Blanc du Bois and Black Spanish. Thus new growers will want to consider the economics of those varieties prior to planting a vineyard or settling on a training system. For further information regarding PD see: <http://pd.tamu.edu/>

Cotton root rot may pose as the second most limiting disease of grapes in South Texas. Cotton root rot is a soil-borne fungal pathogen of roots that is commonly found in clay soils having a pH above 7.0. Although much of the South Texas area has sandy to sandy loam soils, clay soils and clay sub-soils are found further north of the border, into Brooks, Star, and Jim Hogg Counties. Growers in those areas have reported the occurrence of cotton root rot in host

crops other than grapes. At this time, it can be presumed that sites containing clayey soils (or sub-soils) with a history of vegetable and row crops may be at greatest risk for this disease.

Aside from the known and projected disease issues in South Texas and the Rio Grande Valley, there is a general lack of experienced grape growers from which to draw observational and historical data. Thus little is known with regards to training systems, fruit quality parameters, and yields in those areas of the Gulf Coast Region.

Fortunately there has been recent interest in grape growing from researchers in the Valley. Wine grape test vineyards have been established since 1998 at Rio Farms Inc., a private research foundation in Monte Alto. Rio Farms currently has approximately 6 acres of demonstration vineyard, initiated by research director Andy Scott and the late Dr. M. J. Lukefahr. Each year Rio Farms holds a field day for prospective grape growers, which includes a tour of their vineyard and tasting of the Blanc du Bois and Black Spanish wines that Texas wineries have produced from those varieties (Figures 5 & 6). For more information see: http://southwestfarmpress.com/mag/farming_south_texas_rio/

Additionally, researchers within the United States Department of Agriculture, Agricultural Research Service (USDA ARS) have been focusing on projects such as identification of insect vectors of PD and evaluation of new plant material for potential new grape rootstocks and varieties in the Rio Grande Valley. For more information see: http://pd.pipra.org/Proceedings/2007/2007_187-188.pdf

I anticipate traveling more to the Rio Grande Valley in years to come to offer educational programs for new and prospective grape growers through the Texas AgriLife Extension Service and the local research institutions in that region.



Figure 5: Prospective grape growers tour the test vines at Rio Farms Inc., Monte Alto, TX.



Figure 6: Test vineyard at Rio Farms Inc. showing use of synthetic mulch for weed suppression.

Vineyard Updates

Drought

Inquiries regarding the current drought are frequently arriving in the extension office. Drought and dry soil can severely stunt vine growth, nutrient uptake, and fruit development. I think that most growers realize that the way to wine quality is not to stress vines to the point of shut-down. Growers should also realize the difference in water management between young vines and mature, bearing vines. Young vines should be receiving ample moisture and shoot tips and tendrils should remain healthy and growing well into October in the Gulf Coast Region. Water management on mature vines should focus on maintaining a healthy canopy.

After veraison, mature vines should be receiving enough water to maintain existing foliage, including older leaves, but not to the extent of

promoting luxurious shoot tip growth. If older leaves are becoming yellow and senescing, it is important to investigate the cause. Too often, growers mistake yellow senescing leaves as a sign of low vigor or water stress, but excess shading can have the same effects (Figure 7).

Too much water could divert vines into vegetative growth rather than fruit ripening, especially on heavy clay soils. Furthermore, suddenly increasing the water availability to vines could also lead to fruit cracking or splitting, thus proceed with caution if increasing water rates. I have visited three Blanc Du Bois vineyards in this past week where berry cracking was occurring, likely due to overwatering on clay soils.



Figure 7: Leaves of Blanc du Bois turning yellow and senescing due to shading. This vine was not showing signs of water stress.

2009 Upcoming Viticulture & Enology Events

Wine Quality Control and Analysis Workshop

WHERE July 7 - Barking Rocks Winery, Granbury
 July 22 - Haak Winery, Santa Fe
 July 27 - Texas AgriLife Research & Extension Center, Lubbock

TIME 9 a.m. - 6 p.m.

FEE \$100, \$120 onsite

Register online: <http://agrilifeevents.tamu.edu> use keyword: analysis

Includes lunch & lab manual

Texas AgriLife Extension, with very generous support by Vinqury and Texas Tech University, will be holding a day long workshop covering the topic Quality Control and Analysis. This two part workshop will train participants on common winery lab procedures as well as wine aroma defect detection and ID.

Grape Camp

November 15-16

Inn on Baron's Creek
Fredericksburg, Texas

The 2009 Grape Camp hosted by the Texas Wine and Grape Growers Association will be held Inn on Baron's Creek in Fredericksburg, TX on Sunday, November 15 through Monday, November 16. The annual Grape Camp is educational programming designed and delivered by the Texas AgriLife Extension Service for commercial vineyard owners and for anyone interested in learning about grape growing in Texas. Additional information is available on the TWGGA website:

<http://www.txwines.org/>

Additional Events

For a list of additional Texas wine & grape events visit: <http://winegrapes.tamu.edu/news/events.html>

As always, feel free to contact me if you have any questions or comments.

Best regards,

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