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Texas A&M System

Texas Gulf Coast Vineyard Update December 2010

Fritz Westover
Extension Program Specialist – Viticulture
Texas Gulf Coast Region

In this issue:

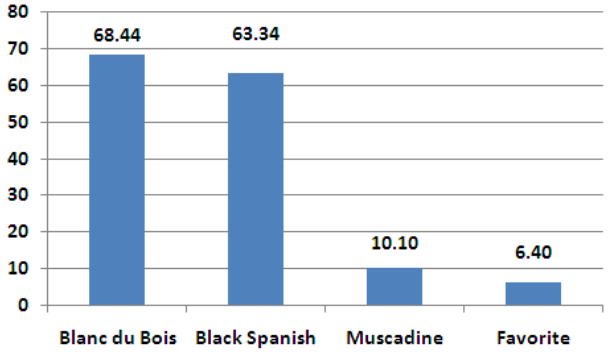
Greetings Gulf Coast grape growers and winery affiliates! In this December newsletter you will find the results of the 2010 grape acreage survey for the Gulf Coast region. Additionally, I will address some of the most common questions from growers at this time of season regarding soil moisture during the dormant season. Finally, I have included a list of upcoming viticulture and enology events, such as the 2011 Annual Gulf Coast Grape Grower Field Day in Cat Spring.

Gulf Coast regional grape acreage survey 2010

Vineyard acreage in the Texas Gulf Coast region has increased by over 100% since 2007, with a new total of 185 planted acres. This is quite big news for our region and the following article provides some information regarding the varieties being planted, and their locations.

The 2010 vineyard acreage survey contained some information not collected in 2007. Vineyard acreage was not only categorized by *grape variety*, but also by *producing* and *non-producing* acres in 2010, for the two principal grape varieties, Blanc du Bois and Black Spanish (Lenoir).

Total producing acres in 2010 reached 44 for Blanc du Bois and 49 for Black Spanish. Newly planted acreage is somewhat in favor of Blanc du Bois, with 24 acres of non-producing vines reported, compared to 14 new acres of Black Spanish. Favorite was the third most widely planted *vinifera* hybrid grape. Muscadine grapes (e.g. Noble, Carlos, Cowart) still make up a small fraction of Gulf Coast production, but recent planting in the eastern part of the region has brought the total to just over 10 acres. Total planted acres of the top three Pierce's Disease tolerant varieties are shown in the chart below, compared to total acreage of muscadine grapes.



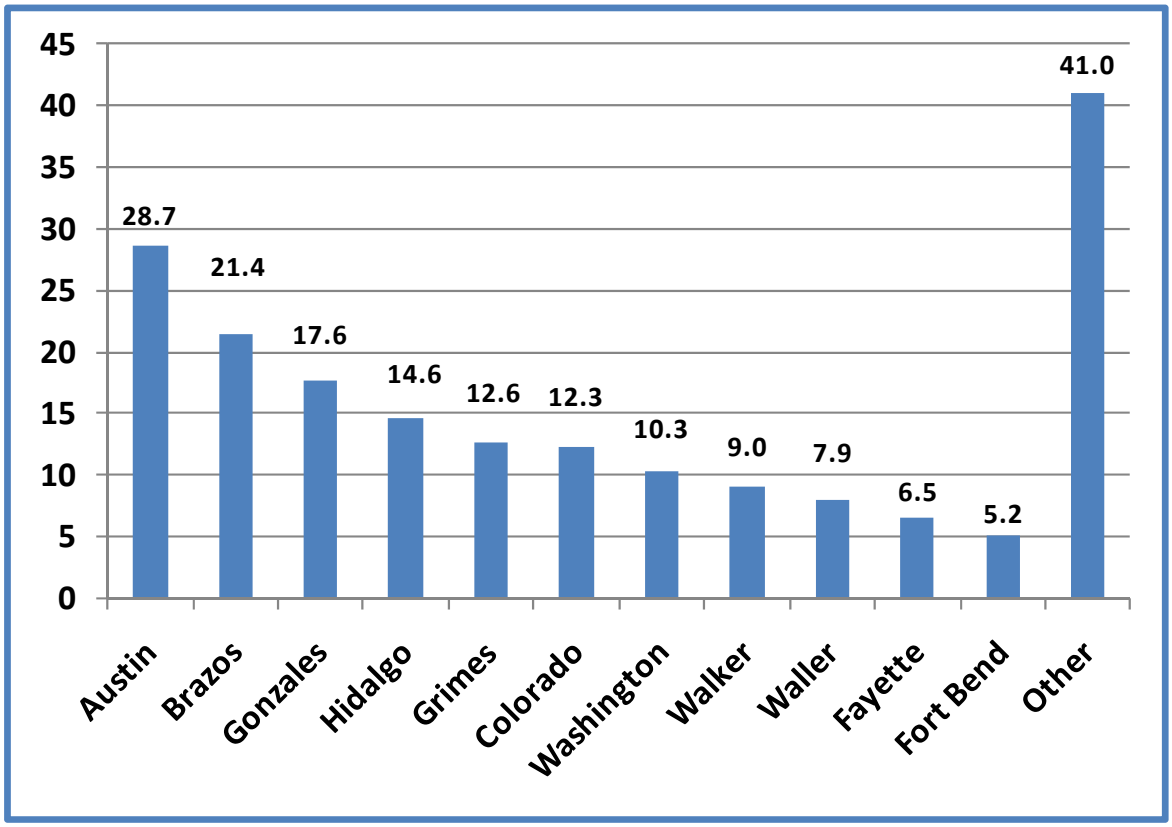
Acreage of top 3 Pierce's Disease tolerant winegrapes compared to muscadine grapes in the Texas Gulf Coast.

Acreage of European winegrape varieties (*Vitis vinifera*) in the region is up by about 18 acres, bringing the total to 29 acres. The planting of grape varieties susceptible to Pierce's Disease (PD) (e.g. Cabernet Sauvignon, Tempranillo, Viognier) still remains a risky endeavor in the Gulf Coast region. The Texas AgriLife Extension Service will continue to educate new growers about the challenges associated with these varieties, while exploring the potential for new PD-tolerant varieties. For more information about PD visit: http://piercesdisease.tamu.edu/

Vineyard acreage by county indicates that planting is increasing in new areas of the region, most notably in Gonzales, Hidalgo, and Grimes counties. The top 11 counties with respect to total vineyard acreage are shown in the chart below. The "other" category includes data from 19 other counties, each having less than 5 acres of grapes. There are 82 Counties in the Texas Gulf Coast region, 30 of which have documented commercial vineyards.

Several of the more obscure hybrids, including those developed by historic grape breeder T.V. Munson, make up about 15 acres of the remaining Gulf Coast production. Although several new wineries have opened for business in the region since 2007, new and expanding growers still need to consider market demand and winery sales when determining whether or not to expand vineyard acreage.

A special thanks to all of the Gulf Coast regional grape growers for providing this information to AgriLife Extension.



Texas Gulf Coast grape acreage by county, showing rank of top 11 counties.

Soil moisture management for dormant grapevines

Vineyards have experienced little rain in the Gulf Coast region in the months of October and November. As a result, several growers have contacted the Extension office to inquire about irrigation practices for dormant vines. If irrigating this time of year, remember to flush excess water out of the irrigation lines and all above-ground equipment to avoid freeze damage. Winter temperatures are generally mild in this region, however temperatures below 20 F caught a few growers by surprise in the winter of 2009/2010.

At this time, most of the vineyards have lost their leaves as vines prepare for winter dormancy, which

is a natural process this time of year. It is true that dormant vines utilize less water than actively growing vines, however, it is important to keep proper soil moisture in the vineyard from the time of harvest until bud break in the spring. Frequent monitoring of soil moisture will be even more critical for newly planted vineyards. Below are some of the most frequently asked questions.

How much and how often should vines be watered after harvest? In a droughty post-harvest season such as we are experiencing in 2010, it is typical to water the soil to full capacity soon after harvest. Maintaining soil moisture is especially important in the Gulf Coast, as we typically can maintain a healthy canopy until late November by doing so. Growers in regions with extreme low winter temperatures need to be cautious about stimulating vine growth late in the season, as vines must gradually harden off for improved winter hardiness. Winters are relatively mild in the Gulf Coast region, but vines would still benefit from management practices that slow vine growth by November, while still maintaining canopy.

The amount of water required will depend upon the soil type and depth of vine roots. A clay soil will hold more water for a longer period of time than a sandy soil. Therefore, a sandy soil will require more frequent watering during the post harvest period, just as is necessary during the active growing season. It is common to find Gulf Coast vineyards planted on soils with 12 to 24 inches of sandy loam soil, having higher clay content at 2 to 4 feet of depth. In such soils, older vines that can access water from the clay subsoil may require less frequent watering. Growers should be careful to ensure that young vines (1 to 3-years-old) have adequate soil moisture to the depth of the root zone.

What can happen if soil dries out in the vineyard? Prolonged periods of drought during vine dormancy can result in the desiccation and eventual dieback of roots. It is normal for some root dieback to occur during the winter as water demand by the vines decreases. If the soil is very dry, however, roots can lose water to the surrounding soil, potentially causing greater root death than is typical. Root area lost during the winter will eventually grow back in the spring, but the process may take some time.

Shoot growth in the spring relies heavily on carbohydrates and nitrogen reserved in the trunk, cordons, and roots. The longer the period needed for root re-growth, the greater the chance is that a vine will suffer from nutrient deficiencies leading into bloom. Development of fine "feeder" roots is especially important for uptake of nutrients such as phosphorous, boron, and zinc. Thus, maintaining a healthy root system over the winter will improve availability of carbohydrate reserves in the spring and provide more surface area for feeder root development.

How can I determine if there is enough moisture in the root zone? Root zone moisture can vary during vine dormancy. It is not desirable to have excessively dry or excessively moist soil for prolonged periods of time. There are both high and low-tech methods for determining the water status of your soil.

If there are soil moisture monitors installed in the vineyard, such as Watermark sensors by Spectrum Technologies, they should be checked about every other week during dormancy to determine the loss or gain of soil moisture. A simple hand held reader can be used in the field to measure electrical resistance, providing a numeric range representing soil moisture (0 = saturated to 200 = extremely dry). It has recently been brought to my attention that Watermark sensors will read soil moisture accurately for about 3 or 4 years, thus if sensors are reaching this threshold, winter is a good time to replace them.

Watermark soil moisture sensor (top left) and field meter (in hand) reading "0" indicates that soil is saturated with water.

For those who do not have moisture monitors installed yet or have not established a numeric moisture scale for their site, there is always the tried and true, low-tech method: dig a hole and stick your hand down there! This is also a good way to confirm what the number on the moisture sensor is telling you about actual soil moisture in your site. If you have any questions about watering your vineyard this winter, please do not hesitate to contact AgriLife Extension.

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2011 Upcoming Viticulture & Enology Events

Annual Gulf Coast Grape Grower Field Day – Save the date
February 11

The Cat Spring Field Day will be held February 11, 2011 at the Cat Spring Agricultural Hall in Austin County. This meeting is sponsored and supported by the Austin County Grape Grower's Committee and Texas AgriLife Extension. This is the biggest viticulture educational event of the year for the Gulf Coast region, and one of the largest in the state, so please make plans to attend. Last year there were over 175attendees. Additional information about speakers and registration will be sent in January of 2011.

The Texas Wine and Grape Grower Association Annual Conference – Save the date
March 3-5

The 2011 Annual Conference, now in its 35th year, is set to be hosted March 3, 4, & 5 at the Embassy Suites Hotel, Spa & Conference Center in San Marcos, Texas just south of Austin. Additional information will soon be available on the TWGGA website: http://www.txwines.org/

Prospective Wine Grower Workshops
January 25 - Stephenville
March 16 - Houston

The Prospective Wine Grower Workshop is a one-day educational program designed to provide an overview of the unique requirements and risks associated with the establishment and operation of a commercial vineyard in Texas. These workshops are offered through the Texas AgriLife Extension Service.

Cost: $125, Lunch is provided ($200 per couple)
Register Online: http://agrilifevents.tamu.edu
For additional dates and locations visit: http://winegrapes.tamu.edu/prospective.html

Black Spanish Symposium: Cat Spring, TX – Save the date
May 6

The Austin County Grape Grower's Committee and Texas AgriLife Extension Service are planning a Black Spanish Symposium to be held on May 6, 2011. This symposium will deal with a wide array of management aspects of Black Spanish in both the vineyard and the winery. More information will follow in the New Year.

Additional Events
For a list of additional Texas wine & grape events visit: http://winegrapes.tamu.edu/news/events.html
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As always, feel free to contact me if you have any questions or comments.

Best regards,

Fritz Westover
Extension Program Specialist - Viticulture
Texas Gulf Coast Region

Texas AgriLife Extension Service
Harris County Office
3033 Bear Creek Drive
Houston, TX 77084
Phone: 281-855-5608
Fax: 281-855-5638
Email: fawestover@ag.tamu.edu
Web: http://winegrapes.tamu.edu