2011 Vintage Update: 2 August

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Powdery Mildew and Botrytis Updates

Powdery Mildew (PM): We are at or nearing the end of cluster susceptibility on the East Side and forecast temperatures are also reaching highs that help to reduce powdery mildew development. At this point, management should be focused on controlling build-up in the canopy. For the West Side, fruit are still in a susceptible stage of development, and management practices should be focused to control cluster infections. Forecast temperatures are still in the optimal range (65-85°F) for rapid disease development. Please see the below paragraph concerning eradication of powdery mildew if a minor loss in control has occurred.

As discussed in the last vintage review, attempts to "clean-up" fruit is really only possibly on mild infections. For this, an eradicant (such as a narrow-range petroleum oil at 2% rates, or potassium bicarbonate if available) combined with a protective compound is recommended. The compounds with eradicant activity are contact materials so thorough spray coverage is essential. Fruit with severe infections will likely not recover with an eradicant spray, as significant damage has already been made to the berries, predisposing them to future rot problems. If you have a vineyard with significant levels of powdery mildew, avoid using fungicides in high-risk categories for developing resistance. Our most resistant-prone fungicide group is the strobilurin / QoI class (Abound, Flint, Sovran, and Pristine), the use of which should be avoided if PM is already present in the vineyard. See our previous announcement regarding appropriate use and rotation of fungicides and their resistance risks: http://wine.wsu.edu/research-extension/2011/05/new-fungicides-for-grapevine-powdery-mildew-management-2011/

Effective deployment of an eradicant fungicide could require a significant increase in spray volume. As always, spray coverage and penetration is improved when combined with the viticulture techniques of shoot thinning and fruit-zone leaf removal. However, for fruit that is developed beyond set, fruit-zone leaf removal should be approached with caution so as to avoid fruit sunburn.

Botrytis bunch rot (BBR): Forecast temperatures and precipitation for the East Side are unfavorable for BBR infections and we are nearing the end of the first infection window (flowering to bunch closure). This pre-bunch closure time is the last time that fungicide penetration into cluster interiors is possible. In addition, fruit with existing PM infections also have an increased risk of developing BBR after véraison, due to microscopic damages PM has made to the developing berries. Due to the increased likelihood of a delayed harvest, keep latent *Botrytis* infections in-check now to avoid more significant problems post-véraison. If you DO NOT (look closely) have PM in your vineyard, those choices for control include Flint , Pristine, Inspire Super, and Adament at highest labeled rates or tank mixes of Quintec, Procure, Rally, Elite, and others with Elevate, Scala, Vangard, or Rovral. If PM is present in the vineyard and BBR is a concern, a good choice at this point would be a tank mix of an eradicant and Inspire Super. The ingredients in Inspire Super (difenconazole + cyprodinil) provide forward protection against both diseases and oil or potassium bicarbonate deal with the PM that may already be present.

West Side growers are still in a critical development stage for controlling BBR. Mild temperatures, heavy dew, and high humidity all favor infection. A dual purpose fungicides such as Inspire Super, Adament, and Pristine will provide **protection** against both PM and BBR if applied at this stage at the highest rates. However, avoid the use of Adament or Pristine if PM is already present, as they have a strobilurin component (see precautions above).

Updates and educational blurbs are also available on the Viticulture and Enology Facebook site. The Facebook medium also provides a more interactive approach to information transfer (www.facebook.com/WSU.Vit.Enol.Ext).

Growing Degree Day Update

The vintage is still holding steady- and behind- last year, with WSU-HQ 172 GDD (approximately 8 days) behind 2010, and 393 GDD (approximately 18 days) behind the long-term average. Forecast temperatures for the East Side indicate an average daily accumulation of 23 GDD for the next 10 days, and an average daily accumulation of 13 GDD for the West Side. Below is the Growing Degree Day (GDD) chart for the Yakima Valley AVA (WSU-HQ at IAREC), highlighting this year, the long term average, and two representative warm (2003) and cool (2010) years. More information regarding specific GDD accumulation for each of the Washington AVAs is located at: http://wine.wsu.edu/research-extension/weather/growing-degree-days/

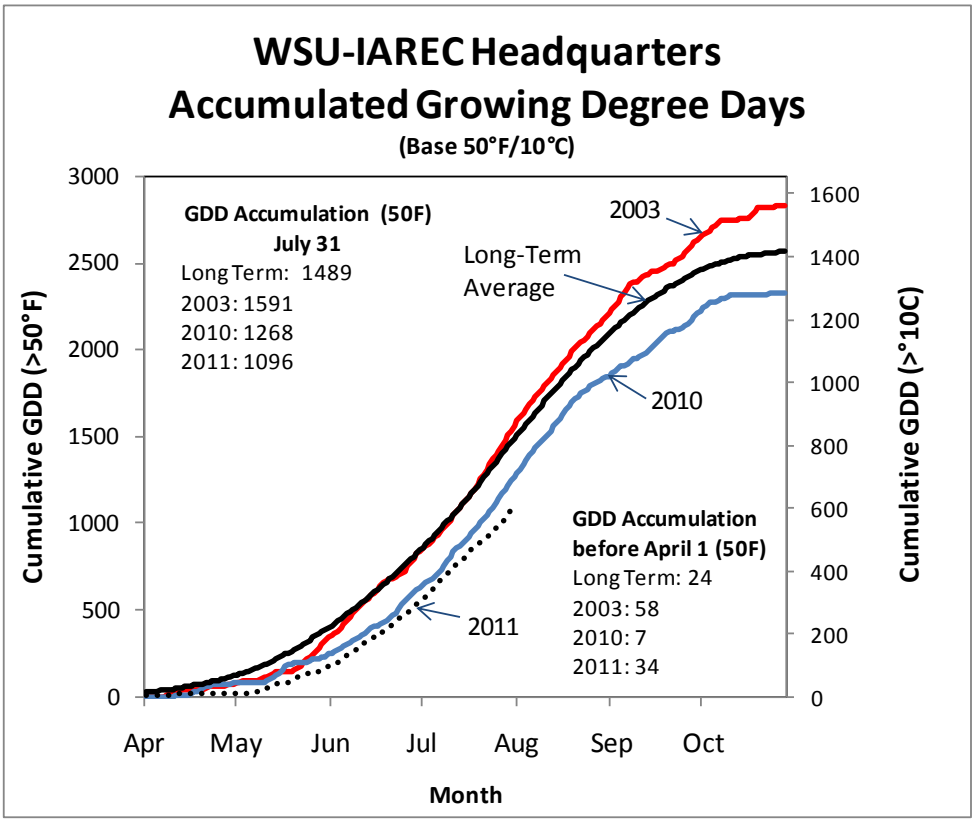

Figure 1- 2011 Growing Degree Day Accumulation for Yakima Valley. Temperature data is from AgWeatherNet at WSU and is sourced from the WSU-HQ weather station located at the Irrigated Agriculture Research and Extension Center in Prosser, WA.