GrowCare Barossa

Brought to you by the Barossa Grape and Wine Association

This message was posted on **Sunday 16th February 2014** and will be updated as necessary for best management of vineyard issues.

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What a Rain

- The Barossa District like many other areas in South Australia recently received a significant rainfall. As the fruit is at or near maturity, the rainfall has led to some splitting of berries.
- The rain started at 2am - 3am on Thursday 13 February and generally persisted until Saturday morning 15 February at around 7am – 8am, though the rain fall at Ebenezer persisted until 10:30am that morning.
- This has brought periods of 100% relative humidity and foliage wetness for periods between 36 hr to 44 hr at temperatures ranging from 19°C to 25°C. These conditions were ideal for the bunch rots.

Bunch Rotting Organisms

- Many varieties are susceptible to the bunch rots. Those with tight bunches and thin and/or damaged skins are particularly at risk from fungi such as Botrytis and Aspergillus, and from bacterial rotting organisms. Berries split in the recent rains are particularly at risk.
- The conditions we have just experienced have been ideal for the development of these bunch rotting organisms. The wetness, temperature and relative humidity have especially well-suited infection from Botrytis.
- Where the berries have been fruit split by the recent rains, many germinating fungal spores have grown and penetrated the skin and will be causing the rots to begin.
- The fungal pathogens, like Botrytis, grow especially well in 'sugared up' berries of varieties like Riesling. If the humidity continues, the bunch rot organisms are likely to show up in the next 3-5 days. Look for sporulation (spore production) in the cracks of berries.
- So what do we do from here?
- There are several options in relation to controlling and reducing damage and subsequent disease in fruit.

Cultural Measures

- Anything that helps the canopy dry out is the best means of reducing fruit split, of assisting healing of the cracks and of reducing the severity of fruit rot.
- If needed to assist good aeration and/or spray coverage, trim the canopy and slash the weeds to encourage air flow.
- Many rots are acceptable if the incidence of damage is low and the fruit is left to dry out naturally. The success of this depends on the prevailing weather in the next day or so.

Post-infection Spraying

- If berries have split, you may consider an application of a broad spectrum surface active spray such as Potassium Metabisulphite (PMS) or a product such as Peratec® or Peroxytreat®. These MAY reduce damage and encourage drying, once the rain stops. These products are not guaranteed but some users believe them to be effective. [The best thing is for the canopy to dry quickly.]
- A post-infection application of iprodione can reduce the onset of botrytis, but will be less effective than where an application was made prior to the rain. Iprodione is unstable at high pH, and if you use spray water with a pH greater than 7, treat the tank mix with a suitable buffering agent (read the product label). Note that harvest is not permitted within 7 days of applying iprodione.
- **Note also: It pays to consult your winery rep before applying any product at this stage of the harvest.** Some wineries will require you to have a letter of permission from them before you spray.
- If you choose to spray:
  - Where necessary, trim the canopy before spraying.
  - Target the spray at the bunch zone.
  - Use high water volumes and slow ground speed to thoroughly wet the fruit.
  - Spray as soon as possible after the fruit has split.
- If you elect to spray with PMS:
  - A typical rate of PMS is 4kg/1000L of spray mix.
  - Adjust the pH of the tank mix to 3.0 by adding tartaric acid. This may require 1.5kg/1000L to achieve this.

A Comment

- Does spraying help if applied some hours after the wet conditions? Yes, sometimes - but it is difficult to apply sprays to reach inside tight bunches where they are most needed. Also, by now, in unprotected canopies, the bunch rots will have started to grow and while iprodione has limited 'kickback activity', the other products listed above work by 'knock down' action, like a 'spray and wipe' product used for cleaning kitchen benches. It surface cleans where it is applied. This may reduce spore numbers but does not kill what is already growing inside an infected berry.
- When conditions favour bunch rots in wet weather close to harvest, like has just occurred across the district, the best solution is for dry windy weather with low relative humidity to dry and keep dry the inside of the canopies in the fruiting zone.

Forecast Rain

- Although the forecast is for some rain later this week, an application of iprodione prior to any wet weather will help protect against bunch rots. However, the risk of significant falls to date seems low.

This message was prepared by the Barossa Grape and Wine Association in partnership with Magarey Plant Pathology, Andrew Weeks (CCW) and Western Electronic Design. It will be updated as soon as possible after the next significant vineyard event.

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