GrowCare Barossa

Brought to you by your local Regional association

This message was posted **by 5 pm Wednesday 18th September 2013** and will be updated as necessary for best management of vineyard issues.

2013/14 V1 # 2

Low Risk Downy Mildew

The recent rains have led to a low risk of downy mildew infection. There were two rain events in relation to downy mildew but it was the rain on 16-17th September that created the highest risk.

We delayed sending this bulletin until the events of the second (and shorter) rain period last night (17-18th September) became more clear. Rains from this event brought 3-7mm at our weather stations and the winds dried the foliage out leaving no risk of infection from downy mildew.

Data from the Weather Stations

The table below shows that in each of the sites for which we had access, the conditions were very much the same. Although different amounts of rainfall occurred and at different times, the same trends occurred in relation to downy mildew.

From this we would suggest carefully that it was likely the events in your vineyard would have led to similar outcomes as indicated below. As always though, judge your decisions on the interpretation you make of the data in relation to your observations in relation to your vineyard!

Outcomes

At each of the locations the rain from 16-17th September wet the soil sufficiently to trigger oospores in the soil to germinate and release zoospores. The temperatures were marginal (>8°C) but OK. The doubt comes from the lack of adequate rain splash 16hours from when the top 1cm of soil was first wetted. The zoospores, once released need free water in which to swim and then they need to be splashed into the air currents and find their way to the underside of a wet leaf. Without exception, there was only a light shower to trigger the needed splash once the zoospores were released. The conditions were at best, marginal for this to have occurred and then the foliage dried off.

The result is a low risk of primary infection at all sites for which we had data (see the table below).

Management Options

These remain more or less the same as outlined in our first message. They are repeated with appropriate modification as below.

1. No green foliage? Remember, downy mildew is a 'green' disease. If pre-budburst, no risk of infection; no worries!
2. If your vines were adequately sprayed with a downy pre-infection fungicide within 3-5 days prior to the rain, there is little risk of infection and you need take no further action at this time. Do check how much your leaves expanded since yuo sprayed and by the time it rained – the new growth since spraying will not be protected.
3. If your vines were unprotected before the recent rains, the (low) risk of a primary infection event means one option is to apply a post-infection fungicide such as metalaxyl (one of the Ridomil group) as soon as possible before oilspots might appear about 27th September (ie before Friday week).
4. An alternative worth considering is to withhold spraying for downy at present and inspect your vines closely for oilspots at or after September 23rd from the earlier rain, and again after 27th. Given the low risk of downy at most GrowCare AWS sites, many vineyards will not have been infected.

GrowCare Barossa Weather Stations: Mon. 16th – Wed 18th September 2013 - Primary Infection

District	Rain (mm) Listed for 16-17th only	Soil wet & warm enough to begin germinating oospores	Soil wet & warm for 16 hr to release zoospores	Soil wet & warm enough for zoospores to survive	Rainfall to splash zoospores to leaves	Foliage wet & warm enough to infect leaves	Risk of Primary Infection
Craneford	17.8	+	+	+	only just +	just +	Low
Lyndoch	11.4	+	+	+	only just+	just +	Low
Gomersal	No data	-	-	-	-	-	-
Vit Station	9.6	unsure +	unsure +	unsure +	?	?	? Low
Ebeneezer	7.9	+	+	+	only just+	just +	Low
		(+) = condition satisfied		(-) = condition not satisfied			

5. If oilspots do appear, be sure to apply a suitable pre-infection (protectant) spray as close as possible before the next rain event that might induce secondary infection. This will protect your new foliage.

6. A help to find oilspots is to mark the growing tip of shoots that were exposed to this rain – a marking pen or a piece of coloured tape will do, but do it now! When surveying, look closely at the leaves below the marked tips. Leaves growing after the recent rains will not show oilspots from this event.

If you are interested in reading more about the conditions that favour downy and management options, go to the address below for a fact sheet:

http://www.gwrdc.com.au/webdata/resources/files/DownyMildewFactShee.pdf

Powdery Mildew

The risk of powdery mildew is probably more relevant than the risk of downy mildew.

If you choose not to apply a post-infection fungicide immediately, you may wish to add a downy protectant with your next spray for powdery mildew.

As from last week, remember that the season of powdery mildew's epidemic, its 'epi-season', consists of two growing seasons. We are now entering the epi-season for 2013/14 and 2014/15. As a result, what we do early this season will have a big effect on how much inoculum we allow to carryover into next season. Equally, effective control early this season reduces the disease levels this season and fewer sprays will be needed both this season and next.

The first 40 days from budburst is critical for control of powdery mildew this season. What you achieve in the first 6 weeks will determine the level of control you achieve this year and the ease with which you can control it next season.

Begin spraying for powdery when shoots reach 3-5cm length (EL 7-9). For early blocks, this time is past! Any of the registered fungicides for powdery mildew are effective though sulphur (at 600g/100L) just after budburst will help control mites and it is a low-cost alternative.

Correct spray timing with good coverage is the best way to control powdery mildew. Be sure to check the configuration and effectiveness of your spray machinery and adjust your spray swath to fit the foliage.

If you wish to read more about the background to the 'epi-season' and 'lag phase' approach to controlling powdery mildew, an easy-read fact sheet is available at:

http://www.gwrdc.com.au/webdata/resources/files/PowderyMildewFactShee.pdf

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This message has been prepared by Barossa Grape and Wine in partnership with Magarey Plant Pathology and Western Electronic Design. It will be updated as soon as possible after the next significant rain event