MAGAREY PLANT PATHOLOGY

Western Electronic Design

GrowCare Clare

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CLARE VALLEY IT'S LIKE NO OTHER
CRWGA

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The Recent Rain

- A significant period of rain occurred somewhat as forecast by the Bureau of Met for the Clare Region in the period 7th to 13th January.
- Rainfalls between 15-50mm were predicted but, as we know, thunderstorms bring variable outcomes depending on local conditions at the time.
- The Clare Valley generally received substantial falls which came as a steady rain without much wind.
- This allowed much of the rain to soak in and give the vines a good drink but it also induced long periods of leafwetness and caused some berry splitting.

The GrowCare weather stations (AWS) recorded the following rainfalls and associated leafwetness.

AWS	Auburn		Sevenhill		Stanley Flat	
Period (January)	**Rain (mm)**	**Leafwetness (hrs)**	**Rain (mm)**	**Leafwetness (hrs)**	**Rain (mm)**	**Leafwetness (hrs)**
7-8th	14.2	86	15.0	80	7.4	62
9-11th	21.0		43.6		40.6	
12-13th	17.2	24	31.5	29	16.2	22.5
Total	**52.4**	-	**90.1**	-	**64.2**	-

Some Observations

- While most varieties were approaching veraison (softening/colour change) many are yet to 'sugar up' past 10 Baumé and are still not very sweet. As a result, they were, thankfully, not highly susceptible to bunch rot because the rains had induced very long periods of leafwetness in warmish conditions.
- Botrytis infects unprotected split-berries and wound-sites in mature berries within a few hours of leafwetness and high humidity at temperatures of 18-21°C.
- GrowCare monitors report that we have had some grape splitting from the recent rain event and then a bit more from the second event on Monday – Tuesday. The splitting seems to be widespread through the Valley.
- Riesling seems to be worst affected but there has been some splitting in the reds as well.
- Most reds are well into veraison and Riesling and Pinot Gris are mostly 50% or more through.
- The good news is that Baumé levels for most varieties was still well under ten with only the odd block of Chardonnay getting close. This means that the risk of bunch rots was much lower than it could have been had the rain come in a week or two!
- While this is so, there has been active botrytis on some split berries. Unsurprisingly, this seems most active where bunches were damaged by LightBrown Apple Moth earlier in the season.

Bunch rot fungi such as Botrytis, grow in splits and wound-sites in maturing berries. Fine weather and open well-ventilated canopies are key factors (not chemicals) in limiting the spread of bunch rots at this stage. Photo: PA Magarey.

Key Matters in relation to Bunch Rots

- It was not how much rain but how long did the foliage remain wet and how warm and humid was the air during and immediately following the rains?
- How tight were the bunches and does that variety have thin skins?
- As said, importantly, how ripe were the berries?
- How long before your grapes are picked?

So What Eventuated?

- In many parts of the Clare Valley the conditions were well-suited for the development of the bunch rot fungi – if the grapes were ripe enough to be susceptible. As said, it seems though, that many varieties were just below sufficient maturity to be highly susceptible.
- The best way to determine the status quo in your vineyard is to monitor your grapevine canopy carefully.
- Look in vines with the most dense canopies and examine the tightest bunches on varieties with the thinness skins.
- Check for splitting and cracking of berries and look to see if the damaged berries, if any, are drying out.
- Look also for signs of bunch rot fungi such as Botrytis growing in the splits and cracks.

What if the Bunch Rot Fungi are Present?

- **If the berries are drying out,** even if there is some bunch rot in the cracks, there is little that needs to be done at present. Let the dry weather continue to manage the matter for you at no cost!
- Any methods of reducing canopy humidity would be an advantage to help the cracks dry more.
- A reduced humidity in the bunch zone from a more open canopy and from dry weather, are major factors that will determine the future progress of the diseased berries.
- The microclimate around affected berries more than the spraying of fungicides is the most critical factor in managing bunch rots at this time of the season.
- Despite this, you may wish to consider spraying close before the next rain event (if any) –see below.
- **If the berries are remaining wet** and bunch rots are growing in the splits, consider spraying with a combination of iprodione and captan – **BUT, CHECK withholding periods before spraying**.
- If needed, monitor the vines to assess how many bunches are affected and consider dropping infected bunches to the ground.

How Good is Your Spray Plant?

- There are few if any spray plants able to deliver effective spray coverage of mature bunches.
- Assess the effectiveness of your spray plant. Imagine how dry a berry would stay inside a mature bunch in your vineyard patch! The less the spray coverage of berries inside the bunches, the less effective the cover and the less cost-effective the spray operation.
- Open canopies and dry weather are the best assets at present.

Withholding Periods (WHP)

- **If** a spray is considered a necessary last resort, we have a problem! At this time of the season so close to harvest, there is a very limited array of products available to spray (not only for bunch rots).
- Also, some companies have put their own whp on specific fungicides. For instance, some have placed a 30-day whp on iprodione which, in the AWRI's Dog Book, is listed at 7 days. Also, captan is listed with a 30-day whp.
- **Note**: These fungicides are surface-acting protectants and do not penetrate diseased berries to kill the fungi inside. However, they do provide some degree of protection of berries if applied not long before a warm wet rain event.
- Products such as potassium salts of fatty acids eg Ecoprotector®, and hydrogen peroxide + peroxyacetic acid, eg Peracetic Acid®, Peratec®, Peratec Plus®, act as surface sterilants and suppressants and 'knock down' the surface growing fungi. While they have a short whp, they do not penetrate the berry to act on the bunch rot fungi growing inside.

Downy Mildew

- Most vineyards will have had very few if any active oilspots present before the rains. This means that in these vineyards, downy will only be at worst, at the primary infection stage and it will need several cycles of secondary infection to build up and spread sufficient spores to cause concern.
- If your vineyard was unprotected before the recent rains, look for new oilspots in the next few days. They will show up more quickly and will be more easily detected, on any new shoot growth and young leaves on shoot tips and on shoots closest to the ground. If present, keep an eye on the weather.

Powdery Mildew

- The humid weather that occurred over many hours in the recent rain event has favoured the multiplication of powdery within vine canopies that were not well-protected against this disease.
- Powdery produces about twice as many spores daily at high humidity as it does when the atmosphere is dry. This and the shading of bunches within the foliage of developed vine canopies are factors that favour the spread of powdery mildew at this time of the season.
- Look carefully and **spray if needed,** after checking whp!

This message was prepared for
The Clare Region Grape Growers Association by
Magarey Plant Pathology and Western Electronic Design.
