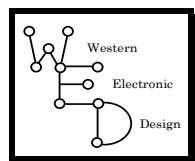




MAGAREY PLANT PATHOLOGY

GrowCare Clare

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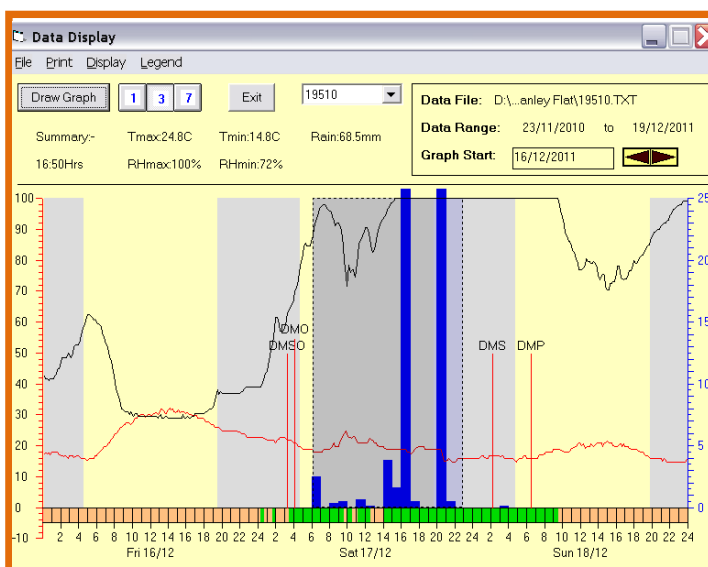
This message was posted on Tuesday 20th December 2011 at 10am.

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Downy Mildew

- **Earlier this month, low levels of downy mildew** were seen in a (relatively) few vineyards in the district. It is likely that a few oilspots were also unseen in other vineyards. These spots had probably developed from infection events in early and late October and again in early November.
- **The big rainfalls experienced** on Saturday 17th December increased in quantity from south to north up the Valley. A look at the data from the GrowCare Weather Stations (AWS) revealed some interesting detail.
- **The AWS data from Auburn** suggest that, despite 25mm rainfall, the conditions were not suited for secondary spread of downy mildew. In contrast, the **Sevenhill AWS** (55mm) and the **Clare North AWS** (70mm) indicated the likely spread of downy mildew in the vineyard at these sites.
- **This variation and variation in** the canopy density of different varieties led to differing lengths of high humidity and of the duration of leaf wetness at different localities. Together these led to different levels of risk from downy mildew in the district.
- **In general, the period of high humidity** and temperature was good for downy mildew in all localities suggesting that all conditions needed for downy to spread from leaf to leaf or leaf to bunch (secondary infection) were fulfilled ... but this was not so!
- **So, what happened in your vineyard?** There are several options in answering this question or at least, to indicate what action is best for you.
- **First, where no oilspots were present** before the rains (check your vines closely to make sure there are none there): downy mildew cannot spread ie secondary infection did not occur, and a spray is not required at present.
- **Second, where oilspots were present** in your vineyard:
 - 1). **If fresh white down was present** on the undersides of these oilspots on the morning of Sunday 18th (may be you need to go and check), it is very likely that downy mildew spread to infect unprotected foliage in the canopy. If this occurred **some action may be needed** – see later.
 - 2). **If you found no fresh white down** on existing oilspots, it is unlikely that downy spread in this rain event. If so, **no action is needed** at present.

- **Third, the AWS data suggest** that the conditions favoured primary infection (the movement of spores from the ground to the canopy) at the Auburn and Clare North sites but not at Sevenhill. The difference was due to the timing of any rain late in the event ie on Sunday morning. However, this matter is of little consequence now that berries have reached about pea-size and berries and the foliage have developed or are developing age-related resistance to infection.



Graph of the weather data from the Model T MetStation at the GrowCare vineyard site at Clare North on Saturday-Sunday 17-18th December. The **blue line** shows the rainfall, the **red line** shows the temperature, the **black line**, the humidity, and the **green bar** shows the leaf wetness in the canopy. See the 'Summary' of the rain event at the top left, just above the graph. This shows the maximum and minimum temperature and humidity, the total rainfall (68.5mm) and the number of hours the leaves were wet (16.5hrs).

Action

- **Some vineyards were well-sprayed** with a downy mildew fungicide in the 5-7 days prior to the rain. If so, no matter what disease risk occurred with the rains, no further spray for downy is needed at present.
- **If your vineyard was not protected** in the period 5-7 days prior to the rain **and** if fresh white down is present on oilspots in your vineyard, **or** if you are uncertain about this, you are at risk of spread from downy mildew secondary infection in the recent rains. However, the canopy has a growing resistance to downy mildew, especially the berries and to a lesser extent, the older leaves too. It is important to maintain at least 6-8 functional leaves as food factories in the bunch zone. So, you have two options:

Option 1): For best protection of the food factory and your bunch stems, apply a metalaxyl spray as soon as possible before oilspots appear (due in 6-8 days, around Christmas Day). This will kill off any new infection from the recent rains. Look out for new spots that might develop if your spray coverage is not complete in more dense canopies.

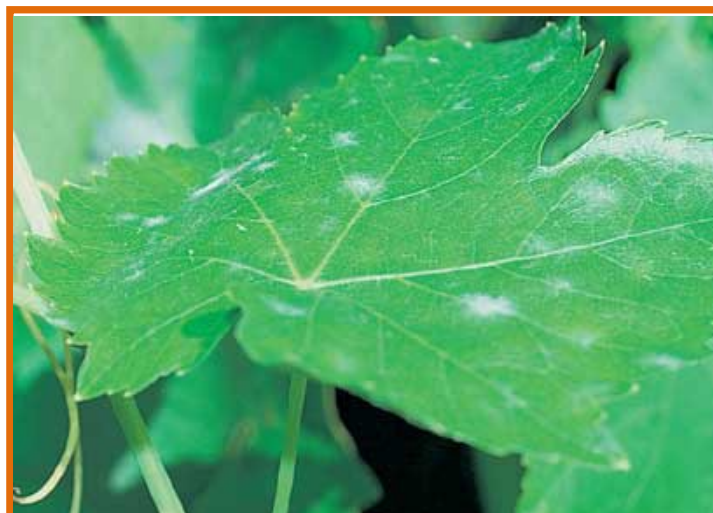
Option 2): You may choose to allow the possibility of new oilspots to appear and to spray with the less expensive pre-infection (preventative sprays) such as copper or mancozeb as close as possible before the next downy mildew secondary infection event (if it occurs). This cheaper option will **not** prevent the new oilspots, but it will defend against another spread of disease.

Powdery Mildew

- **The recent cloudy, mild and humid weather** has continued to suit the spread of powdery.
- **In vineyards not fully protected**, whitish powdery spots are likely to be seen soon within the canopy. As indicated in previous weeks, the disease will be creeping within shaded canopies and may also be developing on young susceptible berries, though the berries are fast becoming resistant.
- **The spots, if present**, produce new spores every day and are windblown to infect adjacent unsprayed foliage.
- **As a result, powdery is likely to ‘pop up’** in some vineyards around Christmas time. It pays to be sure it is no surprise to you by monitoring inside your canopies – look especially where the canopy is densest.
- **It is getting late to spray** for powdery now because of the significant difficulty of spray penetrating the denser canopies. If you plan to spray, it is a good idea to consider hedging beforehand. Fungicides such as sulphur that has some fumigant activity above 17°C are good to use at this time, especially in dense, hard-to-spray canopies. If using sulphur, use the highest rate (600g/100L) and sufficient water volumes (eg 1600L/ha) to ‘drench’ the canopy.

Botrytis

- **The periods of warmth and leafwetness** in the recent rains were generally insufficient to have favoured bunch rots like Botrytis. It is useful though to maximise airflow in the canopy to reduce humidity and leaf wetness and to lessen the risk of any further bunch rot. Trimming the canopy does this well.
- **In particularly wet and/or dense canopies** a suitable protective spray eg with iprodione (Rovral), might be considered if further wet weather develops – though warm dry conditions are forecast at present!



Look for powdery mildew on leaves in shaded parts of the canopy. Young powdery mildew lesions show as whitish spots across a leaf. They are often best seen by holding the leaf so that the light coming over your shoulder. This highlights the ash-grey spore growth that is diagnostic of powdery mildew. Look also for brown veinlets on the undersides of these spots.

***Your Clare Region Grape Growers’ Association through GrowCare Clare
wish you a blessed and safe Christmas and a successful,
spray-free progression toward vintage 2012!***

GrowCare Clare 2011/12

If you know others who might like to receive GCCLare for this season, please pass this message on.
Ask them to advise CRWGA.

GrowCare will keep you posted of any change in the risk of disease.

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