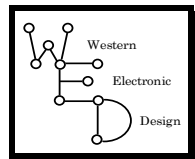




MAGAREY PLANT PATHOLOGY



GrowCare Clare

Brought to you by your local Regional association

This message was posted on **Monday 29th November 2010** at 10am.
It will be updated as necessary for best management of downy mildew.

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Further Progress in GrowCare Clare

- **GrowCare Clare** continues to develop. The Clare Region Winegrape Growers' Association (CRWGA) recently installed three AWS (Automatic Weather Stations) to monitor vineyard conditions in the Clare region. The *Model T MetStations*, constructed by Western Electronic Design in Loxton, are located at temporary sites in Stanley Flat, Sevenhill(S/East) and Sevenhill(N/West). They now provide data at 10 minute intervals at those sites, on rainfall, temperature, relative humidity and leaf wetness, and daylight and dark. Data from these AWS and two existing stations at Clare North and Clare South (Auburn), were reviewed for risk of downy mildew infection from the rain events of last week (Wednesday 24th – Thursday 25th November).

Downy Mildew Primary Infection.

- **The conditions** were not suitable for primary infection at any AWS site, **except at Auburn, Sevenhill(S/East) and Sevenhill(N/West)** where the conditions were marginal for primary infection. There was sufficient rainfall on Wednesday to wet oospores in the soil for 16 hours while temperatures were above 10⁰C. This probably allowed the oospores to germinate and release a swimming spore-type called zoospores. For infection to occur, at least some rainfall was then needed to splash the zoospores to the vine canopy. Interestingly, there were only a few minutes rainfall for this to occur. Although the leaves then remained wet and warm for long enough to favour infection, the conditions at above sites were only marginal for primary infection because of the lack of suitable rain splash at the appropriate time.
- **However, the developing** young bunches are currently very susceptible to downy infection since the vines are passing through the flowering stage. So, despite the risk of primary infection being low, be sure to evaluate your vineyard micro-climate in relation to the Clare South 2 site. Given natural variations in rainfall, some vineyards in the region may have had conditions that favoured primary infection.
- **If the infection** did occur, oilspots are expected to appear on or after Thursday 3rd December. **To check, carefully monitor your vines for oilspots at that time.** This will give a guide to the future risk of downy mildew in your vineyard.

Downy Mildew Secondary Infection.

- **For secondary infection**, oilspots must first be present in the vineyard. Then the relative humidity (RH) must be $\geq 98\%$ while temperatures are $\geq 13^{\circ}\text{C}$ during 4 hours of darkness. If this occurs, fresh white down will develop on the undersides of the oilspots. Then secondary infection will occur if the foliage is warm and wet enough for long enough in the morning
- **Analyses of the AWS data** shows a risk of secondary infection at all sites beginning Wednesday and ending on Thursday **except that** to-date, there are no reports of oilspots from primary infection showing in any vineyard in the Region.
- **Check your vines** closely for any sign of downy mildew oilspots now and keep alert to any oilspots that might develop later this week.

Control Action

- **If your vines** were unprotected just prior to the recent rains **and you find no spots now**, it is wise to apply a cover spray as close as possible before the next suitably warm, wet rain event, **OR**
- **If you find existing oilspots with white down** on the undersides, **OR if you suspect that you had a primary infection** event last Wed-Thursday, apply a post-infection spray eg Ridomil, **as soon as possible and before Friday 3rd December** ie before any new generation oilspots might appear.

NOTE:

- **If you are confident** that there are **no oilspots** in your vineyard, relax but maintain a protective cover on your vines.
- **The national supplies** of most fungicides including Ridomil remain limited, so use your supply carefully.
- Don't forget to maintain **controls for powdery mildew!** Look for powdery blotches within your canopy now.
- **For a fact sheet** on downy mildew, click on: <http://www.gwrdc.com.au/webdata/resources/files/DownyMildewFactShee.pdf>

GrowCare will continue to assess the vineyard weather and advise of the risk of downy mildew at the AWS sites being monitored.

This message has been prepared by Clare Region Grape Growers Association, Magarey Plant Pathology and Western Electronic Design. It will be updated as soon as possible after the next rain event.