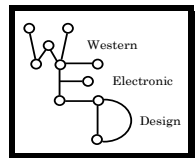




MAGAREY PLANT PATHOLOGY



GrowCare Clare

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Canopy Development

- The vines are maintaining a slow development of the canopy with some new leaves forming at shoot tips and now also, in some varieties, from lateral shoots. This new foliage is susceptible to powdery. In contrast, the older inner leaves have gained a moderate level of resistance to the disease and, since the bunches are now graduating through EL31 (berries pea-size) to EL 32 (beginning of bunch closure) the foliage and fruit are effectively resistant. Note: The bunch stalks are still susceptible.
 - Look inside the canopy to see if the lowest leaves on some shoots are beginning to fade and turn yellow. If so, this may be from a lack of UV light and excessive shading and it would be an indicator of a very favourable micro-climate for the development of powdery. This area of the canopy among inner leaves may have a higher humidity (RH) which would also favour powdery mildew if it were not controlled adequately earlier in the season.
 - A thorough spray cover is now very difficult to achieve, especially in the varieties/trellis systems with large canopies. As a result, the level of control between now and harvest will rely largely on the level of control already achieved – that is, on the existing level of inoculum (spores) within that zone. The fewer the spores in the canopy now, the less disease can develop at the time of harvest.
 - But, if the disease has been well controlled to-date, there is little risk of any issue at harvest.
- conditions and high RH within the canopy, powdery mildew will grow at about double the normal rate.
 - The relatively mild season to date has been conducive to the development of powdery mildew. Similar powdery mildews (not the same as on grapes) have been appearing on other plants more than usual this year. This is an indicator that we are likely to see powdery mildew in some vineyards during the Christmas-New Year period – but only where control has been inadequate.
 - Now is a good time to monitor for infection within the bunch zone. Check closely for powdery mildew spots deep within the foliage. Look most carefully in susceptible varieties like Chardonnay and where powdery mildew was a problem last season. Time is running out to achieve any useful control, if powdery is present.
 - If you find leaf spots of powdery, hedge or tip the vines as necessary and spray thoroughly. Ensure you achieve the best possible spray coverage. If using sulphur, spray at 600gm/100L (or equivalent) as soon as possible. Spray again within 7-10days to maximise control.

Monitor for Powdery Mildew

- Powdery is likely to be found in a number of vineyards soon. While levels are likely to be low, it is timely to have a close look inside your vine canopy now. Check for the typical grey-white spots on leaves and for similar powdery growth on berries and on the stems of berries and bunches.
- Look especially at the inner leaves and any small berries that have failed to set or develop properly. The relatively unventilated and shaded bunch zone is where you will find the most powdery mildew. Look there first.
- Powdery mildew is caused by a fungus that grows best in mild dry conditions - that is why it is referred to as 'powdery-dry mildew'. In the shaded



Sulphur burning (phytotoxicity) of berries may be seen if application are made in hot and humid weather. Temperatures above 28-34°C at RH above 70% are at risk of triggering the damage especially if sulphur is applied to vines under moisture stress and/or to bunches directly exposed to the sun. Photo: Peter Magarey, MPP.








- If in doubt about the use of sulphur in hot weather, consider delaying the application until after the heat and/or see if a DMI or similar product will conform to withholding periods.

Check Withholding Periods

- At this time of the season, your choice of products for powdery mildew (and any of the other diseases) becomes very restricted because of the withholding periods applied by the registering authorities and by your winery.
- There are few products registered for use against powdery mildew beyond EL 31 (berries pea-size) – that means, effectively from now on.
- To avoid being held up from harvest by late applications of chemicals with long withholding periods (WHP), it is timely to think about the products you plan to use up to harvest for each block of vines. The WHP will vary from winery to winery and they will naturally also depend on the date you harvest each block.
- Products approved past pea-size for control of powdery include some DMI’s (use no later than 35 days before harvest) and some sulphur products (use no later than 30 days before harvest).
- To check withholding periods for products you are considering to use, refer to your winery or refer to the ‘Dog Book’ listed on the Wine Research Institute (AWRI) web-site at http://www.awri.com.au/wp-content/uploads/agrochemical_booklet.pdf.

Bunch Rots and Downy Mildew

- The recent rain event brought only a short period of leaf wetness and was not favourable for the development of downy mildew or the bunch rots.
- The current forecast is for warm-hot then briefly milder conditions and is unlikely to favour any developments of the ‘wet weather’ diseases. For the latest detailed forecast for the Clare Region see below:

Forecast for Clare							
Issued at 4:13 pm CDT on Wednesday 19 December 2012 More details ✕							
	Wed 19 Dec	Thu 20 Dec	Fri 21 Dec	Sat 22 Dec	Sun 23 Dec	Mon 24 Dec	Tue 25 Dec
							
	Shower or two. Windy.	Mostly sunny.	Sunny.	Mostly sunny.	Partly cloudy.	Shower or two.	Mostly sunny.
Max. Temp. (°C)	—	25	28	34	37	27	27
Min. Temp. (°C)	—	11	10	14	19	21	11
Chance of rain (%)	60	10	1	1	20	60	5
Rainfall range (mm)	0.2 – 1	0	0	0	0	1 – 4	0

- For more weather information go to Forecast Explorer on the Bureau of Meteorology web-site at: <http://www.bom.gov.au/forecasts/graphical/public/sa/clare.php>

AGY

- There have been some more reports of AGY (Australian Grapevine Yellows) across the region, mostly on Riesling. From research to date, it seems to be an ‘on-season’ for this disease.
- Some diagnosis of AGY can be done by observation though for accurate diagnosis, special tests need to be done.
- You can be reasonably confident of vines being affected with AGY if you check shoots, leaves, bunches and the vine as a whole, and find:
 - Shoot tips that have ceased growth at the apex. These may die. Affected shoots that are stunted, they may fail to lignify, remain rubbery and may die back from the tips.
 - Leaves yellow, often in blotches across the leaf blade. They curl downward and may fall early.
 - Bunches shrivel and fall from flowering onwards; and
 - The disease usually occurs only on 2-5 shoots on one or more arms of a vine and affected vines are usually scattered in random clumps across the vineyard.
- If you observe symptoms of AGY, , please contact Anna Baum via phone: 0417 817 776, or email clare.grapegrowers@gmail.com; or Peter Magarey, MPP, on 0418 808 296, or email: pmagarey@riverland.net.au.



AGY causes leaves to yellow and curl downwards on stunted shoots that remain rubbery. Berries shrivel and fall from flowering onwards. Usually only 2-5 shoots are affected per arm on vines scattered across the vineyard. Photo: Nicole Pitman, CCW

The GrowCare team wishes you a blessed Christmas-New Year period. We will keep you posted of any new vineyard developments

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

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