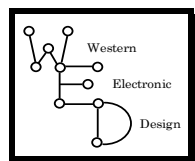




MAGAREY PLANT PATHOLOGY



# GrowCare Clare

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## The Season Progresses

- For most of the period, the conditions have continued mild-warm and dry... despite some heat just recently.
- This has been good for the growth of the vines where adequate soil moisture was available but, in drier soils, supplementary irrigation has been needed. Look for the first signs of water stress, such as flagging leaves and tendril drop off.
- Riesling vines are mostly at or near EL 29 with the berries pepper-corn size (4 mm diam.) and the bunches tending downward, while the other varieties are following closely behind.
- This means that the berries are rapidly gaining resistance to powdery mildew (though the stalks remain susceptible).
- If the current rate of growth continues, the bunches will soon be reaching EL 31 (berries pea-size) at which time they will be resistant to downy mildew.

## Powdery Mildew

- Where adequate soil water is available (see above), the canopies are increasing in depth and in density. This makes for excellent conditions for powdery mildew. The mild temperatures, increased shading and also at times, depending on the pruning system, increased humidity, are all fostering development of powdery mildew.
- The bunch zone is now quite shaded in most varieties and this is where powdery mildew grows well.
- In vineyards that have been well-protected against powdery with sprays starting early-season on a tight schedule, there will be reduced spore loads and good control of the disease. However, the dense canopies and mild weather means that ideal conditions within the canopy will maintain pressure on the control system you are operating
- It is critical to maintain good control at least until berries are around 'pea-size' (EL 31). The smaller and the more open (more ventilated and more easily sprayed) the canopy the less favourable for powdery mildew.
- A number of products are registered for use against powdery at this time, though the list becomes much more restricted by withholding periods that come into force after EL 31. Several issues are operative

in selecting the best product for powdery at the moment.

- These include the products you have used to date and resistance management strategies. These apply especially for the DMIs (Group 3, eg penconazole and triadimenol) and the strobis. (Group 11, eg azoxystrobin and trifloxystrobin). For a more complete list of products, refer to the AWRI's '[Dog Book](#)' on their web-site: [http://www.awri.com.au/wp-content/uploads/agrochemical\\_booklet.pdf](http://www.awri.com.au/wp-content/uploads/agrochemical_booklet.pdf).
- An alternative to these products is the trusty sulphur. This has the advantage of being cheaper, it has dual activity and a very low risk of resistance. When applied thoroughly for good coverage, sulphur impedes the disease by curative action against existing powdery colonies. It does this by direct spray contact and by fumigant action. The latter is particularly helpful in denser canopies where spray coverage is necessarily restricted. Sulphur also provides good protection of new uninfected foliage.
- Remember though, if using sulphur, spray at 600gm/100L (or equivalent) with your machine adjusted for best spray coverage.

## Bunch Rots and Downy Mildew

- The current dry conditions mean that these 'wet weather' diseases have not been able to develop and, generally speaking, they have not required fungicide sprays.
- The best control for bunch rot relies on canopy management and not chemicals. It is mostly the environment in the fruit zone and not the fungicides present that has the main influence on the level of bunch rots that develop. Just as with powdery mildew, the more open and aerated canopies will induce a less favourable environment for the bunch rot fungi and, as a consequence, a better outcome in wet weather at vintage.
- The risk of rain in the next few days is low and the duration of any leafwetness is likely to be short (at best). As a result, the risk of bunch rots and downy mildew infection from these events is very low.

## **LBAM**

- Keep a look out for Light Brown Apple Moth. As in the previous GrowCare message (Issue 3.3), look in the canopy for second generation moths of LBAM. If in doubt, refer to the [Disease Diagnosis](http://www.winetitles.com/diagnosis/details.asp?view=127) module at <http://www.winetitles.com/diagnosis/details.asp?view=127>. If necessary, seek assistance from your winery rep or other advisor to ensure that numbers do not build up significantly in your vineyard in the next few weeks.

## **AGY**

- There have been some recent reports of AGY (Australian Grapevine Yellows) in some vineyards in the Clare Region. The symptoms are quite easily distinguished by looking at shoots, leaves, bunches and the vine as a whole.
- Shoot tips stop growing when the apex ceases activity or dies. Affected shoots fail to lignify and remain rubbery. Leaves yellow, often in blotches across the leaf blade and they curl downward and fall early. Bunches shrivel and fall from flowering onwards on 2-5 shoots on one or more arms of a vine.
- Affected vines are scattered, usually in random clumps in a vineyard. Significantly, usually only Riesling and Chardonnay are affected – though a range other varieties may show symptoms at times.
- At present, it is not known how the disease spreads though a native leafhopper is the suspected vector. It is also not known from where the disease comes though it seems likely that native chenopods such and some saltbushes and blue bushes are involved.
- The relatively wetter seasons of recent times has fostered the growth of native vegetation on the boundary of vineyards and in adjacent bushland. Current theory speculates that the causal agent of AGY (a native phytoplasma – an organism a bit like a bacteria and a bit like a virus) may develop in native bushland and be carried into the vineyard by a leafhopper that feeds on both native plants and grapevines. The extra growth of native plants in recent years may be influencing the population of leafhoppers and their carrying of the disease into the vineyards.
- If you observe any symptoms of AGY and its occurrence, details of this would be appreciated. It may assist on-going (unfunded) research on this disease. If interested, please contact Anna Baum, Clare Region Winegrape Growers Association, Email : [clare.grapegrowers@gmail.com](mailto:clare.grapegrowers@gmail.com), or Peter Magarey, MPP, on 0418 808 296, or email: [pmagarey@riverland.net.au](mailto:pmagarey@riverland.net.au).



*AGY on Riesling. Note the yellowed leaves which are beginning to overlap each other like tiles on a roof. Later the leaves will gradually roll downwards. Usually only 2-5 shoots are affected one on arm of a vine, though whole vines may be affected. Photo: David Olssen, FABAL)*



*AGY causes berries to shrivel and fall from flowering onwards, especially on Riesling and Chardonnay. Photo: David Olssen, FABAL.*

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*This message was prepared for  
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