MAGAREY PLANT PATHOLOGY

GrowCare Clare

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Western Electronic Design

CRWGA

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Downy Mildew

- **Several periods of rain fell** across the Clare district in the previous 10 days. Totals varied from 10-15mm while temperatures were generally above 8°C at the GrowCare weather stations.
- **The rains on Friday-Saturday 28-29th** October brought 4-8mm across the district with temperatures above 10°C. However, the mount and duration of rainfall at that time was too short to trigger the germination of oospores and to release the zoospores. Because both these steps in the downy mildew cycle are necessary for a primary infection, the rains **did not** trigger conditions suitable for the disease.
- **The rains of the previous Monday-Tuesday 24-25th** October delivered less rain and though temperatures were warmer, the duration of wetness was again too short for primary or secondary infection.
- **Similarly, the rains of Thursday-Friday 20-21st** October did not bring sufficient moisture for a primary infection event, though 5-7mm fell across the region.
- **For a secondary infection** to occur, downy mildew needs an active oilspot to be present during a warm, humid night. The conditions measured at the GrowCare weather stations at North Clare (Stanley Flat), Auburn and Seven Hill, **on 4-7th October** were generally not suitable for a primary infection. However, in nearby vineyards, a little more rain or longer time of foliage wetness, may have triggered an infection event in unprotected vineyards. If so, the oilspots from that event were expected in mid-October.
- **A low risk possibility** is that downy may have developed from the early October rains in some vineyards and, if so, the wet conditions of 20-21st may have provided enough warmth and wetness for a secondary infection **if** the foliage were not sprayed immediately prior to that time.
- **So, a low risk added to a low risk** means there is a very low risk that some vineyards will show oilspots from these events. If so, clusters of oilspots should be evident now in neighbouring two or three vines. Monitor your foliage now for these signs of downy mildew. It is better to control the disease at this time of the season than to try to stop it should another rain event trigger further infection.
- **Take care to monitor your vines** in hollows or in wetter localities. Look for the yellow oilspots inside the canopy.
- **If in doubt about the protection** of your canopy, apply a pre-infection fungicide such as copper or mancozeb, as **soon as possible before** the next rain event. However, in most vineyards, there is very little risk of downy mildew to date.

Botrytis

- The winds after the rains of the 24-25th and 28-29th October dried the canopy quickly. This was an added advantage in advanced varieties in that the conditions were **not** suitable for Botrytis bunch rot even though the young flowers are very susceptible to infection.
- As a rule of thumb, Botrytis needs 15-20 hours of leaf wetness at 15-20°C to infect green tissue. At the minimum temperatures during the rain (10-13°C), the duration of wetness required is even longer. This means that there was very little risk of Botrytis from the recent rains.
- Remember that from pre-flowering (E-L stage 12-15) till capfall (E-L stage 25) is high risk stage for bunch rots. Monitor closely for duration of stages of flowering and for forecast favourable conditions. If necessary, spray before wet weather especially at/near 80% capfall – a critical spray to protect the young flowers as the cap falls off and exposes wound sites on the flower. **In wet conditions**, Botrytis can infect through these wounds.

Weather Forecast

- **The current forecast** is for some rain mid-next week in passing thunderstorms. This weather is not expected to trigger new infection events for downy primary or secondary infection nor warm, wet conditions for long enough to trigger Botrytis, **but...**
- **.... Keep a 'weather eye' open** because thunderstorms often drop more rain and create longer wet periods in some localities.

Powdery Mildew

- **Some powdery mildew** is likely to be creeping within the inner, shaded canopies of poorly sprayed vineyards.
- **Sprays are still required** to control powdery mildew especially while the canopy is reasonably open to allow fungicides to reach the lower leaves and developing flowers.
- **The recent weather conditions** have continued to suit development and spread of powdery. It grows best at 20-28°C. Spores develop 2–3 times more in number when the relative humidity is high (RH >40%).
- **Remember to spray the canopy well** – before the '*outside of the canopy becomes the inside'*! That is, before the canopy closes over and makes spray coverage more difficult.
- **In unprotected canopies**, the disease will continue to spread from 'flag shoots' inside the canopy. These will be producing a new crop of spores every day.
- **These spores are blown in the wind** and will gradually move from centres of infection in unsprayed or poorly sprayed vineyards. The infection clusters may now extend up to 50cm from flagshoots.

- **The first 40 days from budburst** are critical - the success of your control actions now will determine the success of control of next season's inoculum and have major influence on the disease levels at vintage.
- **Good control requires** good spray coverage.
- **Any of the registered** powdery mildew fungicides are effective though sulphur at 600gm/100L in enough water to ensure good spray coverage will help control mites and it is a low-cost option.

Light Brown Apple Moth (LBAM)

- **Monitor now for LBAM** caterpillars that may be showing in shoot tips. In the next week or so, the larvae (see photo) will be making their way downwards to the young flowers. If numbers are high enough, they can damage the developing bunches to cause entry points for Botrytis later in the season.
- **The numbers of LBAM** to cause damage will vary with different varieties, with the favourability of conditions for Botrytis, and according to the risk of bunch rot in your vineyard. A threshold of say 8% of affected shoots is a guide to the number needed before spraying for varieties such as Riesling or Chardonnay.
- **Assess if threshold numbers** are present by scoring 100 shoots for presence of LBAM instars (caterpillars). If there are 8 or more shoots with LBAM, consider applying a spray of products such as Prodigy® (use no later than 80% capfall), or Proclaim®. Check with your chemical supplier to see which of the registered products suits your vineyard best. Ask about side effects on beneficial insects, eg lacewings which help control mealy bug.

Note:

- **A new service from the Bureau of Met** was opened on 26th October. The Bureau are keen to help farmers and grapegrowers and urban dwellers alike and have introduced a more detailed digital system that now allows the Bureau to provide regional towns and districts with a 7-day forecast.

Young caterpillar (3rd instar) of Light Brown Apple Moth (LBAM) feeding on flower-buds just prior to flowering. (Photo. Greg Baker – from p. 45, in The Australian and NZ Field Guide to Diseases, Pests and Disorders of Grapes. (Magarey et al. 1999).

- **This 7-day forecast** will be available for a number of new rural locations and forecasts will contain **more detail** about wind and rainfall, and overnight temperatures for frost alerts. A **new frost warning service** will replace the existing frost risk service for rural regions including the Clare Valley. The service will provide warning of moderate or severe frost conditions.
- You may wish to explore this new service on the Bureau of Met website starting at the new 7-day forecast for Clare. See: **http://www.bom.gov.au/sa/forecasts/clare.shtml**

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

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.

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