SWITCH®– Getting the timing of botryticides right

Botrytis is considered a "weak" pathogen, as it rarely attacks healthy plant tissue. Instead, Botrytis tends to attack dead, dying or decaying tissue such as flower cap injuries and ripening fruit. It also likes highly succulent or soft growth and injured plant material – including plants affected by Light Brown Apple Moth (LBAM) or wind damage etc.

Summary:

- Be aware of the environmental conditions over flowering which may lead to a latent infection
- SWITCH gives you flexibility for either an 80% capfall application or no later than E-L 29 (berries peppercorn size: 4 mm diameter)
- Be sure to follow the CropLife Botrytis resistance mana-gement strategies

Which period is most critical for botrytis control?

There is a long-running debate about when Botrytis infection will most likely occur, thus, when fungicide appli-cations are most beneficial.

Flowering i.e. 80% capfall?

This is the first real opportunity for latent Botrytis infections to become established in grape berries. Disease symptoms at harvest are merely the expression of infections initiated during this period. Latent infections at flowering are generally the result of wet (damp) conditions, a prolonged flowering period and tissue damage (from LBAM, wind etc.). However the relation-ship between latent infection levels and disease severity at harvest appears to be inconsistent. An application of a botryticide, such as SWITCH, during the flowering period (i.e. 80% capfall) can offer effective protection against these latent infections, particularly if the above conditions are present. SWITCH has proven itself both in Australia and internationally to be the leading botryticide in the market.

Mid-season i.e. pre-bunch closure?

Pre-bunch closure is a critical growth stage for Botrytis sprays, it is the latest growth stage at which you can effectively get a fungicide inside the bunch to protect it against, or reduce the impact of, Botrytis infections that may develop as the fruit ripens. SWITCH can be applied as a pre-bunch closure spray no later than E-L 29, with berries peppercorn size (4 mm diameter). Do not use within 60 days of harvest. (Do not apply SWITCH at both flowering and growth stage E-L 29).

Late-season i.e. veraison onwards?

Grape berries are most susceptible to Botrytis infections from veraison (softening of the berries) onwards. Late season infection is due to the increasing susceptibility of the berries to Botrytis as they begin to soften combined with suitable environmental conditions including warm, wet and humid weather and damage (e.g. late season Powdery Mildew infections, LBAM etc.). There are only limited fungicide options available for Botrytis control for the period post-veraison. Applying a SWITCH appli-cation either at 80% capfall or at E-L29 greatly lowers the chance of botrytis infections becoming serious in these later stages of the crops growth.

Benefits of SWITCH:

- Flexibility with application at either 80% capfall or the critical pre-bunch closure timing.
- Outstanding curative and protectant control of Botrytis inside and outside the bunch.
- Fludioxonil – one of the two active ingredients in SWITCH - is residual and stays mainly on the leaf and fruit surface to protect against any further Botrytis spore germination.
- Cyprodinil – the second active ingredient - is systemic (xylem mobile) and taken up into the plant tissue, continuously distributing into other plant parts and controlling any latent infections which may have already developed.
- SWITCH has a built in resistance mana-gement strategy with two (2) different Modes of Action (Group 9 & 12 fungicide groups).

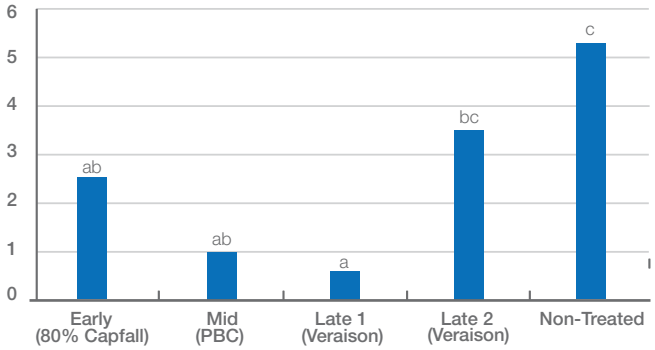
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Trial results

Trial work done in Sauvignon Blanc by Kathy Evans, Tasmanian Institute of Agriculture in the Coal River Valley, Tasmania, 2009 investigated the effects of fungicide application timing on the severity of Botrytis at harvest. The trial found that a mid to late application of SWITCH reduced Botrytis severity by the greatest amount. Further details and results of other trials can be found in Evans, K.J. (2010) GWRDC Final Report UT0601, available from http://research.agwa.net.au/**Fungicide treatment timings: Fungicide timing trial in 2008/09, Sauvignon Blanc, southern Tasmania.**

No.	Timing	80% Capfall	PBC	Veraison
1	Early	SWITCH	-	-
2	Mid	-	SWITCH	-
3	Late 1	-	-	SWITCH
4	Late 2	-	-	Rovral
5	Non-treated	-	-	-

Mean Botrytis Severity %



***NB:** SWITCH was applied at veraison for experimental purposes only. The status of fungicide resistance at this site was unknown. Always check the restrictions on fungicide use.

Fungicide resistance management strategies for Botrytis sprays

Group 2	(Dicarboximide)
Group 7	SDHI (Succinate dehydrogenase inhibitors)
Group 8	(Anilinopyrimidine) and combinations of Group 9 (Anilinopyrimidine) and Group 12 (Phenylpyrroles)
Group 17	(Hydroxyanilide)

1. If three or fewer bunch rot sprays are applied in a season, use no more than one spray from the same fungicide group during the season for any Group 2 or Group 9 (including combinations with Group 12), Group 17 or Group 7 fungicides.
2. If four or more bunch rot sprays are applied in a season, use no more than two sprays from the same fungicide group during the season, for any Group 2 or Group 9 (including combinations with Group 12), Group 17 or Group 7 fungicides.
3. DO NOT apply more than two consecutive sprays from the same fungicide group, for any Group 2 or Group 9 (including combinations with Group 12) or Group 17 fungicide, including from the end of one season to the start of the following season.
4. DO NOT apply consecutive sprays of Group 7 fungicides, including from the end of one season to the start of the following season.
5. Late season fungicide treatments should be applied before Botrytis infection reaches unacceptably high levels in the vineyard.



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