

Crop(s): Grape

Pest(s): Downy Mildew

Resistance Management Strategy for:

- Group 4** (Phenylamide);
- Group 11** (Quinone outside Inhibitor);
- Group 21** (Quinone inside Inhibitor);
- Group 40** (Carboxylic acid amide); and
- Group 45** (Quinone outside inhibitor, stigmatellin binding type) fungicides

1. Apply **all** these fungicides preventatively, **Group 4** fungicides should be applied before the first sign of oilspots or as soon as possible after an infection period.
2. Mixtures - co-formulations or tank mixes with label rate of alternative mode of action
3. Apply a maximum of two consecutive applications of any one group.
4. Start preventative disease control sprays using **non-Group 4** protectant fungicides, typically when shoots are 10-20cm long. Continue spraying at intervals of 7-21 days depending on disease pressure, label directions and rate of vine growth.
5. Limit the use of **Group 4** fungicides to periods when conditions favour disease development. Always apply **Group 4** fungicides in mixtures.

	Group				
	4	11	21 (+M1)	40	45 (+40)
Max. number of consecutive applications	2	none	2	2	2
Max. number of solo sprays	none	2	3	2 (50%)	none
Max. number of sprays per season	4-mix	2	3	4-mix (50% ¹)	4-mix
Areas of higher agronomic risk	mix	mix	n/a	mix	n/a

6. **Group 40** - do not apply as the last spray of the season.
Group 40 - apply a maximum of 50% of the total number of downy sprays
7. **Group 11** – If applied alone, do not make consecutive applications.
8. **Group 11** – apply a maximum of 2 sprays per season, including mixtures.

¹ Refer to point 6.

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