Activity of Fungicides on Grape Diseases and Impact on Honeybees

See the product label or crop calendars for registered uses. Use fungicides only for diseases listed on the product label for the crop. The information provided in this table is based on information from other areas. It is intended to assist the grower in choosing the best fungicide for control of pests listed on the product label, while managing resistance and avoiding unnecessary sprays for non-target pests. Efficacy can be affected by rate of the product.

Group	Fungicide	Anthracnose	Phomopsis cane and leaf spot	Black rot	Downy mildew	Powdery mildew	Botrytis bunch rot	Honeybee Toxicity[1]	Activity
M	Copper 53 W	0	1 *	1 *	3 *	2	0	MT	Contact
M	Copper Spray	0	1	1	2 *	2 *	0	NT	Contact
M	Cosavet DF Edge	1	1	0	0	3 *	0	NT	Contact
M	Cueva	0	1	1	2 *	2 *	0	NT	Contact
M	Dithane Rainshield	2	3	3 *	3 *	0	0	NT	Contact
M	Follow	2	3 *	1 *	3 *	1 *	0	NT	Contact
M	Folpan 80 WDG	2	3 *	1 *	3 *	1	0	NT	Contact
M	Guardsman Copper Oxychloride 50	0	1 *	1	2 *	2 *	0	NT	Contact
M	Kocide 2000-O	0	1	0	2 *	2	0	NT	Contact
M	Kumulus DF	1	1	0	0	3 *	0	NT	Contact
M	Lime Sulphur (dormant)	2	0	0	0	1 *	0	NT	Contact
M	Maestro 80 WSP	2	3 *	1 *	3 *	0	0	MT	Contact
M	Manzate Pro-Stick	2	3	3 *	3 *	0	0	NT	Contact
M	Microscopic Sulphur WP	1	1	0	0	3 *	0	NT	Contact
M	Microthiol Disperss	1	1	0	0	3 *	0	NT	Contact
M	Penncozeb 75 DF Raincoat	2	3	3 *	3 *	0	0	NT	Contact

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Group	Fungicide	Anthracnose	Phomopsis cane and leaf spot	Black rot	Downy mildew	Powdery mildew	Botrytis bunch rot	Honeybee Toxicity[1]	Activity
M	Supra Captan 80 WSP	2	3 *	1 *	3 *	0	0	MT	Contact
3	Cevya	0	0	3	0	3 *	0	NT	Locally systemic
3	Fullback 125 SC	0	0	3 *	0	3 *	0	MT	Locally systemic
3	Mettle 125 ME	3	0	3 *	0	3 *	0	NT	Locally systemic
3	Nova	3 *	0	3 *	0	3 *R	0	NT	Locally systemic
3+7	Aprovia Top 195 EC	1	0	1	0	3 *	0	NT	Locally systemic
3+9	Inspire Super	3 *	0	3 *	0	3 *	3 *	NT	Locally systemic
4+M	Ridomil Gold MZ 68 WG	0	1	1	3 *	0	0	NT	Systemic
5	Priwen 500 EC	0	0	0	0	3 *	0	NT	Locally systemic
7	Aprovia	0	2	3	0	3 *	2	NT	Locally systemic
7	Cantus WDG	3	0	0	0	3 *	1	NT	Locally systemic
7	Kenja 400 SC	0	0	0	0	2	3 *	NT	Locally systemic
7	Sercadis	0	0	0	0	3 *	1 *	NT	Locally systemic
7+9	Luna Tranquility	0	0	0	0	3 *	3 *	NT	Locally systemic
7+11	Pristine WG	3 *	1	3 *	3 *R	3 *	1 *	NT	Locally systemic
7+12	Miravis Prime	0	0	0	0	3	3 *	NT	Locally systemic

Activity of Fungicides on Grape Diseases and Impact on Honeybees

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Group	Fungicide	Anthracnose	Phomopsis cane and leaf spot	Black rot	Downy mildew	Powdery mildew	Botrytis bunch rot	Honeybee Toxicity[1]	Activity
9	Impala	0	0	0	0	0	3 *	NT	Locally systemic
9	Scala SC	0	0	0	0	0	3 *	NT	Locally systemic
9+12	Button	0	0	0	0	0	3 *	NT	Locally systemic
9+12	Switch 62.5 WG	0	0	0	0	0	3 *	NT	Locally systemic
11	Flint	0	1	3 *	1	3 *R	1	NT	Locally systemic
11	Intuity	0	0	0	0	3 *R	0	NT	Locally systemic
11	Sovran	3	1	3 *	2 *R	2 *R	1	NT	Locally systemic
17	Elevate 50 WDG	0	0	0	0	1	3 *	NT	Locally systemic
19	Diplomat 5 SC	0	3*	1	3 *	3 *	1 *	NT	Contact
21	Torrent 400 SC	0	0	0	3 *	0	0	NT	Locally systemic
22	Gavel DF	0	0	0	3 *	0	0	NT	Contact
29	Allegro 500 F	2 *	3 *	0	0	0	0	0	Contact
39	Magister SC	0	0	0	0	2 *	0	0	Contact
40	Forum	0	0	0	3 *	0	0	NT	Systemic
40	Revus	0	0	0	3 *	0	0	NT	Locally systemic
46	Timorex Gold	0	0	0	1 *	2 *	2*	NT	Contact

Activity of Fungicides on Grape Diseases and Impact on Honeybees

See the product label or crop calendars for registered uses. Use fungicides only for diseases listed on the product label for the crop. The information provided in this table is based on information from other areas. It is intended to assist the grower in choosing the best fungicide for control of pests listed on the product label, while managing resistance and avoiding unnecessary sprays for non-target pests. Efficacy can be affected by rate of the product.

Group	Fungicide	Anthracnose	Phomopsis cane and leaf spot	Black rot	Downy mildew	Powdery mildew	Botrytis bunch rot	Honeybee Toxicity[1]	Activity
40+45	Zampro	0	0	0	3 *	0	0	NT	Systemic
50	Property 300 SC	0	0	0	0	3 *	0	NT	Locally systemic
50	Vivando SC	0	0	0	0	3 *	0	NT	Locally systemic
BM1	ProBLAD Biofungicide	2	0	0	0	3 *	3 *	NT	Locally systemic
BM2	Actinovate SP	—	—	—	—	2 *	1 *	NT	Contact
BM2	Double Nickel LC	0	0	0	0	1 *	1 *	NT	Contact
BM2	Serenade OPTI	0	0	0	0	1 *	2 *	NT	Contact
BM2	Serifel	0	0	0	0	2 *	2 *	NT	Contact
BM2	Stargus	0	0	2 *	2 *	0	0	NT	Contact
NC	Botector	0	0	0	0	0	1 *	NT	Contact
NC	Buran	0	0	0	0	1 *	0	NT	Contact
NC	MilStop	0	0	0	1	2 *	1	NT	Contact
NC	Oxidate 2.0	1	1 *	1 *	1 *	1 *	1	MT	Contact
NC	Purespray Green Spray Oil 13 E	0	0	0	0	2 *	0	—	Contact
NC	Sirocco/Milstop	0	0	0	1	2 *	1*	NT	Contact
NC	Tivano	0	0	0	1 *	0	0	NT	Contact

Activity of Fungicides on Grape Diseases and Impact on Honeybees

See the product label or crop calendars for registered uses. Use fungicides only for diseases listed on the product label for the crop. The information provided in this table is based on information from other areas. It is intended to assist the grower in choosing the best fungicide for control of pests listed on the product label, while managing resistance and avoiding unnecessary sprays for non-target pests. Efficacy can be affected by rate of the product.

Group	Fungicide	Anthracnose	Phomopsis cane and leaf spot	Black rot	Downy mildew	Powdery mildew	Botrytis bunch rot	Honeybee Toxicity[1]	Activity
NC	Vegol Crop Oil	0	0	0	0	2 *	0	—	Contact
P5	Regalia Maxx	0	0	0	0	1 *	1 *	NT	Systemic SAR
P6	LifeGard	--	3	3	3 *	1 *	0	NT	Systemic SAR
P7	Aliette	0	0	0	3 *	0	0	NT	Systemic SAR
P7	Confine Extra	0	0	0	3 *	0	0	NT	Systemic SAR
P7	Phostrol	0	0	0	3 *	0	0	NT	Systemic SAR
P7	Rampart	0	0	0	3 *	0	0	NT	Systemic SAR
U13	Gatten	0	0	0	0	3 *	0	NT	Locally systemic

M = Multi-site fungicides. BM = Biological with multiple modes of action. NC = Not classified by FRAC, or group not indicated on product label. P = Plant defence inducer. U = unknown mode of action

[1] Source: PMRA Environmental Assessment Division. For more detailed information on the toxicity of specific pesticides to honeybees, refer to the pesticide label.

MT = Moderately toxic to bees. Can be used around bees if dosage, timing and method of application are correct, but do not apply them directly on bees, in the field or at the colonies. NT = Relatively non-toxic to bees.

Contact = Stays on the surface of plant. Locally systemic = Moves into plant but does not move to other plant parts. Systemic = Moves into plant and to unsprayed plant parts as they develop. SAR = systemic acquired resistance = plant defence inducer

Fungicide activity adapted from New York and Pennsylvania *Pest Management Guidelines for Grapes* and published fungicide efficacy reports.

0 = Ineffective. 1 = Slightly effective/suppression, not recommended for very susceptible varieties or at critical stages of infection. 2 = Moderately effective. 3 = Very effective. NOTE: the ratings in this table are based on the historical rating scale so do not exactly match the ones in the Crop Protection Hub.

* (shaded area) = The disease is listed on the product label for control or suppression.