







Quick Reference Guide to Foliar Fungicides¹

M. M. Dewdney²

Products recommended in the *Florida Citrus Pest Management Guide* and their effects on foliar fungal diseases.

| Pesticide ^a | Target pathogen | | | | | | | | | Maximum rate per acre per season |
|---|--|------------------|------------------|---|---|--|---|---|---|--|
| | Mode of action ^b (FRAC code) | REI ^c | PHI ^d |  Alternaria |  Black Spot |  Greasy spot |  Melanose |  Postbloom fruit drop (PFD) |  Scab | |
| Abound 2.08F | 11 | 4 hours | 0 | +++ , R | NT, R | +++ , R | +++ , R | ++ , R | +++ , R | 92.3 fl oz 1.5 lb a.i. |
| Copper fungicide | M1 | See label | See label | ++ , R | NT, R | +++ , R | +++ , R | - | ++ , R | None |
| Enable 2F | 3 | 12 hours | 0 | - | NT | ++ , R | - | - | ++ , R | 24 fl oz 0.38 lb a.i. |
| Ferbam Granuflo | M3 | 24 hours | 1 day | ++ , R, NR | NT | - | - | + , NR | ++ , R, NR | None |
| Gem 500 SC | 11 | 12 hours | 7 days | +++ , R | NT, R | +++ , R | +++ , R | ++ , R | +++ , R | 15.2 fl oz |
| Headline SC | 11 | 12 hours | 0 | +++ , R | NT, R | +++ , R | +++ , R | ++ , R | +++ , R | 54 fl oz 0.88 lb a.i. |
| Copper fungicide + petroleum oil 97 + % | M1 & NR | See label | See label | ++ , NR | NT | +++ , R , NR | +++ , NR | - | ++ , NR | None |
| Petroleum oil 97 + % | NR | 12 hours | 0 | - | NT | +++ , R, NR | - | - | - | None |
| Abound 2.08F + Ferbam | 11, M3 | 24 hours | 1 day | +++ | NT | - | - | ++ , R | +++ | 92.3 fl oz (Abound) 1.5 lb a.i. (Abound) |
| Gem + Ferbam | 11, M3 | 24 hours | 7 days | +++ | NT | - | - | ++ , R | +++ | 15.2 fl oz (Gem) |
| Headline + Ferbam | 11, M3 | 24 hours | 1 | +++ | NT | - | - | ++ , R | +++ | 54 fl oz (Headline) 0.88 lb a.i. (Headline) |
| Pristine | 7,11 | 12 hours | 0 | +++ , R | NT | +++ , R | +++ , R | NT | +++ | 74 oz (Pristine) 0.88 lb a.i. (pyraclostrobin) |
| Quadris Top | 11,3 | 12 hours | 0 | +++ , R | NT | +++ , R | +++ , R | NT | +++ | 61.5 fl oz (Quadris Top) 0.5 lb (difenoconazole) 1.5 lb (azoxystrobin) |

^aAll listed pesticides are registered and trademarked products

^bMode of action class for citrus pesticides from the Fungicide Resistance Action Committee (FRAC)

^cRestricted Entry Interval

^dPreharvest Interval

(R) = Product recommended for control of pathogen in *Florida Citrus Pest Management Guide*

(NR) = Minimal resistance potential

(NT) = Not tested

(+++)= Good control of pathogen

(++)= Moderate control of pathogen

(+)= Low levels of pest suppression

(-)= No observed control of pathogen

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2. Megan M. Dewdney, assistant professor, Department of Plant Pathology, Citrus REC, Lake Alfred, Florida; Cooperative Extension Service, Institute of Food and Agricultural Sciences; University of Florida; Gainesville, FL 32611.

Fungicide Resistance Management

Fungicide resistance is now problematic in Florida citrus groves, with documented strobilurin resistance causing control failure of *Alternaria* brown spot. These guidelines apply to all fungicides.

- Make no more than the recommended number of sequential applications of any fungicide without alternating to another fungicide with a different mode of action (FRAC codes). To conserve fungicide efficacy, it is recommended to rotate modes of action with each application.
- Do not make more than the maximum number of applications of any fungicide class combined in a year for all diseases, and never exceed maximum label rates per acre per year.
- Control measures should begin before disease development and continue as indicated by recommended disease management practices. For guidance, consult the *Florida Citrus Pest Management Guide* (<http://www.crec.ifas.ufl.edu/extension/pest/index.htm>).