

Mobile Fungicides for Managing Powdery Mildew, Downy Mildew, and Phytophthora Blight in Cucurbits

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Fungicide	FRAC Code	Diseases	Recommended Rate/A (labeled)	REI	PHI	Seasonal Limits	Approx.\$/A/spray
Vivando ^g	U6	Powdery mildew	15 fl oz	12 h	0 d	3 sprays	\$33.15
Torino ^a	U8	Powdery mildew	3.4 oz	4 h	0 d	2 sprays	\$24.00
Quintec ^b	13	Powdery mildew (melon, pumpkin, w. squash, gourd)	6 fl oz (4-6)	12 h	3 d	24 fl oz	\$23.60
Proline ^c	3	Powdery mildew	5.7 fl oz	12 h	7 d	2 sprays	
Procure ^c	3	Powdery mildew ^c	8 fl oz (4-8)	12 h	0 d	40 fl oz	\$36.84
Merivon ^c	7	Powdery mildew	5.5 fl oz (4-5.5)	12 h	0 d	3 sprays	
Pristine ^c	7 + 11	Powdery mildew ^c	18.5 oz (12.5-18.5)	12 h	0 d	4 sprays (74 oz)	\$70.85
Ranman ^{a,d}	21	Blight, Downy mildew	2.75 fl oz (2.1-2.75)	12 h	0 d	6 sprays	\$25.24
Zampro	40 + 45	Blight, Downy mildew	14 fl oz	12 h	0 d	3 sprays	
Forum	40	Blight, Downy mildew	6 fl oz	12 h	0 d	5 sprays	\$17.86
Revus ^{a,c}	40	Blight, Downy mildew (low efficacy DM cucumber)	8 fl oz	12 h	0 d	4 sprays (32 fl oz)	\$30.31
Phostrol, etc. ^f	33	Blight, Downy mildew	2.5 – 5 pt	4 h	0 d	7 sprays	\$11.44 – \$22.88
Presidio ^{c,g}	43	Blight, Downy mildew ^c	4 fl oz (3 – 4)	12 h	2 d	4 sprays (12 fl oz)	\$44.94
Tanos ^e	27 + 11	Blight, Downy mildew	8 oz	12 h	3 d	4 sprays	\$25.02
Zing!	22 + M	Downy mildew	36 fl oz	12 h	0 d	8 sprays	\$17.72
Curzate ^e	27	Downy mildew	3.2 oz	12 h	3 d	9 sprays	\$13.26
Previcur Flex ^e	28	Downy mildew ^c	1.2 pt	12 h	2 d	6 pints	\$18.32

^a Organosilicone and/or non-ionic surfactant required (Revus) or recommended.

^b Quintec is not labeled for use on edible-peel cucurbits. 10-14 day spray interval.

^c Limited use recommended because resistance suspected of affecting efficacy especially when applied often.

^d Rate range applies for downy mildew; high rate for blight. ^e Short residual; apply another fungicide within 5 days.

^f Other phosphorous acid fungicides include ProPhyt and Fosphite. Rate and seasonal limits vary a little among products. Recommended tank mixed with other fungicides. Note that there are also phosphate fertilizers, which are not fungicides.

^g Plant-back restriction for non-labeled crops is 365 days for Vivando and 18-month for Presidio.

Tank-mix each of these fungicides with a protectant, with the exception of Zing! (or Gavel), which are formulated with chlorothalonil or mancozeb. Need to tank-mix is specified in use directions on many labels.

Sulfur is a very effective, inexpensive product for powdery mildew, no efficacy for other diseases.

Oils (several botanical and mineral oils available) are also a good choice for powdery mildew only.

Chlorothalonil and copper have broad-spectrum activity. Copper also effective for bacterial diseases.

Mancozeb is recommended when only downy mildew is occurring.

Apply fungicides for a particular disease in alternation to manage resistance (in the use directions on many labels; typically 1 or 2 consecutive spray maximum) and to ensure effective control if resistance develops.

QoI* and Ridomil fungicides are not recommended due to resistance. (*Amistar, Cabrio, Quadris, Flint).