

Fungicides and Bactericides for Treatment of Various Orchid Diseases

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Chemical Name Active Ingredient	FRAC Mode of Action Group	Application Rate (tsp/gal)	Spray or Drench?	Mobility	Unit Cost	Bacterial Diseases	Water Molds	Fungal Bulb, Root and Stem Rots			Leaf & Flower Blights		
						Rots and Spots	Black Rot	Fusarium Wilt	Root Rot	Southern Blight	Anthrax-nose	Leaf Spots	Botrytis
						<i>Erwinia Pseudomonas</i>	<i>Pythium Phytophthora</i>	<i>Fusarium</i>	<i>Rhizoctonia</i>	<i>Sclerotium</i>	<i>Colletotrichum</i>	<i>Cercospora Guignardia</i>	<i>Botrytis</i>
Commonly Available Fungicides and Bactericides													
Captan 50W Captan 50%	M	5	Spray	Contact	\$15 / 8 oz						spray	spray	spray
Consan 20 (Physan) Quaternary Ammonium Chlorides 20%	not classified	1.5	Spray	Contact	\$23 / 16 fl oz	spray					spray	spray	spray
Daconil Ultrex Chlorothalonil 29.6%	M5	2.25	Spray	Contact	\$19 / 16 fl oz				spray		spray	spray	spray
Dithane M45, Mancozeb Mn,Zn,Ethylene bisdithiocarbamate 80%	M	4.5	Spray	Contact	\$13 / 6 oz						spray	spray	spray
Hydrogen Peroxide Hydrogen Peroxide 3%	not classified	full strength	Spray	Contact	\$2 / 16 fl oz	spray							
CuPro 5000 (Kocide discontinued) Copper Hydroxide 61.3%	M	1.4 - 3.6	Spray	Contact	\$38 / 3 lb	spray			spray		spray	spray	spray
Liquid Copper Copper Ammonium Complex 31.4%	M	2 - 6	Spray	Contact	\$16 / 16 fl oz	spray					spray	spray	spray
SA-20 Disinfectant Quaternary Ammonium Chlorides 20%	not classified	1 - 1.5	Spray	Contact	\$36 / gal	spray					spray	spray	spray
Specialty Fungicides and Bactericides													
Aliette WDG Fosetyl aluminum 80%	M(33)	3.5 - 7.1 0.6 - 1.1	Spray Drench	Amphi- mobile	\$155 / 5 lb		drench						spray
Banner Max II Propiconazole 14.3%	3	0.3 - 0.7	Spray Drench	Xylem Mobile	\$150 / 2 gal generic				drench		spray	spray	
Banrot 40WP Etridiazole 15% Thiophanate Methyl 25%	1,14	.54 - 1.1	Spray Drench	Xylem Mobile	\$83 / 2 lb		drench	drench	drench	drench	spray	spray	spray
Chipco 26019 Iprodione 50%	2	1.6	Drench	Contact	\$110 / 2 lb			drench	drench		spray		spray
Daconil Ultrex Chlorothalonil 82.5%	M5	1.75	Spray	Contact	\$67 / 5 lb				spray		spray	spray	spray
Eagle 20EW Myclobutanil 19.7%	3	0.36-0.72	Spray Drench	Locally Systemic	\$190 / gal				drench	drench	spray	spray	
Junction Mancozeb 15% Copper Hydroxide 46.1%	M1 M3	2.5 - 5.9	Spray	Contact	\$120/6 lb	spray			spray		spray	spray	spray
KleenGrow Didecyl dimethyl ammonium chloride 7.5%	not classified	0.36 - 2.3 0.36 - 3.0	Spray Drench	Contact	\$130 / gal	spray		drench?				spray	spray

Note: Review product label for specific instructions on use and rates before purchasing and making application. Notations highlighted in red indicate a very good to excellent rating in the 2021 Guide to Ornamental Fungicides by Syngenta, drench? indicates it is labeled for use as a drench but is a multisite fungicide so it may impact beneficial microorganisms. Fungicides over \$200 excluded (as of 2017).

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Specialty Fungicides and Bactericides (cont'd)													
Empress Intrinsic Pyraclostrobin 23.3%	11	.12 - .36	Drench	Locally Systemic	\$175 / 24 fl oz		drench	drench	drench				
Heritage DF50 Azoxystrobin 50%	11	.09 - .37	Spray Drench	Locally Systemic	\$115 / 4 oz		drench	drench	drench	drench	spray	spray	spray
Medallion WDG Fludioxonil 50%	12	0.25 - 0.5 0.13 - 0.3	Spray Drench	Contact	\$200 / 8 fl oz			drench	drench	drench	spray	spray	spray
OHP 6672 50 WP (Cleary's 3336 WP) Thiophanate Methyl 50%	1	0.6 - 0.8 0.4 - 0.8	Spray Drench	Xylem Mobile	\$33 / 2 lb			drench	drench		spray	spray	spray
Pageant Pyraclostrobin 12.8% Boscalid 25.2%	7,11	.46 - .69	Spray Drench	Xylem Mobile	\$103 / 1 lb		drench	drench	drench	drench	spray	spray	spray
Phyton 27/Phyton 35 Copper Sulfate Pentahydrate 21.36%/21.27%	M1 M2	0.78 - 2.4	Spray	Contact	\$90 / liter	spray	drench?	drench?	drench?	spray	spray	spray	spray
Protect 75 DF Mn,Zn,Ethylene bisdithiocarbamate 75%	M	1.5 - 2.9	Spray	Contact	\$68 / 6 lb						spray	spray	spray
Spectro 90WDG Chlorothalonil 72%, Thiophanate Methyl 18%	1, M5	0.7 - 1.3	Spray	Xylem Mobile	\$78 / 5 lb		drench?				spray	spray	spray
Strike Plus 50 WDG Trifloxystrobin 8.33%, Triadimefon 41.67%	3, 11	2 - 4	Spray	Contact	\$138 / 1 lb						spray	spray	
Subdue MAXX Metalaxyl 21.3%	4	.03 - .06	Spray Drench	Xylem Mobile	\$180 / qt		drench						
Switch 62.5 WG, Palladium Fludioxonil 25%, Cyprodinil 37.5%	9, 12	0.21 - 0.43	Spray	Contact	\$166 / 28 oz			spray	spray	spray	spray	spray	spray
Terraclor 400 Pentachloronitrobenzene (PCNB) 40.0%	14	.36 - .72	Drench	Contact	\$110 / gal				drench	drench			spray
Terrazole 35 WP Etridiazole 35%	14	0.7 - 1.9	Drench	Contact	\$93/ 2 lb		drench						
Thiomyl Thiophanate Methyl 50%	1	2.5 - 3.3 1.6 - 3.3	Spray Drench	Xylem Mobile	\$23 / 6 oz			drench	drench		spray	spray	spray
Truban 25EC Etridiazole 25%	14	0.23 - 0.47	Drench	Contact	\$73 / qt		drench						
Zerotol 2.0 Peroxide 27.1% Peroxyacetic Acid 2.0%	nc	2 - 7.5 7.5	Spray Drench	Contact	\$130 / gal	spray	drench?	drench?	drench?	drench?			spray

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