

Fungicides Registered for Use on California Tomatoes*

FUNGICIDE	TRADE NAMES	FRAC CODE	EFFICACY	RESISTANCE POTENTIAL
AMPELOMYCES QUISQUALIS	AQ10	Biological agent	Protectant	?
AZOXYSTROBIN	Amistar, Quadris	11	Protectant/penetrant	High
BACILLUS SUBTILIS	Serenade	Natural product	Protectant	Low
BENOMYL	Benlate SP	1	Systemic	High
BOSCALID	Endura	7	Protectant/penetrant	Moderate
CHLOROTHALONIL	Bravo, Echo, Equus	Y	Protectant	Low
COPPER	Kocide, Cuprix, Nordox	Y	Protectant	Low
FAMOXADONE & CYMOXANIL	Tanos	11/X	Protectant/systemic/curative	Low
DICLORAN	Botran 75W	14		Mod-Low
DIMETHOMORPH	Acrobat 50W	15	Protectant/systemic/ curative	Moderate
FENAMIDONE	Reason	11	Protectant/penetrant	High
FOSETYL-AL	Aliette	Y		Low
HARPIN PROTEIN	Messenger			
EBDC (MANEB/MANCOZEB)	Dithane, ManexII, Manzate, Manex, Pencozeb/Maneb	Y	Protectant	Low
MEFENOXAM	Ridomil Gold, Ultra Flourish	4	Protectant/systemic/curative	High
MYCLOBUTANIL	Rally	3	Protectant/penetrant	High
NEEM OIL	Trilogy	Natural product		Low
PCNB	Terraclor	14		Mod-Low
PHOS-ACID-MP SALT	EksPunge/Nutrol			
POTASSIUM BICARBONATE	Armcarb 100	Y	Protectant	Low
POTASSIUM PHOSPHATE	ProPhyt			
PYRACLOSTROBIN	Cabrio EG	11	Protectant/penetrant	High
SODIUM TETRABOROHYDRATE D.	Prev-Am Ultra			
SULFUR		Y	Protectant	Low
TRIFLOXYSTROBIN	Flint	11	Protectant/penetrant	High

Notes:

FRAC Code: Resistance management grouping—products having the same number have a common mode of action and potential for resistance development. Check labels for recommended alternates

* This chart is primarily a summary of UC Fungicide Efficacy Trials 1999-2004 and does not constitute recommendations. Always consult the label prior to any pesticide use.

	MODE OF ACTION	BACTERIAL SPECK/SPOT	POWDERY MILDEW	LATE BLIGHT	BLACKMOLD	MAJOR USE
	<i>Parasitic</i>		+/-			
	<i>Single-site</i>		++	++	++	
	?		+/-			
	<i>Single-site</i>	-	-	-	-	<i>grey mold</i>
	<i>Multi-site</i>				++	
	<i>Multi-site</i>	-	-	++	+++	
	<i>Multi-site</i>	+	+/-	+	+/-	
	<i>Multi-site</i>	?		+++		
						<i>grey mold</i>
	<i>unknown</i>			+++		
			+	++		
	<i>unknown</i>					<i>root rot</i>
						<i>no disease control claims</i>
	<i>Multi-site</i>	** only with copper		++	+++	
	<i>Single-site</i>					<i>soil use</i>
	<i>Single-site</i>	-	++	-		
	<i>unknown</i>					
						<i>seed treatment</i>
	<i>Multi-site</i>		+/-			
	<i>Single-site</i>	-	++	++	+++	
	<i>Multi-site</i>	-	++	-	-	
	<i>Single-site</i>	-	++	?	?	

Rating system:

++++ = excellent and consistent, +++ = good and reliable, ++ = moderate and variable, + = limited and/or erratic
 +/- = minimal and often ineffective, - = ineffective, ? = unknown. NR = not registered, (blank) = no data

Compiled by the California Tomato Research Institute, Inc. June 1, 2005.

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