

TOMATO DISEASES (Commercial Production)

Terry Spurlock and Aaron Cato

Disease	Product	Active Ingredient	FRAC Code	Rate/Acre	Re-entry Interval	Comments
TRANSPLANT PRODUCTION						
Bacterial Speck and Bacterial Spot (Seed Disinfection for transplant production)	Bleach	5.25% sodium hypochlorite		1 part bleach + 4 parts water		Wash tomato seed in bleach solution for 45 minutes with constant agitation. Air dry disinfected seed on a clean bench immediately.
Transplant Protection	Agrimycin 17	streptomycin sulfate	25	1 lb in 100 gal water		Spray transplants every 10 days from first leaf until transplanted. For use only in transplant production beds.
Early Blight, Gray Mold and Late Blight (transplants)	Bravo Ultrex 82.5 WDG	chlorothalonil	M5	1.3 - 1.8 lb	2 days	Starting at emergence, spray transplants every week until transplanted. Good coverage is essential.
	Bravo WeatherStik 6 F			1 3/8 - 2 pt	2 days	
	Bravo 500 4.17 F			2 - 3 pt	2 days	
	Scala SC	pyrimethanil	9	7 fl oz	12 hours	See label for restrictions and warnings.
	Dithane DF (Rainshield NT) Manzate 75 DF Penncozeb 75 DF	mancozeb	M3	1.5 - 2 lb 1.5 - 2 lb 0.75 - 2 lb	1 day 1 day 1 day	Starting at emergence, spray transplants every week until transplanted. Good coverage is essential. Latron surfactant is recommended to improve coverage.
	OR plus Serenade MAX	<i>Bacillus subtilis</i>	44	1 - 2 lb	0 day	Do not use without a tank mix partner of one of the previously listed products.

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FIELD PRODUCTION							
Early Blight Late Blight Septoria Leaf Spot	Quadris 2.08	azoxystrobin	11	5 - 6.2 fl oz	4 hr	0	Apply at first sign of disease and repeat every 7 - 21 days. Do not make more than one application of strobilurins before rotating to a fungicide with a different mode of action. No more than 5 applications per acre per year. See label for incompatible spray mixtures.
	Quadris Opti	azoxystrobin + chlorothalonil	11 M5	1.6 pt	12 hr	0	
	Aprovia Top	difenoconazole + benzovindiflupyr	3 + 7	10.5 – 13.5 fl. oz/A	12 hours	0	Apply by ground or by chemigation. Chemigation with excessive water may lead to a decrease in efficacy.
	Orondis Opti	oxathiapiprolin+ chlorothalonil	U15 + M5	1.75 – 2.5 fl. oz/A	12 hours	0	Do not follow soil applications of other oxathiapiprolin-containing products with foliar applications of Orondis Opti.
	Cabrio 20 EG	pyraclostrobin	11	8 - 12 oz	12 hr	0	Use 8 - 16 oz for late blight. Maximum amount per season is 96 oz. See label for other information.
	Flint 50 WG	trifloxystrobin	11	2 - 4 oz	12 hr	3	Apply at first sign of disease and repeat every 7 - 10 days. Use the higher rate for late blight. Suppression only for Septoria. See label for other precautions and restrictions.
	Bravo Ultrex 82.5 WDG Bravo WeatherStik 6 F Bravo 500 4.17 F	chlorothalonil	M5	1.3 - 1.8 lb 1 3/8 - 2 pt 2 - 3 pt	12 hr 12 hr 12 hr	0 0 0	Apply at 7 - 10 day interval after first appearance of disease. Do not mix chlorothalonil with Copper-Count N, Foil, DIPEL, Triton, AG98 or Latron surfactants.
	Gavel 75 DF	mancozeb + zoxamide	M3 22	1.5 - 2 lb	2 days	5	See label for restrictions and warnings.
	OR plus Serenade MAX	<i>Bacillus subtilis</i>	44	1 - 3 lb	4 hr	0	Do not use without a tank mix partner of one of the previously listed products.
	Tanos 50 WG	famoxadone + cymoxanil	11 27	6 - 8 oz		3	
Early Blight Late Blight Septoria Leaf Spot and Bacterial Speck Bacterial Spot Bacterial Canker	mancozeb OR chlorothalonil OR azoxystrobin plus Kocide 2000 Kocide 4.5 LF Nu-Cop 3 L Champion WP OR BasiCop WP Champ 4.6 F Tenn-Cop 5 E Cuprofix Ultra 40 Disperss		M3 or M5 or 11	See above	See above	See above	See above
		copper hydroxide	M1	1.5 - 3 lb 1 1/3 - 2 1/3 pt 1 1/3 - 2 1/3 pt 2 lb	2 day	0	Spray on a 7 - 10 day schedule as above.
		fixed copper	M1	2 - 4 lb 1 1/3 - 2 1/3 pt 3 pt	1 day	0	
		copper sulfate	M1	0.75 - 3 lb	12 hr	0	

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Disease	Product	Active Ingredient	FRAC Code	Rate/Acre	Re-entry Interval	Pre-Harvest Interval	Comments
FIELD PRODUCTION (cont.)							
Anthracnose Early Blight Septoria Leaf Spot Powdery Mildew	Quadris Top	azoxystrobin + difenoconazole	11 + 3	8 fl oz	12 hr	0	
	Aftershock, Evito 480 SC	fluoxastrobin	11	2 - 5.7 fl oz	12 hr	3	
	Priaxor	fluxapyroxad + pyraclostrobin	7 + 11	4 - 8 fl oz	12 hr	7	Use 6 - 8 fl oz for powdery mildew control.
	Switch	cyprodinil + fludioxonil	9 + 12	11 - 14 fl. oz/A	12 hr	0	Only controls Early Blight, Gray Mold, and Powdery Mildew. Do not apply more than 56 oz/A of Switch 62.5WG per year.
	Inspire Super	difenoconazole + cyprodinil	3 + 9	16 - 20 fl oz	12 hr	0	
	Aprovia Top	difenoconazole + benzovindiflupyr	3 + 7	10.5 – 13.5 fl. oz/A	12 hr	0	Apply by ground or by chemigation. Chemigation with excessive water may lead to a decrease in efficacy.
	Fontelis	penthiopyrad	7	16 - 24 fl oz	12 hr	0	
Late Blight only	Quadris 2.08	azoxystrobin	11	5 - 6.2 fl oz	4 hr	0	Spray on a 5 - 7 day interval.
	Quadris Opti	azoxystrobin + chlorothalonil	11 M5	1.6 pt	4 hr	0	See above.
	Cabrio 20 EG	pyraclostrobin	11	8 - 16 oz	12 hr	0	Do not make more than one application before alternating to a non-strobilurin fungicide.
	Orondis Ultra	oxathiapiprolin + mandipropamid	U15 + M5	5.5 – 8.0 fl. oz/A	4 hr	1	Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. Also controls Phytophthora Blight and Downey Mildew. See Label for specific application instructions.
Late Blight and Buckeye Rot	Quadris 2.08	azoxystrobin	11	5 - 6.2 fl oz	4 hr	0	Apply prior to disease development and repeat every 5 - 7 days. Do not make more than one application of strobilurins before rotating to a fungicide with a different mode of action. No more than 5 applications per acre per year. See label for incompatible spray mixtures.
	Quadris Opti	azoxystrobin + chlorothalonil	11 M5	1.6 pt	4 hr	0	
	Orondis Opti	oxathiapiprolin+ chlorothalonil	U15 + M5	1.75 – 2.5 fl. oz/A	12 hrs	0	Do not follow soil applications of other oxathiapiprolin-containing products with foliar applications of Orondis Opti.
	Gavel 75 DF	mancozeb + zoxamide	M3 22	1.5 - 2 lb	2 days	5	See label for restrictions and warnings.
	Ridomil Gold MZ	mefenoxam	4	2.5 lb	48 hr	14	Apply every 14 days if conditions favor late blight or buckeye rot (cool, wet weather). No more than 3 applications per crop.

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FIELD PRODUCTION (cont.)							
	Ridomil Gold-Copper	mefenoxam + copper	4 M1	2 lb	48 hr	14	Apply every 14 days if conditions favor late blight or buckeye rot (cool, wet weather). No more than 3 applications per crop.
	Gavel 75 DF	mancozeb +	M3 + 22	1.5 - 2 lb		5	
	Quadris 2.08 F	zoxamide	11	6.2 oz		0	
	Quadris Opti 5.5 SC	azoxystrobin	11	1.6 pt		0	
	Presidio 4 SC	azoxystrobin + chlorothalonil fluopicolide	M5 43	3 - 4 oz		2	
Late Blight and Early Blight	Previcur Flex	propamocarb hydrochloride	28	0.7 - 1.5 pt	12 hr	5	See label for restrictions and warnings.
	Reason 500 SC	fenamidone	11	5.5 - 8.2 fl oz	12 hr	14	See label for restrictions and warnings.
Southern Blight	Blocker	PCNB	14	1.2 - 1.8 gal	12 hr	---	In-furrow or transplant application only.