

VEGETABLE DISEASES (Commercial Production)

Rick Cartwright, Steve Vann, Jim Correll, Terry Kirkpatrick, Scott Monfort and Cliff Coker

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
ASPARAGUS					
Rust	Nova 40W	myclobutanil	5 oz	See label.	Apply at first evidence of disease.
	Bravo WeatherStik	chlorothalonil	2 - 4 pt	See label.	Follow label instructions.
	Sonata	<i>Bacillus pumilus</i> (bacteria)	2 - 4 qt	0	Can be used for organic production. See label.
BEANS (Snap and Pole)					
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	8 - 16 fl oz	2	Preplant incorporate in the top 2 inches. Also for this disease on lima and dry beans.
Pythium and Rhizoctonia Damping-Off	Ridomil Gold PC GR granules	mefenoxam + PCNB	12 oz/1,000 ft of row		Apply with seed at planting.
	Trilex 2000	trifloxystrobin + metalaxyl	1 oz/cwt seed		
	Basicop WP Champ 4.6F Tenn-Cop 5E	fixed copper	2 - 4 lb 1 1/3 - 2 1/3 pt 3 pt	1	Spray at first sign of disease; repeat on a 10 day schedule as needed.
White Mold (<i>Sclerotinia</i>) and Gray Mold (<i>Botrytis</i>)	Rovral 50WP	iprodione	24 - 32 oz	14	Apply at early bloom (10%) and again 7 days later. Use at least 25 gpa volume. Do not apply Rovral after peak bloom. Also used for these diseases on lima and dry beans.
	Endura	boscalid	8 - 11 oz		See label.
Gray Mold (<i>Botrytis</i>) and Rust	Bravo Ultrex	chlorothalonil	2.7 lb	7	Apply at first sign of disease on a weekly schedule as needed.
	Equus	chlorothalonil	1.37 - 2 pt		Follow label directions.
	Endura	boscalid	8 - 11 oz	See label.	Apply at first sign of disease.
Powdery Mildew and Rust	Microthiol Special	wettable sulfur	7 lb	0	Apply at first sign of disease and repeat at 14 day intervals as needed.
	Endura 70WG Headline 2.09F	boscalid pyraclostrobin	8 - 11 oz 6 - 9 fl oz	7 7	7 - 10 day interval 7 - 10 day interval
Root and Stem Rot (<i>Rhizoctonia solani</i>)	Terraclor 75WP Terraclor 4FL	PCNB PCNB	1.4 - 2.2 oz/1,000 ft of row 2.2 - 3.3 fl oz/1,000 ft of row	45	Apply in-furrow at planting. Do not exceed 2 lbs per acre per crop.

VEGETABLE DISEASES (Commercial Production) – continued

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BEANS (Dry)					
Anthracnose, Downy Mildew, Rust	Bravo Ultrex Maneb 80WP	chlorothalonil	2.7 lb	7	Apply at early bloom and repeat as needed at 7 - 10 day intervals.
		maneb	1.5 - 2 lb	30	
Rust	Folicur 3.6F	tebuconazole	4 - 6 fl oz	14	
Anthracnose, Ascochyta Blight	Quadris Opti	azoxystrobin + chlorothalonil	1.6 - 2.4 pt		See label for important restrictions and application information.
BEANS (Dry) and FIELD PEAS (<i>Phaseolus</i> and <i>Vigna</i> spp.)					
Anthracnose, Ascochyta Blight, Mycosphaerella Blight, Powdery Mildew, Rust	Headline	pyraclostrobin	5.5 - 8 fl oz	30	See label for important restrictions and application information.
	Endura	boscalid	8 - 11 oz	See label.	Follow label instructions. Not labeled on peas.
	Topsin M 4.5F	thiophanate-methyl	10 fl oz	1	See label information.
	Quilt	azoxystrobin + propiconazole	6 fl oz		
BRASSICA (Leafy Greens)					
White Rust (Albugo) Black Spot (Alternaria)	Quadris 2.08FL	azoxystrobin	6 - 15.5 fl oz	0	Apply prior to disease and continue on a 7 - 14 day schedule. Do not make more than 2 consecutive applications of Quadris nor more than 3 total applications per acre per crop year. Do not apply more than 1.44 qts per acre per season.
	Amistar	azoxystrobin	2 - 5 oz product		No more than one application before alternating with material of different mode of action. Apply prior to disease and continue at 7 - 14 day intervals.
Downy Mildew	Revus	mandipropamid	8 fl oz		See label information.
CABBAGE, BROCCOLI, COLE CROPS					
Alternaria Leaf Spot	Endura 70WP	boscalid	6 - 9 oz	0	7 - 14 day schedule.
	Maneb 80WP	maneb	1.5 - 2 lb	7	7 - 14 day schedule.
	Ridomil Gold	mefenoxam + chlorothalonil	1.5 pt	7	7 - 14 day schedule.
	Bravo SC				
	Cabrio 20EC	pyraclostrobin	12 - 16 oz	0	7 - 14 day schedule.
	Bravo Weatherstik	chlorothalonil	1.5 - 3 pt	7	7 - 14 day schedule.
	Quadris 2.08F	azoxystrobin	6 - 15 fl oz	0	7 - 14 day schedule.
	Switch 62.5EG	cyprodinil + fludioxonil	11 - 14 oz	7	7 - 14 day schedule.
Downy Mildew	Ridomil Gold	mefenoxam + chlorothalonil	1.5 pt	7	7 - 10 day interval until disease is under control. Alternate fungicides with different modes of action.
	Bravo SC				
	Cabrio 20EC	pyraclostrobin	12 - 16 oz	0	See label.
	Quadris 2.08F	azoxystrobin	6 - 15 oz	0	See label.
	Aliette 80WG	fosetyl-Al	2 - 5 lb	3	See label.
	Presidio 4SC	fluopicolide	3 - 4 fl oz	2	See label.
	Reason 4.13SC	fenamidone	5.5 - 8.2 fl oz	2	See label.
	Revus 2.08SC	mandipropamid	8 fl oz	1	See label.
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	0.25 - 0.5 pt	NA	Apply to soil at planting or transplanting.
Rhizoctonia Stem and Root Rot	Endura 70WG	boscalid	6 - 9 oz	0	Apply at first sign of disease; may be repeated 7 - 14 days later.

VEGETABLE DISEASES (Commercial Production) – continued

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CANTALOUPE						
Gummy Stem Blight, Downy Mildew, Anthracnose, Alternaria Leaf Spot, Target Spot, Powdery Mildew	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	Apply at 7 - 14 day intervals prior to disease or at first sign. Alternate with a fungicide with different mode of action (e.g., Bravo) for downy mildew and spray on a 5 day schedule if conditions favor this disease. Cabrio rate for downy mildew control is 8 - 12 oz per acre. See label. Do not use adjuvants with Cabrio or tank mix with other pesticides or crop injury may result. See label information.	
	Cabrio 20EG	pyraclostrobin	12 - 16 oz	0		
	Quadris Opti	azoxystrobin + chlorothalonil	3.2 pt			
	Amistar	azoxystrobin	3.5 - 5 oz			
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.		
	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb			
	Bravo WeatherStik	chlorothalonil	2 - 3 pt			
	Mancozeb 80W	mancozeb	2 - 3 lb	5		
	Maneb 80W	maneb	1 - 2 lb	5		
	Topsin M 4.5F	thiophanate-methyl	10 fl oz	1		
	Cuprofix Ultra 40 Disperss	copper sulfate	1.25 - 2 lb	0		
	Gummy Stem Blight, Downy Mildew, Anthracnose, Alternaria Leaf Spot, Powdery Mildew	Ridomil Gold Bravo SC	mefenoxam + chlorothalonil	2.5 - 3.25 pt		0
		Ridomil Gold MZ	mefenoxam + mancozeb	2.5 lb		5
Alternaria Leaf Spot Cercospora Leaf Spot Downy Mildew Fruit and Stem Rot	Gavel 75DF	mancozeb + zoxamide	1.5 - 2 lb	5	See label for important restrictions and application information.	
Downy Mildew	Ridomil Gold Bravo	mefenoxam + chlorothalonil	2 lb	7	Apply at 14 day intervals and alternate with mancozeb, maneb, Quadris or Flint.	
	Flint 50WG	trifloxystrobin	4 oz	0	Apply in alternation with Bravo, Ridomil Gold Bravo.	
	Tanos	famoxadone + cymoxanil	8 oz	3	REI = 12 hours. Must tank mix with fungicides of different mode of action (non group 11). See label.	
(continued)	Previcur Flex	propamocarb	1.2 pt	2	REI = 12 hours. Must tank mix with another downy mildew fungicide. See label.	

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
CANTALOUPE (cont.)					
Downy Mildew (<i>cont.</i>)	Curzate 60DF	cymoxanil	3.2 oz	3	REI = 12 hours. Must tank mix with fungicides of different mode of action (non group 11). See label.
	Acrobat 50WP	dimethomorph	6.4 oz	0	Allow sprays to dry before harvest begins. REI = 12 hours. See label.
	Forum 4.18F	dimethomorph	6 fl oz	0	Some varieties are sensitive to Gavel – see label.
	Gavel 75DF	zoxium + mancozeb	1.5 - 2 lb	5	
	Presidio 4SC	fluopicolide	3 - 4 oz	2	
	Reason 4.13F	fenamidone	5.5 oz	14	
Revus 2.08SC	mandipropamid	8 fl oz	0		
Powdery Mildew Downy Mildew	Flint 50WG	trifloxystrobin	1.5 - 2 oz	0	Apply at first sign of disease on 7 day schedule. Alternate with Bravo or other fungicides with different modes of action. Quadris, Flint and Cabrio have the same mode of action.
	Cabrio 20EG	pyraclostrobin	8 - 16 oz	0	See label.
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz		See label. Best applied as a preventative.
Pythium Damping-Off	Ridomil Gold EC	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.
CORN (Sweet)					
Rusts, Leaf Spots	Mancozeb 80W	mancozeb	2 - 3 lb	5	Various brands including Dithane, Penncozeb, Manzate, etc.
	Maneb 80W	maneb	1 - 2 lb	5	Various brands and formulations.
	Tilt 3.6EC	propiconazole	4 fl oz	14	Begin applications at first sign of disease and continue on a 7 - 14 day schedule. Read label for restrictions.
	Propimax EC	propiconazole	4 fl oz	14	
	Headline 2.09F	pyraclostrobin	6 - 12 oz	7	Begin applications at first sign of disease and continue on a 7 - 14 day schedule. Read label for restrictions.
	Quadris 2.08F	azoxystrobin	6.2 - 9 oz	7	
	Quilt 1.66SC	azoxystrobin + propiconazole	10.5 - 14 oz	14	
	Stratego 2.08SC	propiconazole + trifloxystrobin	10 fl oz	14	

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
CUCUMBERS					
Angular Leaf Spot	Maneb 80W	maneb	1 - 2 lb	5	Apply at first sign of disease and alternate with fungicides for anthracnose on a 7 - 10 day schedule. Various brands available.
	Basicop	copper	3 - 4 lb	1	Apply at first sign of disease and alternate with fungicides for anthracnose on a 7 - 10 day schedule. Various brands available.
Bacterial Angular Leaf Spot	Basicop	copper	2 lb	1	Apply at first sign of disease and spray as needed. Various brands available.
Anthracnose	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	Apply at 7 - 14 day intervals prior to disease or at first sign. Alternate with a fungicide with different mode of action (e.g., Bravo) for downy mildew and spray on a 5 day schedule if conditions favor this disease. Cabrio rate for downy mildew control is 8 - 12 oz per acre. See label. Do not use adjuvants with Cabrio or tank mix with other pesticides or crop injury may result.
Alternaria Leaf Spot	Cabrio 20EG	pyraclostrobin	12 - 16 oz	0	See label information. Lower rate for downy mildew. Lower rate for downy mildew. Apply at first true leaf, then at 7 day intervals. Temperature restrictions on watermelon. See label information. Various brands including Dithane, Penncozeb, Manzate, etc. Various brands and formulations. See label.
Gummy Stem Blight					
Downy Mildew					
Target Spot, Scab					
	Quadris Opti	azoxystrobin + chlorothalonil	3.2 pt		
	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb		
	Bravo WeatherStik	chlorothalonil	2 - 3 pt		
	Equus 720	chlorothalonil	2 - 3 pt	See label instructions.	
	Mancozeb 80W	mancozeb	2 - 3 lb	5	
	Maneb 80W	maneb	1 - 2 lb	5	
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz		
Alternaria Leaf Spot	Reason 500SC	fenamidone	5.5 - 8.2 fl oz	14	See label information.
Downy Mildew					
Downy Mildew and Pythium	Previcur Flex	propamocarb hydrochloride	1.2 pt	2	
Alternaria Leaf Spot	Gavel 75DF	mancozeb + zoxamide	1.5 - 2 lb	5	See label for important restrictions and application information.
Cercospora Leaf Spot					
Downy Mildew					
Fruit and Stem Rot					

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
CUCUMBERS (cont.)					
Downy Mildew	Ridomil Gold Bravo	mefenoxam + chlorothalonil	2 lb	7	Apply at 14 day intervals and alternate with mancozeb, maneb, Quadris or Flint.
	Flint 50WG	trifloxystrobin	4 oz	0	Apply in alternation with Bravo, Ridomil Gold Bravo.
	Tanos	famoxadone + cymoxanil	8 oz	3	REI = 12 hours. Must tank mix with fungicides of different mode of action (non group 11). See label.
	Previcur Flex	propamocarb	1.2 pt	2	REI = 12 hours. Must tank mix with another downy mildew fungicide. See label.
	Curzate 60DF	cymoxanil	3.2 oz	3	REI = 12 hours. Must tank mix with fungicides of different mode of action (non group 11). See label.
	Acrobat 50WP	dimethomorph	6.4 oz	0	Allow sprays to dry before harvest begins. REI = 12 hours. See label.
	Forum 4.18F	dimethomorph	6 fl oz	0	
	Gavel 75DF	zoxium + mancozeb	1.5 - 2 lb	5	
	Presidio 4SC	fluopicolide	3 - 4 oz	2	
	Reason 4.13F	fenamidone	5.5 oz	14	
	Revus 2.08SC	mandipropamid	8 fl oz	0	
Powdery Mildew	Flint 50WG	trifloxystrobin	1.5 - 2 oz	0	Apply at first sign of disease on 7 day schedule. Alternate with Bravo or other fungicides with different modes of action. Quadris has the same mode of action.
	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb		
	Bravo WeatherStik	chlorothalonil	2 - 3 pt		
	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	
	Microthiol Disperss	wettable sulfur	2 lb	0	Apply at first sign of disease and repeat at 14 day intervals as needed. Do not apply when temperature is above 90 degrees F. See label information for application.
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz		
	Nova 40W	myclobutanil	2.5 - 5 oz	0	
	Procure 50WP	triflumizole	4 - 8 oz	0	
Quadris Opti 5.5SC	azoxystrobin + chlorothalonil	3.2 pt	1		
Pythium Damping-Off	Ridomil Gold EC	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.
EGGPLANT					
Anthracnose Powdery Mildew	Quadris 2.08FL	azoxystrobin	6.2 - 15.4 fl oz	0	Apply prior to disease and on a 7 - 14 day schedule as needed. Do not make more than 2 consecutive applications and do not make more than 4 applications per crop year. Do not apply more than 1.92 qts per acre per season. See Cabrio label.
	Cabrio 20EG	pyraclostrobin	8 - 12 oz	0	
Anthracnose Downy Mildew	Quilt	azoxystrobin + propiconazole	6 fl oz		

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
OKRA					
Anthracnose Downy Mildew	Quadris 2.08FL	azoxystrobin	6 - 15.5 fl oz	0	Apply prior to disease and on a 7 - 14 day schedule as needed. Do not make more than 2 consecutive applications and do not make more than 4 applications per crop year. Do not apply more than 1.92 qts per acre per season.
Seedling Disease	Quadris 2.08F	azoxystrobin	0.4 - 0.8 fl oz/ 1,000 row ft	N/A	In-furrow at planting or 7 inch band over the row shortly after emergence.
ONION, GARLIC, LEEK, SHALLOT					
Alternaria Blotch Powdery Mildew Downy Mildew	Cabrio 20EG	pyraclostrobin	8 - 12 oz	7	Follow label directions closely.
Downy Mildew	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.	Follow label information for crops and diseases.
Downy Mildew	Revus	mandipropamid	8 fl oz		See label information.
PEAS (Southern and English)					
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	8 - 16 fl oz	2	Preplant incorporate in the top 2 inches.
	Ridomil Gold PC GR granules	mefenoxam + PCNB	12 oz/1,000 ft of row		Apply with seed at planting.
Downy Mildew Cercospora Leaf Spot Anthracnose, Rust	Bravo WeatherStik	chlorothalonil	1 3/8 - 2 pt	14	Apply at first sign of disease on a 7 - 10 day schedule as needed.
	Quilt	azoxystrobin + propiconazole	6 fl oz		
PEPPER					
Bacterial Spot	Kocide 2000 + Maneb 80W	copper hydroxide + maneb	1.5 - 2.25 lb + 1 - 2 lb	0 7	Apply a week after transplanting and again at 5 - 10 day intervals if disease begins to develop and as needed. There are other forms of copper hydroxide and maneb available.
Downy Mildew Anthracnose	Quilt	azoxystrobin + propiconazole	6 fl oz		
Downy Mildew	Revus	mandipropamid	8 fl oz		See label information.
Downy Mildew and Pythium	Previcur Flex	propamocarb hydrochloride	1.2 pt	2	See label information.
Downy Mildew, Anthracnose Cercospora Leaf Spot	Maneb 80W	maneb	1 - 2 lb	7	Apply as needed on a 7 - 10 day schedule at first sign of disease.

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
PEPPER (cont.)					
Anthracnose	Quadris 2.08FL	azoxystrobin	6 - 15.5 fl oz	0	Apply prior to disease and on a 7 - 14 day schedule as needed. Do not make more than 2 consecutive applications and do not make more than 4 applications per crop year. Do not apply more than 1.92 qts per acre per season. See Cabrio label.
Powdery Mildew	Cabrio 20EG	pyraclostrobin	8 - 12 oz	0	
Pythium and Phytophthora Damping-Off	Ridomil Gold SL	mefenoxam	16 fl oz		Apply to the soil at planting or transplanting.
Southern Blight	Terraclor 75WP	PCNB	3 lb/100 gal for transplant solution	45	Use 1/2 pint transplant solution per plant. Do not exceed 20 lb PCNB per acre per season.
Mosaic Viruses	JMS Stylet-Oil	special oil	3 qt/100 gal water	0	See label for directions.
POTATO (Seed Piece Protection)					
Seed Piece and Sprout Rots	Maxim Potato Seed Protectant	fludioxonil	0.5 lb/100 lb seed pieces		Uniform coverage is essential.
POTATO (Foliar Diseases)					
Early Blight Late Blight Botrytis Rot	Quadris 2.08FL	azoxystrobin	6.2 - 15.4 fl oz	1	Use higher rates on a weekly schedule under severe disease conditions; otherwise use a 14 day schedule and lower rates as needed. Alternate with fungicides of different modes of action.
	Scala	pyrimethanil	7 oz		Must tank mix with other effective fungicide. See label information.
	Bravo WeatherStik	chlorothalonil	1 pt	0	Apply on a weekly schedule in alternation with other fungicides, as needed.
	Kocide 2000	copper hydroxide	0.75 - 3 lb	0	Use higher rates if disease is severe.
	Mancozeb 80W	mancozeb	1 - 2 lb	14	Several brands and formulations.
	Manex with Zinc	maneb	0.8 - 1.6 qt	14	Use higher rates if disease is severe. Other brands of maneb may be available.
	Ridomil Gold MZ	mefenoxam + mancozeb	2.5 lb	14	Use on a 14 day schedule up to 3 times when conditions for disease are favorable. Also may control certain tuber rots if applied during flowering (see label).
Late Blight Early Blight	Gavel 75DF	mancozeb + zoxamide	1.5 - 2 lb	14	See label for important restrictions and application information.
	Previcur Flex	propamocarb hydrochloride	0.7 - 1.2 pt	14	See label.
	Headline	pyraclostrobin	6 - 9 fl oz	3	Use 6 - 12 fl oz for late blight. See label for other information.
	Reason 500SC	fenamidone	5.5 fl oz	See label.	See label for additional information. Rates vary.

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments	
POTATO (Foliar Diseases) (cont.)						
Late Blight, Early Blight, Powdery Mildew	Quadris Opti	azoxystrobin + chlorothalonil	3.2 pt		See label information.	
Powdery Mildew	Microthiol Disperss	wettable sulfur	5 lb	0	Apply at first sign of disease and repeat at 14 day intervals as needed.	
Downy Mildew	Revus	mandipropamid	8 fl oz		See label information.	
Early Blight	Gem 500SC Gem	trifloxystrobin	2.9 - 3.8 fl oz 6 - 8 fl oz	7 7	See label information.	
PUMPKIN						
Angular Leaf Spot	Maneb 80W	maneb	1 - 2 lb	5	Apply at first sign of disease and alternate with fungicides for anthracnose on a 7 - 10 day schedule. Various brands available.	
	Fixed Copper	copper	See label.	0	Spray at first appearance and continue on 7 - 10 day schedule as needed.	
Anthracnose	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	Apply at 7 - 14 day intervals prior to disease or at first sign. Alternate with a fungicide with different mode of action (e.g., Bravo) for downy mildew and spray on a 5 day schedule if conditions favor this disease. Cabrio rate for downy mildew control is 8 - 12 oz per acre. See label. Do not use adjuvants with Cabrio or tank mix with other pesticides or crop injury may result.	
Alternaria Leaf Spot	Cabrio 20EG	pyraclostrobin	12 - 16 oz	0		
Gummy Stem Blight						
Downy Mildew	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb			Lower rate for downy mildew.
Target Spot	Bravo WeatherStik	chlorothalonil	2 - 3 pt			Lower rate for downy mildew.
Scab	Maneb 80W	maneb	1 - 2 lb	5		Various brands and formulations.
Powdery Mildew	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.	Follow label. Best applied at first evidence of disease.	
	Topsin M 4.5F	thiophanate-methyl	10 fl oz	1		
Anthracnose	Ridomil Gold	mefenoxam + chlorothalonil	2.5 - 3.25 pt	0		
Alternaria Leaf Spot	Bravo SC					
Gummy Stem Blight						
Downy Mildew	Ridomil Gold MZ	mefenoxam + mancozeb	2.5 lb	5		
Target Spot						

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PUMPKIN (cont.)						
Downy Mildew	Ridomil Gold Bravo	mefenoxam + chlorothalonil	2 lb	7	Apply at 14 day intervals and alternate with mancozeb, maneb, Quadris or Flint.	
	Flint 50WG	trifloxystrobin	4 oz	0	Apply in alternation with Bravo, Ridomil Gold Bravo.	
	Tanos	famoxadone + cymoxanil	8 oz	3	REI = 12 hours. Rotate with Bravo or mancozeb. See label.	
	Previcur Flex	propamocarb	1.2 pt	2	REI = 12 hours. Must tank mix with another downy mildew fungicide. See label.	
	Curzate 60DF	cymoxanil	3.2 oz	3	REI = 12 hours. Tank mix with chlorothalonil or mancozeb. See label.	
	Acrobat 50WP	dimethomorph	6.4 oz	0	Allow sprays to dry before harvest begins. REI = 12 hours. See label.	
	Reason 500SC	fenamidone	5.5 fl oz		Rates vary. See label.	
	Ranman	cyazofamid	2.1 - 2.75 fl oz	See label.	Apply at 7 - 10 day interval beginning at flowering or at initial disease onset.	
	Sonata	<i>Bacillus pumilus</i> (bacteria)	2 - 4 qt		0	Can be used for organic production. See label.
	Forum 4.18F	dimethomorph	6 fl oz		0	Some varieties are sensitive to Gavel – see label.
Gavel 75DF	zoxium + mancozeb	1.5 - 2 lb		5		
Presidio 4SC	fluopicolide	3 - 4 oz		2		
Revus 2.08SC	mandipropamid	8 fl oz		0		
Powdery Mildew	Flint 50WG	trifloxystrobin	1.5 - 2 oz	0	Apply at first sign of disease on 7 day schedule. Alternate with Bravo or other fungicides with different modes of action. Quadris has the same mode of action.	
	Microthiol Special	wettable sulfur	2 lb	0	Apply at first sign of disease and repeat at 14 day intervals as needed. Do not apply when temperature is above 90 degrees F.	
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.	

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RADISH					
Alternaria Leaf Spot Cercospora Leaf Spot Powdery Mildew White Rust	Cabrio 20EG	pyraclostrobin	8 - 12 oz	0	Use 8 - 16 oz for white rust control. See label for other information.
Pythium Damping-Off Phytophthora Stem Rot White Rust	Ridomil Gold SL	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.
SPINACH					
Pythium Damping-Off White Rust	Ridomil Gold SL	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.
Downy Mildew	Aliette 50WDG	fosetyl-Al	2 - 3.75 lb	3	Apply at first sign of disease and repeat on a 7 - 21 day schedule as needed. Beware of certain tank mixes – see label.
	Ridomil Gold-Copper	mefenoxam + copper hydroxide	2.5 lb	21	Spray at first sign of disease. Apply 21 days after Ridomil EC preplant application and on a 14 day schedule afterwards as needed. See label for precautions.
Foliar Leaf Spots and White Rust	Quadris 2.08FL	azoxystrobin	6.2 - 15.4 fl oz	0	Apply at first sign of disease and then on a 7 - 14 day schedule. Follow resistance management guidelines on label.
Downy Mildew and Powdery Mildew	Quadris 2.08FL	azoxystrobin	12.3 - 15.4 fl oz	0	Apply preventively on a weekly basis. If possible, alternate applications with a fungicide with a different mode of action.
	Kocide 2000	copper hydroxide	1.5 - 2 lb	0	Apply as needed. Use higher rate for heavier disease situations. Flecking may occur on leaves.

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
SQUASH					
Angular Leaf Spot	Basicop	copper	2 lb	1	Apply at first sign of disease and repeat as needed. Other brands and formulations exist.
Anthracnose Alternaria Leaf Spot Gummy Stem Blight Downy Mildew Target Spot, Scab	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	Apply at 7 - 14 day intervals prior to disease or at first sign. Alternate with a fungicide with different mode of action (e.g., Bravo) for downy mildew and spray on a 5 day schedule if conditions favor this disease. Cabrio rate for downy mildew control is 8 - 12 oz per acre. See label. Do not use adjuvants with Cabrio or tank mix with other pesticides or crop injury may result. Lower rate for downy mildew. Lower rate for downy mildew. Various brands and formulations. Follow label. Best if applied as a preventative.
	Cabrio 20EG	pyraclostrobin	12 - 16 oz	0	
	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb		
	Bravo WeatherStik	chlorothalonil	2 - 3 pt		
	Maneb 80W	maneb	1 - 2 lb	5	
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.	
Alternaria Leaf Spot Downy Mildew	Reason 500SC	fenamidone	5.5 - 8.2 fl oz	14	See label information.
Downy Mildew and Pythium	Previcur Flex	propamocarb hydrochloride	1.2 pt	2	
Alternaria Leaf Spot Cercospora Leaf Spot Downy Mildew Fruit and Stem Rot	Gavel 75DF	mancozeb + zoxamide	1.5 - 2 lb	5	See label for important restrictions and application information.
Downy Mildew	Ridomil Gold Bravo	mefenoxam + chlorothalonil	2 lb	7	Apply at 14 day intervals and alternate with mancozeb, maneb, Quadris or Flint.
	Flint 50WG	trifloxystrobin	4 oz	0	Apply in alternation with Bravo, Ridomil Gold Bravo.
	Tanos	famoxadone + cymoxanil	8 oz	3	REI = 12 hours. Must tank mix with contact fungicide with different mode of action (non group 11). See label.
	Previcur Flex	propamocarb	1.2 pt	2	REI = 12 hours. Must tank mix with another downy mildew fungicide. See label.
	Curzate 60DF	cymoxanil	3.2 oz	3	REI = 12 hours. Must tank mix with contact fungicide with different mode of action (non group 11). See label for specific mixing information.
	Acrobat 50WP	dimethomorph	6.4 oz	0	Allow sprays to dry before harvest begins. REI = 12 hours. See label.
	Cuprofix Ultra 40 Disperss	copper sulfate	1.25 - 2 lb	0	

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
SQUASH (cont.)					
Powdery Mildew	Flint 50WG	trifloxystrobin	1.5 - 2 oz	0	Apply at first sign of disease on 7 day schedule. Alternate with Bravo or other fungicides with different modes of action. Quadris has the same mode of action.
	Folicur 3.6F	tebuconazole	4 - 6 fl oz	7	
	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb		
	Bravo WeatherStik	chlorothalonil	2 - 3 pt		
	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	
	Microthiol Disperss	wettable sulfur	2 lb	0	Apply at first sign of disease and repeat at 14 day intervals as needed. Do not apply when temperature is above 90 degrees F.
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.	Best if applied at first evidence of disease. Follow label information.
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.
SWEET POTATO					
Downy Mildew Leaf Spot Powdery Mildew	Headline	pyraclostrobin	6 - 12 fl oz	3	See label for restrictions and application information.
	Quadris	azoxystrobin	6 - 15.5 fl oz		
Scurf Foot Rot Black Rot	Mertect 340-F	thiabendazole	107 oz/100 gal		Dip seedling roots into solution for 2 minutes and then plant.
	Botran 75W	dichloran	13.3 lb/100 gal		Same as above.
Post-Harvest Rhizopus	Botran 75W	dichloran	1 lb/100 gal		Dip sweet potato in solution for 10 seconds and do not rinse before shipment or storage. If dipping is not feasible, the solution can be sprayed on. Good coverage is crucial.
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.
Early Blight Botrytis Leaf Spot	Scala	pyrimethanil	7 oz	7	See label information.
TOMATO – See tomato disease section					

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments	
WATERMELON						
Gummy Stem Blight Downy Mildew Anthracnose Alternaria Leaf Spot Target Spot	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	Apply at 7 - 14 day intervals prior to disease or at first sign. Alternate with a fungicide with different mode of action (e.g., Bravo) for downy mildew and spray on a 5 day schedule if conditions favor this disease. Cabrio rate for downy mildew control is 8 - 12 oz per acre. See label. Do not use adjuvants with Cabrio or tank mix with other pesticides or crop injury may result.	
	Cabrio 20EG	pyraclostrobin	12 - 16 oz	0		
	Bravo Ultrex	chlorothalonil	1.4 - 2.7 lb			Lower rate for downy mildew.
	Bravo WeatherStik	chlorothalonil	2 - 3 pt			Lower rate for downy mildew.
	Equus 720	chlorothalonil	2 - 3 pt			Apply at first true leaf stage or at first evidence of disease. Some weather restrictions apply to watermelons, etc. 7 day intervals.
	Mancozeb 80W	mancozeb	2 - 3 lb	5		Various brands including Dithane, Penncozeb, Manzate, etc.
	Maneb 80W	maneb	1 - 2 lb	5		Various brands and formulations.
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.	Follow label information.	
Gummy Stem Blight Downy Mildew Anthracnose Alternaria Leaf Spot Powdery Mildew	Ridomil Gold Bravo SC	mefenoxam + chlorothalonil	2.5 - 3.25 pt	0		
	Ridomil Gold MZ	mefenoxam + mancozeb	2.5 lb	5		
Alternaria Leaf Spot Cercospora Leaf Spot Downy Mildew Fruit and Stem Rot	Gavel 75DF	mancozeb + zoxamide	1.5 - 2 lb	5	See label for important restrictions and application information.	
Downy Mildew	Ridomil Gold Bravo	mefenoxam + chlorothalonil	2 lb	7	Apply at 14 day intervals and alternate with mancozeb, maneb, Quadris or Flint.	
	Flint 50WG	trifloxystrobin	4 oz	0	Apply in alternation with Bravo, Ridomil Gold Bravo.	
	Tanos	famoxadone + cymoxanil	8 oz	3	REI = 12 hours. Rotate with Bravo or mancozeb. See label.	
<i>(continued)</i>	Previcur Flex	propamocarb	1.2 pt	2	REI = 12 hours. Must tank mix with another downy mildew fungicide. See label.	

VEGETABLE DISEASES (Commercial Production) – continued

Disease	Product	Active Ingredient	Rate/Acre	Days to Harvest	Comments
WATERMELON (cont.)					
Downy Mildew <i>(cont.)</i>	Curzate 60DF	cymoxanil	3.2 oz	3	REI = 12 hours. Tank mix with chlorothalonil or mancozeb. See label.
	Acrobat 50WP	dimethomorph	6.4 oz	0	Allow sprays to dry before harvest begins. REI = 12 hours. See label.
	Reason 500SC	fenamidone	5.5 oz	See label.	Rates may vary. Follow label.
	Forum 4.18F	dimethomorph	6 fl oz	0	Some varieties are sensitive to Gavel – see label.
	Gavel 75DF	zoxium + mancozeb	1.5 - 2 lb	5	
	Presidio 4SC	fluopicolide	3 - 4 oz	2	
	Reason 4.13F	fenamidone	5.5 oz	14	
Revus 2.08SC	mandipropamid	8 fl oz	0		
Powdery Mildew	Flint 50WG	trifloxystrobin	1.5 - 2 oz	0	Apply at first sign of disease on 7 day schedule. Alternate with Bravo or other fungicides with different modes of action. Quadris has the same mode of action.
	Pristine	boscalid + pyraclostrobin	12.5 - 18.5 oz	See label.	Follow label. Best if applied at first evidence of disease.
	Quadris 2.08FL	azoxystrobin	11 - 15.4 fl oz	1	
Pythium Damping-Off	Ridomil Gold SL	mefenoxam	8 - 16 fl oz		Apply to the soil at planting or transplanting.

This information was current as of October 1, 2009, and applies only to Arkansas and may not be appropriate for other states or locations. The listing of any product in this publication does not imply endorsement of that product or discrimination against any other product by the University of Arkansas Division of Agriculture. *Every effort was made to ensure accuracy, but the user of any crop protection product must read and follow the most current label on the product – The Label is the Law.* For further assistance, contact the local Cooperative Extension Service office.