Squash Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack squash during the growing season(s) in Georgia and is not intended to be followed literally but to give an idea of the chronology of disease pressure in relation to fungicide choice. Each field in each year has different situations that call for different actions.

	$\frac{\text{Spray Schedule} = 7 \text{ day}}{\text{P}^{-1}}$				
Spring		Fall			
Spray number	Fungicide/disease activity	Spray number	Fungicide/disease activity		
1	Chlorothalonil ¹ or mancozeb/DOW	1	Orondis (soil app)/PCAP Chorothalonil or Ariston/DOW		
2	Orondis (soil app)/PCAP Chorothalonil or Ariston/DOW	2	Chlorothalonil ¹ or Ariston/DOW		
3	Presidio or Revus/PCAP Chorothalonil or mancozeb/DOW	3	Orondis (soil app) or Presidio or Revus/PCAP Chorothalonil or Ariston/DOW		
4	Orondis (soil app)/PCAP Cholrothalonil or Ariston/DOW Torino or Fontelis/POW	4	Orondis (soil app)/PCAP Cholrothalonil or Ariston/DOW Gatten or Quintec or Torino/POW		
5	Gatten orTorino/POW Presidio or Revus/ PCAP Chlorothalonil+(Elumin or Ranman or or Previcur Flex) / DOW	5	Gatten or Proline/POW		
6	Quintec or Gatten/POW Orondis (soil app)/ PCAP Chlorothalonil+(Elumin or Ranman or or Previcur Flex) / DOW	6	Torino or Gatten/POW Orondis (soil app)/ PCAP Chlorothalonil+ (Elumin or Ranman or Previcur Flex)/ DOW		
7	Gatten or Proine or Quintec /POW Presidio or Revus/ PCAP Chlorothalonil+(Elumin or Ranman or Previcur Flex) / DOW	7	Presidio or Revus/ PCAP + DOW Chlorothalonil or mancozeb+Elumin or Ranman or Previcur Flex/ DOW		
8	Presidio or Revus/ PCAP Chlorothalonil or mancozeb+Elumin or Ranman or Previcur Flex / DOW	8	Gatten or Quintec or Torino/POW Presidio or Revus/ PCAP Chlorothalonil+ (Elumin or Ranman or Previcur Flex)/ DOW		

Spray Schedule = 7 day

¹Chlorothalonil (Bravo, Echo, Equus, etc...). Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook.

Disease Acronyms: GSM = gummy stem blight; RHIZ=Rhizoctonia belly rot; DOW = downy mildew; ANTH = anthracnose; PCAP = Phytophthora crown and fruit rot.

Cantaloupe Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack cantaloupe during the growing season(s) in Georgia.

Spri		Fall		
Spray	•	Spray		
No.	Fungicide(s)/disease activity	No.	Fungicide(s)/disease activity	
1.	Chlorothalonil/GSB	1	Chlorothalonil + Proline ² /GSB	
	copper at lowest labeled rate ¹ /BFB		copper at lowest labeled rate ¹ /BFB	
			Ranman, or Elumin or Ariston/DOW	
2.	Chlorothalonil/GSB			
	copper at lowest labeled rate ¹ /BFB		Chlorothalonil/GSB	
2	Chlorothalonil/GSB	2	copper at lowest labeled rate ¹ /BFB Orondis (soil app), Presidio or	
3.	copper at lowest labeled rate ¹ /BFB	2	Revus/ PCAP	
	copper at lowest labeled face / DI D	•		
4.	Miravis Prime or Proline or Inspire Super		Chlorothalonil + Miravis Prime or Inspire Super or	
4.	or Aprovia top/GSB; Orondis (soil app),		Aprovia top/GSB;	
	Presidio or Revus/ PCAP;		copper at lowest labeled rate ¹ /BFB;	
	Ranman or Previcur flex, or Curzate/DOW	3	Ranman or Previcur flex or	
			Curzate/DOW	
5.	Chlorothalonil + Luna			
	Experience/GSB; Quintec or Gatten or		Chlorothalonil/GSB	
	Proline or Procure/POW; Elumin (soil		Orondis (soil app) or Presidio or Revus/ PCAP; Ranman or Elumin or Curzate/DOW	
	app) or Presidio or Revus / PCAP;		rCAF, Rainnan of Elumin of Culzate/DOW	
	Ranman or Ariston or Previcur flex or Curzate/DOW			
	Curzate/DO w	4	Chlorothalonil + Miravis Prime or Proline or	
6.	Miravis Prime or Proline or Inspire Super	•	Aprovia top/GSB; Quintec or Gatten or Torino	
	or Aprovia top/GSB; Quintec or Torino or		or Procure/POW; Presidio or Revus / PCAP;	
	Gatten or Proline or Procure/POW;		Ranman or Previcur flex, or Curzate/DOW	
	Orondis (soil app) or Presidio or Revus/			
	PCAP		Chlorothalonil + Aprovia Top/GSB;	
7.		5	Quintec or Torino or Procure/POW;	
7.			Presidio or Revus/ PCAP; Ranman or	
	Ariston or Ranman or Previcur flex or Curzate/DOW	-	Previcur flex or Curzate/DOW	
	Chlorothalonil + Luna			
	Experience/GSB; Quintec, Torino,		Chlorothalonil + Miravis Prime OR Inspire	
	Proline or Procure/POW; Elumin (soil		Super/GSB; Quintec or Gatten or Torino /POW	
	app) or Presidio or Revus/ PCAP;	6	Orondis (soil app) or Elumin or Presidio or Revus /PCAP; Ranman	
	Ranman, Zampro, or Curzate/DOW		or Curzate/DOW	
8 ³ .				
	Chlorothalonil/GSB;		Chlorothalonil + Proline/GSB + POW	
	Quintec or Gatten or Proline/POW;		Presidio, Revus / PCAP; Ranman or	
	Orondis (soil app) or Presidio or		Previcur flex, or Curzate/DOW	
	Darma / DCAD: Danman on Drawioun	7		
	flex or Curzate/DOW	7.		

Spray Schedule = Start 1 week after transplanting, then use 7 day schedule if raining once a week.

¹ Copper is used prior to fruit set at lowest labeled rate if bacterial fruit blotch is an issue. ² Proline should be used at 5.7 fl oz when sprayed each time.

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<sup>3</sup> Be mindful of preharvest intervals (PHIs) for later sprays as many may have a 7-14 day PHI.
Disease Acronyms: BFB = bacterial fruit blotch; GSB = gummy stem blight; POW = powdery mildew; DOW = downy mildew; ANTH = anthracnose; PCAP = Phytophthora crown and fruit rot.
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Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook.

Succulent Legume (snap, lima, pole bean) Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any practice and gives growers more disease management options at lower risk. Once plants are in the fields, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many disease that attack succulent pod legumes during the growing season(s).

Spring/Summer		Fall		
Spray No.	Fungicide(s)/disease activity	Spray No.	Fungicide(s) /disease activity	
1.	Chlorothalonil ¹ of Folicur/R + CERC + ALT	1.	Chlorothalonil ¹ of Folicur/R + CERC + ALT	
2.	Chlorothalonil ¹ of Folicur/R + CERC + ALT	2.	Chlorothalonil ¹ of Folicur/ R + CERC + ALT	
3.	Chlorothalonil ¹ of Folicur/R + CERC + ALT	3.	Chlorothalonil ¹ of Folicur/R + CERC + ALT	
4.	Quadris/RHIZ + R CERC + ALT	4.	Quadris/RHIZ + R CERC + ALT	
5.	Topsin / ANTH (mainly lima bean) Quadris/RHIZ + R + CERC + ALT	5.	Topsin / ANTH (mainly lima bean) Quadris/RHIZ + R + CERC + ALT	
6.	Ridomil Gold Copper <u>or</u> Headline/PYTH <u>or</u> Quadris/PYTH + RHIZ + R + CERC + ALT Phosphite-type product/PYTH	6.	Ridomil Gold Copper <u>or</u> Headline/PYTH <u>or</u> Quadris/PYTH + RHIZ + R + CERC + ALT Phosphite-type product/PYTH	
7.	Rally/R + RHIZ Ridomil Gold Copper or Headline / PYTH or Quadris / PYTH + RHIZ + R + CERC + ALT Phosphite-type product /PYTH	7.	Rally/R + RHIZ Ridomil Gold Copper <u>or</u> Headline / PYTH or Quadris / PYTH + RHIZ + R + CERC + ALT Phosphite-type product /PYTH	
8.	Ridomil Gold Copper <u>or</u> Headline/PYTH <u>or</u> Quadris/PYTH + RHIZ + R + CERC + ALT Phosphite-type product/PYTH	8.	Priaxor or Omega 500 or Rovral or Topsin or Fontelis/ SCR	

Spray Schedule = 7 - 14 day

¹ Chlorothalonil (Bravo, Echo, Equus, etc...).

Always read the label for detailed application instructions of consult the Georgia pest Control handbook.

Disease Acronyms: RHIZ=Rhizoctonia belly rot; R = rust; ANTH = anthracnose; ALT = Alternaria pod and leaf spot: CERC = Cercospora leaf spot; PYTH = Pythium cottony leak; SCR = Scelerotinia or "white mold".

Pumpkin Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack squash during the growing season(s) in Georgia and is not intended to be followed literally but to give an idea of the chronology of disease pressure in relation to fungicide choice. Each field in each year has different situations that call for different actions.

	Spring		Fall
Spray number	Fungicide/disease activity	Spray number	Fungicide/disease activity
1	Chlorothalonil ¹ or mancozeb/DOW	1	Orondis (soil app)/PCAP Chorothalonil or mancozeb/DOW
2	Orondis (soil app)/PCAP Cholrothalonil/DOW	2	Chlorothalonil ¹ or mancozeb/DOW
3	Presidio or Revus/PCAP Chlorothalonil/DOW	3	Elumin or Presidio or Revus/PCAP Chorothalonil/DOW
4	Orondis (soil app)/PCAP Chlrothalonil/DOW Quintec or Torino or Proline/POW	4	Orondis (soil app)/PCAP Cholrothalonil/DOW Torino or Fontelis or Proline/POW
5	Torino or Quintec or Proline/POW Presidio or Revus or Elumin/ PCAP + DOW Chlorothalonil or mancozeb or Elumin or Ranman or Previcur Flex/ DOW	5	Torino or Quintec/POW
6	Quintec or Torino or Proline /POW Orondis (soil app)/ PCAP + DOW Chlorothalonil or mancozeb or Elumin or Ranman or Previcur Flex or Aristion/ DOW	6	Quintec or Torino or Proline/POW Orondis (soil app)/ PCAP + DOW Chlorothalonil or Elumin or Ranman or Previcur Flex/ DOW
7	Quintec or Torino/POW; Presidio or Revus/ PCAP + DOW; Chlorothalonil or Elumin or Ranman or Previcur Flex/ DOW	7	Orondis (app) or Presidio or Revus/ PCAP Chlorothalonil or Elumin or Ranman or Previcur Flex/ DOW
8	Orondis (soil app) or Presidio or Revus/ PCAP + DOW Chlorothalonil or Elumin or Ranman or Previcur Flex/ DOW	8	Torino or Quintec or Proline/POW Presidio or Revus/ PCAP; Chlorothalonil or Elumin or Ranman or Previcur Flex/ DOW

<u>Spray Schedule = 7 day</u>

¹ Chlorothalanil (Pravo Echo Equus etc.)	

¹Chlorothalonil (Bravo, Echo, Equus, etc...).

Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook.

Disease Acronyms: GSM = gummy stem blight; RHIZ=Rhizoctonia belly rot; DOW = downy mildew; ANTH = anthracnose; PCAP = Phytophthora crown and fruit rot.

South Georgia Tomato Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, disking and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack tomato during the growing season(s) in Georgia.

<u>Spray Schedule = 3.5 day</u>

Fall or Winter/Spring		
Spray No.	Fungicide(s)/disease activity	
Pre-plant	Georgia 3-way or WSP or Paladin Pic	
1.	Actigard at 0.33 oz/acre in 30-50 gallons of water copper	
	$fungicide + mancozeb + chlorotalonil^1/BS + EB$	
2.	copper fungicide + mancozeb/BS	
3.	Actigard at 0.33 oz/acre in 30-50 gallons of water/Leap copper fungicide + mancozeb + (Quadris or Cabrio or TopGuard EQ)/BS + EB + TS	
4.	copper fungicide + mancozeb/BS	
5.	Actigard at 0.5 oz/acre in 60-70 gallons of water/Leap copper fungicide + mancozeb + chlorothalonil ¹ /BS + EB	
6.	copper fungicide + mancozeb/BS	
7.	Actigard at 0.5 oz/acre in 60-70 gallons of water/Leap copper fungicide + mancozeb + (Quadris or Cabrio or TopGuard EQ)/BS + EB + TS	
8.	copper fungicide + mancozeb/BS	
9.	Actigard at 0.75 oz/acre in 70-100 gallons of water copper	
	or Leap/TopGuard EQ + mancozeb + chlorothalonil ¹ /BS +	
	EB	
10.	copper fungicide + mancozeb/BS	
11.	Actigard at 0.75 oz/acre in 70-100 gallons of water /Leap copper fungicide + mancozeb + (Quadris or Cabrio or TopGuard EQ)/BS + EB + TS	
12.	copper fungicide + mancozeb/BS	
13.	copper fungicide + mancozeb + Endura or Switch or Fontelis/BS + EB + BOT + TS	
14.	copper fungicide + mancozeb/BS	
15.	copper fungicide + mancozeb + Endura or Switch or Fontelis/BS + EB + BOT + TS	
	and so on until horvest or pro-horvest interval	

and so on until harvest or pre-harvest interval......

Disease Acronyms: BS = bacterial spot; EB = early blight; TS = target spot; BOT = Botrytis fruit rot.

Cucumber Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as diseasefree seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack squash during the growing season(s) in Georgia and is not intended to be followed literally but to give an idea of the chronology of disease pressure in relation to fungicide choice. Each field in each year has different situations that call for different actions.

	Spring		Fall
Spra y #	Fungicide/disease activity	Spra y #	Fungicide/disease activity
1	Chlorothalonil ¹ or mancozeb/DOW + ANTH + GSB Ridomil Gold (PYTHIUM)	1	Cabrio or Topsin/ANTH Elumin or Ranman or Previcur Flex/DOW Chlorothalonil/GSB
2	Chlorothalonil ¹ or mancozeb/DOW + ANTH + GSB	2	Orondis (soil app) or Presidio or Revus/PCAP Chlorothalonil+(Elumin or Ranman)
3	Chlorothalonil ¹ or mancozeb/DOW + ANTH + GSB Orondis (soil app)/PCAP	3	Cabrio/ANTH Presidio or Elumin or Ranman or Revus/DOW + PCAP Chlorothalonil or mancozeb/ANTH + DOW + GSB
4	Quadris + Miravis Prime/RHIZ + ANTH + GSB	4	(Miravis Prime or Aprovia top or Inspire Super) + chlorothalonil/GSB Elumin or Ranman or Previcur flex/DOW Orondis (soil app)/PCAP
5	Orondis (soil app) or Presidio or Revus/PCAP Elumin or Ranman or Previcur Flex Ariston/DOW Chlorothalonil or mancozeb/ ANTH + DOW + GSB	5	Quadris/RHIZ + ANTH Elumin or Ranman or Previcur flex/DOW Presidio or Revus/ PCAP (Miravis Prime or Aprovia top or Inspire Super) + chlorothalonil/GSB
6	Aprovia top or Inspire super or Miravis Prime+ chlorothalonil/GSB Elumin or Ranman or Previcur flex DOW Chlorothalonil + Quadris + (Elumin or Ranman or Ariston)/ANTH + DOW	6	Cabrio or Topsin/ANTH Ariston+Inspire Super/ DOW + GSB Elumin or Ranman or Previcur flex/DOW Orondis (soil app)/PCAP
7	Orondis/Presidio/Ranman/ Previcur flex/Revus/DOW + PCAP Chlorothalonil/ANTH + DOW + GSB	7	Aprovia top + Ariston/ GSB + DOW

Spray Schedule = 7 day

			Elumin or Presidio or Ranman or Previcur flex or Revus/ DOW + PCAP Chlorothalonil+Quadris+(Miravis Prime or Aprovia top or Inspire Super) /ANTH + GSB
8	Cabrio or Topsin/ANTH Presidio/Elumin/Ranman/Previcur Flex/Revus/ DOW + PCAP Chlorothalonil/ANTH + DOW + GSB	8	Ranman or Elumin or Ariston/DOW Orondis (soil app) or Presidio or Revus/PCAP

¹Chlorothalonil (Bravo, Echo, Equus, etc...).

Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook.

Disease Acronyms: GSM = gummy stem blight; RHIZ=Rhizoctonia belly rot; DOW = downy mildew; ANTH = anthracnose; PCAP = Phytophthora crown and fruit rot.

Pepper Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any one practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack peppers in Georgia.

Spray Schedule = 3.5 day		
C. N.	Fall or Winter/Spring	
Spay No.	Fungicide(s)/disease activity.	
Pre-plant	Methyl bromide or Georgia 3-way	
1.	Actigard at 0.75 oz/acre/BS Ridomil at plant drench/PCAP copper fungicide/BS	
2.	copper fungicide/BS	
3.	Quintec and copper fungicide/BS	
4.	Actigard at 0.5 oz/acre/Leap/BS copper fungicide/BS	
5.	Orondis or Presidio through the drip/PCAP Quintec and copper fungicide/BS	
6.	Cabrio or Quadris/ANTH copper fungicide/BS	
7.	Actigard at 0.33 oz.acre/BS Quintec and copper fungicide/BS Revus/PCAP	
8.	Presidio foliar/PCAP; copper fungicide/BS	
9.	Orondis (drip)/PCAP; Quintec and copper fungicide/BS	
10.	Cabrio or Quadris/ANTH copper fungicide/BS	
11.	copper fungicide/BS Revus/PCAP	
12.	copper fungicide/BS	
13	Cabrio or Quadris/ANTH copper fungicide/BS	
14.	copper fungicide/BS	
15.	copper fungicide/BS	
	and so on until harvest or pre-harvest interval	

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack greens during the growing season(s) in Georgia.

Spray Schedule = 7 day

Fall or Winter/Spring		
Spray No.	Fungicide(s)/disease activity	
Pre-plant	Besides deep-turning, use Terraclor/RHIZ + CR or Quadris/RHIZ	
1.	ProPhyt or KPHITE or Forum or Revus ² or Reason ³ /DOW; copper fungicide ¹ /BR; Cabrio/ALT + CERC	
2.	Prophyt or KPHITE or Forum or Revus or Reason/DOW; copper fungicide/BR; Tebuconazole/ALT + CERC	
3.	Zampro or KPHITE or Forum or Revus or Reason/DOW copper fungicide/B <u>R;</u> Fontelis or Endura/ALT + SCR	
4.	Prophyt or KPHITE or Forum or Revus or Reason/DOW; copper fungicide/BR Switch/ALT + CERC	
5.	Prophyt or KPHITE or Forum or Revus or Reason /DOW; copper fungicide/BR; Fontelis or Endura/ALT + SCR	
6.	Prophyt or KPHITE or Forum or Revus or Reason/DOW copper fungicide/BR Switch/ALT + CERC	

¹ Copper is used to suppress spread of black rot caused by the bacterium *Xanthomonas campetris* pv. *campestris*. ² Forum and Revus have the same mode of action, so don't spray them back-to-back. Use one or the other.

³ If Reason is used you don't need to use Quadris or Cabrio as all three control Alternaria and Cercospora. Don't spray Reason, Cabrio or Quadris back-to-back as they have the same mode of action.

Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook.

Disease Acronyms: DOW = downy mildew; ALT = Alternaria leaf spot; CERC = Cercospora leaf spot; BR = black rot; SCR = Sclerotinia (raisin head); CR = club root.

Broccoli/Cabbage Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack these brassicas during the growing season(s) in Georgia.

Fall or Winter/Spring			
Fungicide(s)/disease activity			
Besides deep-turning, use Terraclor/RHIZ + CR or Quadris/RHIZ			
Chlorothalonil ¹ /DOW copper fungicide ² /BR			
Prophyt or Ridomil Gold Bravo ³ or Forum or Revus ⁴ or Reason ⁵ or Presidio + chlorothalonil/DOW; copper fungicide/BR; Cabrio/ALT + CERC			
Prophyt or Ridomil Gold Bravo or Forum or Revus or Reason or Presidio + chlorothalonil/DOW; copper fungicide/BR; Switch/ALT + CERC; Fontelis/SCR			
Ridomil Gold Bravo or Forum or Revus or Reason or Presidio + chlorothalonil/DOW; copper fungicide/BR; Endura/ALT + SCR			
Prophyt or Ridomil Gold Bravo or Forum or Revus or Reason or Presidio + chlorothalonil/DOW; copper fungicide/BR; Switch/ALT + CERC + SCR or			
Ridomil Gold Bravo or Forum or Revus or Reason or Presidio + chlorothalonil/DOW; copper fungicide/BR; Fontelis or Endura/ALT + SCR			

Spray Schedule = 7 day

Chlorothalonil (Bravo, Echo, Equus, etc...).

Don't spray Reason, Cabrio or Quadris back-to-back as they have the same mode of action.

Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook.

Disease Acronyms: DOW = downy mildew; ALT = Alternaria leaf spot; CERC = Cercospora leaf spot; BR = black rot; SCR = Sclerotinia (raisin head); CR = club root.

 $^{^{2}}$ Copper is used to suppress spread of black rot caused by the bacterium *Xanthomonas campetris* pv. *campestris*.

³ Ridomil Gold Bravo and/or Presidio need to be rotated with Forum, Revus, and/or Reason.

⁴ Forum and Revus have the same mode of action, so don't spray them back-to-back. Use one or the other.

⁵ If Reason is used you don't need to use Quadris or Cabrio as all three control Alternaria and Cercospora.

Onion Fungicide Spray Programs 2018-19

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

The effective management of onion diseases begins prior to planting. By using integrated methods such as disease-free seed and transplants, proper crop rotation, disking and deep ploughing of plant debris, and use of resistant varieties, growers can minimize the amount of disease epidemic by either reducing the amount of initial inoculum or the rate of disease development. Integrated use of management practices reduces the weight on individual management option and provides growers disease management options at lower risk. Chemical management using fungicides should be the last resort after using the other management options. Most of the fungicides are effective when used as protectants, only handful of fungicides have curative actions.

<u>Spray Schedule = 7 day</u>

Spray No.	¹ Fungicide(s)/target disease
Two weeks after	Overhead drench application of Fontelis/RHIZ, WM, PR + Copper fungicide
transplanting	(foliar pathogens)
1	² Chlorothalonil/BNR, BLB, PB/ BLB, PB
2	Pristine or Merivon or Fontelis/BLB, BNR, SLB, PB
3	Chlorothalonil/BNR, BLB, PB/ BLB, PB
4	Pristine or Merivon or Fontelis or Scala/BLB, BNR, SLB, PB; (Scala do not
	have activity against SLB)
5	Chlorothalonil/BNR, BLB, PB/ BLB, PB
6	Pristine or Merivon or Fontelis/BLB, BNR, SLB, PB
7	Chlorothalonil/BNR, BLB, PB/ BLB, PB
8	Scala or Luna tranquility or Inspire super or Omega 500 or Quadris top or
	Switch or Zing!/BLB, BNR, SLB, PB (Omega 500 and Scala do not have SLB
	activity)
9	Chlorothalonil/BNR, BLB, PB + ManKocide (bacterial blight)
10	Scala or Luna tranquility or Inspire super or Omega 500 or Quadris top or
	Switch/BLB, BNR, SLB, PB (Omega 500 and Scala do not have SLB activity)
11	Chlorothalonil/BNR, BLB, PB + ManKocide (bacterial blight)
12	Scala or Luna tranquility or Inspire super or Omega 500 or Quadris top or
	Switch/BLB, BNR, SLB, PB (Omega 500 and Scala do not have SLB
	activity)+ Pristine or Merivon or Fontelis or Scala/BLB, BNR, SLB, PB;
	(Scala do not have activity against SLB)
13	Chlorothalonil/BNR, BLB, PB + ManKocide (bacterial blight)
14	Scala or Luna tranquility or Inspire super or Omega 500 or Quadris top or
	Switch or Zing!/BLB, BNR, SLB, PB (Omega 500 and Scala do not have SLB
	activity)
15	Chlorothalonil/BNR, BLB, PB + ManKocide (bacterial blight)

16	Scala or Luna tranquility or Inspire super or Omega 500 or Quadris top or		
	Switch/BLB, BNR, SLB, PB (Omega 500 and Scala do not have SLB activity)		

The fungicide spray for **downy mildew** (**DM**) will be based on a forecasting model. Alerts for the DM spray will be communicated by the Vidalia Onion and Vegetable Research Center and the UGA, Tifton. Fungicides with some degree of efficacy on DM are: Reason, Zampro, Orondis Opti and Omega 500.

¹Please use the labeled rate of recommended fungicide. Rotate fungicides for good disease control.

²Chlorothalonil (Bravo, Echo, Equus etc)

Disease acronyms: BNR=Botrytis neck rot; BLB=Botrytis leaf blight; PB=Purple blotch; RHIZ=Rhizoctonia root rot; WM=White mold; PR=Pink root; SLB=Stemphylium leaf blight;

Watermelon Fungicide Spray Programs 2019

Bhabesh Dutta Extension Vegetable Pathologist – University of Georgia

As with most crops, disease management begins prior to planting the crop to be protected. By using such methods as disease-free seed and transplants, proper rotation, discing and plowing, and use of resistant varieties, growers can minimize the amount of disease that is available to attack their crop. Using many practices takes all the weight off of any on practice and gives growers more disease management options at lower risk. Once plants are in the field, however, fungicide sprays are relied on heavily for effective and economical management of plant diseases. This spray guide is designed to encompass many diseases that attack watermelon during the growing season(s) in Georgia.

Spray Schedule = Start	1 week after transplanting.	, then use 7 day schedule if raining onc	e a week.

	Spring		Fall		
Spray		Spray			
No.	Fungicide(s)/disease activity	No.	Fungicide(s)/disease activity		
0.	Proline at-plant drench/FW	1.	Chlorothalonil ¹ /GSB Actigard and/or copper fungicide ² /BFB		
1.	Chlorothalonil ¹ /GSB		Actigard and/or copper fungicide /BFB		
	Actigard and/or copper fungicide ² /BFB	2.	Chlorothalonil/GSB copper fungicide/BFB		
2.	Chlorothalonil/GSB		Chlorothalonil + (Miravis Prime or Aprovia top or		
	copper fungicide/BFB Proline/FW	3.	Inspire Super)/GSB Actigard and/or copper fungicide/BFB		
3.	Chlorothalonil/GSB Actigard and/or copper fungicide/BFB	4.	Chlorothalonil/GSB copper fungicide/BFB		
4.	Luna Experience/GSB copper fungicide/BFB	5.	Chlorothalonil + (Miravis Prime or Aprovia top or Inspire Super)/GSB copper fungicide/BFB		
5.	Inspire Super or Aprovia top or Miravis Prime/GSB Copper fungicide/BFB	6.	Luna Experience/POW + GSB Orondis Ultra or Presidio or Revus/DOW or PCAP Copper fungicide/BFB		
6.	Luna Experience/POW + GSB Orondis Ultra (foliar) or Presidio or Revus/DOW or PCAP Copper fungicide/BFB	7.	Miravis Prime or Aprovia top or Inspire Super /GSB Quintec or Torino + Quadris or Cabrio/POW+ANTH Presidio, Revus or Zampro/DOW or PCAP copper fungicide/BFB		
7.	Miravis Prime or Proline or Inspire Super or Aprovia top /GSB Quintec or Torino or Procure + Quadris or Cabrio/POW+ANTH				
	Orondis Ultra (foliar)/PCAP Elumin or Ranman or Previcur flex/DOW Copper fungicide/BFB	8 ³ .	Proline/POW + GSB Orondis Ultra or Presidio, Revus or Elumin/DOW or PCAP		
8 ³ .	Orondis (foliar) or Presidio or Revus/PCAP Ranman or Elumin or Previcur flex/DOW	9 ³	Proline OR Aprovia Top OR Inspire Super/GSB Quintec or Torino + Quadris or Cabrio/POW+ANTH Presidio or Revus/DOW or PCAP		
9.	Proline OR Aprovia Top OR Inspire Super/GSB Quintec or Torino + Quadris or Cabrio/POW+ANTH				

¹Chlorothalonil (Bravo, Echo, Equus, etc...) may cause rind burn if sprayed within 21 day of harvest.

² Actigard and/or Copper is used prior to fruit set if bacterial fruit blotch is an issue.

³Be mindful of preharvest intervals (PHIs) for later sprays as many may have a 7-14 day PHI.

Always read the label for detailed application instructions or consult the Georgia Pest Control Handbook. Disease Acronyms: BFB = bacterial fruit blotch; GSB = gummy stem blight; POW = powdery mildew; DOW = downy mildew; ANTH = anthracnose; PCAP = Phytophthora crown and fruit rot. FW=Fusarium wilt.