

Muskmelon and Watermelon Fungicide Guide for Indiana 2009

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Fungicide Information			Foliar Diseases ¹								Comments	
Trade Name(s)	MOA Code	Common Name(s)	REI (hours) ²	PHI (days) ³	Alternaria leaf blight	angular leaf spot	anthracnose	bacterial fruit blotch	downy mildew	gummy stem blight	powdery mildew	
Fungicides with a number in the MOA column should be tank mixed or alternated with a product with a different MOA code according to the label.												The comments listed below are intended to facilitate product selection. Always read the fungicide label first for additional information on rates, fungicide resistance, safety, etc.
												REMEMBER: the label is the law.
Agri-Fos [®] , Phostrol [®] , Prophyte [®]	33	phosphorous acid/ phosphite	4	0					X			Tank mix with a contact fungicide labeled for downy mildew.
Amistar [®] , Quadris [®]	11	azoxystrobin	4	1	X		X		L	X	L	Compare with Quadris Opti [®] . Alternate all group 11 fungicides.
Bravo [®] , Echo [®] , Equus [®]	M	chlorothalonil	12	0	X		X		X	X	L	Contact fungicide effective against a wide range of fungal diseases.
Cabrio [®]	11	pyraclostrobin	12	0	X		X		L	X	L	Shares one active ingredient with Pristine [®] .
copper (many trade names)	M	copper	24	0	L	X	L	S	L	L	L	Primarily effective against bacterial diseases.
Curzate [®]	27	cymoxanil	12	3					X			Tank mix and alternate according to label.
Dithane [®] , Manzate [®] , Penncozeb [®] , Maneb [®] , Manex [®]	M	mancozeb maneb	24	5	X		X		X	X		Some labels include greenhouse uses.
Flint [®]	11	trifloxystrobin	12	0					L		L	Alternate all group 11 fungicides.
Folicur 3.6F [®]	3	tebuconazole	12	7						S	X	For optimum disease control, use surfactant.
Gavel [®]	M 22	mancozeb zoxamide	48	5	X				X			Some muskmelon varieties are sensitive to this product.
Presidio 4SC [®]	43	fluopicolide	12	2					X			Must be used in tank mix.
Previcur Flex [®]	28	propamocarb	12	2					X			See label for additional greenhouse uses.
Pristine [®]	7 11	boscalid pyraclostrobin	12	0	X		X		L	L	X	Gummy stem blight resistance to boscalid has been observed.
Procure [®]	3	triflumizole	12	0							X	Tank mix with other fungicides for additional diseases.
Quadris Opti [®]	11 M	azoxystrobin chlorothalonil	12	1	X		X		X	X	L	Premix. Compare with Quadris [®] . Alternate all group 11 fungicides.
Quintec [®]	13	quinoxifen	12	3							X	Minimum spray volume is 30 gallons per acre. See label for tank mix instructions.
Rally [®]	3	myclobutanil	24	0							X	Tank mix with other fungicides for additional diseases.
Ranman [®]	21	cyazofamid	12	0					X			Alternate with a fungicide with a different MOA.
Sovran [®]	11	kresoxim-methyl	12	0						L	L	Alternate all group 11 fungicides.
Tanos [®]	27 11	cymoxanil famoxadone	12	3	X		X	S	X			Must be tank mixed with a contact fungicide and alternated with a fungicide with a different MOA code.
Topsin M [®]	1	thiophanate-methyl	12	0			L			L	L	Alternate or tank mix with fungicides of a different MOA.

¹Symbol key: X=product labeled and effective based on research and experience. L=product labeled but may not be the most effective product available. S=disease suppression only.

²REI (re-entry interval) in hours: do not enter or allow workers to enter treated areas during the REI period.

³PHI (pre-harvest interval) in days: the minimum time that must pass between the last application and crop harvest.

Muskmelon and Watermelon Management Time Line

Disease	Winter/Fall Off-season	Greenhouse	Planting	Vine Touch	Fruit Maturity	Harvest
Alternaria leaf blight	Rotate crops at least 2 years and practice fall tillage.			Apply contact or systemic fungicides at 7-14 day intervals or according to MELCAST (see Purdue Extension publication BP-67, <i>Foliar Disease Control Using MELCAST</i> , www.extension.purdue.edu/extmedia/BP/BP-67.pdf).		Fungicide applications are unnecessary within 2-3 weeks of final harvest.
anthracnose	Rotate crops at least 3 years and practice fall tillage. May be seedborne.	Scout for disease. Apply contact fungicide labeled for greenhouse if disease threatens.	Inspect seedlings. Avoid planting diseased seedlings.	Apply contact or systemic fungicides at 7-14 day intervals or according to MELCAST (see Purdue Extension publication BP-67, <i>Foliar Disease Control Using MELCAST</i> , www.extension.purdue.edu/extmedia/BP/BP-67.pdf).		Inspect fruit. Avoid saving seed.
bacterial fruit blotch	Rotate crops at least 2 years to eliminate volunteers. May be seedborne.	Scout, and apply fixed copper if disease threatens.	Inspect seedlings. Avoid planting diseased seedlings.	Fixed copper may lessen impact of disease.		Inspect fruit. Avoid saving seed.
bacterial wilt of muskmelon	Cucumber beetles spread bacterial wilt, so the disease is unaffected by rotation and tillage.		Apply systemic insecticides such as Admire®, Furadan®, or Platinum®. Apply contact insecticides before transplanting and after systemic insecticide loses effectiveness. Scout fields regularly for cucumber beetle.		Vines are much less susceptible to bacterial wilt as the plants reach lay-by.	
downy mildew	Crop rotation and fall tillage have no effect on downy mildew.			Begin scouting fields for downy mildew in July. If disease threatens, apply contact fungicides weekly or mix systemic fungicides with contact fungicides and apply at 7-10 day intervals. Apply specialized systemic fungicides only if downy mildew is observed in area.		
Fusarium wilt of watermelon	Long rotations are necessary to keep inoculum from building up. Some cultivars offer partial resistance (see Purdue extension publication ID-56, <i>Midwest Vegetable Production Guide for Commercial Growers 2009</i> . May be seedborne.	Scout for disease. Use new transplant trays.	Inspect seedlings.	Watch for symptoms of Fusarium wilt at this stage.		Do not save seed from fields with Fusarium wilt.
gummy stem blight	Rotate crops at least 3 years and practice fall tillage. May be seedborne.	Scout for disease. Apply contact fungicide labeled for greenhouse if disease threatens.	Inspect seedlings. Apply fungicide if disease threatens.	Apply contact or systemic fungicides at 7-14 day intervals or according to MELCAST (see Purdue Extension publication BP-67, <i>Foliar Disease Control Using MELCAST</i> , www.extension.purdue.edu/extmedia/BP/BP-67.pdf).		Fungicide applications are unnecessary within 2-3 weeks of final harvest.
powdery mildew	Crop rotation and fall tillage are moderately important. Several muskmelon cultivars have powdery mildew resistance. Watermelon is usually unaffected.				If growing muskmelon, begin systemic fungicide applications 7-14 days before first harvest.	

Post-Harvest Care

Store muskmelon at 36-41°F at 95 percent humidity. Inspect fruit for signs of developing lesions. Remove field debris from fruit surface with soft brush or rag. If fruit is washed, use 150 ppm solution of sodium hypochlorite (approximately 1/3 oz. household bleach per gallon of water), and dry fruit well.

Reference to products in this publication is not intended to be an endorsement to the exclusion of others that may be similar. Persons using such products assume responsibility for their use in accordance with current directions of the manufacturer. Insect, disease, and weed control recommendations in this publication are valid only for 2009. If the registration for any of these suggested chemicals changes during the 2009 growing year, we will inform all area and county Purdue Extension workers. When in doubt about the use of any chemical, check with your Purdue Extension educator or chemical company representative.

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