



**GREENHOUSE DISORDERS SERIES**

Cooperative Extension Service  
Michigan State University  
Extension Bulletin E-2014S (New). Dec. 1986

**Supplement to**  
Insect and Mite  
Management  
in  
Commercial  
Greenhouses

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
Ficus Continued	Scale Insects	bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water
		resmethrin (Resmethrin)	26% EC	Use as directed.		Caution	
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
		oxaryl (*Vydate)	24 SL	2 to 4 pt		Danger	Apply foliar insecticide when scale crawlers are active.
		Di-Syston		1% active ingredient in fertilizer spikes.		Caution	
		methomyl (*Lannate) (Lannate)	1.8 EC 90 WP	1 to 2 pt 1/4 to 1/2 lb	1 tsp Danger	Danger	
		insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution	Repeat weekly. May injure some plants.
<b>Fuschia</b> <b>PESTICIDES Reported to Cause Plant Injury:</b> dimethoate, lindane, malathion (EC) <b>Causes Injury to Floral Parts:</b> demeton kinoprene.							
	Aphids	acephate (Orthene)	75 SP	1/3 to 2/3 lb 1 to 2 tsp		Caution	Use as directed.
		malathion	50% EC 25 WP 19% aerosol	1 1/2 pt 2 lb	1 1/2 tsp 2 Tbsp	Caution	Treat when aphids first appear and repeat as needed.
		oxaryl (*Vydate)	24 SL	2 to 4 pt 2 to 4 tsp		Danger	
		aldicarb <sup>1</sup> (*Temik)	10 G	20 to 30 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.
		resmethrin (Resmethrin)	26% EC	Use as directed.		Caution	
		pyrethrins (X-clude)	0.3% aerosol	5 to 10 sec/100 sq ft		Caution	
		bifenthrin (Talstar)	10 WP	1 lb	1/2 tsp	Warning	
		Mealybugs	acephate (Orthene)	75 SP	1/3 to 2/3 lb 1 to 2 tsp		Caution

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
Fuschia Continued	Mealybugs	malathion	50% EC 25 WP 1% aerosol	1 1/2 pt 2 lb 1 lb/50,000 cu ft	1 1/2 tsp 2 Tbsp	Caution	
		oxamyl (*Vydate)	24 SL	2 to 4 pt	2 to 4 tsp	Danger	
		resmethrin (Resmethrin)	26% EC	Use as directed.		Caution	
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.
		bifenthrin (Talstar)	10 WP	1 lb	1/2 tsp	Warning	
	Spider Mites	dicofol (Kelthane)	18.5% 35 WP	1 pt 1 to 1 1/3 lb	1 tsp 3 to 4 tsp	Caution	Repeat foliar applications in 1-2 weeks if mites are still active. Avoid alkaline water.
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
		oxamyl (*Vydate)	24 SL	2 to 4 pt		Danger	
		abamectin (Avid)	0.15 EC	4 oz	1/4 tsp	Caution	
		oxythioquinox (virostan)	25 WP	1/2 - 1 lb	2 tsp	Caution	
	Whiteflies	acephate (Orthene)	75 SP	1/3 to 2/3 lb	1 to 2 tsp	Caution	Use as directed.
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.
		resmethrin (Resmethrin)	26% EC	Use as directed.		Caution	Heavy infestations may require 4 foliar applications applied 1 week apart.
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
		oxamyl (*Vydate)	24 SL	2 to 4 pt		Danger	
		resmethrin (PT 1200)	1% aerosol	1 lb/3,000 sq ft		Warning	
bifenthrin (Talstar)		10 WP	1 lb	1/2 tsp	Warning		

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
------	------	------------------------	-------------	--------------------	----------------	-------------	--------------------------

**Geranium**

**PESTICIDES Reported to Cause Plant Injury:** acephate (EC), demeton, dimethoate, nicotine sulfate EC, Morestan, oxydemeton-methyl, endosulfan, parathion, dichlorvos, sulfotepp. **Causes Injury to Floral Parts:** kinoprene, lindane.

Aphids	resmethrin (Resmethrin)	26% EC		Use as directed.		Caution	Treat when aphids first appear and repeat as needed.
	malathion	50% EC 25 WP		1 1/2 pt 1 lb	1 1/2 tsp 1 Tbsp	Caution	
	endosulfan (Thiodan)	50 WP 33.7% EC		1 lb 2/3 qt	1 Tbsp 1 1/3 tsp	Warning	
	sulfotepp (*Dithio)	5% aerosol smoke		1 lb bomb/50,000 cu ft		Danger	Use labeled rates.
	acephate (PT 1300)	3% aerosol		5 to 10 sec/100 sq ft		Danger	
	dichlorvos (*Vapona, *DDVP)			Use as directed.		Warning	
	diazinon (PT 265, Knox out)	23% F		3 to 6 pt	1/2 to 1 oz	Caution	
	sumithrin (PT 1400)	5.5% aerosol		5 to 10 sec/100 sq ft		Danger	
	bifenthrin (Talstar)	10 WP		1 lb	1/2 tsp	Warning	
	aldicarb <sup>1</sup> (*Tenik)	10 G		20 to 30 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
	chlorpyrifos (Dursban)	50 WP		1/2 lb	1/2 Tbsp	Warning	
	oxamyl (*Vydate)	24 SL		2 to 4 pt		Danger/Poison	
	fenthion (*Baytex)	4 EC		2 pts.	2 tsp	Warning	
	methoxychlor + diazinon (Dymet)	20 + 10% EC		2 to 3 qts	2 Tbsp	Caution	
	bendiocarb (Dycarb)	76 WP		12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.
	insecticidal soap (Safer)	51%		1 1/2 pts	2 1/2 oz	Caution	Repeat weekly. May injure some plants.
	pyrethrins (X-clude)	0.3% aerosol		5 to 10 sec/100 sq ft		Caution	

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
Geranium Continued	Caterpillars including plume moths and beet armyworms	Bacillus thuringiensis (Dipel)	4 L	1 to 2 pts	1 to 2 Tbsp	Caution	Some plants may be sensitive to B.t.
		(Sok-Bt)	3.2 WP	1/2 lb	1 tsp	Caution	
		(Thuricide)	32 B	1/4 to 1/2 qt	1 tsp	Caution	
		(Thuricide-HP)	3.2 WP	1/4 to 1/2 lb	1 tsp	Caution	
		carbaryl (Sevin)	30 WP	1 lb	1 Tbsp	Caution	
		trichlorfon (Dylox)	80 SP	20 to 30 oz	1 1/4 to 1 7/8 tsp	Warning	
		sumithrin (PT 1400)	5.5% aerosol	5 to 10 sec/100 sq ft		Danger	
	chlorpyrifos (Dursban)	50 WP	1/2 lb	1/2 Tbsp	Warning		
	methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qts	2 Tbsp	Caution		
	mealybugs	oxaryl (*Vydate)	24 SL	2 to 4 pt	2 to 4 tsp	Danger	
		chlorpyrifos (Dursban)	50 WP	1/2 lb	1/2 Tbsp	Warning	
		malathion	50% EC 25 WP	1 1/2 pt 1 lb	1 1/2 tsp 1 Tbsp	Caution	
		sulfotepp (*Dithio)	5% smoke	1 lb bomb/50,000 cu ft		Danger	
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/poison	
acephate (PT 1300)		3% aerosol	5 to 10 sec/100 sq ft		Danger		
bifenthrin (Talstar)		10 WP	1 lb	1/2 tsp	Warning		
diazinon (PT 265, Knox out)		23% F	3 to 6 pt	1/2 to 1 oz	Caution		
methoxychlor + diazinon (Dymet)		20% EC	2 to 3 qt	2 Tbsp	Caution		
bendiocarb (Dycarb)		76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.	
insecticidal soap (Safer)	51%	1 1/2 pt	2 1/2 oz	Caution	Repeat weekly. May injure some plants.		

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments	
Geranium Continued	Spider mites (red mites)	hexakis (Vendex)	50 WP	1/2 to 1 lb	1/2 to 1Tbsp	Danger	Repeat foliar applications in 1 - 2 weeks if mites are still active.	
		naled (Dibrom)	58% EC	Vaporize 1 fl oz/10,000 cu ft		Danger		
		dicofol (Kelthane)	18.5% 35 WP	1 pt 1 to 1 1/2 lb	1 tsp 3 to 4 tsp	Caution Caution		
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison		
		oxamyl (*Vydate)	24 SL	2 to 4 pt		Danger/Poison		
		bifenthrin (Talstar)	10 WP	1 lb	1/2 tsp	Warning		
		fenthion (*Baytex)	4 EC	2 pt	2 tsp	Warning		
		methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qt	2 Tbsp	Caution		
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning		Avoid alkaline water.
		abamectin (Avid)	0.15 EC	4 oz	1/4 tsp	Caution		
		insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution		Repeat weekly. May injure some plants.
		oxythioquinox (Morestan)	25 WP	1/2 to 1 lb	2 tsp	Caution		
			Thrips	resmethrin (PT 1200)	1% aerosol	1 lb/3,000 sq ft		Warning
malathion	25 WP 50% EC			1 lb 1 1/2 pt	1 Tbsp 1 1/2 tsp	Caution		
resmethrin (Resmethrin)	26% EC			Use as directed.		Caution		
sulfotepp (*Dithio)	5% aerosol smoke			1 lb bomb/50,000 cu ft		Danger/ Poison		
acephate (PT 1300)	3% aerosol			5 to 10 sec/100 sq ft		Danger		
dichlorvos (*Vapona, *DDVP)				Use as directed.		Warning		
chlorpyrifos (Dursban) aldicarb <sup>1</sup> (*Temik)	50 WP 10 G			1/2 lb	1/2 Tbsp	Warning Danger/ Poison		
				30 to 40 oz/1,000 sq ft of bed or closely packed pots.				

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments		
Geranium Continued	Thrips	diazinon (PT 265, Knox out)	23% F	3 to 6 pt	1/2 to 1 oz	Caution			
		oxaryl (*Vydate)	24 SL	2 to 4 pt		Danger/Poison			
		methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qt	2 Tbsp	Caution			
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.		
	Whiteflies	sumithrin (PT 1400)	5.5% aerosol	5 to 10 sec/100 sq ft			Danger	Heavy infestations may require 4 foliar applications applied 1 week apart.	
		resmethrin (Resmethrin)	26% EC	Use as directed.			Caution		
		acephate (PT 1300)	3% aerosol	5 to 10 sec/100 sq ft			Danger		
		dichlorvos, (*Vapona, *DDVP)		Use as directed.			Warning		
		sulfotepp (*Dithio)	5% aerosol smoke	1 lb bomb/50,000 cu ft			Danger/ Poison		
		aldicarb <sup>1</sup> (*Tenik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.			Danger/ Poison		
		oxaryl (*Vydate)	24 SL	2 to 4 pt			Danger/Poison		
		chlorpyrifos (Dursban)	50 WP	1/2 lb	1/2 Tbsp		Warning		
		aldicarb <sup>1</sup> (*Tenik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.			Danger/ Poison		
		oxaryl (*Vydate)	24 SL	2 to 4 pt			Danger/Poison		
		bifenthrin (Talstar)	10 WP	1 lb	1/2 tsp		Warning		
		methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qt	2 Tbsp		Caution		
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp		Warning		Avoid alkaline water.
		resmethrin (PT 1200)	1% aerosol	1 lb/3,000 sq ft			Warning		
		insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz		Caution		Repeat weekly. May injure some plants.
		pyrethrins (X-clude)	0.3% aerosol	5 to 10 sec/100 sq ft			Caution		

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
------	------	------------------------	-------------	--------------------	----------------	-------------	--------------------------

**Gerbera**      **PESTICIDES Reported to Cause Plant Injury:** demeton, lindane, malathion (EC), mesural. **Causes Injury to Floral Parts:** kinoprene.

Aphids	oxanyl (*Vydate)	24 SL	2 to 4 pt	2 to 4 tsp	Danger	Treat when aphids first appear and repeat as needed.
	pyrethrin I (Pyrenone Crop Spray)	6% EC	2 to 6 fl oz		Caution	
	aldicarb <sup>1</sup> (*Temik)	10 G	20 to 30 oz/1,000 sq ft of bed or closely packed pots.		Danger/Poison	
	Di-Syston		1% active ingredient in fertilizer spikes.		Caution	
	fluvalinate (Mavrik)	2 F	2 to 5 oz	1/8 to 1/3 tsp	Caution	
	insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution	
	pyrethrins (X-clude)	0.3% aerosol	5 to 10 sec/100 sq ft		Caution	
Leafminer	aldicarb (Temik)	10 G				
	abamectin (Avid)	0.15 EC	8 oz			
Broad mite & other mites	abamectin (Avid)	0.15 EC	4 oz	1/4 tsp	Caution	Repeat foliar applications in 1 - 2 weeks if mites are still active.
	aldicarb <sup>1</sup> (*Temik)	10 G	20 to 30 oz/1,000 sq ft of bed or closely packed pots.		Danger/Poison	
	oxanyl (*Vydate)	24 SL	2 to 4 pt		Danger/Poison	
	fluvalinate (Mavrik)	2 F	2 to 5 z	1/8 to 1/3 tsp	Caution	
	oxythioquinox (Morestan)	25 WP	1/2 to 1 lb	2 tsp	Caution	

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.



Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments		
Gladiolus	Aphids	malathion	25 WP 50% EC	1 lb 1 1/2 pt	1 Tbsp 1 1/2 tsp	Caution	Treat when aphids first appear and repeat as needed.  Use labeled rates.		
		endosulfan (Thiodan)	50 WP 33.7% EC	1 lb 2/3 qt	1 Tbsp 1 1/3 tsp	Warning Warning			
		dichlorvos (*Vapona, *LDVP)		Use as directed.		Warning			
		sulfotepp (*Dithio)	5% aerosol smoke	1 lb bomb/50,000 cu ft		Danger/ Poison			
		acephate (Orthene) aldicarb <sup>1</sup> (*Temik)	75 SP 10 G	2/3 lb 20 to 30 oz/1,000 sq ft	2 tsp of bed or closely packed pots.	Caution Danger/ Poison			
		oxaryl (*Vydate)	24 SL	2 to 4 pt		Danger/Poison			
		oxaryl <sup>2</sup> (Oxaryl)	10 G	1.4 to 1.9 lb/1,000 sq ft or 1/4 tsp/6 in. pot		Warning			
		methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qt	2 Tbsp	Caution			
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning		Avoid alkaline water.	
		metharyl (*Lannate) (Lannate)	1.8 EC 90 WP	1 to 2 pt	1 tsp 1/4 to 1/2 lb	Danger		Danger	
		insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution		Repeat weekly. May injure some plants.	
		pyrethrins (X-clude)	0.3% aerosol	5 to 10 sec/100 sq ft		Caution			
		Spider mites (red spiders)	hexakis (Vendex)	50 WP	1/2 to 1 lb	1/2 to 1 Tbsp			Repeat foliar applications in 1 - 2 weeks if mites are still active.
			naled (Dibrom)	58% EC	Vaporize 1 fl oz/10,000 cu ft			Danger	
dicofol (Kelthane)	18.5% 35 WP		1 pt 1 to 1 1/3 lb	1 tsp 3 to 4 tsp	Caution				
aldicarb <sup>1</sup> (*Temik)	10 G		18 to 28 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison				

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes between applications and sale of plants.  
**READ LABEL!!!!**

<sup>2</sup>Apply to soil surface and water in, or incorporate into soil mix.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
Gladiolus Continued	Spider mites	oxaryl (*Vydate)	24 SL	2 to 4 pt		Danger/Poison	
		oxaryl <sup>2</sup> (Oxaryl)	10 G	1.4 to 1.9 lb/1,000 sq ft or 1/4 tsp/6 in. pot		Warning	
		methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qt	2 Tbsp	Caution	
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.
		abamectin (Avid)	0.15 EC	4 oz	1/4 tsp	Caution	
		methomyl (*Lannate) (Lannate)	1.8 EC 90 WP	1 to 2 pt 1/4 to 1/2 lb	1 tsp	Danger Danger	
		insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution	Repeat weekly. May injure some plants.
		oxythioquinox (Morestan)	25 WP	1/2 to 1 lb	2 tsp	Caution	
Gladiolus	Thrips	malathion	50% EC 25 WP	1 1/2 pt 1 lb	1 1/2 tsp 1 Tbsp	Caution	
		acephate (Orthene)	75 SP	2/3 lb	2 tsp	Caution	
		dichlorvos (*Vapona, *DDVP)		Use as directed.		Warning	
		sulfotepp (*Dithio)	5% aerosol smoke	1 lb bomb/50,000 cu ft		Danger/Poison	Use labeled rates.
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/poison	
		oxaryl (*Vydate)	24 SL	2 to 4 pt		Danger/Poison	
		methoxychlor + diazinon (Dymet)	20 + 10% EC	2 to 3 qts	2 Tbsp	Caution	
		bendiocarb (Dycarb)	76 WP	12 to 20 oz	1 Tbsp	Warning	Avoid alkaline water.
		methomyl (*Lannate) (Lannate)	1.8 EC 90 WP	1 to 2 pt 1/4 to 1/2 lb	1 tsp	Danger	Danger

<sup>1</sup>Restricted use pesticide.

<sup>2</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
------	------	------------------------	-------------	--------------------	----------------	-------------	--------------------------

**Gloxinia**      **PESTICIDES Reported to Cause Plant Injury:** bendiocarb, chlorobenzilate, diazinon (EC), dicofol (EC), dichlorvos, dimethoate, endosulfan (EC), malathion (EC), nicotine sulfate, parathion (WP), lindane, sulfotepp.

Aphids	malathion	50% EC 25 WP	1 1/2 pt 1 lb	1 1/2 tsp 1 Tbsp	Caution	Treat when aphids first appear and repeat as needed.	
	acephate (Orthene)	75 SP	2/3 lb	2 tsp	Caution		
	endosulfan (Thiodan)	50 WP 33.7% EC	1 lb 2/3 qt	1 Tbsp 1 1/3 tsp	Warning		
	sulfotepp (*Dithio)	5% aerosol smoke	1 lb bomb/50,000 cu ft		Danger/ Poison		Use labeled rates
	dichlorvos (*Vapona, *DDVP) aldicarb <sup>1</sup> (*Temik)	10 G	Use as directed. 20 to 30 oz/1,000 sq ft of bed or closely packed pots.		Warning Danger/ Poison		
	insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution		Repeat weekly. May injure some plants.
	pyrethrins (X-clude)	0.3% aerosol	5 to 10 sec/100 sq ft		Caution		
Spider mites	hexakis (Vendex)	50 WP	1/2 to 1 lb	1/2 to 1 Tbsp		Repeat foliar applications in 1 - 2 weeks if mites are still active.	
	naled (Dibrom)	58% EC	Vaporize 1 fl oz/10,000 cu ft		Danger		
	dicofol (Kelthane)	18.5% 35 WP	1 pt 1 to 1 1/3 lb	1 tsp 3 to 4 tsp	Caution		
	aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison		
	abamectin (Avid)	0.15 EC	4 oz	1/4 tsp	Caution		
	insecticidal soap (Safer)	51%	1 1/2 pts	2 1/2 oz	Caution		Repeat weekly. May injure some plants.
	oxythioquinox (Morestan)	25 WP	1/2 to 1 lb	2 tsp	Caution		

\*Restricted use pesticide.

<sup>1</sup>Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.

Crop	Pest	Recommended Pesticides	Formulation	Amount Per 100 Gal	Amount Per Gal	Signal Word	Precautions and Comments
------	------	------------------------	-------------	--------------------	----------------	-------------	--------------------------

Gloxinia Continued	Thrips	malathion	25 WP 50% EC	1 lb 1 1/2 pt	1 Tbsp 1 1/2 tsp	Caution	
		sulfotepp (*Dithio)	5% aerosol smoke	1 lb bomb/50,000 cu ft		Danger/ Poison	Use labeled rates.
		dichlorvos (*Vapona, *DDVP)			Use as directed.	Warning	
		aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	

#### Hedera

**PESTICIDES Reported to Cause Plant Injury:** dichlorvos, demeton, diazinon, dicofol, lindane, malathion (EC), nicotine, oxydemeton-methyl, parathion, sulfotepp.

Caterpillars	acephate (Orthene)	75 SP	1/3 to	1 to 2 tsp	Caution	Use as directed.
	carbaryl (Sevin)	50 WP 80 WP	2 lb 1 1/4 lb	2 Tbsp 1 1/4 tsp	Caution	
	oxamyl (*Vydate)	24 SL	2 to 4 pt	2 to 4 tsp	Danger	
	fluvalinate (Mavrik)	2 F	2 to 5 oz	1/8 to 1/3 tsp	Mavrik	Avoid breathing spray mist.
	methomyl (*Lannate) (Lannate)	1.8 EC 90 WP	1 to 2 pt 1/4 to 1/2 lb	1 tsp	Danger Danger	
	bifenthrin (Talstar)	10 WP	1 lb	1/2 tsp	Warning	
Mealybugs	acephate (Orthene)	75 SP	1/3 to	1 to 2 tsp	Caution	Use as directed.
	malathion	50% EC 25 WP	1 1/2 pt 2 lb	1 1/2 tsp 2 Tbsp	Caution	
	malathion	15% aerosol	1 lb/50,000 cu ft			
	oxamyl (*Vydate)	24 SL	2 to 4 pt	2 to 4 tsp	Danger	
	aldicarb <sup>1</sup> (*Temik)	10 G	30 to 40 oz/1,000 sq ft of bed or closely packed pots.		Danger/ Poison	
	fluvalinate (Mavrik)	2 F	2 to 5 oz	1/8 to 1/3 tsp	Caution	Avoid breathing spray mist.

\* Restricted use pesticide.

<sup>1</sup> Use full safety precautions and read product label. Supplemental label for state of Michigan includes 200 plant genera. For legal use outside of Michigan consult the federal label.





MSU is an Affirmative Action/Equal Opportunity Institution. Cooperative Extension Service programs are open to all without regard to race, color, national origin, sex, or handicap.

Issued in furtherance of Cooperative Extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. W. J. Moline, Director, Cooperative Extension Service, Michigan State University, E. Lansing, MI 48824.

This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by the Cooperative Extension Service or bias against those not mentioned. This bulletin becomes public property upon publication and may be reprinted verbatim as a separate or within another publication with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company.