

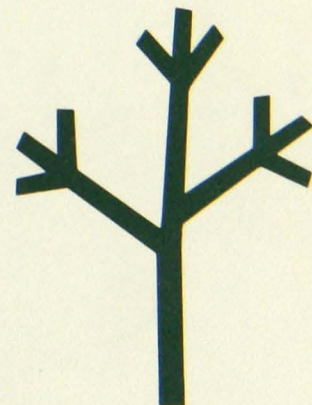
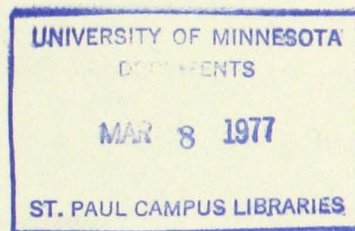
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# Insecticide Suggestions To Control Tree, Shrub, Lawn, And Turf Insects In 1977



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# Insecticide Suggestions To Control Tree, Shrub, Lawn, And Turf Insects In 1977

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/remarks	
			Amount of Water 1 gal.	100 gals.		
Ants	Lawn, turf	Diazinon 48% E.C.*	4 fl. oz. per 3 gals.		Spot treat nests.	
		25% E.C.	1 fl. oz. per 3 gals. to cover 125 sq. ft.			
		Chlorpyrifos 41.2% E.C. (Dursban)	¾ fl. oz. per 30 gals. to cover 1,000 sq. ft. (commercial applicators)			
		5.3% E.C.	4 fl. oz. per 15 gals. to cover 500 sq. ft.			
Aphids	Apple, basswood, birch, boxelder, elm, flowering shrubs, maple, oak, pine, viburnum, willow, etc.	Malathion 50-57% E.C.	2 tsp.	1½-2 pints	Foliage spray.	
		Malathion 25% W.P.*	2½ tbsp.	2½ lbs.	Foliage spray.	
		Dimethoate 23-30% E.C. (Cygon, Defend, Rebelate)	Use as directed on label.			
		Oxydemetonmethyl 25% E.C. (Meta-Systox R)	1½ tsp.	1½ pints		
		Diazinon 25% E.C.	2 tsp.	2 pints		
Acephate 15.6% E.C. (Orthene)	1 tbsp.	1¼ qts.		Check label for host restrictions.		
Billbugs	Lawn, turf	Diazinon 48% E.C. (AG 500)	4 fl. oz. in 3 gals. to cover 1,000 sq. ft.		Irrigate lawn after treatment. Apply mid-May—mid-June.	
		(or Spectracide E.C. or G)	As labeled			
Boxelder bug	Ash, boxelder, maple	Carbaryl 80% W.P. (Sevin) 50% W.P.	4 tsp.	1¼ lbs.	Apply during late summer.	
		Carbaryl (Sevimol)	2 tbsp.	2 lbs.		
		Endosulfan 50% W.P. (Thiodan)	1 tbsp.	2 pints	Apply during late summer.	
		Malathion 50% E.C.	3 tbsp.	3 lbs.		
Malathion 50% E.C.	1 tbsp.	3 pints	Apply during late summer.			
Bronze birch borer	Birch	No effective control available				
CATERPILLARS: (Also for sawflies)			Use as directed on the label. (not for sawflies)			
			<i>Bacillus thuringiensis</i> (Dipel, Thuricide, Biotrol)			
			Carbaryl 80% W.P. (Sevin) 50% W.P.	4 tsp.	1¼ lbs.	
			Carbaryl (Sevimol)	2 tbsp.	2 lbs.	
			Carbaryl (Sevimol)	1 tbsp.	2 pints	
			Malathion 57% E.C.	1 tbsp.	2 pints	
			Malathion 25% W.P.	2 tsp.	2 pints	
			Methoxychlor 50% W.P.	2 tbsp.	2 lbs.	
Methoxychlor 25% E.C.	2 tbsp.	2 lbs.				
Acephate 15.6% E.C. (Orthene)	4 tsp.	½ gal.				
	1½ tbsp.	2¼ qts.		Check label for host restrictions.		

\* W.P. = wettable powder.  
E.C. = emulsifiable concentrate.

Note: The all-purpose garden and fruit mixture of methoxychlor and malathion will control most leaf-feeding and sapsucking insects on trees and shrubs.

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Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/Remarks
			Amount of water 1 gal.	100 gals.	
Cankerworm (Spring and Fall)	Apple, ash, basswood, boxelder, cherry, elm, maple, and others	Control as recommended for caterpillars.			Apply at first sign of injury, usually early May.
Cutworm	Lawn, turf	Carbaryl 80% W.P. (Sevin) 50% W.P. Chlorpyrifos 41.2% E.C. (Dursban)	1¼ lbs. in 200 gals. to cover 5,000 sq. ft. 2 lbs. in 200 gals. to cover 5,000 sq. ft. ¾ fl. oz. in 30 gals. to cover 1,000 sq. ft. (commercial applicators)		
		5.3% E.C. Diazinon 48% E.C. (or Spectracide) Trichlorfon 80% W.P. (Dylox)	4 fl. oz. in 15 gals. to cover 1,000 sq. ft. 4 fl. oz. per 3 gals. to cover 1,000 sq. ft. of soil. (As labeled) 2½ to 3¾ oz. in 15-30 gals. to cover 1,000 sq. ft.		
<div style="border: 1px solid black; padding: 5px; display: inline-block;">           Withhold water for 2-3 days following application.         </div>					
Eastern tent caterpillar	Apple, flowering shrubs, hawthorn, mountain ash, oak, peach, pear, plum, wild cherry	Control as recommended for caterpillars.			When tents first appear, early to mid-May.
Fall webworm	Apple, birch, boxelder, elm, flowering shrubs, oak, willow	Control as recommended for caterpillars.			July and early August.
Oak leaf caterpillars: Red-humped, Variable, Yellow-necked	Basswood, maple, oak	Control as recommended for caterpillars.			August and September.
Spiny elm caterpillar	Elm	For control see under caterpillars except acephate			Late May, early June.
Spruce budworm	Fir, spruce	Carbaryl, Methoxychlor. (see under caterpillars for dosage)			When buds open in early June. Second treatment 10 days later.
Walnut caterpillar	Butternut, hickory, walnut	Carbaryl, Methoxychlor. (see under caterpillars for dosage)			July to September.
White-marked tussock moth	Apple, basswood, elm, poplar	Carbaryl, Methoxychlor, Acephate. (see under caterpillars for dosage)			Mid- late May, occasionally again in August.
Chinch bug	Lawn, turf grasses	Carbaryl, Diazinon, Chlorpyrifos (see cutworm) Aspon 13% E.C. 5% G 67.6% E.C.	10¾ fl. oz. in 15 gals. to cover 500 sq. ft. 3½ lbs. per 1,000 sq. ft. 18-24 fl. oz. in 150-200 gals. to cover 5,000 sq. ft. (commercial applicators)		

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/Remarks
			Amount of water 1 gal.	100 gals.	
Elm bark beetle	Elm	Methoxychlor 25% E.C.	40 gals. plus 60 gals. water (Mist blower) 8 gals. plus 92 gals. water (Hydraulic sprayer)		
Galls	Basswood, blue spruce, elm, hackberry, maple, oak, poplar, and others		Prune out and destroy infested twigs and leaves. Once a gall is formed, a contact pesticide will not control the pest.		
Leafbeetles, { Leafhoppers }	Aspen, caragana, cottonwood, elm, willow, many deciduous trees	Carbaryl, Methoxychlor, Acephate (see under caterpillars for dosage) Oxydemetonmethyl (Meta-Systox-R)	1½ tsp.	1½ pints	Apply when adult beetles appear; repeat when larvae appear. Leafhoppers only.
Leafminers	Birch	Diazinon 50% W.P. 25% E.C. Oxydemetonmethyl 25% E.C. (Meta-Systox R) Acephate 15.6% E.C. (Orthene)	1 tbsp. 2 tsp. 1½ tsp.	1 lb. 2 pints 1½ pints	
Plant bugs	Ash, honeylocust, other trees and shrubs	Carbaryl (Sevimol) (Sevin) 80% W.P. Trichlorfon 40.5% E.C. (Dylox) 80% W.P. Malathion 50% E.C.	1 tbsp. 4 tsp. 2-3 pints 1½ tbsp.	2 pints 1¼ lbs. 2-3 tsp. 1¼ lbs.	Apply when leaf curling occurs.
Sawflies:		See under caterpillars for control recommendations, except <i>B. thuringiensis</i> .			
Brown-headed ash sawfly	Ash				Late May to early June.
Introduced pine sawfly	White pine				Early June, again in late August or early September.
Jack pine sawfly	Jack pine				Late May to early June.
Larch sawfly	Larch				Early June.
Red-headed pine sawfly	Jack pine				Late June, early July.
Yellow-headed spruce sawfly	Spruce				Late June, early July.
Scales:		Dormant oil sprays*			
		Ethion 2% Oil	4 fl. oz.	2-3 gals.	
		Ethion 70 Oil	4 fl. oz.	2-3 gals.	
		Diazinon 50% W.P. in oil	½ tbsp.	½ lb.	

\* Note: Dormant oils should be used on deciduous trees and shrubs only. Avoid spraying on maples. Apply in fall after all growth has stopped or in early spring before buds open at temperatures above freezing.

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/Remarks
			Amount of water 1 gal.	100 gals.	
Scales:					
(For all following scales: apply sprays as crawlers hatch)					
Cottony maple scale	Basswood, black locust, boxelder, elm, maple	Carbaryl 50% W.P.	2 tbsp.	2 lbs.	Late June, July.
		(Sevin) 80% W.P.	1¼ tbsp.	1¼ lbs.	
		Acephate 15.6% E.C. (Orthene)	1½ tbsp.	2¼ qts.	
		Malathion 50-57% E.C.	3 tsp.	2-2½ pints	
		Malathion 25% W.P.	3-6 tbsp.	3-6 lbs.	
European elm scale	Elm	As recommended above except Acephate			Late June, early July.
European fruit lecanium	Variety of trees and shrubs	As recommended above			June, early July.
Fletcher scale	Arborvitae, Yew	As recommended above			Early July.
Oystershell scale	Apple, birch, cotoneaster, elm, lilac, and others	As recommended above			Early June.
Pine needle scale	Pine, spruce	Carbaryl	As recommended above		Late May.
		Malathion 57% E.C.	4 tsp.	4 pints	
		25% W.P.	4 tbsp.	4 lbs.	
		Oxydemetonmethyl (Meta-Systox-R)	2 tsp.	2 pints	
Pine tortoise scale	Jack pine, scotch pine	As recommended above			Late June, early July.
Scurfy scale	Elm, hackberry, maple, willow	As recommended above			Late June, early July.
Spruce bud scale	Spruce	As recommended above			Mid-June to early July.
Slugs	Lawn, turf	Chlorpyrifos 22% E.C. (Dursban)	By commercial applicators only.		
		Mesurool 2% Bait	1 lb. to cover 1,000 sq. ft.		
		Metaldehyde 2% Bait	1 lb. to cover 1,000 sq. ft.		

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/remarks	
			Amount of water 1 gal.	100 gals.		
Sod webworm	Lawn, turf grasses	Carbaryl, Chlorpyrifos (see cutworm)				
		Diazinon 50% W.P. 48% E.C. (or Spectracide)	4 oz. per 3 gals. to cover 1,000 sq. ft. 4 fl. oz. per 3 gals. to cover 1,000 sq. ft. (As labeled)			
		Trichlorfon 40.5% E.C. (Dylox) 80% W.P.	¼-¾ pints in 15-30 gals. to cover 1,000 sq. ft. 2¼-3¾ oz. in 15-30 gals. to cover 1,000 sq. ft.			
		Chlorpyrifos 41.2% E.C. (Dursban)	¾ fl. oz. to cover 1,000 sq. ft. (commercial applicators)			
		5.3% E.C.	4 fl. oz. in 15 gals. to cover 1,000 sq. ft.			
		Aspon 13% E.C.	10% fl. oz in 15 gals. to cover 500 sq. ft.			
Spider mites	Evergreens, several deciduous trees	Chlorobenzilate 25% W.P. 45.5% E.C.	1½ tbsp. 1½ lbs. ¾ tsp. ¾ pints.			
		Dicofol 35% W.P. (Kelthane)	1½ tbsp. 1½ lbs.			
		Oxythioquinox 25% W.P. (Morestan)	1 tsp. ½ to 1 lb.	Shrubs & flowers only.		
		Oxydemetonmethyl 25% E.C. (Meta-Systox-R)	1½ tsp. 1½ pints			
		Dimethoate 23.4% E.C. (Cygon)	2 tsp. 2 pints			
		Diazinon 50% W.P. 48% E.C.	1 tbsp. 1 lb. ½ fl. oz. 1 pt. in 3 gals.			
		(or Spectracide)	(As labeled)			
		Malathion 50-57% E.C. 25% W.P.	2-3 tsp. 1½ pts. 2½ tbsp. 2½ lbs.			
		Ovex 50% W.P.	2 tbsp. 1½ lbs.			
		Plictran 50% W.P.	— 4-6 oz.	} Caution: may injure tender new growth.		
		Tetradifon 25% W.P. (Tedion)	— 1½ lbs.			
		White grub	Lawn, turf	Diazinon 48% E.C.	4 fl. oz. to cover 1,000 sq. ft.	
Diazinon 2% G Diazinon 5% G Diazinon 14% G	6 lbs. per 1,000 sq. ft. 2½ lbs. per 1,000 sq. ft. 1 lb. per 1,000 sq. ft.					
		Trichlorfon 40.5% E.C. (Dylox) 80% W.P.	¾ pints in 30 gals. to cover 1,000 sq. ft. 3¾ oz. in 30 gals. to cover 1,000 sq. ft.			
		Chlorpyrifos 5.3% E.C. (Dursban) 41.2% E.C.	16 fl. oz. in 15 gals. to cover 500 sq. ft. 1½-3 fl. oz. in 30 gals. to cover 1,000 sq. ft. (commercial applicators)			
Zimmerman Pine moth	Pines	Endosulfan 50% W.P. (Thiodan) 24% E.C. Trichlorfon 80% W.P. (Dylox)	1½ tbsp. 1½ lbs. 3 tsp. 1½ qts. 1½ tbsp. 1¼ lbs.		Apply to bark and main trunk in May.	

Withhold water for 2-3 days following application.

Water thoroughly following application.