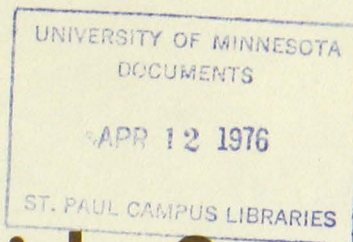


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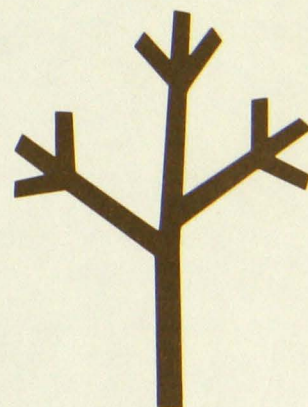
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Rev. 76

Insecticide Suggestions To Control Tree, Shrub, Lawn, And Turf Insects In 1976

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AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF MINNESOTA

Insecticide Suggestions To Control Trees, Shrubs, Lawn, And Turf Insects In 1976

Do not use after 1976

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/remarks
			Amount of water 1 gal.	100 gals.	
Ants	Lawn, turf	Diazinon 48% E.C.* 25% E.C.	4 fl. oz. per 3 gals. 1 fl. oz. per 3 gals. to cover 125 sq. ft.		Spot treat nests.
Aphids	Apple, basswood, birch, boxelder, elm, flowering shrubs, maple, oak, pine, viburnum, willow	Malathion 57% E.C. Malathion 25% W.P.* Dimethoate 25% E.C. (Cygon, DeFend, Rebelate) Oxydemetonmethyl 25% E.C. (Meta-Systox R) Diazinon 25% E.C.	2 tbsp. 2 tbsp. 1½ tsp. 1½ tsp. 2 tsp.	2 pints 2 lbs. 1½ pints 1½ pints 2 pints	Foliage spray. Foliage spray. Check label restrictions.
Billbugs	Lawn, turf	Diazinon 48% E.C. (AG 500) (or Spectracide E.C. or G)	4 fl. oz. in 3 gals. to cover 1,000 sq. ft. As labeled		Irrigate lawn after treatment.
Boxelder bug	Ash, boxelder, maple	Carbaryl 80% W.P. (Sevin) Endosulfan 50% W.P. (Thiodan)	4 tsp. 1½ tsp.	1¼ lbs. 1½ lb.	Apply during late summer. Apply during late summer.
Bronze birch borer	Birch	No effective control available			
CATERPILLARS: (Also for sawflies)		<i>Bacillus thuringiensis</i> (Dipel, Thuricide, Biotrol) Carbaryl 80% W.P. Carbaryl (Sevimol) Malathion 57% E.C. Malathion 25% W.P. Methoxychlor 50% W.P. Methoxychlor 25% E.C.	Use as directed on the label. (Not for sawflies)		
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 (see caterpillars) Chlorpyrifos 41.2% E.C. (Dursban) Diazinon 48% E.C. Diazinon 14 G (granular) (or Spectracide)	¾ fl. oz./30 gals. to cover 1,000 sq. ft. 4 fl. oz. per 3 gals. to cover 1,000 sq. ft. of soil. 1 lb. to cover 1,000 sq. ft. of soil. (As labeled)		
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.

* 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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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. Roland H. Abraham, Director of Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota 55108. We offer our programs and facilities to all persons without regard to race, creed, color, sex, age, or national origin.

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/Remarks
			Amount of water 1 gal.	100 gals.	
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.			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. (see under caterpillars for dosage)			Mid- late May, occasionally again in August.
Chinch bug	Lawn, turf grasses	Carbaryl, Diazinon, Chlorpyrifos (see cutworm)			
Elm bark beetle	Elm	Methoxychlor 25% E.C.	40 gals. plus 60 gal. 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, } Leathoppers }	Aspen, caragana, cottonwood, elm, willow, many deciduous trees	Carbaryl, Methoxychlor (see under caterpillars for dosage)			Apply when adult beetles appear; repeat when larvae appear.
Leafminers	Birch	Diazinon 50% W.P. 25% E.C. Oxydemetonmethyl 25% E.C. (Meta-Systox R)	1 tbsp. 2 tsp. 1½ tsp.	1 lb. 2 pints 1½ pints	
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.

Pest	Host/habitat	Insecticide/pesticide	Dosage		Timing/remarks
			Amount of water 1 gal.	100 gals.	
Scales:					
		Dormant oil sprays*			
		Ethion 2% Oil	4 fl. oz.	2-3 gals.	June and early July.
		Ethion 70 Oil	4 fl. oz.	2-3 gals.	
		Diazinon 50% W.P. in oil	½ tbsp.	½ lb.	
Cottony maple scale	Basswood, black locust, boxelder, elm, maple	Carbaryl 50% W.P. Malathion 50-57% E.C. Malathion 25% W.P.	2 tbsp. 3 tsp. 6 tbsp.	2 lbs. 2-2½ pints 6 lbs.	Late June, July (Apply sprays as crawlers hatch for all scales)
European elm scale	Elm	As recommended above			Late June, early July.
European fruit lecanium	Variety of trees and shrubs	As recommended above			June, early July.
Fletcher scale Oystershell scale	Arborvitae, Yew Apple, birch, cotoneaster, elm, lilac, and others	As recommended above			Early July Early June.
Pine needle scale	Pine, spruce	As recommended above			Late May
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) Mesuroil 2% Bait Metaldehyde 2% Bait			By commercial applicators only 1 lb. to cover 1,000 sq. ft. 1 lb. to cover 1,000 sq. ft.
Sod webworm	Lawn, turf grasses	Carbaryl, Chlorpyrifos (see cutworm) Diazinon 50% W.P. Dylox 80 W.P. Chlorpyrifos 41.2% E.C.			4 oz. per 3 gals. to cover 1,000 sq. ft. 4-6 oz./30 gals. to cover 1,000 sq. ft. ¾ fl. oz. to cover 1,000 sq. ft. (commercial applicators)
Spider mites	Evergreens, several deciduous trees	Chlorobenzilate 25% E.C. Chloropropylate 25% E.C. Dicofol 35% W.P. (Kelthane) Ovex 50% W.P. Plictran 50% W.P. Tetradifon 25% W.P. (Tedion)	2 tsp. 2 tsp. 1 tbsp. 2 tbsp. — —	1 qt. 1 qt. 1 lb. 1½ lb. 4-6 oz. 1½ lb.	} Caution: may injure tender new growth.
White grub	Lawn, turf	Diazinon 48% E.C. Diazinon 2% G Diazinon 5% G			

* 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.