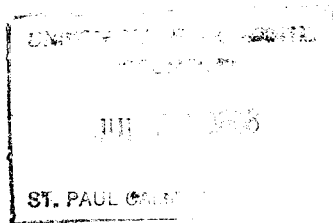
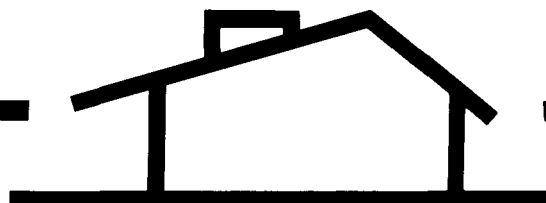


MN 2500 AG-FO-702



# **Insecticide Suggestions to Control Household Insects in 1986**



**AG-FO-0702  
Revised 1986  
Minnesota Extension Service  
University of Minnesota**

## Insecticide Suggestions To Control Household Insects in 1986

Do not use after 1986

Insect	Insecticide	Dosage*	Remarks
Ants (indoors)	propoxur (Baygon)	1.1% solution	Apply to runways or nest. Do not contaminate food or utensils. Diazinon at 1% and propoxur at 1.1% to be applied by PCO** only.
	diazinon (Spectracide)	0.5% solution or emulsion	
	malathion (premium grade)	3% solution or emulsion	
Note: A treatment with diazinon on the outside walls and foundation, as described under boxelder bugs, may help keep ants from entering the house.			
Bedbugs	malathion (premium grade)	1 to 3% spray	Apply to springs and frames of beds and to cracks and crevices around doors, window casings, baseboards, etc.
	pyrethrins	0.2% spray	
Bees, Wasps	dichlorvos (Vapona)	spray or aerosol	The No-pest strip in a loose plastic bag covering the nest or placed in a wall void provides excellent control of both wasps and bees.
	carbaryl (Sevin) resmethrin	2.25% spray 1% aerosol	
Boxelder bugs	carbaryl (Sevin)	0.15% spray	Spray infested boxelder trees during late summer when bugs are small.
	endosulfan (Thiodan)	0.1% spray	
	diazinon (Spectracide)	0.5% to 1% emulsion	Apply outside to bugs as they gather. Diazinon at 1% to be applied by PCO** only.
Note: Household insecticides are not effective against hibernating bugs in the home. The best treatment is a broom and dustpan, or a vacuum cleaner. Thoroughly caulk cracks around windows and doors; see that doors and windows fit tightly. See Boxelder Bugs, AG-FS-0998, for further details.			
Carpenter ants	diazinon	0.5 to 1%	Paint or spray infested wood.
	dichlorvos (Vapona)	0.5% emulsion	Apply near nests in enclosed places such as in walls. Correct any moisture problem. Conduct inside and outside injections for ant colonies.
	malathion propoxur (Baygon)	3% 1.1%	For use by PCO** only.
Carpet beetles	diazinon	0.5% solution or emulsion	Apply to backs of carpets, rugs, and pads. Spray or paint along baseboard. Pressurized spray cans may be used for treating clothing. Dust formulations may be applied to the floor before laying carpeting. Diazinon at 1% to be applied by PCO** only.
	malathion (premium grade)	3% solution or emulsion	
Clothes moths	malathion (premium grade)	3% solution or emulsion	Apply lightly to clothing.
	naphthalene or PDB flakes, crystals	(paradichlorobenzene)	Apply uniformly throughout clothing as it is packed for storage in tight chests or boxes.

\* W.P. = wettable powder.  
E.C. = emulsifiable concentrate.  
\*\* PCO = pest control operator.

M.E. Ascerno is an associate professor and extension entomologist; D.M. Noetzel is an associate professor and extension entomologist; P.K. Harein is a professor and extension entomologist; L.K. Culkomp is a professor, Department of Entomology; J.D. Hahn is an extension educator, entomology.

Insect	Insecticide	Dosage*	Remarks
Clover mites	(For use outside the home to prevent mites from entering)		
	propoxur (Baygon)	1.1% spray	Propoxur at 1.1% to be applied by PCO** only. Apply thoroughly to foundations, walls, and the lawn for at least 20 feet out from and all around the house. Use a drenching spray.
	dicofol (Kelthane)	0.06% spray	
	malathion	0.25%	
	diazinon	0.5% spray 2% granular	As directed.
Note: An 18- to 24- inch sod-free band immediately next to the house will help reduce the clover mite problem. Wipe up mites inside the home with an oily dustcloth or a vacuum cleaner. Also see Clover Mites, AG-FS-1002.			
Cockroaches (roaches, "water bugs")	bendiocarb (Ficam W)	0.25% spray	Apply with paintbrush or as "spot treatment" with sprayer or duster. Treat cracks, crevices and other hiding places or runways. Do not contaminate food or utensils.
	diazinon	0.5% solution for spray	
	Dursban	0.25% to 0.5% solution or spray	
	malathion (premium grade)	2% or 3% solution or spray	
	propoxur (Baygon)	1% coarse aerosol or 2% bait	Diazinon at 1%, Dursban, and Baygon to be applied by PCO** only.
	resmethrin	1% aerosol	Affects immature cockroaches only. Should be used with an adulticide.
	Hydroprene (Gencor)	.13% spray .06% fog	
	boric acid	dust	For use in wall voids and behind and under appliances.
Crickets	carbaryl	2% to 5% bait	Along outside foundation walls. Apply as "spot treatment" to corners, baseboards, under cabinets, in closets, etc. Diazinon at 1% to be applied by PCO** only.
	chlorpyrifos (Dursban)	.25% spray	
	diazinon	0.5% spray	
	malathion (premium grade)	2% to 3% spray	
	propoxur (Baygon)	1% coarse aerosol spray	
Note: A treatment with diazinon, Dursban, or Baygon on the outside wall and foundation will help prevent crickets from entering the house.			
Fleas (dogs)	Cythioate	30 mg/20 lb	Treatment to be made under veterinarian's care only. Also will give tick control.
Fleas (cats, dogs)	carbaryl (Sevin)	5% dust	Some cats may show a skin sensitivity to the collar. Do not make the collar too tight on the animal.
	dichlorvos (Vapona)	9.3% collar on dogs 4.6% collar on cats	
	malathion (premium grade)	4% dust	
	methoxychlor	1% dust	
	rotenone	1% dust	
Fleas (infested kennels, beds, or other areas)	bendiocarb (Ficam W)	0.25%	1% diazinon to be applied by PCO** only. 1.1% propoxur (Baygon) to be applied outdoors by PCO** only.
	carbaryl	5% dust	
	diazinon	0.5% to 1% spray	
	propoxur (Baygon)	.02% spray	Affects immature fleas only. Should be used with an adulticide. To be applied outdoors by PCO** only.
	Methoprene (Precor)	.15% fog	
	methoxychlor plus pyrethrins	ready-to-use household sprays	

Insect	Insecticide	Dosage*	Remarks
Houseflies (indoors)	pyrethrins plus synergist or dichlorvos	space sprays or aerosol "bombs"	Use only as directed on the label. Strip is designed for room approximately 12' x 11' x 8'.
	dichlorvos	slow-release resin strips	
Residual treatment of out-buildings or outside of the home	diazinon	1% spray or bait	Apply to resting places of flies—around windows, doors, frames, under eaves, etc., or as a window screen paint.
	naled (Dibrom)	0.4% bait	
	dimethoate (Cygon, De-Fend)	1% spray	
	trichlorfon (Dipterex)	1% bait	
	dichlorvos	1/2% to 1% bait	
	malathion	1% spray or bait	
	chlorfenvinphos (Compound 4072)	0.5% spray	
	Stirofos (Rabon, Gardona)	1% spray	
Millipedes	malathion	2% to 5%	Outdoors only.
	carbaryl (Sevin)	1% spray	
	propoxur (Baygon)	1.1% spray	
	diazinon	2% to 5% granular	
Mosquitoes (indoors)	pyrethrins plus synergist, or dichlorvos	Space sprays or aerosol "bombs." Some aerosols may also contain methoxychlor. Resin strips containing dichlorvos may also be hung indoors. They provide a slow release of insecticide.	
	(outdoors) <i>For use in hydraulic sprayer</i>		
	fenthion (Baytex)	46% E.C. - 4 oz/gal water or 3 gal per 100 gal water	Apply to mosquito resting places such as shrubbery, hedges, and under eaves. May also be painted on screens.
	methoxychlor	50% W.P. - 8 tbsp per gal water or 8 lb per 100 gal water	
		25% E.C. - 4 tbsp per gal water or 2 gal per 100 gal water	Apply about 50 gallons of these mixtures per acre or 5 gallons per 4,000 square feet. Fenthion (Baytex) is very toxic to birds.
	malathion	57% E.C. - 2 tsp per gal water or 2 pt per 100 gal water	
	carbaryl (Sevin)	50% W.P. - 4 tbsp per gal water or 2 lb per 100 gal water	Do not allow spray to contaminate food or feed crops or pastures. Do not use carbaryl when honeybees are known to be active in the area.
		80% Sprayable - 1 1/2 tsp per gal water or 1 1/3 lb per 100 gal water	
	naled (Dibrom)	60% E.C. - 1/2 tsp per gal water or 1 pint per 100 gal water	Some plants may be harmed by over-spraying or by large droplets.
	Permethrin (Praxem)	13.3% E.C. - 2 2/3 fl oz per 1 gal water or 1 gal/100 gal. Use 2 times rate for heavy infestations.	Can be used indoors and outdoors as a residual treatment. Avoid food plants and food areas.
		Note: A combination of methoxychlor and malathion (both used at their regular rates) makes a good mosquito spray: Malathion gives a quick kill while methoxychlor provides longer lasting residual control.	

Insect	Insecticide	Dosage*	Remarks
Mosquitoes (outdoors) (continued)	<i>For use in a mist blower</i>		
	dichlorvos (Vapona)	23% E.C. - 4 gal per 100 gal water	Apply to mosquito resting places such as shrubbery, hedges, and under eaves.  Apply 5 to 10 gallons of these mixtures per acre or 1/2 to 1 gallon per 4,000 square feet.  Do not allow spray to contaminate food or feed crops or pastures.  Do not use carbaryl when honeybees are known to be active in the area. Fenthion (Baytex) is very toxic to birds.
	fenthion (Baytex)	46% E.C. - 4.5 gal per 100 gal water	
	methoxychlor	25% E.C. - 10 gal per 100 gal water	
	malathion	57% E.C. - 2 gal per 100 gal water	
	carbaryl (Sevin)	80% Sprayable - 10 lb per 100 gal water	
	naled (Dibrom)	60% E.C. - 1/2 gal per 100 gal water	
	<i>For use in a fogger</i>		
	malathion	57% E.C. - 1 gal per 25 gal fuel oil	Apply to mosquito resting places such as shrubbery, hedges, and under eaves.  Apply 5-10 pints of these mixtures per acre if technical material is used.  Do not allow insecticide to contaminate food or feed crops or pastures.  If the fog is directed too close to plants for too long a time or if the fogger is not operating properly, Dibrom will be corrosive to fogging equipment.  Use in truck-mounted non-thermal ULV equipment. Apply 3 finished ounces per acre. Use 4 2/3 fluid ounces in similar oil in non-thermal back-pack equipment like Hudson BP. Apply 8 fluid ounces per acre.
		technical (95%) - 1/2 gal per 25 gal fuel oil	
	dichlorvos (Vapona)	23% E.C. - 1 gal per 25 gal fuel oil	
	naled (Dibrom)	14 lb concentrate - 1 1/2 pt per 25 gal fuel oil	
	pyrethrins	0.15% to 0.25% plus synergists	
	resmethrin	40% MF mix 13 1/2 fl oz in 1 gal light mineral oil, refined soybean, oil, etc.	

Note: Mosquito control in towns and cities should be an organized program based on treatment of breeding areas and must be approved by the Minnesota Department of Agriculture. For more detailed information on mosquito control, especially for community wide control, aerial application, larval control, and other insecticides, consult the Minnesota Department of Agriculture or the University of Minnesota publication *Outdoor Mosquito Management*, AG-FS-1014.

Powder-post beetles	pentachlorophenol	4 to 5 % solution	Paint, spray, or dip to saturate wood.
Silverfish, firebrats	propoxur (Baygon)	1% solution	Apply to infested areas, corners in closets, behind radiators, around pipes. Diazinon at 1% and Baygon to be applied by PCO** only.
	diazinon	0.5% or 1% spray	
	malathion (premium grade)	3% spray	
Sowbugs	chlorpyrifos (Dursban)	0.02% spray	Along outside foundation walls. All have limited effectiveness as residuals.
	diazinon	2% or 5% granular	
	carbaryl (Sevin)	1% spray 4% dust	
	malathion	2% to 5%	

Insect	Insecticide	Dosage*	Remarks
Stored-food pests (flour beetles, meal moths, larder beetles, etc.)	diazinon	0.5% solution	Find and destroy or refrigerate infested foods. Paint or spray insecticides on shelves, cracks, corners.
	malathion (premium grade)	2% solution	
			Do not contaminate food stored in tight glass, metal, or plastic containers. Store at low temperatures. Clean storage area thoroughly. See <i>Pantry Pests</i> , AG-FS-1000.
Termites		Termite infestations usually require the services of an experienced pest control operator. Consult <i>Are They Really Termites?</i> , AG-FS-0994.	
Ticks (brown dog tick, indoors)	propoxur (Baygon)	1.1% spray	For PCO** use only.
	carbaryl	1% spray	For PCO** use only.
	stirofos (Rabon)	0.5% spray	Treat cracks and crevices so ticks contact insecticide.
(American dog tick, outdoors)	stirofos (Rabon, Gardona)	1/2% spray	Apply thoroughly to roadsides, footpaths, and vegetation surrounding campsites and picnic areas.
(both species, on dogs)	toxaphene	1% spray, 5% dust	
	carbaryl	5% dust	
	coumaphos (Co-Ral)	1/2% dust, 1% pressurized spray	Rub dusts thoroughly into fur; apply sprays so coverage of animal is complete.
	pyrethrins plus synergist	1.0% spray	
rotenone	4% to 5% dust		
trichlorfon (Dipterex)	1% dust		
	dichlorvos (Vapona)	9.3% collar	

**Read the pesticide label and follow the instructions as a final authority on pesticide use.**

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