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# Control of Dairy Livestock Pests in South Dakota—1965

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This fact sheet does not contain recommendations for use of any chlorinated hydrocarbon insecticide on or around dairy cattle. Legally registered insecticides other than those mentioned may be available for dairy farm use. Use of a trade name does not imply endorsement of one brand over another.

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## Control of Dairy Livestock Pests in South Dakota—1965

Dairy herd owners must concern themselves with pest control in their dairy management program. Heavy populations of hornflies, lice, and other livestock pests can reduce milk production in a dairy herd.

Coincident with the insect pest problem, regulations by the U. S. Department of Health, Education, and Welfare and the Department of Agriculture prohibit the presence of any pesticide in milk and milk products. As a result, dairy herd owners must be especially concerned about the type of insecticides they use on their dairy animals or crops to be fed to dairy animals.

While the pest problem has remained the same each year, the number of approved insecticides has dwindled annually. The following information will serve as a guide to the dairyman in selecting proper pesticides and application methods for insect control in his dairy program.

### SANITATION

Good sanitation is an important step toward fly control. Flies breed in unclean and moist areas around the dairy, in fresh and old manure, moist straw and bedding, spilled feed, or any other decaying organic matter. Infrequent manure disposal contributes more to fly problems in dairies than any other factor. Haul and spread manure onto fields where it will have a chance to dry out and no longer furnish breeding areas for flies.

Clean up wet trash, spilled feed, or areas around bases of silos where drainage is often a problem. Pay attention to drainage around the dairy barn and make dirt fills in troublesome spots. Supplement good sanitation with insecticides in a dairy insect control program rather than trying to substitute insecticides for a sanitation program.

Any control program using insecticides demands extreme care and careful adherence to label directions as to the amount and methods of applications both to livestock and surrounding premises. Insecticides residues in milk are illegal and no tolerances are allowed, thus be sure to follow all label instructions.

The following table lists recommended insecticides for use on dairy animals:

### SPECIAL PRECAUTIONS

1. Use only approved insecticides for direct application to lactating dairy animals.

**You may use:**

ROTENONE

### SYNERGIZED PYRETHRINS

CIODRIN

DICHLOROVOS (DDVP)

**Do not use:**

Any of the chlorinated hydrocarbon insecticides or organic phosphate insecticides other than those mentioned above.

2. Check with your county agent on current recommendations during each season. Changes in recommendations may have occurred since these recommendations were printed.
3. Do **not** feed dairy cattle any hay, forage or feed that is known to have been treated with chlorinated hydrocarbon insecticides.
4. Do **not** store chlorinated hydrocarbon insecticides in or near the dairy barn, milk room, milking parlor, or feed rooms.
5. Read **all** of the information on the label of the pesticide container before using any of its contents and follow the instructions to the letter.

### BACK RUBBERS

A 1% solution of CIODRIN or combination products used as labelled are approved for charging back rubbers for use by lactating dairy animals. Certain formulations of CIODRIN, DDVP, SYNERGIZED PYRETHRINS plus ROTENONE are effective in preventing reinfestation by cattle lice in winter months. Charge the back rubber in the fall and recharge it every 2 to 3 weeks.

CIODRIN, DDVP, PYRETHRINS, and ROTENONE are the **only** materials approved for back rubbers for dairy cattle.

### DAIRY BARN TREATMENT FOR RESIDUAL FLY CONTROL

The following sprays may be used to treat outside and inside walls and ceilings of dairy barns.

1. RONNEL (KORLAN)  
1 gallon of 12% emulsion concentrate or 8 pounds of 25% wettable powder to 25 gallons of water. Apply 1 to 2 gallons to 1000 square feet of wall surface.
2. DIMETHOATE (CYGON)  
1 gallon of an emulsion concentrate containing 2 pounds of active ingredient per gallon, to 25 gallons of water. Apply 1 gallon to 1000 square feet of wall surface.
3. MALATHION  
4 pints of 57% emulsion concentrate or 2 pounds of



wettable powder to 25 gallons of water. Apply 1 to 2 gallons to 1000 square feet of wall surface.

4. DIAZINON

4 pounds of 50% wettable powder to 25 gallons of water. Apply 1 to 2 gallons to 1000 square feet of wall surface.

5. DICHLOROVOS (DDVP)

1 quart of an emulsion concentrate containing 4 pounds of active ingredient per gallon, to 25 gallons of water. Apply 1 quart to 1000 square feet of wall surface.

These materials may also be sprayed outside the barn and milk room. (See section on "Milk Room" for sprays that may be used **inside** the milk room.) Apply the above wall sprays only when the dairy animals are not in the barn. Repeat only as often as the flies again become annoying. Do not depend too heavily upon insecticides as a substitute for good sanitary practices.

**BAITS**

Prepared dry baits of 0.5% DIBROM, DDBP, BOMYL, RONNEL, DIPTEREX, or 3.5% MALATHION may be sprinkled on floors in dairy barns. A wet bait of 1/2 pint of 57% MALATHION plus a cup of sugar syrup added to 3 gallons of water may be applied to dairy barn floors with a garden-type sprinkling can. Carefully follow the label directions for all baits. Take special care not to contaminate feed troughs or watering cups or tanks.

**TREATED STRIPS**

Special insecticide impregnated bands or strips to be hung overhead in dairy premises are being recommended. Use ready-made strips available on the market as directed on the label.

A DDVP plastic-resin strip is recommended for use in either dairy barns or milk rooms. Use one strip per 1000 cubic feet of room space. A band containing DIMETILAN (SNIP) is recommended only for use in dairy barns but not in milk rooms. Use one SNIP band for each 100 square feet of barn room. When the insecticide has dissipated, replace with new bands; do not attempt to re-treat the old bands. Burn or bury the old bands. Make sure the band is entirely consumed by fire. Stand upwind of the fire and smoke while it is burning.

**BARN FOGGING OR MISTING**

There are a number of electrical or compressed air fogging apparatuses available with which dairy barns may be fogged or misted. The unit is usually hung overhead near the center of the barn; if the barn is over 60 feet long, hang a unit near each end.

Recommended materials to be used in foggers are:

PYRETHRINS, 0.10% plus 1.0% PIPERONYL BUTOXIDE, in refined deodorized kerosene, may be applied at 1 ounce per 3000 cubic feet of barn space.

DDVP, 0.5% or 1% special oil mixture, may be applied at the rate of 1 pint of a 1% or 2 pints of 0.5% solution per 8000 cubic feet of barn space.

Hold the cattle in the barn and close the doors and windows. Run the fogger for the specified time to deliver the desired amount of insecticide. Allow the mist to settle for 2 to 5 minutes; open the barn and begin milking.

**Special precautions:**

Do not use fly controls to be used directly on the cattle if DDVP is used.

Wall sprays in the barn need not be used if a barn fogging program is followed.

Take special care not to contaminate milk equipment and milk utensils. Cover all equipment.

Other materials (such as DIBROM) may be used for barn fogging; however, the dairy animals **cannot** be in the building during the time it is being fogged. Follow the manufacturer's recommendations on the label for these materials.

**MILK ROOMS**

Fly control in milk rooms, milking parlors, or wash rooms may be accomplished by periodical fogging with SYNERGIZED PYRETHRINS or DDVP. Take special care not to contaminate milk utensils with the fog spray. Plastic-resin DDVP strips are excellent for use in milking rooms or in dairy barns. Use one strip per 1000 cubic feet. Take special care not to hang the strips over watering cups or feed troughs.

**SPECIAL PRECAUTIONS**

Legally registered insecticides other than the previously mentioned insecticide materials are available for dairy farm use. Other "safe" insecticides may be recommended by others; however South Dakota State University highly recommends those in this fact sheet.

Do not feed dairy cattle silage or forage that has been treated with chlorinated hydrocarbon insecticides such as ALDRIN, CHLORDANE, DDT, DIELDRIN, ENDRIN, METHOXYCHLOR, TOXAPHENE, or HEPTACHLOR. Treat forage and pasture crops with DIAZINON, CARBARYL SEVIN, MALATHION, DIBROM, or other such short residual insecticides. Even then, closely observe the prescribed waiting period before pasture harvest or feeding. If there is any doubt, consult your South Dakota State University, Extension Entomologist, County Extension Agent, or other competent authority.



# 1965 RECOMMENDATIONS FOR INSECT CONTROL ON DAIRY ANIMALS

INSECT	TIME	INSECTICIDE & CONCENTRATION	DOSAGE RATE	APPLICATION	LIMITATIONS
Horn flies, horse flies, stable flies, face flies, mosquitoes and other nuisance insects (on animals)	As flies appear— June, July, and August	1. Pyrethrins .05-.1% +.5-1% Synergist* oil solution	1-2 oz./animal	Mist spray, hand or automatic	Not more than 2 oz./day
		2. Pyrethrins .05-.1% Synergist .5-1% in water	1-2 qt./animal	Wet spray	Wet spray every 2-3 days
		3. Ciodrin .5% solution in water	1-2 qt./animal	Spray	Do not apply Ciodrin more than once/wk except as a mist spray
		4. Ciodrin 2% daily mist spray	1-2 oz./animal	Mist spray	Mists may be applied daily
		5. Dichlorovos (DDVP) 1% oil solution	1-2 fl. oz. mist spray daily to back flanks and legs	Mist spray	Do not apply more than 2 fl. oz./animal /day when applying mist sprays containing Ciodrin or DDVP
		6. Combination Ciodrin-DDVP	Follow label		As directed by label
Face flies	June, July, August	7. .2 to .5% sweetened bait DDVP	3 milliliters/ application	Apply with paintbrush on forehead in a.m.	Repeat daily for 2 wks and as needed thereafter
Lice	October, November	8. Rotenone 1½-2 pds. of 5% W.P. to 100 gal water	Cover animal thoroughly—amt. depends on size of animal and thickness of hair coat	Apply as spray	Apply 2nd application 14 days later
		Pyrethrins synergist .025%+.25% in water Ciodrin .5% .1 to .25	1-2 qts—1 gal of .25		Do not apply Ciodrin more than once/wk
Cattle grubs	November to March after hole is pierced in the skin on the back	Rotenone 3% dust Rotenone 5% spray 7½ lb. of W.P. to 100 gal water	3 oz./animal 1 gal./animal forceful spray	Rub on back around warbles openings spray over back	Repeat monthly after first treatment; provide shade during heel-fly season if possible

\*Piperonyl-butofide, Sulfoxide MGK-264 MGK-326 Tabatrex, or Crag

Should cases of accidental poisoning occur,  
direct contact can be made with:

South Dakota Poison Information Center  
Vermillion, South Dakota  
Telephone—MARKet 4-3432

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