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Benjamin H. Kantack
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Control of Dairy Livestock Pests in South Dakota—1965

By Wayne L. Berndt, Extension Entomologist
Benjamin H. Kantack, Extension Entomologist
Ervin Kurtz, Extension Dairyman

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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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

Dichlorvos (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 (Cyon)
   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 in­
secticides as a substitute for good sanitary practices.

BAITS
Prepared dry baits of 0.5% Dibrom, DDBP, Bomyl, Ronnel, Dipertex, or 3.5% Malathion may
be sprinkled on floors in dairy barns. A wet bait of ½
pint of 57% Malathion plus a cup of sugar syrup add­
ted 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 recom­
manded. Use ready-made strips available on the mar­
ket 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 insec­
ticide 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 de­
liver 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 equip­
ment 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. Fol­
low 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 fog­
ging 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 pre­
viously 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 insecti­
cides such as Aldrin, Chlordane, DDT, Dieldrin,
Endrin, Methoxychlor, Toxaphene, or Hepta­
chlor. 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 au­
thority.
<table>
<thead>
<tr>
<th>INSECT</th>
<th>TIME</th>
<th>INSECTICIDE &amp; CONCENTRATION</th>
<th>DOSAGE RATE</th>
<th>APPLICATION</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horn flies, horse flies, stable flies, face flies, mosquitoes and other nuisance insects (on animals)</td>
<td>As flies appear—June, July, and August</td>
<td>1. Pyrethrins .05- .1% + .5-1% Synergist* oil solution</td>
<td>1-2 oz/animal</td>
<td>Mist spray, hand or automatic</td>
<td>Not more than 2 oz/day</td>
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<td></td>
<td></td>
<td>2. Pyrethrins .05-1% 1-2 qt/animal Synergist .5-1% in water</td>
<td></td>
<td>Wet spray</td>
<td>Wet spray every 2-3 days</td>
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<td></td>
<td></td>
<td>3. Ciodrin .5% solution in water</td>
<td>1-2 qt/animal</td>
<td>Spray</td>
<td>Do not apply Ciodrin more than once/wk except as a mist spray</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Ciodrin 2% daily mist spray</td>
<td>1-2 oz/animal</td>
<td>Mist spray</td>
<td>Mists may be applied daily</td>
</tr>
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<td></td>
<td></td>
<td>5. Dichlorovos (DDVP) 1% oil solution</td>
<td>1-2 fl. oz. mist spray daily to back flanks and legs</td>
<td>Mist spray</td>
<td>Do not apply more than 2 fl. oz/animal /day when applying mist sprays containing Ciodrin or DDVP</td>
</tr>
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<td></td>
<td>6. Combination Ciodrin-DDVP</td>
<td>Follow label</td>
<td></td>
<td>As directed by label</td>
</tr>
<tr>
<td>Face flies</td>
<td>June, July, August</td>
<td>7. 2 to .5% sweetened bait DDVP 3 milliliters/application</td>
<td></td>
<td>Apply with paintbrush on forehead in a.m.</td>
<td>Repeat daily for 2 wks and as needed thereafter</td>
</tr>
<tr>
<td>Lice</td>
<td>October, November</td>
<td>8. Rotenone 1½-2 lbs. of 5% W.P. to 100 gal water Pyrethrins synergist .025%+ .25% in water Ciodrin .5% .1 to .25</td>
<td>Cover animal thoroughly—amt. depends on size of animal and thickness of hair coat</td>
<td>Apply as spray</td>
<td>Apply 2nd application 14 days later</td>
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<td></td>
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<td></td>
<td></td>
<td>Do not apply Ciodrin more than once/wk</td>
</tr>
<tr>
<td>Cattle grubs</td>
<td>November to March</td>
<td>Rotenone 3% dust after hole is pierced Rotenone 5% spray in the skin on the 7½ lb. of W.P. to back 100 gal water</td>
<td>3 oz/animal 1 gal/animal</td>
<td>Rub on back around warbles openings forceful spray over back</td>
<td>Repeat monthly after first treatment; provide shade during heel-fly season if possible</td>
</tr>
</tbody>
</table>

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

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

*Piperonyl-butoficle, Sulfoxide MGK-264 MGK-326 Tabatrex, or Crag