

# 1994 Guide for Control of External Parasites of Sheep and Goats

Cooperative Extension Service  
College of Agriculture and  
Home Economics



## Guide B-112

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**Note:** Any insecticide preceded by “RU” (Restricted Use) means all or some uses of this product have been restricted by EPA. Any applicator must be certified and licensed before buying restricted-use products.

### GENERAL PRECAUTIONS

- DO NOT spray animals in a confined, nonventilated area.
- DO NOT dip animals when thirsty or overheated. Water animals well before treatment so they will not drink the vat fluid.
- DO NOT contaminate feed or drinking water.
- DO NOT apply insecticides to sick animals or animals under stress.
- DO NOT apply insecticides to lambs less than 3 months old, and use light applications on lambs 3 to 6 months old.
- DO NOT treat animals with coumaphos 10 days before or after shipping or weaning, or after exposure to contagious or infectious diseases.
- DO NOT apply coumaphos, dioxathion, or ronnel to animals in conjunction with oral drenches or with internal medications such as phenothiazine, or with natural or synthetic pyrethroids or their synergists, or with other organo phosphates.

DO NOT use coumaphos, dioxathion, or ronnel on lactating milk goats.

### FLEECEWORMS (WOOL MAGGOTS)

Docked and tagged sheep are not usually bothered with fleeceworms.

Even in well-managed flocks, fleeceworms sometimes become a problem during a long stretch of cool, damp weather. Spraying the rear ends of the sheep is a good control and preventive measure under such conditions. High-pressure sprays (150–250 lb pressure) are best; however, if a low-pressure sprayer (50–150 lb pressure) is used, be sure to add 1–2 lb of household detergent per 100 gallons of water. For control, see table 1.

**Coumaphos (Co-Ral).** Use a 0.125% solution made by mixing 4 lb of 25% Co-Ral wettable powder in 100 gal of water, or 2 oz in 3 gal of water.

**(RU) Dioxathion (Delnav).** Use a 0.15% solution made by mixing 2 qt 30% Delnav livestock emulsifiable concentrate in 100 gal of water, or 4 tsp in 1 gal of water.

**Ronnel (Korlan).** Use 2.5% ronnel livestock bomb. Spray infested area and a 3-inch band around the margin.

**Restrictions:** Coumaphos requires a 15-day preslaughter interval. No preslaughter is required for dioxathion or ronnel; however, DO NOT use dioxathion more than once every 2 weeks.

## SHEEP SCAB OR SCABIES

Psoroptic scabies is thought to be eradicated in domestic sheep in the United States. Any sheep or goat suspected of being scabies infected should be quarantined. Consult with your county agent or local veterinarian concerning regulations for treating and shipping as established by New Mexico law.

New Mexico has a Scabies Control and Eradication Law, administered and supervised by the state veterinarian of New Mexico Department of Agriculture and accredited and approved by veterinarians throughout the state.

## SHEEP LICE

Lice will not be a problem in flocks sprayed or dipped regularly to control sheep ticks. Be sure all replacement ewes and rams are treated before they are added to the flock. For controls, see table 2.

## SHEEP TICK OR KED

### When and how to use:

Treatment for sheep ked is easily applied and is often the most effective following spring shear-

ing. Sheep ked should, however, be controlled any time significant numbers are found.

When heavily infested ewes are shorn, the ticks will move to lambs that are still nursing. Consequently, treat lambs when the ewes are treated, but spray lightly and use **EXTREME CAUTION** when treating lambs under 3 months of age. **DO NOT** treat animals under 3 months of age with coumaphos under any circumstances.

Spraying or dipping once a year will usually keep sheep ticks under control. Be sure to treat all bucks and replacement ewes before adding them to the flock.

Dipping does a more thorough job than spraying, but spraying can provide good control.

High-pressure sprayers are more convenient and usually more effective when large flocks are treated. An adequate job can be done with low-pressure sprayers (40 to 100 pounds) if 1 to 2 pounds of household detergent is added to each 100 gallons of water. For controls, see table 3.

## SECONDARY SCREWWORMS

Use 5% coumaphos (Co-Ral) dust or 2.5% ronnel (Korlan) livestock bomb as described earlier for fleece worms.

No preslaughter interval is required with 5% coumaphos dust or 2.5% ronnel livestock bomb when used as a spot treatment.

**Table 1. Controls for wool maggots.**

Pest	Insecticide	Dosage	Remarks
		[Amt. of insecticide per 100 gallons as spray or use as indicated]	[Interval between application and slaughter]
Wool maggots	Co-Ral spray	4 lb 25% WP (sheep and goats)	Do not apply within 15 days of slaughter. Do not use within 14 days of freshening of dairy goats.
	Lindane aerosol	Apply locally as fleeceworm treatment	Follow manufacturer's recommendations.
	Permethrin spray, paint, or dip	Use 1 lb of 25 WP to 60 gal water.	Do not use on goats. Do not use within 14 days of slaughter. ID. 24(c).
	Permethrin spray, paint, or dip	Use 1 lb 25 WP to 60 gal water. Spray affected areas or entire body or bedding.	Re-treat after 4-6 weeks if needed. Remove feed and water. Do not treat more often than every 14 days.
	Chlorpyrifos aerosol	Apply locally as fleeceworm treatment.	Treat at 5-7 day intervals until would heals.
	Dioxathion	Use 0.5 gal of 20% EC as spray or dip.	Treat as necessary but not more often than every 2 weeks.

**Table 2. Controls for sheep lice.**

<b>Pest</b>	<b>Insecticide</b>	<b>Dosage</b> [Amt. of insecticide per 100 gal as spray or use as indicated]	<b>Remarks</b> [Interval between application and slaughter]
<b>Lice</b>	<b>malathion spray</b>	16 lb 25% WP or 1 gal 57% EC	No time limitation between application and slaughter. Do not apply to dairy goats. Do not treat animals under 1 mo. old.
	<b>diazinon spray</b>	0.5 lb 50% WP (sheep only)	Do not apply within 14 days of slaughter. Do not use on goats.
	<b>Co-Ral spray or dip</b>	2 lb 25% WP (sheep and goats)	Do not apply within 15 days of slaughter. Do not use on lactating dairy goats. Do not use within 14 days of freshening of dairy goats.
	<b>Methoxychlor spray</b>	Use 8 lb 50% WP or 2 gal 25% EC. Spray to insure thorough coverage. Use 2 qt spray solution per animal.	No time limitation. Do not use on lactating dairy goats.
	<b>Ciodrin</b>	Mix 1 pt 21.5% EC in 10 gal water or 2.5 pt 13% EC in 15 gal water. Spray animal thoroughly using up to 1 gal for large animals.	Repeat application in 14 days.
	<b>Ciovap spray</b>	Use 2 gal 12% EC. Spray animals thoroughly using up to 1 gal per animal. Apply a second application in 10 to 14 days.	Repeat as necessary but not more often than once every 7 days. No time limitation between application and slaughter.
	<b>fenvalerate spray or pour-on</b>	Mix 1 pt 10% WDL in 50 gal water. Wet animal with up to 1 qt dilute spray or mix 1 pt in 6 1/4 gal water. Pour up to 4 oz down backline of animal. For pour-on mixtures add 2 fl oz wetting agent per 5 gal water.	Repeat application in 30 days if necessary. Do not treat more than twice in the spring and fall. Do not apply within 2 days of slaughter.
	<b>Fenvalerate spray or pour-on</b>	Mix 1 qt 10 WDL in 1 gal water. Use 1/3 oz of dilution per animal.	Repeat in 30 days if necessary. Do not use more than twice in the spring and fall. Do not apply within 2 days of slaughter. Do not use on lactating goats.
	<b>Dioxathion - 0.15% spray or dip</b>	Use 1/2 gal 27.5% EC OR 1 gal 15% EC.	Do not use on dairy animals. Do not use more often than every 2 weeks. No time limitation between application and slaughter.
	<b>Permethrin 0.05% spray</b>	Mix 1 lb 25 WP to 60 gal water. Spray affected areas or entire body or bedding.	Retreat after 4-6 weeks if needed. Remove feed and water. Do not treat more often than every 14 days.
	<b>Permethrin 1% pour-on</b>	Use 1/4 fl oz per 50 lb body wt up to 3 fl oz per animal.	
	<b>Permethrin</b>	Use 1 pt 11% EC in 25 gal water. Use 1-2 qt spray on animal.	
<b>Permethrin</b>	1% pour-on. Pour along backline and down face. Use 1/2 oz per 100 lb of body weight to a maximum of 5 oz per animal. (Sheep only).	Repeat as needed. Use no more than once every 2 weeks.	

**Table 3. Controls for sheep tick or ked.**

<b>Pest</b>	<b>Insecticide</b>	<b>Dosage</b> [Amt. of insecticide per 100 gallons as spray or use as indicated]	<b>Remarks</b> [Interval between application and slaughter]
<b>Sheep tick or ked</b>	<b>Lindane spray</b>	Use 1.5 lb of 25% WP. Spray along back and around ears, spraying against wool.	Do not treat within 30 days of slaughter. Do not use on dairy goats. Do not use on thirsty, overheated, sick animals, or animals under 3 mos. of age.
	<b>Diazinon spray</b>	0.5 lb 50% WP	Do not treat within 14 days of slaughter. Do not use on goats.
	<b>Co-Ral spray or dip</b>	4 lb 25% WP (sheep and goats)	Do not apply within 15 days of slaughter. Do not use on lactating dairy goats. Do not use within 14 days of freshening of dairy goats.
	<b>Fenvalerate spray or pour-on</b>	Mix 1 pt 10% EC in 50 gal water. Wet animal with up to 1 qt dilute spray or mix 1 pt in 6 1/4 gal water. Pour up to 4 oz down backline of animal. For pour-on mixtures add 2 fl oz wetting agent per 5 gal water.	Repeat application in 30 days if necessary. Do not treat more than twice in the spring and fall. Do not apply within 2 days of slaughter on goats.
	<b>Malathion spray</b>	16 lb 25% WP, OR 1 gal 57% EC	No time limitation between application and slaughter. Do not apply to dairy goats. Do not treat animals under 1 mo. old.
	<b>Permethrin</b>	1% pour-on. Pour along backline and down face. Use 1/2 oz per 100 lb of body weight to a maximum of 5 oz per animal (sheep only).	Repeat as needed. Use no more than once every 2 weeks.
	<b>Dioxathion spray or dip</b>	Use 1/2 gal 27.5% EC or 1 gal 15% EC.	Do not use on dairy animals. Do not use more often than once every 2 weeks. No time limitation between application and slaughter.

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