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LIVESTOCK PEST CONTROL

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BEEF ANIMALS

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Cattle grub	Ruelene	0(in meat)	28	<p><u>As a Spray:</u> Use 2 gals. 25% emulsifiable concentrate to 100 gals. water.</p> <p><u>As "Pour-on":</u> Use 1/2 gal. 25% emulsifiable concentrate in 1 gal. water. Apply 1 fluid ounce per 100 pounds body weight along animal's back. For animals weighing over 800 pounds, use <u>only</u> 8 ounces per head.</p>	<p>Apply spray with power sprayer or spray dip machine. Thoroughly wet the entire animal.</p> <p><u>Pour-on:</u> Apply with long-handled dipper.</p>	<p>Use only a single treatment. Use approximately 1 gal. spray for animals weighing 300 lbs. or over. Use proportionately less for smaller animals. Treat cattle as soon as possible after heel fly activity ceases, or about August 15. <u>Do not apply after Nov. 1.</u></p>
	Co-Ral	1(meat, fat, meat by-products) 0(in milk)	14 (beef animals)	<p><u>As a Backline Treatment:</u> Use 4 pounds wetttable powder in 3 gals. water plus 1 tbsp. detergent</p> <p>OR</p> <p>3 gals. light mineral oil. Use 1/2 pint per animal.</p>	<p>When using water begin by brushing small portion in hair to prevent run-off.</p>	<p>Use only a single treatment. Treat cattle as soon as possible after heel fly activity ceases, or about August 15. Do not treat sick animals, or animals less than 3 months old; do not use with pyrethrin, allethrin, or synergist. Do not apply to lactating dairy animals or to dry animals within 14 days of freshening.</p>

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
	Ronnel (Trolene purified grade only) 0.27% (mineral feed mixture)	0(in meat)	60	<u>With Feed:</u> Mix with grain or protein supplement so animals will receive 0.3 pounds of the 0.27% mixture per 100 pounds body weight daily for 14 consecutive days.	Use at end of fly season.	Do not feed within 60 days of slaughter. Do not feed to sick animals.
	0.6% (feed mixture)			Mix with feed so that animals will receive 0.33 pounds of the 0.6% mixture per 100 pounds of body weight daily for 7 consecutive days.		
Lice	Co-Ral	1(meat, fat, meat by-products)	7(beef animals)	<u>As a Spray:</u> Use 8 pounds 25% wettable powder per 100 gals. water. <u>As a Dip:</u> Use 4 lbs. 25% wettable powder per 100 gals. water.	Apply in fall. Thoroughly wet animals.	Do not treat sick animals. Do not treat animals less than 3 months old with Co-Ral. Spray animals 3-6 months old lightly. Do not repeat Co-Ral dip within 45 days. Do not use with pyrethrins, allethrin or synergist.
	Ronnel (Korlan)	0(in meat)	56	<u>As a Spray:</u> Use 8 pounds 25% wettable powder per 100 gals. water or 1 gal. 24% emulsifiable concentrate per 100 gals. water.	Apply when lice are a problem.	Do not treat sick animals. Do not apply more frequently than once every two weeks.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
	Toxaphene	7(fat)	28	<p><u>As a Spray:</u> Use 10 pounds 40% wettable powder or 1/2 gal. emulsifiable concentrate containing 8 pounds Toxaphene per gal. per 100 gals. water.</p> <p>OR</p> <p>5% dust.</p>	Thoroughly spray or dust animals. Apply in fall and later, as needed.	
	Malathion	4(in meat, and meat by-products)		<p><u>As a Spray:</u> Use 16 pounds 25% wettable powder or 1 gal. 57% emulsifiable concentrate to 100 gals. water.</p>	Thoroughly spray entire animal.	Do not use malathion on calves less than 1 month old.
	Methoxychlor	3(fat)		<p><u>As a Spray:</u> Use 8 pounds 50% wettable powder to 100 gals. water.</p>	Thoroughly spray entire animal.	
	Lindane	7(in fat)	Spray or dust: 30 Dip: 60	Use 1 pound 25% wettable powder or 1-1/2 pints 20% emulsifiable concentrate per 100 gals. water or 1% dust.	Thoroughly wet or dust entire animal. Apply in fall.	Do not dip calves under 3 months of age. Do not use on lactating or emaciated animals.
	Ruelene		28	<p><u>As a Spray:</u> Use 2 gals. 25% emulsifiable concentrate per 100 gals. water.</p>	Wet entire animal.	Use approximately 1 gal. per animal weighing 300 pounds or more. Use proportionately less for smaller animals.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Horn flies	Methoxychlor	3 (in fat)	30	8 pounds 50% wettable powder per 100 gals. water.	Apply 2 quarts to back of animal as a spray.	To backs every 3 weeks as needed.
	Toxaphene	7 (fat)	28	10 pounds 40% wettable powder or 1/2 gal. emulsifiable concentrate containing 8 pounds Toxaphene per gal. per 100 gals. water.	Apply 2 quarts to back of animal.	Do not apply within 28 days of slaughter.
Ticks	Co-Ral	1 (meat, fat, meat by-products)	7	16 pounds 25% wettable powder or 1 gal. 57% emulsifiable concentrate per 100 gals. water.	To backs every 3 weeks as needed as a spray.	Do not use malathion on calves less than 1 month old.
	Malathion	4 (in meat, and meat by-products)	7	8 pounds 25% wettable powder per 100 gals. water.	To backs every 3 weeks as needed as a spray.	Do not treat animals less than 3 months old; spray animals 3-6 months old lightly. Do not use with pyrethrins, allethrin, or synergist.
	Ronnel (Korlan)	0 (in meat)	56	16 pounds 25% wettable powder or 2 gals. 24% emulsifiable concentrate per 100 gals. water.	To backs every 3 weeks as needed as a spray.	Do not treat sick animals.
	Ruelene		28	2 gals. 25% emulsifiable concentrate in 100 gals. water.	Apply approximately 1 gal. of spray per animal weighing 300 pounds or more, proportionately less for smaller animals.	Do not treat sick animals.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Horn fly cont'd	DDT	7(fat)	30	5% oil solution.	1 gal. to 20 feet of	For use in saturating back rubbers only. Where DDT or Toxaphene are used, do not allow cattle to use back rubbers within 30 days of slaughter.
	Toxaphene	7(fat)	28		cable of back rubber.	
	Methoxychlor	3(fat)	3			
Ticks	Co-Ral	1 (meat, fat, meat by-products)	7	8 pounds 25% wettable powder per 100 gals. water.	Apply as a spray or dip.	Do not treat sick animals. Do not treat animals less than 3 months old with Co-Ral; spray animals 3-6 months old lightly; do not use with pyrethrins, allethrins or synergist.
	Lindane	7(in fat)	30(spray) 60(dip)	1 pound 25% wettable powder or 1-1/4 pints 20% emulsifiable concentrate to 100 gals. water.	Apply as spray or dip.	Do not use lindane on emaciated or lactating animals. Do not exceed dosage recommended. Do not dip calves under 3 months of age.
	Malathion	4(meat, meat by-products)	No time limitation.	16 pounds 25% wettable powder or 57% emulsifiable concentrate per 100 gals. water.	Apply as spray or 1 gal. dip.	Do not apply to calves under 1 month of age.
	Toxaphene	7(fat)	28	10 pounds 40% wettable powder or 1/2 gal. emulsifiable concentrate containing 8 pounds Toxaphene per gal. per 100 gals. water.	Apply as a spray or dip.	
	Ronnel (Korlan)	0(meat)	56	24 lbs. 25% wettable powder, or 3 gals. emulsifiable concentrate per 100 gals. water.	Apply as spray or dip.	Do not apply more frequently than once every 2 weeks.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Spinose ear tick	Co-Ral	1 (meat, fat, meat by-products)	7	5% dust in plastic squeeze bottle.	Dust lightly inside ears.	
SHEEP AND GOATS						
Sheep keds (sheep ticks)	Dieldrin	0(meat)	90	1.5% dust	Apply as dust to fleece at a rate of 1-1/2 to 3 ozs. per animal.	Dust only once, after shearing.
	Co-Ral	1 (meat, fat, meat by-products)	15	8 pounds 25% wettable powder per 100 gals. water.	Apply as a spray.	Do not use on dairy goats within 14 days of freshening. Do not treat animals less than 3 months old. Spray animals 3-6 months old lightly. Do not use with pyrethrins, allethrins, or synergist.
	DDT	7(fat)	30	As a Spray: 8 pounds 50% wettable powder to 100 gals. water. As a Dip: 4 pounds 50% wettable powder to 100 gals. water.	Dip or spray.	Use DDT only once. Do not apply to dairy goats.
	Toxaphene	7(fat)	28	As a Spray: 10 pounds 40% wettable powder or 1/2 gal. emulsifiable concentrate containing 8 pounds Toxaphene per gal. per 100 gals. water. As a Dip: 5 pounds 40% wettable powder or 1/4 gal. emulsifiable concentrate containing 8 pounds Toxaphene per gal. per 100 gals. water.		Do not use on dairy goats.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Sheep keds (sheep ticks cont'd)	Malathion	4 (in meat, meat by-products)	No limitation.	<u>As a Spray or Dip:</u> 16 pounds 25% wettable powder per 100 gals. water. <u>As a Dust:</u> 5% dust at rate of 2 ozs. per head.		Do not apply to lactating dairy goats. Do not use malathion on animals less than 1 month old.
	Rommel (Korlan)	0 (meat & milk)	84	<u>As a Spray or Dip:</u> 8 pounds 25% wettable powder or 1 gal. 24% emulsifiable concentrate per 100 gals. water.	Thoroughly wet animals.	Do not apply more frequently than once every 2 weeks. Do not apply to lactating animals or dry animals within 21 days of freshening.
	Lindane	7 (fat)	30	<u>As a Spray or Dip:</u> 1 pound 25% wettable powder or 1-1/4 pints 20% emulsifiable concentrate per 100 gals. water. <u>As a Dust:</u> 1% dust at rate of 2 ounces per head.		Do not use lindane on lactating or emaciated animals. Do not use on dairy goats.
	Rotenone	Exempt	No limitations.	<u>As a Spray or Dip:</u> 1 pound 5% dust to 100 gals. of spray.	Thoroughly drench animals.	
Lice	Co-Ral	1 (meat, fat, meat by-products)	15	<u>As a Spray:</u> 8 pounds 25% wettable powder per 100 gals. water.	Spray thoroughly.	Do not apply to lactating dairy goats or to dry dairy goats within 14 days of freshening. Do not treat animals less than 1 month old. Spray animals 3-6 months old lightly. Do not use with pyrethrins, allethrin, or synergist.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Lice cont'd	DDT	7(fat)	30	<u>As a Spray:</u> 8 pounds 50% wettable powder per 100 gals. water. <u>As a Dip:</u> 4 pounds 50% wettable powder per 100 gals. water.	Thoroughly drench animals.	Do not apply to dairy goats. Use DDT only once.
	Lindane	7(fat)	30	<u>As a Spray:</u> 1 pound 25% wettable powder or 1-1/4 pints 20% emulsifiable concentrate per 100 gals. water. <u>As a Dust:</u> 1% dust at 1-2 ozs. per head.	Thoroughly wet animals.	Do not use on dairy goats.
	Malathion	4(meat, meat by-products)	No limitation.	<u>As a Spray:</u> 16 pounds 25% wettable powder to 100 gals. water. <u>As a Dust:</u> 5% dust at 2 ozs. per head.	Thorough application.	Do not apply to dairy goats or animals less than 1 month old.
	Methoxychlor	3(fat of sheep)		As a 5% dust.	Work dust into wool, thorough application.	Do not apply to lactating goats.
	Ronnel (Korlan)	0(meat & milk)	84	<u>As a Spray:</u> 8 pounds 25% wettable powder or 1 gal. 24% emulsifiable concentrate per 100 gals. water.	Thoroughly wet animals.	Do not apply to dairy goats. Do not apply more frequently than once every 2 weeks.
	Rotenone	Exempt		<u>As a Spray or Dip:</u> 1 pound 5% wettable powder to 100 gals. water.	Thoroughly wet animals.	No restrictions.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Lice Cont'd	Toxaphene	7(fat)	28	As a Spray: 10 pounds 40% wettable powder or 1/2 gal. of an 8 pound per gal. emulsifiable concentrate per 100 gals. water.		Do not use on dairy goats.
Fleece worms or wool maggots	Co-Ral	1 (meat, fat, meat by-products)	15	As a Spray: 8 pounds 25% wettable powder per 100 gals. water.	Thoroughly wet animals.	Do not use on dairy goats. Do not treat animals less than 3 months old with Co-Ral. Spray 3-6 months old animals lightly. Do not use with pyrethrins, allethrin, or synergist.
	Ronnel (Korlan)	0(meat)	84	As a Spray: 16 pounds 25% wettable powder per 100 gals. water.	Thoroughly wet animals.	Do not use on dairy goats, or to dry animals within 21 days of freshening. Do not apply more than once every 2 weeks throughout the season.
Ticks	Co-Ral	1(meat, fat, meat by-products)	15	As a Spray: 8 lbs. 25% wettable powder per 100 gals. water.	Repeat after 2 or 3 weeks if needed.	Do not use on dairy goats. Do not use with pyrethrins, allethrin or synergist. Do not use on dairy goats within 14 days of freshening.
	Lindane	7(fat)	30	As a Spray or Dip: 1 pound 25% wettable powder or 1-1/4 pints 20% emulsifiable concentrate per 100 gals. water.	Do not overspray.	Do not use lindane on emaciated animals or lactating sheep or goats. Do not use on dairy goats.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Ticks cont'd	Malathion	4(meat, meat by-products)	No limitation.	<u>Spray or Dip:</u> 16 pounds 25% wettable powder or 1 gal. 57% emulsifiable concentrate per 100 gals. water.	Treat thoroughly. Repeat after 2-3 weeks if needed.	Do not use on dairy goats. Do not use on animals less than 1 month old.
	Ronnel (Korlan)	4(meat, meat by-products)	84	<u>As a Spray:</u> 16 pounds 25% wettable powder per 100 gals. water or 2 gals. 24% emulsifiable concentrate per 100 gals. water.		Do not use on dairy goats. Do not apply within 12 weeks of slaughter.
						Do not use with pyrethrins, allethrin or synergist.
	Toxaphene (Korlan)	7(fat)	28	<u>Spray or Dip:</u> 10 pounds 40% wettable powder or 1/2 gal. emulsifiable concentrate containing 8 pounds Toxaphene per gal. per 100 gals. water.	Treat thoroughly.	Do not use on dairy goats. Apply more frequently than once every 2 weeks.
	Toxaphene	7(fat)	28		Thorough application.	
SWINE						
Lice	Lindane	4(fat)	30 spray 60 dip	<u>Spray or Dip:</u> 1 pound 25% wettable powder or 1-1/4 pints 20% emulsifiable concentrate per 100 gals. water.	Thoroughly wet animal.	Do not treat animals less than 6 months of age.
	DDT	7(fat)	30	<u>Spray or Dip:</u> 8 pounds 50% wettable powder per 100 gals. water.	Thoroughly wet animal.	Use DDT only once.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Lice cont'd	Malathion	4(meat, meat by- products)	No limit- ations.	<u>Spray or Dip: 8</u> pounds 50% wettable powder per 100 gals. water. <u>Dust: 5% formulation.</u>	Thorough application.	
	Methoxychlor	3(fat)	No limit- ation.	<u>Spray or Dip: 8</u> pounds 50% wettable powder per 100 gals. water. <u>Dust: 5% formulation.</u>	Thorough application.	Liberal application to animals and pens.
	Co-Ral	1 (meat, fat, meat by-products)	No limit- ations.	<u>Spray: 8 pounds 25%</u> wettable powder per 100 gals. water.		Do not use with pyrethrins, allethrin or synergist.
	Ronnel (Korlan)	0(meat)	42	<u>Spray or Dip: 16</u> pounds 25% wettable powder or 2 gals. 24% emulsifiable concen- trate per 100 gals. water.	Thorough appli- cation.	Do not apply more fre- quently than once every 2 weeks.
	Toxaphene	7(fat)	28	<u>Spray or Dip: 10</u> pounds 40% wettable powder or 1/2 gal. emulsifiable con- centrate 8 pounds Toxaphene per gal. per 100 gals. water. <u>Dust: 5% dust.</u>	Thorough application.	
Hog Mange	Lindane	4(fat)	30 spray 60 dip	<u>Spray or Dip: 2</u> pounds wettable powder 25% per 100 gals. water.	Thorough appli- cation.	Do not overtreat.

Insect	Insecticide	Tolerance ppm	Minimum Days From Last Application to Slaughter	Dosage	Application	Safety Restrictions
Hog Mange cont'd	Co-Ral	1 (meat, fat, meat by-products)	No time limitation.	<u>Spray</u> : 8 pounds 25% wettable powder per 100 gals. water.	Treat thoroughly.	Do not use with pyrethrins, allethrin or synergist.
	Malathion	4 (meat, meat by-product)	No time limitation.	<u>Spray or dip</u> : 16 pounds 25% wettable powder or 1 gal. 57% emulsifiable concentrate per 100 gals. of spray.	Thorough application.	

LIVESTOCK PEST CONTROL