

External Parasites

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Goal (learning objective)

Youth will:

- Learn about common livestock external parasites
- Learn about parasite control options
- Learn about vocabulary related to parasites

Supplies

- Handout 1 – Pest Control Examples (enough copies for group)
- Handout 2 – External Parasites (enough copies for group)
- Sticks (enough for all members but 2 to have a stick)
- Fishing line (2' of line for each stick)
- Plastic flies, plastic insects, or black ribbon (one for each stick)
- Bite-size snack (two packages)

Pre-lesson preparation

- Read/review the list of external parasites for specific species (see resources below)
- Make copies of Handout 1 and Handout 2
- Familiarize yourself with the signs and symptoms an animal will exhibit when suffering from specific external parasite
- Purchase/prepare snack
- Obtain sticks
- Obtain fishing line, cut fishing line into 2' sections and tie fishing line to sticks
- Tie plastic flies (or insects or black ribbon) to the end of the fishing line
- Practice lesson

Lesson directions and outline

Ask the youth to share some types of parasites they are aware of. Have the youth define what a parasite does. After the youth share their answers discuss the following information:

Parasites are organisms that live off of, in or on another organism (its host). Livestock are susceptible to both internal and external parasites. Parasites can cause reduced weight gain, poor appetite, diarrhea and other health problems. External parasites live “outside” of “hosts” body. External parasites not only transmit diseases, but they are a constant source of irritation and can make animals very uncomfortable.

Examples of external parasites of livestock include the following:

- **SWINE:** The most common external parasites of swine are lice and mange. If pigs are seen constantly rubbing on feeders, gates, and buildings, they likely have external parasites. The hog louse has a dark body and is big enough to be seen on the skin (normally around the flank and abdomen). The lice suck blood through the skin causing irritation and itching. Mange, the result of mite infestation, may be seen first as raised areas of skin covered with brown scabs around the ears and neck. Pig-to-pig contact is the major means of transmission of lice and mange. Control consists of sanitation and the use of agents to kill the lice and manage mites. Products are available as topical sprays and powders, pour-ons, injections, and feed additives. Consult your veterinarian for advice in establishing an effective plan.

- **SHEEP:** The most common external parasites of sheep are lice, ticks, and mange. Lice spend their entire lives on the sheep or goat. Both immature and adult stages suck the blood or feed on the skin. Louse-infected animals are usually recognized by their dull, matted coat, or excessive scratching behavior. Lice are generally transmitted from one animal to another by contact. Control of louse is difficult since pesticides do not kill the louse egg. The eggs of most species will hatch 8-12 days after pesticide application, so retreatment is necessary 2 weeks following the first application. Sheep ticks (ked) are brown hairy flies that resemble the look of a tick. This wingless fly is about 4-6 mm long and has a small head that is broad. The legs of the sheep ked are very strong and tipped with claws. Sheep ked live their whole lives in the wool of sheep. They are most commonly found on the neck, shoulders, and stomach of sheep. If removed from the sheep, females can only live for 7-10 days. Treatment for sheep ticks is most effective following shearing, Spraying or dipping once a year will usually keep the ticks under control.
 - **BEEF:** The most common external parasites of beef are flies, lice, and grubs. There are two major types of flies that are major pests to cattle: the horn fly and the face fly. Horn flies are about 1/8-inch-long and are biting flies. They appear in spring and continue until fall and feed primarily on the backs of cattle. Face flies do not bite and are the same sizes as a house fly. They cluster around the head and face, and irritate the eyes. There are two types of lice: biting and sucking. Lice cause cattle to rub and lose their hair, and sucking lice feed on their blood. Normally, lice are a bigger problem during cold weather. Grubs found on cattle include heel flies. They lay their eggs on cattle while cattle graze in the spring and summer. Larvae hatch from the eggs, burrow through the skin, and travel through the body for about eight months. They chew through the skin on the animal's back and drop to the ground in the spring. An adult fly emerges from the larva that was dropped to the ground about five weeks later.
 - **GOATS:** Many external parasites such as flies and ticks, affect goats in warm weather. Lice affects goats more during the winter months. Flies are pests and can cause problems around eyes and irritated flesh. Ticks and lice are blood sucking and will cause goats to itch and rub.
 - It is always a good management practice to consult with a licensed veterinarian to develop an effective external parasite management program.
- Conducting the activity (DO)**
1. Ask for two volunteers to be the “animals” for this activity.
 2. The remaining members will be the “external parasites,” half will be flies and half will be biting lice.
 3. Provide each “external parasite” a stick
 4. One “animal” will have flies and one “animal” will have biting lice.
 5. Provide each “animal” a snack package. They can only eat the snack one at a time. And the “animals” need to react to the pest the way an animal would react.
 6. At your cue, the “external parasites” can annoy their “animal” for two minutes.
 7. After two minutes, stop the activity.
 8. Ask the “animals” the following questions:
 - a. How did they enjoy eating their snacks?
 - b. What did they do to stop the “attack” from the external parasites?
 - c. How successful were they in eating and enjoying their snack?
 9. Ask the “external parasites” the following questions:
 - a. Did playing this role provide some insight as to what your animal may be experiencing?
 10. Review Handout 1 products and label information to see what products will help control specific external parasites. Be sure and look at dosage and withdrawal times.

What did we learn? (REFLECT)

- Ask: What external parasites can your project animal be exposed to?
- Ask: Why do external parasites cause animals to lose weight and/or go off feed?
- Ask: Which products could you use on your animal to control external parasites? What is the dosage and withdrawal time?

Why is that important? (APPLY)

- Ask: Why is it important for us to control external parasites on our 4-H animals?
- Ask: Why is it important to read product labels?
- Ask: How is Quality Assurance impacted by parasites?

Resources

Ohio State University Extension. (2011). Health Maintenance. *Beef resource handbook* (pages 5-1 through 5-6).

Ohio State University Extension. (2008). Herd Management and Diseases. *Goat resource handbook* (pages 79-93).

Ohio State University Extension. (2011). Health Maintenance and Diseases. *Sheep resource handbook for market and breeding projects* (pages 67-72).

Ohio State University Extension. (2000). Diseases & Their Control. *Swine resource handbook for market and breeding projects* (pages 9-1 through 9-14).

HEALTH AND DISEASES: EXTERNAL PARASITES – HANDOUT 1

PEST CONTROL EXAMPLES

FLY TAGS



DUST BAG & FLY SPRAY



LABEL INFORMATION – Y-TEX PYTHON INSECTICIDE CATTLE EAR TAGS

Compendium of Veterinary Products - Y-TeX® PYthon® Insecticide Catt... <https://valleyvet.cypsservice.com/product/view/basic/1344012?route=pro>.

Y-TeX® PYthon® Insecticide Cattle Ear Tags (Y-TEX CORPORATION)

Label White papers Coupons Other Image

Y-TEX CORPORATION

1825 BIG HORN AVENUE, CODY, WY, 82414

Telephone: 800-443-6401

Website: www.ytex.com

Email: ytexinfo@ytex.com



Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

Y-TEX® PYTHON® INSECTICIDE CATTLE EAR TAGS

Y-TeX

For use on Beef and Dairy Cattle (including Lactating) and Calves to Control Horn Flies, Face Flies, Lice, Gulf Coast Ticks, Spinose Ear Ticks, and Aid in Control of Stable Flies, Black Flies, House Flies and small Horse Flies.

Keep Out of Reach of Children

CAUTION

ACTIVE INGREDIENTS:

Zetacypermethrin, S-enantiomer	10%
S-cyano (3-phenoxyphenyl) methyl (±) cis/trans 3-(2, 2-dichloroethenyl)-2, 2 dimethylcyclopropane-carboxylate*	
*Cis/trans isomer ratio: Max. 55% (±) cis and Min. 45% (±) trans	
Piperonyl Butoxide	20%
(butylcarbityl) (6-propylpiperonyl) ether and related compounds	
OTHER INGREDIENTS	70%
TOTAL	100%

- Synergized pyrethroid formula for maximum effectiveness against horn flies.
- Also controls face flies, lice, ear ticks, and aids in control of other biting flies.
- Can be used on lactating dairy cows.
- No withdrawal time required.
- Guaranteed against loss due to tag or button failure.*

Snap-Lok® collar for superior retention*

Ribbed design for season-long durability

Long taper and rounded edges for durability

Large surface area for insecticide effectiveness

GUARANTEE

*This guarantee is a limited guarantee, limited to the replacement of tags only, if the tags failed after being properly applied, to remain in the animal's ear for a five (5) month period due to tag breakage or separation from button.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. The labeling must be in the possession of the user at the time of pesticide application.

Summer Season: To control horn flies for about 3-4 months and aid in control of face flies, apply 1 tag per animal in late spring. To control horn flies, face flies, lice, Gulf Coast ticks and spinose ear ticks for 4-5 months, and to aid in control of stable flies, black flies, house flies and small horse flies, apply two tags per animal (1 in each ear) when flies appear in spring. Apply 2 tags to large bulls for optimum horn fly protection.

Winter Season: For season-long lice control, apply tags in late fall. To control biting lice, shortnosed sucking lice and aid in control of other sucking lice, apply 1 tag per calf or 2 tags per mature animal (1 in each ear).

Apply as shown with the Y-TEX 2-piece tagging system. All animals in the herd should be tagged. To minimize development of insecticide resistance, remove used tags at end of fly and lice seasons, and follow Y-TEX's recommended tag rotation program.

LABEL INFORMATION – CORATHON INSECTICIDE CATTLE EAR TAGS

Compendium of Veterinary Products - Corathon® (BAYER HEALTHCARE LLC)

<https://valleyvet.cvp-service.com/product/view/basic/1040060?route=pro>

Corathon® (BAYER HEALTHCARE LLC)



BAYER HEALTHCARE LLC
Animal Health Division
P.O. BOX 390, SHAWNEE MISSION, KS, 66201-0390
Customer Service Tel.: 800-633-3796
Customer Service Fax: 800-344-4219
Website: www.bayer-ah.com



Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

CORATHON®

Bayer Animal Health

Insecticide Cattle Ear Tag for use on Beef and Non-Lactating Dairy Cattle to Control Face Flies, Horn Flies, Gulf Coast Ticks and Spinose Ear Ticks for up to 5 months

For use with Allflex® Universal Total Tagger with red pin and black clip.

- Controls horn flies (including pyrethroid- and chlorinated hydrocarbon-resistant horn flies), Gulf Coast ticks, face flies and spinose ear ticks for up to 5 months.
- Contains 50% organophosphate insecticides.
- FlyberTek® allows for maximum insecticide holding capacity and even dispersion of insecticide.

ACTIVE INGREDIENTS:	Percent By Weight
Coumaphos	15%
Diazinon	35%
OTHER INGREDIENTS:	50%
TOTAL	100%

Net Contents: 2 Pouches of 10 Tags Each, 0.5 oz (14 grams) per tag

STOP - Read the label before each use.

Keep Out of Reach of Children.

CAUTION

PRECAUCION AL USUARIO: Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some people. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear chemical-resistant gloves made of rubber or any waterproof material (thickness equal to or greater than 14 mils) when applying tags.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to birds, fish and wildlife. Do not apply directly to water. Do not contaminate water when disposing of used tags.

CORATHON® QUICK FACTS
<ul style="list-style-type: none">• Controls horn flies (including pyrethroid- and chlorinated hydrocarbon-resistant horn flies), Gulf Coast ticks, face flies and spinose ear ticks for up to 5 months.• Contains 50% organophosphate insecticides.• FyberTek® allows for maximum insecticide holding capacity and even dispersion of insecticide.
WHERE TO APPLY
<ul style="list-style-type: none">• Beef and Non-Lactating Dairy Cattle.
HOW TO APPLY
<ul style="list-style-type: none">• Use Allflex® Universal Total Tagger with red pin and black clip to apply tags to cattle.
COVERAGE
<ul style="list-style-type: none">• All mature animals in the herd should be tagged.• For optimum control of horn flies, face flies, Gulf Coast ticks and spinose ear ticks, attach one tag to each ear (two tags per animal) per mature animal.• Use one ear tag per calf.• For adequate control of horn flies, face flies, Gulf Coast ticks and spinose ear ticks, attach one tag per mature animal.
RE-APPLY
<ul style="list-style-type: none">• Corathon® has been proven to be effective against horn flies and face flies for up to 5 months.• Replace as necessary.• Remove tags at end of fly season or prior to slaughter.
QUESTIONS?
<ul style="list-style-type: none">• For questions or comments, call toll-free 1-800-633-3796.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in possession of the user at the time of pesticide application.

IMPORTANT

Read the entire Directions for Use, Conditions of Sale and Disclaimer of Limited Warranty and Limitation of Damages before using this product.

CONDITIONS OF SALE

The directions on this label are believed to be adequate and must be followed carefully. This product has been tested under different environmental conditions similar to those that are ordinary and customary for use of the product. However, it is impossible to eliminate all risks associated with the

LABEL INFORMATION – PROZAP INSECTRIN DUST (DUST BAGS)

Compendium of Veterinary Products - Prozap® Insectrin Dust (CHEM...

<https://valleyvet.cvpservice.com/product/view/basic/1086028?route=pr>

Prozap® Insectrin Dust (CHEM-TECH, LTD.)

Label White papers Coupons Other Image

CHEM-TECH, LTD.
Wholly Owned Subsidiary of Neogen Corporation
Distributed by NEOGEN CORPORATION
1006 NORTH HIGHWAY 5, PLEASANTVILLE, IA, 50225
Telephone: 515-287-8778
Website: www.neogen.com



Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

PROZAP® INSECTRIN DUST

Chem-Tech

SPECIMEN LABEL

ACTIVE INGREDIENTS:	
Permethrin*	0.25%
OTHER INGREDIENTS:	99.75%
TOTAL:	100.00%

* (3-phenoxyphenyl)methyl (+/-) cis/trans 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (Cis/Trans ratio: Min 35% (+/-) cis and max. 65% (+/-) trans.)

EPA Reg. No.47000-149

EPA Est. No. 47000-IA-01

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

Have Product Container or Label with You When Calling a Poison Control Center, Doctor or Going in for Treatment.

If on Skin or on clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for further treatment advice.

If in Eyes:

- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 15 minutes, then continue rinsing eyes.
- Call a poison control center for treatment advice.

For 24-hour emergency information on this product, call 1-800-498-5743 (US & Canada) or 1-651-523-0318

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

BEEF AND DAIRY CATTLE AND HORSES

Can be used in dust bags, this shaker can and mechanical dust applicator.

Horn Flies, Lice, Face Flies:

Place contents of this package in any commercially available dust bag, suspend bag in areas frequented by cattle or in gateways or lanes through which the animals must pass daily for water, feed or minerals. Bags may also be placed in loafing sheds or in front of mineral feeders. For dairy cows, bags may be suspended in the exit through which the cows leave the milking barn. The bags should hang 4 to 6 inches below the back line of the cattle. For reduction of *Face Flies*, bags must be located so animals will be forced to use them daily and hung at a height so that the face is dusted.

Horn Flies, Lice:

Direct Application: Apply 2 oz. of dust per animal by shaker can or dust glove over the head, neck, shoulders, back and legs.

SWINE***Lice on Swine Direct Application:***

Apply only 1 ounce per head as uniform coat to the head, shoulder and back by use of a this shaker can or suitable mechanical dust applicator. Do not apply more often than once every 10 days. In severe infestation, both animals and the bedding may be treated. Do not ship animals for slaughter within 5 days of treatment.

POULTRY***To control Northern Fowl Mites and Lice:***

Apply at a rate of 1 lb. per 100 birds. Ensure thorough treatment of vent area.

To control Northern Fowl Mites and Lice in Poultry Houses:

Apply to floors, roosts and interior surfaces at a rate of 1 lb. per 40 square feet. Do not apply directly to eggs or nest litter. Do not contaminate feed or drinking water.

PETS**USE ONLY ON DOGS OR CATS:**

Consult a veterinarian before using this product on debilitated, aged, pregnant, nursing, or medicated animals.

To [control] [kill] Fleas, Ticks and Lice:

Use product only outside or in a well-ventilated area. Wearing household latex or rubber gloves, dust entire animal avoiding pet's eyes, nose, mouth and genital areas. Rub or brush pet's hair to work dust down to the skin paying close attention to legs and feet. Use 1/2 oz. on pets 20 pounds and under and 1 oz. on pets over 20 pounds. Reapply every two weeks. This product should not be applied by children. Do not use on puppies or kittens under 12 weeks of age. Dust pet bedding and doghouse using a shaker can or other dust applicator.

ANTS***To control ants, carpenter ants:***

Treat doors, around window frames, ant trails and hills, cracks and crevices and other areas of entry.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry and secure area. Store in original sealed container away from food or feed.

CONTAINER DISPOSAL:

If empty: Do not reuse this container. Place in trash or offer for recycling if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

DISCLAIMER

DISCLAIMER: To the extent permitted by applicable law, seller makes no representation or warranty, either express or implied, for results due to misuse, improper handling or improper storage of this material. Nor does Seller assume any responsibility for injury to persons, crops, animals, soil or property arising out of misuse, improper handling or improper storage of this material.

OR

LIMITED WARRANTY

To the extent permitted by applicable law, Neogen Corporation makes no warranty concerning uses which extend beyond the use of the product under normal conditions in accord with the statements made on this label. To the extent by applicable law, Neogen Corporation shall not be liable for (1) any consequential, incidental or special damages related in any way to this product or its uses, or (2) any damages related in any way to resistance to pesticides.

OR

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

To the extent permitted by applicable law Manufacturer and Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law this warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Manufacturer,

LABEL INFORMATION – ABSORBINE FLYS-X LIVESTOCK READY TO USE INSECTICIDE

Compendium of Veterinary Products - Absorbine® Flys-X® Livestock ...

<https://valleyvet.cvp-service.com/product/view/basic/1099067?route=pr>

Absorbine® Flys-X® Livestock Ready to Use Insecticide (W.F. YOUNG, INC.)

Label White papers Coupons Other Image

W.F. YOUNG, INC.

302 BENTON DRIVE, EAST LONGMEADOW, MA, 01028-5990

Telephone: 413-526-9999

Order Desk: 800-628-9653

Fax: 413-526-8990

Website: www.absorbine.com

Email: animalhealthcare@absorbine.com



Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

ABSORBINE® FLYS-X® LIVESTOCK READY TO USE INSECTICIDE

W.F. Young

(AQUEOUS)

CONTAINS PYRETHRINS, a botanical insecticide

FOR USE ON LIVESTOCK

ACTIVE INGREDIENTS:

Pyrethrins	0.1%
Piperonyl Butoxide*	1.0%
OTHER INGREDIENTS:	98.9%
TOTAL:	100.0%

*(butylcarbityl) (6-propylpiperonyl) ether and related compounds

KEEP OUT OF REACH OF CHILDREN

CAUTION

READ ENTIRE LABEL BEFORE EACH USE

ON ANIMAL USE - USE ONLY ON HORSES, CATTLE, PONIES AND DOGS

EFFECTIVE, FAST-ACTING, READY TO USE INSECTICIDE

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

General Precautions & Use Restrictions

Entry Restrictions:

- Except when applying to dogs, foals, horses and livestock, do not allow others to enter treated area until sprays have dried.

Application Restrictions:

- Except when applying to dogs, foals, horses and livestock, do not apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers may be in the area during application.

- Do not apply using a high pressure hand-wand or hand-held fogger in enclosed spaces.

- Not for use in or around floor drains or sewers.

- Remove or cover exposed food and drinking water before application.

- Remove or cover dishes, utensils, food processing equipment and food preparation surfaces or wash them before use.

- Do not apply more than 1 time per day.

- Remove pets, birds and cover fish aquarium before surface spraying.

- Do not use on foals or puppies less than 12 weeks of age.

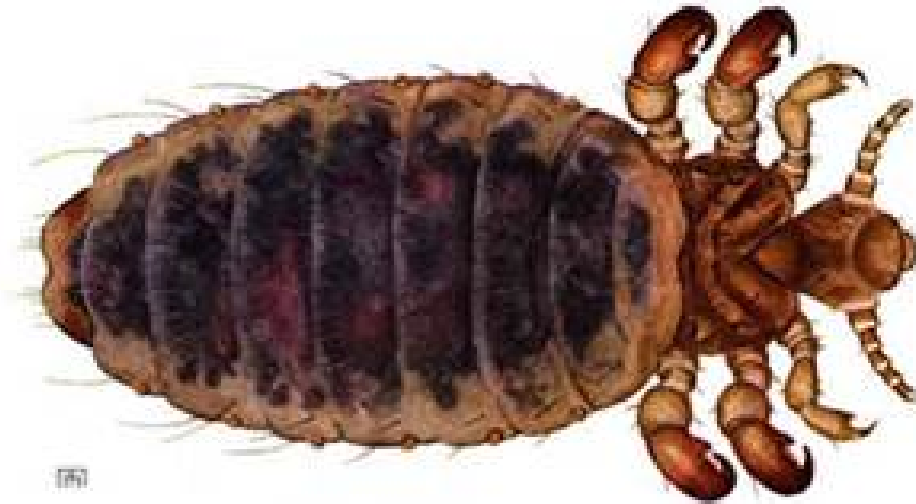
- Do not apply this water-based spray on or around electrical equipment due to the possibility of shock hazard.

HORSE AND LIVESTOCK SPRAY: Effective, fast acting, ready to use insecticide. Apply with conventional sprayers or a cloth. To protect cattle and horses from horn flies, house flies, mosquitoes and gnats, apply a light mist sufficient to wet the surface of the hair. To kill stable flies, horse flies and deer flies, apply at a rate of 2-4 ounces per adult animal sufficient to wet the hair thoroughly. Repeat treatment daily or at intervals necessary to give continued protection. To kill face flies, apply with a cloth dampened with the spray. To kill blood sucking lice, apply to the infested areas of the animal. Use a stiff brush to get the spray to the base of the hair. Repeat every 2-3 weeks if required.

DOG AND FOAL INSECTICIDE USE: To kill fleas and brown dog ticks on premises and on dogs. Effective, fast-acting insecticide.

EXTERNAL PARASITES

LICE



MANGE



TICKS



SHEEP TICK (KED)



HORN FLY



FACE FLY



GRUB

