



Veterinary Link

by **BOB LARSON, DVM**, University of Missouri-Columbia

Control lice to prevent production losses and equipment damage

Every winter, producers must be on the lookout for lice infestations in their cattle herds. Lice thrive at normal skin temperature, but during spring and summer the skin temperature may go well above 100° F, which is warmer than lice prefer for egg production. Because of thick winter hair coats and cooler

temperatures, infestations are usually heavier in late winter and early spring.

In the summer, lice generally can be found only in the folds of skin between the legs and body of cattle. In the winter, as populations increase, lice move to the neck, dewlap, muzzle, face, back, sides and tailhead.

Female lice lay their eggs, known as nits, and attach them to hairs. The nits can be seen on heavily infested animals as white specks on the hair coat. The hard shell of the nit protects it from most hazards, including insecticide treatments. In the winter, eggs hatch one to two weeks after being laid. The lice quickly mature and are fully ready to lay eggs themselves in about two weeks.

The life cycle is much slower in the

summer. Lice are most prevalent on calves and unthrifty animals. Some animals, which serve as carriers, are particularly prone to lice infestations and are continuously infested throughout the year. Lice spend their entire life cycle on an animal and can only live a few days in the environment; therefore, lice are primarily transmitted from one animal to another by direct contact.

Lice infestations cause severe itching, which results in cattle rubbing and scratching on feedbunks, fence posts and fences. Economic losses occur due to equipment and facility damage, reduced feed efficiency, lower milk production and lighter calves.

There are two types of lice (sucking and biting) that infest beef cattle in the U.S., but they may be infested with more than one lice species at any one time. Sucking lice feed by piercing the animal's skin with their sharp mouthparts and withdrawing blood. The irritation caused by sucking lice disrupts feeding activity and results in reduced weight gain. In severe infestations, blood loss can be heavy enough to affect production. Although rare, continued heavy infestation can weaken the animal to the point that stress from disease or extreme cold weather may cause death.

Biting lice have mouthparts that are adapted for biting and chewing. They feed on hair, scabs and excretions from the animal's skin. They irritate the skin with their sharp claws and jaws. Biting lice infestations weaken the animal, interrupt normal feeding activities and make the animal more susceptible to disease.

Diagnosis, control measures

Lice infestation is not the only cause of cattle scratching or rubbing against solid objects during the winter and early spring; therefore, producers should examine animals closely before applying control measures. Part the animal's hair where lice are most likely to be, and look for lice or for eggs attached to the hair.

Chemical control. Cattle lice may be controlled with insecticides applied by a sprayer, backrubber, dust bag, pour-on or injection. Insecticides will not affect the eggs; therefore, if treating with an insecticide spray or pour-on, a second treatment in 14-18 days will be necessary to kill the nymphs that hatch following the first treatment unless the product has sustained killing properties.

Spray. For complete body coverage, apply 1-2 gallons (gal.) of spray per

animal, depending upon the size of the animal and the density of the hair coat. Use a sprayer that will produce at least 200 pounds (lb.) of pressure to wet the skin, not just the hair.

Proper biosecurity practices will limit the spread of lice among cattle.

The first spray should be applied around mid-fall. Make a second application 14-18 days after the first application. Use smaller amounts of spray on calves 3-6 months old, and do not treat calves less than 3 months old. I do not

recommend spraying when temperatures are cool because wet cattle have difficulty maintaining their body temperature.

Backrubbers and dust bags. If a backrubber or dust bag is used year-round for horn fly control, cattle should not become lousy enough to need further treatment. If necessary due to heavy exposure, relocate the backrubber or dust bag to where cattle congregate during the winter.

Pour-ons. Some products can be used any month of the year because they do not control cattle grubs. Other products (systemic organophosphates) will kill grubs and, therefore, should not be used to treat lice if there is a risk of negative side effects in the event of grub kill. Many pour-on insecticides have relatively prolonged withdrawal times; therefore, read label directions carefully.

Avermectin. Injectable avermectins are effective against many internal parasites as well as several external parasites, including sucking lice (but not biting lice). Pour-on formulations of avermectin effective against biting as well as sucking lice species are available. Caution should be exercised when treating lice in the fall to avoid times in which the grub-killing activity of avermectins could cause negative side effects. Label withdrawal times should be observed.

Limit lice spread

Proper biosecurity practices will limit the spread of lice among cattle. Inspect and isolate all newly purchased cattle. If they are infested with lice, treat them with a nonsystemic insecticide and keep them isolated for at least three days before turning them in with clean cattle. Do not allow noninfested animals to come in contact with feedbunks, sheds or equipment for at least seven days following use by lice-infested cattle. The isolation time (seven days) allows eggs that are attached to broken hairs time to dry out and die.



PHOTO BY HEATHER SMITH THOMAS

Lice infestations cause severe itching, which results in cattle rubbing and scratching on bunks, fence posts and fences.

