

A Lousy Situation

Tips for identifying and dealing with lice.

by Troy Smith

When cold comes to cow country, the conditions are good for cattle lice. What we mean is these parasitic insects are more apt to be problematic. So it comes as no surprise to veterinarians when more producers report lice infestations during and immediately following a cold winter.

North Dakota State University veterinary pathologist Neil Dyer says cattle lice thrive in cold weather, when animals have a heavy hair coat. The legs of lice are well adapted for clinging to hair, since lice must remain on a host animal to survive. Still, says Dyer, animal-to-animal transfer is common whenever cattle come into direct contact with one another. It happens when cattle bunch up during the winter, while they line up at a feedbunk or as they crowd together during shipping.

“Under perfect conditions, lice could produce 10 to 12 generations of offspring per year, but those are interrupted by the animal’s self-grooming, by hormonal changes and by predation. A lot of environmental factors can have an effect, including weather,” Dyer explains. “Lice can be present on cattle throughout the year, but much harder to find during the summer. Higher temperatures and more intense sunlight aren’t as favorable for lice.”

Cattle in the U.S. are subject to attack by multiple species of these bothersome external parasites.

Biting lice feed on skin particles and skin excretions, while sucking lice feed on blood and serum. Species of the latter type are usually considered a greater threat to cattle performance and health since they cause blood loss. Lice of any kind can be a nuisance.

Their effect

Lice cause skin irritation and itching, prompting cattle to rub on trees, fences, feeders or buildings and cause costly damage. As a result of repeatedly scratching the itch, lice-infested cattle usually rub out patches of hair and may rub themselves raw. Discomfort, restlessness and time spent rubbing can interrupt normal feeding, hindering performance and, potentially, increasing susceptibility to disease. According to University of Kentucky Extension Entomologist Lee Townsend, the potential for economic loss becomes greater when lice and other factors combine for a cumulative effect.

“Moderate to heavy infestations add to the impact of cold weather, shipping stress, inadequate nutrition, or harm from internal parasites or disease,” Townsend says. “The interaction between low levels of both lice and intestinal nematodes (worms) can reduce weight gains by more than 8%. The energy that lice ‘steal,’ coupled with other factors, can have a severe impact on animal health. Manifestations can be anemia, slow

recovery from disease, poor gains or general unthriftiness.”

Persistent rubbing by cattle and loose hair should raise suspicion. Townsend says heavily infested cattle may also take on a “greasy” appearance resulting from the combination of lice crushed by rubbing and feces from lice, plus blood and serum from wounds on the skin. But rubbing and restlessness can be caused by other factors too, so confirmation of lice infestation should be made by close examination for the presence of the insects and eggs attached to animal hairs.

Identifying lice

When you look closely, the small, flat-bodied insects aren’t hard to spot, but their appearance does vary by specie. The cattle biting louse, for example, has a yellowish-white body with dark bands and a dark, triangular head. It can be found anywhere on the animal’s body but surfaces, most commonly, in colonies located near the base of the tail, along the top line and on the shoulders.

Among the sucking lice, the short-nosed cattle louse may be the most common species. It has a gray-black body and typically prefers to feed along the top of the host’s neck and around the dewlap and brisket.

The long-nosed cattle louse has a narrow, pointed head, a blue-black body and is most often found on the dewlap and shoulders. This species only rarely is found in large numbers on mature beef cattle. Little blue cattle lice are most often clustered on the muzzle, neck and dewlap.

Dealing with lice

All lice are fairly easy to kill with products labeled for that purpose. Timing of application and the type of lice control product largely determine whether control measures are successful.

Endectocides are systemic products, such as those derived from avermectins, which are effective against internal and external parasites. Systemic products, applied as a pour-on and some as injectables, are absorbed by the host animal’s body and are lethal to parasites that feed on the host — for a period of time.

However, producers need to remember that the best time to use an endectocide to rid animals of internal parasites may not be the best time to control external parasites, such as lice. Cattle might very well benefit from deworming in spring or early fall, but those times of treatment probably won’t afford the most effective lice control.

Townsend reminds producers to also use caution when using an endectocide to clear up lice in midwinter. That’s when heel fly larvae (grubs) may be migrating through the host animal’s body.

Killing grubs during migration can result in a dangerous host animal reaction.

Non-systemic insecticides, applied as pour-ons, sprays, or through backrubbers and dustbags, remain on the host animal’s hide where lice come in contact with the active ingredient. Insecticide ear tags also may aid in lice control.

Neil Dyer also urges producers to understand what kind of product they are using and how it works. While the live insects may be fairly easy to knock down with a variety of products, the lice life cycle must be broken to prevent reinfestation. The eggs lice leave behind are not affected by lice control products. Endectocides may have sufficient residual activity to kill the next hatch of lice, but non-systemic insecticides do not. Generally, reapplication in three to four weeks is recommended. Wait too long and lice nymphs mature and produce more eggs.

“Late fall is usually a good time to apply treatment, but producers need to read the product label. Following label directions seems obvious, but it doesn’t always happen,” notes Dyer. “Producers should treat every animal in the herd. If they can’t do all of them at the same time, keep treated and untreated groups separate until all animals are treated. Any new animals introduced to the herd should be kept separate until they’ve been treated. Also remember to observe any product withdrawal time periods specified on the label.”

When producers report failure to achieve desired results, Dee Whittier, Extension veterinarian and bovine specialist at Virginia-Maryland Regional College of Veterinary Medicine, suspects application of the lice control product wasn’t quite right.

“Maybe they were in a hurry and dribbled the product down the animal’s ribs instead of pouring down the middle of the back,” says Whittier. “Maybe the dosage wasn’t right, or the cattle were really dirty and not enough product reached the skin. Maybe it rained soon afterward and rinsed the product away.”

And even when control measures are applied carefully, lice populations can persist on some “carrier” animals. One to two percent of the animals in a herd can be chronically infested and may transfer lice to others. Older cows and bulls are the most likely reservoir animals, but they can be sometimes difficult to detect. Effective lice control requires a conscientious effort. Total eradication is unlikely, but timely treatment, applied correctly, can keep lice in check and greatly reduce animal stress.

“My approach,” says Whittier, “is to plan for lice to be bad every year.” **HW**

An exceptional louse

There is an exception to the general rule — a louse that doesn’t like winter. Commonly called the cattle tail louse, this tropical blood-sucking species was inadvertently introduced to the U.S. and has become a serious pest in Gulf Coast states.

According to Texas AgriLife Extension Entomologist Sonja Swiger, tail lice are most abundant during the summer. Adults tend to congregate on the tail head and lay eggs on tail hairs, but immature tail lice may be found anywhere on the animal. When a heavy infestation occurs, adults and eggs may also be found in the host’s ears.

A heavy infestation may cause reduced weight gains, loss of vitality and reduced milk production. In the worst cases, anemia and abortion may occur.

“Treatment can be accomplished with both timed treatments and self-treatment options,” Swiger says. “Timed treatments need to be applied in two doses, given three weeks apart. The first treatment kills nymphs and adults present, and the second treatment kills lice that developed from eggs present at the time of the first application. For self-treatment, continuous use of insecticide dustbags or backrubbers is the most successful methods.”

Swiger says tail lice treatments can be administered from early spring through early fall. Spring applications will control lice emerging from a winter egg buildup, while aiding in horn fly control. Early fall treatment will prevent the buildup of eggs during the winter months. The late fall to midwinter treatments generally recommended for other species of cattle lice are not practical for controlling tail lice. **HW**