# Got Lice?

*Dr. Dan Grooms, MSU CVM*

BEEF BRIEF MICHIGAN STATE UNIVERSITY Beef Team

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Anyone that owns livestock has likely had to deal with lice at some point. For most livestock owners, lice control is part of their health management protocol. However, with "routine" often comes a lack of understanding how best to mange lice, especially as new technologies evolve.

Let's review the basics about lice. The five species of cattle lice found in North America include four that feed by sucking blood. These are the shortnosed cattle louse, longnosed cattle louse, little blue cattle louse, and the cattle tail louse. The fifth species, the cattle biting louse, feeds on skin tissue of cattle. Adult lice live on the surface of the hide under the hair coat. They lay eggs that are attached to the hair, often referred to as nits (Figure 1). The eggs require from 6–11, days to hatch. After hatching, immature lice are called nymphs. Nymphs reach adulthood in 12–21 days. Females begin producing eggs three days after becoming adults. A complete life cycle can occur in as little as 3 weeks, but may require more than a month under some conditions. Each female may lay 40 eggs during a 4-6-week period and survive as long as 10 weeks.

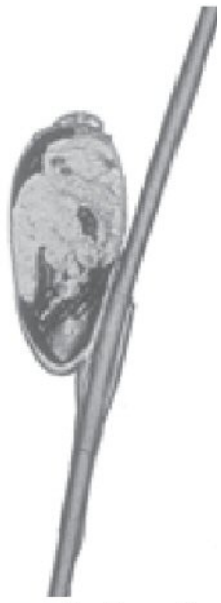
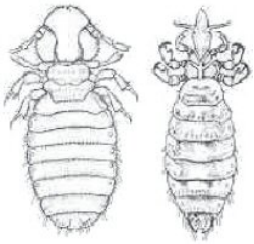


Figure 1. Lice nit

Lice are spread between cattle through close direct contact. Because of this, lice become more of a problem when cattle concentrations increase (i.e. in the winter when cattle spend more time indoors or when calves are weaned into feedlots). Heavy winter hair coats also shield lice from detrimental environmental conditions. Lice tend to be less of a problem in the summer because of thinner hair coats, increased exposure to sunshine and rain, and increased self-grooming. Cattle may also become infested from contaminated bedding, bunks, barn walls, or trucks.



Cattle biting louse (left)
longnosed louse (right)

Some lice and louse eggs drop off onto bedding or are rubbed off onto fences and feedbunks. Sucking lice die within a few hours when off the host; but biting lice may live for several days if not exposed to direct sunlight or cold weather. Facilities vacated by infested cattle should either be treated with insecticide or stand empty for 10 days

before being used by clean cattle. One other note: lice are essentially species specific, so spread between different species, including humans, is not an issue.

The physical discomfort from the feeding lice and the inflammatory reaction secondary to skin damage leads to pruritis (itchy skin). Just like us, cattle look to relieve this discomfort by scratching, thus leading to the common signs of lice which are scratching, patchy hair loss, and on occasion, skin damage (abrasions, scabs, bleeding, bruising). These signs lead to performance losses due to the energy exerted in scratching, energy lost due to inflammation, and less time spent eating. Moderate lice infestation has been documented to cause decrease weight gains in growing and finishing cattle by at least 0.12 pounds per day. Heavy infestation of lice can result in anemia leading to severe weight loss and even death. Additionally, the scratching activity often leads to damage to gates, fence, fence posts, and other physical structures.

Besides the clinical signs of infestation, lice are easy to detect by careful examination of the hair coat and skin. Eggs or nits can be found by observing the hairs and looking for characteristic white to whitish-grey nodules usually on the bottom half of the hair. In addition, adult lice are easy to observe as they range in size from 1/16 to 1/8 inch in size. The best places to look include the neck, withers, brisket, shoulders, midback, and tailhead.

There are a variety of effective insecticides for the control and treatment of lice (Table 1.). Products can be applied in a variety of ways including sprays, dips, dust bags, back rubs, injectables and pour-ons. Certain products have specific restrictions that need to be followed. Restrictions include class of cattle (some products cannot be used in dairy cattle), age and time of year, and harvest withdraw times. Some products work against internal parasites as well as lice. Some products also kill grubs, therefore must be timed to reduce risk of killing grubs as they migrate near the esophagus or spinal column. Producers are encouraged to always read and follow label directions carefully. It is very important to note that most insecticides do not kill the louse eggs. For this reason, a second treatment 2 or 3 weeks after the first is important to kill the newly-hatched lice before they can mature and lay eggs. General recommendations are to use a product or combination of products in the fall that control, not only lice, but also internal parasites and cattle grubs. For follow-up treatments in the winter, lice specific products can be used which are less expensive, but just as effective. Combine strategic insecticide application with sanitation and biosecurity and you "Got Lice" no more!

**Table 1. Products Available for Lice Control in Cattle[a]**

| Insecticide | Brand | Application Method | Harvest Withdraw |
|---|---|---|---|
| Amitraz | Tacktic | Spray | 0 |
| Cyfluthin | Cylence | Pour-on | 0 |
| Doramectin | Dectomax | Injectable<br>Pour-on | 35<br>45 |
| Eprinomectin | Eprinex | Pour-on | 0 |
| Ivermectin | Ivomec | Injectable<br>Pour-on | 35<br>48 |
| Lamba-cyhalothrin | Saber | Pour-on | |
| Moxidectin | Cydectin | Pour-on<br>Injectable | 0<br>35 |
| Phosmet | Prolate/Lintox-HD | Spray or Back Rub | 3 |
| Permethrin | Atroban DeLice<br>Atroban | Pour-on<br>Spray | 0 |
| Spinosid | Elector | Pour-on or Spray | 2 |
| Dichlorvos | Razap | Spray or Back Rub | 0 |

[a]Source: PBS Animal Health,www.pbsanimalhealth.com accessed January 2009.