

## Livestock Insects-Cattle

### Cattle Lice

*John B. Campbell*

#### Identification and Field Biology

There are four species of cattle lice that infests Northern cattle. They are the chewing louse, the short-nosed louse, the long-nosed louse and the little blue louse. The latter three feed on blood, while the chewing louse feeds on skin. The life cycles of the four species are similar. Eggs (nits) are deposited on hair. Immature lice resemble adults and feed on the animal. The life cycle is usually completed in about a month. Reproduction rates decline in the summer and increase in the winter. Lice are spread by animal contact. Some animals have more lice than others, and these are termed “chronics” or “carriers.” Generally, when cattle are placed on a high nutrition ration, the lice populations will decline.

#### Animal Response and Economic Losses

Research at Nebraska and by others indicates that weight gains are affected by lice only at moderate or high infestation levels (*moderate* =  $>3-10$  lice per square inch of skin and *high* = *more than 10 per square inch of skin*). *High* populations can cause anemia and affect the animal’s immune system, which makes it more susceptible to diseases particularly respiratory disease. Infested animals will scratch lice-infested sites and will have a rough-appearing haircoat. Weight gain depressions of 0.12 pounds per day have been recorded for cattle with a moderate to heavy lice populations (7 or 8 or more) on both a growing and finishing ration.

#### Management Approaches

##### Cultural

There are no known cultural practices for lice control except to cull chronic lice infested cattle from the herd.

##### Chemical

Lice numbers will be reduced when cattle are treated for cattle grubs in the fall. But the fall grub treatment may not be enough to prevent a lice buildup later in the winter. Insecticides recommended for lice control can be found tabled at the end of this chapter.

---

#### *Insecticide Suggestions for Control of Cattle Lice:*

<b>Insecticide</b>	<b>Application Method</b>	<b>Application Rate</b>	<b>Restrictions and Comments</b>
<b>Amitraz</b> (Tactic)	Spray	12.5 % EC, 0.025 % AI 1 pt/50 gal water	No restrictions. Apply spray to runoff.
<b>Cyfluthrin</b> (Cylence)	Pour-on	1 % AI 4 ml/400 lb body wt. Maximum of 12 ml	Retreat in three weeks.
<b>Coumaphos</b> (Co-Ral)	Spray	<b>11.6 % ELI</b> 5 oz/4 gal water	<b>Restricted-Use-Pesticide</b> Do not treat sick or stressed animals. Do not treat animals younger than three months. Do not treat lactating dairy cattle.
(Co-Ral Fly and Tick Spray)	Spray	6.15 % EC 2 qt/50 gal water or 5 oz/4 gal water	Do not treat sick or stressed animals. Do not treat animals younger than three months.
<b>Doramectin</b> (Dectamax)	Pour-on	0.5 % AI 1 ml/22 lb body wt.	Treatment-slaughter interval 45 days. Do not use on female dairy cattle, 20 months of age or older.
<b>Eprinomectin</b> (Eprinex)	Pour-on	5 mg/ml AI 1 ml/22 lb body wt.	No treatment-slaughter interval. No restriction for dairy cattle. Do not treat calves under eight weeks of age.
<b>Ivermectin</b> (Ivomec)	Injection	1 % AI 1 ml/ 110 lb body wt.	Treatment-slaughter interval 35 days.
(Ivomec)	Pour-on	0.5 % AI	Treatment-slaughter interval 48 days.
(Phoenectin) (Prozap)	Pour-on	1 ml/22 lb body wt. 0.5 % AI 1 ml/22 lb body wt.	Treatment-slaughter interval 48 days.
<b>Lamda-cyhalothrin</b> (Saber)	Pour-on	1 % AI 10 ml (a oz)/600 lb body wt. 15 ml (2 oz)/ over 600 lb body wt.	Apply product down back line. Do not apply more than every two weeks, and no more than 4 times during a six month period.

<b>Moxidectin</b> (Cydectin)	Pour-on Injection	5 mg/ml AI 1 ml/22 lb body wt	No treatment-slaughter interval No restrictions on dairy cattle
<b>Phosmet</b> (Del-Phos)	Spray	11.6 % EC 1 qt/38 gal water	Spray to thoroughly wet animal. Treatment –slaughter interval 3 days.
<hr/>			
<b>Permethrin</b> (Atroban DeLice)	Pour-on	1 % AI 15 ml(2 oz)/100 lb body wt.	Do not apply more than once every two weeks. Maximum of 5 oz per animal.
(Synergized DeLice)	Pour-on	1 % Permethrin + 1 % PBO AI 15 ml(2 oz)/100 lb body wt.	Do not apply more than once every two weeks. Maximum of 5 oz per animal.
(Boss)	Pour-on	5 % AI 3ml/100 lb body wt.	Maximum of 30 ml per animal.
(Ultra Boss)	Pour-on	5 % Permethrin + 5 % PBO AI 3 ml/100 lb. Body wt.	Maximum of 30 ml per animal.
(Brute)	Pour-on		Do not treat more than once every two weeks
(Permethrin)	Pour-on	10 % AI 3 ml/200 lb body wt.	Maximum of 5 oz per animal. Do not treat more than once every two weeks.
(Permethrin CDS)	Pour-on	1% AI 2 oz/100 lb. Body wt.	Maximum of 20 ml per animal.
(Atroban)	Spray	7.4 % Permethrin + 7.4 % PBO 2 ml/100 lb body wt.	Spray to thoroughly wet animal.
(Ectiban) (Insectiban)	Spray	11 % EC 1 pt/25 gal water  5.7 % EC 1 qt/25 gal water	Spray to thoroughly wet animal.

Gardstar	Spray	40 % EC 4 oz/25 gal water (High pressure spray) 4 oz/2.5 gal water (Low pressure spray)	Spray to thoroughly wet animal. Repeat in 14 days.
Permethrin	Spray	10 % EC 1 pt/100 gal water	Spray to thoroughly wet animal.
<b>Spinosid</b> (ELECTOR)	Pour-on	2.64%, 4 ml/110 lbs	
	Spray	0.04% (300 ml/5 gal of water)	Spray to the point of run-off.  Treatment slaughter interval 2 days, no with holding period for milk. Repeat spray applications as needed 14-day intervals, maximum 5 treatments.

*The information herein is supplied with the understanding that no discrimination is intended and that listing of commercial products, necessary to this guide, implies no endorsement by the authors or the Extension Services of Nebraska, Colorado, Wyoming or Montana. Criticism of products or equipment not listed is neither implied nor intended. Due to constantly changing labels, laws and regulations, the Extension Services can assume no liability for the suggested use of chemicals contained herein. Pesticides must be applied legally complying with all label directions and precautions on the pesticide container and any supplemental labeling and rules of state and federal pesticide regulatory agencies. State rules and regulations and special pesticide use allowances may vary from state to state: contact your State Department of Agriculture for the rules, regulations and allowances applicable in your state and locality.*

Categories: Livestock insects, Cattle, Cattle lice

Date: 12/19/06