

Prevent Louse Infestations

Cattle lice are the most costly and underrated external parasites of cattle. These wingless insect pests live on the skin of cattle and account for \$125 million in losses each year according to the USDA. Reduced feed conversion, weight losses, anemia and deaths all contribute to the loss figure.

Lice of cattle are divided into two classes: biting lice and sucking lice.

Sucking lice are the most harmful to the host because of the anemia they cause. With highly adapted piercing mouth parts, these lice break the skin and suck blood directly from the host. The short-nosed cattle louse is the most common of this class of lice. The long-nosed cattle louse and little blue cattle louse are also found in the United States. Sucking lice usually congregate around the cattle's head, neck and shoulders.

Heavy infestations of lice can be fatal to young calves. Red blood cell counts may be reduced to 25 percent of normal if left untreated. The resulting anemia can lead to poor feed conversion and vulnerability to other diseases. A heavily infested cow can carry as many as one million lice.

Winter louse infestation is common due to several factors. A thick winter hair coat provides lice with vital protection and also facilitates reproduction. Poorly nourished and young animals are usually more susceptible to damage. Since lice are transmitted

by direct contact, winter bunching or crowding also facilitates the spread of infestations.

Reproduction of lice usually increases during cold weather. The life cycle takes about 30 days. The eggs are attached to the hair by the female and hatch in 5 to 14 days. Nymphs, young lice resembling adults except for size, then emerge and grow into egg-laying adults in about 14 days. All three stages can be present at the same time on any given animal. Although direct contact is the primary means of transmission, eggs and nymphs may be transmitted by brushes or blankets and other equipment.

Careful examination is necessary for diagnosing lice. For best results, restrain the animal and then part the hair on the shoulders or head with index finger and middle finger. Place a strong light source behind you and, if possible, use a hand-held magnifying glass. Treatment is recommended if you count 2 or 3 lice per square inch of skin. If one animal is carrying lice, then the entire herd will probably be infested to some degree.

Louse infestation often goes undetected or ignored because visible signs are not always present until infestation is severe. However, when these conditions are present, damage has already been done. It is often difficult to decide to treat for lice except when these signs are apparent. When treat-

ment is properly timed, these signs and economic loss will be avoided.

Certain animals harbor abnormally high numbers of lice. No satisfactory explanation exists for this but such "carriers" should be treated in the fall when they are removed from the range. Most important, however, is to treat all animals before infestation becomes severe. Maximum economic benefit will be realized when heavy infestations are prevented.

Several methods of lice control are currently available. Some require two treatments because they do not affect the nit or egg stage of the life cycle. It is necessary to carefully follow all label directions as most products used for lice control are toxic substances. Certain insecticides kill grubs and must be used before winter to avoid host-parasite reactions. This reaction occurs when grubs are killed while migrating through the esophagus or spinal nerve canal. The dying grubs release substances causing edema and inflammatory changes leading to death of the treated animal.

Running nontreated animals with treated animals may lead to re-infestation and should be avoided. When heavily infested animals are treated, extraordinary improvement in performance usually follows. Improvements in efficiency usually depend on the degree of infestation before treatment. For best louse control and operator convenience, use a product that removes all stages of lice with one treatment. **AJ**