

# Control of Lice in Cattle

Shuja-ud-Din Mughal<sup>1</sup>, Muhammad Zohaib Irshad<sup>1\*</sup>, Muhammad Nouman Sajjad<sup>1</sup>

1. Riphah International University, Lahore, Pakistan.

\*Corresponding author: [larasibmughal07@gmail.com](mailto:larasibmughal07@gmail.com)

## ABSTRACT

Lice is a small insect that lives in the hair, skin, and fur of animals. Cattle lice stated that it affects milk production and weight gain. In recent years, awareness of skin infestation caused by lice has emerged. Lice control requires many factors including veterinary care, animal control, and environmental management. As a treatment, pyrethroids, organophosphates, macrolides, fipronil, and imidacloprid may be used. While a long-acting solution is the elimination of nymphs. Other treatments need to be applied every 7 to 10 days until the disease is controlled.

### Introduction:

Lice are small insects that live in the hair, skin, and fur of animals and show symptoms such as itching, and hair loss. Diagnosis involves examining the affected areas and looking for lice or eggs. Effective treatments are available, including pyrethroids and macrolides, for oral and topical use. Prevention and control refer to practices that limit stress, and malnutrition (1).

### Description of cattle lice

Cattle lice cause a disturbance, stating that lice affect milk production and weight gain in animals. In recent years, awareness of the skin infestation caused by lice has emerged (2). Historically, the first method of controlling lice was by the use of insecticides. However, concerns about toxicological effects, environmental impacts, and residue problems prohibit the use of chemical pesticides. Today, different pyrethroids and new avermectin derivatives that do not contain harmful residues are recommended for lactating cows.

Lice infestations remain unnoticed until large numbers of lice appear on a particular area of the body or the tail. If farmers are aware of lice problems, insecticide control is usually applied in late autumn, after the animals have finished breeding season and when numbers are still low. In recent years, new ectoparasite control strategies such as various eradication programs have been developed. Eradication is a well-established method of controlling lice in cattle and has also been described as relying on organophosphorus insecticides to eliminate lice. Eradication involves removing the source of infection from the animal and its environment and developing protective mechanisms to prevent further infection (3).

### Lice control in cattle

Effective control of lice requires addressing many factors, including veterinary care, animal management, and environmental management that reduce the disease transmission process. Effective management alongside the proper treatment leads to rapid recovery of animals from lice. To effectively apply the treatment regime, it is important to follow the instructions on the label, including the type of treatment, product concentration, dosage, and duration. FDA-regulated products are approved for use in animals, off-label use may be permitted under the Animal Drug Use and Disclosure Act (AMDUCA). It is recommended to consult the Animal Food Residues Database (FARAD) for recommendations on the use of non-chemicals and to determine when to use meat and milk.

### Treatment for lice control in cattle

There are many active and inactive products labeled for the treatment of head lice, including oral, topical, and injectable treatments. Effective chemicals include pyrethrins, pyrethroids, organophosphates, macrolides, fipronil, and imidacloprid. However, spinosad and fluorane may also be used. While a long-acting solution is the elimination of lice at nymphal stage. This treatment method needs to be applied every 7 to 10 days until the disease is controlled. Controlling water and chemical macrolides and spilled pyrethroids may impart positive effects. However, combinations of various anti-lice chemicals are effective depending on the type of cow. Synergistic pyrethroids, and synthetic pyrethroids such as cyfluthrin, permethrin, zeta-cypermethrin, and cyhalothrin (including gamma- and lambda- cyhalothrin) are proven to be suitable. In non-lactating cows, organophosphates such as thiamine and chlorpyrifos are good, as well as tetramethophos, pyritoxin, and diazinon. The use of macrolides such as moxidectin, ivermectin, eprinomectin, and doramectin is recommended in all cattle (4).

Pour-on formulations have proven effective against biting and blood-sucking lice, while injectable formulations are generally effective against lice. Animals in contact should be treated to prevent the spread of disease within

the herd. It is also recommended that you frequently clean the farm equipment or bedding with hot soapy water until the infestation is controlled.

Improving nutrition and treating underlying health problems are the final important steps in controlling lice and preventing recurrence. Additionally, new animals should be quarantined and tested before being placed into a herd (5).

### Conclusion

In conclusion, head lice management requires proper inspection, maintaining good hygiene, and the use of a suitable treatment plan. Combining these techniques can reduce the incidence of head infections and help create a healthier, better environment. It is important to share education and awareness about the disease caused by head lice so that proper hygiene and treatment are applied after and before the disease.

### References

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