

Lice: Threat to Live Stock Population

Saba Mehnaz¹, Abdullah Tariq^{1*}, Ahmad Ashar¹, Babar Zaheer¹

1. Riphah International University, Lahore, Pakistan.

*Corresponding author: oychaudharytu777@gmail.com

ABSTRACT

Lice (*Damalinea bovis*) plays a vital role in the context of livestock as a parasite. It harms our livestock animals. It acts as a vector for disease and also has a bad impact on the economic point of view. It diminished meat and milk production, increasing veterinary costs and wider impact on Global food security. Here, we will discuss everything about the Lice step by step.

Introduction:

Lice is a wingless and blood-feeding ectoparasite. They are host-specific having three body parts including the head, thorax, and abdomen. Lice are divided into two main groups of lice are the chewing type (for example *Damalinea bovis*) and the sucking type (for example *Linognathus vituli*). However, there are thousands of known species of lice worldwide (5).

Lifecycle

The lifecycle consists of 3 stages: eggs (nits), nymphs, and adult stage. The life cycle of head lice in farm animals goes through a number of distinct stages that reflect the best adaptation of the host to its environment. Starting from the egg or nits' stage, female lice produce small, oval-shaped permanent structures on the host's hair, fur, or wool. Within 1-2 weeks, nits will hatch and eventually produce nymphs. The nymph stage is marked by several weeks of continuous molt and growth; During this time, baby lice feed on the host's blood. After three days, the nymph gradually matures. Adult lice have special sucking mouthparts and can survive for weeks or months; Females lay large amounts of eggs to survive. The complexity of the lice life cycle is closely related to the host's environment, so a good understanding is important for effective management. The whole cycle takes about 2-3 weeks to complete (4,5).

Control and Preventions

By controlling lice, we can increase milk production and meat production of our animals. Effective control and prevention of lice in farm animals requires a good strategy. Avoid overcrowding, cull animals with much heavier infestation, regular inspection, and animal care together with the use of tick-resistant bedding, form the basis of preventive measures. Cleaning barns and chicken coops, including rapid removal of litter can destroy breeding grounds. Introducing natural enemies, such as insects or mites, into the environment can help control biology. Additionally, a healthy and nutritious diet can improve the immunity of animals. Adopting an integrated pest management (IPM) approach that combines traditional practices, sanitation management, and insecticides like permethrin, Organophosphate Carbaryl as a shampoo and 5% malathion dust has been effective in reducing lice in general (1,2,3).

Signs and Symptoms

Lice infections can cause anxiety, sleep disturbances, poor health, decreased milk production, weight loss, reduced growth of animals, loss of hair, skin irritation, and depressed behavior, and if a heavy infection, then it can cause anemia. *Linognathus pedalis* causes lameness in sheep (6,7,8).

Treatment

To treat lice infections or remove lice from our livestock animal's body, we can commonly use lice shampoos that contain pyrethrin or permethrin. We can also use fine-toothed comb which can help in removing nits (4,5).

Conclusion

Livestock lice can have significant suggestions for animal health and productivity. The motive of livestock lice is to give awareness about the proper management practices, such as regular grooming, use of insecticides, and maintaining clean living conditions, are crucial to controlling lice infestations. This awareness helps minimize the negative impact on livestock. Moreover, we are going to launch a mega project in parasitology at Riphah College of Veterinary Sciences, Lahore. We have already worked on controlling ectoparasites. Our team is always striving for this task and is available to solve the former's problems. If you want to take any information regarding the parasites then feel free and contact us.

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