

## Cattle Tail Lice<sup>1</sup>

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The cattle tail louse, *Haematopinus quadripertusus* (Figure 1) is the most important damaging cattle louse in Florida. In other parts of the United States the short-nosed cattle louse is the major pest. While much information is available for the control of short-nosed cattle lice, only limited information is available specifically on control of the tail louse. Important differences in the biology of these two species require differing control strategies.

### Biology

The cattle tail louse is a tropical louse species found in Florida as well as other Gulf Coast States. In 1945, the tail louse was introduced into Florida and has since spread to become a serious cattle pest in the subtropical regions of the United States.

The cattle tail louse is the largest louse species found on cattle. Adult tail lice are normally found on the last 18 inches of tail (Figure 2) and deposit eggs on the hairs of the brush (Figure 3). Occasionally when heavy infestations occur adults and eggs may also be found in the ears.

The eggs which are laid on the tail hairs may hatch in 9 days when temperature conditions are optimal. In winter when temperatures are low the



**Figure 1.** Cattle tail louse. Credits: J. F. Butler, University of Florida

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**Figure 2.** Adult cattle tail louse. Credits: J. F. Butler, University of Florida



**Figure 3.** Cattle tail louse life cycle. Credits: J. F. Butler, University of Florida

eggs may not hatch for 40 or more days. Thus, during January and February egg densities become built up on the tail brush. These eggs will remain on the hairs through the winter season to hatch when the temperatures begin to warm in the spring.

When the eggs hatch, the nymphs migrate to the area of the eye, muzzle and vulva surface. They remain there to blood feed and grow through the second instar. The second instar nymphs may also be found around the neck region and mid region. As the nymphs molt to the 3rd instar they migrate to the anal region of the animal to blood feed.

Under optimal conditions the cattle tail lice will go through the entire life cycle (egg to egg) in as few as 25 days. Since the species has not been reared under laboratory conditions the number of eggs laid per female is not known.

Cattle tail lice may be carried into a herd by introduction of infested animals. Once an infestation is in a herd, they may be spread by the direct contact of animals or by contact of areas where animals have scratched or rubbed.

The cattle tail louse may also be spread from animal to animal or herd to herd by flies. The 3rd instar nymphs of the tail louse frequently migrate to the backs and shoulders of animals. There they can climb onto horn flies or other flies frequenting the animal to be carried to new hosts. One sample of 5000 horn flies taken from cattle were carrying 100 tail louse nymphs. Flies which frequent animals in a herd may play a significant role in the movement of tail lice.

## Damage

The tail louse is a blood-sucking louse, and extensive infestations may cause anemia in cattle. Infested cattle show poor condition, slower weight gain, low vitality, and reduced milk production. Heavy infestations of sucking lice can cause abortion and anemia in animals.

Production information has been developed to determine the economic impact of tail louse infestations. Animals not treated to eliminate lice **lost** an average of 5 pounds (.14 lb/day) for the test period while treated animals **gained** 18 to 21 pounds (.5 to .6 lb/day). These differences in weight occurred even though the animals had access to equal feed and pasture.

Production information has also been developed for dairy animals. Although it is quite difficult to demonstrate increased milk productivity for dairy animals, it can be noted that milk production was 8.3% lower in animals not treated for cattle tail lice.

## Control

Tail louse control can be readily achieved by timed treatments or self-treatment with proper insecticides. The first application should kill almost all the nymphs and adults present on the animal at the time of treatment. Retreatment is then required to kill all nymphs and adults which developed from eggs that were present during the first treatment. Because

none of the labeled insecticides has good egg killing properties, retreatment is essential.

(Fahr). (Anoplura: Haematopinidae) in Puerto Rico. P.R. Univ. J. Agr. 4: 516-517.

Since cattle tail louse eggs can hatch up to 40 days after oviposition, treatments must be reapplied at 3 week intervals to attain good control. Continuous use of a dust bag or backrubber is the most successful control method.

Although tail lice may be present year-round, certain times of the year are preferable for treatment. From early spring to fall are good treatment times. Proper control procedures in the fall will prevent the winter build-up of eggs and subsequent damage when the nymphs emerge. Early spring applications will control the damaging emergence of nymphs from the over-winter buildup of eggs as well as aiding in horn fly control. Mid-winter treatments are not economically feasible since the population is generally in the egg stage and will not be killed by an insecticide application.

Late spring and summer applications for tail lice should be timed to obtain control of both flies and lice. This optimum timing of proper pesticides can result in the control of more than one pest for the cost of controlling one species.

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