Think twice before you treat all of your cattle for lice

Alan Carroll
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This badly rubbed animal was examined carefully for lice. Not one was found.

This article is based on research by Mr Alan Carroll and Mr Bruce Knee, of the district office of the Victorian Department of Agriculture, Hamilton, Dr L. J. Cummins, of the Pastoral Research Institute, Hamilton, and Dr N. E. Tweddle and Mr L. Callinan of the Regional Veterinary Laboratory, Hamilton, Victoria. It is reprinted from the Journal of Agriculture, Victoria.

Routine treatment of the whole herd for cattle lice is a waste of money. Research findings have been clear and consistent:

- Treatment for lice does not improve the growth rate of steers, heifers, heifers with calves at foot, or the calves themselves.
- In fact, animals with moderately high levels of infestation of lice grow as well as treated animals, even when feed is restricted.
- Restriction of feed increases lice counts, but lice counts do not significantly affect growth rate.
- Only a very small proportion of cattle in any group have a heavy infestation (about 7 per cent, according to a survey of cattle in the Western District).
- Heaviest infestations occur from winter to early spring, but isolated infestations occur at other times of the year.
- Animals in poorer condition usually have a bigger build-up of lice and the lice remain on them longer.
- Indeed, lice numbers may reach a peak as late as October on animals fed a drought ration.

- This reinforces the view that poor nutrition allows lice numbers to build up at times when seasonal conditions would normally reduce their numbers.
- Nevertheless, lousy animals on drought rations do not lose more weight than lice-free animals on drought rations.

A rule of thumb

The experiments have been run by Department of Agriculture beef industry officers Mr Alan Carroll and Mr Bruce Knee. They say that all of the untreated animals develop lice infestations but only about two or three animals in 20 become heavily infested. On these few animals, lice begin to increase in late autumn and their numbers reach a peak in late winter or early spring. As the weather warms up and the cattle lose their winter coats lice numbers drop rapidly to a point where a careful search is needed to find them.

But the important finding is that the more lightly infested animals, the big majority, do not at any stage suffer a significant increase in lice numbers, and they show no appreciable loss of production. The rule of thumb therefore is—treat only animals on which lice can be plainly seen. If you have to search for the lice you needn't treat the animal.

Cattlemen should not assume that cattle are lousy if they see them rubbing. Rubbing is a poor guide, as many badly rubbed animals have no lice on them.

Resistance to lice

The rubbing of cattle also interested researchers at the Regional Veterinary Laboratory, Hamilton. But their interest was different. It has been claimed that cattle control their lice populations only by licking and rubbing. Research workers in the United States have said that if cattle are stanchioned so that they can't groom themselves then lice on them invariably build up in large numbers.

But researchers at the Pastoral Research Institute had been given a hint that immunity or resistance to lice may be developed by cattle. They had observed that the numbers of lice on untreated calves running in the paddock with their heifer mothers had increased to a peak in June and then sharply fallen away.

To test the USA claim the Regional Veterinary Laboratory workers stanchioned six Shorthorn calves so that they couldn't groom themselves, then repeatedly infested them with lice. After each infestation the lice populations on the calves rose to a peak of two lice per square centimetre of total body surface—then declined sharply to negligible levels. The lice did not affect liveweight gain or appetite.

The calves did apparently develop strong resistance to the lice. This is being investigated further.

Local information

The Victorian conclusion, that lice treatments do not necessarily improve growth in cattle, is supported by data from the Bramley Research Station. A group of 60 hand-reared Friesian steer calves of 5 months age were clinically affected with lice in spring and half were treated to control lice. Over the next 3 months the treated and untreated calves grew at identical rates of 1 kg/day on annual pasture only. By the end of this period there were no visible signs of lice on either group of calves. It was apparent that even young calves which had not been suckling could throw off lice infestations with no help other than good quality pasture.