

## Local lice action groups – can they work?

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### Summary

*With the deregulation of sheep lice by state government agencies in recent years, a self-driven approach is one option being used by some farmer groups to achieve local lice eradication. Working with these groups can be both challenging and rewarding. The challenges include allowing the group to make its own decisions at its own pace. Working with self-motivated groups can lead to better use of technology but this may be a slow process involving unexpected activities required by the group to develop fully. This paper provides an overview of one group's initial approach to form a local lice action group and discusses the potential for success.*

### Keywords

Sheep lice, farmer group, deregulation, facilitator

### Introduction

Recent estimates on the associated costs of the sheep biting louse (*Damalinia ovis*) to the Australian sheep industry indicate that about \$169M is lost each year, of which \$75M is the cost of chemical and labour to apply it (McLeod, 1995). In the future it can be expected that the potential cost will increase due to pesticide residues impacting on marketing of wool.

In most states, sheep lice have at some time been a regulated disease where flock owners have been required to report infestations to the government agriculture agency. The main premise for lice to be a notifiable disease was due to the nature of the spread of the disease, which could result in a whole district being infested from one or two initially infested properties. However, it became apparent that a regulatory approach involving mandatory notification, quarantine and treatment did not result in reducing the overall true prevalence of lice. Hence, states have progressively deregulated sheep lice with the responsibility of this disease being mainly that of the flock owner.

In 1987, a statewide sheep lice eradication campaign was introduced in Western Australia (Buckman, 1992). Being the first of its kind there were several hurdles to overcome for the campaign to achieve success. Many wool growers were critical of the campaign because it involved a compulsory \$60 levy (tax) on wool producers. Also, the lice detection test used on core samples had a relatively low sensitivity and the 'turnaround' time was too long to enable timely decisions on short wool treatments.

The campaign attempted to encourage farmer neighbours to work together through the establishment of lice action groups. At the height of the campaign over 100 groups existed but each had varying levels of activity and therefore success at the local level. In the Katanning area of the Great Southern Agricultural Region, the lice cell groups, as they were known, operated very effectively for a time with lice prevalence reported to have reduced by an average of 25% from 1990 to 1991 in five shires (Hopkins, 1992). The perceived effectiveness of these groups was greatly influenced by the dedication and support given by both the local agency staff member and the cell group farmer leaders. Good communication was essential for maintaining enthusiasm and commitment at the local level.

Similarly, in New South Wales lice action groups rely on the input of local Rural Land Protection Officers who provide a significant support role (Scarlett 2001). This group support approach is similar to the role of Landcare Officers who support Landcare groups (Frost & Dymond, 2000).

Since the termination of the WA Sheep Lice Eradication Campaign in 1994, several small groups of farmers have wished to pursue a local action program to combat lice. This paper provides an overview of one group's initial approach to form a local action group and discusses the potential for success.

## Method

The group, which consists of about 25 farmers, is based between Kojonup and Katanning, a prime wool growing area. In 2000, an initial approach was made to Agriculture WA to provide support to the group to help them combat an ongoing lice problem. It was agreed that the agency would assist with technical support provided that the group was self-directed. This approach, where a farmer group has formed for a particular purpose, which is decided by the group and action is directed by the group, fits the farmer first model described by Chambers *et al.* (1989).

The first meeting, which was organised by the group, was very well supported with about 30 farmers attending. Agency staff presented information on wool residues as well as Integrated Pest Management (IPM) strategies for parasite control. The group felt that the meeting was worthwhile and wanted to pursue options to eradicate lice from the district. The agency offered to gather information from all properties that wanted to be involved and that this information would be presented at the next meeting.

In the meantime, the group was encouraged to organise a chemical treatment demonstration day with a chemical company representative. This was subsequently held and found to be very helpful by those who attended. Several group members also believed that focusing on correct chemical application had a positive impact of attitudes towards lice.

### *Farm profiles*

All group members were sent a feedback sheet to complete and return to enable relevant information to be gathered and analysed. This was not prepared or intended to act as a formal survey but rather to be an information gathering exercise so that the group could identify positives about the group and areas that could be improved. General farm information included:

- Size of property
- Main enterprise mix
- Flock size
- Flock structure
- Time of lambing
- Time of shearing
- Time of crutching

Information gathered relating to sheep lice included:

- Lice status
- When flock was known to be last infested
- Details of last treatment
- Perceived risk factors for introducing lice
- Requirements for eradicating lice
- Level and type of monitoring for lice
- Nature of stock introductions
- Condition and monitoring of fences
- Ability to detect lice
- Assessment of knowledge about residues, IPM, louse biology and chemical treatments
- Ideas for helping the group to eradicate lice
- Willingness to be involved in the group
- Droving of stock on public roads

Respondents were also invited to make other comments.

## Results

About 75% of the group completed and returned the feedback sheet indicating a keen interest and all respondents wanted to be involved in the group. A total of 14 members (70%) claimed to be lice-free but that was based on the assumption that treatments on nine infested properties were effective and no lice were introduced in 2000. A total of 70% of the group used a backline treatment, with all but one farmer

(used Clout S<sup>®</sup>) using Zapp<sup>®</sup>. One farmer had used Zapp<sup>®</sup> routinely every year. Eighty five per cent of the group cited infested strays as being the biggest risk factor with one third of these also mentioning poor fences and stray stock.

The following summaries highlight the key findings from the feedback sheet.

**Perceived strengths of the group**

- All wish to be part of the group and strong support for a group approach
- All but one were confident in identifying and checking for lice
- If treatments effective in 2000, then should have only very low number infested in 2001
- Most treat using an effective backliner
- Some monitor for lice
- 80% have a closed flock
- 80% inspect rams prior to introduction

**Areas to be improved**

- Maintain fences and check more
- Improve communication about stock movements, when flocks are lousy and course of action
- Increase knowledge on IPM and residues
- Improve frequency and method to monitor for lice

The findings were presented at the second meeting of the group which was held about six months after the first. The information gained from the feedback sheets provided a good focus point for discussion and highlighted areas for the group to focus on, particularly communication between neighbours. A district map was also presented at the second meeting for members to update property details. There was a lot of interest in using the map to track infestations over subsequent years. Another issue raised at the meeting was the potential for the group to obtain bulk discounts on chemicals and fencing. One member has taken responsibility to investigate this option.

The following information was included with the invitation for the second meeting.

**Factors to consider for measuring success towards eradication**

- Lice detection, numbers and duration
- Lice treatment policy
- Management of introduced sheep
- Boundary security
- Summary of property lice status

Table 1 provides parameters for each of the above factors.

**Table 1. Parameters for measuring success towards eradication.**

| <b>Risk factor</b>    | <b>Lowest (best)</b> | <b>Moderate</b>       | <b>High</b>     |
|-----------------------|----------------------|-----------------------|-----------------|
| <b>Lice detection</b> | Nil > 24 months      | Nil – 12 months       | Yes < 12 months |
| <b>Lice numbers</b>   | 0                    | Low                   | High            |
| <b>Treatment</b>      | Nil > 24 months      | Nil – 12 months       | Yes – 12 months |
| <b>Fences</b>         | Good                 | Average               | Poor            |
| <b>Quarantine</b>     | Closed flock         | Limited introductions | No quarantine   |

**Discussion**

The feedback sheet provided a good focus for discussion particularly as the group ‘owned’ the information. However, when an agency officer indicated to the group that it would be difficult to achieve district eradication without setting some goals and deciding on ways to measure success, there was little response. It is possible that the group has not developed fully or is not cohesive enough to take the next step to formally develop goals and strategies. This may eventuate in the future. Because the agency is

keen to let the group decide on its own plans, the proposal to measure success was not pushed. However, there is a concern that those members who would like to see more tangible evidence of progress may lose interest in the group and drop out.

## **Conclusion**

The next year or so will be an interesting time to observe the development of this group. It may be worthwhile to ascertain the perceptions, attitudes and expectations of group members during this time to identify changes in group dynamics and behaviour. It appears that with community problems such as sheep lice it is advantageous to involve a neutral party to assist with gathering and presenting information and offering ideas for the group to progress.

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