

ANIMAL HEALTH 2. Internal parasites

Key points

- Animal health can be managed to minimise disease and its effect on farming profitability.
- Much clinical disease is preventable – planning is the key.
- High quality feed has an extraordinary protective effect.
- Reduce exposure of stock to larvae by integrating stock classes (ratio of lambs to cattle, or integrating 2 year old cattle with 1 year old cattle. 2 year olds emit less eggs), by the use of short term crops or pasture, maintaining high grazing heights, and interfering with the free living stage of worms with Nematophagous fungi (a fungi which kills larvae).
- Clean grazing and late weaning are important management techniques.

Trevor Cook spoke to the Canterbury Organic Growers about the internal parasite problem in livestock. He believes that no-chemical farming is not sustainable, either financially or from the animal health viewpoint. However he stressed that animal health can be **managed** to minimise disease and its effect on farming profitability. **Planning** is the key to prevention.

Animal production has components of stocking policy, grazing policy, management policy and animal health. Animal health should not be treated in isolation. Much clinical disease is preventable and is often the result of omission.

Sub clinical disease loss, e.g. decreased weight gain, can precede clinical loss and is the major cause of production loss. Internal parasitism is the most common cause of decreased weight gain; other causes are trace element deficiency and endophyte challenge interacting with pasture quality.

Major cause of lowered production

The internal parasite problem is the major cause of lowered production and risks the sustainability of many farms. A strategy to reduce production losses includes:

- reducing exposure of stock to larvae
- reducing the response of the animal to the worms
- breeding resilient animals
- improving pasture quality and amount.

Reducing exposure of stock to larvae includes:

- integrating stock classes (ratio of lambs to cattle, or integrating 2 year cattle with 1 year olds – 2 year olds emit less eggs)
- use of short term crops or pasture

- maintaining high grazing heights
- interfering with the free living stage of worms with Nematophagous fungi (a fungi which kills larvae).

To reduce the response of animals to worms, feed tannin containing forages, such as sulla, *Lotus corniculatus* (birdsfoot trefoil), chicory, and willow and maintain a high protein diet with high quality feed. Tannins have an anti-inflammatory effect and contain by-pass proteins, and they are also very nutritious and tasty so stock may eat more. Willows contain 15% tannin.

Management crucial

Management of parasites is crucial in an organic situation. Tannins are a good option, but what gives the biggest gain is planning. This identifies the threats, requires setting up management responses and schedules actions. Non chemical management of internal parasites is the most important aspect of sustainability. These include clean grazing and late weaning.

Summary

Factors in the successful management of internal parasites and progress toward sustainable animal production include:

- the value of a plan
- the extraordinary protective effect of high quality feed
- the stress of extremes (weather, feed)
- the value of being proactive with supplements.

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