

Establishment of annual ryegrass toxicity (ARGT) testing services and protocols for the Australian export hay industry

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Objective

The objective of this project was to develop recommendations on sampling protocols for the export oat hay industry to minimise the risk of annual ryegrass infected with the bacterium *Clavibacter toxicus* contaminating hay and causing the poisoning of livestock known as annual ryegrass toxicity (ARGT).

Three separate incidents of cattle deaths in Japan attributed to ARGT associated with Australian hay jeopardised the export market in early 1996. An interim protocol was developed by a consultative group led by Department of Primary Industries and Energy to test the remaining stored hay from the 1995 crop. This restored confidence in Australian hay, but the hay industry was warned trade would be suspended if more toxic hay was exported to Japan.

To protect industry from the consequences of further outbreaks of ARGT in Japan, a collaborative project funded by RIRDC was established to develop sampling protocols to reject contaminated hay.

Research

There were two major components to the project. The first was to establish testing services in South Australia and Western Australia to enable hay samples to be tested for the bacterium. Research was then undertaken to assess different sampling strategies for stored and processed hay. Sampling strategies for hay crops and bales in the paddock were evaluated. These studies were conducted in collaboration with export hay

Background

Oat hay is an important export commodity. In 1996/97, about 225,000 t, worth \$74 million, was exported to dairies in Japan. Demand for Australian oat hay is increasing at about 10% per year. Most export hay is produced in South Australia and Western Australia.

processors and utilised a large proportion of the export hay crops.

Outcome

Testing services were established in South Australia and Western Australia to process hay samples. Between June 1996 and June 1998, the services processed 24,192 hay samples and 4,879 paddock samples.

Recommendations for sampling protocols were developed for consideration by the export oat hay industry, and areas where further research would be beneficial were identified.

Implications

The future of the export oat hay industry is vulnerable unless it adopts an effective sampling protocol to manage the risk of ARGT. This will require a strong commitment by all participants, backed up by an effective quality-control system.

Acknowledgment

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