Leptosure: Where is it at and where is it going?

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**Leptosure**  
“A risk management programme for control of leptospirosis on dairy farms”.

**Background**  
The Leptosure programme has been running for over 10 years since the concept was developed by Steve Cranfield and DCV in 2001 (Cranfield 2002).

Leptosure is a form of quality assurance programme with the aim of minimising the risk of leptospirosis for dairy farmers and those associated with dairy farming. It includes a Risk Management Plan (RMP) which identifies individual farm leptospirosis risk profiles and vaccination programmes for these farms. It also consists of national registration with NZVA, an annual consultation and review of the farm risk profile, and promotional and education material.

Initially Leptosure had good support from veterinary practices. This support being attributed to the promotional work from NZVA, the recording of farm ‘Protected Leptosure status’ on the LIC database for Leptosure enrolled farms, the endorsement by OSH, and support from the leptospirosis vaccine supply companies.

Some of this support by the vaccine supply companies was because Leptosure was seen to contribute to ‘good product stewardship’ (Phillips, pers comm.). By this is meant that products are fully understood, are used correctly and according to label claims, and with good technical knowledge and support. This ensures that expectations are realised for veterinarians and farmers using these products.

With the continuing trend of larger dairy herds and more ‘corporate’ farms, some form of Leptosure is seen as an important part of the animal QA programmes on many of these farms. Good quality advice given with the programme appropriate to the individual property is seen as important, not just the supply and/or administration of the vaccine.

**Trends**  
During the 2007 ‘peak’ of Leptosure farm registration at a national level was still not high (less than 10% of all farms) and since 2007 both the number of enrolled farms and veterinary practices has been diminishing (NZVA 2008).
This reduction in both farms and practices has happened despite the high awareness amongst farmers of Leptosure, and their concern about the risk of leptospirosis. A 2008 CINTA survey (CINTA 2008) of approximately 600 farmers identified that over half (55%) of non-Leptosure registered farmers were aware of Leptosure and 85% of all respondents said they were concerned about the risk and harm of leptospirosis. A pleasing 67% of respondents said their veterinarian was the main source of information on dairy health and safety. However 34% had never heard of Leptosure or their veterinarian had not mentioned it to them.

Reasons given for the drop-off in farmer (and veterinary practice) numbers vary and relate to all components of the programme. The withdrawal of LIC involvement and the loss of the LIC database and ‘protected farm status’ in 2008 removed a perceived major incentive for many farmers. Other reasons include repeating each year what had been done in previous years, lack of tangible benefits each year, a cost-structure seen as not sustainable, and usurping or replacing of Leptosure by in-house practice-based leptospirosis control programmes.

Comments from veterinarians

A number of veterinarians throughout New Zealand were contacted during 2010-11. Some of this contact occurred following previous reports of human leptospirosis cases, some on advice that a practice was withdrawing from Leptosure, and some randomly.
A selection of comments recorded included; “the practice was keen to adopt Leptosure, tried hard, farmers didn’t see a continuing value”, “bits of Leptosure have been adopted”, “the concept as a QA scheme is very good”, “don’t need Leptosure if veterinarians and/or technicians are doing the vaccinating”, “the initial consultation is useful, repeat consultation is difficult, could be incorporated into the annual RVM consult”, “Leptosure is needed if vaccine is dispensed”, “the programme keeps vets on the ball”, “the educational material is useful for new farm staff”, “a national standard like Leptosure is needed”, “Leptosure has become synonymous with farmers doing their own vaccinating”, “many farmers think lepto control is just vaccination”, “a good training tool for veterinarians and farm staff”, “a robust system is needed for farmers doing their own vaccination”.

Many veterinarians commented on the need for a nationally accepted ‘standard for leptospirosis control’, especially for vaccination programmes, and that there were many local variations throughout the country.

Understanding the role of vaccines and vaccination, developing appropriate programmes for individual farms, and the means of recording and monitoring of vaccination has always been contentious, confused and variable throughout New Zealand. Investigation of a number of human cases over the past 2-3 years has highlighted this variability. Some of this confusion is attributed to differing advice provided by leptospirosis vaccine supply companies on vaccination protocols, especially on age of vaccination and the role of maternal antibodies, the relevance of strains in the vaccine, and the timing of booster vaccinations.

The future

Because of the comments expressed above and as part of the review of Leptosure, a project was instigated with Massey University EpiCentre to determine the ‘best-practice’ vaccination strategies for the control of leptospirosis in dairy and beef cattle, deer (and sheep if appropriate) in New Zealand and to minimise the risk of leptospirosis in humans. This process has included a relevant literature review, consultation with the vaccine supply companies for relevant information and technical input, and consultation with NZVA, and DCV, S&B and Deer SIBs. The objective of this project has been to have these accepted and recognized as ‘best practice’ vaccination protocols appropriate to New Zealand farm management systems.

A longer term aim is to determine the feasibility of these protocols being incorporated into a practice-based recording and monitoring system to be available through the Leptosure programme.

The educational and support material provided to Leptosure registered practices has been well accepted. It is seen as increasingly important for training farm staff in the larger herds, and for new staff on all farms. However it needs to be reviewed regularly, kept up to date, and made relevant to those it is aimed at. A future Leptosure programme needs to supply this material.

Given the recent high profile of human leptospirosis cases and the continuing concern by farmers about leptospirosis, some form of Leptosure should continue. Veterinarians have the training and are well positioned to play the key role in the control of leptospirosis on New Zealand farms through Leptosure. The success and future of this role will depend on acceptance, understanding and following of national standards, the provision of good quality advice, and consistency of performance.

References


NZVA Leptosure data on file (2012)