

6. Disease control

A. Enzootic Bovine Leucosis (EBL) control scheme

- **4.7% of herds have a positive EBL Status**

Enzootic Bovine Leucosis (EBL) is a slow spreading viral disease that affects the immune system of cattle by attacking white blood cells. The virus can be spread by any action that exposes healthy animals to blood or milk from infected animals. A small percentage (5%) of animals affected by the EBL virus develop a fatal cancer.

The New Zealand dairy industry implemented a control scheme in 1997 with the aim of eradicating this disease by 2005. International recognition of New Zealand dairy herds becoming “EBL – Free” is expected to confer long-term marketing advantages for product and animal exports.

Testing during the 1998/99 season has seen:

- A decline in confirmed positive herds from 891 to 674
- The establishment of a Livestock Improvement blood serology laboratory at NMAC which analysed 99,458 samples since 1 November 1998
- 1298 herds achieve a “Free” herd status
- A decline in untested herds from 870 to 65

At the end of the 1998/1999 season 441 herds (65%) had culled the confirmed positive stock and require re-testing in 1999/2000 to determine herd status. Of the herds that still had known positives, 167 herds (25%) had less than 6 positive cows. A further 33 herds had from 6 to 10 positive cows (5%). Only 33 herds had more than 10 positive cows (5%). Table 6.1 provides a summary of progress made since the 1997/98 season.

The virus that causes EBL is not easily spread and the disease can be controlled within herd using well-proven methods. New cases within high incidence rate herds is not uncommon, however with control measures now in place for the third season it is expected that fewer new cases will be seen. The EBL Control Scheme contracts veterinarians to assist herd owners/managers of infected herds by providing technical advice and implementing management plans.

Table 6.1: Summary of Enzootic Bovine Leucosis (EBL) status for all dairy herds since 1997/98

Status	Herds 97/98	% 97/98	Herds 98/99	% 98/99
Blood Positive	891	6.1%	674	4.7%
Individual Milk Positive	68	0.5%	67	0.5%
Pool Milk Positive	108	0.7%	19	0.1%
Monitored Positive (vat test only)	91	0.6%	30	0.2%
Suspect (purchased from positive herd)	158	1.1%	377	2.6%
Free	–	–	1,298	9.0%
Negative Year 2	1,331	9.1%	5,221	36.4%
Negative Year 1	5,718	39.0%	5,100	35.5%
Provisionally Negative	–	–	478	3.3%
Monitored Negative (vat test only)	5,438	37.1%	1,033	7.2%
Untested	870	5.9%	65	0.5%
TOTAL	14,673		14,362	



B. Tuberculosis (TB) control

- **Number of infected dairy herds decreases by 30.0 % in 1998/99**

Tuberculosis (Tb) is a chronic infectious disease characterised by the formation of tubercles in the tissues of the body. Various tissues and organs including the lungs, lymphatic system, kidneys, liver, intestines and brain may become infected. The disease is caused by the organism *Mycobacterium* spp. of which there are three strains: *M. bovis* (cattle), *M. tuberculosis* (human) and *M. avian* (bird). Cattle can be susceptible to strains other than *M. bovis* and react to initial testing in the same way but the disease is not as serious with this infection.

Control of Tb (*M. bovis*) over the agricultural industry is managed by the Animal Health Board whose primary objective is to manage Tb to reduce the number of infected herds and to prevent Tb vector free areas becoming vector risk areas. Vectors are defined as wild animals that are considered a source of infection eg possums, ferrets.

In 1998/99 there were 135 infected dairy herds in New Zealand (Table 6.2), a decrease of 30.0 % from the previous season.

Table 6.2: 1998/99 Tuberculosis (Tb) testing and results

Area	vector status	Number of infected dairy herd June 1999	Number of dairy cattle tested
Northland	Free	0	107,513
Auckland	Free	0	64,821
	Risk	0	10,407
Waikato	Free	14	1,161,300
	Risk	8	151,723
Bay of Plenty	Free	2	99,480
Gisborne	Free	0	131
Hawkes Bay	Free	0	14,849
	Risk	0	3,694
Taranaki	Free	2	157,986
Manawatu / Wanganui	Free	1	111,933
	Risk	4	68,304
Wellington	Risk	15	105,202
Nelson / Marlborough	Free	2	42,357
	Risk	2	1,572
West Coast	Free	0	3,086
	Risk	67	120,159
Canterbury	Free	3	87,587
	Risk	3	70,180
Otago	Free	1	59,998
	Risk	8	64,654
Southland	Free	3	90,133
	Risk	0	15,835
North Island	Free	19	1,718,013
	Risk	27	339,330
	Total	46	2,057,343
South Island	Free	9	283,161
	Risk	80	272,400
	Total	89	555,561
Total	Free	28	2,001,174
Total	Risk	107	611,730
New Zealand	Total	135	2,612,904

*Sourced from Animal Health Board Annual Report for the year ending 30 June 1999



Appendix 1: Farming regions and districts

The following map shows the six Livestock Improvement Corporation Limited regions and the farming regions used in all analyses presented in this report. The list of districts and cities within each region is also given.

