



## HERD HEALTH

## Chapter Content

- 63      **Overview**
- 63      **Published reports, conference papers and posters, industry papers**
- 63      The herd health initiative
- 64      **Work in progress**
- 64      The herd health initiative
- 64      The mastitis pilot
- 65      Herd health reports
- 67      The infectious diseases pilot
- 67      The economic impact of Johne's disease in an Irish dairy herd: A case study
- 68      **Key meetings/presentations**

## Overview

Livestock farming in Ireland is at the start of a period of substantial challenge. The value of Irish product has come under considerable pressure, as a result of increasing international competition. There are also clear signs of reduced subsidy support for Irish farmers (currently an average of 35% of annual farm income), as a result of decisions both from within and outside the European Union (EU). As agreed at the 6<sup>th</sup> Ministerial Conference of the World Trade Organization in Hong Kong, export subsidies will be phased out by 2013. Further, at the recent EU summit in December 2005, it was agreed that the European Commission will hold a 'full and wide-ranging' review of all EU spending, which includes the Common Agricultural Policy.

In a global market, competitiveness is closely linked with cost and value. In contrast to many key competitors, the cost of inputs on Irish farms is very high, as illustrated by the high level of wages and cost-of-living. Therefore Ireland cannot hope to compete on price. Logically, product quality will become increasingly important to the survival of Irish agriculture. This will require an increased emphasis on all aspects of quality, including animal health and welfare. An emphasis on animal health and productivity will be important both nationally (to facilitate market access and competitive advantage) and on-farm (positively influencing on-farm profitability by reducing cost per unit output and enabling production of high-quality product).

In response to these challenges, CVERA is playing a central role in the development of a national herd health initiative. Associated pilots, and the herd health reports, are important components of this broader initiative.

## Published reports, conference papers and posters, industry papers

### The herd health initiative

*More, S.J. and Barrett, D., 2005. The herd health initiative. Irish Veterinary Journal, 58: 692-694.*

In a global trading environment, product quality will become central to the long-term survival of Irish agriculture. The herd health initiative, a partnership between government and a range of industry bodies and service-providers, is currently under consideration, to provide national leadership in the area of non-regulatory herd health and productivity. The initiative adapts international models of success (notably, from the Netherlands, Sweden and Australia) to the Irish context, and will seek to establish the national infrastructure that is needed to enable Ireland to achieve international best-practice in these areas. Based on International experience, industry leadership will be critical.

## Work in progress

“To remain competitive, Ireland must achieve international best-practice in the areas of herd health and productivity”

### The herd health initiative

As highlighted previously, Irish agriculture is facing some difficult challenges and must produce at high levels of efficiency if it is to remain competitive. There are many production diseases at farm level that may not produce obvious clinical disease *per se* but do have significant impact on production efficiency. Addressing these issues presents both challenges and opportunity.

In recent months, a number of organisations have been working on the concept of an industry-led 'Herd Health Initiative' (HHI). These organisations have each clearly identified the need for Ireland to achieve international best-practice in the areas of herd health and productivity. Working with these bodies, CVERA has developed a proposal for a formal HHI that will drive non-regulatory issues (that is, those outside the direct remit of government) including:

- *Those with a strong biosecure component*, such as Johne's disease, IBR and BVD; and
- *Those that generally do not have a strong biosecure component*, including mastitis (and milk quality more generally), fertility and lameness.

The proposal envisages a central, not-for-profit, body, guided by key stakeholders (from industry, producers, government and relevant service providers) being created to provide central leadership in efforts towards continuous improvement in herd health and productivity.

“Detailed problem-solving is a first step to solving on-farm milk quality problems”

### The mastitis pilot

This pilot project has sought to demonstrate that veterinary interventions can positively contribute to milk quality, particularly among herds with long-term somatic cell count problems. Three regions, namely the Meath, Laois and Kilkenny areas, were identified where there were enthusiastic farmers, veterinary surgeons and dairy advisers. The participating veterinary surgeons were mentored on an ongoing basis over the course of a twelve month period, ensuring a consistency in approach and standards among them in dealing with mastitis at farm level. Approximately twenty herds were involved in the pilot project. Anticipated outcomes after 12 months include improvements in milk quality indices among participating herds, improved udder health and aspects of animal welfare relating to udder health on participating herds, increased awareness of the role of mastitis control in quality milk production, and increased capacity among participating veterinary surgeons in dealing with herd mastitis problems.

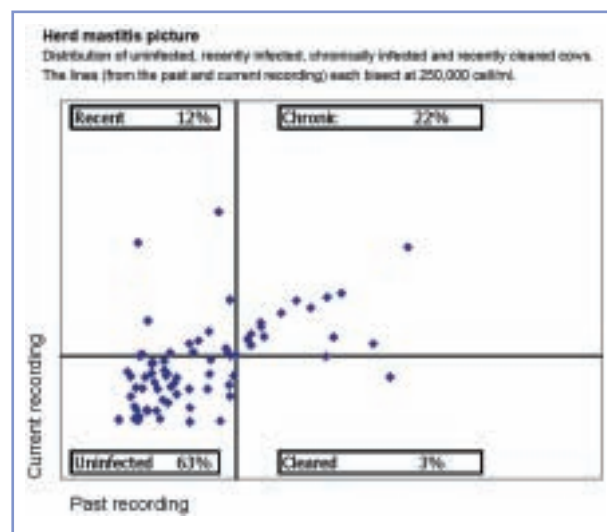
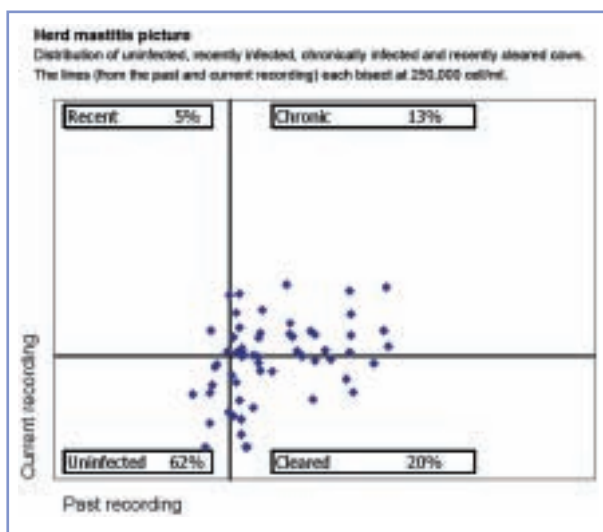


## Herd health reports

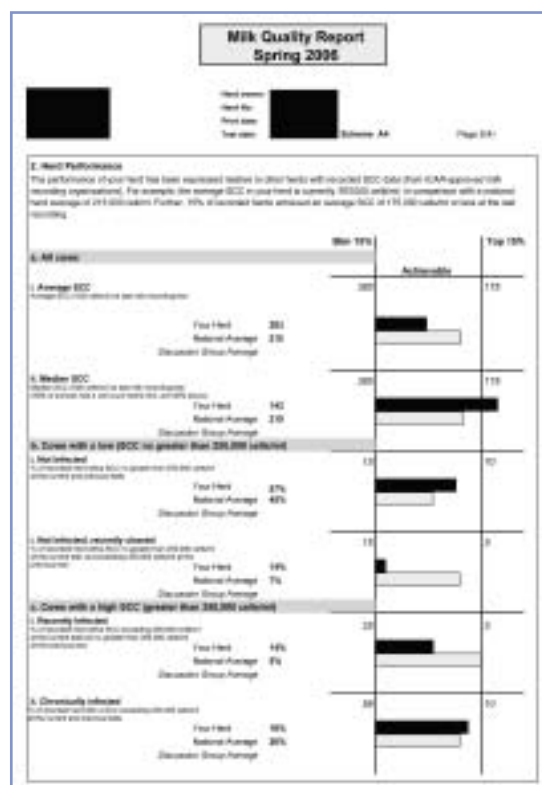
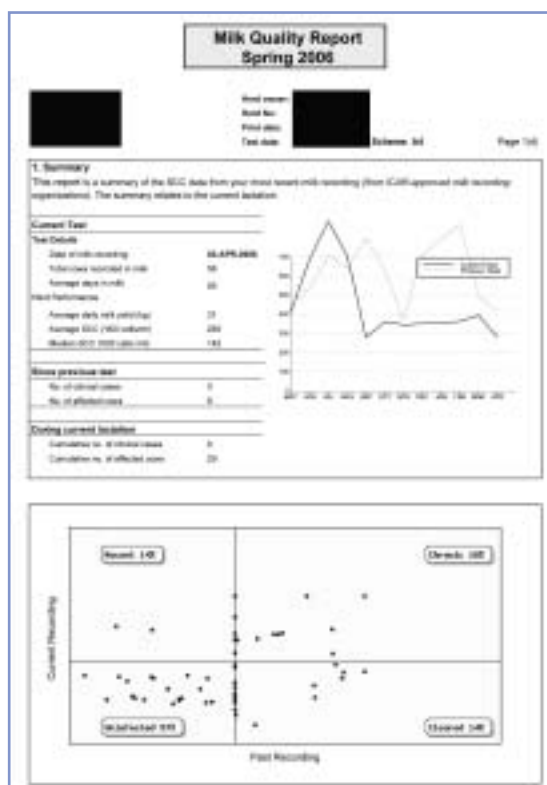
The objective of this project is the development of a series of herd reports based on key performance indicators of reproductive performance, milk quality, mortality and culling. The reports give an objective perspective of performance and can assist in decision making at farm level. Further, the reports enable farmers to compare themselves to their peers. They also provide tools in solving problems at farm level and monitoring progress following the implementation of control programmes. With time, the reports will be useful at national, regional and processor level to provide detailed information to assist with decision making.

The development of the series of reports is a joint initiative between the Irish Cattle Breeding Federation (ICBF) and CVERA, with a view to improving the sustainability and competitiveness of Irish cattle farming.

“You can only improve what you can measure”



A summary of the mastitis picture on two Irish farms with a significant problem of Staphylococcal mastitis. On only one of these farms (left) is within-parlour transmission been controlled



### Milk Quality Report Spring 2006

Hand owner: [Redacted]  
Hand No: [Redacted]  
Print date: [Redacted]  
Test date: [Redacted] Scheme: A4 Page 3(4)

#### 3. Milk Performance by lactation number and stage of lactation

This report provides a summary of all cows with SCC data from ICAH-approved milk-recording organisations.

	Mean SCC		Median SCC		Non-infected		Non-infected, recently infected		Recently infected		Clinically infected	
	Cows	Mean	Cows	Median	Cows	%	Cows	%	Cows	%	Cows	%
<b>Overall</b>	58	280	58	142	33	57%	8	14%	8	14%	0	0%
<b>Stage of Lactation</b>												
0-1000	58	280	58	134	31	53%	8	14%	8	14%	0	0%
Over 1000	2	112	2	57	2	100%	0	0%	0	0%	0	0%
<b>Lactation Number</b>												
1	20	321	20	120	15	75%	5	25%	5	25%	2	10%
2-3	10	230	10	143	11	55%	2	11%	2	11%	4	21%
4-5	7	264	7	257	4	57%	0	0%	1	14%	2	29%
6+	4	285	4	57	3	75%	0	0%	0	0%	1	25%

### Milk Quality Report Spring 2006

Hand owner: [Redacted]  
Hand No: [Redacted]  
Print date: [Redacted]  
Test date: [Redacted] Scheme: A4 Page 4(4)

#### 4. Action List

The last three or more SCCs of the following cows has been in excess of 250,000 cells/ml and further action may need to be taken. Do not return this sheet to the Animal Events office.

Cow ID	Parity	Calving Date Days in Milk	Mean SCC for lactation	No SCC > 250,000	In Calf Y/N	305 day yield	Action
[Redacted]	6	20-Jan-2006 73	447	3		9287	

Farmer milk quality reports developed collaboratively by the Irish Cattle Breeders Federation (ICBF) and CVERA



### The infectious diseases pilot

Voluntary programmes of non-regulatory animal disease control are now common internationally. This pilot, which recently commenced, is seeking to build national capacity in three areas: voluntary programmes of animal health, the computing systems required to manage such programmes, and the laboratory resources that will be needed to manage relevant testing. In the pilot, a range of diseases to be considered include Johne's disease, infectious bovine rhinotracheitis (IBR), bovine viral diarrhoea (BVD), salmonellosis, neosporosis and leptospirosis.

“Voluntary programmes of non-regulatory animal disease control are now common internationally”

### The economic impact of Johne's disease in an Irish dairy herd: A case study

*Principal investigators: Margaret Good (DAF), Damien Barrett, Martin Hayes and Simon More (CVERA)*

An epidemiological investigation, examining the economic impact of Johne's disease in an Irish dairy herd, concluded that infection was introduced into the herd in 1993 with the importation of 20 Dutch heifers. The practice of feeding pooled colostrum and milk was considered to have disseminated *Mycobacterium avium* subspecies *paratuberculosis* (MAP) widely throughout the herd. Farm performance declined substantially between 1993 and 2003, as a result of reduced milk yields, increased culling and reduced cull cow values. This negatively impacted on the profit margin per litre milk sold and per cow. The performance relative to a group of 25 to 30 peers also deteriorated over the study period. Farm performance was superior to that of its peer group until the late 1990s, but was markedly worse by 2002. Profit margin per cow had been €272 greater than, but fell to €230 less than, the group median in 2002. Similarly, when compared to the group median, average milk yield per cow was 814 (14.7%) litres above, but fell to 778 (13.9%) litres below in 2002.

Economic recovery commenced in 2003 as a result of the application of control measures that were applied from 2002 onwards.

“Following the introduction of Johne's disease onto the case farm, performance declined substantially over the following 10 years, as a result of reduced milk yields, increased culling and reduced cull cow values”

## Key meetings/presentations

### Damien Barrett

- Workshop, national herd health initiative (Fermoy, 8-9 September 2004)
- Animal Health Committee, Veterinary Ireland (Dublin, 20 April 2004, 1 July 2004, 9 November 2004, 10 January 2005, 21 June 2005, 16 November 2005)
- Practitioner training, Veterinary Ireland (Abbeyleix, 16 September 2004, 2 December 2004)
- Series of meeting with ICBF personnel on developing herd health reports
- UCD seminar (*Recent developments in herd health in Ireland*) (3 March 2005)
- Multilateral meeting (industry/government) (Portlaoise, 25 April 2005)• Annual Conference, Society for Veterinary Epidemiology and Preventive Medicine, Nairn (30 March – 1 April 2005)
- DAF presentation (*On-farm records from ICBF*) (Central Veterinary Laboratory, Abbotstown; 16 June 2005)
- 8th International Colloquium on Paratuberculosis, Copenhagen, Denmark (14-17 August 2005)
- Practitioner Discussion groups (Navan and Kilkenny, July, August, September, October, November 2005, January 2006)
- Industry meeting (Cork, 18 November 2005)
- Industry meeting (Kilkenny, 21 November 2005)
- Industry meeting (Longford, 16 December 2005)
- FSAI meeting (Dublin, 16 December 2005)
- Teagasc meeting (Dublin, 24 November 2005)
- Presentation on biosecurity for cattle herds (Laois/Offaly Friesian Breeders, Tullamore, 3 November 2005; Kildare Friesian Breeders, Naas, December 2005)
- Midland Clinical Society (*Herd Health Recording Systems*)(Mullingar, 10 November 2005)
- Practitioner and farmer meetings on herd health risk assessment (Moorepark, 2 December 2005; Grange, 5 December 2005)

### Simon More

- Industry meeting (Mallow, 8 March 2004)
- Farmers meeting (Arklow, 1 April 2004)
- Animal Health Committee, Veterinary Ireland (Dublin, 20 April 2004, 1 July 2004, 9 November 2004, 10 January 2005, 21 June 2005, 16 November 2005)
- UCD meeting (12 May 2004)
- Industry meeting (Irish Farmers Association, Animal Health Committee; Abbeyleix, 26 August 2004)
- Workshop, national herd health initiative (Fermoy, 8-9 September 2004)
- Practitioner training, Veterinary Ireland (Abbeyleix, 16 September 2004)
- UCD meeting (2 November 2004)
- Practitioner training, DAF (Fermoy, 2 December 2004; Grange, 5 December 2004)
- Industry meeting (Kilkenny, 3 February 2005)
- UCD meeting (7 February 2005)
- Industry meeting (Irish Farmers Association; Dublin, 21 March 2005)
- Multilateral meeting (industry; government) (Portlaoise, 25 April 2005)
- UCD seminar (*Opportunities for herd health in Ireland*) (3 May 2005)
- Practitioner training, Veterinary Ireland/Association of Veterinary Surgeons Practicing in Northern Ireland (Enniskillen, 8 June 2005)
- Industry meeting (Irish Farmers Association; Dublin, 8 July 2005)
- Practitioner training, UCD Veterinary Hospital (26 August 2005)
- 8th International Colloquium on Paratuberculosis, Copenhagen, Denmark (14-17 August 2005)
- Practitioner discussion group (Kilkenny, 7 September 2005)
- Industry meeting (Kilkenny, 6 October 2005)
- Presentation, Joint AVSPNI (Association of Veterinary Surgeons Practicing in Northern Ireland)/CAVI (Cattle Association of Veterinary Ireland) conference (*The herd health initiative*) (Ballyconnell, 23 October 2005)
- Industry meeting (ICMSA; Limerick, 7 November 2005)
- Presentation, Veterinary Ireland, Kerry Clinical Society (*The herd health initiative*) (Tralee, 15 November 2005)
- Industry meeting (Cork, 18 November 2005)
- Industry meeting (Kilkenny, 21 November 2005)
- Practitioner meeting, (Bandon, 14 December 2005)
- Industry meeting (Ballineen, 15 December 2005)
- Industry meeting (Longford, 16 December 2005)
- FSAI meeting (Dublin, 16 December 2005)
- Teagasc meeting (Dublin, 24 November 2005)