

*Kite*

# Health and Culling Monitor

Annual Report  
2009



Ben Watts  
Kite Consulting

# About Kite Consulting

Kite Consulting is a modern consultancy company focused on delivering excellence to customers in farming and the allied industries. We operate a team approach and our partnership of more than 20 national specialists and leading business and technical consultants provides high calibre consultancy across the UK and internationally.

Kite provides business services to the entire food supply chain. Recognised as a specialist in the UK dairy industry, we also work with livestock and arable businesses, serving market sectors including farming, the agricultural supply trade, food processors, retailers and public sector organisations. In addition, we are recognised for our pioneering environmental work, particularly on the carbon footprint of primary production.

We are proud of our knowledge base and our relationships, which are unique in fostering communication and understanding across the entire chain from farm to retailer.

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## Introduction

Kite established the Health and Culling Monitor system in Autumn 2006 and it is now into its fourth year.

We believe that monitoring herd health performance and culling data is crucial in the management of cow welfare and profitable dairy production. The Health and Culling Monitor system is simple to use, with farmers entering the incidence data for key health issues and the reasons for culling on a monthly basis. Dairy farmers can then benchmark their performance against industry standards and the system also provides an accurate assessment of the costs associated with health issues and culling rates, so the financial implications are known.

Moreover, Kite's Health and Culling Monitors offer a framework for a proactive management approach to cow welfare – an area that is increasingly attracting interest in the media and among consumers. By routinely monitoring and recording health and culling events farmers have a better idea of the causes of welfare problems on their farm and can be proactive in addressing them. In time this will bring real benefits in terms of welfare status, which will have knock-on benefits in production and profitability.

This report is based on data gathered by Health and Culling Monitor during the years 2007 and 2008. In total this data covers 58,210 cows in 322 herds. The results show that the average total annual health cost per 100 cows has fallen to £6,741 (2007: £7,692) with lameness and mastitis levels falling. Culling rates have also fallen slightly to give an average rate of 18.89% (2007: 21.30%) on the herds monitored.



*"Kite's Health and Culling Monitors offer a framework for a proactive management approach to cow welfare"*

# Why monitor health and culling performance?

With milk price and margins under constant pressure, conventional herd management costing systems often only show half the story. Health and culling performance remain a vitally important factor for profitable and sustainable milk production and the costs are all too often hidden. There are obvious cost savings to be made through improved health and reduced culling; increased longevity, enhanced herd fertility, reduced veterinary and medicine costs to name but a few.

What's more, health and culling performance has a direct link to cow welfare, something that is firmly on the agenda of consumers and retailers alike, and rightly so. Indeed, cow welfare is increasingly in the public eye, with high profile media coverage on this issue in recent months. It is therefore in the interests of everyone involved in the dairy supply chain that health and culling performance is more carefully monitored so that improvement action can be taken.

The UK dairy industry has very high welfare standards and UK retailers and consumers increasingly want assurances that cow welfare is safeguarded and monitored carefully. In its recommendations to Defra the Farm Animal Welfare Council states:

"As a minimum, dairy producers should keep records of all incidents of mastitis, lameness and metabolic disorders and the relevant treatments". (FAWC 2007)

The Health and Culling Monitor system takes these aspects further, enabling farmers to more closely monitor incidence levels and furthermore know when they need to intervene. Current estimates of herd depreciation costs remain around 5.4ppl, with heifer prices high and culling rates reduced many Health and Culling monitor users are now in the position to reduce the numbers of heifer replacements reared or sell excess stock and further boost farm incomes.

## What are Kite's Health and Culling Monitors?

*Healthmonitor* is a recording and benchmarking service developed by Kite Consulting to help dairy farmer clients monitor many of the major health issues within their herds, and provide an information platform upon which they and their veterinary surgeon can work to make physical and financial improvements.

Farmers record the incidence of common health problems and this information is submitted to Kite. The results are then collated and a monthly report is produced that provides trend information as well as benchmarking performance against industry accepted standards. In addition, using up-to-date cost information, the report highlights the real cost of health issues on farm to enable the producer to target improvements in a structured way.

*Cullingmonitor* is a similar service focused on the main reasons for culling. Dairy farmers record the culling data and a report is provided that shows trend information as well as benchmarking against industry accepted standards. In both cases the reports present data in both tabular and graphical format making it easy to rapidly identify problem areas. Copies of the report are automatically sent to the farms veterinary surgeon at no additional cost, again helping the farmer, Kite Consultant and veterinary surgeon to work together to develop strategies for improvement.



# 2007/8 Results

Health and Culling monitor was launched in Autumn 2006 and since then data has been collected from more than 300 herds representing 58,210 cows. It has proved to be a valuable on-farm tool. During 2008 Kite has held Health and Culling Monitor workshops throughout the UK and these have stimulated farmers to question their herd management practices, implement changes, and invest to improve herd health performance.

In particular, clients have found the benchmarking and cost analysis invaluable, coupled with the ability to monitor actual on farm incidence levels and compare to target levels.

The system has highlighted otherwise hidden costs associated with health problems and avoidable culling.

## Healthmonitor

Overall the results for 2007/08 show that the average cost of health related issues was £6,741 per 100 cows or just over £67 per cow per year. This is an improvement of £941 per 100 cows or just over £9 per cow per year on the previous year (equivalent to 12%). The breakdown is shown in the table:

Kite Healthmonitor Annual Health Report	Cases 2007	Cases 2008	Change +/-	£/cost 2007	£/cost 2008	Change +/-
Hypocalcaemia (milk fever)	4.03	3.74	-0.29	363	337	-26
Hypomagnesaemia (staggers)	0.10	0.08	-0.02	9	7	-2
Acetonaemia (Ketosis)	1.63	1.50	-0.13	205	189	-16
Displaced Abomasum (DA)	1.22	1.25	+0.03	195	201	+6
Respiratory Disease	0.48	0.47	-0.01	24	23	-1
Parasitic Infection	0.18	1.19	+1.01	13	83	+70
Acidosis	0.11	0.52	+0.41	8	36	+28
Dystocia (difficult calvings)	3.14	2.24	-0.90	94	67	-27
Retained Cleansings	5.01	5.18	+0.17	180	187	+7
Metritis	6.90	8.95	+2.05	248	322	+74
Mastitis	45.2	37.38	-7.82	4972	4111	-861
Lameness	24.2	20.37	-3.83	1113	937	-176
Downer Cows	1.07	0.97	-0.10	268	242	-26
Other	1.01	1.23	+0.22	0	0	0
<b>Total Annual Health cost (£ per 100 cow)</b>				<b>7692</b>	<b>6741</b>	<b>-951</b>

What is evident from these results is that farmers have acted upon advice and implemented changes to reduce both mastitis and lameness levels significantly. Mastitis cases have fallen from 45.20 cases per 100 cows to 37.38 cases (a fall of 17%). Lameness incidence has fallen from 24.20 cases per 100 cows to 20.37 cases (a fall of nearly 16%).

Last year's Health and Culling Monitor Annual report stated "A modest 10% improvement in these areas would result in a saving of £650 for the average herd", the improvements we have seen in the 2008 data equate to around £1,037. So what did people change?

Many farmers used the reports to examine which areas exceeded the target incidence levels. For example; if lameness exceeded 20 cases per 100 cows, they would sit down with their veterinary surgeon and work through the main causes of lameness on their farm. On one unit it was found that the main causes were solar ulcers and white line separation, both caused mainly by excessive standing times on concrete. As a result the farm invested in rubber flooring for the milking parlour and collecting yard, and the incidence rates have improved significantly. On another unit the main causes were found to be digital dermatitis, so a more regular foot-bathing regime has been devised in conjunction with the farms veterinary surgeon, this has been robustly implemented and improvements are already being seen.

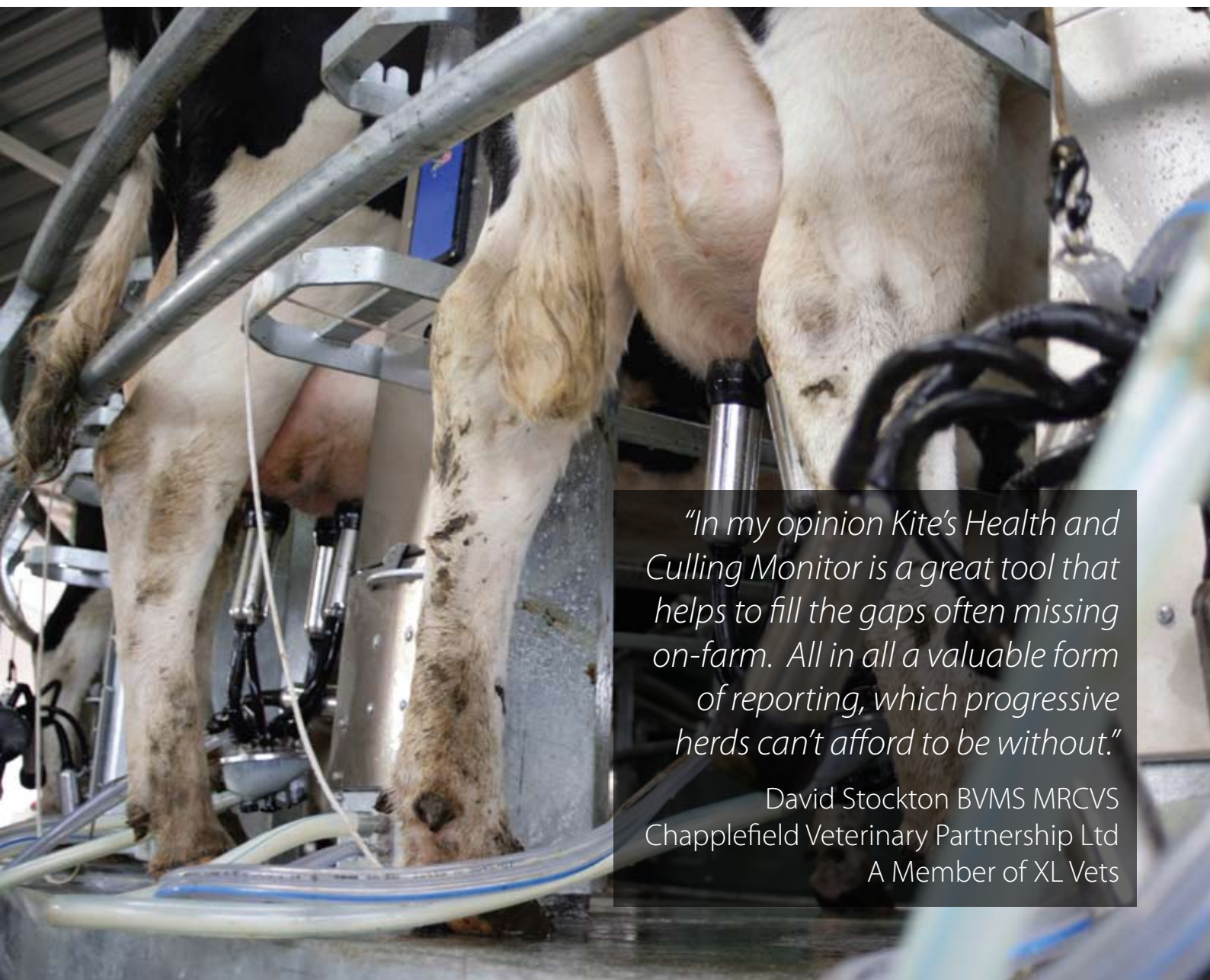
With mastitis rates a similar method of analysis has been adopted by many producers. We stated last year that realistic short and long term targets should be set, and that all advisors to the on-farm team need to spend time assessing issues, with regular team

reviews to assess progress. One such meeting resulted in an in depth review of dry cow therapy and drying off techniques, as a result in 3 months mastitis rates in freshly calved cows have fallen by just over 32%. On another unit a move to a shorter dry period and three times a day milking not only increased yields by 12%, but dropped mastitis rates from over 100 cases per 100 cows to a more acceptable 42.

One area that has given rise for concern in 2008 is the increase in parasitic infections, mainly liver fluke and lungworm. These were given a high priority by NADIS and other disease surveillance services in 2007/2008, and as a result many more dairy producers tested for these parasites and went on to treat for them. It is vitally important that this kind of preventative management practice continues, with the advent of bluetounge and other diseases a thorough prevention and control plan is crucial for everyone in UK dairying.

Last years data also showed an increase in milk fevers, retained cleansings and metritis. All these issues are 'transition' related. Better management practices and attention to detail has reduced milk fevers (down 7%), but retained cleansings (up 3%) and metritis (up 29%) still rose during the year. Most transition problems are associated with negative energy balance (NEB), but this can often be as much of an intake issue as a ration formulation issue. The transition dairy cow requires 30" of trough space per head and a lying area of 13m<sup>2</sup>, many dairy units have less yard and feed trough space for transition cows than the milking herd and this affects feed intake. Indeed every 10 minute decrease in average daily feeding time makes cows twice as likely to be diagnosed with metritis, so the importance of correct cow housing cannot be overstated.

Overall, to improve the health of your dairy herd, our advice remains the same. Sit down with the whole team once a month and review incidence levels. Make changes and invest in the areas that need improvement and monitor success via the Health and Culling Monitor system.



*"In my opinion Kite's Health and Culling Monitor is a great tool that helps to fill the gaps often missing on-farm. All in all a valuable form of reporting, which progressive herds can't afford to be without."*

David Stockton BVMS MRCVS  
Chapplefield Veterinary Partnership Ltd  
A Member of XL Vets



## Cullingmonitor

Kite's *Cullingmonitor* results show an average culling rate of 18.89% for 2008 (2007: 21.30%), with a range of 6 to 47%.

Kite suggests a target benchmark of less than <25% replacement rate as a key performance indicator and the 2008 data shows that producers using the culling monitor system showed a significant reduction (down 2.41%) in culling rates on the previous year.

Kite <i>Cullingmonitor</i> rolling annual culling report (% of culls)	2007	2008	Change +/-
Mastitis / high somatic cell count	18.33	16.93	-1.40
Udder conformation	4.6	6.33	+1.73
Not in calf	24.49	25.02	+0.53
Not seen bulling	0.47	1.23	+0.76
Abortion	2.62	2.74	+0.12
Lameness/ legs and feet	8.73	8.36	-0.37
Accident/ Trauma	4.01	4.45	+0.44
Metabolic disorder	2.28	3.13	+0.85
Calving injury / downer cow	5.70	5.23	-0.47
Infectious disease	1.46	2.45	+0.99
Age	7.82	6.79	-1.03
Yield/ slow milking	4.06	2.40	-1.66
Died on farm	8.88	8.19	-0.69
Other	6.55	6.77	+0.22
<i>Culling percentage</i>	<i>20.41</i>	<i>18.02</i>	<i>-2.39</i>
<i>Mortality percentage</i>	<i>0.89</i>	<i>0.87</i>	<i>-0.02</i>
<b>Total culling and mortality</b>	<b>21.30</b>	<b>18.89</b>	<b>-2.41</b>

The results for 2007 and 2008 are very similar. A reduction in mastitis cases within the *Healthmonitor* data should reflect a reduced number of culls for mastitis in *Cullingmonitor*, and the notable reduction in culling for mastitis and high cell count is countered only by an increase in culling for udder conformation.

A reduction in culling levels for both mastitis and lameness coupled with improved incidence levels in *Healthmonitor* reflects real progress being made on farm rather than farms 'culling their way out' of a problem. This is a vitally important observation and demonstrates why it is imperative to monitor both health and culling.

Infertility continues to be the main reason for culling. 2008 also sees an increase in culling for infectious disease, mainly TB, bluetongue and Johnes.

With *Cullingmonitor* the on-farm approach is the same as *Healthmonitor*. One 300 cow herd found an increase in culling due to Accident and Trauma. Upon analysis it was revealed that most of these cases were cows that had slipped on very smooth concrete entering the collecting yards. A session of concrete grooving and a daily dose of strategically placed course sand solved the problem in less than 24 hours. In a 3 month period the herd had lost 6 animals (value in excess of £6,000), the concrete grooving and sand came to less than £600.

Kite's *Cullingmonitor* now represents the largest and most comprehensive survey of culling activity on dairy farms in the UK. We have found no link between milk yield and culling rate, indeed on many of the higher yielding herds culling rates are significantly lower than herds with more moderate yields, reflecting the high standards of stockmanship and management attained.

Kite is convinced that cow comfort and a stress free environment are key to improving milk yield performance, health performance and reduced culling. Our pioneering work on Vitamin 'R' (= Rest) is testament to this commitment. Managing cows goes far beyond nutrition and formulating the correct ration. It requires a holistic approach and a full understanding of dairy cow behaviour. Never mistake common behaviour for natural behaviour, the two are not linked and the former may be undesirable. The importance of cow comfort cannot be overstated.

## Summary

Monitoring and benchmarking health and culling should be at the forefront of any plans to improve physical and financial performance within dairy herds in the UK. Farmers using the Health and Culling Monitor system are better placed to make improvements as they understand the main issues affecting their herd today.

The costs associated with Health and Culling are huge and the implications far reaching. Only by properly examining the issues on farm can producers target specific improvements and make a significant difference to cow welfare and farm profitability.

If you would like to find out more about Kite's *Healthmonitor* and *Cullingmonitor* please contact us.

*"Health & Culling Monitor gives us a monthly snapshot of our herd's situation. The system is easy to use and draws our attention to potential problems by highlighting the areas we need to focus on. Our herd comprises 270 cows and yields have risen by over 1,000 litres this year, with an 88% recalving % and 19% culls. The Health and Culling Monitor means we know why every cow leaves the farm and are able to focus on improvements in all areas that are out of line."*

Gary Brown, Herd Manager, Charles Wharton & Partners, Norfolk.





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