

# Dairy Costings Focus

Annual Report 2013



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# Welcome

At Kingshay, we've worked for over 20 years to bring you independent information and practical support from the ground up.



The Kingshay offices, Bridge Farm, Somerset

Based at Bridge Farm, a commercial dairy farm on the edge of the Somerset Levels, our team understands the challenges faced by farmers across the UK.

Whether our agricultural experts are driving a tractor on a field scale trial, answering

a call on our telephone support line or carrying out a **One2One Consultancy** farm visit, our unique combination of heritage and understanding is a crucial element in advising our members.

Not only are you assured that we are independent, unbiased

and experienced, you know that we're committed to sharing our technical know-how and no-nonsense facts so you get the most out of your membership and truly unlock the potential on your farm.

Our network of experts is a call or a click away, and will happily advise on which Kingshay services are best suited to you, your farm and your aims.

Putting your trust in Kingshay – by joining, upgrading your membership or simply making an enquiry – ensures you stay up-to-date so that you can forge a profitable future for your farm with confidence.

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## Introduction

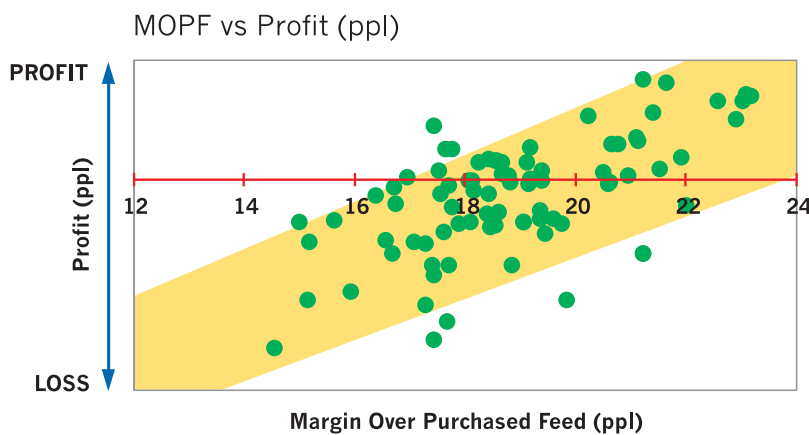
This Dairy Costings Focus analyses Dairy Manager data by key parameters and we build on this with data and information from Kingshay's Health Manager and Profit Manager services to provide some interpretation to help with herd management decisions.

Kingshay is often asked how management changes, such as increasing herd size, yield per cow or calving pattern, might alter margins. But the truth is, it's how well you do what you choose to do that matters most.

25% herds. The difference between top and bottom 25% is 5.5ppl (see page 4) or for a herd with a 1 million litre output that's £55,000 more available to cover other production costs.

feeding system, there is an average 1-1.5ppl difference resulting from these various management options.

When reviewing the best way to manage any herd, it's important to consider the impact on costs, such as labour, machinery and capital investment. But when it comes to monitoring, we should remember feed is the biggest expense and can rapidly change. Using **Dairy Manager** is an easy way to keep control of this major cost month by month and alter management accordingly, avoiding year end surprises. **Profit Manager** data, which covers all production costs, also proves a strong link between margin over purchased feed and profit.



When this is compared with analysis by other parameters, only ranking by yield from forage comes close with a 3.5ppl difference between top and bottom 25%, making this a key target for

This year we analysed data by margin over purchased feed per litre to give top 10%, top 25%, average and bottom

action. For most other rankings in this report, such as yield bands, and in further interrogation, such as by

If you feel you and your herd team could benefit from well researched strategic or practical advice our **HowMyHerd®** or **One2One Consultancy** services may be for you – call Kingshay now to sign up for an assessment.





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## Year on year reflection

The impact of the poor weather for grazing and conserving in the 2012 growing season resulted in the average conventional Holstein Friesian herd producing 42,282 litres less milk than in the year to March 2012, despite keeping three extra cows, according to Dairy Manager data.

The impact on output was similar across organic herds and Channel Island herds (see pages 19 and 20). While there was some regional variation, all regions saw margin over purchased feed drop year on year, the least affected being the south east at 0.27ppl, where feed costs increased least and milk price increased slightly more. Most regions saw a 0.62 to 0.78ppl fall in margin over purchased feed.

In Scotland the margin fell by more than 1ppl, resulting from higher feed costs, maintaining yields with extra concentrate and a smaller increase in milk price. Each month cows produced an average daily milk yield below the previous year (see bar chart) and this continued into March 2013, with cold weather delaying spring grass growth.

Farmers reacted by spending more on purchased feeds other than concentrate, with average concentrate use up by just 25kg a cow. No doubt they were conscious that concentrate prices had increased from an already expensive base compared with three years before and milk prices did not support feeding to push yields up.

There will undoubtedly be an impact on yields, from holding cows back, until cows calve again. So, we should not expect performance to bounce back this year, even if 2013-2014 proved to be a good forage season overall – and it hasn't started that well.

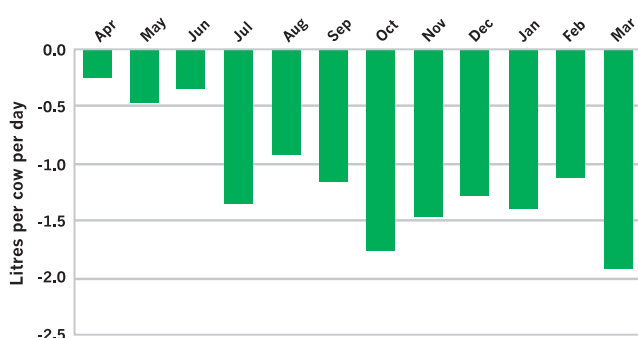
There have recently been positive milk price announcements which will help margins. However, with concentrate prices still high and the late spring, it will be tempting to cut back on concentrate or cow numbers, but any such changes will need careful planning to avoid issues with cow fertility and to maintain output at a level to ensure overhead costs can be covered.

Future margin objectives will also depend on the milk price to concentrate price ratio and the herd management decisions this influences, plus the impact of other production costs.

And with a poor cereal harvest, concentrate prices continued to rise through the year, so by March 2013 a tonne cost £38 more than in March 2012.

With many other production costs continuing to rise, the impact on profitability will hit many hard.

Change in daily milk yield per cow compared to previous year



Annual results					
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		Year ending March 2012	Year ending March 2013	Difference	% change
Cows in herd		168	170	3	1.7%
Stocking rate	cows/ha	2.30	2.29	-0.01	-0.5%
<b>MILK PRODUCTION</b>					
Milk production	litres	1,351,502	1,309,219	-42,282	-3.1%
Yield per cow	litres	8,068	7,688	-380	-4.7%
Yield from all forage per cow	litres	2,685	2,158	-527	-19.6%
Butterfat	%	4.08	4.10	0.02	0.6%
Protein	%	3.25	3.23	-0.02	-0.7%
Milk price	pence	27.95	28.51	0.56	2.0%
<b>FEED</b>					
Concentrate use per cow	kg	2,426	2,451	25	1.0%
Concentrate use per litre	kg	0.30	0.32	0.02	6.0%
Concentrate price per tonne	£	227	248	21	9.2%
Other purchased feed cost per cow	£	56	72	16	29.2%
Total purchased feed cost per litre	pence	7.51	8.83	1.32	17.6%
All P. Feed @ 86% equivalent per cow	kg	2,677	2,752	75	2.8%
<b>MARGINS</b>					
MOPF per cow	£	1,650	1,513	-136	-8.3%
MOPF per litre	pence	20.45	19.68	-0.76	-3.7%

## Top vs bottom margin over purchased feed per litre

Herds in the top 25% ranked on margin per litre have 5.5ppl more than the bottom 25% to cover other costs, showing there is a lot to be gained by targeting margin per litre as a key performance indicator.

Top 25% herds secure 2.4ppl more for their milk, mostly resulting from higher volumes and negotiating better contracts, although their milk quality is better too. The

remaining 3.2ppl comes from improved feed use efficiency. The bottom 25% produce an extra yield of 474 litres a cow, but feed an extra 790kg of concentrate to achieve it and so milk from forage is more than halved.

Since March 2012, the gap has widened from 4.9ppl, with the top 25% down 0.35ppl and bottom 25% down 0.95ppl in the current year, with those using more purchased feed harder hit by rising feed prices.

The top 10% herds gain a further 1.3ppl in margin on the top 25%.

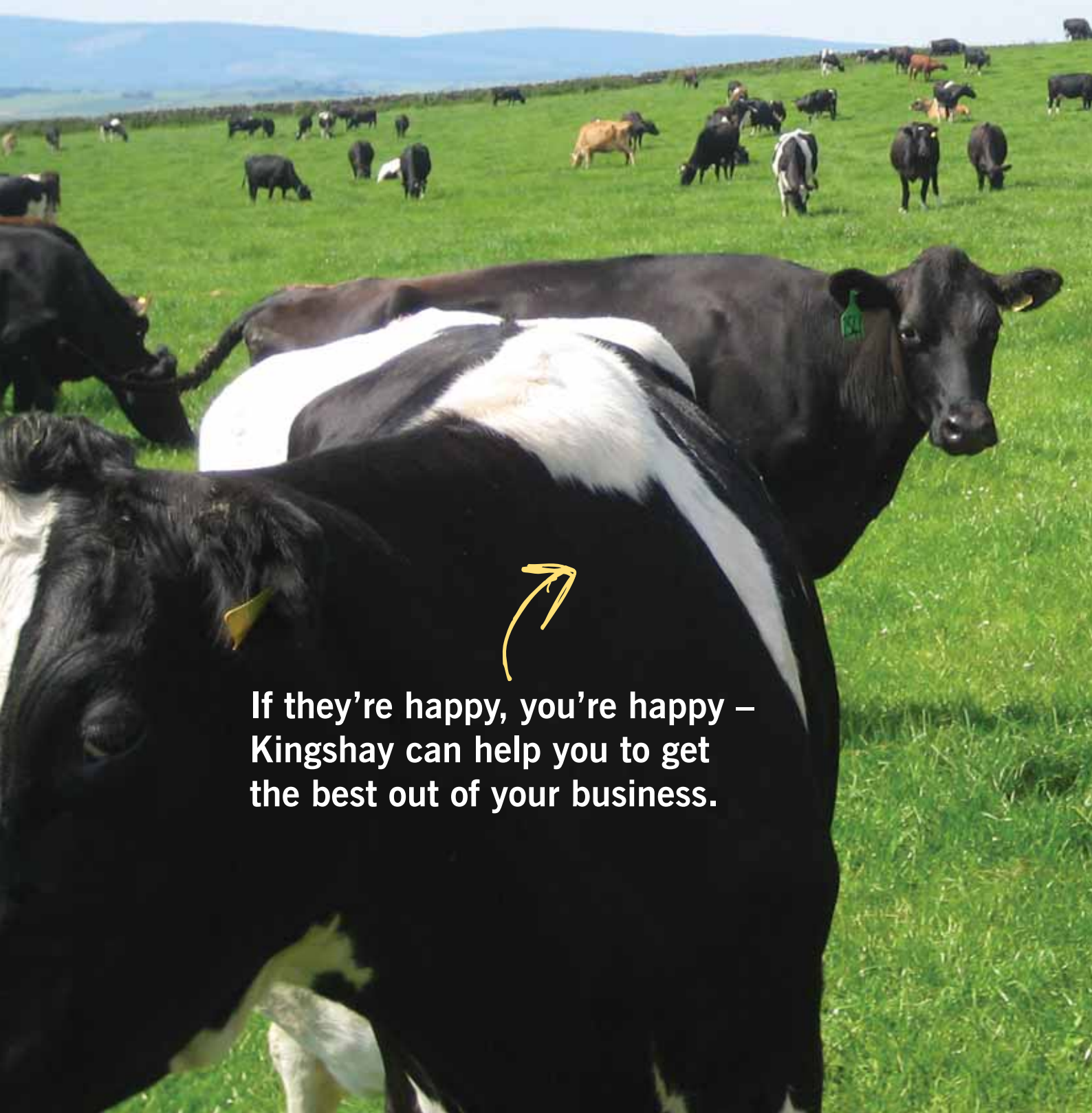
Annual results – Year end March 2013					
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS Ranked by MOPF per litre		TOP 10%	TOP 25%	AVERAGE	BOTTOM 25%
Cows in herd		193	184	172	151
Stocking rate	cows/ha	2.36	2.30	2.28	2.16
<b>MILK PRODUCTION</b>					
Yield per cow	litres	7,016	7,305	7,672	7,779
Yield from all forage per cow	litres	3,220	2,956	2,133	1,287
Milk price	pence	30.38	29.73	28.51	27.38
<b>FEED</b>					
Concentrate use per cow	kg	1,781	1,999	2,447	2,789
Concentrate use per litre	kg	0.25	0.27	0.32	0.36
Concentrate price per tonne	£	242	242	247	254
Other purchased feed cost per cow	£	30	43	73	100
Total purchased feed cost per litre	pence	6.57	7.21	8.85	10.38
<b>MARGINS</b>					
MOPF per cow	£	1,671	1,645	1,508	1,322
MOPF per litre	pence	23.81	22.52	19.66	17.00





Our One2One Advice service can help you make informed choices on farm business planning, forage and fertiliser planning, herd nutrition and milk predictions.

All our Dairy Consultants and Advisors come from practical farming backgrounds and have full access to our independent research and trial results. Call **01458 851 555** for more information.



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the best out of your business.**

## Regional analysis

Milk price variations and the ability to produce milk from forage are big factors influencing the average margins in different regions.

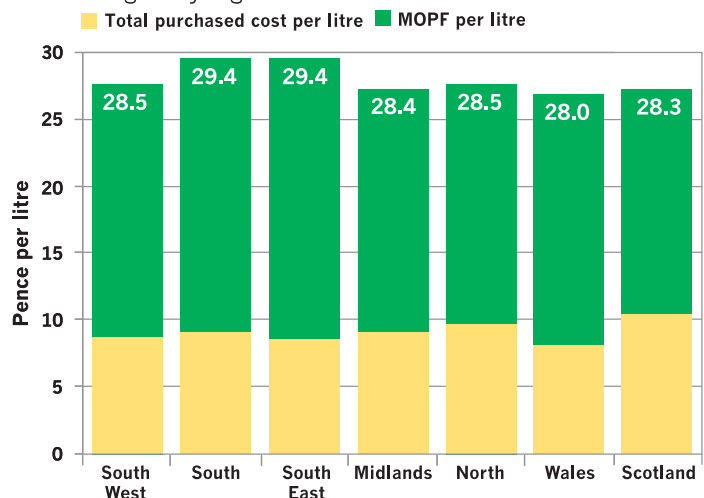
Annual results – Year end March 2013								
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		South West	South	South East	Midlands	North	Wales	Scotland
Cows in herd		168	174	179	178	163	160	216
Stocking rate	cows/ha	2.21	2.23	2.57	2.37	2.22	2.29	1.86
MILK PRODUCTION								
Yield per cow	litres	7,479	7,885	7,682	7,782	8,011	7,216	8,537
Yield from all forage per cow	litres	2,419	2,355	2,481	1,984	1,690	2,271	927
Milk price	pence	28.52	29.37	29.37	28.37	28.47	27.96	28.27
FEED								
Concentrate use per cow	kg	2,341	2,393	2,250	2,532	2,734	2,247	2,958
Concentrate use per litre	kg	0.31	0.30	0.29	0.33	0.34	0.31	0.35
Concentrate price per tonne	£	249	248	252	241	250	247	252
Other purchased feed cost per cow	£	55	88	78	81	85	55	143
Total purchased feed cost per litre	pence	8.51	8.65	8.40	8.89	9.58	8.46	10.40
MARGINS								
MOPF per cow	£	1,497	1,634	1,611	1,516	1,514	1,407	1,525
MOPF per litre	pence	20.01	20.72	20.98	19.48	18.89	19.50	17.87

There is a definite trend for higher milk yield and concentrate use the further north herds are, with a shorter growing season, wetter conditions and requirements for longer housing periods affecting the best way to manage herds.

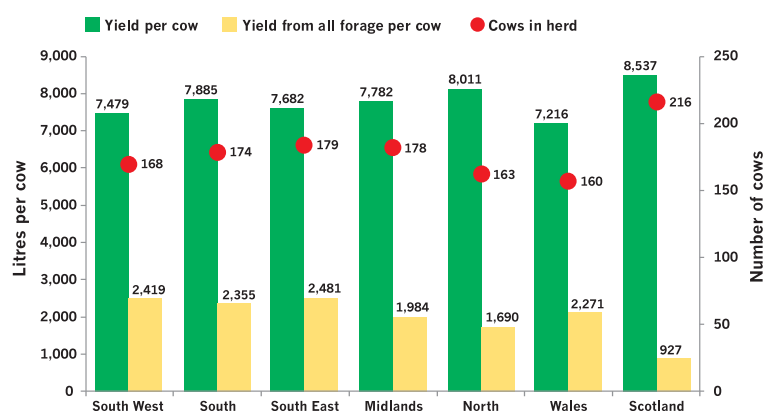
However, feed costs vary by just 2ppl between the different regions and with a wide range of performance achieved within region, managing the situation to best effect is more important than where you are.

The data shows the South East producers fare best, as they did in the 2012 data, with the highest margin per cow and per litre, helped by a higher milk price and the lowest concentrate feed rate per litre. They achieved most from forage and responded to the poor summer by allowing yields to fall rather than feeding more concentrate.

Margins by region



Herd performance by region



If you have an existing **Dairy Manager** package you might consider upgrading to our Premium option to include **Health Manager**.



## Milk yield bands



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Milk yield has a proportional effect on increasing margin over purchased feed per cow, but a lesser and negative impact on margin per litre.

In yield bands up to 9000 litres, margin per litre varies by less than 0.6ppl, despite feed costs increasing by

2.2ppl, due to higher milk prices achieved as yields increase. The better milk price mainly relates to volume

bonuses, with cow yields and herd sizes rising together.

However, above 9000 litres the reducing response rate to concentrate inputs shows, with margins 0.44ppl lower and total feed costs up 0.77ppl compared with 8000-9000 litre herds.

This data perhaps shows that the ability to achieve volume bonuses is a decision driver for farmers in setting herd management objectives. However, it is key that total herd output covers variable and overhead costs for the chosen system

Annual results – Year end March 2013						
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		Up to 6000 litres	6000 to 7000 litres	7000 to 8000 litres	8000 to 9000 litres	Over 9000 litres
Cows in herd		130	137	165	189	230
Stocking rate	cows/ha	2.21	2.15	2.29	2.30	2.47
<b>MILK PRODUCTION</b>						
Yield per cow	litres	5,325	6,550	7,509	8,460	9,688
Yield from all forage per cow	litres	2,325	2,403	2,228	2,073	1,589
Milk price	pence	27.32	28.09	28.51	28.89	29.22
<b>FEED</b>						
Concentrate use per cow	kg	1,487	1,941	2,383	2,786	3,293
Concentrate use per litre	kg	0.28	0.30	0.32	0.33	0.34
Concentrate price per tonne	£	245	250	248	246	248
Other purchased feed cost per cow	£	11	35	60	94	154
Total purchased feed cost per litre	pence	7.06	7.93	8.66	9.23	10.00
<b>MARGINS</b>						
MOPF per cow	£	1,079	1,321	1,490	1,663	1,862
MOPF per litre	pence	20.26	20.17	19.84	19.66	19.22



## Herd size bands

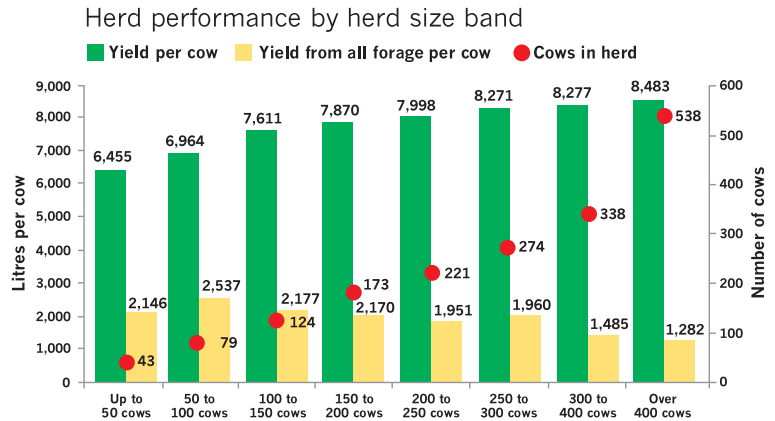
Farms with increased output on the agenda to improve profits should budget based on reducing overheads, rather than anticipating improving margins over feed costs per litre.



The data shows margins over purchased feed per litre don't follow any real pattern as herd size rises.

The impact of more cows and higher yields per cow that follow will allow a better milk price to be negotiated, so a herd with 338 cows might gain 1ppl on one with 124 cows.

However, even though larger herds pay less per tonne for concentrates, the trend is for rising feed costs as herd size increases, probably resulting from stretching infrastructure, stocking rates and management



skills or time pressures. These rising feed costs remove much of the benefit of a lower feed price, so the 338-cow herd only manages a margin per litre 0.3ppl above the 124-cow herd.



Annual results – Year end March 2013									
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		Up to 50 cows	50 to 100 cows	100 to 150 cows	150 to 200 cows	200 to 250 cows	250 to 300 cows	300 to 400 cows	Over 400 cows
Cows in herd		43	79	124	173	221	274	338	538
Stocking rate	cows/ha	1.64	1.95	2.29	2.35	2.37	2.63	2.56	2.71
<b>MILK PRODUCTION</b>									
Yield per cow	litres	6,455	6,964	7,611	7,870	7,998	8,271	8,277	8,483
Yield from all forage per cow	litres	2,146	2,537	2,177	2,170	1,951	1,960	1,485	1,282
Milk price	pence	26.74	27.56	28.31	28.82	28.96	29.39	29.34	30.07
<b>FEED</b>									
Concentrate use per cow	kg	2,122	2,079	2,429	2,493	2,583	2,691	2,908	2,925
Concentrate use per litre	kg	0.33	0.30	0.32	0.32	0.32	0.33	0.35	0.34
Concentrate price per tonne	£	252	253	253	246	241	241	233	239
Other purchased feed cost per cow	£	11	31	67	80	98	107	123	131
Total purchased feed cost per litre	pence	8.46	8.01	8.94	8.80	8.99	9.14	9.67	9.80
<b>MARGINS</b>									
MOPF per cow	£	1,180	1,361	1,474	1,575	1,597	1,675	1,629	1,720
MOPF per litre	pence	18.28	19.55	19.37	20.02	19.97	20.26	19.68	20.27



## Milk from forage

Ranking herds by milk from forage reveals that the yield per cow and milk price variation is relatively small from top to bottom performers, but forage efficiency pays.

The difference in margin is 3.5ppl between top and bottom 25% herds when ranked on yield from forage, with the top 10% achieving an extra 0.75ppl. For a 150-cow herd, averaging 7500 litres, being in the top 25% means an extra £39,375 in herd margin compared with a bottom 25% herd.

The top herds surprisingly pay more per tonne for concentrate, but feed less other purchased feed, with higher milk quality

results, indicating that they are focused on rationing cows proactively. Both top and bottom 25% herds saw milk from forage reduce by close to 500 litres between 2012 and 2013. However, the top 25% herds saw milk yield fall by 400 compared with 220 litres for bottom herds which spent more on feed to maintain yields at the expense of margin per litre. The performance gap has widened by 0.4ppl from 3.1ppl in 2012.

The Kingshay Forage Costs report shows – with the right choice of crop and good management in growing, conserving and utilisation of crops – home-produced forages will cost less per tonne of dry matter than purchased feeds. Therefore, the more of the milk a herd produces from forage, the lower their total feed costs should be.

Looking at Kingshay **Profit Manager** data reveals that

forage variable costs are higher as milk from forage increases, but this is recovered in feed cost savings. So there should be a focus on what's needed in terms of fertiliser and reseeded for optimum forage yields, rather than minimising these costs, in order

to produce milk as efficiently as possible.

Comparing this dataset with other rankings shows yield from forage to be a valuable key performance indicator.

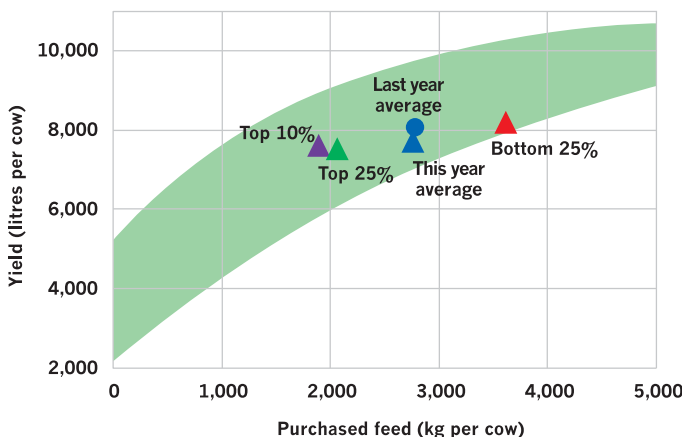


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Annual results – Year end March 2013 (Ranked by milk from forage)					
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		Top 10%	Top 25%	Average	Bottom 25%
Cows in herd		138	143	172	210
Stocking rate	cows/ha	2.26	2.20	2.28	2.33
<b>MILK PRODUCTION</b>					
Yield per cow	litres	7,580	7,469	7,672	8,129
Yield from all forage per cow	litres	3,851	3,413	2,133	720
Milk price	pence	28.62	28.49	28.51	28.72
<b>FEED</b>					
Concentrate use per cow	kg	1,809	1,955	2,447	2,985
Concentrate use per litre	kg	0.24	0.26	0.32	0.37
Concentrate price per tonne	£	248	249	247	244
Other purchased feed cost per cow	£	28	29	73	137
Total purchased feed cost per litre	pence	6.30	6.91	8.85	10.66
All P.Feed @ 86% equivalent per cow	kg	1,901	2,070	2,758	3,610
<b>MARGINS</b>					
MOPF per cow	£	1,692	1,612	1,508	1,467
MOPF per litre	pence	22.33	21.58	19.66	18.05

Top 25% – last year	Average – last year
141	160
2.09	2.19
8,060	8,003
3,965	2,723
27.82	27.83
1,985	2,386
0.24	0.30
231	227
24	64
5.86	7.31
2,114	2,777
1,761	1,634
21.97	20.52

Milk from forage milk map





## *Kingshay* DAIRY MANAGER

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\*First two months FREE OF CHARGE does not apply to Profit Manager.



## STARTER PACKAGE

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Dairy Manager

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Regular

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Herd health monitoring

Health Manager

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- Compare all figures to other progressive herds.
- Shows all costs in total £, pence per litre, £ per cow or £ per hectare.
- **Easy to use:** Uses figures from end of year accounts.

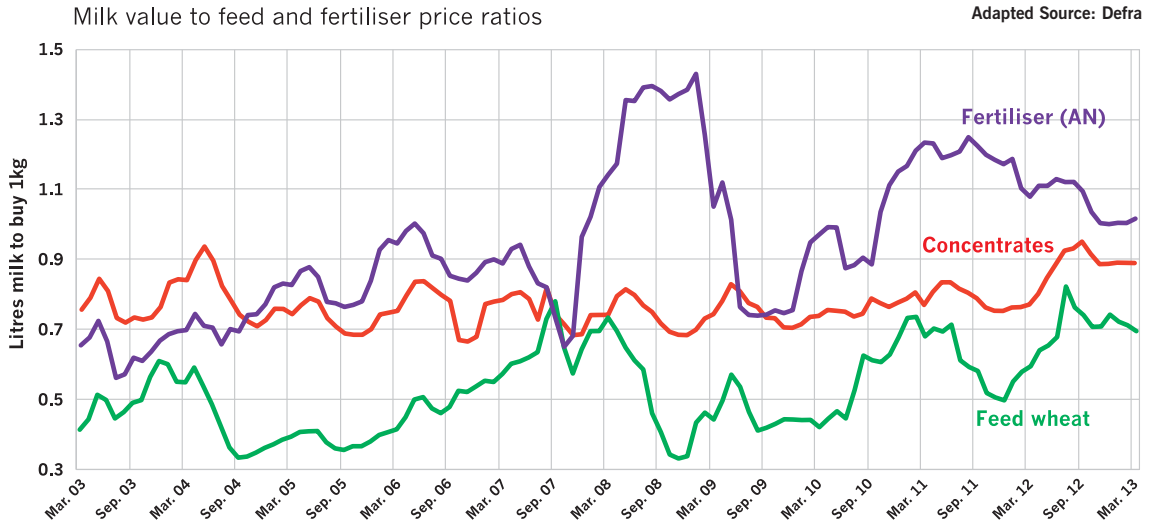


Track bottom line profit

Premium Plus

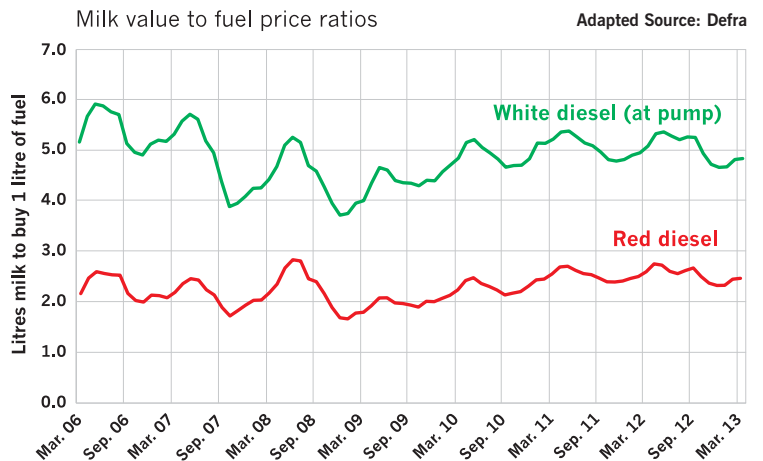
## Input price analysis: feed, fertiliser and fuel

The three main costs that fluctuate in any dairy business are the three “f”s – feed, fertiliser and fuel. These costs have continued to swing since last year and we expect them to remain volatile.



The chart above shows prices for fertiliser and feed in relation to milk price. Any price rises are acceptable provided the milk price follows and covers any increase in costs of production. But the data shows milk price is not keeping up with these cost rises, with an upward trend of more litres of milk being required to cover these input costs.

Fuel costs show a similar trend, with peaks in April-May being caused by lower milk price due to seasonality payments, rather than higher fuel costs in those months.



**Profit Manager** data shows the most profitable herds have lower costs on nearly all inputs, not just one or two areas, indicating they are better at managing cost trends and negotiating better forward contracts on

commodities. It is essential to understand global market influences and buy products at opportune periods, even though it is getting increasingly difficult to predict when these opportunities will arise.

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## Milk price analysis

While milk prices are higher than five years ago, more is going on feed costs and most other production costs have risen too.



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But there is also a wide gap between the best and worst paid for their milk. If a level profile were produced in the year to March 2013, this would have amounted to 6.29ppl or £70,000 for a 150-cow herd averaging 7500 litres. While this amount has varied year to year, in the last five years the gap has been a minimum of 5ppl and up to more than 8ppl.

The maximum milk price achievable for any farm will depend on many factors,

Best vs lowest milk prices – calculated based on level supply

Year ending		Mar 09	Mar 10	Mar 11	Mar 12	Mar 13
Top	ppl	28.58	27.29	29.01	32.07	33.57
Bottom	ppl	21.27	19.15	23.81	27.11	27.28
<b>Difference</b>	<b>ppl</b>	<b>7.31</b>	<b>8.14</b>	<b>5.19</b>	<b>4.96</b>	<b>6.29</b>

Source: DairyCo

including whether the local market is for liquid or processing, milk quality, seasonality of supply, volumes, transport to the dairy and competition between buyers in the area.

However, whether the farm is on the best contract option for

its milk is certainly worth a regular review in terms of the potential income at stake. Within these deliberations, the track record of milk buyers in terms of speed of reaction to changes in the marketplace and supplier relationships must also be considered.

### Milk price and purchased feed costs – Yearly comparisons

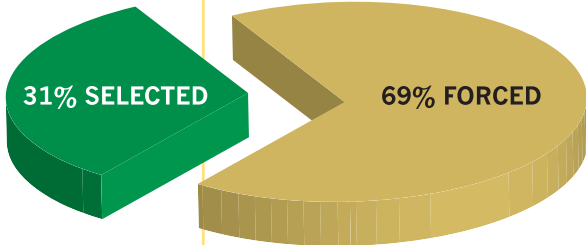
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		2009	2010	2011	2012	2013
Year ending March						
Milk price per litre	pence	26.21	24.02	24.88	27.92	28.51
Purchased feed cost per litre	pence	6.90	6.49	6.72	7.51	8.85
Feed costs as a % of milk price		26.3%	27.0%	27.0%	26.9%	31.0%

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## Health trends

Forced culls account for 69% of the cows which left herds using the Health Manager option within Dairy Manager, in the year to March 2013, with 40% due to health and 29% for poor fertility.



Selected culls for reasons of age, surplus cows or low yields are just 10% of total culls and a number of other reasons for selected culls also relate indirectly to cow health.

Despite rising yields and herd sizes, the data available

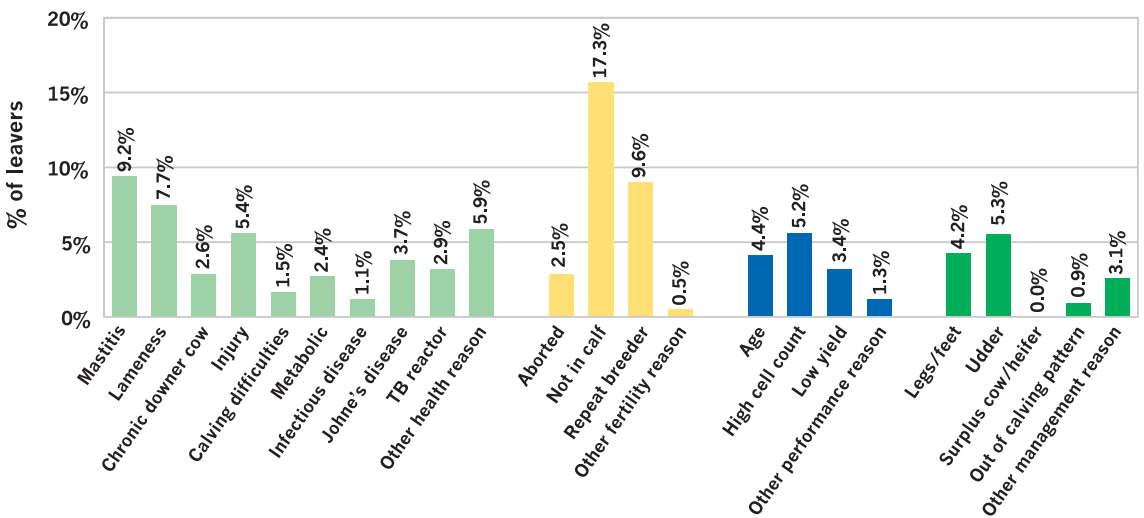
shows these averages have changed little in recent years and the % of cows culled from a herd in any year remains similar too. With more cows to look after and higher yields, we might have expected health and fertility to suffer, but that is not the reality.

However, there is no doubt that monitoring and being able to react to health issues is vital to keep the herd replacement costs relating to forced culls down and save on vet treatment costs.

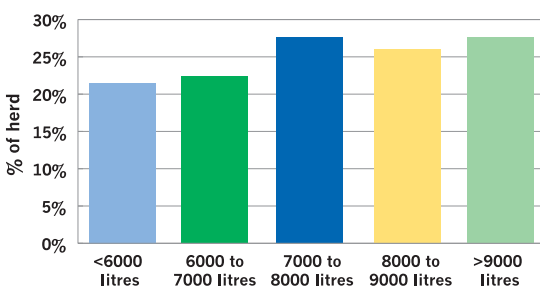
Using **Health Manager** reports, coupled with mobility scoring, and any other monitoring a herd health plan identifies as necessary, will enhance proactive management to protect profit margins and ensure good cow welfare.

Further advice on managing individual herds for improved health and fertility is available from Kingshay, via our **One2One** consultants or **HowMyHerd** assessments, plus local consultant or vets.

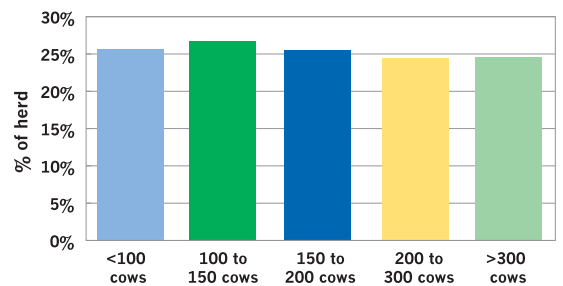
Individual leaving reasons



Cows leaving herd by yield level (culling rate)



Cows leaving herd by herd size band (culling rate)







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## Health trends (continued)

The lower incidences of common health disorders achieved by top 25% farms means a potential cost saving of £17,500 per 100 cows compared with average herds.

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This equates to 2.3ppl, assuming a 7500 litre per cow average yield. Many of the costs included in these estimates are hidden, such as long term loss in milk yields, so it's easy to forget the impact these common conditions can have on profits. There may also be an impact on increased herd culls, adding significantly to the overall financial impact.

It's clear from the data that mastitis and lameness are the two main conditions contributing to the difference between top 25% and average herds. There is a big gap in the number of cases recorded, with top herds seeing 25 mastitis cases per 100 cows, while the average

Cases per 100 cows	Average	Top 25%	Estimated cost per case	Difference
Mastitis	58	25	£276	£9,218
Lameness	46	24	£205	£4,428
Milk Fever	6	2	£235	£893
Displaced Abomasums	2	1	£271	£325
Difficult Calvings	4	2	£402	£764
Retained Cleansings	6	4	£415	£789
Abortions	2	2	£484	£145
Metritis	10	5	£212	£975
<b>Total</b>				<b>£17,537</b>

is more than double that at 58 cases per 100 cows. Average lameness cases are also nearly double compared to the top 25%.

Reviewing the incidence of these conditions and ongoing monitoring will allow early intervention when changes are seen, proving beneficial to

profits and animal welfare. Kingshay's **Health Manager** and **Profit Manager** can help with monitoring, while a **HowMyHerd®** assessment will give a one off review and offer practical solutions for improving herd performance and health.

HowMyHerd®: Healthy profits from healthy herds. Call us for details.

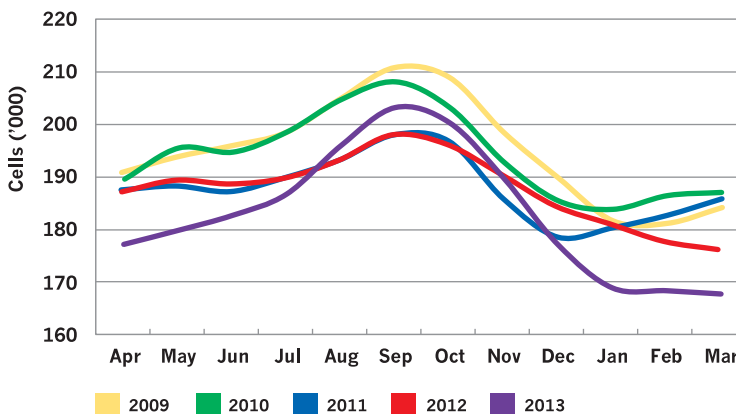
## Cell counts

Cell count data from Kingshay's Health Manager service clearly show the challenges last summer brought, but also remind us

that cell counts are usually at their highest from July to October. In the last few years, farms had been gradually reducing levels to stay below

200,000 on average all year. But last year, with its wet weather, cell counts were above 200,000 on average from July to September.

Bulk somatic cell counts



High cell counts and mastitis are also costly in terms of reduced milk sales and Health Manager records show 9.2% of cows leaving the herd are due of mastitis and a further 5.2% for high cell counts. This makes it an important management issue to monitor and ensure adequate control measures are in place throughout the year, in consultation with your vet.



## Fertility facts

There is no relationship between yield and calving interval achieved, according to the fertility information recorded by herds using Kingshay's Health Manager service.



In each yield band, from 7000-8000 litres, 8000-9000 litres and 10,000 litres plus, there are a similar proportion of herds recorded achieving a calving interval of 380 to 400 days, but there are also a similar proportion in the 420 to 440 day range.

However, it is important to look at individual herd culling rates and reasons in conjunction with fertility results for a true picture of herd performance.

Data for culling for infertility reasons by lactation age also clearly shows that this is a greater issue in first lactation animals.

Of the 25% of culls for infertility from an average herd, half are in their first lactation, indicating that extra attention to the care of first calvers could pay well if fertility can be improved, subject to considering any additional expenses.

The Fertility Reports produced for herds using **Health Manager** allow monitoring on seven key performance indicators (see table). For herds that are in the top 25% in each parameter, the costs

Fertility results	Average	Top 25%
Calving interval	419	406
Days to first service	83	65
Services per conception	3.3	2.2
Conception rate	34%	45%
100 day in calf rate	33%	72%
200 day not in calf rate	24%	16%
Infertility culling rate	6.5%	4.2%
Cost of infertility (ppl)	3.63	2.03
Cost of infertility (£/Cow)	£303	£171

of infertility are 1.6ppl or £132 a cow less than herds achieving average results.

While there may be additional vet treatment or feeding costs to consider in improving fertility, this shows there is a high potential gain from doing so.



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## Managing herd health

Vet and medicine costs vary widely between farms, but that's not to say lower is better as investing in good herd health at an appropriate level for the challenges faced is vital to overall profits.



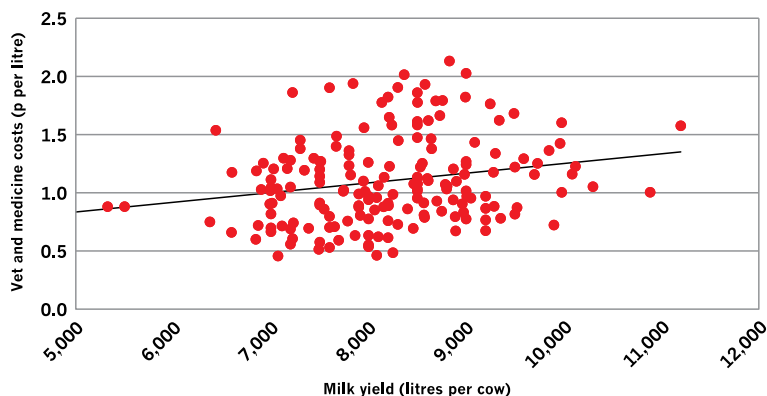
Vet and medicine costs – Yearly comparisons						
HOLSTEIN/FRIESIAN, CONVENTIONAL HERDS		Mar 09	Mar 10	Mar 11	Mar 12	Mar 13
Total vet and medicine costs	ppl	1.1	1.1	1.1	1.0	1.2
	£/cow	£93	£90	£86	£84	£99

Herds recording such costs using either Kingshay **Health Manager** or **Profit Manager** reveal that some keep costs as low as 0.5ppl or £40 a cow, but others spend 2ppl or more than £150 a cow. While it is important not to consider these costs without looking at other herd performance indicators, such as culling rates, fertility and disease costs (see pages

14-17), it is an important area to review.

But yield level has less influence in vet and medicine spending than might be expected.

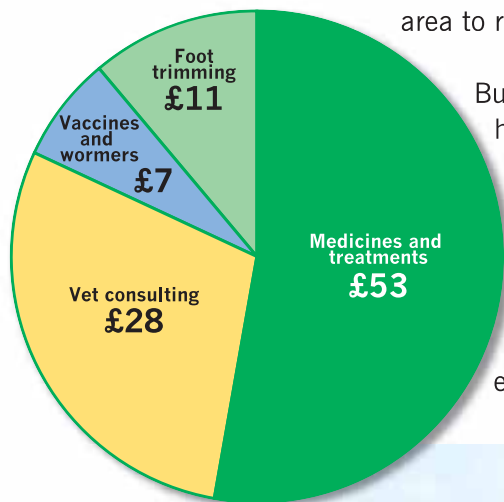
Milk yield vs vet and medicine costs



Although there is a slight upward trend, many herds of 5,000 to 11,000 litres achieve actual vet and med costs below 1ppl. The trend is more apparent when looking at data on a per cow basis, but there are 10,000 litre herds with vet and med costs below £100/cow. More than half of the average herd spend of 1.2ppl or £99 a cow is on

medicine and treatments, excluding vaccines, which points to a large proportion of spending being reactive rather than proactive.

For many herds, it could actually be more effective to spending more on vet consulting time to improve disease prevention and fertility.





## Organic update

A year on year comparison of organic milk producers shows a similar impact of the poor year for forage seen in Dairy Manager data for conventional herds on cow output, falling by 40,000 litres.



Our wide ranging Trials Reports feature research information on topics such as grass and forage crops, silage and slurry additives and starter fertilisers. **Join Kingshay and start receiving them now.**

Organic year-on-year comparison					
HOLSTEIN/FRIESIAN, ORGANIC HERDS		Year ending March 2012	Year ending March 2013	Difference	% change
Cows in herd		185	190	5	2.9%
Stocking rate	cows/ha	1.98	1.92	-0.06	-2.9%
<b>MILK PRODUCTION</b>					
Milk production	litres	1,262,641	1,222,327	-40,314	-3.2%
Yield per cow	litres	6,835	6,428	-407	-6.0%
Yield from all forage per cow	litres	3,300	2,861	-439	-13.3%
Butterfat	%	4.01	4.05	0.04	1.0%
Protein	%	3.27	3.24	-0.03	-0.8%
Milk price	pence	32.37	33.63	1.26	3.9%
<b>FEED</b>					
Concentrate use per cow	kg	1,734	1,752	17	1.0%
Concentrate use per litre	kg	0.25	0.27	0.02	7.4%
Concentrate price per tonne	£	314	332	18	5.7%
Total purchased feed cost per litre	pence	8.07	9.14	1.08	13.4%
<b>MARGINS</b>					
MOPF per cow	£	1,661	1,574	-87	-5.2%
MOPF per litre	pence	24.31	24.49	0.18	0.8%

price for concentrate making purchased feed expensive.

When herds are ranked on milk from forage, organic herds perform better than conventional herds. But there is still a wide gap between the top 25%-

But the organic herds held onto their margins over purchased feed, helped by a greater increase in milk price, at 0.7ppl more than conventional herds, as the reduction in output has tightened the oversupply of organic milk in recent years.

Increases in milk price were largely consumed by higher concentrate prices, so the margin over purchased feed was just 0.18ppl more. While that is favourable to the average 0.76ppl loss seen in conventional herds, coupled with the loss in herd output it is unlikely to benefit

profits with many other costs rising in the year.

Ranking organic herds on margin over purchased feed per litre reveals a 7ppl difference between the top and bottom 25%, with 2.9ppl of this down to the milk price achieved. Lower herd output is a likely factor in this lower milk price, but the data indicates so too are milk constituent quality and cell count which are key challenges in organically managed herds.

Yield produced from forage is clearly influencing organic herds margins, with the higher

producing 3756 litres from forage, at a 6805-litre yield per cow, with a 26.14ppl margin over purchased feed and the bottom 25%-producing 1947 litres from forage, at a 5764-litre yield, with a 21.88ppl margin. Milk price accounts for 1ppl of this 4.26ppl difference.

Unlike conventional herds, when data is ranked on yield band, margin per litre drops rapidly above 7000 litres a cow, reflecting higher concentrate prices when higher rates are used to increase yields.



## Channel Island update

When we compare Dairy Manager data for conventional Channel Island herds and conventional Holstein Friesian herds, the impact of last year's poor forage season shows almost the same impact on both.

But the Channel Island herds fare worse on margin over purchased feed which reduced by 0.93ppl compared with 0.76ppl for Holstein Friesian herds. They both

This perhaps shows that the extra milk constituent quality does not pay well these days.

Yield from forage is still a key factor in margins achieved but

is 22.61ppl for the top 25% herds and 20.49ppl for the bottom 25% herds, despite the bottom 25% spending 4.8ppl more on feed.

When herds are ranked on margin over purchased feed, the top 25% achieve 24ppl which is 5.3ppl more than the bottom 25%. The biggest factor being a 3.1ppl difference in milk price. But with bottom herds having higher herd output, this indicates that the poorer constituent quality and cell counts are factors, with some influence coming from the contracts farmers are able to secure for this niche milk.

The bottom 25% herds feed 600kg a cow more concentrate, which they pay more per tonne for, but only see cow yields up by 600 litres. Therefore, feed costs are 2.2ppl higher. This highlights the importance of getting Channel Island cows to convert forage to milk, while capitalising on their proven traits of better health and fertility than Holstein Friesian cows.

Channel Island year-on-year comparison					
CHANNEL ISLAND, CONVENTIONAL HERDS		Year ending March 2012	Year ending March 2013	Difference	% change
Cows in herd		163	167	4	2.4%
Stocking rate	cows/ha	2.56	2.59	0.03	1.2%
<b>MILK PRODUCTION</b>					
Milk production	litres	937,117	899,202	-37,915	-4.0%
Yield per cow	litres	5,742	5,382	-361	-6.3%
Yield from all forage per cow	litres	1,943	1,653	-289	-14.9%
Butterfat	%	5.38	5.44	0.06	1.2%
Protein	%	3.78	3.77	-0.01	-0.4%
Cell count		176	186	10	5.7%
Milk price	pence	31.56	31.95	0.39	1.2%
<b>FEED</b>					
Concentrate use per cow	kg	2,022	1,977	-45	-2.2%
Concentrate use per litre	kg	0.35	0.37	0.02	4.4%
Concentrate price per tonne	£	233	254	20	8.6%
Total purchased feed cost per litre	pence	9.22	10.54	1.32	14.3%
<b>MARGINS</b>					
MOPF per cow	£	1,283	1,152	-131	-10.2%
MOPF per litre	pence	22.34	21.41	-0.93	-4.2%

show similar falls in yield per cow and exactly the same increase in purchased feed costs per litre. The difference in margin change is accounted for by a smaller increase in the Channel Island milk price at just 0.39ppl, compared with 0.56ppl.

less so than for Holstein Friesian herds and it appears to be influenced by the milk price paid, as the bottom 25% ranked on yield from forage is paid 2.7ppl more than the top 25% receive. Average margin over purchased feed, therefore,







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