



herds are already achieving them. Culling costs were put at the average of £648 per extra cull over 6%, with a service cost of £20, and a delayed calving index cost beyond 365 days of £3/cow/day.

The results, says Mr Orpin, were very much in line with those in the DAISY report. Disease costs and veterinary charges are costing anything up to 4ppl, with realistic savings being, like Esslemont's assessment, in the order of 2.5ppl. If anything disease costs were under estimated not over estimated, he says.

Two of the major costs analysed were fertility and mastitis. With fertility, a good calving interval brought financial benefits to some farms of 0.75ppl, but cost others up to 2.4ppl – not least because a 12-month calving index, compared to one with 16 months, produces an extra

40,000 litres per 100-cow herd per year. Every extra barren cow can cost up to 0.95ppl, while a poor pregnancy rate was losing some farmers 0.33ppl.

Table 1 shows the daily cost of a calving index slip.

With mastitis, costs on the surveyed farms varied from £77 to £226 per treated case.

Table 2 illustrates the breakdown of these costs.

Overall, improvements in mastitis can bring benefits of 0.3ppl, and lose a farmer up to 1.6ppl.

To achieve the possible 2.5ppl savings by cutting mastitis rates, Mr Orpin calculated that an extra £1000 would have to be spent on preventative health strategies. That would cost just £10 per cow or 0.14ppl for 100 cows on 7000 litres. That's an 18 to 1 pay-off rate.

"The figures we are talking about here are averages, but they are based on conservative targets that should be achievable by a majority of herds," he says. "They are not beyond the ability of most farmers."

When the disease cost calculator is finished, vets will be able to input the precise veterinary health issues and treatment costs for each of their farms, and make a reasonably accurate assessment of the costs of doing it, and the likely savings that can be made.

"It will then be up to the farmer to decide whether the investment is worthwhile," he says.

The disease cost calculator is expected to be launched to vets some time in November.

Table 1 Calving interval costs

Calving index	6000 litre herd	10,000 litre
Delay of 365-380 days	£1.73/day	£1.68/day
Delay of 380-395 days	£2.30/day	£2.47/day
Delay of 395-425 days	£2.86/day	£3.20/day

Table 2 Mastitis costs – Pete Orpin's survey farms
(excluding treatment costs)

	High CC	Clinical	Severe	Toxic
Wasted milk	£23.50	£23.50	£27.75	£27.75
Reduced yield	5% = £52.50	5% = £52.50	7.5% = £70	15% = £157
Extra labour	£1.67	£1.67	£1.67	£5
Vet time	-	-	-	£35
Total	£77	£77	£100	£226
Culling due to mastitis	+0.2ppl	+0.2ppl	+0.2ppl	+0.2ppl

Doing no is not an op

NVZs are here to stay so adopting a 'do an option.' But that is not necessarily a GrowHow's Technical Manager Jim Welson whole area of nutrient management for manures can provide useful cost saving

Many farmers have yet to get fully to grips with the NVZ requirements. One of the key concepts is total Nitrogen loading as manure for the farm. Within the rules, each hectare of arable land is allowed 210 kg (168 units/ac) of N and every grass hectare may have up to 250 kg (200 units/ac). Fields can then receive as much bagged N as they need within the bounds of good farm practice.

"By multiplying the number of hectares by the permitted Nitrogen loading you can easily calculate the total manure Nitrogen loading for the farm," explains Mr Welson. "To check whether the farm is NVZ compliant you must then work out the amount of manure Nitrogen likely to be produced by the livestock on the farm and compare the two. As long as the total manure loading for the farm is higher than the manure produced by the livestock you are NVZ compliant." For NVZ purposes, a 650-kg dairy cow is deemed to produce 116 kg (228 units) of N per year, and a dairy heifer replacement or suckler cow only 58 kg (114 units) of N per year. Other standard manure production figures are detailed in the NVZ Action Programme rules.

"In practical terms a dairy herd of 110 cows plus 50 followers needs a minimum of 135 acres of grass and, since arable land has a lower manure limit, more land will be

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