Water use – How much do you use?

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The basics

Most dairy farmers use a proportion of mains water – or sometimes all mains water, for their on-farm and domestic use. This might include, stock drinking, plant washing, pre-cooling of milk and general washing. Cutting mains water costs can involve using borehole water, rain water, recycled water or just reducing waste and using less. Recognising where water is being used and identifying waste involves reviewing metered consumption and assessing what should be used by each application.

Water meter

CASE STUDY

Anthony Gibbon from Kidwelly, Carmarthenshire gets his farm water from three different sources:

"We have a borehole and two springs, all of which have water meters on them so that I can see how much water we are using from each source.

"I think it is very important to keep an eye on water use to make sure that it's not being wasted and in order to ensure that we are using it in the best possible way."

In practice

Water meters are often read infrequently and, as such, consumption figures are not easily linked to actual use. The first step is to carry out regular readings – monthly or even weekly in order to develop a profile of use.

The next step is to try to assess what the theoretical use should be. This is a matter of assessing each area in turn, and then calculating the total.

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Let's say that you've worked out from your water bill that your total water use is 6,000m^3 per year, but you can only account for 50% of this by calculation. It could mean that you are using more in some areas than your cursory estimate may reveal but you may also be wasting water in some areas. The most common areas of water wastage are:

- Pipe and valve leaks
- Feed trough valve overflow
- Dripping taps
- Excessive use for some applications e.g. wash down

Don't dismiss small things – even a dripping tap can account for between 5 and 10m^3/year.

Underground leaks can be more difficult to find. Turn off all water uses and check the meter – if it's still turning you have a leak somewhere. Areas of ground that never dry out or areas of unusually vigorous weed growth, even in dry conditions, are a fair indicator that something may be amiss. However, it's not always that easy to find leaks and you may need to be very persistent to find the problem.

Volume washer

Potential savings

A leak at 1 litre per minute (a dribbling tap) could cost you £1,000 per year.

For more information on water use please contact:

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Some examples are shown in the following table:

Use	measure	Litres
Dairy cow consumption	cow/day	80
Beef cattle consumption	animal/day	40
Ewe consumption	ewe/day	10
Store lamb consumption	lamb/day	5
Personal use	person/day	136
System wash	milking point/day	18
Tank wash	day	30
Plate cooler	cow/day	40
Calf feeder	calf/day	4
Teat Wash	cow/day	0.5
Wash down	minute/day	15