



Vet Steve Borsberry, from the Solihull-based 608 XLVet Group in the West Midlands, shares some tips on disease prevention and tackling health problems in dairy herds, drawing from his many years of on-farm experience. Here he takes a closer look at a problem that can occur on early lactation.

Steve Borsberry: "You can lose a cow within four or five hours to E. Coli"

A need for speed

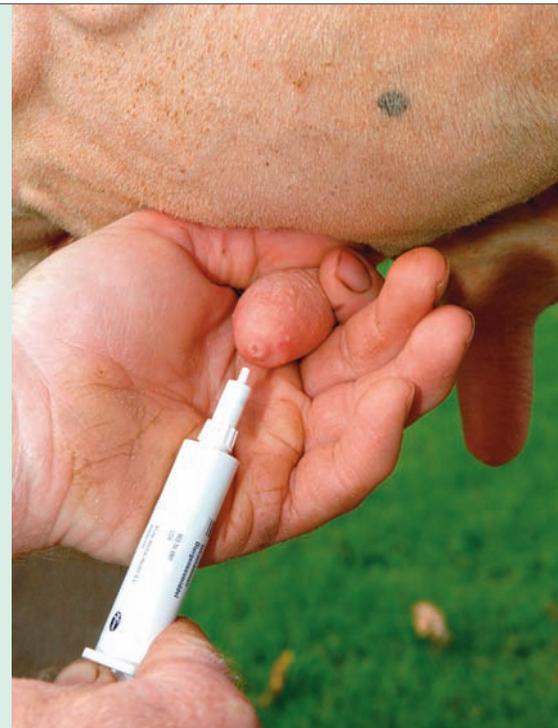
Where there's slurry, there's E. Coli. Whether or not cows are infected depends very much on the dairy set up and management, particularly transitional cow management. Some units see a lot of E. Coli infections, some hardly any. And it's difficult to pin point why. But we do know that infection is most prevalent in cows approaching peak lactation – the cow's ability to fight infection can be suppressed due to the tremendous amount of stress that they can be under at this time. E. Coli infection is not always obvious. Some cows will only show an unexplained increase in somatic cell count before self curing. Others will just present with a watery quarter.

A severe case is easier to spot, thankfully, as an acute E. Coli infection requires rapid treatment. Leaving the cow until the next milking, to see how she is, is a

'no no' – by then it will be too late. You can lose a cow within four or five hours to E. Coli. This is where a thorough herd health plan comes into its own. A treatment protocol for E. Coli infection should be in place.

Some herds, after consultation with their vet, choose to vaccinate against E. Coli infection. This won't necessarily reduce the incidence of infection, but it will reduce the severity of those infections that do occur. Many herds with a known problem are using it to great success and some producers will just vaccinate their most productive – and therefore most immuno-suppressed – cows as a precaution.

Very rarely do infected cows achieve their lactation potential when they recover. But, with quick and effective treatment, most cows go on to perform well in subsequent lactations.



The encyclopedia **E. Coli**

Prevention

Good transitional cow management is essential – the cow's ability to fight infection can be reduced due to increased stress and demands on her as she approaches peak lactation.

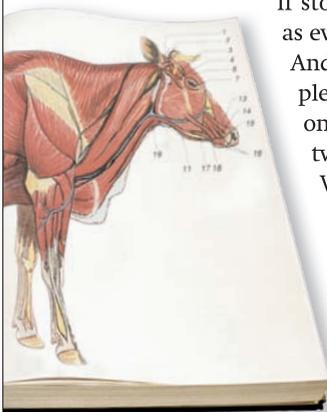
So minimise the period of 'negative energy balance' for the herd. Muck out loose yards frequently – every two to four weeks – to minimise faecal contamination.

If stocking rates are high, as frequently as every 10 days may be required.

And when re-bedding empty yards, add plenty of straw so cows are not lying on cold and dirty concrete – put in two or three days worth of bedding.

Vaccination could be prudent in herds with a know problem. Vaccination won't prevent E. Coli infection, but it will serve to limit the severity of any infections that do occur.

Possibly instigate pre-milk teat dipping.



Symptoms

E. coli infection can be sub clinical, mild and acute. The former will present as an unexplained rise in cell count and the cow will self cure. A mild case will present as a watery quarter. But an acute infection will result in toxic mastitis, the first signs of which are a watery quarter, possibly with flecks, sucken eyes, diarrhoea and poor co-ordination. The cow may also be on the floor and unable to stand.

Treatment

Speed really is the key when tackling E. Coli mastitis – there's no time to lose when a cow starts to show signs of infection. Treatment must be swift and comprehensive. A non-steroidal anti-inflammatory drug (NSAID) must be given in combination with antibiotic treatment to counteract shock. The cow becomes 'toxic' and it's this and the resulting shock that will kill the cow in severe cases. Electrolytes should be also be administered either orally or via a drip. Extreme care must be taken when giving oral fluids so as not to 'drown' the cow.

Infected quarters should also be stripped out regularly.