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Take care with two-year-old and freshly calved cows

It takes about two weeks for most heifers to establish a quiet, reliable response to milking. To maximise production and minimise risk of injury to milkers and animals, milking staff must be patient and as gentle as possible during this period.

Extra labour may be required for the calving period in seasonal herds.

2.1 Consider training heifers in the milking area before calving.

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2.2 Take your time moving and milking two-year-old cows and freshly calved cows – don't rush.

Technote 5.1 describes how to ensure cows enter the milking shed willingly.

2.3 Attend to two-year-old cows with severe udder oedema (also known as 'flag').

Udder oedema is a swelling that occurs under the skin of the udder, and sometimes along the belly, in cows prior to calving. It mostly occurs in heifers at their first calving, but can occur at subsequent calvings, and is commonly observed during late pregnancy and early lactation.

In severely affected animals, milking is a painful process, milk let-down is poor, and susceptibility to infection is increased (Slettbakk et al 1995). Field experience suggests that animals with severe oedema are more likely to rupture suspensory ligaments of the udder causing permanent damage, known by farmers as 'dropped udder' or 'blown bag'.

Oedema largely results from compromised fluid drainage from the udder and the surrounding areas. A small amount of oedema is a normal (physiological) occurrence as the blood supply to the udder increases and changes during the periparturient period.

Confidence – High

Severe oedema can result in long-term structural damage to suspensory ligaments of the udder.

Research priority – Low

Prior to calving, options for treating cows and heifers with oedema include:

- milk them out, save the colostrum for their calves, and commence regular milking; or
- induce calving (especially if natural calving is not expected for some time), making alternative arrangements to provide colostrum to the calf.

After calving, treatment of oedema involves frequent milking and the use of either:

- injected diuretics; or
- oral combinations of diuretic and dexamethasone.

In most cases the oedema disappears within a day or two of calving but, in severe cases, it can interfere with milking. Once milking is started, the volume of the udder is reduced and oedema fluid is usually cleared.

Veterinary advice should be sought if cows are very uncomfortable.

Diuretics used prior to calving are less effective – possibly because of the large volume of foetal fluids present.

Factors that may lead to numbers of animals with udder oedema or increased severity of cases include excessive feeding immediately prior to calving, excessive dietary sodium or potassium, overfat heifers, and a hereditary predisposition to oedema. Advice on heifer nutrition should be sought to ensure diet does not contribute to severe flagging.

2.4 Ensure all quarters of all cows are milked out.

Technote 5.8 describes under milking.

Key papers

Slettbakk T, Jorstad A, Farver TB, Holmes JC. Impact of milking characteristics and morphology of udder and teats on clinical mastitis in first- and second-lactation Norwegian cattle. *Prev Vet Med* 1995;24:235-244.