**Udder Examination**

Dairy farmers are aware of the changes seen in clinical mastitis. However sub-clinical mastitis is by its very nature more difficult to detect.

Most UK large animal vets and farmers do not routinely palpate udders. Many European vets and farmers find udder palpation a valuable tool.

A proportion of chronic high cell count cows will have discernable abnormalities such as the formation of abscesses, scar tissue and irregular nodules in the udder tissue. These animals are unlikely to respond to treatment and constitute a risk to other cows in the herd by acting as a reservoir of infection. The best option is to milk these cows last or preferably remove them from the herd.

### Palpation technique

Palpate the udder immediately after milking when it is flaccid.

### Skin

Grasp the udder skin between the forefinger and thumb; it should be pliable and easily separated from the underlying tissue. If not it is likely that there is oedema (swelling) of the udder associated with infection or recent calving.

### Udder tissue

Palpate each quarter with both hands by placing one hand on the inner side and the other on the outer side. Deep palpate by pressing the finger tips towards each other and gradually work the hands towards the bottom of each quarter. The udder tissue should have a fine grain. A coarse grain that still feels soft should respond to treatment. Cows with a coarse grained, harder udder or those with any lumps or nodules are less likely to respond well.

### Lymph nodes

The most obvious mammary lymph nodes lie above each hind quarter at the base of the udder between the hind limbs in what is known as the perineal region. These lymph nodes are normally inapparent but will enlarge and feel nodular with infection.

If this technique is done regularly on high cell count cows the vet and farmer can select the animals most likely to respond to therapy. Cows with a poor chance of recovery can be excluded from treatment programmes. This will result in a cost effective approach to curing high cell count cows.