SICK CALF ISOLATION

In Australia the majority of dairy calves are reared in groups, often from birth. Group size can vary from a small group of 5 calves to large groups of 40-50 calves.

Calves are mostly reared in a designated shed which is either purpose-built or a shed-conversion. They may be housed for a limited period or until they are weaned. Individual housing systems do exist but they are often used for a confined period of 1 to 2 weeks, before calves are moved to a group pen.

There are some disadvantages of group housing:

- Co-mingling of calves of different ages and immunity, allows easy transmission of respiratory and scour-causing pathogens.
- High competition for milk feed due to hierarchy and dominance within the group.
- Increased stress associated with group housing can suppress immunity and increase sickness.

However, group housed calves develop their own immune system more quickly when compared to individually housed calves.

TO MOVE OR NOT TO MOVE?

Many of the diseases affecting calves are transmitted in contaminated faeces and/or respiratory secretions. A calf showing signs of sickness will be the source of infection for other calves in the same pen. This is the "clinical calf", meaning it is outwardly exhibiting signs of the disease. This may be the 'tip of the iceberg' in that other calves within the pen are also infected but are not showing outward signs of the disease.

One of two scenarios will follow with these 'subclinical calves'. The first is that the infection progresses until they also start to exhibit signs of clinical disease. The infection may spread such that all the calves in the pen are now sick. The second scenario is that the infection does not progress and there are no apparent signs of illness: calves remain apparently healthy.

So what to do with the clinically sick calves if there is more than one in the pen? Early detection and isolation of sick calves is essential to help control the spread of infection. This is useful when the start of the disease outbreak is slow and mild; if more than 30-40% of calves within the pen are showing signs of disease, it is best to leave them all in the original pen as the risk of infection to the remaining calves is high.

THE ISOLATION PROTOCOL

When sick calves are identified early they should be removed from their pen immediately and placed into an isolation pen. This should be an individual pen and ideally it should be in a different air-space to the healthy calves to prevent the spread of infection. Sick animals spend long periods lying down and if left in their original pen can become bullied and hassled by the unaffected calves.

The pen partitions should be an easily-cleaned solid material such as corrugated iron, tin or corflute to at least 1.2m high, preventing nose-to-nose contact between pens. Bedding should be removed and changed between calves. Straw makes an ideal bedding for this purpose as it is warm and absorbent. Ad-lib fresh water should be located at the front of each pen, along with calf starter.

Hutches have been successfully used as isolation pens as they provide shelter, can be readily moved to a new site and are easily cleaned. When the sick calf has fully recovered, it is advisable to put it back in its original pen. Do not be tempted to put these animals in with younger, unaffected calves due to their likely smaller body size. Even after they have recovered, they can be the source of infection for other calves and prolong the course of disease within a shed.

Designated sick-calf feeding equipment (buckets, oesophageal feeders) is required and sick calves should always be fed last, after the healthy calves. Handlers should wear disposable gloves at all times as some of the diseases in young calves can be transmissible to humans. Designated aprons and foot-bath disinfectants are also recommended. Special precautions should be taken with children, pregnant women, the elderly and immunosuppressed people as they are at increased susceptibility to disease.

By following an isolation protocol for sick calves, the risk of spreading infection to other calves and humans will be greatly reduced.