**Minimising Problems with Calf Rearing**

**Colostrum Management**

Calves should be removed from dams as soon as practically possible and fed 2L of good quality colostrum. This should be repeated 12 hours later with another 2L. Leaving calves on cows longer does not guarantee they will receive enough colostrum – over half will not receive an adequate volume or quality.

The quality of colostrum should be checked with a refractometer. This is as simple as placing a drop of colostrum on the refractometer and taking a reading. Any reading over 22 means the colostrum is of good quality. Refractometers can be purchased from us for approximately $45.

Milking cows as soon after calving as possible gives a better chance of good quality colostrum. Delaying milking greater than 12 hours will result in the cow starting to reabsorb some of the immunoglobulins, the proteins which gives a calf its immunity. Less immunoglobulins means poorer colostrum which in turn means poorer immunity for the calf to diseases.

Bacteria such as E. coli and Salmonella will grow in colostrum so ensure that it is stored properly. If it is not being used immediately then refrigerate it, especially in summer. Colostrum can also be frozen in flat bags to be thawed for use at a later date.

If you are concerned your calves are not receiving and adequate amount of good quality colostrum, we can perform a blood test on 5 calves less than 5 days old. The total protein levels in the blood will give an indication of how your colostrum management and feeding is going. It is a simple and inexpensive blood test.

**Calf Scours**

There are many causes of calf scours. The offending bugs often vary from farm to farm so it is difficult to advise a blanket treatment. If you are losing calves, tests should be performed to identify the causative agent and implement appropriate preventative measures.

Vaccinations are available to aid in the prevention of E. coli, Salmonella, Rotavirus and Coronavirus. These must be given to the dam prior to calving so the immunity develops in the colostrum.

**Dealing with Calf Scours**

Electrolytes should NOT be added to milk feeds as this can worsen the dehydration. It is better to split the feeds, allowing at least 2 hours between milk and electrolyte feeds. Recent recommendations are to continue feeding milk to scouring calves but to reduce the volume. The reason for this is that calves will become energy deficient if milk is withheld for longer than 12 hours.

Calves that become depressed need to be treated more aggressively than calves that are still bright. Flat or severely affected calves should be hospitalised with intravenous fluids. Most calves die from dehydration rather than the bug causing the scours.

Up to 70% of calves also have blood borne infection, requiring antibiotic treatment. It is best to discuss with us which antibiotic should be given to these animals. Use of antibiotics is no substitute for good animal husbandry and fluid therapy. Keeping these calves warm and sheltered is important in their recovery.

**Electrolyte Replacement Products**

There are many electrolyte products available to treat calf scours. Unfortunately, many do not have the correct ingredients.

Electrolyte replacement solutions require the following:

**Sodium** (Na) 90-130 mmol/L

**Potassium** (K) 10-30 mmol/L

**Chloride** (Cl) 40-80 mmol/L

**Alkalinising agent** (Buffer, Bicarbonate, Acetate, Propionate, Citrate) 50-80 mmol/L

**Glucose:Na** 1:1 – 3:1

We recommend that you review the product you are using to ensure it includes the above ingredients at these values.