



Willunga Veterinary Services

## NEWSLETTER FOR MARCH

- As calving season gets going we are seeing more sick cows, and also a few sick calves too
- **Prompt treatment gives the best chance of survival and recovery**
- Remember transition management, 21 days is best!
- Calves need 2-3 litres of colostrum 2x daily in the first 24 hours – tube to be sure!
- Scourban is currently unavailable due to relicensing issues, and the supply of Forte-V is intermittent. Please contact us for alternatives.

## UNDERSTANDING CALF MILK REPLACERS

Modern calf milk replacers can be used to successfully rear healthy calves. Before deciding to use a milk replacer there are advantages and disadvantages that should be considered. Ease of handling with automated calf feeding systems, high milk prices and minimal waste milk are reasons why they are favoured on some farms. Only high quality reputable products should be used otherwise health problems and poor growth rates may result.



### Advantages:

Consistency of product (when mixed correctly) means less risk of digestive upsets and scour  
 Can be stored and handled more easily than liquid foods  
 Easily fortified with additional vitamin, minerals and medicines if necessary  
 A potential cost benefit over saleable whole milk  
 Less risk of disease transfer from cow to calf  
 Well suited to automated calf feeding system

### Disadvantages:

Cost compared to feeding unsaleable/waste milk  
 Labour required to mix  
 Need space and facilities for dry storage  
 Risk of spoilage by rodents

## COMPOSITION OF MILK REPLACERS

### Clot forming or non clot forming

Traditional milk replacers are made from downgraded skim milk powder, and are digested like whole milk, forming a clot in the abomasum. Early products varied in quality- mostly due to the processing of casein (which aids clot formation)- and sometimes caused scouring. The majority of milk replacers sold in Australia still contain significant percentages of skim milk powder.

Whey proteins are digested in the small intestine and do not form a clot in the abomasum. The increasing value of casein and improvements in filtration and purification methods have seen whey based milk replacers that can produce average daily weight gains and performance comparable to casein based products. Modern whey based milk products lead the market in US and Europe and are gaining a share in NZ.

### Protein:

A newborn calf is better able to digest milk protein than plant protein sources. Milk proteins are the best sources for growth and development of calves and should provide most of the protein in a milk replacer. With increasing age, calves develop better capacity to digest other proteins and so milk proteins become less important. Other protein sources have been used in milk replacers with varying success.

Soy protein is the most commonly used alternative to milk protein in milk replacers. Processing of soy protein is required to make it more digestible and remove factors that may inhibit calf growth. Wheat based proteins may also support adequate calf growth rates and may mix better than soy proteins.



Crude protein levels in milk replacers commonly range from 18-25%. High levels of non-milk proteins are often used to compensate for low protein digestibility.

The sources of protein should be listed in the product ingredients, but the actual percentage each contributes to the overall protein content may not be listed.

| Optimum           | Acceptable                      | Not recommended          |
|-------------------|---------------------------------|--------------------------|
| Skim milk powder  | Chemically modified soy protein | Fish protein concentrate |
| Buttermilk powder | Soy concentrate                 | Soy flour                |
| Dried whole whey  | Soy isolates                    | Dried distillers soluble |
| Delactosed whey   |                                 | Dried brewers yeast      |
| Casein            |                                 | Oat flour                |
| Milk albumin      |                                 | Wheat flour              |

### Fat

Fat can be derived from animal based products such as tallow, or cheaper sources such as palm or coconut oils, all of which are highly digestible and suitable if properly dispersed into the milk replacer. Levels between 10 and 20% are suitable for calf growth

### Additives:

Vitamin, mineral and animal health medications are commonly added to milk replacers. Ionophore such as lasalocid and monensin help control coccidiosis, and may also have a growth promoting effect. The use of coccidiostats in calves less than 2-3 weeks is of questionable value, and lasalocid is potentially toxic when given to calves less than 24 hours old.

### MIXING OF MILK REPLACERS

Consistency is the key. Always read the label and mix according to the manufacturers directions. Many automated calf feeders are designed to handle powdered milk, making it easier to transport food to the calves.



### KETOSIS IN DAIRY COWS

Ketosis usually occurs in early lactation when there is a huge increase in energy requirements for milk production and cows are unable to produce enough glucose to meet their needs. This often happens in cows in poor condition at calving, or cows that haven't been transitioned well. Ketosis can also be triggered by any condition that causes cows to lose weight rapidly or to be off feed (i.e. acidosis, milk fever, scours etc) - this is secondary ketosis. Secondary ketosis is one of the common causes of LDA's.

Cows in early lactation (up to 8 weeks after calving) are most at risk. This includes heifers!

#### Signs to look for:

- Rapid loss of condition
- Drop in milk yield
- Poor appetite
- Breath smells of acetone (i.e. like nail polish remover) – you can't always detect this sign.

There is also a nervous form of ketosis:

- Cows are often wobbly on their feet
- Can have strange behaviour such as sucking strange items i.e. the bars in the dairy,
- Can appear blind
- Can become aggressive

Checking urine with a ketone strip is recommended in any cow suspected of having ketosis. Remember that not all cases of ketosis will show up on a urine strip.

### Treatment:

For the best outcomes Ketosis needs to be treated aggressively as soon as possible.

Any cow showing nervous signs should have a vet visit ASAP.

Any cow off feed that is recently calved needs Propylene glycol (Ketol, Acidex) 250mls orally TWICE daily for 3 days then a tapering dose according to manufacturers directions. Keep in mind there are a number of causes of "off feed" around calving that require different treatment regimes, but any cow not eating needs help ASAP. A flow

pack (4 in 1) under the skin is also useful 1-2 times daily if cows are off feed (if they are not eating, they are not getting calcium and milk fever is a likely consequence). A shot of B vitamins (B complex or VAM) can also help stimulate appetite. Also check for likely causes of ketosis i.e. low grade milk fever, metritis, mastitis and treat accordingly. If improvement is not rapid a vet visit is strongly recommended.

We now have a new product called "Pick up drench" this is designed to treat ketosis and milk fever in recently calved cows. It is a powder that is administered via stomach tube. We have seen some excellent results using this product. Ketone levels of over 5 (below 1 is normal) were down to 1.5, 24 hours after treatment with cows returning to milk much faster than previously expected. It is a product that needs a vet visit to administer.

If you have a number of cows with ketosis, it may indicate a less than ideal transition period. Please give us a call to discuss any concerns.



Willunga and Aldinga Vet Services are pleased to welcome a new veterinarian to the fold.

Jessica Webb has spent the last three years working as a vet down in Mount Gambier. She has experience with both small animals as well as large animals, particularly dairy cattle. She has been keen to make the move north due to the dismal Mount Gambier weather and is looking forward to some warmer days and beautiful beaches. She has a keen interest in dairy cattle medicine and small animal surgery. She is looking forward to meeting everyone, whether it is in the clinic or out on farm.