

## CALF SCOURS

Loose faeces in calves is NORMAL to a degree. Diarrhoea in calves only becomes serious when depression, lethargy and dehydration occur. Treatment before this may in fact be detrimental. Diarrhoea indicates excess water loss from the bowel – illness and death is due to dehydration and shock.

### Causes:

1. **Hygiene** – housing or yarding in contaminated areas.
2. **Dietary imbalance** – sudden changes in diet including milk (or replacer) composition, concentration and temperature, introduction of solids (pellets, grass feeding) etc.
3. **Stress** – bad weather, cold housing, under nutrition etc. all may depress the immune response.
4. **Improper Antibiotic usage** – there are “good bugs” and “bad bugs” – kill the good ones and digestive imbalances may occur.
5. **Infectious causes** – these are usually secondary to the first three points above – manage those points first!!!
  - **Viruses** – coronavirus & Rotavirus – the most common infectious causes of calf scours.
  - **Protozoa** – Cryptosporidium & Coccidia – commonly seen.
  - **Bacteria** – many types, esp Escherichia coli (E. coli).

*Note – of all of these causes, only bacteria might respond to antibiotics.*

For improvement to occur to any given antibiotic:-

- Bacteria must be present and actually contributing to the scour – NOT the most likely.
- That bacteria must be sensitive to that antibiotic.
- There must not be any severe effect on the “good bugs”.

### Treatment:

1. Correct the fluid imbalance – oral intake of fluids must exceed loss in diarrhoea.
2. Maintain energy intake – milk solids are absorbed low down in the bowel, but inflammation causing the diarrhoea prevents absorption. Glucose/dextrose solution is absorbed high in the gut, where absorption is not hindered.

Solution – use an electrolyte and glucose replacer in place of milk

Eg – Vytrate®, Scoulyte®, ResQ® etc.

Should the calf be unable/unwilling to drink, tube feeding may be necessary – consider purchasing a McGrath Fluid feeder.

When re-introducing milk or milk replacer to the calf, DO NOT mix the electrolyte mixture with the milk – give one or the other. Digestion of milk involves the formation of a milk curd (clot) – diluted milk would be unable to do this - more problems.

3. Provide sheltered housing and warmth – dehydration and shock are the killers.
4. Antibiotics – if the calf is suffering blood poisoning (toxaemia), injectable antibiotics may be necessary. Oral antibiotics will be of use only for particular situations. A culture and antibiotic sensitivity test should be undertaken whenever more than two or three animals are affected. Find out positively the cause and best treatment.

## Oral Antibiotics for Calf Scours

As per any usage of antibiotics, a COURSE must be given, and not just a single dose. To use a single dose is WORSE THAN USELESS, it is directly going to lead to RESISTANCE to that drug, and WILL NOT control any infection in any case.

Also as per any antibiotic, the dose rate must be observed. Most scour tablets are based on approximately 30 kg bodyweight. If the calf weighs more than this (highly likely), use more than one per dose. Once again, to dose at below recommended is WORSE THAN USELESS.

Antibiotics DO NOT have powers of prevention extending beyond the length of the course itself. They DO NOT have a role as a “preventative”.

Should an antibiotic seem to fail to have effect, the following is necessary

1. Consider the other predisposing causes – hygiene, diet and stress.
2. Perform a culture and sensitivity on the scour – identify virus, coccidia and bacteria present, and establish what antibiotic if any will work for you. Collect samples in a STERILE container, eg a jar cleaned with boiling water or a “yellow top” sample pot.

DO NOT simply change antibiotic looking for an effective one. Each antibiotic used unsuccessfully is contributing to the resistance of the causative bacteria, AND also other background bacteria that may develop or become a problem for the future.

NB. No antibiotic is “stronger” than another – each class works in a different fashion, and so failure is not due to insufficient “strength” (as long as the recommended dose is given), but rather a tolerance of the type of effect. ie once resistance is seen, all antibiotics of that class will be ineffectual, irrespective of increased dose rate.

## Product withdrawal from sale

Many of the traditional oral scour treatment drugs have been withdrawn from the market in Australia. Most of those containing Sulpha drug components are gone. This is because these drugs were approved before current drug testing legislation, and most importantly there are no satisfactory residue figures, meaning withdrawal figures have not been established. Residue tracebacks were occurring in veal. Testing would cost millions, so until further notice, the following are unavailable.

- Neosulcin® - tablets and suspension