

## ***HYPOCALCEMIA IN CATTLE.***

Hypocalcemia, milk fever or 'down cows' is mainly thought to be a problem in dairy cattle however many cases are being seen in the Gunnedah area in beef cattle. Some cows get milk fever several days or even weeks before or after calving. This is usually due to the feed, especially the dietary calcium, being insufficient to meet the heavy demand due to the rapidly growing foetus or milk production in early lactation. When down cows are being seen it is important to look at the diet of the rest of the herd.

In typical cases cows show some initial excitement or agitation and a tremor in the muscles of head and limbs. Then they stagger and go down to a 'sitting' position, and finally lie flat on their side before circulatory collapse, coma and death. High milk producers are more susceptible because the fall in their blood calcium level is greater.

In early lactation, cows should receive as much calcium as possible, and clover-dominant pasture are therefore desirable. They will help to prevent grass tetany (hypomagnesemia) as well as milk fever. The feeding management of dry cows in the 2 weeks before calving is very important, because it affects both the amount of calcium available to replace blood calcium and the efficiency with which the available calcium can be used.

When the amount of calcium in the diet is greater than is needed, the efficiency of absorbing calcium from the intestine and the efficiency of transferring calcium from the skeleton both become very sluggish and the chance of milk fever is greatly increased. Feeding hay prior to calving and restricting access to green feed results in acidic blood, which favours calcium mobilisation from bone and improves calcium absorption from the intestines, both of which are important factors in preventing the occurrence of milk fever.

Treatment should be given as soon as possible, preferably using a combined mineral solution such as 'two-in-one' or 'four-in-one'. The combined solutions contain additional ingredients such as magnesium, phosphate and dextrose (for energy), which may also be at low levels in the blood while cows have milk fever. Injection of the solution by farmers should be in several places under the skin behind the shoulder. Injection into a vein should be left to a veterinarian as it can cause sudden death if not carried out properly. Veterinary assistance is also advisable if there is not a quick response to treatment, because other problems may also be present.

Cows that are 'flat out' should be propped up into a normal resting position to relieve bloat. If weather conditions are bad, or the response to treatment is slow, transfer the cows to shelter to prevent exposure and other complications. Provide feed and water. Rugging helps but don't forget to check the rest of the herd.

Management of the diet is a valuable aid preventing milk fever. If it is necessary to improve the body condition of cows in order to improve milking performance, feeds high in energy but low in calcium may be used, for example grain or oaten hay.

Any further questions should be directed to your veterinarian.