Animal Health & Nutrition Specialists!
90365 Bruce Highway, Sarina, Qld 4737
PO Box 583, Sarina, Qld 4737
Phone: 07 4943 1177 Fax: 07 4943 1179
ABN: 91 097 622 627
email: admin@cattleking.com.au

Maronutrients

Macronutrients are elements that the beast needs in larger quantities and are measured in grams per day rather than milligrams. The macro minerals that are required by cattle are Calcium, Magnesium, Phosphorous, Potassium, Sodium, Chlorine and Sulphur. Deficiencies of Phosphorous, Sulphur, Sodium, Calcium and Magnesium occur under some grazing conditions. When assessing total intake, macronutrients supplied in feed, water and any supplement need to be considered.

Phosphorous deficiency is the most common of the macronutrient problems. Requirements are higher for lactating and pregnant stock and for young actively growing stock. Supplement needs depend on class of stock and the country they are grazing and vary from nil to 8 grams of Phosphorous per head per day. Extra phosphorous can be added to your supplement where required.

Sodium requirements are usually adequate on most pastures. The beast's total requirements are low and can be supplied by 20 grams of salt. Cattle will consume salt far in excess of their requirements which is why salt can be used as an attractant and intake limiter in licks. Small amounts of salt are usually required in feedlot rations to boost sodium levels. Chlorine requirements are low and deficiencies do not occur in practical situations.

Calcium deficiencies are also rare but can occur on some very poor soils, in high grain diets and when needs exceed the bodies ability to mobilise reserves as is the case in milk fever. Vitamin D is required for absorption of calcium and so is supplied in Quicklick and our dry licks. Absorption increases in response to low calcium levels. Milk fever occurs at or near calving where a large jump in requirements of Calcium to produce milk depletes the circulating reserves and the cow cannot mobilise the large reserves in her bones. Feeding a low calcium diet prior to calving lowers the incidence of milk fever.

Magnesium deficiency can be a problem on lush green pasture and leads to the condition grass tetany. The problem is caused by Magnesium being in an unavailable form, particularly on fertilised pasture. The animal usually has reserves of Magnesium but cannot mobilise these to maintain blood magnesium levels. Affected animals appear nervous, are uncoordinated and have a stiff gait before going down.

Sulphur is required to form sulphur containing amino acids and should be present in a ratio of between 10:1 and 15:1 with nitrogen. Sulphur is required for optimum rumen digestion as it plays a vital role in protein synthesis. Sheep need higher amounts as wool contains a large proportion of sulphur containing amino acids. Sulphur also plays a role in the detoxification of prussic acid which is found in sorghums. Supplying sulphur has been shown to increase production on forage sorghum.

By ensuring adequate levels of the macronutrients are present in the diet production can be maximised. A properly balanced supplement suited to the country and the class of stock should ensure deficiencies do not occur.