

## Grass Tetany

### Magnesium supplementation options:

#### a) Magnesium bullets

Magnesium provides 10 - 12 weeks protection. Dangerous treating mob within 7 days of calving or during calving as handling will induce more cases. Need to administer at least 7 days prior to calving. Cost around \$11 (10c per day), they do not eliminate risk and are less effective where pasture has high potassium levels



#### b) Add Causmag (magnesium oxide) to hay

Is the most effective method, aiming for 60 -100gm per day? Suggest apply a suspension of 1 kg magnesium oxide to 4 litres of water to 100kg of hay. Excessive causmag is expensive and will cause scouring

#### c) Pasture spray or mister of magnesium every 48 hours

Only practical in strip or cell grazing which is common in dairy cattle. Not logistically practical in set stocked normal sized paddocks.

#### d) Medicated water troughs

Providing soluble magnesium salts – magnesium sulfate (Epsom salts) or magnesium chloride – in water troughs at a rate of 3 g/L can be effective. This method is not appropriate where surface water is available to cows.

#### e) Magnesium blocks

Blocks are relatively expensive, \$1-5,000 per tonne of Causmag, versus \$500 per ton of bagged Causmag. Also the difficulty with blocks is ensuring that all animals get the correct dose. However they are convenient and there are blocks available containing around 16 per cent Causmag.

**Home made salt licks** much cheaper and have been effective particularly with cases in spring calving beef herds.

- 8-10 kg of Rock Salt
- 2kg of Limestone powder
- ½ - 1 kg of Causmag
- 4-8 litres of molasses
- Half a shovel of cement
- Enough chopped straw to bind together

## GRASS TETANY RISK MATRIX

Risk factors are not necessarily in order of importance.

	<b>High</b>	<b>Medium</b>	<b>Low</b>
Age of cow	> 6yo	3-5yo	2yo
Milk production	> 12 litres per day	8 – 12 litres	< 8 litres
1. Breedplan Milk EBV's			
Hereford	> + 10 (Top 10%)	+ 5 to + 10	< + 4 (average)
Angus	> + 13 (top 10%)	+ 8 to + 12	< + 7 (average)
Calf condition	Glossy coated sappy condit score 3+ vealer	condition score 2.5- 3.0	condition score < 2.5 light coloured harsh coat
Lactation stage winter calving	< 2 mths post calving	2 –4 mths	> 4 mths or <b>DRY STOCK</b>
Spring calving	< 7 days post calving	7 – 14 days	> 14 days
Condition score	4 + and less than 2	3 - 4	2.5 – 3.0
Cow growth rate	> 1kg daily weight loss	0 – 1 kg daily wt loss	Maintaining wt
Time of calving	April – July	March and August	Sept - Feb
<b>Stress factors :</b>			
1. Weather	< 5 ° C Heavy rain Strong winds	5 – 10 ° C Light rain Moderate winds	> 10 ° C Dry Nil winds
2. Oestrus (on-heat period)	Late Oestrus	Early Oestrus Riding other cows	Not on heat or preg
3. Mustering	Aggressive motor bikes and or dogs	Faster than a slow walk	Leave alone in pdk
4. Yarding or transport	> 8 hours off feed	4- 8 hours off feed	< 4 hours off feed fed hay before & after
<b>Paddock Factors</b>			
Soil Test K/(Ca + Mg)	<b>Ratio &gt; 0.1</b>	<b>Ratio 0.06 – 0.10</b>	<b>&lt; 0.05</b>
K (Calwell method) above ratio better	High K >110)	K 90 – 110	< 90
PH	Acidic pH < 6.0	pH 6.0 – 7.0	Alkaline pH 7+
Soil Type	Heavy redgum soils		Light sandy soils
Fertilisers used	Potash fertilisers		lime , dolomite fertiliser
Plant Tissue Test	K/(Ca & Mg) > 2.4	Ratio 2.1 – 2.4	Ratio < 2.0
More reliable than soil test			
Pasture species	Grass dominant lush pure cereal crop	Mixed clover / grass	Clover dominant past (~4 x better Mg ratio grass)
Plant maturity	< 3 leaf stage	3- 4 leaf stage	Flowering
Carry over dry feed	Negligible	5- 15 % dry feed	or > 30%
Hay supplementation	Nil	During rough weather	Every 2 <sup>nd</sup> day

Grass tetany is all about understanding and addressing the risk factors in matrix above

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