



# GREEN FEED MANAGEMENT AND MAGNESIUM



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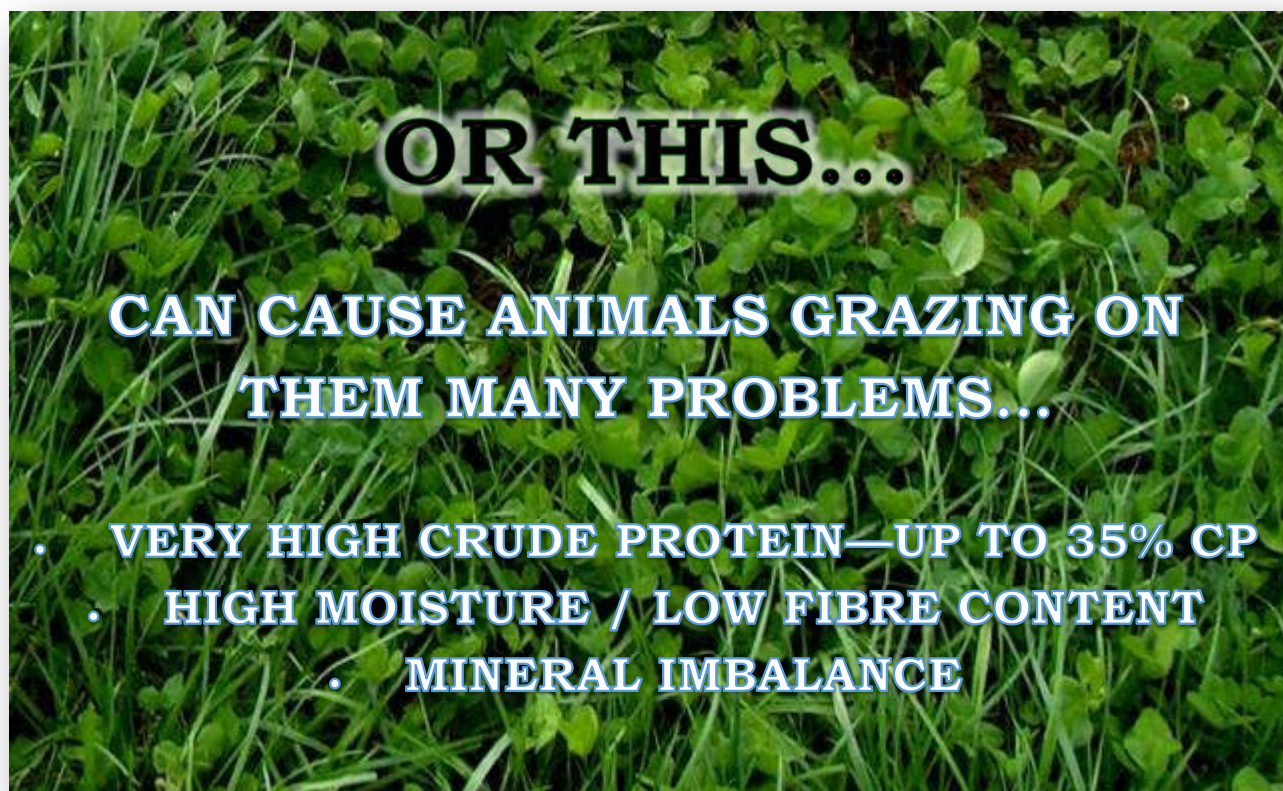
**DID YOU KNOW,  
LUSH GREEN PASTURES  
LIKE THIS...**



**OR LIKE THIS...**



**THIS...**



**OR THIS...**

**CAN CAUSE ANIMALS GRAZING ON  
THEM MANY PROBLEMS...**

- **VERY HIGH CRUDE PROTEIN—UP TO 35% CP**
- **HIGH MOISTURE / LOW FIBRE CONTENT**
- **MINERAL IMBALANCE**



# WHY IS THIS A PROBLEM?

**Grazing lush green feed,  
especially short growing green feed,  
often results in animal health issues.**

**HIGH PROTEIN + HIGH  
POTASSIUM + LOW FIBRE**

**=**

**POOR ANIMAL PERFORMANCE**





# PROBLEMS...

## ⇒ **High CP**

- Requires energy to breakdown and excrete excess protein that could be used for growth or production
- Bloat in legumes

## ⇒ **Low Fibre**

- Rumen does not function properly
- Feed moves through the animal quickly
- Low absorption of nutrients

## ⇒ **Mineral Imbalances**

- Can cause metabolic disorders
- Movement and contraction of the rumen is limited
- e.g. High N and K result in low Mg absorption

*(i.e. Grass Tetany, Milk Fever, Bloat, Scours)*



# HOW DO WE FIX IT?

## ⇒ **Feed Fibre**

- Straw or Hay



## ⇒ **Feed an Energy Source**

- Grain
- Pellets
- Molasses



## ⇒ **Supplement Minerals to Balance Excess and Deficiencies**

- Blocks
- Loose Lick
- Pellets





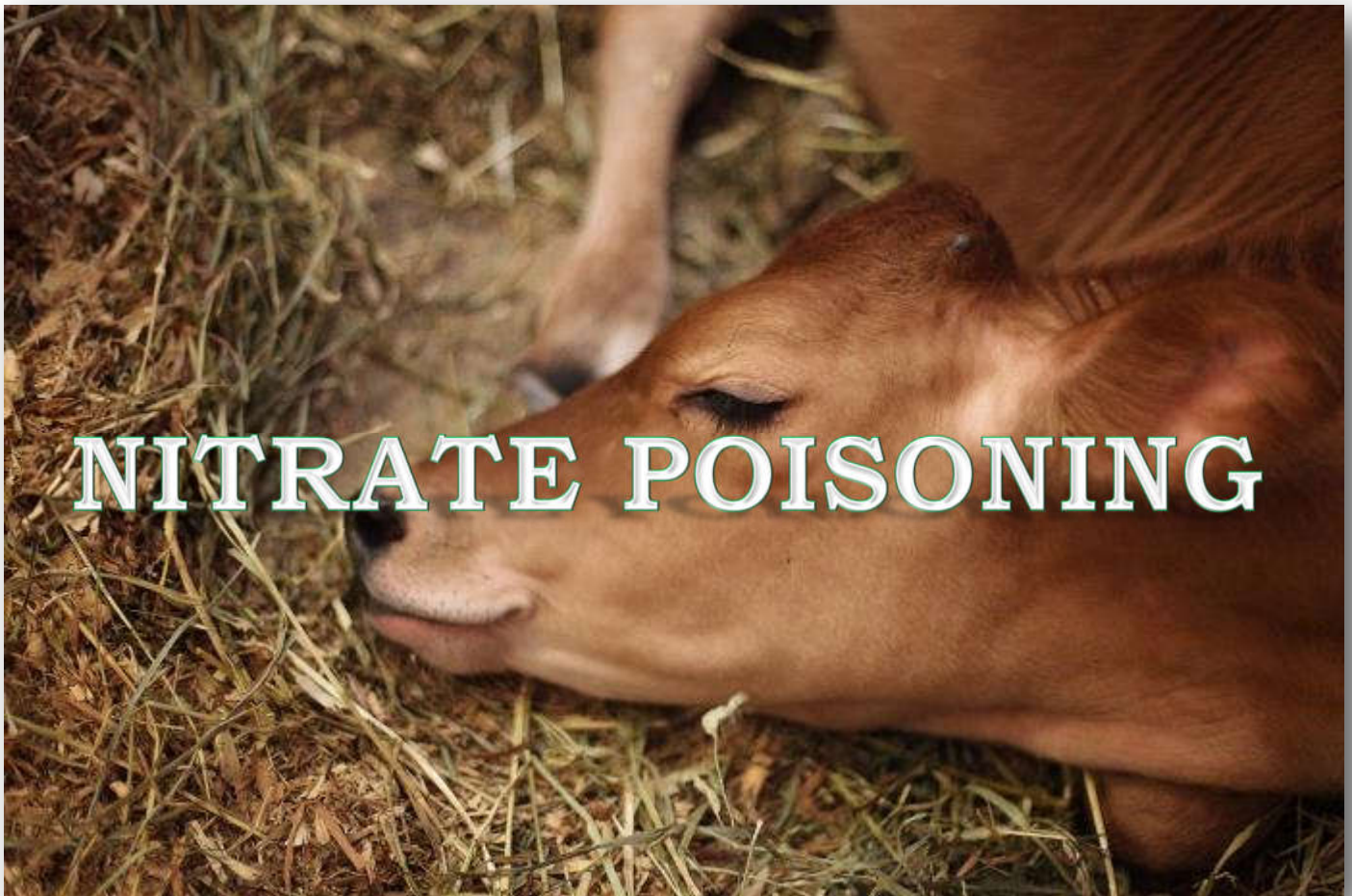
# SUBCLINICAL MAGNESIUM DEFICIENCY AND PRODUCTION

SUPPLEMENT	LIVWEIGHT GAIN (G/DAY)
Nil	184
Hay	225
Mg/Na/Ca	283

Source: Graze'N'Grain & Farm Link – Unpublished data G McMullen, H Dove & F.Gummer (2005)

**Causmag /Salt /Limestone – 2:2:1**









# NITRATE POISONING

- ⇒ Occurs when animals consume plants that are too high in nitrates
- ⇒ Under normal conditions, plants convert nitrates to protein
- ⇒ Nitrate itself is relatively non-toxic in the rumen
- ⇒ Quickly reduced to nitrite
  - Oxidises the ferrous iron of haemoglobin





# SYMPTOMS

- ⇒ Laboured breathing
- ⇒ Trembling
- ⇒ Staggering
- ⇒ Scouring
- ⇒ Weakness
- ⇒ Death





# DIAGNOSIS

⇒ Blood will be characteristically chocolate brown





# GREATER RISK WHEN...

- ⇒ Periods of cloudy weather
- ⇒ Moisture stressed
- ⇒ Cold weather
- ⇒ Grazing brassicas, capeweed, variegated thistles, etc.
- ⇒ Animals in poor health more susceptible
- ⇒ Animals with a worm burden (*especially those that cause anaemia*) are more prone





# CONTROL/PREVENTION

- ⇒ Feed a readily fermentable carbohydrate source during times of risk (*grain, molasses, pellets etc.*)
- ⇒ Introduce animals to suspect crops slowly and make sure they are full when they first go onto the crop
- ⇒ Feed a low nitrate feed (*i.e. hay*) to dilute nitrate intake





# BRASSICAS

- ⇒ All brassicas contain compounds that interfere with iodine uptake
  
- ⇒ May also cause haemolytic anaemia in ruminants
  - Red blood cells destroyed
  - May see blood in urine







# REDGUT

- ⇒ Probably the most common problem for lambs grazing actively growing lucerne, particularly after summer rains
- ⇒ Grazing highly digestible, high protein feed
- ⇒ Low fibre, so passage through the gut is fast
- ⇒ Fermentation is incomplete when entering large intestine







## REDGUT CONTINUED...

- ⇒ Results in increase in large intestine size and function, that may twist and block blood vessels
- ⇒ Highly soluble protein leads to toxic levels of ammonia in the bloodstream
- ⇒ Leads to sudden death and rapid bloating
- ⇒ Large intestine very red and enlarged on post mortem





# TREATMENT

- ⇒ Unfortunately there is no magic treatment
- ⇒ Remove from pasture immediately & feed low protein hay/straw





# PREVENTION

- ⇒ Make sure animals are full when introducing to Lucerne
- ⇒ Provide access to a fibre source
- ⇒ Provide energy source  
e.g. grain in self feeder
- ⇒ Delay grazing until lucerne has matured
- ⇒ Limit access
- ⇒ ADE injection prior to grazing may help — Mineral supplementation  
- 5-in-1 vaccination

