



Unit : Hypomagnesaemic Tetany in Cattle  
Lesson : 4

# Treatment and Control

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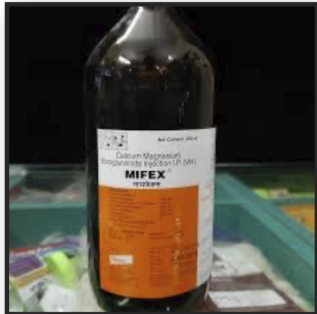
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# Intravenous administration of Magnesium therapy

## Combined Calcium/Magnesium Therapy

- ▶ Combined calcium–magnesium preparation (500 mL of a solution containing 25% calcium borogluconate and 5% magnesium hypophosphite for cattle - IV



**Calcium : 1.86%w/v**  
**Boric acid to calcium : 2.26 to 1**  
**Magnesium hypophosphite : 5.0%w/v**  
**Dextrose : 20.0%w/v**  
**450ml – Calcium -8.37g**  
**Phosphorous – 5.31g**  
**Magnesium – 2.06g**





# Magnesium Therapy

**200 to 300mL of a 20% solution of magnesium sulfate -IV**





- ▶ **SC injection- 200 mL of a 50% solution of magnesium sulfate has been recommended**



**Magnesium sulphate**



**50% solution of MgSo4**







- ▶ **Successful therapy is also recorded by the rectal infusion of 30 g of magnesium chloride in a 100 mL solution**





# Oral Supplements

## ► Feeding of magnesium supplements

1. Daily administration by drenching, or in the feed, of at least 60 g of magnesium oxide per day is recommended to prevent the disease.
2. Daily feeding of 120 g is safe and effective but 180 g daily may cause diarrhea.





# Control

- ▶ **Animals at high risk should be moved to low-risk pastures during the grass tetany season.**
- ▶ **A requirement as high as 3.0 g/kg DM diet may be required for lactating cows on spring pasture.**
- ▶ **Magnesium oxide is commonly used for supplementation, but other magnesium salts can be used - magnesium carbonate and magnesium sulfate.**



# Control

- ▶ **Animals at high risk should be moved to low-risk pastures during the grass tetany season.**
- ▶ **A requirement as high as 3.0 g/kg DM diet may be required for lactating cows on spring pasture.**
- ▶ **MgO<sub>2</sub> - Daily feeding of 120 g is safe and effective,.**
- ▶ **Magnesium phosphate (53 g/d) is also a safe and effective way of ensuring a good intake of magnesium.**



# Salt blocks

- ▶ Salt blocks can help repair the sodium deficiency associated with young spring grasses and improve the Na :K ratio in the rumen.





# Spraying on Hay

- Mix magnesite with molasses
- Dilute mixture with water
- Spray mixture onto hay

## Pellets

- Magnesium-rich pellets suggest themselves as a means of supplementation when the additional cost can be borne





- ▶ **The use of heavy “bullets” of magnesium to prevent hypomagnesemia has been effective**
- ▶ **Heavy bullet of magnesium in the reticulum, from which it constantly liberates small amounts of magnesium— about 1 g/d**

### **Top Dressing of Pasture**

- ▶ **Top dressing of pasture, together with magnesium-rich fertilizers, raises the level of magnesium in the pasture**



*Thank you*