

NUTRITIONAL MANAGEMENT TO REDUCE THE INCIDENCE OF DYSTOCIA

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The Joys of Dystocia



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The Joys of Dystocia



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The Joys of Dystocia



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Nutritional Factors That Contribute to Dystocia

- ❖ Heifers: Foetopelvic Disproportion
- ❖ All Age Groups : Minerals
 - calcium, magnesium
 - copper, selenium, iodine, zinc
- ❖ All Age Groups: Negative E Balance (+/- Ca/Mg disturbances)

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The Role of Macrominerals in Dystocia

- ❖ Hypocalcaemia +/- Hypomagnesaemia
- ❖ Forage Crops
- ❖ Pasture Based Ruminant Acidosis/Dysfunction (Packer et al, 2010)
- ❖ Role of Legumes

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Forage Crops Can be Low in Ca



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Pasture Based Ruminal Dysfunction



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Pasture Based Ruminal Dysfunction



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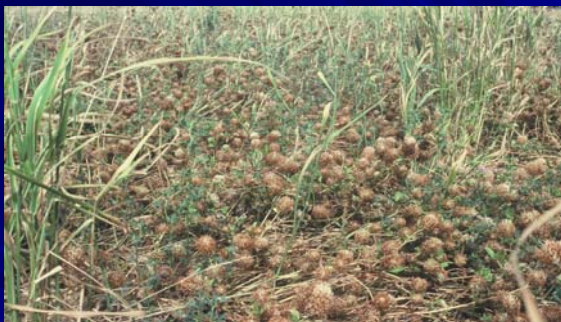
Pasture Based Ruminal Dysfunction



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Legumes are a rich source of Ca and Mg



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The Role of Microminerals in Dystocia

- ❖ Copper, selenium, iodine
- ❖ Zinc (S. Norman PhD)

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The Role of Microminerals in Dystocia

- ❖ Zinc (S. Norman PhD) – Proposed mechanism : Low Zn can reduce response to oestrogen \Rightarrow reduced cervical dilation and uterine contraction. Serum Zn lower in assisted heifers ($P < 0.05$). Further research warranted.
- ❖ Zn sources: Corn gluten, distillers solubles, wheat by-products

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The Role of Energy Balance in Dystocia

- ❖ The Tennis Court Effect
- ❖ Timing of Calving
- ❖ Pre-calving Feed Wedge

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Energy Balance in Dystocia – the Tennis Court Effect



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Positive protein/energy balance?



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E Balance in Dystocia – Timing of Calving + Feed Wedge



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Heifers – Foetopelvic Dysproportion

- ❖ Decreased nutrient intake First Trimester
= A more efficient parasite

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Foetopelvic Dysproportion – more efficient parasite



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Heifers – Foetopelvic Dysproportion

- ❖ Increased nutrient intake (esp. E dense) Last Trimester to “catch up”
- = increased fat deposition without a commensurate increase in pelvic size

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Heifers – Foetopelvic Dysproportion

- ❖ Decreased nutrient intake Last Trimester (Tennis Court Effect)
- = continued growth of the foetus but a decrease in the growth of the pelvis

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Dystocia Prevention Take Home Messages

- ❖ Ensure mineral requirements are met
- ❖ Maintain consistent ADG from the birth of the heifer through to calving of 0.6 to 0.7 kg/hd/d
- ❖ Target CS 3 and stable (or modest rise)

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Dystocia Prevention - mineral status



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Dystocia Prevention - mineral status



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Dystocia Prevention Target ADG

Breed	CJW @ 14 months	CJW @ 15 months
British	0.64	0.60
European	0.67	0.62
Bos indicus derived	0.70	0.64

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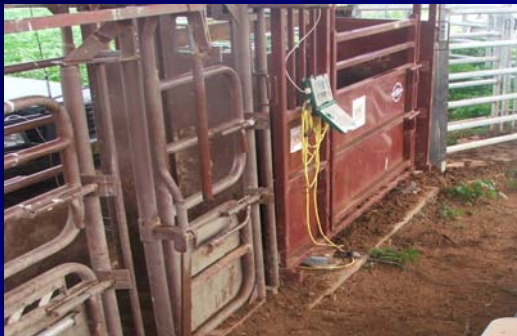
How Do We Achieve Consistent 0.6 to 0.7 kg/hd/d

- ❖ MEASURE IT (6 wk reweighs)
- ❖ Grazing management
- ❖ Strategic costed inputs

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Target ADG – MEASURE IT



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Target ADG – Grazing Management



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Target ADG - Strategic Costed Inputs



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Dystocia.....



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