

LNT's Guide to Phosphorus Supplementation



The wet season in northern Australia is the most productive time for cattle producers with pasture quality improving dramatically compared to the dry season. Cattle usually perform at their best during this period. However phosphorus deficiencies may be limiting production and given that most of northern Australia's soils are phosphorus deficient, animal production could be improved with strategic use of phosphorus supplements.

Phosphorus Supplementation will:

Increase

- ❖ Growth rates of young cattle
- ❖ Milk yields of breeders
- ❖ Weaning rates
- ❖ Calving rates
- ❖ Stimulate feed intake

And decrease

- ❖ Bone chewing
- ❖ Peg leg
- ❖ Mortality rates
- ❖ Incidence of botulism

It has been proven that the most effective time for an animal to store and utilise phosphorus is when it is actively growing with adequate levels of protein and energy in the diet. In Northern Australia this is during the wet season.

The LNT range of phosphorus blocks, **designed to meet your specific situation:**

Phosrite®: A 5% phosphorus block containing 15% urea ideal for later in the wet as dietary protein levels in the pasture decline.

Territory Tuff Phosrite®: The same as Phosrite® but much harder for situations where the intake of other phosphorus supplements are considered to be too high.

Ultraphos®: contains 5% phosphorus and 5% urea, representing a palatable alternative if insufficient intake occurs with other phosphorus blocks.

The advantages of the LNT phosphorus block range are:

- ❖ All blocks are weather resistant and do not require shelter
- ❖ Easy and convenient to feed out.
- ❖ Cost effective
- ❖ A convenient method of feeding phosphorus during the wet
- ❖ Blocks can be fed out with the first storms and will then be available for the rest of the wet.
- ❖ A phosphorus block formulation for all situations.



LNT Phosphorus blocks have been successfully trialed throughout northern Australia since 1981 and these results combined with feedback from many northern cattlemen have shown them to increase growth rates and conception rates of breeders. Importantly this has led to better returns.

Trial Results

Recent research findings by research workers Dr Joe Miller (previously QDPI&F) and Mr David Coates, CSIRO highlight the benefits of phosphorus supplementation on acutely phosphorus deficient country in NQ.

Their results over a three year period showed a substantial improvement in live weight gain, condition score, ovulation rates and milk production. The increase in liveweight will enhance the prospects of the cows getting back in to calf and improve overall fertility, the extra condition reflects the liveweight advantage and the more first calf cows that are cycling means the more calves a cow will have in her life time and the more efficient breeder she will be. The more milk produced will result in heavier, healthier weaners.

EFFECT OF PHOSPHORUS SUPPLEMENT ON COW/CALF PERFORMANCE ON LOW SOIL P COUNTRY

Responses to P supplement fed all year:

Annual liveweight change (kg)	+60	(+7 v -55)
Condition score at weaning (1 – 5)	+1	
First calf cows cycling by June (%)	+60%	(90 v 30)
Milk production (litres)	+1	

(Research conducted by QDPI, CSIRO and UQ with MLA funding support)



For an efficient, effective year round phosphorus supplementation program use Uramol® in the dry and Phosrite® in the wet season.



LNT Phosphorus Blocks Analysis

	Phosrite® g/kg	Ultraphos® g/kg
Phosphorus	5 %	5 %
Urea	15 %	5 %
Protein meal	10.5 %	5 %
Crude protein Total	4.79	16.2 %
Min Calcium	7 %	7 %
Molasses	25.4 %	43 %
Max Salt	3.8 %	4.5 %
Sulphur	7.8 g/kg	2.5
Trace elements	Yes	Yes
Block Size	100 and 40 kg	100 and 15 kg
Recommended intake rate	100 g/head/day	100 g/head/day

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