Farmers Can Manage How Much Urinary Nitrogen Their Animals Produce

Achieving a RNUE at optimum levels will virtually negate both the environmental issues and your animals wasting this essential nutrient, eating away at your bottom line and impacting on the environment.

Underfeeding or overfeeding of protein can rob you of your profits. Feeding an unbalanced protein to energy ratio can decrease feed efficiencies, increase feed costs and lower production.

By analysing your pasture or crop, we can provide an accurate assessment of how much Nitrogen your animal are ingesting and partitioning for production, all of this Nitrogen comes from the diet. When an animal eats too much protein relative to energy, they excrete the excess in their urine, a lost opportunity.





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Proactive Management of Urinary Nitrogen =

The results below are taken from actual pasture tests taken and sent to Qlabs to evaluate their RNUE. Both farmers were managing their farms under what they considered current day best practice but the outcomes are substantially different.

For full results see Page 4

Mr A Farmer

Ryegrass

Urinary Nitrogen 710.3g/cow/day or 453.lg/cow/day above optimum 45.31kg/100/cows/Day 453.lkg/100 cows for 10 days 4.531 tonnes of Urinary Nitrogen will be produced over and above optimum for a 1,000 cow herd over a 10 day period grazing on this pasture.



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More Profit and a Lower Enviromental Impact





For full results see Page 5

Mr B Farmer

J West Urinary Nitrogen 336.3g/cow/day or 79.lg/cow/day above optimum 7 .91kg/1 00 /cows/day 79.lkg/100 cows for 10 days 0.791 tonnes of Urinary Nitrogen will be produced over and above optimum for a 1,000 cow herd over a 10 day period grazing on this pasture.



If you look at these results on a total catchment basis where tens of thousands of animals are grazing, the Ruminant Nitrogen Utilisation Efficiency (RNUE) Report will allow farmers to understand and act to produce greater efficiencies and sustainable outcomes. The potential for this science to work with agriculture to mitigate environmental impacts is enormous.

RUMINANT NITROGEN UTILISATION EFFICIENCY REPORT					Q Labs 4 Victoria st Waipawa 4210	Tel: 06 8577333 Fax: 06 8577999 A/h: 021 783 539 Email: info@qlabs.co	ı.nz	
Client: Mr A Farmer S				mple Name:	Ryegrass	Address	:	123 Cattle road
Feed Type: Pasture & Grazing Pla			nts	Lab No:	456			Waikikamukau
Animal Type: Cattle				Date:	03-09-17			4321
Consultant: Client								
Laboratory resu	lts							
		Unit	DM basis	Optimum (DM)	As fed	Optimum (A	As Fed)	
Dry Matter	'DM'	%			13.6	More than 30 % DN	A required	
Crude Protein* %		%	36.9	17	5.0			
Total Carbohydrates* (CHO)		%	41.7	152	6			
Fat		%	8.6	3 to 5	1.2			
Ash		%	12.8	less than 5	1.7			
Metabolisable energy ME		MJ/Kg	11.5					
Crude Fibre	Crude Fibre		13.1	15 to 20	1.8			
Nitrogen Utilisation Efficiency								Continuum (0/)
							esuits (%)	
Graph Key]		29	96		_ 276
CP = Crude Protein			205					
MUN = Milk Urea Nitrogen				205				
NUE = Nitrogen Utilisation Efficiency				100		100	100	
UN = Urinary Nitrogen				100		100	100	
							10	
				СР		MUN	NUE	UN
				g/KgDM		mg/dL	%	g/day
			Your results	369.0		48.5	2.6	710.3
			Optimum	180.0		16.4	26.0	257.2
	Implications of Low Nitrogen Utilisation Efficiency in the Ruminant							
Optimum efficiency								
Low Protein							 	Hiah Protein

High Protein Low energy

Nitrogen Utilisation Efficiency Gauge NZ Patent No. 630767

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High Energy

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Atomu

Animal:	Animal:
*Surplus energy stored as fat.	*Weight loss
*Decreased appetite	*Nitrate toxicity
*Weight loss	*Vitamin interference
*Poor growth	*Lameness and mastitis
*Irregular or delayed oetrus	*Abortions or foetal reabsorption
*Reduced meat, milk and fibre production	*Reduced fertility
Enviroment:	*Pulmonary oedema/emphysema
*Lower environmental impact.	Environment:
*Increased soil carbon reserves	*Depletes soil carbon reserves.
*Decreased Nitrogen losses through runoff, groundwater and nitrous	*Increased Nitrogen fertility transfer
oxide production.	*Surplus Nitrogen lost to waterways and nitrous oxide
Financial implications:	Financial implications:
*Lower opportunity to generate revenue	*Below optimum animal production
*Animal health implies additional costs	*Lost opportunity in converting N to production.
*Decreased efficiency = decreased profitability	*Effects on animal health has an associated cost.

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Aton

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"We know what Urinary Nitrogen these animals will produce."



Qlabs owned by ex-farmers working for farmers .

Freephone: **0800 857733** Email: **info@qlabs.co.nz** Web: **www.qlabs.co.nz**