Dairy Nitrogen Fertiliser Advisor

http://vro.depi.vic.gov.au/dpi/vro/vrosite.nsf/pages/nitrogen-advisor

VRO - Dairy Nitrogen Fertiliser Advisor

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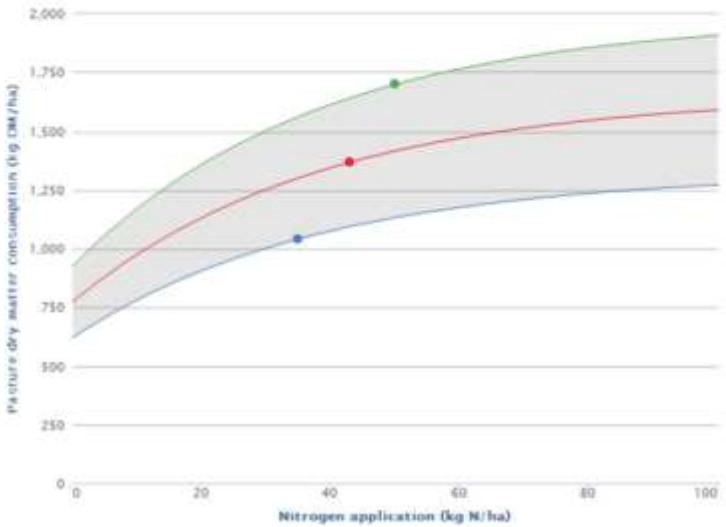
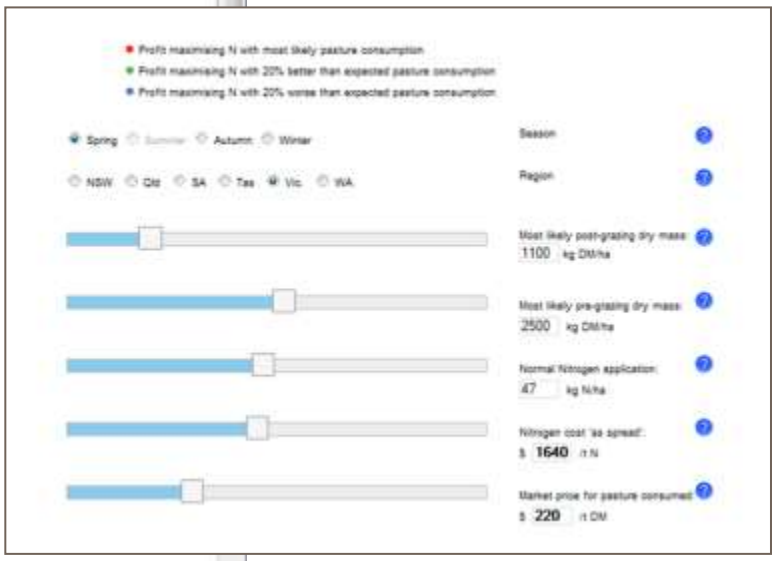
Victorian Resources Online
Statewide

Dairy Nitrogen Fertiliser Advisor

The Dairy Nitrogen Fertiliser Advisor allows dairy farmers with their advisors to examine the profitability of nitrogen fertiliser applications to pasture. Predicted pasture responses, based on nearly 6,000 nitrogen fertiliser experiments undertaken across Australia, are calibrated to account for prevailing conditions facing individual farms. Profitable nitrogen fertiliser recommendations consider the fertiliser costs and the value of extra pasture consumed for each incremental increase in fertiliser use.

Select your season and region → Select the most likely pre and post-grazing DM for the current rotation, and the amount of Nitrogen you would normally use (if any) to achieve these outcomes → Provide your estimate of the 'as spread' cost of Nitrogen and the market value of the extra pasture consumed (based on the market price for substitute ME)



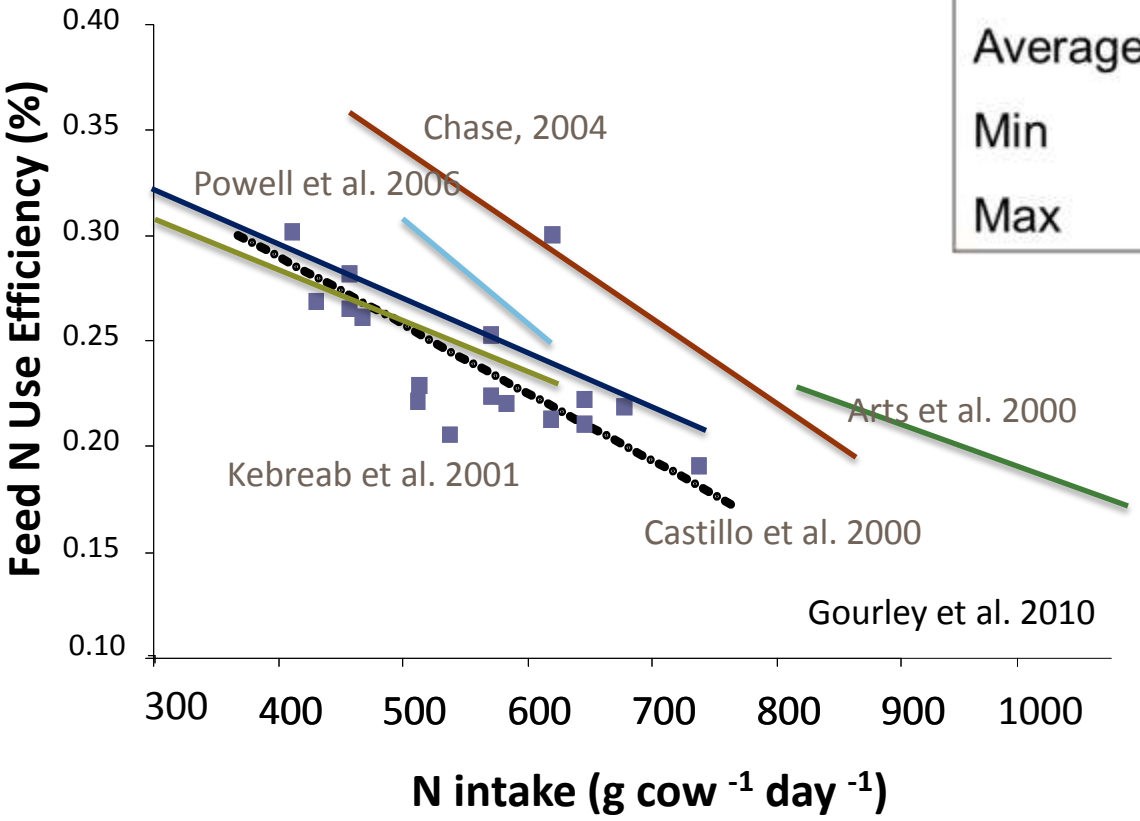


Department of Economic Development, Jobs, Transport & Resources

State Government Victoria

Feed Nitrogen Use Efficiency

Aarons et al., 2010	N use efficiency (%)	N excreted (g N/cow/day)
Average	20.8	432
Min	10.5	199
Max	35.1	792



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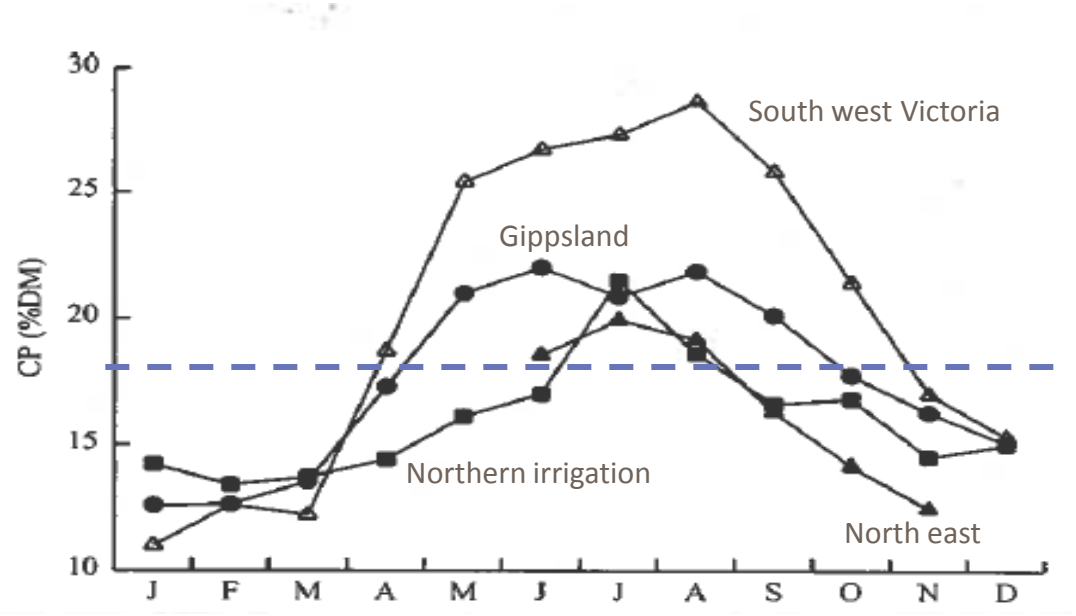
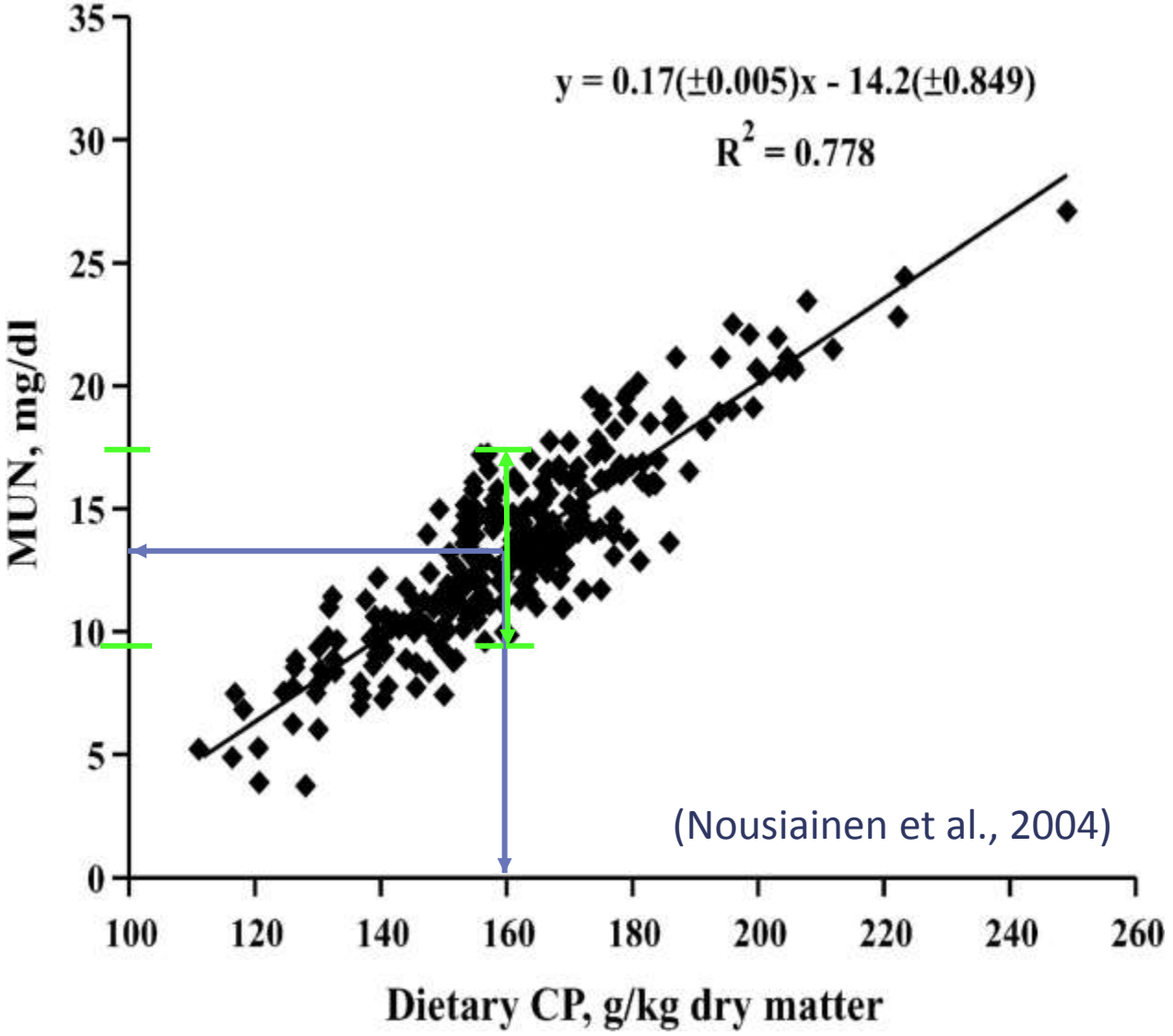
Large variation in feed N intakes



Crude protein content of perennial pastures in Victoria throughout the year. Doyle et al. (2000)

Milk Urea N & Dietary Crude Protein Content

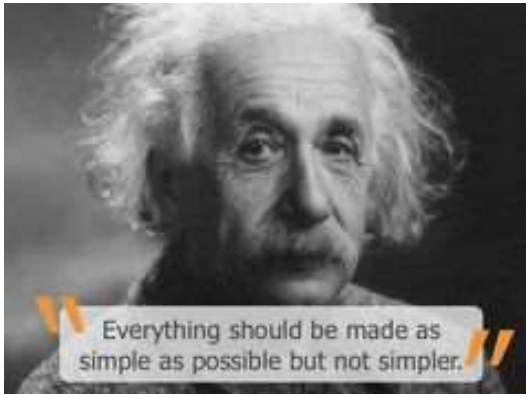


Courtesy Glen Broderick, USDA-ARS-USDFRC, Madison, WI

➢ Heterogeneous animal excreted N

Nutrient Performance Indicators

Proposed criteria:

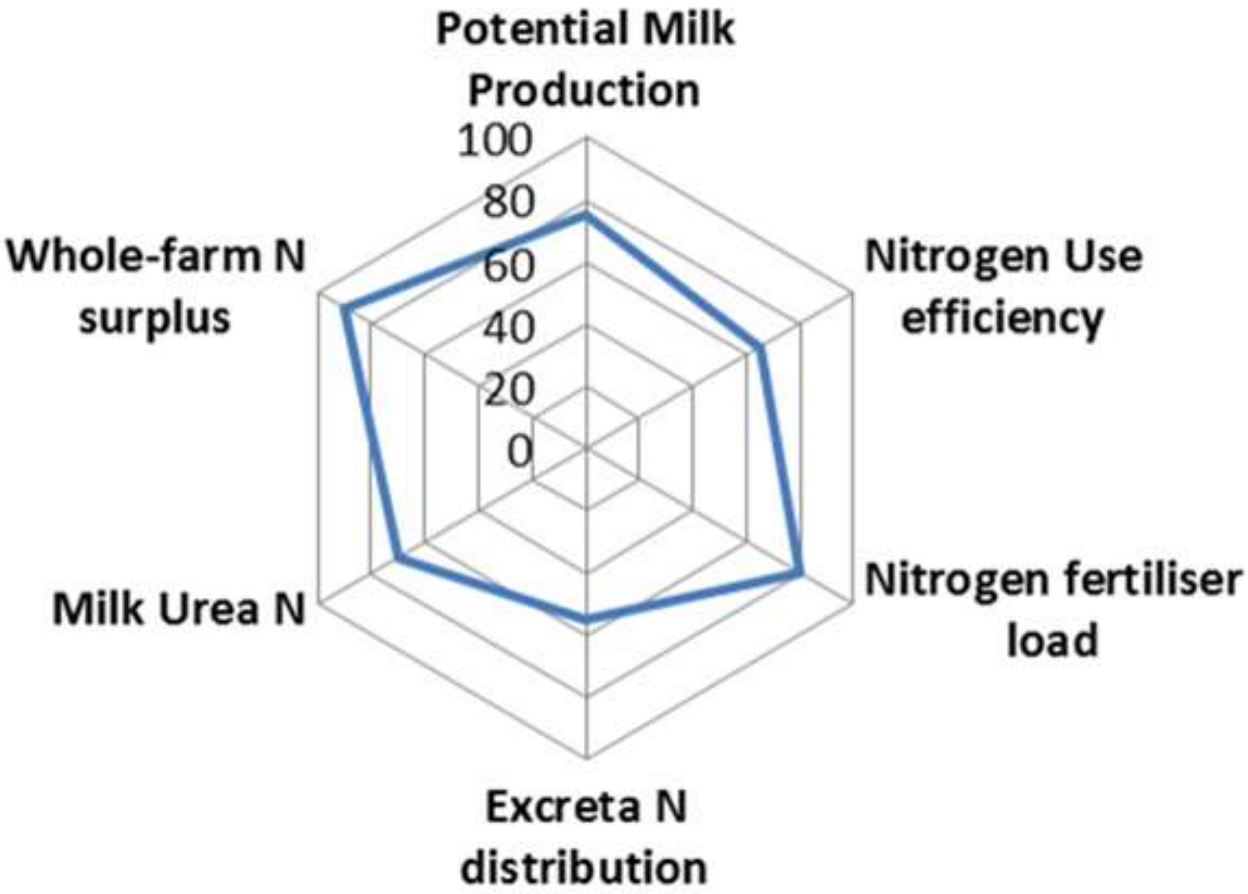


1. Describe and simplify the system
2. Scientifically sound and defendable
3. Address multiple goals
   - Productivity (i.e. yield goals)
   - Potential losses to the environment
4. Utilise readily collectable data
5. Scalable
   - Field, farm, industry, regional, national, international
6. Provide guidance for improvement
7. Enable assessment over time

- No one number can convey this complexity.
- Must involve farmers and industry

Useful metrics/indicators

Indicators expressed as % of optimum



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RMWEB 2.0 (DEMONSTRATOR)

ARTMENT OF ECONOMIC DEVELOPMENT, JOBS, TRANSPORT AND RESOURCES

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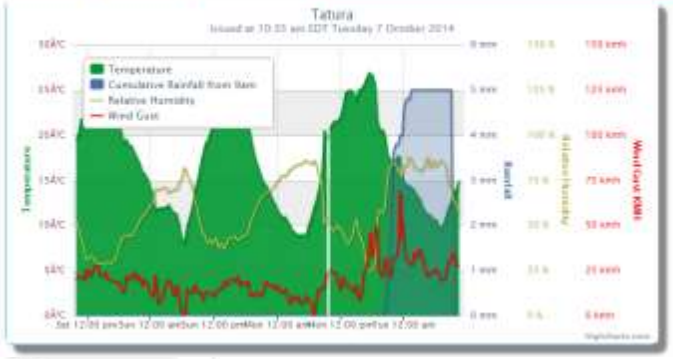
My Property | My Soils | My Weather



Paddock Information

Map Legend

Map Tools

Populate with Default Value

Data Label	Group 0	Group 1	Group 2	Group 3	Group 4
Size of Area (ha)	0	6.1	46.3	138.7	62.6
Time Spent (%)	0%				
Grains/Pellet Bought (%)	0%				
Silage Bought in Fed (%)	0%				
Hay Bought in Fed (%)	0%				
By Products Bought in Fed (%)	0%				
Home Grown Silage Fed Back (%)	0%				
Home Grown Hay Fed Back (%)	0%				
Slider Control					

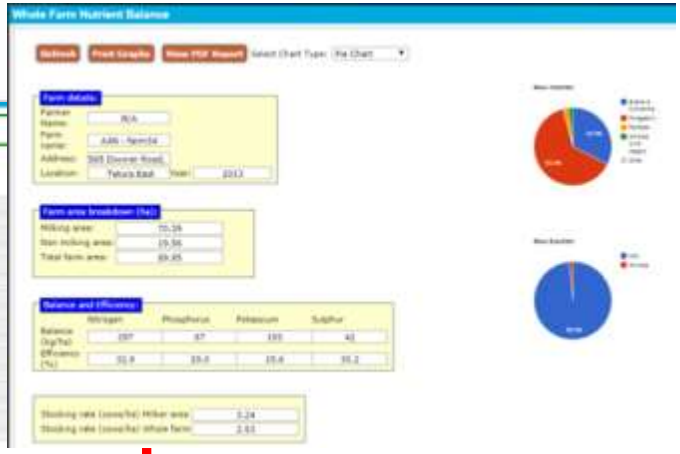
Hide Tool

PaddockId	Paddock Name	Area(ha)	Paddock edit Date	Paddock Type	Comments
6883	Clarks 3	9.3288	2014-12-31	Calf Rearing Area	
6884	Clarks 2	7.9288	2014-12-31	Permanent Pasture	

80%

Save Data | Reload Data

- ANIMALS PURCHASED
- FORAGE PURCHASED (HAY and SILAGE)
- CONCENTRATES PURCHASED
- FERTILIZER PURCHASED
- CULLED COWS
- MILK SOLD
- LEGUME
- REPORTS



International Nitrogen Initiative

7th International Nitrogen Conference (INI 2016)

4–8 DECEMBER 2016

MELBOURNE CRICKET GROUND | VICTORIA | AUSTRALIA

'SOLUTIONS TO ENHANCE NITROGEN EFFICIENCY FOR THE WORLD'

State Government Victoria

THE UNIVERSITY OF MELBOURNE

IPNI International Plant Nutrition Institute

Soil Science Australia

CSIRO Publishing