



# DAIRY SCIENCE 2007

*Meeting the challenges for pasture-based dairying*

## **Comparison of models for estimation of urinary nitrogen excretion from dairy cows fed fresh forages**

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## Interest in understanding productive and environmental (N) responses in dairy cows grazing fresh forages

Objective: Find a method to estimate urinary N excretion in response to forage composition

- Suitable for use in grazing trials
- Preferably non-invasive
- Tested: CNCPS, DCAD, MUN, creatinine



- CNCPS and DCAD methods inadequate
- Milk urea and creatinine methods appear to detect small qualitative differences in forage
- Trial designed to provide contrasting amounts of **WSC**, but contrast was in **CP** as well
- Single trait interpretation: meaningful? useful?
- Further validation under way to develop a calibrated method for NZ forage diets

