



DAIRY SCIENCE 2007

Meeting the challenges for pasture-based dairying

An empirical model to estimate efficiency of nitrogen utilisation in cows grazing fresh forages

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Can changes in a single trait of forage translate into predictable responses in animal metabolism ?

Objective: To measure the influence that changes in chemical composition have on the nitrogen utilisation from fresh forage diets

- Explore relationships between chemical composition variables and calculated nitrogen utilisation values
- Develop equations to explain observed responses from our trials



- CP and WSC accounted for a higher proportion of the variation in efficiency of nitrogen utilisation for milk than any other chemical constituent of the forage
- $WSC < CP < CP \& WSC < \frac{CP}{WSC}$
- Responses in N efficiency of utilisation to increased supply of WSC need to be appraised considering the concentration of CP of the forage

