

Making gains through research

DairyNZ's research aims to help farmers earn greater market returns by increasing productivity through forage production, better animals and efficient systems – all while achieving a lower environmental footprint. Here, we look at two key research programmes funded in part by DairyNZ through the farmers' levy.

1. Forages for reduced nitrate leaching



Catch crop trials at Plant & Food Research in Lincoln.

Aim



Reduce nitrate leaching losses by 20 percent by delivering proven and profitable pasture and forage crop options for arable, sheep and beef, and dairy farming.

Research



Dairy, crop and sheep and beef farms are involved in this cross-sector project which focuses on three areas.

1. Comparing alternative pasture species for yield, nitrogen (N) uptake and plant characteristics.
2. Looking at how crop and pasture management can improve plant N uptake from the soil and reduce surplus intake of N by grazing animals
3. Co-developing farm systems that incorporate new mitigation options developed through the programme.

Early results



- Adding other species to perennial ryegrass/white clover pasture can reduce N concentration of urine by 25 percent and reduce nitrate leaching under urine patches by 30-60 percent.
- Using catch crops in sequence immediately after grazing a winter forage crop can reduce soil mineral N content by 30 percent, reducing the risk of nitrate leaching in late winter/early spring.



Workshop held on a monitor farm in South Canterbury.

Levy funding



\$450,000 per annum. Additional funding from the Ministry of Business, Innovation and Employment, AgResearch, Foundation for Arable Research, Landcare Research, Lincoln University and Plant & Food Research.

Economic value



DairyNZ estimates that achieving the aims of this study in one Canterbury catchment alone will be worth more than \$500 million/year.

Duration



October 2013 - September 2019

Learn more about this research at:

dairynz.co.nz/frnl

