

EverGraze research in northern New South Wales

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Abstract. *EverGraze is a grazing systems project that has dual goals of increased production and profit as well as enhancing natural resource management outcomes. In northern New South Wales, the focus is on better matching feed supply to animal requirements, documenting the relationship between production and biodiversity, whole farm economics and examining the role of lucerne as a mixed pasture.*

Aims of the EverGraze program

EverGraze is a national program that operates across the high rainfall zone of southern Australia, with six regional research sites in Western Australia (WA), Victoria and New South Wales (NSW), including the Namoi and Border Rivers-Gwydir catchments in northern NSW. It aims to develop and test new grazing systems that will improve the long-term viability of meat and wool production enterprises while simultaneously improving catchment health.

To achieve this goal in northern NSW, a multi-disciplinary research team is tackling the problem of how best to integrate the on-farm use of native and sown pasture species, forage crops and supplements to get higher levels of sheep production. The program is operating at the whole-farm level and undertaking a wide variety of activities to gain a better understanding of how to better match feed availability to the requirements of the grazing animal, while maintaining perenniality and biodiversity.

EverGraze on-farm monitoring, surveys and focus groups

The research approach involves on-farm monitoring and assessment of 18 properties across the region from Nundle and Wallabadah in the south and east, to Barraba and Mt Kaputar in the north and west. Sheep systems include Merino wethers and self replacing flocks, first- and second-cross lambs and lamb trading using a wide range of forage sources, ranging from 100 per cent native perennial grass pastures through to combinations of native and sown temperate and tropical pastures, summer and winter forage crops and supplements.

A broad range of producers are also being surveyed to determine their current practices for pastures and livestock grazing including stocking rate, grazing method, pasture sown, fertiliser use, animal production

level and attitudes in the grazing industries. Focus groups and surveys of leading producers and advisors (both public and private sector) will also help establish regional pasture and animal production benchmarks for different pastures/forages and grazing systems. These regional benchmarks will help livestock producers assess what aspects of their grazing business (soils, pastures, animal performance, grazing enterprises or management) are limiting their profitability and environmental impacts, and ways to improve their performance.

Research and expected benefits

The northern NSW EverGraze research project has a focus on:

- Examining the relationship between production, profit and biodiversity to see if trade-offs on one part of the farm can be compensated for by gains on another part of the farm. A simple and easy-to-use biodiversity guide will also be developed that producers can use to monitor and assess biodiversity on their farm.
- Lucerne is well suited to the red and brown soils of northern NSW, but problems associated with bloat and low ground-cover limit its use. EverGraze is investigating the role of perennial pastures based on lucerne mixtures of annual legume, herbs and temperate or tropical grasses rather than the traditional lucerne monoculture.
- Developing a whole farm economic model for assessing the profitability and risk of sowing improved pastures and changing sheep production enterprises from store-stock to fattening and breeding systems. This will provide information on the comparative cost of production for different pasture systems and grazing enterprises and involve case studies of individual properties.

- Using modelling techniques to determine the impact of climate variability on the likely success of sowing pastures and forages and the implementation of production systems with higher animal feed demand. Both existing and new production systems will be studied, using historical daily climate data, to provide valuable insights into their robustness in challenging and variable climates.

The EverGraze research program operates in conjunction with a network of regional demonstration sites

(‘Supporting Sites’) co-funded by the Namoi and Border Rivers-Gwydir Catchment Management Authorities and a producer orientated Regional Committee.

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