



# Grain & Graze<sup>TM</sup>

Profit through knowledge

## Project Overview 2006

Grain & Graze (G&G) is a national R&D program aimed at boosting the profitability of mixed cropping and livestock enterprises while ensuring environmental sustainability.

There are nine regional projects across the cereal/sheep/beef zone of Queensland, NSW, Victoria, South Australia and Western Australia. The Central West / Lachlan region extends from the central tablelands to the western plains of NSW.

The focus of the Central West / Lachlan project is on combining farmer knowledge and appropriate R&D to increase profit for mixed farmers, improve environmental outcomes and increase the capacity for better and more confident decisions in the farming community.

The project is made up of 6 modules:

### 1) Communication, training and extension

*Regional coordinator: Jodie Dean, Lachlan CMA/NSW DPI*

Objective: Deliver the results of the project to landholders across the region and provide appropriate training opportunities.

#### Activities:

- Ensure integration of results across all sub-projects
- Provide fact sheets, newsletter articles, case studies and field days to disseminate results
- Organise workshops and training courses which are directly applicable to growers in the central west

To subscribe to our free monthly e-Vents and Training email or to submit an event or training opportunity relevant to Grain & Graze please contact Jodie Dean (details on reverse side).

### 2) Farm case studies

*Project leader: Ron Hacker, NSW DPI*

Objective: Provide insight into a range of successful mixed farming enterprises. This includes farms that use conventional practices as well as those adopting innovative practices such as pasture cropping, or use of perennial woody forages. Document the factors that underpin the success of these farming systems, and identify issues for further R&D.

#### Activities:

Six case studies have been completed and are available as a flyer or in soft copy. These cover the following systems:

- Low risk farming in a variable climate
- Mixed farming with Old Man Salt Bush
- Intensification and diversification in a mixed farming system
- Conventional farming with an eye to effective succession
- Intensive conservation farming
- Pasture cropping as a whole farm system

### 3) Feed profiles and production options

*Project Leader: David Michalk, NSW DPI*

Objective: Identify the best-bet combinations of crop and forage species to achieve livestock production targets in the various mixed farming zones (high rainfall to low rainfall) of the central west.

#### Activities:

- Define characteristics of mixed farming businesses across the region
- Develop best-bet options using simple modelling tools to match nutrient supply from crops and

Regional partners:



forages with nutrient demand for alternative livestock production targets.

- Run focus groups with farmers to discuss available options.

#### 4) Biodiversity in mixed farming landscapes

**Project Leader: Sue Briggs, Dept of Environment & Conservation**

Objective: Determine opportunities for improved biodiversity conservation through landscape design and changed farming systems.

##### Activities:

- Assess the habitat condition of case study farms
- Assess the impact of alley farming on biodiversity
- Evaluate the opportunities for improved conservation of flora and fauna through landscape design.

In addition, as part of the national biodiversity component of Grain & Graze, the Central West/Lachlan project is monitoring two properties to collect data that will help establish the relationships between aspects of biodiversity and economic productivity.

#### 5) Innovative farming systems for the eastern zone – pasture cropping

**Project Leader: Warwick Badgery, NSW DPI**

Objective: Refine the agronomy of the pasture cropping system (direct sowing of winter-growing cereals into summer-growing native pastures) and assess the economic and environmental benefits.

##### Activities:

- A trial site near Wellington has been established to investigate the impact of various management options (e.g. cropping frequency and initial pasture condition) on economic and environmental results.
- Satellite sites are established in Trangie and Condobolin and will be used to assess the potential for extension of pasture cropping in western and southern parts of the region.

#### 6) Innovative farming systems for the western zone - alley farming with forage shrubs

**Project Leader: Richard Maccallum, NSW DPI**

Objective: Compare alley farming using old man saltbush (OMSB) with a conventional

mixed farming system in terms of economic benefits and impacts on soil health, deep drainage and biodiversity.

##### Activities:

- A major trial site is being established at Condobolin Agricultural Research and Advisory Station to investigate the use of OMSB alleys in traditional cropping paddocks to improve the quality and reliability of summer forage and alter the pattern of water use. Shrub establishment has been slowed by poor seasonal conditions but the trial should be ready for stocking in the 2006–07 summer.
- Base line biodiversity measurements have been made. Following stocking, conventionally farmed and alley farmed systems will be compared for animal production, crop and pasture production, economic performance and environmental benefits.

#### Project Steering committee

- Chris Jones (Chair) – Central West Farming Systems
- Ron Hacker (Project Supervisor) – NSW DPI
- Danielle Bonnington – Central West CMA
- Kieran Hawker – Lachlan CMA
- Rick Maurice – Central West Conservation Farming Association
- Sue Rahilly – Stipa Native Grasses Association
- John Leigh – Independent grower
- Clive Johnson – Independent grower
- Richard Price – National G&G coordinator

#### Further information

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For more information on the Grain & Graze program go to [www.grainandgraze.com.au](http://www.grainandgraze.com.au)

##### Abbreviations

R&D – Research & Development,  
DPI – Department of Primary Industries,  
CMA – Catchment Management Authority  
CWFS – Central West Farming Systems

Grain & Graze Central West/Lachlan is a collaborative research and development program supported by Meat & Livestock Australia, Australian Wool Innovation Limited, Grains Research and Development Corporation, Land & Water Australia and in partnership with NSW Dept of Primary Industries (DPI), Dept of Environment & Conservation, Stipa Native Grasses Association, Central West Farming Systems, Central West Conservation Farming Association, Central West and Lachlan Catchment Management Authorities to assist mixed, broadacre farmers to increase farm profit while helping to protect natural resources.

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