



South West NRM

On-Ground Project Fact Sheet

CONTROL OF EREMOPHILA GILESII IN SOFT MULGA COUNTRY

Landholder Name: Duncan and Anna Watts

Property Location & Lot on Plan: Colac is 50 Km North East of Quilpie (PH/10/4796 Par Colac)
(Property & project location maps attached at the end of the document)

Property Outline:
(E.g. Property description, size in hectares, enterprise, annual rainfall, and current management practice)

Colac is located in the Bulloo Catchment 50 Km north east of Quilpie. The property has four enterprises, sheep, wool, beef cattle and tourism. The total property area is 25,469 ha consisting of Hard Mulga, Soft Mulga, Mulga Sandplains and Wooded Alluvial Plains. The encroachment of *Eremophila gilesii* (Turkey Bush) has been an emerging problem on the property for a number of years, rendering these parcels of country less productive than in the past. Turkey Bush is an indicator of declining land condition, and symptomatic of land degradation. The prolific growth of these plants leaves ground cover sparse and soil exposed and with increased susceptibility to soil erosion. The Soft Mulga Land, Mulga Sandplains and Wooded Alluvial Plains are the most productive landtypes on the property and are therefore used more by stock than other parts of the property. The particular area which is the proposed site for the trial is in a northerly location of the property, therefore may have been grazed heavier by sheep being in this aspect. The annual average rainfall for the region is 347mm. The 2010 year saw well in excess of this amount fall. Despite this unusual year, the proposed project area remained similar in biophysical structure, ie. little desirable grasses and high percentage of *Eremophila gilesii*, indicating a lack of responsiveness to the favourable seasons.



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Project Description

The project will be focusing on a reduction in *Eremophila gilesii* (Turkey Bush), a native species which is considered a woody weed in south west Queensland. Proliferation of turkey bush is a result of historical grazing pressure and proves to be problematic as it reduces the health and distribution of perennial grasses which form a basis of the grazing business. There will be a number of different control methods trialled including the

- * Spreading of extra nutrient in the form of fertiliser for the soil,
- * Fire,
- * Chemical application in the form of "Grasslan" pellets,
- * Biological control and
- * Slashing of the Turkey Bush

One or more of these methods will be trialled at one time in different areas. There may also be combinations of methods at one time. The trials will be conducted mainly on Mulga Sandplain country in B land condition, which is 'fair' land condition, and monitored closely throughout the duration of the trials. The trial areas will be clearly marked out for ease of identification and monitoring. Trial areas will consist of around 100 ha. There will always be a control area for comparison reasons. Project Budget \$25 000.00

Project Aim

The primary aim of the project is to find cost effective ways of reducing density of *Eremophila gilesii* on Mulga Sandplain landtype through trialling different methods of control. Comparison of results and costs will be analysed throughout the trial and upon completion. A secondary aim of this trial is to maximize plant and animal production while improving ecosystem sustainability through the reduction of the *Eremophila gilesii* monoculture which has occurred in this landscape. By finding cost effective ways of reducing the density of this undesirable native shrub, productivity of the land may increase leading to improved net profits for grazing business.

Project Outcomes

Upon successful completion of this trial, transferable results will allow other landholders with similar landtypes and problems to adopt the most successful management practices, therefore reducing *Eremophila gilesii* for themselves via the most cost effective means. This trial would give real credibility to different management options and the costs associated with these. Landholders will then have the capacity to increase ground cover, soil carbon, effective rainfall and productivity.

Outputs

P 3.2 Property reserve management plan, 1 plan.
P5.1 Biophysical, economic or social plan, 3 plans.
P1.1 BMP codes/ guidelines. 1 BMP.
CB1.1 Events – 3 field day, approximately 30 persons attending.
OG14.5 Groundcover management; 30000ha project area, 10 land managers.
CB1.4 Media Opportunities, 1 newspaper article.
CB1.2 Publications, 3 publications and 50 Recipients.
OG3.4 Enhanced terrestrial vegetation, 1000 ha.

Project Monitoring:

Objectives:

To determine the most efficient and cost effective methods of turky bush control in addition to the quality of ground cover which is replacing it.

Methodology & Indicators:

Strategic monitoring throughout the period of the trial will allow the outcomes to be achieved and reported on throughout the community. There will be a number of biophysical indicators used for the monitoring of the Colac trial site. Plant diversity and ground cover will be the main indicator which determines success/failure. This will be done with the use of transects in and out of the trial area for comparison purposes. Transects will be in each treatment plot. The number of desirables, intermediate and undesirable grasses and herbs/forbs will be counted and logged. Photo points will also be set up in these areas.

Soil tests will be taken for the trial areas and the control area. This will be done at strategic times throughout the trial period. There will be monitoring at each treatment.

Monitoring Schedule:

The Quilpie District Project Coordinator will monitor all trial areas regularly with the assistance of the owners of Colac. The frequency of this monitoring may depend on seasonal conditions, trial method and monitoring method being used. Photo points will be updated every three months and transects every six months.