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The Australian Rangeland Society

WESTERN UPLANDS LANDSAFE MANAGEMENT GROUP

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The Western Uplands Landsafe Management Group project is a new advisory project, sponsored by the Murray Darling Basin Commission through the Natural Resources Management Strategy. The co-operating organisations are NSW Agriculture & Fisheries, and the Soil Conservation Service of NSW.

BACKGROUND

The western upland woodland country of the Murray-Darling Basin has undergone substantial change and deterioration since European settlement. This is particularly reflected in declining livestock carrying capacity and property income, the widespread absence of both desirable perennial grass cover and forbs, extensive areas already dominated or threatened by woody weeds, and decreased rainfall infiltration and associated soil erosion. It is estimated that 20 million hectares is affected or is liable to invasion by shrubs.

Sufficient biological and economic evidence exists to indicate that landsafe stocking and vegetation management practices, when combined with properly planned whole property business management strategies, will improve rangeland vegetation diversity and persistence, stabilise and maintain the resource base, and improve the profitability and income stability of grazing enterprises.

Sufficient scientific and observational evidence also exists in the field of adult education and agricultural extension to indicate that "learning communities" are a potentially powerful tool in bringing about behavioural and practice change. Another major advantage of "learning communities" in the rangelands of the Murray-Darling Basin is that they can help overcome some of the major impediments to acquiring and applying new knowledge and skills imposed by this isolated, semi-arid environment.

OBJECTIVES

The project aims to utilise current scientific and observational knowledge to establish four community based landsafe management groups (learning communities) comprising graziers and technical advisors; harness the combined practical and technical experience of each group to improve the vegetation, grazing and business management skills of participating graziers through the preparation of whole property management programs for each participating grazier's property, and the provision of guidance and training to participating graziers in the implementation of these programs; and to utilise the results of the works and measures carried out under these programs by way of case studies to educate the wider grazier communities around Bourke, Wanaaring, Brewarrina, Nyngan and Cobar in profitable, sustainable vegetation and grazing management.

PROJECT DESCRIPTION

Each of the four groups includes 3-6 co-operating graziers, who have agreed to participate, based on their willingness and ability to join in a small discussion group format and acquire additional skills; to implement negotiated whole property development-management plans and to provide relevant data as the project progresses; their standing amongst their local grazier peers; and their ability to assist in communicating project purpose and progress to other

graziers. Also, wherever possible, the grazier is a member of a Landcare (Rangecare) Group.

A high level technical service is being provided by appropriate NSW Agriculture & Fisheries and Soil Conservation Service staff, with inputs and group activities being co-ordinated through two technical officers.

Support and skill training is being provided within the following parameters:

(1) Property inventory/plan. Provision of detailed inventory maps using SCS property resource maps and NSW&F/SCS GIS technology - soils, landsystems, plant community descriptions, woody weed infestation levels, extent of soil erosion, fences, roads, watering points, etc.

(2) Financial management services, including record keeping, assessments of proposed management change and results of change, and comparative analysis with typical district performance figures.

(3) Animal health and production programs, including assessment of genetic value of stock; sheep reproductive problems; monitoring of livestock bodyweight, condition and wool weights, which helps detection of health problems that may be limiting production and to determine the adequacy of pasture available.

(4) Development of a woody weed management plan, and of a pastoral pest program, including control of foxes, pigs, rabbits, goats and kangaroos.

SCHEDULE OF WORK

In 1990-91, the development of negotiated landsafe vegetation and grazing management for whole property plans.

In 1990-93, the progressive implementation and modification of plans and development of detailed case studies. The conduct of specific extension studies.

In 1993-94, completion of case studies, preparation and implementation of a major extension program, and a major project evaluation.

ADVISORS AND THEIR AREAS OF RESPONSIBILITY

Russel Harland	(1)	(4)	Warwick Date	(1)	(4)
John Murphy	(2)		Greg Curran	(3)	(4)
Geoff Woods	(3)	(4)	Peter Semple	(3)	(4)
Terry Brill	(3)	(4)	Technical Officers	(1)	(2) (3) (4)
Graeme Tupper	Project management				

MAJOR RESEARCH AND INVESTIGATION BEING UTILISED IN THE PROJECT INCLUDE:

CSIRO: rangeland management decision support systems : Rangepak, Shrubkill, Burnecon; management burns to control woody weeds.

NSW AGRICULTURE & FISHERIES: effects of rainfall and grazing on dynamics of perennial grasses; use of goats in an integrated management system with sheep and management burns to control scrub encroachment; use of herbicides; use of warm season spelling to increase desirable perennial grasses and forbs; remote sensing and GIS technology; "Farm Cheque"; vertebrate pest control; Local

Concensus Data Reports; animal health investigations relating to lambing, fertility, predation, fly strike, lice control, plant poisoning, nutrition and seed contamination; nutritive value of plant species; plant species evaluation and establishment.

SOIL CONSERVATION SERVICE OF NSW: vegetation, land system and property resource mapping; GIS technology; woody weed control; rehabilitation of scalded country using water ponding; rabbit control.