

## ECO-RICH GRAZING

Grazing for Biodiversity and Profit An Ecologically Sustainable Agricultural Initiative (ESAI) Project in Victoria

## Department of Sustainability and Environment with the Department of Primary Industry

In the past 150 years, Victoria's grasslands and grassy woodlands have been extensively altered by grazing, cultivation and sowing of exotic pastures. This has resulted in exotic weed invasion, a reduction in biodiversity, increasing salinity and fluctuating water tables. The four-year project (2001-2005) aims to achieve a more socially and environmentally acceptable balance between biodiversity and agricultural productivity in native grasslands and grassy woodlands that remain on Victorian farms. It aims to provide farmers and other land managers with current information and associated skills required to manage their native grasslands.

The project involves social, economic and ecological research, with experimental sites located across the Volcanic Plains of Western Victoria and the Northern Riverina Plains. A review of the literature has been conducted and market research undertaken to ascertain the attitudes and concerns of farmers regarding management of native grasslands.

The Volcanic Plains study is examining the role of timing and duration of 'resting from grazing' on native and exotic plant cover, diversity and habitat structure. Of particular interest is the response of native herbaceous wildflowers (forbs), including those that fix nitrogen, to the six management regimes. These include resting at different times of the year, continuous grazing and total grazing exclusion.

Experimental research on the Riverina Plains examined the feasibility of re-establishing the native perennial shrub, Bluebush (*Maireana*) from seed while simultaneously sowing a wheat crop. The density of wheat did not influence initial establishment of Bluebush. However Bluebush establishment was enhanced where there was less cover of vegetation prior to seed sowing.

For further information regarding the project please contact Dr Vivienne Turner or Ms Jaimie Mavromihalis at the Arthur Rylah Institute for Environmental Research, Department of Sustainability and