AN OVERVIEW OF THE TEMPERATE PASTURE SUSTAINABILITY KEY PROGRAMME: USING GRAZING STRATEGIES TO INFLUENCE PASTURE COMPOSITION AND ANIMAL PERFORMANCE

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The Meat Research Corporation (MRC) is funding the Temperate Pasture Sustainability Key Programme (TPSKP), a large R&D Programme to improve the productivity and persistence of perennial pastures in the Temperate High Rainfall Zone (THRZ) of eastern Australia. The rationale behind the programme is that pastures required to produce the consistent, high quality meat demanded in premium markets are vastly different from those needed to produce wool efficiently. They need to be sustainable, of higher quality, and maintain this superior level until slaughter stock have reached the desired degree of finish.

The THRZ perennial pastures have the potential to meet these demands, and to turnoff quality meat; however, for a variety of reasons, the quality of these pastures has declined over more than a decade. Failure to manage pastures appropriately is foremost amongst the reasons for this decline; fertiliser use has been reduced, pastures have not been resown, have been over-grazed in summer-autumn, and under-utilised in spring. Surveys and producers in the Western District of Victoria report that only 10% of the grasses in pastures are perennial, and less than half have more than 20% legume in spring. Throughout the THRZ, 80% of producers surveyed expect sown species to have disappeared within 10 years, 40% believing this would occur within 5 years (MRC 1994).

The TPSKP aims to examine the effect of various grazing management strategies to reduce the rate of pasture decline in newly sown pastures (pasture maintenance), and to increase the percentage of sown perennial species in degraded pastures (pasture upgrading). For pasture maintenance, it has been estimated that for the 4 years from the end of the programme (when recommendations would become available) to the year 2000, a total of 1.04 million hectares could potentially benefit. At an adoption rate of between 10% and 30%, the increase in gross margins on land that was maintained as “desirable” pasture, over that which was not maintained, would range from $59/ha to $104/ha. The expected benefit up to the year 2010 would be from $45 million to $244 million (MRC 1992).

The maximum potential area that could benefit from upgrading has been estimated to be in the order of 2.6 million hectares; however adoption would probably be only between 4% to 10%. The estimated cost benefit would be from $42/ha to $83/ha, with the total benefit up to the year 2010 being between $37 to $184 million. It is estimated (MRC 1992) that it should be possible for producers to increase gross margins by about 40 per cent or about $95/ha through adoption of the recommendations. Because the grazing management strategies and pasture monitoring would involve little or no extra cost, this should be attractive to producers.

This project covers 22 sites in the THRZ of Victoria, New South Wales, South Australia and Tasmania. At each of the sites, 8 core grazing strategies have been imposed, as well as additional local treatments.

Phase 1 commenced in August 1993 and will end in October 1996, with core treatments being: set stocking; seasonal spells over summer, autumn, winter and spring; fodder conservation; mob stocking in autumn-winter and increased grazing pressure in spring. Local treatments include: herbicide application, low cost reseeding, continual rotational grazing, combinations of spelling periods, increased fertiliser application and combinations of these treatments. Changes in botanical composition of the pasture and, at some sites, sustainability, will be measured. Preliminary results indicate that some form of rotational grazing is beneficial to both pasture maintenance and upgrading.

Phase 2 will examine best-bet management options from phase 1, and will gather detailed animal production data, to ensure that the option which optimises pasture composition will also maximise animal productivity and fit into a sustainable whole farm system.