

## EDITORIAL

### Native and introduced grasses for low-input pastures in temperate Australia

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There has been a general decline in pasture productivity, particularly in continuously grazed pastures, throughout much of temperate Australia since the mid-1970s at least up until the end of the twentieth century. This reduction in productivity has generally been associated with a decline in the perennial grass component, and the loss of biodiversity, invasion by weeds, accelerated erosion, increases in soil acidity and the development of dryland salinity.

Two major research and extension programs funded by the then Meat Research Corporation (now Meat and Livestock Australia) supported by other funding bodies, state agencies, CSIRO and Universities, addressed this decline. The first of these, the Temperate Pasture Sustainability Key Program (TPSKP) was initiated in 1992 and concluded that the most important factor associated with the decline of the perennial grass component of pastures was continuous grazing. The second major program, the Sustainable Grazing Program (SGS) commenced in 1996 and over a period of six years, further explored the relationships among tactical grazing management and the other problems associated with perennial grass decline (e.g. nutrient loss, drainage and biodiversity issues) and extended the benefits of improved grazing management to a large number of producers within the high rainfall zone (>600 mm AAR). The challenge is now for rangeland managers in other parts of Australia to adopt and adapt the principles of tactical grazing management to their own situations in order to reap the benefits.

Rangeland reseeding may be the only option when degradation has reached the stage where no perennial grasses survive or in roadside verge and mine site revegetation or where valuable perennials have been completely replaced by weeds. The need for perennial grasses suitable for reseeding is by no means confined to the high rainfall parts of temperate Australia. Earlier programs of grass species trials in the 1950s and 1960s for marginal cropping country extending into semi-arid regions were confined to introduced perennial grasses, although in some cases, productivity comparisons were made with local grasslands dominated by native perennial grasses.

This Special Issue of The Rangeland Journal includes a series of papers describing a multi-site experiment assessing a range of native and introduced grasses for low-input pastures at eight sites in temperate Australia. We know that the establishment of many native perennial grasses from seed in the field can present problems. Therefore, a protocol was adopted to ensure that the data collected on performance, persistence and recruitment during the course of this experiment was not confounded by establishment problems. We believe that the lessons learnt in this program will be of value to rangeland scientist in other parts of Australia who may wish to test species or cultivars for restoring rangelands.