

Native Grasses on the Farm - Hidden Treasures

Peter Dowling and Denys Garden

Special Research Agronomist & Senior Research Agronomist
NSW Agriculture

Agricultural Research & Veterinary Centre, Orange NSW 2800 & c/- CSIRO, Division of Plant Industry, PO
Box 1600, Canberra ACT 2601

Native grasses are present on farms either as remnants or as major pasture components. Landowners are seldom aware of their presence or the contribution they can make to overall pasture productivity. On the better soils, they have largely been replaced by introduced grasses.

Because most landholders would regard native grass pastures as being less productive than those including introduced grasses, they have generally attracted little interest. However, scattered research around the state suggests that with appropriate inputs of fertilizer and management, some species of native grass can perform as well as the improved species in terms of DM production and feed quality.

On a paddock basis, pastures based on desirable native grasses growing in association with a legume, are generally regarded as having production levels lower than improved perennial grass-legume pastures. But the differences in pro-

ductivity between native and improved are not always as great as we would expect. In some locations, pastures based on desirable native grass species can be as productive as their improved counterparts over the longer term. This applies particularly to lighter and shallow soils where deficiencies in soil moisture and fertility are likely to result in greater survival of the native species.

Where native grass pastures are present, and a long-term pasture development program is planned, the capital cost associated with that program needs to be considered. Assuming that development includes the aerial application of a perennial grass mixture and superphosphate into a herbicide treated sward, the cash outlay required is about \$200/ha. Current returns from merino sheep would suggest a break-even period of 8 to 10 years. Importantly, dollars are required to finance the program, and dollars are expen-

sive when they have to be borrowed.

The alternative approach is to make full use of the pasture resources already there, an approach that requires minor financial outlay. However, this alternative requires planning, an input of time, some degree of managerial skills and a commitment by the landholder to the long term stability of their pastures. In practical terms, how can this be achieved?

The first step is to be aware of the species present in the pasture. If you are unable to identify them, then organise a visit by an agronomist to assist, or collect seed-heads for identification later. What proportion of the ground do they cover? This information is important because it allows decisions to be made about the future development of the pasture. If a reasonable proportion of the pasture consists of desirable species, then low cost manipulation as a means of increasing the proportion of these species, is an option that

should be considered.

The next step is to decide what management strategy will increase the frequency of the desirable species at the expense of the less desirable species. Research undertaken in the north of the state indicates that pasture manipulation is possible by easing the grazing pressure on desirable species during the critical phases of their life cycle (germination, establishment, flowering, seed-set), and applying grazing pressure during critical phases of the less desirable species. Clearly, a knowledge of the botanical composition of your pastures is required if this approach is to work.

Native grass pastures can be a real asset to the landholder if the desirable grasses are present and the appropriate management is employed. Their optimum management however, requires patience, skill and a willingness to take the longer view. That is the challenge. The reward can be highly productive cost effective pastures.