PASTURE MANAGEMENT:

Tall fescue agronomy research

R.D. FitzGerald[1], S. Venkatanagappa[2] and L.A. Lane[1]

[1] *NSW Agriculture, Glen Innes, NSW, 2370*
[2] *Pastoral & Veterinary Institute, Hamilton, Victoria, 3300*

Although the use of tall fescue (*Festuca arundinacea*) in Australia has been extensive since the 1930's, little is known of agronomic techniques for maintaining its productivity and longevity. A programme for the development of improved cultivars (FitzGerald *et al.* 1995) is more likely to achieve an increase in farm productivity if it is accompanied by appropriate management guidelines. Research to provide management and establishment guidelines is currently underway in 3 States.

White clover/tall fescue management - New South Wales

At Glen Innes an experiment commenced in spring 1993 to develop guidelines for controlling the grass/clover balance through management of grazing frequency and grass density. Tall fescue has been sown at two row spacings (20cm and 60 cm) with white clover sown in the spaces. Pastures are "crash" grazed with sheep to a constant residual yield at either 14, 28 or 42 day intervals during the period of active clover growth (September to early May). During the period of inactive growth, pastures are grazed at 42 day intervals. Drought prevented grazing during the 1994/5 summer.

Results

The following indications have emerged from the first (1993/4) growing season.

- A grazing interval of 42 days has encouraged tall fescue dominance and clover decline;
- Under grazing intervals of 28 and 42 days the clover component has persisted better with low density (60 cm rows) than high density fescue. At both grass densities, clover declined rapidly when grazed at 14 day intervals.
- Low density fescue plots maintained the clover component better, but rendered the pasture more susceptible to weed invasion when clover declined during drought.

Evaluation of mixed strain swards - Victoria and Western Australia

At Hamilton in Victoria and Albany in WA a range of mixtures of winter-active and summer-active tall fescue lines has been sown with the intention of assessing the potential of a mixture of both types to overcome the winter deficit. The ratios of winter:summer types in the mixtures are varied thus; 0:1, 1:2, 2:1, 1:0. The experiments are expected to provide recommendations on the sowing of mixtures in mediterranean-type climates. First results on winter productivity will become available in September 1995.

Acknowledgments

We are grateful to the Meat Research Corporation for the provision of supporting funds. Dr J.F. Ayres is a co-worker in the NSW program.

References

FitzGerald, R.D., Venkatanagappa, S. and Lane, L.A. (1995). Tall fescue improvement for Australian perennial pastures. *Proceedings 10th Annual Conference of the Grassland Society of NSW*. Armidale. p. 77.

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