Grazing strategies to get more out of coolatai grass

L. H. McCormick[1] and G. M. Lodge

[1]*NSW Agriculture, Manilla, NSW*

Coolatai grass (*Hyparrhenia hirta*) is a summer growing perennial grass, native of South Africa. It was first introduced into northern New South Wales in the mid 1940s. In less than 50 years it has spread rapidly, and now occurs widely on the Northern Slopes, most coastal areas, Northern and Central Tablelands, Hunter Valley, Central Slopes and southern Queensland. The grass is most apparent along roadsides and in travelling stock routes, although in recent years it has invaded large areas of grazing country.

Summer rainfall produces rapid growth and plants grow up to 1-1.5 m high. Once frosted this mass of growth is unpalatable and of low forage value. Coolatai grass is widely regarded as a weed because of this accumulation of unpalatable, low quality roughage.

A grazing experiment was established in the Manilla district of northern New South Wales in 1990 to investigate the effects of grazing management on persistence of coolatai grass and develop management strategies to improve animal performance. Six treatments were applied in replicated 0.4 hectare blocks: heavy grazing (37 sheep/ha, 15 sheep/acre); light grazing (5 sheep/ha, 2 sheep/acre); burning in spring 1990 followed by heavy grazing; burning in spring 1990 followed by light grazing; slashing in spring 1990 followed by heavy grazing; and slashing in spring 1990 followed by light grazing.

Results

After three years of grazing all plots remained heavily dominated by Coolatai grass. There was little long term effect of the pregrazing treatments of slashing and burning and their main benefit was to remove tall dry rank growth, providing higher quality green, leafy feed. However from November 1990 to the end of April 1994, heavily grazed plots have provided 4120 sheep grazing days, compared with 1410 sheep grazing days in the lightly grazed plots.

Sheep on heavily grazed plots maintained good condition and their wool cuts averaged 6 kg/head, compared with the flock average of 5.5 kg/head. These results were obtained in mainly dry years that did not favour the growth of Coolatai grass.

Digestibility in July was increased from around 45 to 53% by heavy grazing, which promoted green leaf growth. Digestibility of young green stems was 58% in February and 50% in April. These values were 18% and 9% higher than for older green stems collected at the same time. Dead leaf and stem digestibility was generally below 40%, confirming the low feed quality of old, rank Coolatai grass.

Conclusion

Management is the key to solving the problem of the true value of Coolatai grass as a pasture species. If it is only lightly grazed, and allowed to grow tall and rank, then it has a large amount of low quality forage, and so low value as a pasture grass. However, if it is heavily grazed and kept short and green, it can provide higher quality, leafy feed.