

Consol lovegrass outcompetes spiny burr grass

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Spiny burr grass (*Cenchrus incertus*; *C. longispinus*), is a major summer weed of light soils throughout NSW, Qld, NT, SA and WA (Ald and Medd 1987). It thrives in degraded pastures and is encouraged by soil disturbance.

The aim of this study is to test a number of summer growing perennial grasses for their ability to outcompete spiny burr grass on an acidic light soil where spiny burr has been a problem for many years.

Methods

The trial (two replications) was conducted at Coonabarabran on a sandy loam soil with pH 4.4 (CaCl₂) and 20% aluminium (of CEC). Twenty six summer grasses were conventionally sown on 7th January 1995. The site had a long history of spiny

burr grass infestation. Serradella and super-phosphate was added in autumn 1995. The area was subjected to periodic grazing following establishment. Burr grass populations were measured in summer 1995 and 1996.

Results and discussion

Consol lovegrass was the only pasture to adequately establish. Rhodes grasses established sparsely, and buffels, pigeon, panics, creeping blue grasses, silk sorghum, kikuyu and Mitchell grass failed to persist. These species appeared to fail because of their unsuitability to extremely acidic light soils in this environment. Premier digit grass, normally suited to acidic soils, did not germinate, probably because of poor seed quality.

Spiny burr grass competition was severe from

initial establishment with an average 328 plants sq/m across all treatments (no treatment differences in the establishment year). Excellent rains occurred in January 1995 but dry weather then persisted until May. Heavy weed pressure combined with dry conditions were testing conditions for grass establishment.

Summer 1996 measurements signify Consol, within only 12-18 months, had largely outcompeted burr grass. Weed levels were down in all plots (probably because of no soil disturbance in the second season), but remained extremely high in the nil and failed grass plots (average 166 plants m²). The Consol plots averaged only 10 weed plants m².

As the Consol plants increase in size and density it is anticipated they will within one or two more years completely outcompete burr grass, a weed until now considered one of the nations worst weeds.

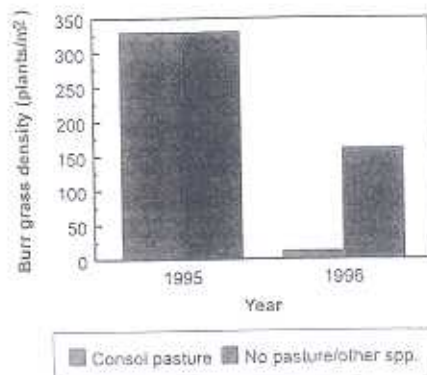


Figure 1. Spiny burr grass control - trial established 1995.

References

- Auld, B.C. and Medd, R.C. (1987). Weeds, Inkata Press, Sydney, pp.41-42.