

Consol lovegrass and Premier digit grass best on acidic soils

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A trial program is being conducted at "Mobla" Binnaway in central west NSW to test a number of perennial grasses potentially suitable for acidic top- and sub-soil conditions.

Methods

The trial site at "Mobla" is a typical solodized sandy loam with only a slight change in clay content and pH through the profile (around 7 % clay). The pH at 0-10 cm was 4.16 and at 30-40 cm 4.19. Aluminium (% CEC) was 27.4 and 41.3. Binnaway has an annual rainfall of 600 mm. Summer months average 55% of the annual rainfall and winter months 45%.

Two trials comparing Consol lovegrass, Bahia grass, Pioneer rhodes grass and perennial veldt grass were sown in September 1987 and December

Table 1. Persistence of sown perennial grasses on an acid soil - Trials 1 and 2

Species	Plant frequency (%)
Consol lovegrass	100.0
Bahia grass	91.5
Pioneer rhodes grass	9.5
Perennial veldt grass	0.0

Table 2. Persistence of sown perennial grasses on an acid soil - Trial 3

Species	Plant frequency (%)
Consol lovegrass	95
Bahia grass	53
Pioneer rhodes grass	43
Perennial veldt grass	38
Other grasses ¹	0

¹ Includes: Gayndah buffel grass, Gatton panic, Hatch creeping bluegrass, Bowen Indian bluegrass, Petrie green panic, Purple pigeon grass, Wallaby grass, Callide rhodes grass

1987. All species established successfully in both trials. A third trial involving 12 grasses was established in February 1991. All species germinated.

Results and Discussion

The three trials were assessed on 24th June 1994. Results are detailed in Tables 1 and 2.

Consol lovegrass is indeed a plant tolerant of very acidic soils high in aluminium content. Premier Digit grass shows a lot of promise and appears to be improving each year. Bahia has also shown excellent persistence. Pioneer rhodes grass did not persist adequately on these extremely acidic soils.