

# Register of Australian Herbage Plant Cultivars

## B. Legumes

### 15. Centro

#### b. *Centrosema pascuorum* Mart. ex. Benth. (centurion)

#### cv. Bunday

Reg. No. B-15b-2

Registered July 1986

*Published in the Journal of the Australian Institute of Agricultural Science 53(2):125-6. 1987.*

#### Origin (3)

Bunday was introduced in 1976 as CPI 75115. It was collected at Soledade in the Brazilian province of Paraiba by Mr Joao Janes Viana at an altitude of 560 metres (3). The latitude of the collection site is 7°S and the average annual rainfall 375 mm. Regional testing began in north-west Australia in late 1977 and was conducted by CSIRO Division of Tropical Crops and Pastures, NT Department of Primary Production, WA Department of Agriculture and W.R. Grace Australia Ltd., Mount Bunday Station (1, 2, 4, 6, 7, 8, 9, 10).

Submitted for registration jointly by W.R. Grace Australia Ltd., Mount Bunday Station, and NT Department of Primary Production. Breeders' seed maintained by CSIRO Division of Tropical Crops and Pastures. Basic seed maintained by NT Department of Primary Production. Recommended for registration by the Northern Territory Herbage Plant Liaison Committee. Registered July, 1986.

#### Morphological description (1, 2, 6)

Bunday is similar morphologically to Cavalcade, except for its later flowering, smaller seed and hairiness. Bunday flowers in mid-April compared to mid March for Cavalcade, and seed size is 58 000 seeds/kg compared to 48 000 for cavalcade. Bunday has hairs on the stems and petioles, which are glabrous in Cavalcade.

#### Agronomic characters

Bunday is better suited than Cavalcade to seasonally inundated conditions in the Northern Territory and to areas with a longer growing season (1300-1500 mm) because of its later flowering, which allows Bunday to continue growing after Cavalcade has set seed and dried off. (2, 6). Conversely it is not as well suited as Cavalcade to areas with a short wet season (700-900 mm) (5, 8, 9). It behaves similarly to Cavalcade in other agronomic aspects (2, 3, 6). In a grazing trial on seasonally flooded soils on Mount Bunday Station, Bunday produced significantly higher liveweight gain over two dry seasons than either Q 10050 or Q 9855 centurion lines (6). Bunday also established better when sown prior to the wet season and showed higher resistance to insect attack than the latter two lines (7). Bunday is adapted to seasonally inundated soloth, solodic and black cracking clays soils but not to solodised-solonetz soils (6, 11). On a soloth soil it required 30 kg/ha to achieve 75% of asymptotic yield (7).

#### References

1. Anon. (1985). Registration of *Centrosema pascuorum* cv. Cavalcade. *J. Aust. Inst. Agric. Sci.* **51**, 84-86.
2. Cameron, A.G. and Ross, B. (1986). Personal communication. N.T. Dep. Primary Production, Darwin.
3. Clements, R.J. (1984). Personal communication. CSIRO Div. Tropical Crops and Pastures., Brisbane.

4. Clements, R.J., and Williams, R.J. (1980). Genetic diversity in *Centrosema*. In *Advances in Legume Science*, (Eds. R.J. Summerfield and A.H. Bunting) (Royal Botanic Gardens: Kew).
5. Clements, R.J., Winter, W.H., and Reid, R. (1984). Evaluation of some *Centrosema* species in small plots in northern Australia. *Tropical Grasslands* **18**: 83-91.
6. McCosker, T.H. (1984). Personal communication. W.R. Grace Australia Ltd., Mount Bunday Station.
7. McCosker, T.H., Eddington, A.R., and Corbet, N.J. (1984). Fourth Annual Report, 1983, Mount Bunday Station.
8. Stockwell, T.G. (1979). Progress Report: *Centrosema pascuorum* trials, 1978-79. NTDPP Internal Report.
9. Stockwell, T.G., Ross, B. and Calder, G.J. (1982). Pastures Sections Annual Report. NTDPP Internal Report.
10. Wesley-Smith, R. (1983). Personal communication. NT Dep. Primary Production, Darwin.
11. Williams, A.R., and Marchant, M.H. (1984). Personal communication. WA Dep. Agric., Derby.