

Register of Australian Herbage Plant Cultivars

B. Legumes

9. Annual Medics

e. Medicago scutellata (L.) Mill. (snail medic)

cv. Kelson

Reg. No. B-9f-4

Registered January 1989

Published in the Australian Journal of Experimental Agriculture 29:299 (1989)

Origin

Seed of Kelson snail medic was collected in Hungary by Professor K.A. Lesins, University of Alberta and introduced in 1976 into the medic collection maintained by the South Australian Department of Agriculture under the accession number SA 3508. Seed was made available to the Queensland Department of Primary Industries in 1980. Kelson was selected by E.J. Weston and K.J. Lehane from 50 snail medics evaluated at Toowoomba and in southern inland Queensland. 'Kelson' is the name of the property on the Darling Downs where the plant was selected. Breeders' seed is maintained by the Queensland Department of Primary Industries and the South Australian Seedgrowers Cooperative Limited (SEEDCO).

Submitted by the Queensland Department of Primary Industries and recommended for registration by the Queensland Herbage Plant Liaison Committee. Registered January 1989.

Morphological description

Cotyledons of Kelson have 5-10 or occasionally no brown or purple flecks compared with 1 or 2 or no flecks for Robinson and no flecks for Sava. These markings fade quickly and flecks which develop in the unifoliate and trifoliate leaves of Kelson and Robinson are similar. While the leaflets of Robinson are approximately half as wide as long, those of Kelson are often 80% as wide as long. They are elliptic to broadly obovate and measure 30-45 mm long and 24-30 mm wide.

Seeds are large, approximately 50 000 seeds/kg. There are 15% more seeds per pod in Kelson than in Robinson.

Agronomic characters

Kelson grows well on fertile neutral to alkaline cracking clay soils. It has competed strongly in commercial grass-legume pasture in a 650 mm summer dominant (70:30) rainfall. It is late maturing, and therefore productive over a longer period in forage cropping systems. In southern inland Queensland rainfall probability increases after August and Kelson exploits favourable conditions at that time.

From May/June plantings, Kelson flowers in approximately 100 days compared with 79 and 73 days in Robinson and Sava, respectively. Unlike the early maturing cultivars, which are insensitive to vernalisation and photoperiod (1), Kelson does not flower before or during winter even from early plantings and when exposed to moisture stress during winter, probably because of a vernalisation requirement. There is a risk of poor seed set, but in forage cropping systems, this is of little consequence.

In seed increase stands Kelson has produced 300 kg/ha of clean seed. This is approximately half the yield of early maturing lines grown under the same conditions.

Kelson has consistently outyielded the early maturing snail medics in small plot screening experiments. Where it has been compared with early maturing lines in commercial Rhodes grass pasture grazed by cattle, it has shown superior dry matter production. Kelson has outyielded Robinson in spring by a factor of 4, over a 2 year period (2).

Kelson has a high level of hard seed. In a comparison with Robinson, Kelson retained 89.6% hard seed and Robinson 73.8% hard seed 5 months after harvest at Parafield, S.A. (E.J. Crawford, pers. com.).

During vegetative growth, Kelson is tolerant of both the spotted alfalfa aphid (*Therioaphis trifolii* (Monell) *f. maculata*) and the blue green aphid (*Acyrtosiphon kondoi* Shinji). Snail medics become moderately susceptible to both aphids after flowering.

Late flowering exposes Kelson to conditions suitable for *Heliothis* spp. multiplication. Damage has been recorded in seed production swards.

Seed production under certification has been undertaken by the South Australian Seedgrowers Co-operative Limited.

Acknowledgements

We are indebted to the South Australian Department of Agriculture for maintenance of the National Medic Collection, for initial screening and characterisation of accessions and for distribution of seed to other States. The contribution of the Wheat Research Council in providing funds for a National Annual Medic improvement Programme is also acknowledged.

References

1. Clarkson, N.M., and Russell, J.S. (1975). Flowering responses to vernalisation and photoperiod in annual medics (*Medicago* spp.) *Australian Journal of Agricultural Research* **26**, 831-8.
2. Weston, E.J., and Lehane, K.J. (1986). Pasture Management Branch Technical Annual Report. Queensland Department of Primary Industries, p. 77.