Register of Australian Herbage Plant Cultivars

B. Legumes
16. Lespedeza
Lespedeza striata (Thunb.) Hook. & Arn. (Japanese lespedeza) cv. Kaloe

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Origin

Derived from selections made by the New South Wales Department of Agriculture of a naturalized ecotype of the species occurring in north-eastern New South Wales.

In December 1963 seedling plants were dug from a natural occurrence of the species at Glen Ugie, 13 km south-east of Grafton, and transplanted to Grafton Agricultural Research Station. Seed harvested from these plants was accessioned as P.6257. In 1964 it was compared with the imported commercial variety Kobe, in sward trials established in natural pastures at Taloumbi and Barcoongere (1500 mm annual rainfall, eastern seaboard), Cangai and Kungurrabar (900 mm annual rainfall, subcoastal foothills) on a range of soils derived from shale and sandstone. In May 1966 a natural occurrence observed in the parish of Kaloe, 56 km north-west of Grafton was harvested and accessioned as P.7927. At the same time, seed collected near Bellingen and supplied by Mr. R.A. Hillsdon was accessioned as P.7926. When compared in nursery sowings the three accessions P.6257, P.7926, and P.7929 appeared identical. Seed multiplication has since been based on P.7927.

Submitted for registration by the New South Wales Department of Agriculture and recommended for registration by the New South Wales Herbage Plant Liaison Committee. Registered November 1971.

Morphological description (1,2)

An annual tufted herb bearing numerous slender branches, rather shortly pilose, decumbent or ascending, usually under 50 cm high. Leaves digitately trifoliate, with short petioles; leaflets more or less entire, obovate or oblong, obtuse to subacute, 8-15 mm long, 5-8 mm broad, clothed with pilose appressed hairs on the margins and midrib, almost sessile. Stipules light brown, persistent, softly membranous, erect, narrowly ovate, c. 5-8 mm long, with several nerves. Flowers of 2 forms (chasmogamic and cleistogamic), inconspicuous, 1-3 per axil, pink, mauve, or reddish purple; bracteoles 5-7 nerved, as long as the tube of the calyx, ovate, and subobtuse; calyx 3-3.5 mm long, with 5 almost equal lobes, shortly pilose, the lobes subacute and ovate; standard oblong or obovate; keel incurved; stamens 9 + 1; ovary with 1 ovule; style incurved and beardless; stigma small and terminal. Pod almost orbicular, flat, abruptly acute, sessile, about 3.5 mm long, slightly longer than the lobes of the calyx, clothed with short appressed hairs, indehiscent and 1-seeded. Seeds dark brown, almost black, about 650,000 (unhulled) or 830,000 (hulled) per kg.

Kaloe is virtually indistinguishable from cv. Kobe on morphological characters.

Agronomic characters

Adapted to a subtropical climate and soils of moderate to low fertility. Requires an approximate minimum of 900 mm annual rainfall for satisfactory growth. Seed germinates following the first effective rains from July to December. Late frosts, dry spring conditions, and grass fires frequently cause serious seedling mortality. Kaloe is late-summer to mid-autumn flowering and is approximately one month later than Kobe. Seed matures during April and is normally harvested before mid May. Seed yields of up to 700 kg per ha have been obtained at Grafton (3).

It is adapted to a wide range of soil types and topography but on sandy soils it occurs mainly on the moist lower slopes and in drainage lines. It responds well to superphosphate application and nodulates freely with native rhizobia; it does not appear to benefit from inoculation on the north coast of New South Wales. Kaloe is a better pasture plant than Kobe. It has shown considerable resistance to heavy grazing (up to 2 breeding cows per ha) and plant population has increased over a 3-yr period. Kaloe is susceptible to nematode attack but is less severely affected than Kobe.

Grafton Agricultural Research Station will maintain an authentic stock of breeder's seed of cv. Kaloe.

References

1. Ohwi, J.O. (1965). *Flora of Japan*. 561 pp. (Smithsonian Inst., Washington, D.C.)
2. Tindale, Mary D. (1971). Personal communication. National Herbarium, Royal Bot. Gdns, Sydney. N.S.W. Dep. Agric.
3. Wilson, G.P.M. (1964-70). Annual research reports. N.S.W. Dep. Agric., Agric. Res. Stn., Grafton.