Register of Australian Herbage Plant Cultivars

B. Legumes
13. Vetch
b. *Vicia villosa ssp. dasycarpa* (Ten.) Cav. (woolly pod vetch)

cv. Namoi
Reg. No. B-13b-1
Registered January 1968

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Origin

Derived from seed (CPI 15095) collected by J.F. Miles and C.M. Donald in 1951, from cereal seed cleanings at the Agriculture High School, Izmir, Turkey. E.T. Bailey of CSIRO selected it in Western Australia from other lines of *Vicia villosa* ssp. *dasycarpa* for its earliness, general vigour, and high seed production (3).

It was tested in the Namoi region of New South Wales by the North West Wheat Research Institute, on soils ranging from acid loams to alkaline black earths, from 1960-67. During this time the annual rainfall varied from 330-690 mm. *V. villosa* ssp. *dasycarpa* has been included in trials in various parts of New South Wales by CSIRO, by the New South Wales Department of Agriculture, and by the Soil Conservation Service of New South Wales.

Cv. Namoi was submitted by Miss Helen Philpotts, University of Sydney, North West Wheat Research Institute, Narrabri, N.S.W., and recommended for registration by the New South Wales Herbage Plant Liaison Committee. Registered January 1968.

Morphological description

A weak-stemmed climbing annual, prostrate when young, similar in habit and morphology to most lines of the species. Stems pubescent, up to a metre long. Leaves pinnatifid with terminal tendril; leaflets usually 12-16, narrowly oblong, obtuse and mucronate, 1.0-2.5 cm long, peduncles exceeding the leaflets. Racemes dense, 5-20-flowered, secund, pubescent but not plumose in the bud. Flowers 12-15 mm long; calyx irregular, the tube 2.0-4.0 mm long, gibbous at the base on the upper side, the pedicel inserted ventrally, the lower teeth linear-acicular, about 2 mm long; corolla purplish pink, standard and wings light purple, keel pale pink to white with a dark purple spot at the tip. Pod oblong, 2-3 cm long, 7-10 mm broad, beaked, covered with fine appressed hairs but not woolly. Seeds usually 3-5, globular to compressed globular, 3-5 mm in diameter, blackish brown with obscure mottling; hilum 1-2 mm long, not prominent. Approximately 26 500 seeds/kg.

Agronomic characters

The early growth is fine and prostrate, giving natural protection from grazing. The later growth is very vigorous, resulting in dense bulky stands.

In the north-west wheat belt of New South Wales it has outyielded clovers, medics, and lucerne in winter and spring, has shown good drought resistance, and has withstood heavy grazing. In this region it commences flowering about mid September, being a few days earlier than Auburn and from 10-14 days earlier than Lana and two other lines of *Vicia villosa* ssp. *dasycarpa* from Oregon; it is self-fertile. If kept grazed and moisture is available it will continue flowering into early summer.

Yields of different cultivars of woolly pod vetch have been compared in this environment only in one year, which was a fairly favourable one with mid-spring rains. Lana and Namoi, the highest producers, had the same dry matter production but Namoi produced 14% more seed than Lana. The yields from Auburn were significantly lower. Namoi has shown its ability to set seed under adverse conditions and its early maturity is valuable in this regard; seed yields of up to 600 kg/ha have been obtained, the seeds containing 27% crude protein. The pods tend to shatter after ripening. Hard seed content usually exceeds 80%.

It regenerates well (4, 5) except on hard bare soil surfaces, and is very adaptable, performing well on heavy and light soils either alkaline or acid. *Vicia villosa* ssp. *dasycarpa* has been reported by the Soil Conservation Service as a species of promise for is ability to trap drift sand in the Riverina (6) and for its vigorous bulky growth and good regeneration on the western slopes (4).

Although some lines have been reported unpalatable to cattle when green (1), Namoi has been grazed by sheep at all stages of growth. It is not attacked by aphis in the field and Bailey (2) reports that it is tolerant to red-legged earth mite and immune to pea weevil but attacked by lucerne flea. Allen (1) has found *Vicia villosa* ssp. *dasycarpa* resistant to rust (*Uromyces vicia-fabae*). It nodulates satisfactorily when Rhizobium strain TA101 which is contained in Australian commercial inoculant 'E'.

Namoi should be of particular value on low fertility acid soils between the 380-635 mm rainfall isohyets in north-western, central, and southern New South Wales where clovers and medics do not do well.

References

1. Allen, R.N. (1967). Internal reports. N.S.W. Dep. Agric.
2. Bailey, E.T. (1952). Vetches and other large-seed legumes in southern Western Australia. CSIRO Aust. Div. Plant. Ind. Tech. Pap. No. 1.
3. Bailey, E.T. (1958). CSIRO Aust. Div. Plant Ind. Ann. Rep. 1957-58, p.5.
4. Cameron, D.G. (1961). Legumes tested for soil conservation. *J. Soil Conserv. Serv. N.S.W.* **17**, 3-22.
5. Myers, L.F., Bailey, E.T., and Squires, V.R. (1963). Tests of *Vicia* and *Lathyrus* species as a late summer supplement for sheep. *CSIRO Aust. Div. Pl. Ind. Fld. Sta. Rec.* **2**(2), 1-6.
6. Phillips, J.R. (1962). Berrigan Sandhills – studies in stabilisation. *J. Soil Conserv. Serv. N.S.W.* **18**, 56-61.