

Mucuna

Perennial or annual lianes with large pinnate leaves with three leaflets. Stipels present. Flowers large, pale green or purple in Queensland species. Stamens 10, 9 filaments joined in a dorsally split tube, 1 free, 5 larger anthers alternating with 5 shorter ones. Pods large, often covered with irritant hairs.

The genus *Mucuna* also includes the native rainforest liane *M. gigantea*. It is readily distinguishable from *M. pruriens* by its greenish flowers and seeds with a hilum extending for $\frac{3}{8}$ the circumference. Some species have been used overseas for erosion control.

Mucuna pruriens ssp. *pruriens* var. *utilis*

Velvet bean

Twining annual or weakly perennial vine with stems to 5m long. Young stems densely covered with minute downward-pointing hairs. Stipules 2-3mm long, narrow, very deciduous. Petiole 20-400mm long, rachis 15-30mm long; stipels c. 2.5mm long. Leaflets 45-190mm long, 35-170mm wide, the terminal one broadest below the midpoint, the margins only slightly curving to the bluntly pointed mucronate tip and rounded base. Lateral leaflets the same size as the terminal leaflet, very asymmetrical, deeply rounded along the outer margin in the lower third; all leaflets sparsely to densely covered with adpressed hairs on both surfaces.

Inflorescence a short, pendulous raceme borne on a 20-180mm axillary peduncle. Flowers borne in groups of 1-3 within the axils of very deciduous 7-15mm bracts, each on a stout 1.5-6mm pedicel which bears a pair of very deciduous 7-10mm narrow bracteoles at the tip. Calyx c. 12mm long, covered with short adpressed hairs, the two dorsal sepals totally joined and keeled towards the tip, the sepals otherwise joined for c. $\frac{1}{2}$ their length. Standard pale purple, c. 20mm long from base of calyx. Wings dark purple, twice the length of the standard. Keel white, shiny, extending c. 5mm beyond the wings. Style covered with soft spreading hairs over most of its length.

Pod 40-90mm long, 10-20mm wide, slightly S-



Mucuna pruriens ssp. *pruriens* var. *utilis*, Ingham, 18°33'S, 146°10'E.

shaped, pendulous, prominently ribbed along the sides, densely velvety-hairy, containing 4-5 seeds. Seeds 10-19mm long, 8-13mm wide, oval, black to purple, with a c. 4mm long hilum.

Distribution: Co., NK., W.B. A widely cultivated tropical species native to South-East Asia, occasionally naturalized in the wet tropics of Queensland.

Notes: Has been popular as a silage or green manure crop. Ingestion by cattle of the hairy pods can result in haemorrhage and even death. A number of varieties and subspecies of *M. pruriens* occur; they differ in flower and seed colour and pod hairiness. Nodulates.

References: 3, 16, 46, 121, 141, 306; as velvet bean, 10, 20, 179, 304; as *Stizolobium deeringianum*, 243.

Muelleranthus

Prostrate herbs with long wiry stems and with digitate leaves with three leaflets, lacking stipels. Flowers single, leaf-opposed, yellowish or purple. Stamens 10, the filaments all joined in a dorsally split tube. Style hairless. Pods flattened, containing 4-8 seeds which may have a white, deciduous aril. An endemic Australian genus.

Key to species

Standard 3-6mm broad
Standard 9-14mm broad

M. stipularis
M. trifoliolatus

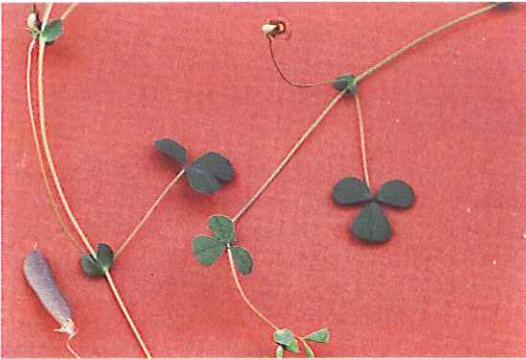
Muelleranthus stipularis

Sand pea

Spreading perennial, the stems prostrate, up to 0.6m long, radiating from a central taproot, usually densely covered with spreading hairs. Stipules adpressed, more or less spreading with age, heart-shaped, 3-7mm long, 2-5mm wide. Petiole 5-25mm long. Leaflets dark green, 3-15mm long, 2-5mm wide, broadest towards the bluntly pointed or rounded mucronate tip, hairless or hairy on the upper surface, hairy on the lower surface.

Flowers leaf-opposed, borne singly, the peduncle 15-45mm long, the pedicel c. 3mm long with a deciduous bract at the base and 2 small bracteoles towards the tip. Calyx 3-5mm long, more or less hairy, the two dorsal sepals joined for c. $\frac{3}{4}$ their length, the sepals otherwise joined for c. $\frac{1}{2}$ their length. Standard c. 4mm tall, 3-6mm wide, grey-purple, yellow-green in the throat edged with darker purple. Wings dark purple, c. 6mm long from base of calyx, shorter by 1mm than the green keel.

Pod 15-33mm long, 4-7mm wide, hairless, rather flat, a short stalk above the calyx, pinkish brown when ripe, containing 4-9 seeds. Seeds irregularly spherical, c. 2.5mm diameter, marbled with black, yellow-brown and chestnut-brown.



Muelleranthus stipularis, Thargomindah-Jundah, 27°38'S, 144°03'E, Cult.

Distribution: D.D., G.N., G.S., Wa. Also N.T., W.A., S.A., N.S.W. Occurs on sandy soils in western districts, especially in spinifex country.

Notes: A moderately palatable species (R. Silcock, pers. comm.) but rarely abundant.

References: 111, 172, 200, 203, 287.

Muelleranthus trifoliolatus

Spinifex pea

Plant prostrate, the stems to 0.6m long radiating from a central taproot, hairless or sparsely covered with adpressed hairs. Stipules 1.5-3mm long, 1-3mm wide, usually heart-shaped. Petiole 5-15mm long. Leaflets 2-6mm long, 2-6mm wide, more or less heart-shaped and broadest towards the usually indented tip, usually hairless.

Flowers single (rarely in a 2-3 flowered raceme), leaf-opposed, the peduncle 15-30mm long, the pedicel 2-3.5mm long, a deciduous bract at the base and two minute bracteoles close to the tip. Calyx c. 3mm long, hairless, the two dorsal sepals joined for c. $\frac{1}{2}$ their length, the sepals otherwise joined for c. $\frac{1}{2}$ their length. Standard variable, 2-7mm tall, shorter than or equal to the keel, 9-14mm wide, yellow with curving lines of purple dots towards the tip. Wings yellow, 7-15mm long from base of calyx, longer than the 7-9mm yellow, purple-dotted keel.

Pod 15-25mm long including the short stalk equal in length to the calyx, 3.5-5mm wide, flat, hairless, pinkish brown when ripe, containing 6-9 seeds. Seeds spherical, mottled brick-red and pale.

Distribution: Ma., Wa. Also N.T., W.A., S.A., N.S.W. Occurs on sandy soils in western spinifex sandplains. Rare.

Notes: Not noted as being palatable to stock. Self-pollinating.

References: 111, 172, 174, 200, 203, 287.

Neonotonia

Robust twining perennial with pinnate leaves with three leaflets. Stipels present. Flowers small, white to purple, borne in clusters on an axillary raceme. Stamens 10, the filaments all joined in a dorsally split tube or the upper one free. Style hairless. Pods flattened, hairy or hairless, containing 3-7 seeds.