

inserted at the end of the calyx tube, the standard orange, 8-14mm high, 10-21mm wide. Wings yellow, c. 9mm long from tip of calyx tube, 3mm longer than the yellow keel. Anthers yellow, 4 1.3mm long alternating with 4 0.5mm long, and normally 2 sterile filaments. Style minutely hairy on the dorsal side.

Pod 20-70mm long, c. 10-12mm wide, rounded in section, the surface rough, containing 1-5 seeds, indehiscent, forced underground when ripe as a result of the elongation of a "peg" which is formed from the base of the flower and elongates following fertilization to bury the ovary.

Astragalus

Herbaceous annual. Leaves pinnate, with a terminal leaflet, the hairs medifixed, stipels lacking. Bracteoles lacking. Stamens 10, 9 filaments joined in a dorsally split tube for most of their length, 1 free. Style hairless.

This very large genus of up to 2000 species is cosmopolitan outside the tropics excluding Australia. Southwestern Asia is the largest centre of distribution. Few species have agricultural significance.

Astragalus hamosus

Milk vetch

Annual with erect or ascending stems to 0.5m long. Stems sparsely covered with medifixed hairs. Stipules 4-7mm long, 3-4mm wide at the base, triangular, adpressed, persistent. Leaves well separated on the stem, pinnate, with 6-15 pairs of usually opposite leaflets and a terminal leaflet. Petiole 10-30mm long, rachis 30-100mm long, both sparsely covered with medifixed hairs. Leaflets 6-15mm long, 2-6mm wide, broadest at or above the mid-point, tapering to the base and



Astragalus hamosus, Toowoomba, 27°32'S, 151°56'E.

Distribution: Mo., W.B. Native to South America but widely cultivated throughout the tropics. Occasionally found along roadsides in the south-east or as a garden weed where husks are used as a mulch, rarely naturalized.

Notes: An important crop; the main type grown is Virginia Bunch. Meal made from the grain may contain the toxin aflatoxin, formed as a result of fungal action. Nodulates, self-pollinating. Related perennial species have shown promise as pasture plants.

References: 3, 17, 50, 112, 121, 136, 177, 287.

rounded and indented at the tip, covered with medifixed hairs on the undersurface.

Inflorescence a 10-20mm 5-10 flowered raceme borne on a 50-90mm axillary peduncle. Flowers borne singly within the axils of 3-4mm persistent bracts, each on a 1mm pedicel. Calyx 6-8mm long, densely covered with adpressed, medifixed hairs, the sepals similarly joined for c. ½ their length, the teeth finely pointed. Standard white or pale yellow, 7-9mm tall, 4-5mm wide, forward-pointing, indented at the tip. Wings white, c. 8mm long from base of calyx, narrow, 2mm longer than the white keel.

Pod 30-60mm long, 3mm wide, rounded in section, curved upwards in a semicircle, hairless or with minute adpressed hairs, light brown when ripe, containing 15 or more seeds. Seeds irregularly rectangular, c. 2.0 × 1.5mm, ginger-brown, the surface dull.

Distribution: D.D. Also N.S.W., S.A. A native of southern Europe, occasionally found naturalized in south-east Queensland.

Notes: A palatable species of some pasture potential in areas to which it is adapted. The cultivar Ioman was released in N.S.W. in 1977. Adapted to alkaline soils. Nodulates.

References: 3, 163, 210, 287.