



X4.2

PASPALUM DILATATUM

Paspalum

A tufted perennial that tends to become sward-forming when grazed or mown. *Culms* up to 1 m tall, somewhat drooping over at maturity, smooth, hairless, unbranched. *Nodes* smooth, often purple, prominent. *Leaves* well distributed, basal and on the culms. *Leaf sheaths* hairy towards the base, more or less hairless above, persistent and overlapping, the lowermost becoming loose and displaced by the newly developing shoots. *Ligule* membranous with a small tuft of hairs on either margin. *Leaf blades* flat to slightly keeled with a prominent mid-rib, up to 12 mm wide and 10–25 cm long, smooth, shining, hairless, tapering gradually to a fine point.

Inflorescence a panicle of 2–5 racemes, 3–9 cm long, borne singly and alternating on either side of the rather lax culm, each raceme subtended by a conspicuous tuft of long, white, silky hairs, the spikelets extending almost to the base of the raceme axis, which is less than 2 mm wide. *Spikelets* (S) 2.5–3 mm long, markedly flattened, almost identical, borne in pairs, one sessile and one pedicellate, on either side of the underside of the flattened axis and forming 2 double rows of overlapping spikelets, falling entire at maturity. *Florets* 2, the lower neuter and reduced to a lemma, the upper bisexual. *Glume* 1 only, the lower glume absent, the upper (G_2) the length of the spikelet, membranous, with long, silky hairs along the margins, which are inrolled to enclose those of the lower lemma, 5-nerved in the sessile spikelet, 7-nerved in the pedicellate. *Lemma* (L_1) of the lower sterile floret slightly shorter than, but similar to, the glume, 5-nerved. *Palea* absent. *Lemma* (L_2) of the upper fertile floret hardened and tough, shining, without hairs, faintly 5-nerved, the margins inrolled to enclose the margins of the palea. *Palea* (P_2) slightly smaller but similar to L_2 , 2-keeled, slightly concave on the back, the margins produced into 2 incomplete in-folded membranous flaps. *Anthers* 3, 1 mm long, conspicuously dark purple in colour.

The species is native to South America, but is now widespread in the tropics, subtropics and warm temperate regions, where it is also widely cultivated. It is found on soils of moderate to good soil fertility and rainfall. It was one of the earliest grass introductions for the heavily forested country being cleared in northern New South Wales and southeast Queensland. Stock find the grass very palatable, but since it flowers over the greater part of the summer season, if not grazed hard it may become rank. Of the other cultivated species, *P. scrobiculatum* (scrobic) and *P. plicatulum* are the most important. Scrobic has largely been superseded by better grasses for the wetter areas of more than 1000 mm rainfall and by *P. plicatulum* and others for areas of more than 750 mm rainfall.

REFERENCES

Bailey (1902),¹ pp. 1812–15; Gardner (1952),² pp. 240–45; Marnettje (1961);³ Vickery (1961),⁴ pp. 115–22; C.S.I.R.O. Australia (1967),⁵ pp. 49–54; Barnard (1969),⁶ pp. 44–56; Henty

(1969),⁷ pp. 144–46; Burbidge and Gray (1970),⁸ pp. 62–63; Willis (1970),⁹ pp. 198–99; Beadle *et al.* (1972),¹⁰ p. 666; Vickery (1975),¹¹ p. 135; Black (1978),¹² pp. 227–28.

KEY TO SPECIES

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| 1. Racemes 2, paired, at end of culm, sometimes ½ below. | 2 |
| Racemes 1 to many, borne singly along an elongated axis. | 5 |
| 2. Spikelets about twice as long as broad; racemes less than 7 cm. Rhizomatous or stoloniferous. Usually aquatic. | 3 |
| Spikelets almost circular. | 4 |
| 3. Upper glume shortly hairy. Freshwater habitats (water couch) | <i>P. paspalodes</i> ^{1,2,8,9,10,11,12}
(<i>distichum</i>) ¹¹ |
| Upper glume hairless. Brackish or salt water habitats (salt water couch) | <i>P. distichum</i> ^{2,6,7,10,11,12}
(<i>vaginatulum</i>) ¹¹ |
| 4. Spikelets about 1.5 mm long, sparsely long silky-hairy around margin. Racemes 10–15 cm long. Stoloniferous (sour grass) | <i>P. conjugatum</i> ^{1,4,7} |
| Spikelets 3–3.5 mm long, not hairy around margin. Racemes 4–7 cm long. Not stoloniferous (Bahia grass) | <i>P. notatum</i> ³ |
| 5. Spikelets conspicuously silky-hairy around margin, hairs as long as or exceeding spikelet length. | 6 |
| Spikelets without long, silky hairs around margin. | 7 |
| 6. Culms usually up to 1 m high. Racemes 3–5, stiffly spreading. Spikelets 3 mm long (paspalum) | <i>P. dilatatum</i> ^{1,2,3,4,6,7,8,9,10,12} |
| Culms usually up to 1.75 m. Racemes 12–18, erect to laxly spreading (Vasey grass) | <i>P. urvillei</i> ^{2,3,4,10} |
| 7. Spikelets borne on solitary pedicels in 2 rows along raceme (scrobic or ditch millet) | <i>P. scrobiculatum</i> ^{1,2,3,4,5,7,9}
(<i>commersonii</i> + <i>orbiculare</i>) |
| Spikelets borne on paired pedicels in 4 regular or irregular rows along raceme. | 8 |
| 8. Spikelets 1.25–1.5 mm long (Russell River grass) | <i>P. paniculatum</i> ^{4,7,10} |
| Spikelets 2–4 mm long. | 9 |
| 9. Rhachis 2–3 mm wide. | <i>P. longifolium</i> ⁷ |
| Rhachis less than 1 mm wide. | 10 |
| 10. Spikelets 2–2.5 mm long, covered with short hairs. Rare (tussock paspalum) | <i>P. quadrifarium</i> ^{4,10} |
| Spikelets without hairs or, if minutely hairy, spikelets 3 mm or more long. | 11 |
| 11. Spikelets 2–2.5 mm long. Rare (broadleaf paspalum or Warrel grass) | <i>P. wettsteini</i> ⁶ |
| Spikelets 2.5–4 mm long. | 12 |
| 12. Fertile floret dark brown, shiny; spikelets 2.5–3 mm long (<i>plicatulum</i>) | <i>P. plicatulum</i> ^{3,5} |
| Fertile floret pale-straw-coloured, not shiny; spikelets 3–4 mm long. Rare. | <i>P. exultatum</i> |