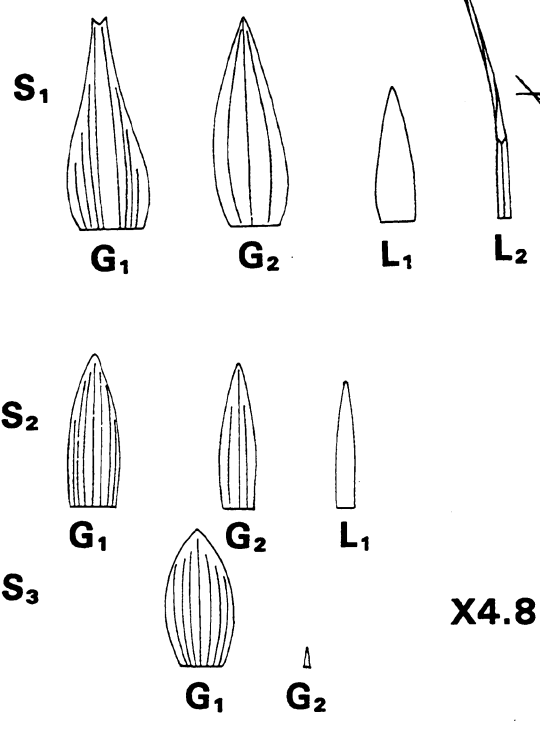


X2.4



X4.8



ISEILEMA VAGINIFLORUM

Red Flinders Grass

A short, tufted annual grass, 20–70 cm in height, erect or somewhat spreading out from the base. *Culms* erect, invariably branched at the nodes, smooth and without hairs, red-coloured, turning straw-coloured at maturity. *Nodes* 1–3, without hairs. *Leaves* dense, both basal and on the culms, green, becoming red or straw-coloured. *Leaf sheaths* rather loose, smooth, without hairs, sharply keeled down the back. *Ligule* a membranous, truncate flap 0.5–1 mm long. *Leaf blades* 3–4 mm wide, up to 20 cm long, tapering to a point from the base, flat, without hairs, slightly rough on the edges.

Inflorescence a leafy, contracted panicle of racemes, each of which is enclosed by a smooth, rounded spathe, red-coloured and becoming somewhat hardened at maturity and then breaking up at the nodes and falling entire; the racemes comprising a subterminal whorl or involucre of sterile, shortly pedicelled spikelets, above which is a terminal triplet of 1 sessile, fertile (female), awned spikelet and 2 pedicellate, male or sterile spikelets. *Spikelets* (S_1 , S_2 , S_3) dissimilar between groups in size, shape and sex. *Florets* 2 in the sessile fertile spikelet, the lower sterile and reduced to a lemma, the upper female; floret 1 in the involucre and pedicellate spikelets, male or sterile and then often reduced. *Fertile spikelet* (S_1) sessile and awned, 5–7 mm long. *Glumes* (G_1 , G_2) slightly unequal, membranous; the lower glume (G_1) the length of the spikelet, faintly 8–10-nerved, the nerves very indistinct in the lower part, truncated at the tip into 2 points; the upper (G_2) 3-nerved, the nerves indistinct in the lower half. *Lemma* (L_1) of the lower sterile floret narrow, shorter than the glumes, nerveless, membranous. *Palea* absent. *Lemma* (L_2) of the upper fertile floret very narrow, produced into a twisted, hygroscopic, brown awn about 2 cm long. *Palea* absent. *Involucral spikelets* (S_3) all alike, 4 mm long, sometimes reduced. *Glumes* (G_1 , G_2) very dissimilar, membranous; the lower glume (G_1) up to 4 mm long, 7–9-nerved, coming to a blunt tip; the upper (G_2) sometimes 3 mm or very minute, narrow. *Lemma* and *Palea* absent. *Pedicellate spikelets* (S_2) all similar, on slender pedicels up to 3 mm long, male or sterile, often appearing above the enclosing spathes, 3.5 mm long. *Glumes* (G_1 , G_2) slightly unequal, membranous; the lower glume (G_1) the length of the spikelet, 7-nerved; the upper (G_2) narrower, faintly 3-nerved. *Lemma* (L) very thin, membranous, nerveless. *Palea* absent. *Anthers* 3, 1–2 mm long.

This is a very valuable and quick-growing native forage grass found mostly west of Dalby in open grasslands of moderate to good natural fertility. In the drier western and northern areas, it usually is to be found with *Astrebla* spp. and *Dichanthium sericeum* (Queensland bluegrass). It may become locally dominant and then, at maturity, it imparts a red colouration to the area.

REFERENCES

Blake (1937),¹ (Key to Australian species); Gardner (1952),² pp. 345-53; Vickery (1961),³ p. 65; Lazarides (1970),⁴ pp. 170-76; Black (1978),⁵ pp. 246-47; Jessop (1981),⁶ pp. 492-93.

KEY TO SPECIES

- | | |
|---|---|
| 1. Terminal clusters of spathes and racemes readily disarticulating at maturity; spathes more or less toughened and enclosing persistent racemes. | 2 |
| Terminal clusters of spathes and racemes not readily disarticulating at maturity; spathes leafy, becoming papery; racemes emerging from side of spathe and finally falling free from spathes. | 4 |
| 2. Involucral spikelets absent from lowest racemes. Western (brittle Flinders grass) | <i>I. fragile</i> ¹ |
| Involucral spikelets present in lowest racemes. | 3 |
| 3. Spathes with a prominent nerve down back, forming a keel, barely toughened at maturity. Western (bull Flinders grass) | <i>I. macratherum</i> ^{1,2,4,6} |
| Spathes without a prominent nerve down back, not keeled, toughened at maturity. Widespread (red Flinders grass) | <i>I. vaginiflorum</i> ^{1,2,3,4,5,6} |
| 4. Involucral spikelets with pedicels less than ¼ their length. | 5 |
| Involucral spikelets with pedicels more than ¼ their length. | 7 |
| 5. Racemes without hairs at base. Far western (coarse Flinders grass) | <i>I. calvum</i> ^{1,2} |
| Racemes with hairs at base. | 6 |
| 6. Involucral spikelets flat along back. Western (scented Flinders grass) | <i>I. windersii</i> ^{1,6} |
| Involucral spikelets humped on back. Far western. (yellow Flinders grass) | <i>I. convexum</i> ¹ |
| 7. Involucral spikelets with their pedicels bearded and lower (outer) glumes smooth. Far western (rough-stemmed Flinders grass) | <i>I. dolichotrichum</i> ^{1,4,6} |
| Involucral spikelets with their pedicels hairless; lower glumes rough. | 8 |
| 8. Raceme base with hairs up to 2 mm long or hairless. Widespread (small Flinders grass) | <i>I. membranaceum</i> ^{1,3,4,5,6} |
| Raceme base with hairs up to 5 mm long. Uncommon, far western (bunch Flinders grass) | <i>I. eremaeum</i> ^{1,2,5,6} |