



# ENNEAPOGON GRACILIS

## Slender Nineawn

A slender perennial, up to 50 cm tall. *Culms* very slender, smooth, without hairs, erect, not obviously branched. *Nodes* with a collar of dense, short hairs. *Leaves* basal and on the culms. *Leaf sheaths* closely fitting, shorter than the internodes, smooth, without hairs, striate. *Ligule* a short fringe of hairs. *Leaf blades* flat or rolled, tapering gradually to a point, up to 2 mm wide and 10 cm long, mostly basal, downwardly rough to the touch along the margins, minutely hairy.

*Inflorescence* a spike-like panicle, 4–8 cm long, with contracted, erect branches. *Spikelets* (S) erect, 1 to several per panicle branch, on pedicels of varying length, at first 5 mm long with the florets completely enclosed within the glumes, but later taking on a distinctly fluffy appearance with the exertion of the many-toothed lemmas, then becoming about 6 mm long, falling entire at maturity. *Florets* 3 per spikelet, the lower bisexual, the upper 2 reduced and sterile, shortly pedicelled. *Glumes* (G<sub>1</sub>, G<sub>2</sub>) unequal, membranous, slightly keeled, major nerves visible, but not prominent and extending the length of the glumes, rough down the back of the mid-rib; the lower glume (G<sub>1</sub>) shorter (4 mm), about 11-nerved; the upper (G<sub>2</sub>) longer (5 mm), about 9-nerved. *Lemma* (L<sub>1</sub>) of the lower fertile floret at maturity very broad and largely enclosing the floret, 6 mm long, including the teeth, 9-nerved, somewhat hardened, deeply divided at the top between the nerves into 9 teeth about 3 mm long, the margins of the teeth also hairy, a tuft of long, silky hairs around the base. Lemmas of the two sterile florets successively reduced. *Palea* (P<sub>1</sub>) rounded on the sides, 2-nerved close to the margins, 2-keeled, covered on the back with short hairs. *Palea* of the lower sterile floret reduced and absent in the other. *Anthers* 3, 1 mm long.

This grass is common, though scattered, through the open eucalyptus forest of the subcoastal and inland areas of southeast Queensland. Its relatively poor herbage production and readiness to go to seed make it of little importance as a forage grass in the forest and woodland areas. However, in the drier western areas, the genus is regarded as a valuable group of forage grasses. The several species found to occur often are not easy to distinguish individually.

### REFERENCES

Bailey (1902),<sup>1</sup> p. 1900 (as *Pappophorum* spp.); Burbidge (1941),<sup>2</sup> (Key to Australian species); Gardner (1952),<sup>3</sup> pp. 28-33; Burbidge and Gray (1970),<sup>4</sup> pp. 43-44; Lazarides (1970),<sup>5</sup> pp. 116-27; Willis (1970),<sup>6</sup> p. 168; Black (1978),<sup>7</sup> pp. 184-87; Jessop (1981),<sup>8</sup> pp. 453-55.

### KEY TO SPECIES

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| 1. Lemmas thickened along nerves, which are prominent<br>down entire back. | 2  |
| Lemmas not thickened along nerves.   | 12 |

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| 2.  | Lower glume acute at apex.  | 3  |
|     | Lower glume obtuse or ragged at apex.   | 6  |
| 3.  | Culms disarticulating at maturity (pointed nineawn)   | <i>E. cylindricus</i> <sup>2,3,5,6,7,8</sup> |
|     | Culms not disarticulating at maturity.  | 4  |
| 4.  | Lowest lemma deeply ribbed, straight on back; glumes 5-9-nerved. Panicle loose, often branched laterally.   | <i>E. flavescens</i> <sup>2</sup>            |
|     | Lowest lemma not very deeply ribbed, rounded on back. Panicle dense and compact.  | 5  |
| 5.  | Glumes minutely and sparsely hairy, G <sub>1</sub> 4 mm, G <sub>2</sub> 5 mm; awns stiff. Southern grass (niggerheads)  | <i>E. nigricans</i> <sup>1,2,3,4,6,7,8</sup> |
|     | Glumes hairless, G <sub>1</sub> 3 mm, G <sub>2</sub> 4 mm; awns soft.   | <i>E. arenicola</i> <sup>2</sup>             |
| 6.  | Cleistogamous spikelets present in some basal leaf sheaths.   | <i>E. caerulescens</i> <sup>2,3,7,8</sup>    |
|     | Cleistogamous spikelets absent.   | 7  |
| 7.  | Awns 2 to 3 times as long as lemma.   | <i>E. robustissimus</i> <sup>2</sup>         |
|     | Awns usually less than twice lemma length.  | 8  |
| 8.  | Culms disarticulating at maturity; axillary inflorescences in uppermost leaf sheaths.   | <i>E. asperatus</i> <sup>2,8</sup>           |
|     | Culms not disarticulating at maturity; no axillary inflorescences in uppermost leaf sheaths.  | 9  |
| 9.  | Lower glume 3-3.5 mm.   | <i>E. oblongus</i> <sup>2,3,5,7,8</sup>      |
|     | Lower glume 1.5-2.5 mm.   | 10   |
| 10. | Short hairs on lower 1/3 to 2/3 of back of lower lemma (cone-top nineawn)   | <i>E. pallidus</i> <sup>2,3,5</sup>          |
|     | Dense, rather long hairs on lower 1/3 of back of lower lemma.   | 11   |
| 11. | Lower glume 1.5 mm long. Leaves inrolled, 1.5-2 mm wide. Widespread.  | <i>E. lindleyanus</i> <sup>2,3,5,7,8</sup>   |
|     | Lower glume 2-2.5 mm long. Leaves flat, 2-3 mm wide. Northern.  | <i>E. pubescens</i> <sup>2</sup>             |
| 12. | Lowest lemma as long as or slightly shorter than broad; awns attached at same level around lemma so that lemma appears rather globular.   | 13   |
|     | Lowest lemma longer than broad; awns arising lower on either side than in middle of lemma.  | 15   |
| 13. | Inflorescence rather loose; spikelets with 2-3 fertile florets; lowest lemma (together with awns) 9-12 mm; glumes more than 13-nerved; upper glume 8-9 mm long. Annual (bottle-washers) | <i>E. avenaceus</i> <sup>1,2,3,6,7,8</sup>   |
|     | Inflorescence compact; spikelets with 1 fertile floret; lowest lemma (together with awns) 7-8 mm; glumes 5-13-nerved, upper glume 4-5 mm. Perennials.                                   | 14   |
| 14. | Basal leaf sheaths hairy with long, simple hairs. Erect loosely growing plant with leaves along culm.   | <i>E. intermedius</i> <sup>2</sup>           |
|     | Basal leaf sheaths not hairy. Slender tufted plant with mostly basal leaves (slender nineawn)   | <i>E. gracilis</i> <sup>2</sup>              |
| 15. | Densely tufted perennial; panicle dense, glumes broad. Northern.  | <i>E. purpurascens</i> <sup>2,8</sup>        |
|     | Loosely tufted annual or weak perennial; panicle contracted but loose, glumes narrower. Widespread (leafy nineawn)  | <i>E. polyphyllus</i> <sup>2,3,5,7</sup>     |