

## Vascular Plants of Burnet County

### *Eragrostis spectabilis* – PURPLE LOVEGRASS [Poaceae]

*Eragrostis spectabilis* (Pursh) Steud., PURPLE LOVEGRASS. Perennial herb, rhizomatous, not rosetted, fibrous-rooted, each plantlet several-stemmed at base, in large clump densely tufted, each shoot not branched above rhizome, in range to 45 cm tall; shoots with several basal and several cauline leaves, from rhizome having at least 1 scalelike basal leaf (diminutive sheath, to 10 mm long) and 1 photosynthetic basal leaves, lacking glands and not gummy (viscid), with a conspicuous tuft of hirsute hairs at top of sheath, the hairs not lacking cell at base (not pustulate); rhizome totally concealed by scales and bases of leaves, creeping, shallow and horizontal, knotty, to 2 mm diameter, becoming subdivided, scales triangular, yellowish white; adventitious roots abundant on lower side of rhizome. **Stems:** cylindrical, to 2 mm diameter, smooth, nodes often reddish, glabrous, lacking glands; internodes hollow. **Leaves:** alternate distichous, simple with sheath; prophyll open, 2-veined with 2 conspicuously wings converging at tip, broadly triangular, to  $6 \times 3$  mm, strongly concave between wings, the wings short-ciliate or also with some long hairs; sheath open, margins toughing at base and not membranous, in range margins mostly without hairs or 1 margin having submarginal hirsute hairs, lacking lobes (auricles) but having a conspicuous tuft of long hairs at top, the hairs in range mostly 2–4 mm long; ligule truncate, densely short-ciliate, 0.2–0.4 mm long, white; collar reddish; blade linear gradually long-tapered to tip, in range  $100\text{--}340 \times 3\text{--}8$  mm, flat drying inrolled to upper side, entire and minutely scabrous on margins, parallel-veined, upper surface finely low-ridged with microhairs along veins, in range with a patch of straight hirsute hairs at base close to collar, the hairs to 4 mm long, lower surface with veins slightly raised, glabrous, not scabrous. **Inflorescence:** spikelets, in open, terminal paniclelike array of many widely spreading, thin and flexible, primary branches, nodes alternate with 1–3 from each node, the primary branches in range mostly  $< 100$  mm long, divergent by an axillary pulvinus and with shorter branchlets with small axillary pulvinus, primary branches forked with 1–2 orders of branching, each branchlet with a terminal spikelet, the longest primary branch with to 20 widely spaced spikelets, in range each spikelet with 4+ florets, bracteate, not glandular, lacking awns; primary axis with 15+ nodes, ridged and especially above midpoint and along lateral branches and branchlets scabrous along ridges, at the lower nodes having a tuft of hirsute hairs subtending each node with hairs 2–4 mm long, pale green axillary pulvinus with shorter hairs, minor axes lacking hairs; stalk (“pedicel”) straight, several–17 mm long, mostly 4-angled and scabrous. **Spikelet:** initially lanceolate in outline and compressed side-to-side, before anthesis from  $3 \times 0.6$  mm, in range at maturity  $4\text{--}7 \times 1\text{--}2.5$  mm (the widest = with spreading florets), breaking below each lemma with persistent paleae of spikelet; **glumes** 2, unequal, keeled ovate, the keel scabrous base-to-tip, in range lower glume 1–1.2 mm long and upper glume broader and 1.3–1.7 mm long, lower  $<$  upper, 1-veined, keel green, persistent; rachilla segments ca. 0.6–0.7 mm long, green with several fine, short hairs at base of floret; **lemma** membranous-leathery, ovate  $\pm$  keeled, 1.5–2.3 mm long,  $>$  glume, 3-veined, veins green, the lateral veins weakly raised but not reaching tip, keel weakly scabrous along exposed keel, in range straw-colored, silica bodies visible with magnification; **palea** conspicuously 2-keeled strongly 2-folded, short-fringed at top, 2-veined, broadly elliptic in outline (0.4

mm across), ca. 1–1.3 mm long =  $\frac{2}{3}$ – $\frac{7}{8}$  of lemma, colorless (hyaline), minutely scabrous to puberulent especially approaching top along folds. **Flower:** bisexual; **perianth (lodicules)** 2, fan-shaped, to 0.2 mm long, whitish; **stamens** 3, free; filaments initially ca. 0.5 mm long, clear aging threadlike and white; anthers dorsifixed, dithecal, in range 0.3–0.55 mm long, purplish to red-purple, longitudinally dehiscent; pollen colorless; **pistil** 1, ca. 1 mm long; ovary superior, ellipsoid, ca. 0.2 mm long, translucent, glabrous, 1-chambered with 1 ovule; styles 2, widely spaced at top of ovary, lower portion threadlike and upper portion ca. 0.7 mm long, papillate, treelike, and colorless. **Fruit:** achene (caryopsis), broadly ellipsoid somewhat flattened, 0.6–0.8 mm long, white maturing brown, with faint striations.

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