

**Vascular Plants of Williamson County**  
*Festuca perennis* – PERENNIAL RYE GRASS [Poaceae]

*Festuca perennis* (L.) Columbus & J. P. Smith, PERENNIAL RYE GRASS (including ANNUAL RYE GRASS or ITALIAN RYE GRASS). Annual to perennial herb, fibrous-rooted, 1–many-stemmed at base and clump-forming, ascending to erect, 25–90 cm tall; shoots with 2–7 leaves, blades folded or rolled in bud, glabrous; adventitious roots at buried nodes. **Stems (culms):** cylindric, 1–3 mm diameter, tough, green aging tannish with dark purplish red nodes, straight or bent at swollen nodes, internodes 10–85 mm long increasing upward, smooth, glabrous; internodes hollow. **Leaves:** alternate distichous, simple with sheath; sheath open, 35–160 mm long, striped, with or without lobes (auricles) at top, auricles clasping or descending, acute, to 2 mm long, light green to pale green, diminutive auricle = convex widening of leaf base; ligule membranous, transverse to oblique truncate, 0.4–3 mm, dark tan at base to whitish to light tan at tip; blade linear, 25–300 × 1.7–8 mm, the widest near base, flat, minutely toothed on margins near base to tip, parallel-veined but lacking a midrib, upper surface smooth and glossy, lower surface smooth or rough. **Inflorescence:** spikelets on a terminal, unbranched, spikelike panicles, panicle 70–310 mm long, with 12–40+ regularly spaced, vertically oriented, sessile spikelets arranged alternate distichous along rachis, 2-ranked, spikelet with 4–15 florets, bracteate, glabrous, awned or lacking awns; peduncle cylindric or somewhat compressed, 60–330 mm long, < 1.5 mm diameter at top, striped, smooth or finely scabrous, hollow; rachis with spikelets partially sunken edgewise into concave niche, scabrous on edges of concavity. **Spikelet:** ellipsoid to narrowly oblong strongly compressed side-to-side, 5–19 × 1.5–5 mm, spreading to 7 mm at anthesis, with florets decreasing in length distally, breaking above glume and between florets; rachilla 0.7–1.5 mm long, strongly flattened, glabrous; **glume** 1 = upper glume on outer side (lower glume present on terminal spikelet), linear-lanceolate, 4.8–11.5 mm long increasing in fruit, stiff, green aging tannish, 5–7-veined with the outermost veins commonly short and faint, narrowly membranous and incurved on margins, tapered to an acute or narrowly rounded tip, the tip stiff ( $\pm$  chartaceous); **lemma** mostly awned, lanceolate, in range 5–7 × 0.8–2.5 mm decreasing along spikelet, acute to slightly 2-toothed at tip, generally 5-veined, glabrous, awn 0–7.5 mm long, attached 0.2–0.4 mm below tip, light colored or purplish red at base; **palea**  $\pm$  as long as lemma, 2-veined, 2-keeled, membranous and green along each vein, densely short-ciliate along keels. **Flower:** bisexual; **perianth (lodicules)** 2,  $\pm$  obovoid-shaped to oblong teardrop-shaped or  $\pm$  sickle-shaped, 0.6–1 × 0.3–0.5 mm, bulbous at base, translucent, with a membranous, lateral lobe; **stamens** 3, free, exerted or exposed by spreading lemma and palea; filaments threadlike, 1.5–3+ mm long, white; anthers basifixed, dithecal, linear, 2.6–4.5 mm long, light yellow to greenish yellow or purplish to raspberry red, longitudinally dehiscent; pollen light yellow to pinkish; **pistil** 1; ovary superior,  $\pm$  heart-shaped to broadly obovoid, 0.4–0.8 × 0.6–0.9 mm, glossy greenish white to whitish, glabrous, 1-chambered with 1 ovule; styles 2, 1.2–2 mm long, translucent, erect at base above sharply bent and spreading, densely feathery (plumose) base to tip or nearly so, the plumose stigmatic hairs ascending,  $\pm$  0.5 mm long. **Fruit:** achene (caryopsis), firmly enclosed within palea and lemma, obovoid to oblong, 2.5–4 × 1.5–1.6 mm, dull dark brown to black, rounded at base,

rounded to truncate at tip with flap of ovary tissue, flat next to palea and convex next to lemma, glabrous.

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