

Vascular Plants of Williamson County

Agrostis hyemalis – TICKLEGRASS, FLY-AWAY GRASS, WINTER BENTGRASS, HAIRGRASS
[Poaceae]

Agrostis hyemalis (Walter) Britt., Stearns & Poggenb., TICKLEGRASS, FLY-AWAY GRASS, WINTER BENTGRASS, HAIRGRASS. Perennial herb or annual, lacking stolons or obvious rhizome (not clonal), fibrous-rooted, tufted, wispy and delicate, in range to 70 cm tall; shoots with basal leaves and 1+ cauline leaves, bent at cauline nodes (geniculate), glabrous.

Stems (culms): cylindric, typically < 1 mm diameter, smooth; internodes hollow.

Leaves: alternate distichous, simple with sheath; sheath open, smooth (when dried appearing ridged), without lobes (auricles) at top; collar inconspicuous; ligule membranous, 1.4–4 mm long, ± truncate or rounded and often jagged (lacerate) at top, minutely scabrous on hidden (dorsal) surface; blade narrow and linear, in range 30–130 × 0.8–3 mm, minutely scabrous and entire on margin, long-tapered to tip, parallel-veined with principal veins sunken on upper surface and raised on lower surface, inrolling upward when stressed, surfaces scabrous. **Inflorescence:** spikelets in terminal, open panicle, spikelets restricted on extremely fine, flexible branches and branchlets < 20 mm from tips, panicle broadly ovate in outline, in range to 200 mm long, principal branches appearing whorled (lower nodes) or opposite (upper nodes) and nodes widely spaced, spikelet with 1 bisexual floret, bracteate, glabrous (except callus), in range lacking awns; primary axes branching only above midpoint, often aging reddish and conspicuously minutely scabrous; stalk of spikelet minutely scabrous to nearly smooth, 0.3–2.5 mm long, aging red-purple.

Spikelet at anthesis ovate in outline later with glumes somewhat spreading by growth of fruit, lacking any features of a second floret, rachilla not prolonged above floret, breaking above glumes; **glumes** 2, subequal, keeled and scabrous along keel, acuminate at tip, 1.0–1.4 mm long, lower glume ≥ upper glume, lower glume often with a short, awnlike point at tip, at anthesis membranous with keel green and lateral veins obscure, aging red-purple, sometimes tips somewhat fringed or margin somewhat jagged approaching tip, persistent; callus mostly having a tuft of hairs to 0.2 mm long, persistent; **lemma** enclosing flower, ± 0.9 mm long, 3-veined and 5-veined, veins minutely puberulent base-to-tip and midvein commonly with a vestige of an awn, truncate and minutely 3-toothed at tip, persistent and tightly appressed to developing fruit; **palea** absent (not observed in range) although a short palea observed elsewhere. Flower: self-pollinated; **perianth (lodicules)** apparently absent assumed nonfunctional and vestigial; **stamens** 3, free, included within lemma, later anthers pushed outside lemma by fruit elongation; filaments < 0.4 mm long, translucent; anthers dithecal, ca. 0.2 mm long, whitish to yellowish, longitudinally dehiscent; pollen pale yellow; **pistil** 1, included within lemma; ovary superior, ellipsoid, ± 0.35 mm long, pale green, 1-chambered with 1 ovule; styles 2, to 0.4 mm long, translucent, sparsely papillate, at same level as anthers. Fruit: achene (caryopsis), dispersed covers by lemma, ovoid rounded at top, 0.75–1.1 mm long, glossy brownish; lemma = achene, veins slightly raised above midpoint and central vein sometimes with projection (vestigial awn) near tip.

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