

Vascular Plants of Williamson County

Setaria viridis var. *major* – GIANT GREEN BRISTLEGRASS [Poaceae]

Setaria viridis (L.) P. Beauv. var. *major* (Gaudin) Peterm. GIANT GREEN BRISTLEGRASS. Annual, fibrous-rooted, not rosetted, tufted, several-stemmed at base, often with ascending lateral branch from lower nodes, in range 70–115+ cm tall; shoot with 1 basal leaf and 7+ cauline leaves, foliage scabrous, on straight stems lacking large, knotlike nodes; adventitious roots in ring at basal nodes. **Stems (culms):** cylindric, to 6 mm diameter, somewhat ridged above foliage, glabrous. **Leaves:** alternate distichous, simple with sheath; prophyll open, membranous, 2-keeled, below midpoint appearing 3-sided, to 65 mm long, the keels winglike, ciliate and scabrous each keel parallel-veined; sheath open, \pm = internode, membranous with green veins raised on both surfaces, of the lowermost leaves often with straight hairs between veins, densely ciliate on margins above midpoint to collar, on lower leaves on margins base-to-top, without lobes (auricles) at top; collar < 1 mm long; ligule truncate, membranous at base and densely ciliate, 1.6–2.2 mm long; blade narrowly-lanceolate linear, in range 180–300 \times < 12–19 mm, the widest above the base, flat, minutely toothed on margins, long-tapered to narrow tip, parallel-veined with veins finely raised on upper surface and midrib raised on lower surface, short-villous behind ligule (collar), upper surface conspicuously scabrous. **Inflorescence:** spikelets, in terminal spikelike panicle, panicle densely flowered on lateral branches, with conspicuous bristles (= reduced branchlets) >> spikelets, panicle slightly arching, fursiform-cylindric, 100–200 \times 15–20 mm (including ascending bristles) and 6–12 mm (without bristles), occasionally panicle 2-forked approaching tip; lateral branches densely packed, alternate to pseudowhorled spaced < 3 mm apart, spikelet with 2 florets, lower one sterile and vestigial and upper one bisexual, bracteate, lacking awns; peduncle and principal rachis conspicuously finely ridged (to 20-ridged) and scabrous along ridges, rachis and axes of lateral branches scabrous and villous, with a pulvinus axillary to each lateral branch, lateral branches at base of panicle with many appressed bristles and no fully developed spikelets, above lateral branches each with with to 12 fertile spikelets, several undeveloped spikelets, armed with to 30 ascending bristles, spikelet stalked, the stalk < 1 mm long, white, and scabrous, lateral branch with several bristles at base and 1–3 bristles subtending each spikelet, bristles mostly straight, 6–10 mm long, initially light green aging straw-colored, with upward-ascending barbs (antrorse); stalk subtending spikelet < 1 mm long, white, scabrous with ringlike swelling at top. **Spikelet:** ovoid with 1 flattish side aging obovoid, ca. 2 \times 1 mm long, glabrous, breaking below glumes and leaving a whitish disc; **glumes** 2, unequal, dimorphic, lower glume sheathing, membranous, 0.7–0.9 mm long, 3-veined, veins green, midvein to tip and lateral veins approaching often not fused with midvein, broadly acute to obtuse at tip; upper glume membranous, elliptic, 1.5–1.8 mm long, 5(–6)-veined, veins green, rounded on back; **lower lemma** (sterile floret) similar to upper glume, 1.7–2.1 mm long, with 5 complete veins + 2 shorter veins; **lower palea** membranous and \pm elliptic, 0.6–0.9 \times 0.25–0.4 mm, 2-veined; **upper lemma** (fertile floret) 1.5–1.7 mm long, finely veined and minutely bumpy (cells) with fine transverse ridges on back, greenish at tip; **upper palea** similar to upper lemma, broadly elliptic, \pm 1.4 mm long, faintly 2-veined and wings inrolled interior to green veins smooth and membranous. **Flower:** bisexual; **perianth (lodicules)** 2, broadly wedge-shaped, \pm 0.2 \times 0.35 mm, colorless; **stamens** 3,

free; filaments threadlike, ca. 2 mm long, colorless; anthers dorsifixed, dithecal, ca. 0.8 mm long, pale orange to orangish brown or drying reddish, longitudinally dehiscent; pollen white; **pistil** 1, 1–1.2 mm long; ovary superior, obovoid, ca. 0.2 mm long, translucent, glabrous, 1-chambered with 1 ovule; styles 2, short-exserted from top of spikelet, colorless, if exserted aging reddish with stigmatic tips tuftlike. **Fruit:** achene (caryopsis) tightly enclosed by hardened lemma and membranous palea, spikelet with fruit ellipsoid, ca. 2 × 1.3 mm, achene compressed top-to-bottom, ca. 1.7 × 1 mm, brownish.

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