

*Echinochloa crus-galli* (L.) P. Beauv. (Poaceae)

**SPIKELET**

One sterile floret and one fertile floret, disarticulation below the glumes, falling as a unit from the plant

**General shape:** ovate to lanceolate or elliptic; dorsal-ventrally compressed, dorsal side arched and ventral side flat (D-shaped in profile view)

**Normal size:** 2.5–4.0 (5.0) mm long x 1.1–2.3 mm wide

**Color:** pale green to straw-colored, +/- with purple tinge

**Texture:** glumes and sterile floret membranous to papery, surface +/- with soft short hairs, veins +/- with short to long stiff hairs

**Distinguishing features:** lower glume ca. 1/3 - nearly 1/2 the length of the spikelet, broadly triangular, the outer corners wrapping around the base of the upper glume; upper glume ovate, ca. equal to length of spikelet, tapering to a pointed apex; sterile floret equal to length of spikelet, +/- with awn, up to 50 mm long; palea +/- equal in length to sterile lemma, hyaline, keels with short fine hairs

**FERTILE FLORET**

**General shape:** ovate to lanceolate or elliptic; dorsal-ventrally compressed, dorsal side arched and ventral side flat (D-shaped in profile view)

**Normal size:** 2.0 – 3.5 mm long

**Color:** straw-colored to grayish-brown, veins +/- lighter in color; palea similar in color

**Texture:** lemma and palea hardened, glabrous, glossy; apex of lemma thinner and shriveled at maturity

**Distinguishing features:** lemma 5-veined, margins in-rolled over margin of palea, apex tapered to a point, at maturity the tip appears shriveled or laterally pinched and is marked by a line of hairs

**CARYOPSIS**

**General shape:** round to oblong, dorsal-ventrally compressed

**Normal size :** 1.3 – 2.2 mm long x 1.0 – 1.8 mm wide

**Color :** light brown

**Texture:** smooth, glabrous

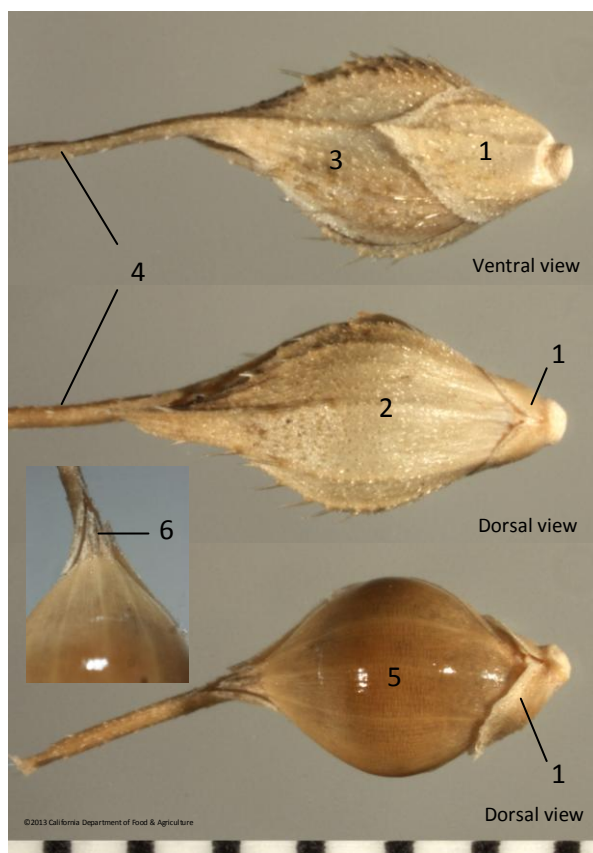
**Embryo:** 3/5 - 7/8 the length of the caryopsis

**Endosperm:** solid

**Hilum:** +/- round

Description by Deborah Meyer

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*Echinochloa crus-galli* spikelets, fertile florets, and caryopses. Spikelets consist of a short lower glume (1), upper glume (2), sterile lemma (3) with awn (4), fertile lemma (5) with shriveled/pinched tip (6), sterile palea (7), and fertile palea (8).



Caryopsis in dorsal view showing embryo (9) and ventral view showing hilum (10).

Images by Deborah Meyer & Jim Effenberger