

Bromus sterilis L. (Poaceae)

SPIKELET

Multiple floret spikelet with 5 – 9 similar looking florets with distal florets usually sterile and slightly smaller in size; disarticulation generally above glumes and between florets

FLORET

General shape: narrowly lanceolate, slightly arched backwards

Normal size: 14.0 –20.0 mm long x 1.0 –1.5 mm wide; sub-apical awn 15.0 –30.0 mm

Color: straw-colored to light brown with +/- purple tinge, margins of lemma lighter in color compared to main body

Texture: lemma surface covered with short stiff hairs that are rough to the touch, hairs near base slightly longer

Distinguishing features: lemma 7 (9)–veined, veins forming raised longitudinal ridges, back rounded, apex bifid, teeth 1.0 – 3.0 mm long, margins and teeth hyaline; callus pointed and glabrous, attachment point oval; palea slightly longer than caryopsis, +/- glabrous between keels, keels with stiff, wide-spaced hairs; rachilla covered with short stiff hairs, round in cross-section and flattened at apex, attachment point +/--oval

CARYOPSIS

General shape: Linear, dorsal-ventrally compressed, flat to U-shaped in cross-section

Normal size : 11.0 –14.0 mm long x 1.0 – 2.8 mm wide.

Color : brown

Texture: Smooth, apex fleshy and hairy, lemma and palea +/- adherent

Embryo: at base of caryopsis, small and slim root-shoot axis about 1/3 the length of the caryopsis narrowing to a point at the base; scutellum outline visible

Endosperm: bulk of caryopsis filled with solid endosperm

Hilum: linear, extending nearly the full length of the caryopsis

Description by Deborah Meyer

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Bromus sterilis: A – florets in dorsal (left) and lateral views (middle and right), showing rachilla (1), lemma teeth (2), lemma (3) and awn (4). B – ventral view showing rachilla (5) with flattened apex and basal floret attachment scar (6). C – dorsal view showing lemma (7) and pointed callus (8).



Caryopses: dorsal view (top) showing embryo (9); ventral view (bottom) with palea fragments adhering (10), partially obscuring the view of the linear hilum (11).

Images by Deborah Meyer and Jim Effenberger