

Lolium perenne L. (Poaceae)

SPIKELET

Multiple floret spikelet with (2) 5 – 9 (10+) similar looking florets with distal florets usually sterile and slightly smaller in size; disarticulation generally above the glumes and between the florets

FLORET

General shape: dorsal-ventrally compressed; oblong (sides mostly parallel the entire length) to lanceolate, not dorsally keeled

Normal size: 3.5 – 9.0 mm long x 0.8 – 2.0 mm wide

Color: straw color, sometimes with greenish tinge

Texture: lemma papery and smooth, glabrous or with short stiff hairs near margins and apex; palea papery, coarsely granular in lower half transitioning to smooth and lustrous in upper half

Distinguishing features: callus blunt, narrow, glabrous; awn, if present, short, straight and attached slightly below apex; palea +/- equal in length to lemma, keels two, with short stiff hairs along keels; rachilla glabrous or with short hairs, flat, wide, strap-like, apex usually not expanded

CARYOPSIS

General shape: dorsal-ventrally compressed, mostly oblong or elliptic

Normal size : (2.0) 3.0 – 5.5 mm long x 0.7 – 1.5 mm wide

Color : light to reddish-brown

Texture: smooth to slightly rough

Embryo: 1/5 - 1/3 the length of caryopsis

Endosperm: solid

Hilum: linear, nearly as long as caryopsis

Description by Deborah Meyer
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Florets and caryopses of *Lolium perenne*. A. Ventral view showing palea (1) and rachilla (2). B. Dorsal view showing lemma (3). C. Flat, strap-like rachilla (4). D. Thin, blunt callus (5). E. Granular palea texture in lower half and smooth lustrous texture in upper half (6). F. Caryopses, dorsal view showing embryo (7) and dorsal view showing linear hilum (8).

Images by Deborah Meyer & Jim Effenberger