

Chloris gayana Kunth (Poaceae)

SPIKELET

Multiple floret spikelet that disarticulates as a unit below the basal floret (glumes remain attached to the plant); basal floret fertile, upper florets sterile

FERTILE FLORET

General shape: laterally compressed; ovate, obovate, slightly bulged out along keel

Normal size: 2.5–4.2 mm long x 0.7–1.0 mm wide

Color: straw-colored to light brown

Texture: lemma cartilaginous, glabrous to +/- pubescent, when present, hairs usually longer along the margin especially near apex

Distinguishing features: lemma keeled, 3-veined, apex weakly bi-lobed, awn sub-apical 1.5-6.5 (10) mm long

STERILE FLORETS

First sterile floret similar in shape and color to fertile floret, 2.2-2.5 mm long x 0.3-1.0 mm wide, lemma keeled, awn sub-apical 0.8-3.2 mm long; other sterile florets progressively smaller, +/- awn tipped

CARYOPSIS

General shape: narrowly oval in outline, three-sided in cross-section

Normal size : 1.0 – 1.5 mm long x ca. 0.5 mm wide

Color : amber to brown

Texture: smooth and glossy

Embryo: approximately one-half the length of the caryopsis, scutellum margin and root-shoot axis extending beyond the main body of the endosperm

Endosperm: solid

Hilum: round, basal

Description by Deborah Meyer

California Department of Food & Agriculture



Chloris gayana multiple florets.



The fertile and sterile florets usually remain attached together when they fall from the plant (glumes remain attached to the plant). The fertile floret (1) is the basal floret and two sterile florets (2, 3) are distally placed in the seed unit.



A – dorsal view of caryopsis showing embryo. B – lateral, dorsal, ventral, and cross-section view of caryopsis (left to right) highlighting the scutellum (4), root-shoot axis (5), and hilum (6).

Images and drawings by Deborah Meyer and Jim Effenberger