

*Secale cereale* L. (Poaceae)

**Caryopsis**

**General shape:** relatively narrow and slender; longitudinally grooved ventrally

**Size:** 5.0-10.0 L x 1.5-3.5 W x 1.5-3.0 D mm

**Color:** greenish, greyish straw, sometimes with a silvery cover

**Texture:** smooth, wrinkled towards the base, dull

**Distinguishing features:** a rounded ridge (1) runs on the back of the caryopsis. The embryo end is pointed and has truncated apex

**Embryo (2):** long and pointed, the root-shoot axis about 1/4 the length of the caryopsis

**Endosperm:** soft to semi-solid

**Hilum:** linear, nearly as long as caryopsis, located in ventral groove



Normal seeds of *Secale cereale*