1. *Secale cereale* L. (rye)

Pl. 188 f,g; Map 761

Plants annual, forming tufts. Flowering stems 50–120 cm long, erect or ascending, glabrous. Leaf sheaths glabrous or the lowermost hairy, the ligule membranous, uneven or minutely hairy along the margin. Leaf blades 3–30 cm long, 3–7(–10) mm wide, flat, glabrous or hairy, sometimes with auricles at the base. Inflorescences 5–15 cm long (excluding the awns), linear-oblong in outline, somewhat flattened, with numerous, densely spaced, ascending spikelets crowded along the persistent axis. Spikelets single at the nodes of the inflorescence, all similar in size and appearance, narrowly elliptic in outline (excluding the awns), with usually 2 florets, disarticulating above the glumes and between the florets. Glumes similar in size and shape, the body 6–13 mm long, 0.5–1.0 mm wide, narrowly linear, the tip sharply pointed, 1-nerved and keeled, glabrous but roughened along the keel. Lemmas with the body 11–16 mm long, elliptic-ovate, unevenly 5-nerved and with an off-center keel, this extended into an erect or ascending, roughened awn 3–70 mm long, glabrous but with a line of stiff, spinelike hairs along the keel and margins, thickened and somewhat hard. Anthers 6–8 mm long. Fruits 7–9 mm long, oblong, grooved, hairy at the tip, yellowish brown to orangish brown. 2n=14, 16, 27, 28, 29. May–July.

Introduced, widely scattered in the state (cultivated in temperate regions nearly worldwide, escaped sporadically in the eastern U.S.). Roadsides, railroads, and open, disturbed areas.

Rye is an important crop plant in temperate areas, and is thought to have been developed from plants native to southwestern Asia. The grain is used for food and distilling alcohol. In addition to its importance as a grain plant, dried plants sometimes are a source of pulp for making paper. In Missouri, it is cultivated primarily as an early spring source of forage, and it is seeded along road banks following construction as an annual cover crop to prevent soil erosion until other perennial plantings become established. It grows better than wheat in thin or poor soils. Plants in the flora are escapes from cultivation and do not persist very long in the wild. Steyermark (1963) noted that the pollen is a cause of hay fever.