7. *Elymus repens* (L.) Gould (quack grass)

Pl. 185e–g; Map 752

*Agropyron repens* (L.) P. Beauv.

*Elytrigia repens* (L.) Nevski

*A. repens* var. *subulatum* (Schreb.) Rchb.

*A. repens* f. *vaillantianum* (Wulfen) Fernald

*A. repens* f. *aristatum* (Schum.) Holmb.

Plants with long creeping rhizomes, forming large clumps or colonies. Flowering stems 50–110 cm long, glabrous. Leaf blades 8–30 cm long, 3–12 mm wide, flat, with a pair of usually prominent auricles at the base, glabrous or sometimes hairy on the upper surface, rarely glaucous, dark green to somewhat bluish green, soft and fairly flexible, the upper surfaces similar to the lower surface, the fine veins not strongly ridged. Inflorescences 5–18 cm long, erect or nearly so, with the spikelets mostly strongly overlapping on the inflorescence axis, occurring singly (rarely paired) at the nodes, the axis persistent, not breaking into segments at maturity. Spikelets with 3–8 florets, erect or ascending, disarticulating below the glumes, shed as an intact unit. Glumes similar in size and appearance, the body 5–13 mm long, 2–3 mm wide, elliptic lanceolate, 3–7 nerved, relatively thin and flexible, glabrous, sharply pointed or with an awn 0.5–4.0 mm long at the tip. Lemmas with the body 7–10 mm long, elliptic lanceolate, 5 nerved, glabrous or roughened toward the tip, tapered to a sharp pointer short awn (1–5[–10] mm) at the tip. Paleas mostly 7–10 mm long, the tip rounded or truncate. Anthers 3–6 mm long. 2n=42. May–September.

Introduced, scattered mostly north of the Missouri River (native of Europe, Asia, and possibly Atlantic Coastal U.S.; naturalized nearly throughout the U.S. and Canada). Pastures, fencerows, gardens, roadsides, railroads, and disturbed, open areas.

*Elymus repens* and related species (in Missouri, *E. elongatus* and sometimes *E. smithii*) are sometimes segregated into the genus *Elytrigia* Desv., based on their spikelets occurring mostly singly at the nodes, flattened and positioned with a flat side against the inflorescence axis. Also, these species possess a somewhat different genomic structure than does *Elymus* in the strict sense and are outcrossing taxa with relatively large anthers (vs. mostly inbreeding taxa with smaller anthers). Collectively they are one of the easiest segregates of *Elymus* to recognize morphologically, but the limits of the group remain controversial.

*Elymus repens* is a desirable species for forage and hay and sometimes has been planted for erosion control. It can be a serious pest in gardens and other areas where it becomes established, however, and is very difficult to eradicate. The plant also is considered to be a cause of hay fever (Steyermark, 1963). *Elymus repens* is superficially similar to species of *Lolium* (tribe Poeae) in its inflorescence structure, but it has the spikelets positioned with a flat side next to the inflorescence axis, whereas in *Lolium* they are repositioned with an edge toward the axis.