

Manitoba Maple *Acer negundo*

Aceraceae—Maple family

by Tom Reaume © 2010 Nature Manitoba

Grant:



A **deciduous tree** 5–20 m tall with several thick branches and a spreading uneven crown; in cities and towns, river and stream banks, and ravines, often planted; **dioecious**.

● **FLOWERS** green and red, blooming March–July; **inflorescence** unisexual, rarely perfect, appears before the leaves fully develop; **pedicels** (of male flowers) green at base, reddish above, spreading, 2–5.5 cm long by c. 0.4 mm thick, more hairy near the anthers; **male flowers** 4–20 per cluster, exerted in umbel-like clusters from ends of twigs; **calyx cup** 4- or 5-lobed, 1.2–1.5 mm long and wide, green becoming reddish at the tips of the 1 mm long irregular lobes, white hairs with reddish tips; **stamens** 4 (5) per flower, erect to drooping; **filaments** 1–3 mm long, curved inward, hairless, whitish green; **anthers** reddish green, 2.8–3.5 mm long by c. 1 mm wide by 0.7 mm thick, with a pointed tip c. 0.5 mm long; **pollen** pale yellow; **pedicels** (of female flowers) hairy above, 6–10 mm long by 0.5 mm thick with fruit; **female flowers** each 7–9 mm long, greenish, in crowded racemes, 4–12 per raceme; **calyx cup** 4-lobed, c. 3.4 mm wide, the lobes 1.3–1.7 mm long, hairy; **ovaries** 2 (3) together c. 4.5 mm wide, shiny; **stigmas** 2 (3), 5–7 mm long by c. 0.6 mm thick, hairs microscopic; **flower to fruit** c. 5 months.

● **FRUIT** a schizocarp of 2 samaras, each 1-seeded and united basally, green ripening to light brown, each samara 3.7 (2.8–5) cm long by 1.1 (0.8–1.3) cm wide, winged, persistent overwinter, usually 4–12 pairs per cluster, glabrous to hairy; **peduncles** 2.4–2.6 cm long by c. 1 mm thick, curved, pale green; **fruit clusters** flat, 7.7–16.3 cm long by 5.2–7 cm wide, hanging throughout the tree; **pedicels** (of fruit) 2.1 (1.8–2.6) cm long by c. 0.5 mm thick, staggered along the stalk; **seeds** c. 14 mm long by 4.2 mm wide by c. 2 mm thick.

● **LEAVES** opposite, compound (odd-pinnate); **leaf blades** 18.5 (5.2–25.5) cm long by 20.7 (6.5–29.5) cm wide; **leaflets** toothed and sometimes lobed, 3–7 (9), hairy especially below along the raised veins, hairs white and c. 0.5 mm long, becoming glabrous with age, turning yellow in the autumn; **side leaflets** 9.8 (3.6–17) cm long by 4.6 (1.7–10.5) cm wide; **terminal leaflets** 9.4 (5.3–13.6) cm long by 6.1 (2.1–11.5) cm wide; **rachis** hairy, glaucous, reddish above; **petioles** 6.3 (1.3–13) cm long by c. 2 mm wide, hairy when young, glaucous, smooth; **side petiolules** 6 (0–20) mm long, reduced above on the blade; **terminal petiolules** 1.7 (0–4) cm long.

● **TRUNK** brown to dark gray; **bark** with irregular vertical furrows, rough; **twigs** opposite, gray and velvety in the spring from a dense covering of white hairs c. 0.1 mm long, or glabrous; **lenticels** vertical, tan, 0.5–2 mm long, round to oval with a dark reddish brown halo; **winter buds** opposite, roundish, blunt, 2.5–7 mm long by 2.5–4.5 mm wide, covered with white hairs; **scales** usually 4 are visible; **terminal buds** c. 5 mm long by 3–4 mm wide and thick, usually subtended by a pair of opposite hairy buds; **leaf scars** tan, concave, narrow, 0.5–1.5 mm long around the side of a twig, with a hairy tan point to c. 1.5 mm long; **leaf scar bundles** 3, each c. 0.8 mm wide and widely separated; **dbh** 6–90 cm.

● **RANGE: (CAN)** 10 provinces; **(USA)** 49 states; a **native**.



A male Manitoba Maple in summer along the Assiniboine River in Winnipeg, Manitoba; left trunk is 33 cm wide



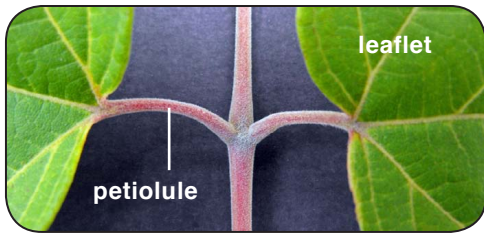
The same male Manitoba Maple in winter along the Assiniboine River in Winnipeg, Manitoba; left trunk is 33 cm wide



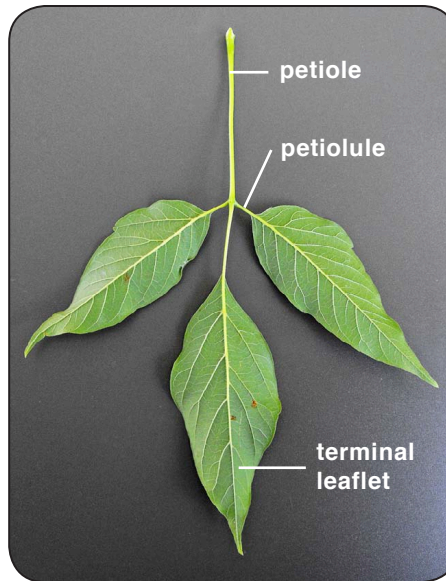
Trunk 50 cm wide



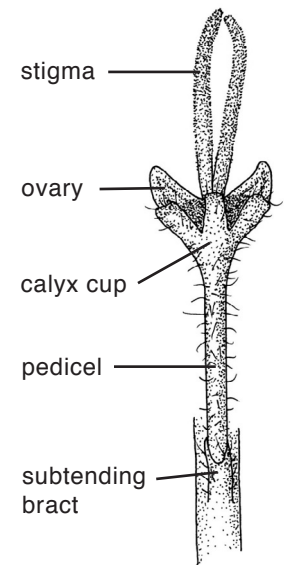
Numerous male flowers on this young tree with a trunk 6 cm wide



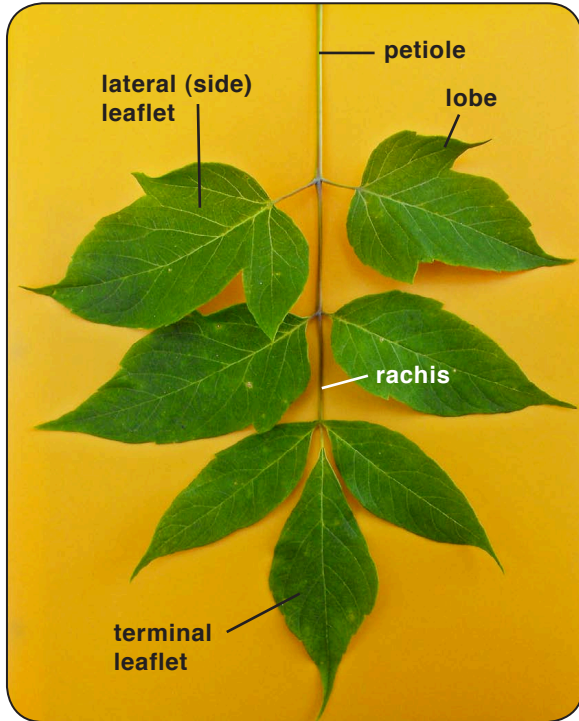
Opposite leaflets with pink, hairy petiolules c. 8 mm long; ventral surface



Leaf of Manitoba Maple with 3 leaflets; dorsal (lower) surface



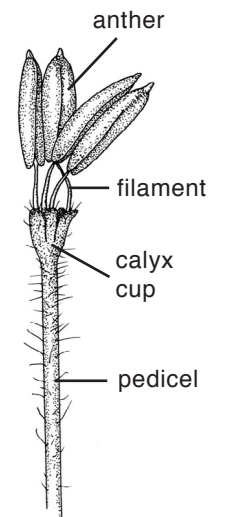
Female flower x3.5



Leaf with 7 leaflets; ventral (upper) surface



Two clusters of female flowers in bloom as leaves are emerging at the end of a new twig



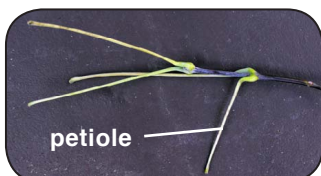
Male flower x5



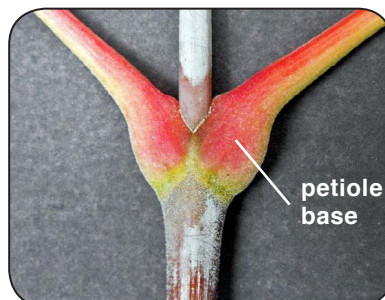
Typical female flower with paired ovaries



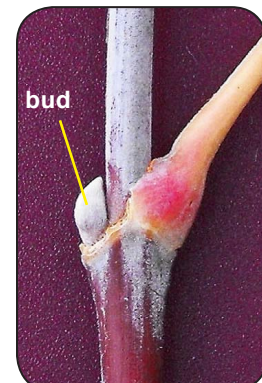
Female flower with 3 stigmas and 3 ovaries



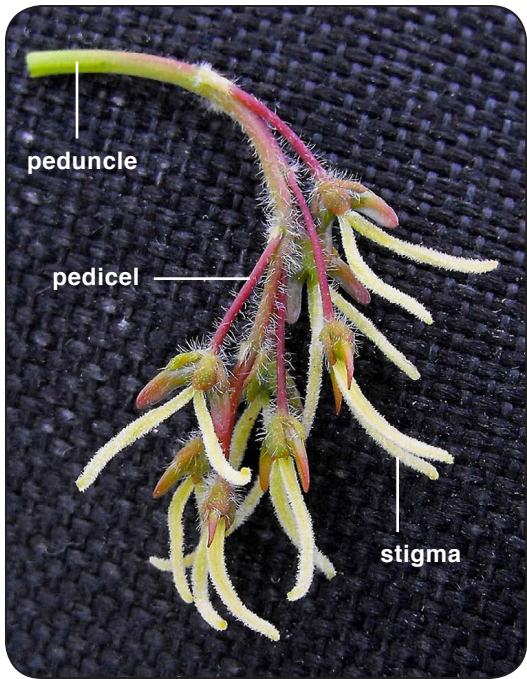
Some leaf petioles remain attached to a twig in late summer



Petiole bases with next year's buds under the wide red bases



Petiole base removed to reveal bud for next year



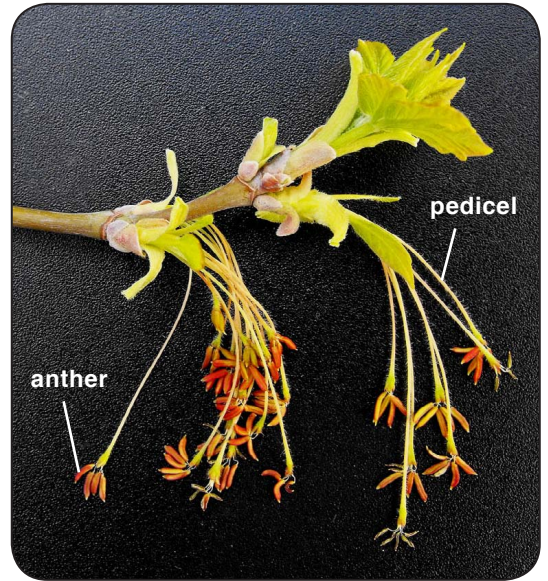
Cluster of female flowers on hairy pink pedicels



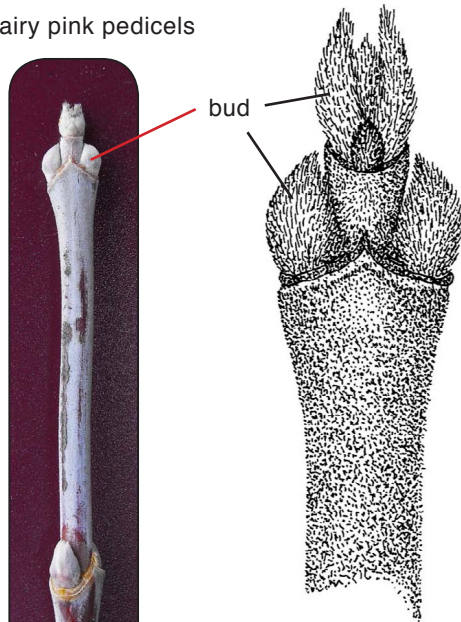
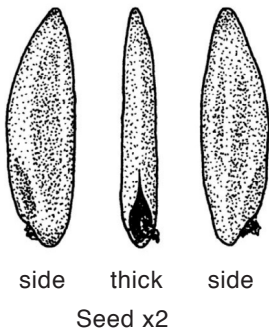
Male buds with dark red anthers



Emerging reddish anthers in clusters of male flowers at the tip of a twig



Male flowers fully emerged with reddish anthers



Overwintering buds at tip of hairy twig x4



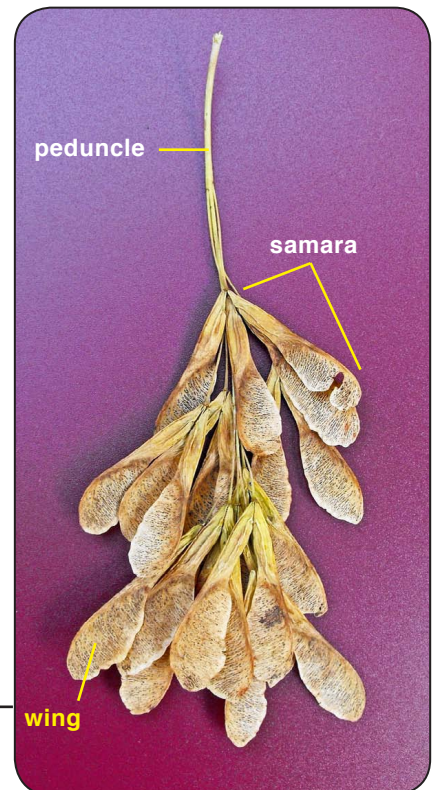
Twig with growth rings

Glaucous twig with buds

Petioles on sidewalk beneath Manitoba Maple



Paired samaras 3.5 cm long



Cluster 12 cm long of 11 paired samaras