

Stinging Nettle *Urtica dioica*

Urticaceae—Nettle family

by Tom Reaume © 2010 Nature Manitoba

Grant: 

A variable, armed **perennial wildflower** 0.5–3 m tall by 20–30 cm wide, often in dense patches from **rhizomes** 5–12 cm long by 2–6 mm thick with pink offshoots; **roots** to c. 10 cm long by c. 0.5 mm thick, tan, from nodes along the rhizomes; in woodland edges, old pastures, orchards and along streams, rivers, sloughs, railways, river banks and ditches; **monoecious** with the female flowers above the male flowers, or sometimes **dioecious**.

● **FLOWERS** green, blooming May–October; **inflorescence** a panicle, each 2–8 cm long from the upper leaf axils, 4 per node and not longer than the subtending leaves; **pedicels** less than 1 mm long and lightly hairy; **subtending bracts** (of flower clusters) green, c. 1.5 mm long, hairy; **flower clusters** unisexual; **rachis** very hairy; **male flowers** 4–5 mm wide, in glomerules subtended by a bract c. 2 mm wide with several points; **buds** c. 1 mm tall by c. 1.5 mm wide; **pedicels** green, hairy, to c. 1 mm long; **calyx** 4-lobed, the lobes 1.3–1.5 mm long by 0.7–1 mm wide, C-shaped with a wide green midvein, the apices a hyaline flap, hairy outside, tinged with red or brown as the buds are about to open, spreading, united at the very base; **corolla** absent; **stamens** 4, exserted, erect to spreading; **filaments** flat, light green, c. 1.8 mm long, curved inward in bud and spring outward with the anthers as the flower opens, slightly longer than the calyx lobes; **anthers** whitish yellow, 0.6–0.8 mm long and c. 0.5 mm wide, vertical in bud, attached in middle to filament; **pistil** vestigial, round, included, c. 0.5 mm long and wide, indented in the center; **female flowers** c. 0.6 mm wide by c. 1 mm long by c. 0.3 mm thick, green, hairy, sessile, in clusters of 7–15 in different stages of development and pointing in different directions along the panicles; **stigma** 1, white, the hairs spreading and together about as wide as the flower's body; **corolla** absent; **calyx** of 2 pairs of unequal hairy lobes with their hyaline margins curled inward: (1) outer 2 lobes inconspicuous, c. 0.6 mm long by c. 0.4 mm wide (flat) in fruit, along the lower margins of the fruit (2) two inner lobes 1.3–1.5 mm long by c. 1.2 mm wide in fruit, midvein dark, overlapping at apices and covering the fruit, open to their bases; **flower to fruit** 8–10 weeks.

● **FRUIT** an achene, 1-seeded, 1–1.5 mm long by 0.7–0.9 mm wide by c. 0.3 mm thick, smooth, with a dark marginal ridge, very thin-walled; **seed** tan, completely filling the fruit.

● **LEAVES** opposite, simple, coarsely toothed, upper blades often folded up along the midrib, lower ones flatter; **blades** 1.5–20 cm long by 0.6–12 cm wide, the veins raised below and with a few stinging hairs, lighter below, darker green and mostly hairless above; **petioles** 0.7–7 cm long, reduced above, grooved above and along the sides, with stinging hairs; **stipules** pale green, 5–15 mm long by 2–4 mm wide, not united, paired, entire, pointed, erect, lightly hairy; **internodal length** 4 (0.5–8.8) cm.

● **STEM** erect, hollow to solid, fibrous and tough, mostly simple or branched, one or two from rhizomes, bluntly square with 4 deep vertical grooves; 2–14 mm thick near the smooth naked reddish purple base; **stinging hairs** c. 1 mm long, tapered to a fine sharp point, few to numerous, pointing upward, clear with thickened bases, painful.

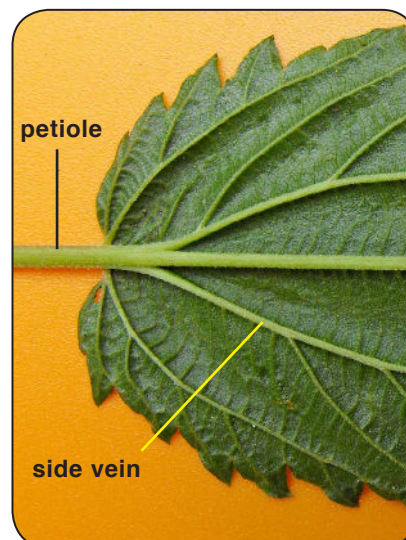
● **RANGE:** (CAN) 12 provinces; (USA) 49 states; a **native**.



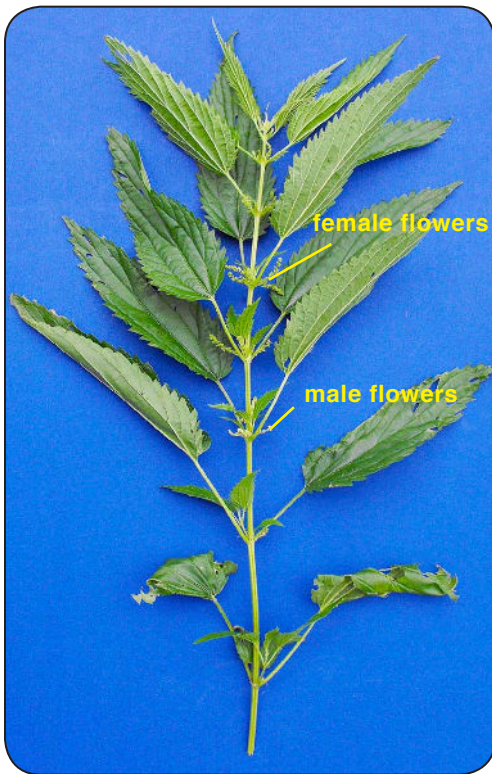
Stinging Nettle cluster with plants to 1.8 m tall in gravelly soil along a railway in Winnipeg, Manitoba



Young plants c. 30 cm tall from above; before flower development



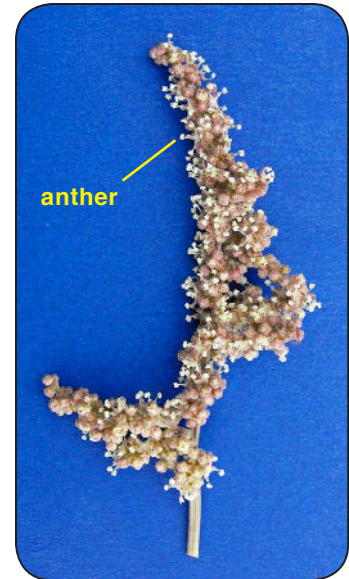
Leaf blade's base from dorsal side (below) showing raised veins and toothed margin extending to petiole



Upper 40 cm with young female flowers above the young male flowers in leaf axils



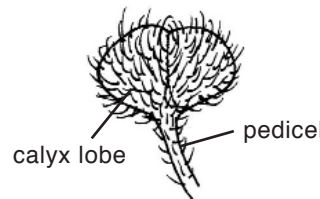
Three leaf axils: lower one with male flowers; upper 2 with female flowers



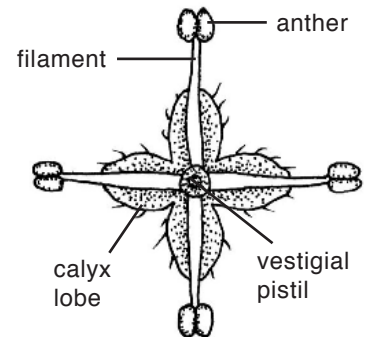
Male panicle 8 cm long, blooming; exerted anthers whitish yellow



Teeth 7-10 mm long along margin of leaf blade



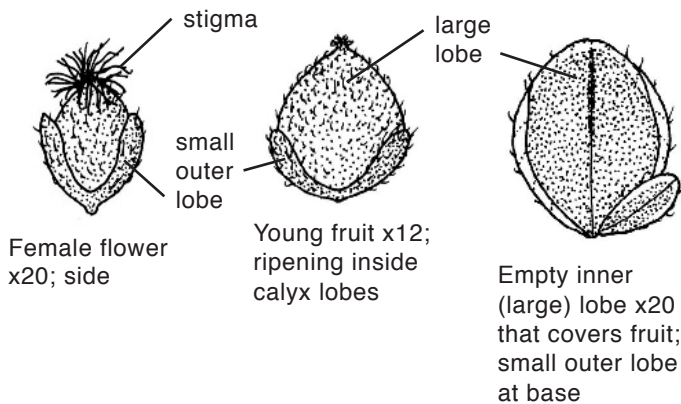
Male flower bud x12; side



Male flower x8; open, above



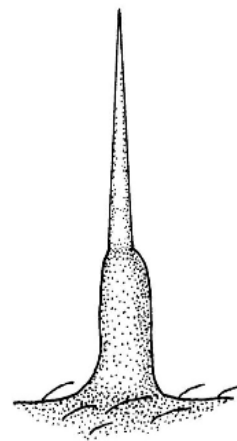
Vestigial pistil x8; side



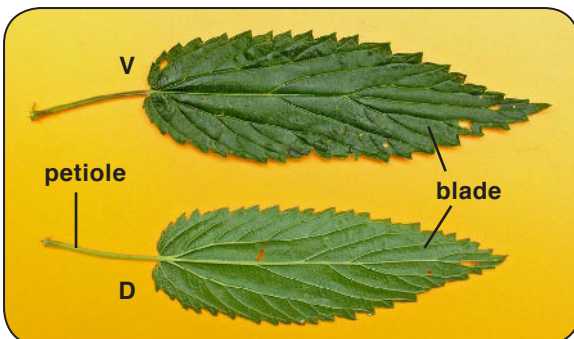
Female flower x20; side

Young fruit x12; ripening inside calyx lobes

Empty inner (large) lobe x20 that covers fruit; small outer lobe at base



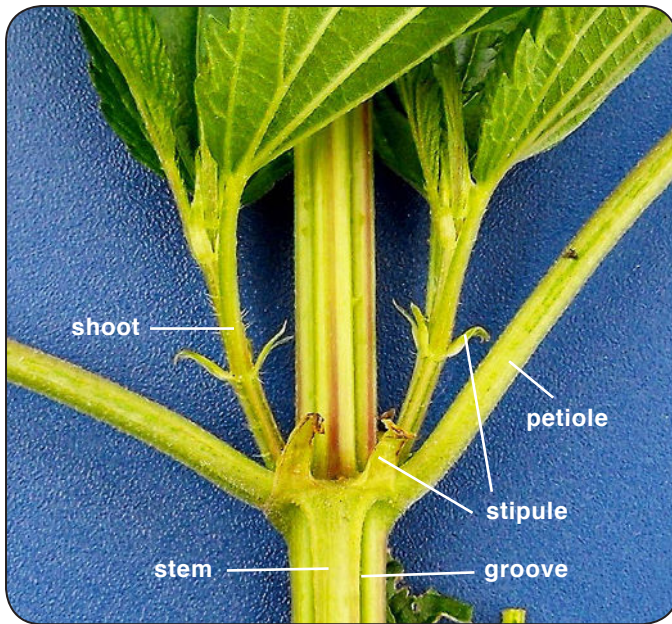
Stinging hair x50



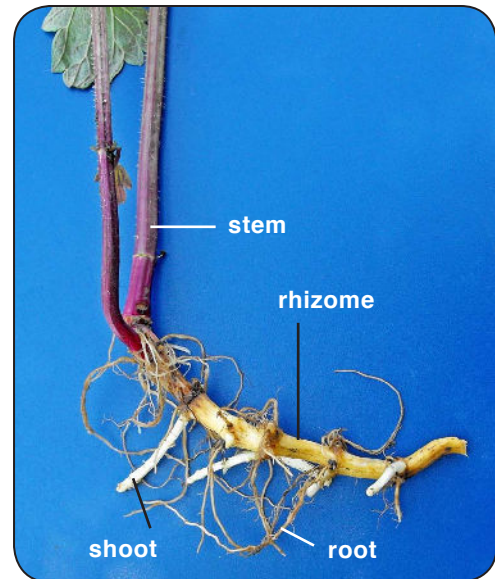
Stinging Nettle leaves 4.5 cm wide: top one **V**entral (above) side; lower one **D**orsal (below) side



Green fruit above and male flowers below; sexual transition near middle of plant



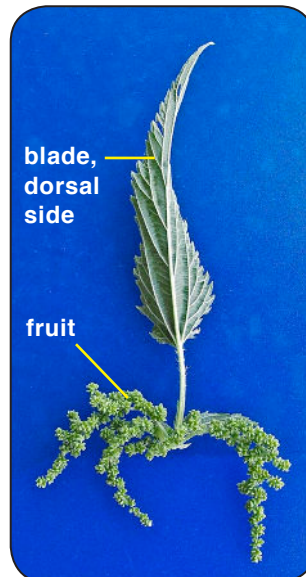
Stem node with opposite petioles and a vegetative shoot from each axil; stem is 6 mm wide and deeply grooved



Stinging Nettle's pale rhizome c. 5 mm thick with several new shoots and tan roots to c. 10 cm long



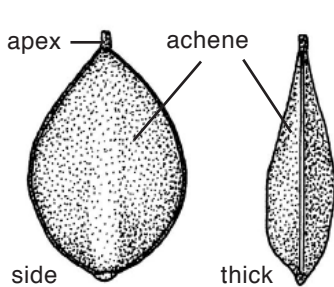
A tall plant can produce thousands of fruit/seeds per year; fruit is green and not yet ripe



Two panicles of green fruit from base of petiole; leaf blade 9 cm long



Cut stem 8 mm wide; hollow with 4 deep grooves

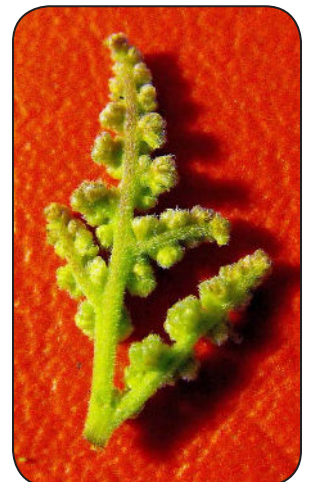


Green fruit; branch 4 cm long

Fruit x30; a 1-seeded achene c. 1 mm long



Ripe fruit at base of petiole; brown calyx lobes falling with fruit inside



Young male panicle, 17 mm long with hairy buds