Canada Thistle  
*Cirsium arvense*

Asteraceae—Aster family

by Tom Reaume  © 2010 Nature Manitoba

Grant:

An armed, variable perennial wildflower 30–180 cm tall, often in large colonies from deep rhizomes 2–50 cm long by 2–6 mm wide; roots 5–12 cm long by 0.5–1 mm wide; in pastures, ditches, city lots, prairies, along roadsides and river banks; mostly dioecious.

- **FLOWER HEADS** pink, rarely white, blooming April–October; inflorescence an open corymb 5–30 cm tall by 3–42 cm wide of unisexual heads at ends of floral branches; floral branches ascending, alternate, 5–22, each 2–60 cm long with the longer ones rebranching; peduncles 0.5–14 cm long; flower heads 1–5 per branch and up to c. 100 for a tall plant, fragrant, 10–20 mm long by 5–12 mm wide at base, lengthening in fruit to 20–25 mm; involucral bracts in 5–8 series, imbricate, the reddish purple tips c. 1 mm long bent outward; bracts include: (1) lower outer bracts thick, 2–5 mm long by 1–2 mm wide with a short apical ridge and purplish gland 1.2–3.5 mm long, the upper margin hairy (2) upper inner bracts thin, 7–14.3 mm long by 1–1.5 mm wide, to 19–22 mm long with fruit, curved, slightly hairy at the reddish purple hyaline tips, central gland c. 1.5 mm long, dark green; ray florets absent; male disc florets sterile, 14–23.5 mm long; ovary 1–1.6 mm long by 0.6–0.8 mm wide; pappi bristles 10–13 mm long, smooth, light tan; corolla tube 9–17 mm long by c. 0.5 mm wide; stamens 5; anthers light purple, forming a tube 3.4–5 mm long by c. 0.5 mm wide; filaments c. 1.5 mm long; style pink, exserted 2–4 mm past tips of anthers; stigmatic groove 2–2.2 mm long; stigmatic ring hairy, at base of groove; female disc florets fertile, 15–22 mm long; ovary white, 1–2 mm long by c. 0.9 mm wide; pappi bristles as above; corolla tube 13–15 mm long by c. 0.3 mm wide, wrinkled; corolla lobes 5, linear, 2–5 mm long by c. 0.4 mm wide; stamens 5; anthers brown, 1.5–1.8 mm long, vestigial with the apical tips c. 0.3 mm long; style as above; stigmatic groove 1.2–1.5 mm long; stigmatic ring at base of groove; fruiting heads 3.5–4.3 cm long by 5.6–7.3 cm wide, erect but eventually drooping; flower to fruit 8–10 weeks.

- **FRUIT** an achene, 1-seeded, 20–60 per head, 3-sided, light brown, shiny, curved, 2–4 mm long by 1–1.4 mm wide by 0.7–0.9 mm thick with walls c. 0.1 mm thick; pappus whitish tan, 20–30 mm long.

- **LEAVES** alternate, simple, lobed and toothed or not, mostly sessile, clasping above; blades 2–27 cm long by 1.3–8 cm wide, reduced above, surfaces glabrous to white woolly beneath, lobes often ascending, margins wavy and prickly (hurtful), sharp spines 1–6 mm long; petioles 0–3 cm long, reduced above; auricles clasping or not; vegetative plants in fall 20–45 cm tall by 25–40 cm wide with 9–15 leaves.

- **STEM** erect, stout, branched, ridged above and angular, not spiny, hairless, tough, solid, pith white; 3–15 mm thick near the smooth, naked base.

- **RANGE:** (CAN) 12 provinces; (USA) 44 states; naturalized in North America.
Female Canada Thistle flower head attracts a wasp in the fall

Male flower head on left 3 cm wide; Female head is 1.7 cm wide

Involucral bract x4; midway
Young plant with flower head buds; stem is without spines; branches alternate

Fruit ripening inside a female head 3.5 cm long

Cut stem 7 mm wide; white pithy center

Male head with 6 florets open along far edge

Lobed leaf margin with 2–6 mm long stiff spines

Female disc floret x5
Male disc floret x5
Involucral bract x4; upper, inner

Female disc floret x5
Male disc floret x5
Involucral bract x4; midway

Female flower head fully open; above
Male flower head above; central florets not yet open

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Male Canada Thistle with numerous gray aphids and attending ants

Stem leaf variation; top leaf 20 cm long in Dorsal view; two darker lower leaves in Ventral view

Fruit x10; a one-seeded achene

Fruiting heads at various stages of maturity

Thistle bleaching due to the soil bacterium *Pseudomonas syringae*

Prickly wings 3 cm long on stem below lowest petiole of vegetative plant in fall

Receptacle after fruit dispersal; above

After blooming: Male head; Female head with fruit ripening