

Canada Goldenrod *Solidago canadensis*

Asteraceae—Aster family

by Tom Reaume © 2010 Nature Manitoba

Grant: **Manitoba** 

A variable **perennial wildflower** 30–200 cm tall, singly or in scattered open colonies from horizontal, reddish purple young **rhizomes** that eventually reach 10–26 cm long by 1.5–4 mm wide; **roots** tan, 2–15 cm long by c. 1 mm wide; in woodland edges, abandoned farms, fields in towns and cities, roadsides, in moist to dry sites.

● **FLOWER HEADS** yellow, blooming July–October; **inflorescence** a panicle, 5–38 cm long by 3–26 cm wide; **floral branches** 1–22 cm long, leafy, ascending, hairy, with numerous flower heads arranged mostly along the upper side; **subtending bracts** (of floral branches) one, leaf-like; **peduncles** 1–7 mm long by c. 0.4 mm thick, hairs white, curled upward, each subtended by a small bract; **flower heads** numerous, 2.5–5 mm wide by 4.4–7 mm long; **involucre** light green, 2–4 mm long by 1–2.5 mm wide, appears hairless; **involucral bracts** in 3 or 4 series, c. 20, thin, imbricate, 1–3 mm long by 0.5–0.6 mm wide, ciliate on exposed hyaline margins, thicker at bases and apices; **ray florets** female, fertile, 6–18 per head, total length 3.6–4.9 mm, irregularly spaced around the outside of the head; **ovary** slightly hairy, 0.7–1 mm long; **pappi** of 23–40 whitish bristles 1.7–3.6 mm long, deciduous as a unit; **corolla tube** whitish yellow, 1.2–1.9 mm long by c. 0.2 mm wide; **ligules** yellow, 0.9–3 mm long by 0.4–0.6 mm wide, glabrous, 2-nerved, apical teeth 2, these c. 0.05 mm long; **style** yellow, 2-parted; **disc florets** 2–8 per head, perfect, total length 5–6 mm; **ovary** as above; **pappi** as above; **corolla tube** 1.3–1.5 mm long; **corolla limb** yellow, c. 1.7 mm long, apical teeth 5 (4), 1–1.3 mm long by c. 0.4 mm wide, pointed; **stamens** 5; **filaments** free for c. 1 mm; **anthers** c. 1.3 mm long, united into a tube; **pollen** yellow; **style** yellow, total length c. 4.3 mm, 2-parted with the parts usually erect and eventually exerted past the top of the anther tube; **receptacle** hairless, c. 1 mm wide, flat, rough; **fruiting heads** 5–7 mm wide by c. 4 mm tall; **flower to fruit** 7–9 weeks.

● **FRUIT** an achene, 1-seeded, medium brown, with 5 or 6 light tan ribs; **body** 1–1.3 mm long by c. 0.3 mm wide and thick, dull, hairs short and ascending, walls c. 0.02 mm thick; **pappi** whitish, bristles with fine ascending hairs; **seed** brown, filling the fruit.

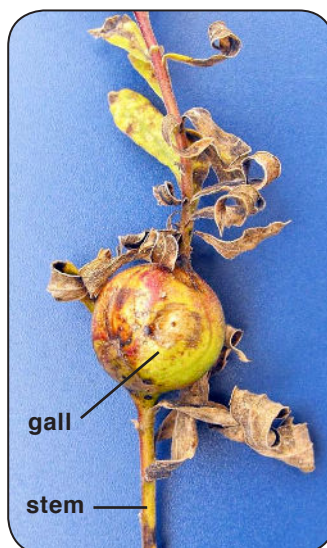
● **LEAVES** on stem, alternate, simple, numerous, mostly sessile, marginal teeth sometimes obscure to c. 3 mm long and mostly in the upper half of the blades, the lower blades wilting and soon deciduous; **blades** 0.5–18 cm long by 0.5–3.5 cm wide, largest near mid-stem, thick to thin, spreading, often with a partial twist near the tip, pointed, with 3 main veins, flat, glabrous or with a downy feel from light grayish hairs, more or less hairy below and along margins, the hairs curled toward the apex and each 0.1–0.2 mm long; **petioles** 0–2 mm long.

● **STEM** erect, solid, round, pale yellowish green, covered with woolly hairs c. 0.2 mm long in the upper half giving a downy look; less hairy and reddish brown to green near the tough, naked, 2–7 mm wide base; often with a gall.

● **RANGE:** (CAN) 12 provinces; (USA) 44 states; an eastern **native** introduced into the western states.

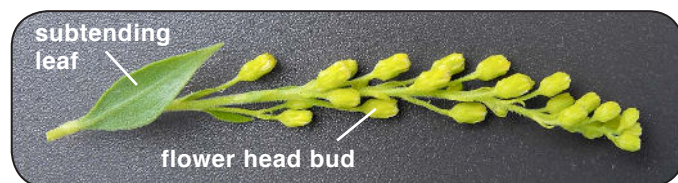


Colony of Canada Goldenrod along a sidewalk beside Portage Avenue in Winnipeg, Manitoba



Inflorescence 18 cm wide in full bloom

A round gall 2 cm wide on this year's stem due to the Stem Gall Fly *Eurosta solidaginis*



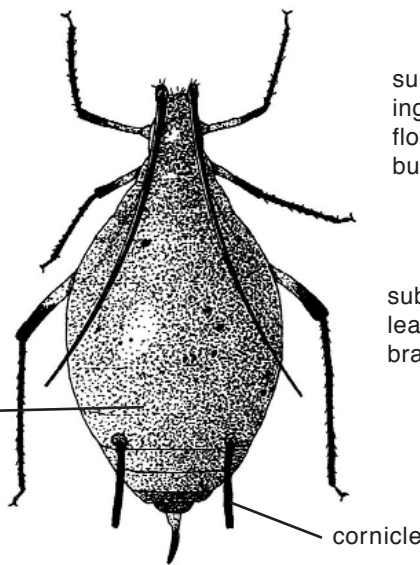
Middle floral branch 5.5 cm long with flower heads in bud



Middle, finely hairy floral branch 12 cm long with most flower heads open; reddish aphids abound



Canada Goldenrod is attractive to 2–4 mm long reddish aphids



Reddish aphid x15; c. 3.5 mm long; dorsal view



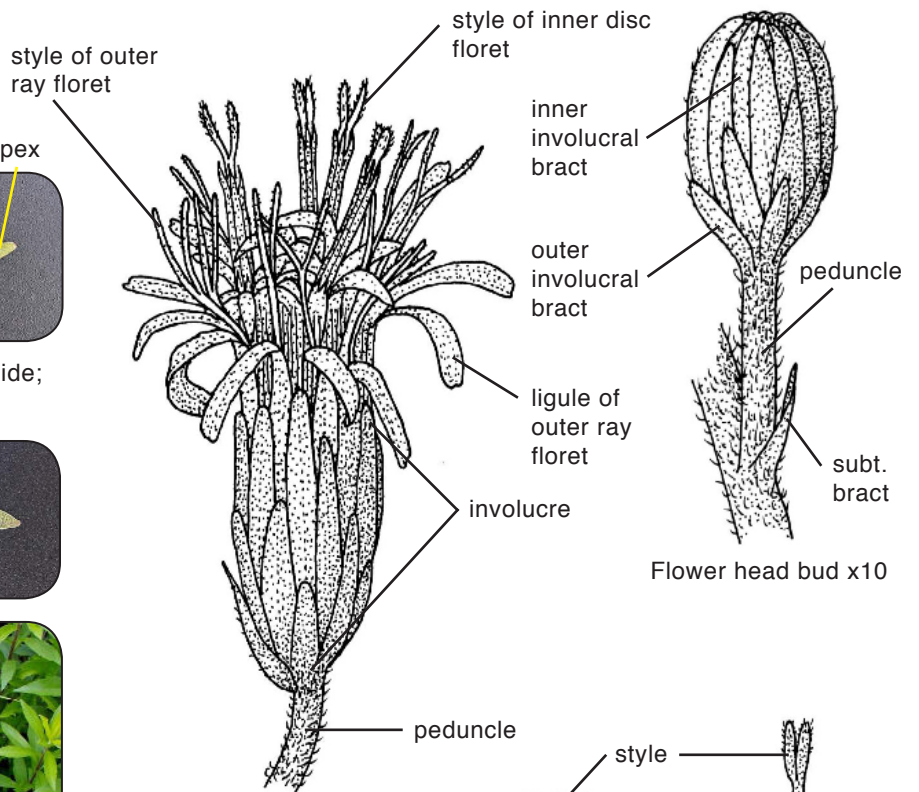
Young floral branch 2.5 cm long



Sessile stem leaf 8 cm long; Ventral (upper) side; Dorsal (lower) side; teeth mostly in upper half

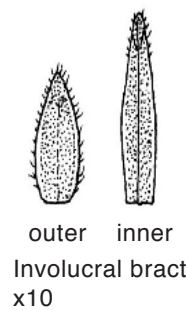


Young plants c. 30 cm tall; above

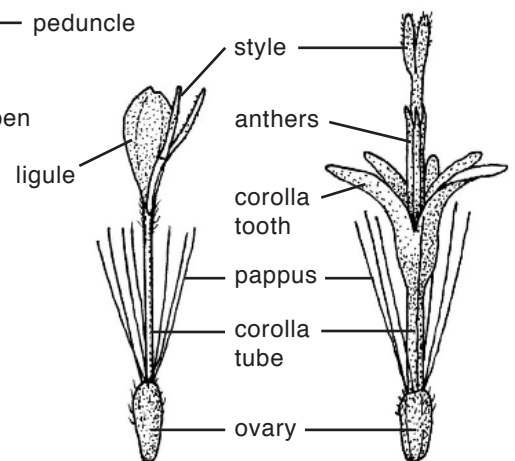


Flower head bud x10

Flower head x12; open

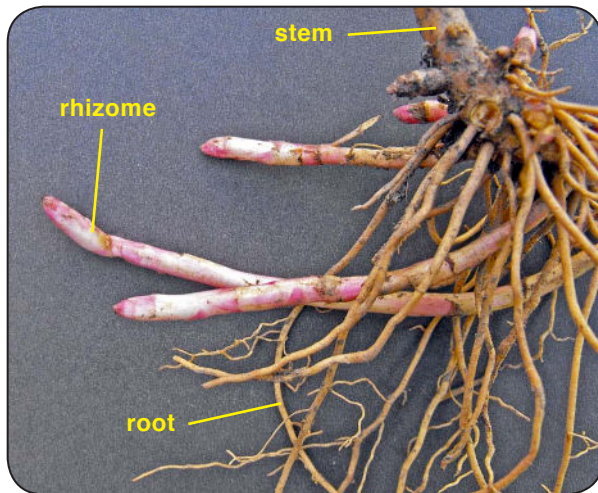


outer inner
Involucral bract
x10

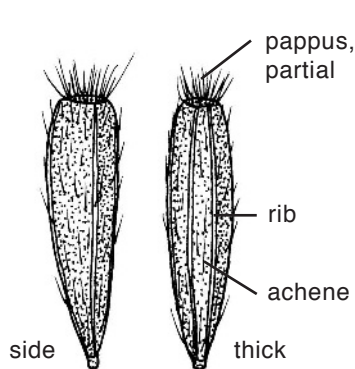


Ray floret x10

Disc floret x10



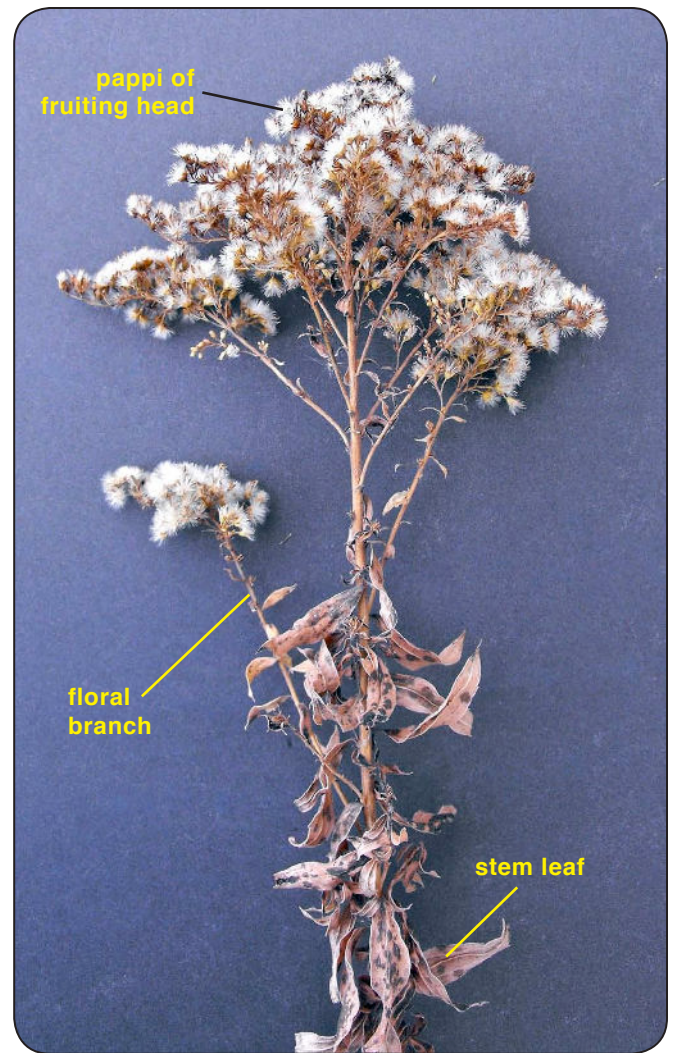
Tan roots c. 1 mm thick and young pinkish rhizomes c. 3 mm thick in late summer



Fruit an achene x30



Fruiting head 5 mm wide



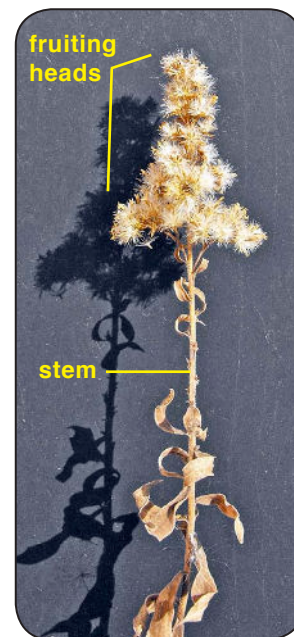
Inflorescence 12 cm wide; fruiting heads ripe and open



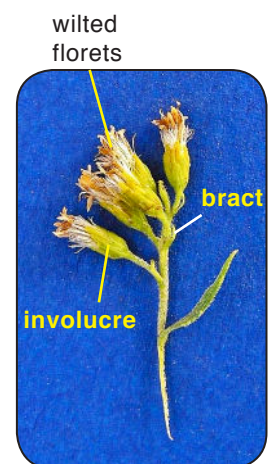
Lower stem with wilted leaves as flowers fade



Cluster of Canada Goldenrod in fruiting stage with fluffy heads



Inflorescence 3 cm wide with heads ripe with fruit



Secondary branch with 5 flower heads; post-blooming