

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.

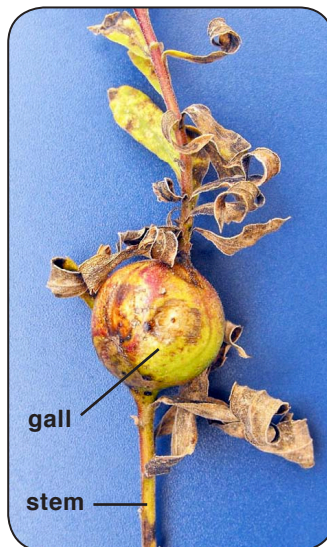
● **LEAVES** on stem, alternate, simple, numerous, mostly sessile, marginal teeth sometimes obscure to c. 3 mm long and mostly in the upper half of the blades, the lower blades wilting and soon deciduous; **blades** 0.5–18 cm long by 0.5–3.5 cm wide, largest near mid-stem, thick to thin, spreading, often 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



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



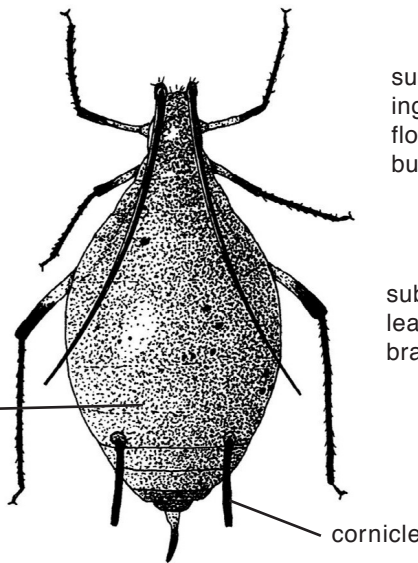
Inflorescence 18 cm wide in full bloom



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



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



Young floral branch 2.5 cm long

subtending bract of flower head bud

subtending leaf of floral branch

branch

cornicle

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



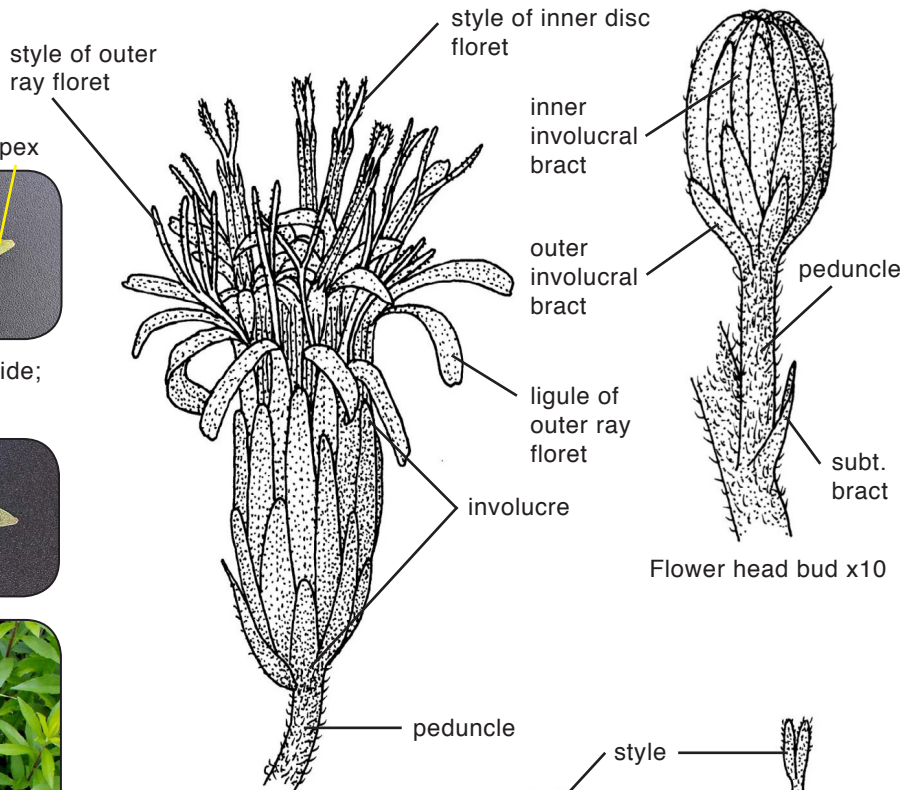
Sessile stem leaf 8 cm long; Ventral (upper) side; Dorsal (lower) side; teeth mostly in upper half



apex

V

D



Flower head bud x10

Flower head x12; open

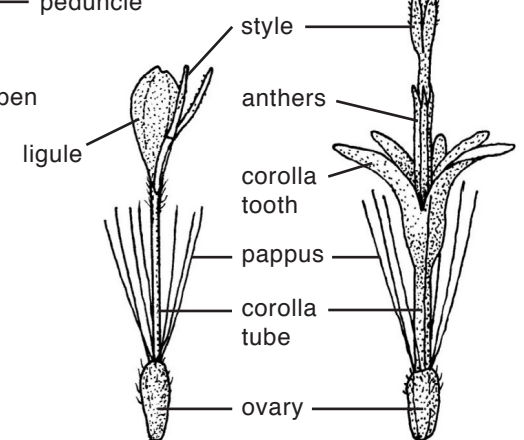


Young plants c. 30 cm tall; above

outer inner
Involucral bract
x10

Ray floret x10

Disc floret x10



style

anthers

corolla tooth

pappus

corolla tube

ovary

ligule

style

anthers

corolla tooth

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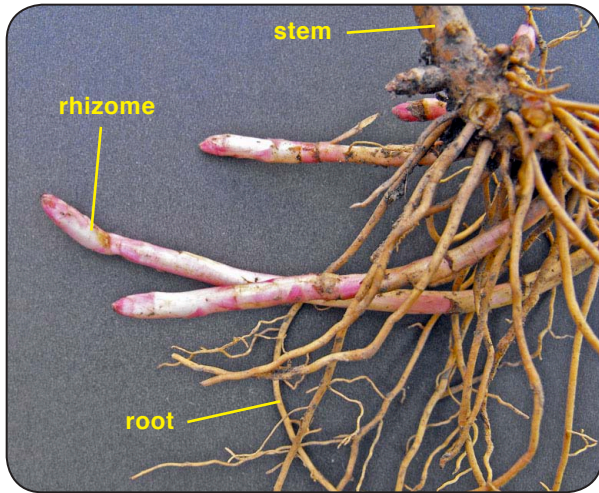
ovary

style

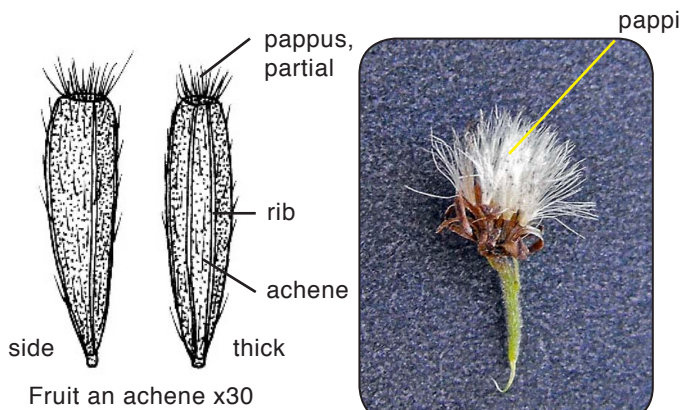
anthers

corolla tooth

pappus

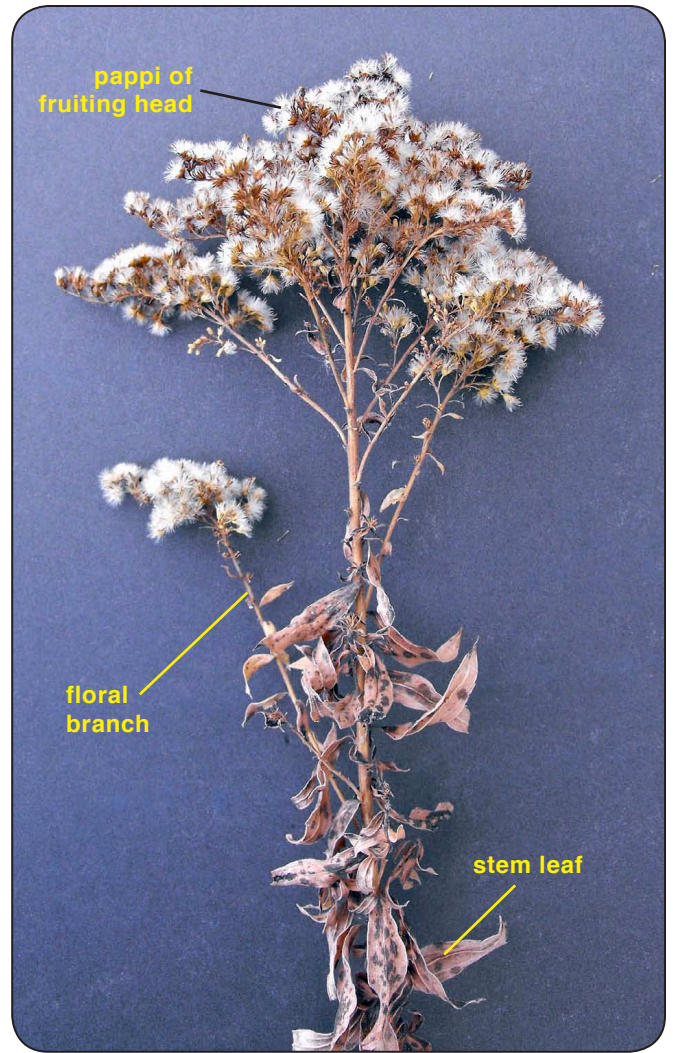


Tan roots c. 1 mm thick and young pinkish rhizomes c. 3 mm thick in late summer



Fruit an achene x30

Fruiting head 5 mm wide



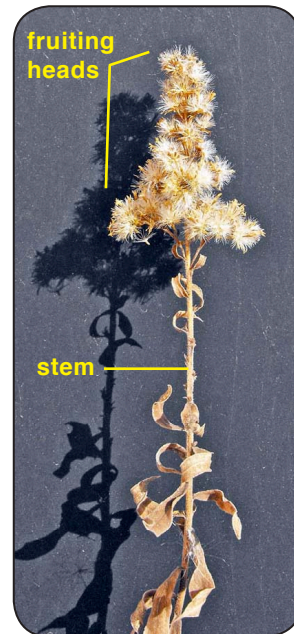
Inflorescence 12 cm wide; fruiting heads ripe and open



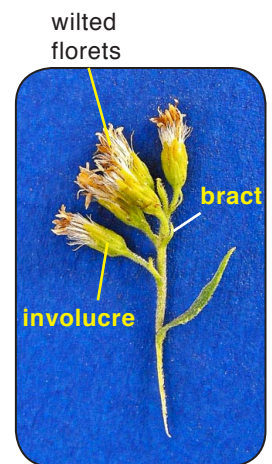
Lower stem with wilted leaves as flowers fade



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