

## Gumweed *Grindelia squarrosa*

Asteraceae—Aster family

by Tom Reaume © 2012 Nature Manitoba

Grant – **Manitoba** 

**A** variable **biennial** or **perennial wildflower** 9–100 cm tall with a **taproot** 5–18 cm long by 2–10 mm wide, with numerous tan side roots, solitary or in small patches; along roadsides, gravelly disturbed areas, railways, dry to moist prairies, among sagebrush, in pits and along saline slough margins.

● **FLOWER HEADS** yellow, blooming July–October; **inflorescence** a compound corymb; **flower heads** 2–40+ per plant, fragrant, each 2–4 cm wide by 1–2 cm tall, remain open for 7–9 days; **disc** yellow, 5–30 mm wide and flat; **floral branches** alternate, ascending, leafy, 6–22 cm long, these in turn with 1 to a few ascending peduncles; **peduncles** 2.5–14 cm long, leafy; **involucre** gummy, shiny, light green, 5–10 mm long by 1–2.2 cm wide; **involucral bracts** c. 80, of two types: (1) **lower bracts** imbricate in several series, each 4–6.2 mm long by 0.7–1 mm wide, the tips strongly recurved and free, lower half attached; (2) **upper bracts** fewer, pointed, in one row, gummy and erect among the ligulate bases, 5–6.3 mm long by c. 1.3 mm wide, overwintering, ascending around the empty receptacles in the spring; **ray florets** female, fertile, gummy, 12–51 or sometimes absent, total length 9–16 mm; **ovary** 0.7–1.1 mm long by c. 0.6 mm wide, bluntly triangular; **pappus** of 1 or 2 filiform awns c. 3 mm long, sticky, not reaching the base of the ligule; **corolla tube** 3–4.1 mm long by c. 0.5 mm wide; **ligules** spreading, gummy below, 9–12 mm long by 1–4 mm wide with 2 or 3 tiny apical teeth less than 0.1 mm long; **style** 2-parted, yellow, exserted, total length 6–6.6 mm; **disc florets** perfect, c. 200, gummy, each 7–8 mm long; **ovary** as above; **pappus** of 2–several bristly white awns c. 3 mm long from the top of the ovary; **corolla** 4.5–5 mm long including the 5 apical teeth; **corolla limb** c. 3.3 mm long, teeth c. 0.5 mm long; **stamens** 5, included; **filaments** distinct; **anthers** yellow, c. 2 mm long with 5 brown stripes; **style** 2-parted, yellow c. 2.3 mm long; **receptacles** whitish and slightly convex with flowers and fruit, overwintering, tan, roundish to triangular, 10–12 mm wide by 5–7 mm tall when dry involucral bracts are included.

● **FRUIT** an achene, 1-seeded; outer ray florets achene 3–4 mm long by 1–1.5 mm wide; inner disc florets fruit 1.5–2.3 mm long by 0.8–1.2 mm wide by c. 0.8 mm thick; all achenes 4-angled, tan to gray, hairless, striate; **pappus** of 2 or 3+ awns, 3–5.2 mm long by 0.1–0.2 mm wide, twisted, tan, deciduous, hairs few, marginal, scattered and ascending.

● **LEAVES** basal and stem, alternate, simple, entire to finely toothed, thick, punctate, pointed, slightly sticky, slightly lighter below, not hairy, sessile above with auricles clasping; **lower stem blades** the largest and often with a twist, 2–7 cm long by 4–20 mm wide, lowest wilted by anthesis; **petioles** (of stem leaves) 0–2 cm long, winged, slightly auriculate.

● **STEM** round, hollow, branched, purplish green, erect, glabrous, sticky, stiff, solitary to several arising from the top of taproot, most overwintering, then tan, smooth and brittle; 2–5 mm thick at the pinkish base.

● **RANGE:** (CAN) 6 western provinces; (USA) 40 states; a **native** in the Great Plains; generally introduced elsewhere.

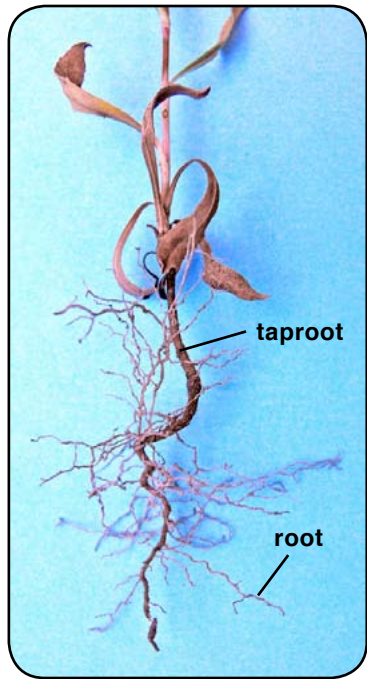
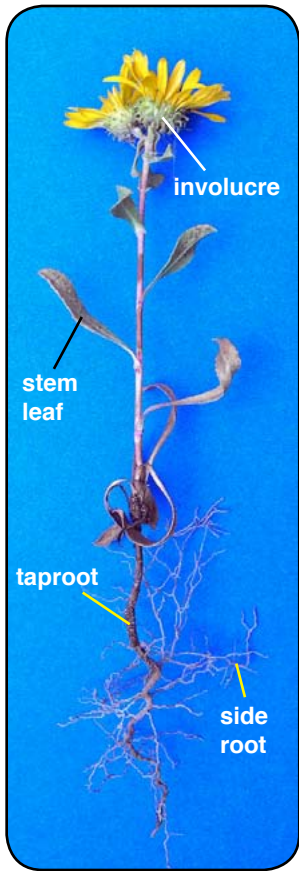


Gumweed 40–65 cm tall with flower heads at tips of floral branches in early August; in a dry gravelly area near a dumpster in Winnipeg, Manitoba

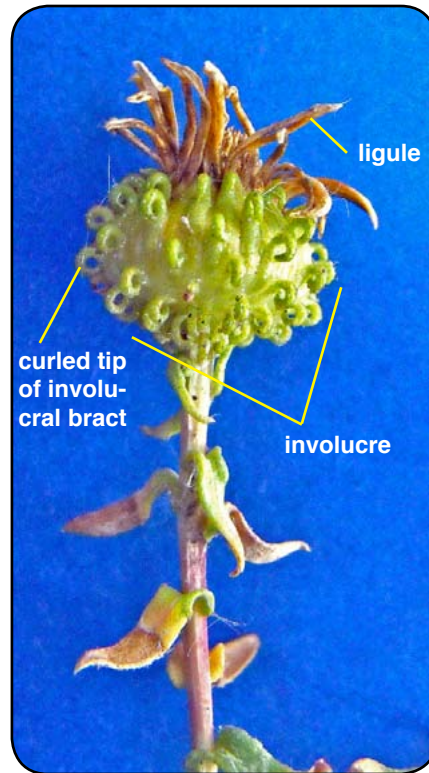


Gumweed 50 cm tall with 6 stems and 36 flower heads, some heads in bud; 6 August 2011

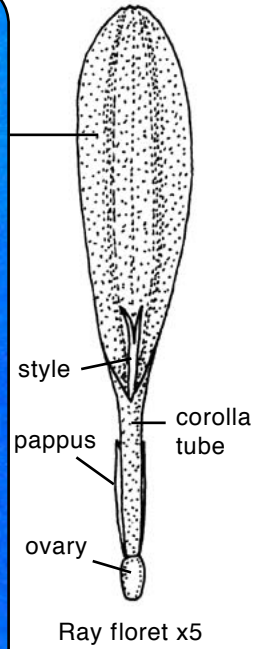




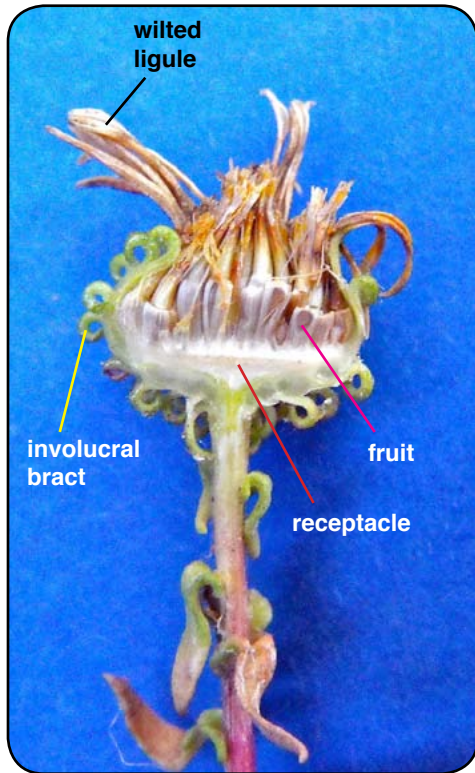
Gumweed taproot 7 cm long from the 9 cm tall blooming plant to the left



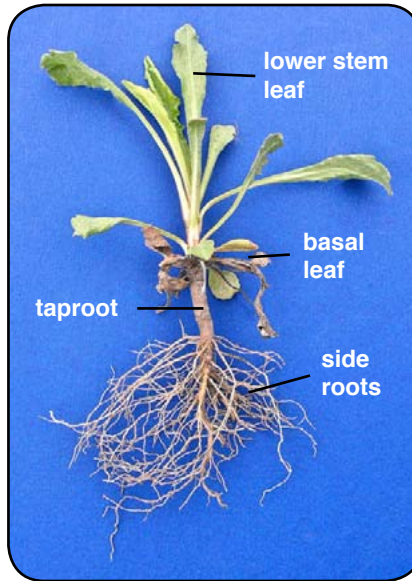
Post blooming, green involucre 1.7 cm wide; brown ligules above



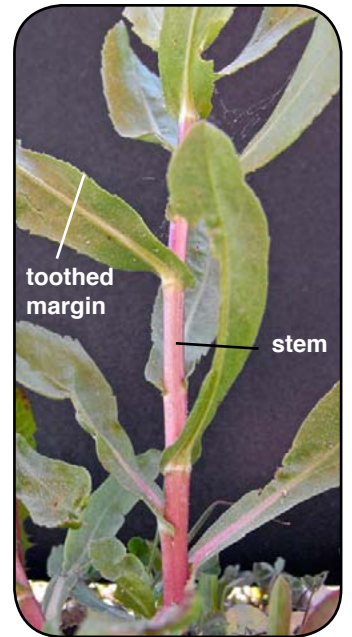
Plant 9 cm tall with 7 cm long taproot, 2 flower heads



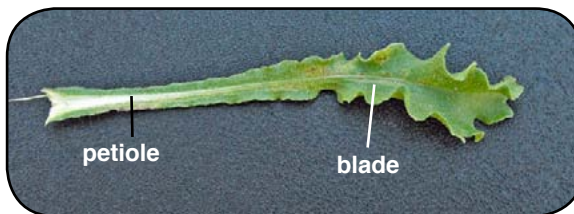
Cross-section of flower head post blooming showing ripening fruit on the receptacle



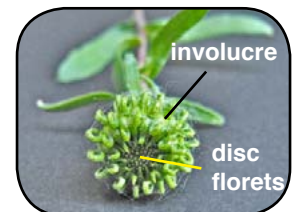
Newly sprouted plant 7 cm long by 10 cm wide, early summer



Young plant in June with pinkish 3 mm wide stem



Lower stem leaf 8 cm long by 1.5 cm wide; margins undulate; Winnipeg, Manitoba

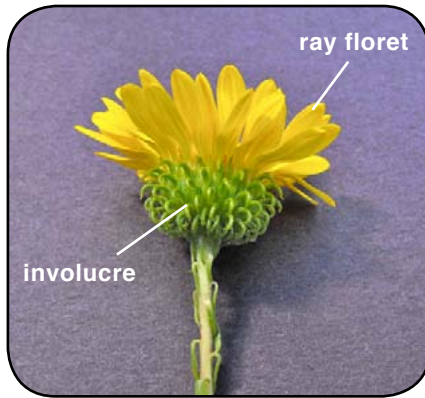


Flower head bud 1.2 cm wide, from above

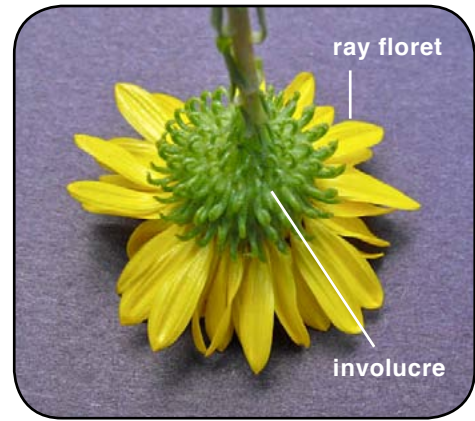




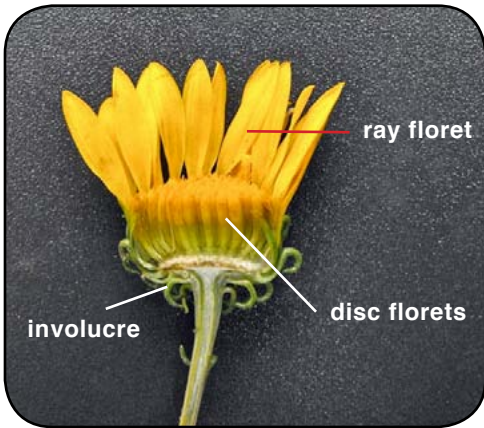
Flower head 3.3 cm wide with 42 ray florets, Winnipeg, Manitoba



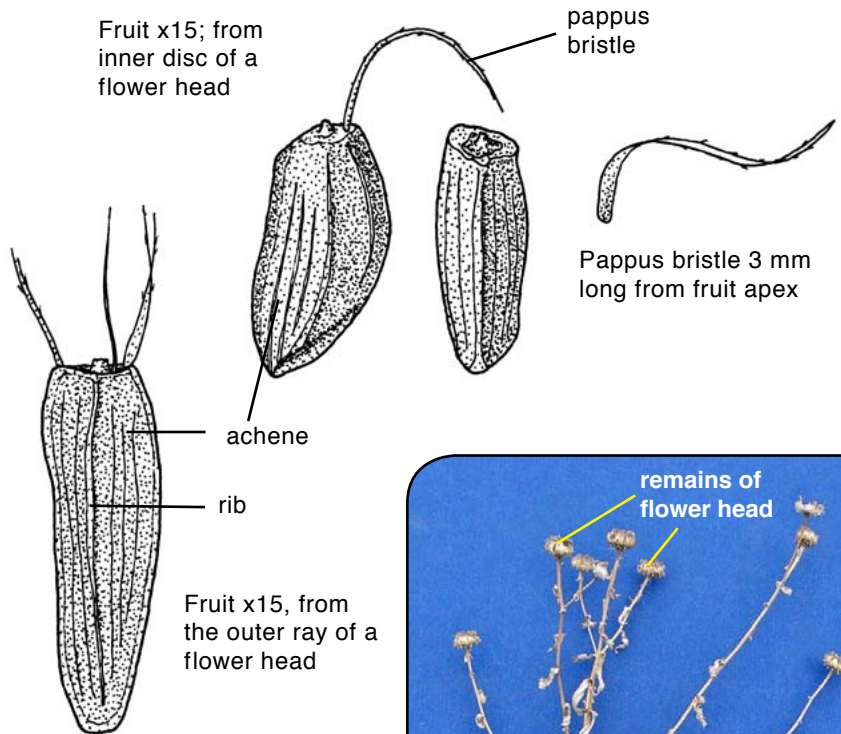
Flower head 2 cm tall with 42 ray florets; side



Flower head with involucre 1.8 cm wide and 0.8 cm tall with 42 ray florets; below

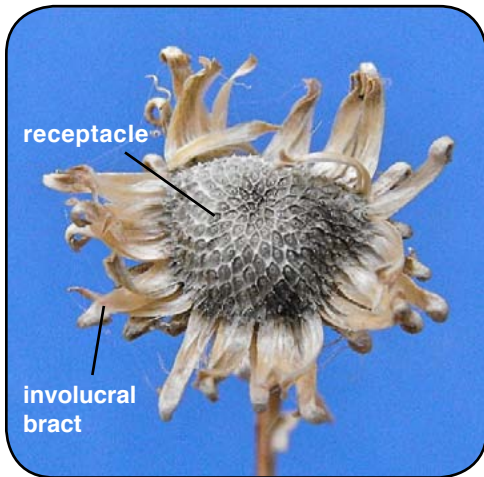


Fruit x15; from inner disc of a flower head

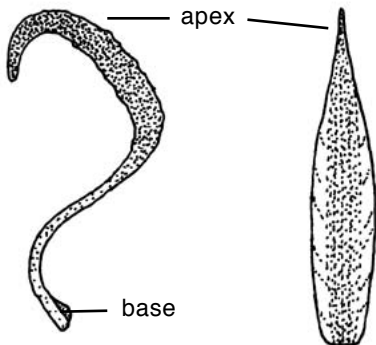


Pappus bristle 3 mm long from fruit apex

Fruit x15, from the outer ray of a flower head

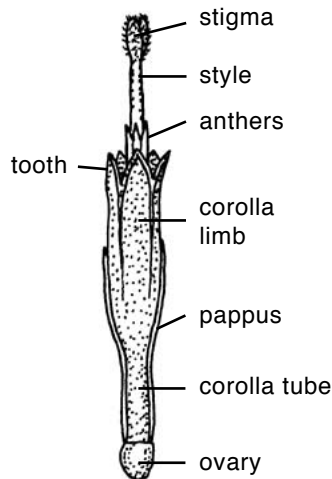


Gray convex receptacle 7 mm wide, fruit gone by spring; tan involucral bracts usually ascending; above

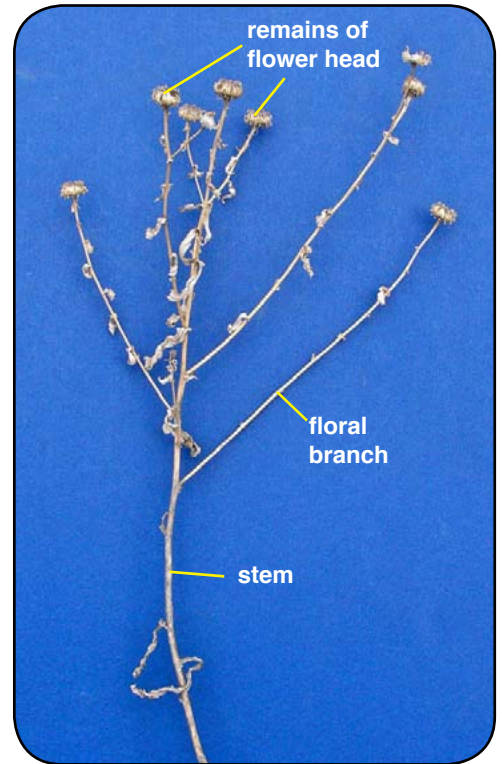


Outer involucral bract x7; middle

Inner involucral bract x7; middle



Disc floret x8



Overwintered plant 15 cm wide with alternate branches and wilted leaves