

Great Ragweed *Ambrosia trifida*

Asteraceae—Aster family

by Tom Reaume © 2011 Nature Manitoba

Grant: **Manitoba** 

An annual wildflower 0.5–3 (–6.4) m tall by 60–120+ cm wide from a **taproot** 5–30 cm long by 1–2 cm wide; **side roots** 2–25 cm long by 0.5–3 mm thick; in moist disturbed open sites, flood plains, roadsides, orchards and pastures; **monoecious**.

● **FLOWER HEADS** green, blooming July–November; **inflorescence** of numerous unisexual heads, the terminal male heads above the clustered, less obvious female heads; **floral branches** from the base or only above, 5–105+ cm long, reduced above, ascending, scabrous, some rebranching near tips; **peduncles** (of male heads) hairy, 2–10 mm long, rarely divided, spreading; **male heads** in erect to nodding racemes 3–27 cm long by 1.5–3 cm wide, the terminal raceme the longest; **involucral bracts** green, fused, forming a cuplike hood 3–7 mm long and wide by 2–4 mm deep, slightly hairy above near the apex, often with 1–3 dark nerves, margins erose; **male florets** 20–55+ per head, unopened florets 1.8–2.2 mm long by c. 1.3 mm wide; **perianth** 5-lobed (6-), lobe tips blunt, each c. 0.7 mm wide, opaque, with 5 or 6 dark lines, united near the base, glabrous, slightly transparent revealing the anthers inside; **stamens** 5, some partially exerted; **anthers** c. 1.5 mm long including their pointed erect tips; **pistil** vestigial, 0.8–1.2 mm long with spreading 3-jointed clear hairs at the tip (stigma), exerted in some florets; **pollen** yellow; **subtending bracts** (of a cluster of female flowers) 2–2.6 cm long by 1–1.4 cm wide, persistent; **subtending bracts** (1 per female head) 1.3–1.7 cm long by 0.9–1.1 cm wide, marginal white hairs 1–2 mm long; **female heads** 1-flowered, forming groups of 1 to several florets in the larger upper leaf axils; **flowers** c. 3 mm long by c. 1.7 mm wide; **corolla** and **pappus** absent; **involucre** post anthesis closed, round, soft, 2.3–4 mm long (base to tip of beak) by c. 2 mm wide with 4–8 prominent, dark green, pointed spines, sometimes with narrow points around the base of the beak, hairy in the upper body, the beak hairy to glabrous, c. 1 mm long; **style** 2-parted (3-) above, hairless, flat, spreading, each part 1–2.5 mm long; **burs** 1-fruited, triangular, dark brown when ripe and ready to fall, hard, the wall c. 0.1 mm thick, indehiscent, 6–9 mm long by 4–6 mm wide, hairy above especially on the rough beak, 4–8 pointed to blunt spines to c. 1 mm long, or sometimes spineless, the spines forming wide ribs toward the base.

● **FRUIT** an achene, 1-seeded, dark brown, smooth, 4–5 mm long by 1.7–3 mm wide by c. 1.5 mm thick, thin-walled, tapered at both ends, hairless; **seed** 2–2.5 mm long, light tan with a few long whitish veins; **flower to fruit** several weeks.

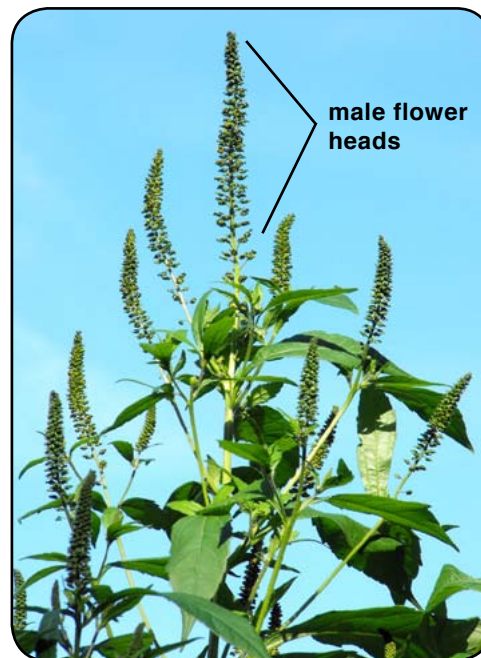
● **LEAVES** mostly opposite, simple, margins toothed, dull, unlobed or with 3 or 5 wide deep lobes; **blades** rough below, smooth above, gland-dotted, 3–26 cm long by 1–29 cm wide, smaller above; **petioles** 0.3–9.5 cm long by 4–6 mm wide, more or less winged, upper groove hairy on the outside, hairs in the groove, some 1–3 mm long, clear and jointed.

● **STEM** erect, solid, pith white, rough, grooved, green, usually branched above to simple; 0.3–3 cm wide near the naked hairless base; **internodal length** averages 12.8 (1.1–25) cm.

● **RANGE:** (CAN) 9 provinces, not in Newfoundland and Labrador; (USA) 49 states, not in Nevada; a **native**.



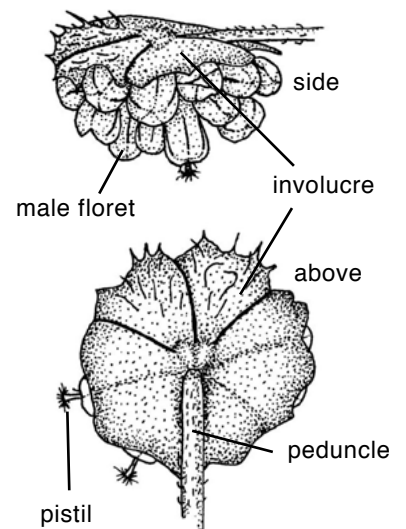
Great Ragweed 1–2 m tall in bloom along the bank of Omand's Creek in Winnipeg, Manitoba



Two meter tall plant with its many male flower heads starting to bloom; anthers and pollen yellow



Male flower heads in bloom



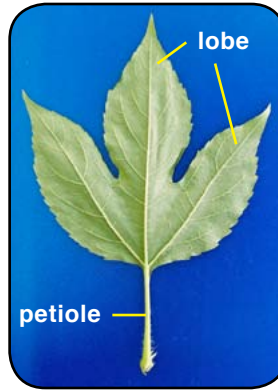
Male flower heads x6



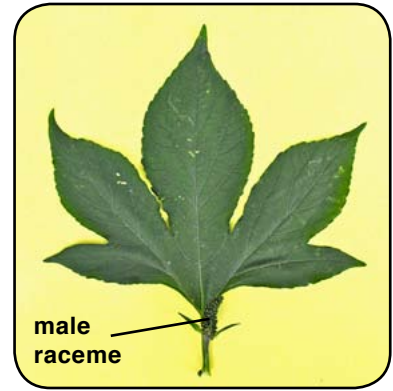
Young Great Ragweed 19 cm tall with taproot



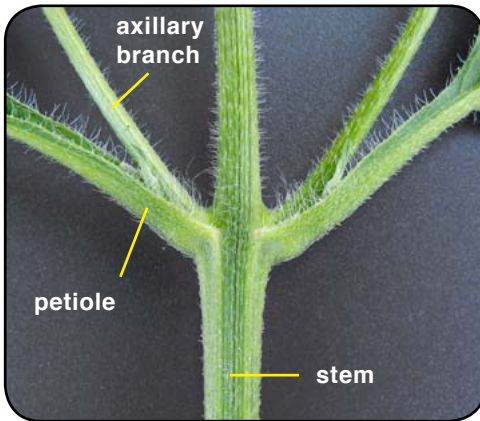
Simple, unlobed upper stem leaf 15 cm long, dorsal side



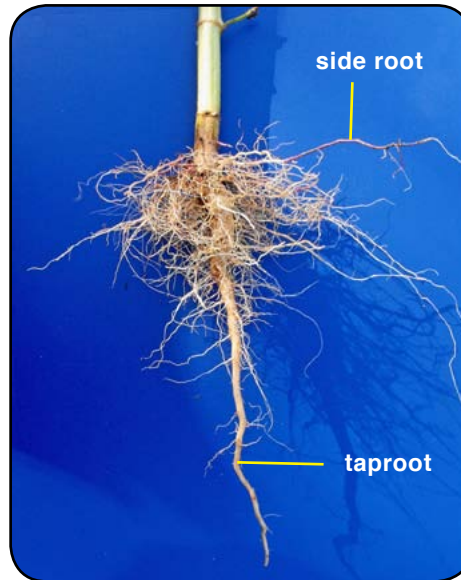
Simple, 3-lobed leaf 15 cm long, dorsal side



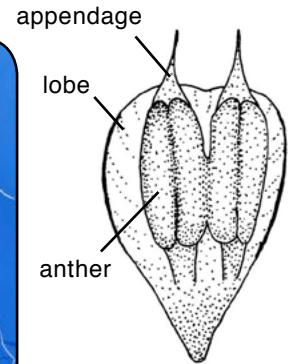
Simple, 5-lobed leaf 21 cm wide with male raceme over petiole



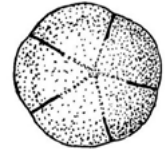
Opposite petioles with short branches ascending from their axils, all hairy



Taproot 18 cm long from a plant 120 cm tall; fine side roots together 15 cm wide in Winnipeg, Manitoba



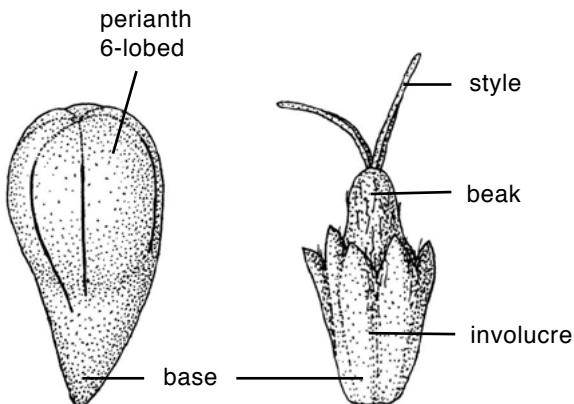
Male floret x20, open with 2 of 5 stamens



Male floret x20, closed, from above

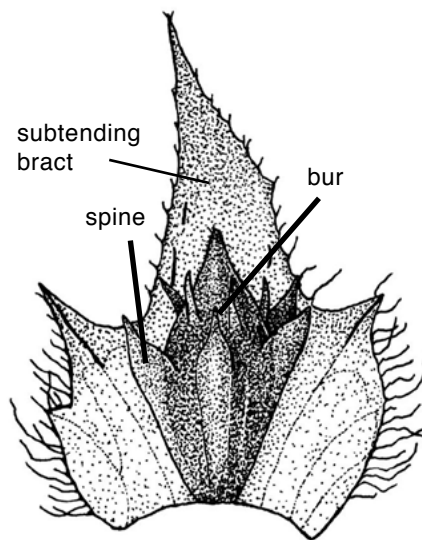


Toothed leaf margin, ventral side

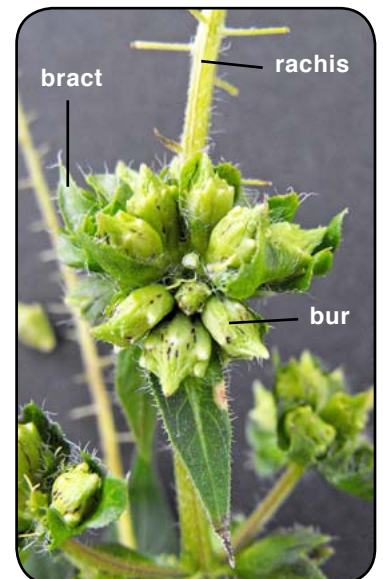


Male floret x20, closed, side

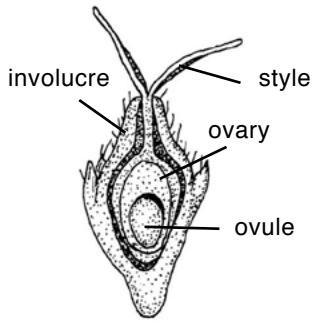
Female flower x10, green



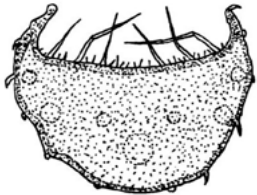
Bur x4, against its subnubing bract; fruit inside



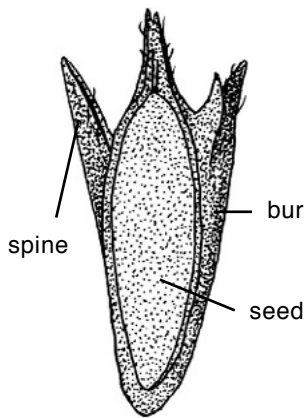
Cluster of green ripening burs among hairy bracts



Female flower x10, cross-section



Petiole x6, cross-section midway, groove above



Bur x8, long-section



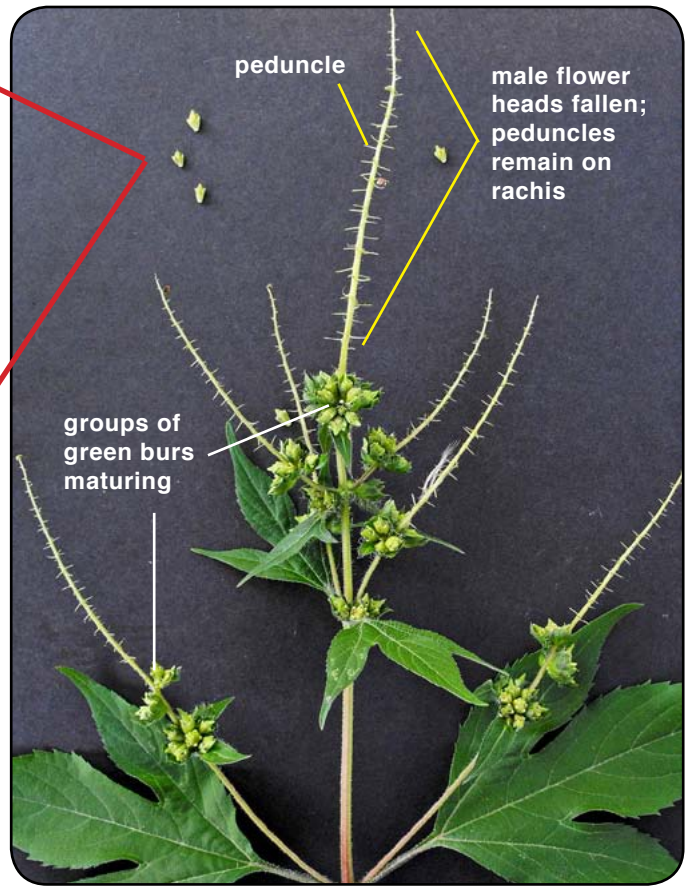
Three green unripe burs c. 7 mm long with a fruit (achene) inside



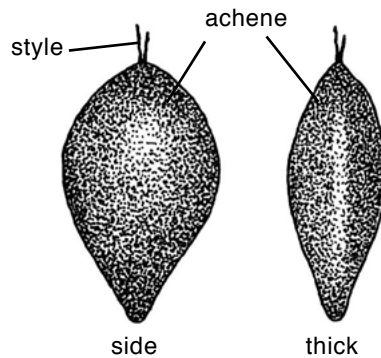
Lower stem 10 mm wide



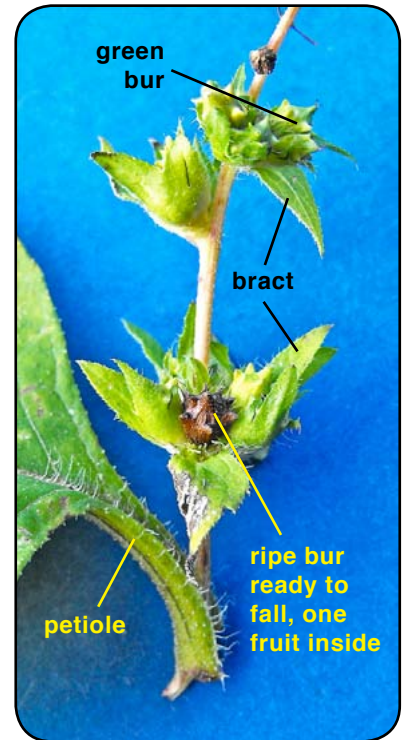
Cut stem 15 mm wide, pith white



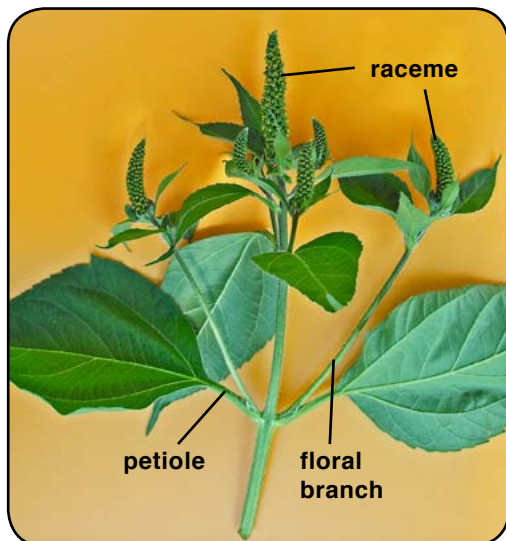
Clusters of ripening green burs (with fruit inside) at bases of male racemes with the flower heads wilted and fallen



Fruit (achene) x8, with one seed inside



Clusters of female bracts of Great Ragweed; most burs have fallen



Top of plant with several expanding male racemes; female flowers hidden at bases



50 cm tall plants in early growth from above, Winnipeg, Manitoba