

## Chicory *Cichorium intybus*

### Asteraceae—Aster family

by Tom Reaume © 2010 Nature Manitoba

Grant:



A **perennial wildflower** 45–210 cm tall by 5–190 cm wide with a simple to branched **taproot** 10–20 cm long by 5–20 mm wide; **side roots** 2–5 mm thick; along roadsides, railways, hedge-rows, field edges and other disturbed sites.

● **FLOWER HEADS** blue to pale blue, blooming May–October; **inflorescence** a raceme with 9–180 separate clusters of one to nine subsessile heads alternating along branches, branchlets and upper stem; **floral branches** 6 (1–18), ascending, alternating every 1–12 cm along the stem, 1.5–120 cm long by 1–3 mm thick, ridged, green, subtended by sessile leaves (bracts) 1.2–16 cm long with auricles; **longer branches** with 3 (1–7) branchlets 11 (1–57) cm long; **peduncles** 2 (0.1–10) cm long, occasionally a flower head will terminate a bare upper branch (peduncle); **upper stem** 32 (6–46) cm long with 10 (5–15) clusters; **flowering heads**, open once in the morning and generally wilt in the afternoon, 2.3–4.6 cm wide by 10–15 mm long, 5 (0–30) open heads per day per plant, the first to open are at the apices of the shorter upper branches (peduncles) and only one flower head per cluster is open at once, with 12 (3–23) days until another flower head opens at the same flower cluster; **blooming sequence** generally repeats itself from the base of a long branch to its tip; **involucral bracts** greenish red, hairy, some hairs gland-tipped, in two series: (1) **outer involucral bracts** 5 (6), each 5–7.3 mm long by 2–3 mm wide, slightly imbricate, ascending, bases thick, reflexed in fruit; (2) **inner involucral bracts** usually 8, each 7–11 mm long by 1–2 mm wide, glandular-hairy, ascending as the fruit ripens, tan and dry when falling with a fruit stuck to its base; **disc florets** absent; **ligulate florets** perfect, 15 (11–21) per head, spreading, wilting and falling as a unit; **ovary** white, glabrous, 1.4–1.8 mm long by c. 1 mm wide, flattened; **pappi** reduced to erect scales 0.2–0.3 mm long; **corolla tube** white, hairy above where it expands, 2–2.6 mm long by c. 0.6 mm wide; **ligules** soft and easily torn, 1.7–2.4 cm long by 4–6 mm wide, hairs scattered dorsally and mostly with a tear-shaped apical gland, apical teeth 5 (6), each 0.5–2.3 mm long; **stamens** 5, blue; **anthers** form a tube 3–5 mm long; **pollen** white; **style** c. 10 mm long; **stigma** 2-branched, these curled, blue and 2–2.3 mm long; **flower to fruit** 6–7 weeks.

● **FRUIT** an achene, 1-seeded, dark brown, 2.2–2.8 mm long by 1–1.5 mm wide by 0.7–1 mm thick, with 4 or 5 ridges near the base; **pappi** of 28–45 imbricate scales 0.2–0.3 mm long.

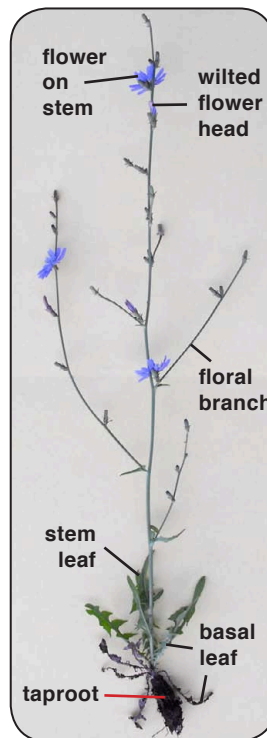
● **LEAVES** basal and stem, variable, simple, 3–10 lobes per side, these toothed along the leading edge; **basal leaves** in a rosette 15–51 cm across, ascending to spreading, 7–40 cm long by 2–13 cm wide, rough hairy; **petioles** winged, 1–3 cm long; **stem blades** (below branches) 3–15, alternate, petiolate to clasping above, 3–33 cm long by 0.9–11 cm wide, reduced above, hairy.

● **STEM** erect, tough, ridged, branched, hollow, sometimes more than one from the apex of a stout taproot; 5–18 mm wide and very hairy near the reddish stiff base; **juice** thin, whitish.

● **RANGE:** (CAN) 10 provinces; (USA) 20 states; absent in the SE and NW; **naturalized** in North America.



Tangle of Chicory 60–120 cm tall on a windy July day along Ness Avenue in Winnipeg, Manitoba



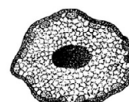
Plant 65 cm tall with 3 open flower heads



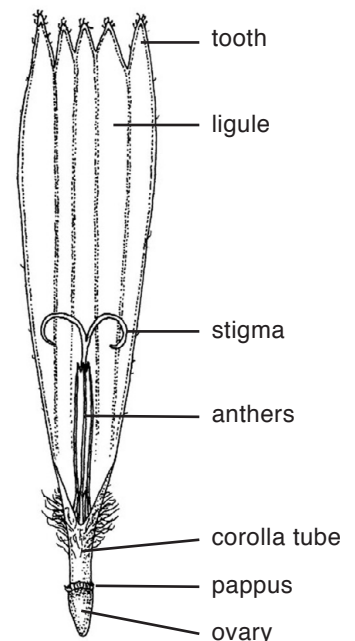
Flowering head 4 cm wide with 17 ligulate florets and a visitor



Flower head 3.8 cm wide from the side and below

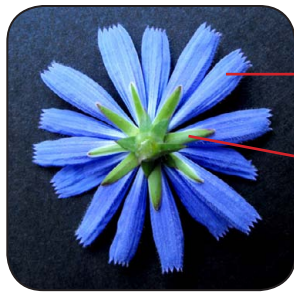


Stem cross-section x5; 9-ridged

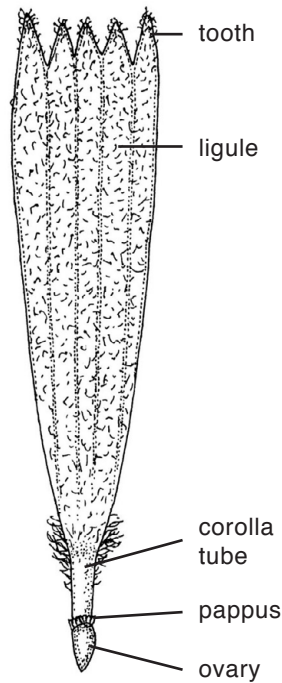


Ligulate floret x4; ventral side

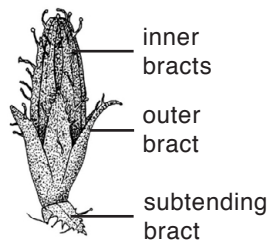




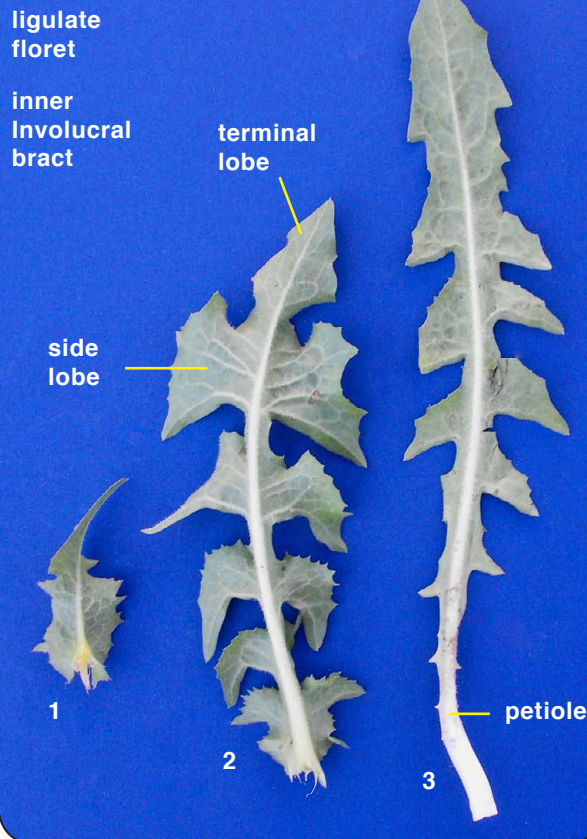
Flower head 3.8 cm wide;  
below



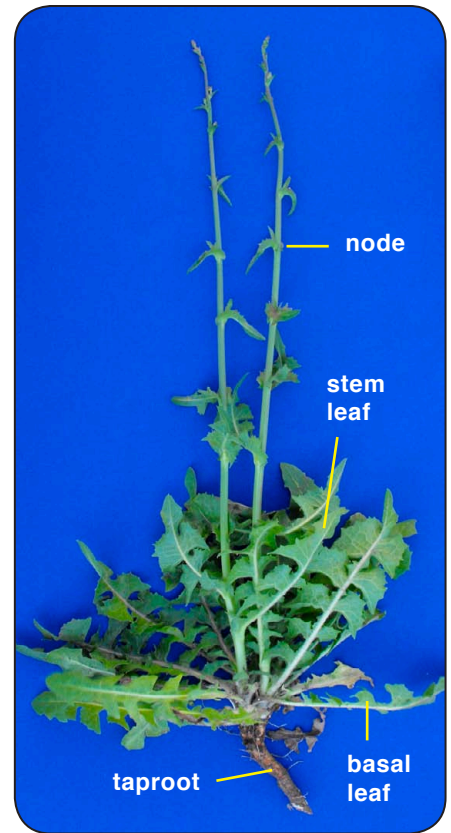
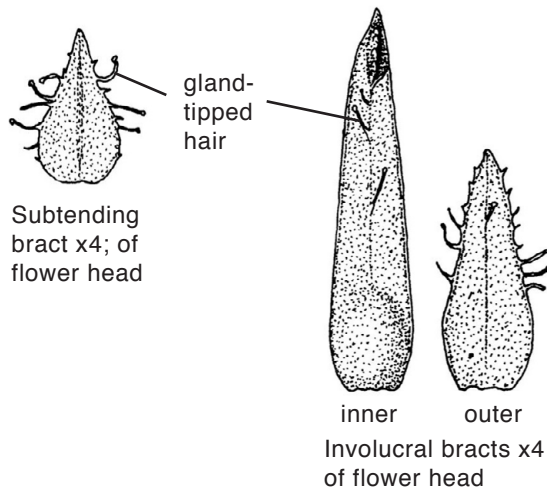
Ligulate floret  
x4; dorsal side



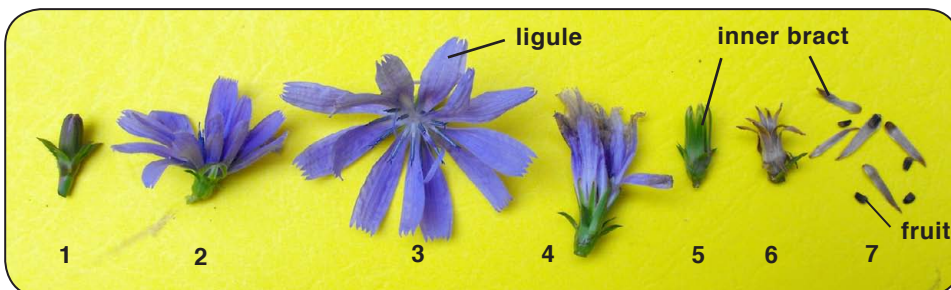
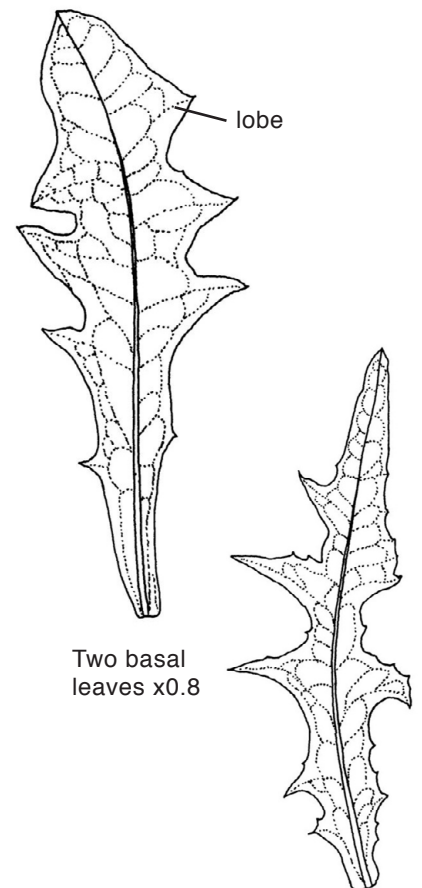
Flower head  
bud x2



Left to right: (1) upper stem leaf 5 cm long (2) lower stem leaf (3) basal leaf 19 cm long; all in dorsal view

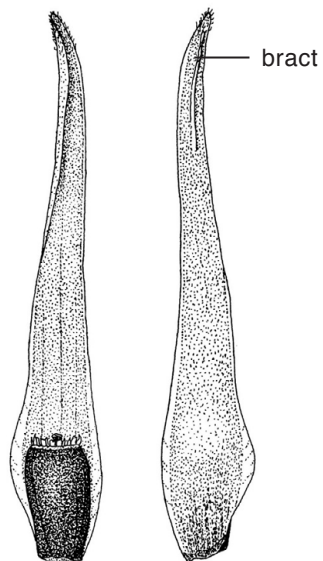


Chicory plant with two young stems  
from a 13 mm wide taproot



Left to right: (1) flower head bud (2) flower head opening (3) open (4) closing (5) fruit ripening inside involucral bracts (6) bracts with apices spreading and ripe fruit inside (7) inner bracts drop with fruit at their base; 3 loose fruit





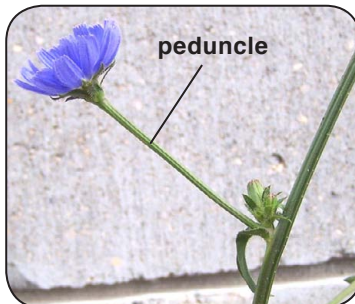
inner side    outer side  
Tan inner involucre bract  
x6; with fruit at base



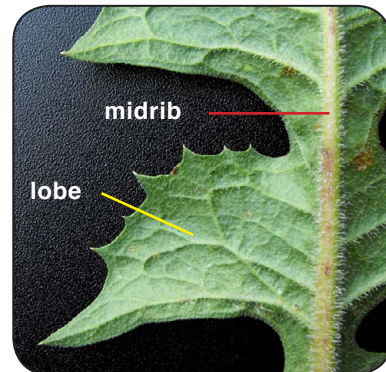
Wilted Chicory flower  
head 2.5 cm wide in  
the afternoon of the  
day it opened



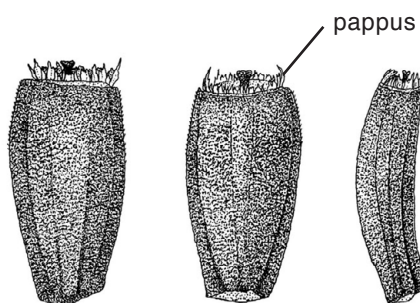
Branch 20 cm long with two adjacent flowering heads; most flower heads past blooming



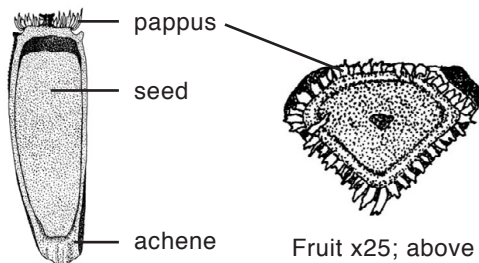
Terminal flower head on short  
upper branch is the first to open



Dorsal side of leaf with hairy  
midrib and one full lobe; leading  
edge of lobe often toothed



dorsal (outer)    ventral (inner)    thick  
Fruit (a 1-seeded achene) x12

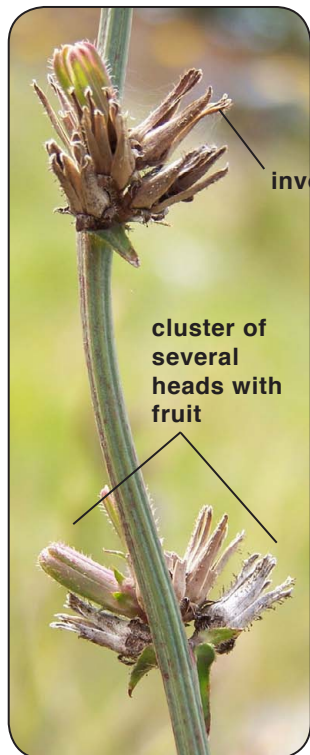


Open fruit  
x13; with  
one seed  
inside

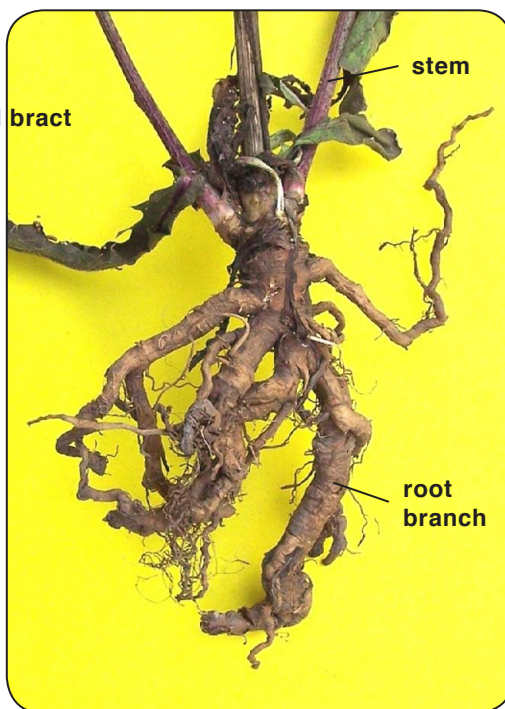
Fruit x25; above



New flower opening on left



Two fruit clusters with tan  
open involucre bracts



Branched root



Basal leaf variation