

Trifolium pratense L.

Standardized Common Name: Red Clover

Other Common Name: Purple Clover

Family: Fabaceae (Leguminosae)

Taxonomy: *Trifolium* includes about 238 species, which are distributed almost worldwide except for Australia. *Trifolium pratense* is native to Eurasia and widely naturalized in North America. It is highly variable, and nearly a dozen species-level synonyms exist; several dozen varieties, races or forms have been described, many of which overlap in features and are not clearly known to be natural entities. The authoritative treatment of the genus reduces these to six varieties, of which the cultivated *T. pratense* var. *sativum* Schreb. in Sturm. is most commonly found in commerce.

Description: Perennial herb. Stems numerous, erect (especially in var. *sativum*) to ascending or nearly prostrate, 10–40 cm high (to 100 cm in var. *sativum*). Leaves trifoliolate, stipulate with stipules fused to petiole; petioles long on lowest leaves, very short on uppermost leaves; leaflets petiolulate, obovate to obovate-oblong or broadly elliptical, 1.5–5 cm long, 0.7–1.5 cm broad, often spotted. Inflorescences terminal heads, solitary or paired, globular to ovoid, subtended by a pair of leaves. Flowers numerous, sessile, usually 1.5–1.8 cm long. Calyx tubular-campanulate, 10-nerved, usually pubescent, with 5 blunt teeth of which 4 are short and 1 long. Corolla bilaterally symmetrical, reddish-purple to pink, fading to brown when dried, rarely whitish; petals 5, with 2 fused into a keel, 2 free wing petals and

1 standard petal; standard longer than other petals, notched. Stamens 10, 9 fused into a single group and 1 separate. Fruit a legume, ovate, 1-seeded, mostly membranous.

Parts in Commerce: Flowering heads

Identification:

- Inflorescence a globular or ovoid head, not an umbel or spike
- Heads not subtended by an involucre of bracts; stipules of uppermost pair of leaves may be present
- Flowers sessile, not on individual pedicels
- All flowers with corollas and all or most fertile
- Flowers mostly 1.5–1.8 cm long, not much smaller
- Calyx with 10 nerves, not 5 or 15–20+
- Calyx with 4 teeth equal in length, 1 much longer
- Calyx teeth usually bristly or hairy, long and narrow but blunt-ended, not sharp-pointed
- Calyx with slight ring-shaped, hairy thickening, but thickening is not bilabiate or a strongly callous ring
- Corolla distinctly longer than the calyx, but extending less than a third of its length beyond the longest calyx tooth
- Corolla bilaterally symmetrical, 5-petaled
- Uppermost or standard petal the largest, notched at apex; basal 2 petals fused into a short keel

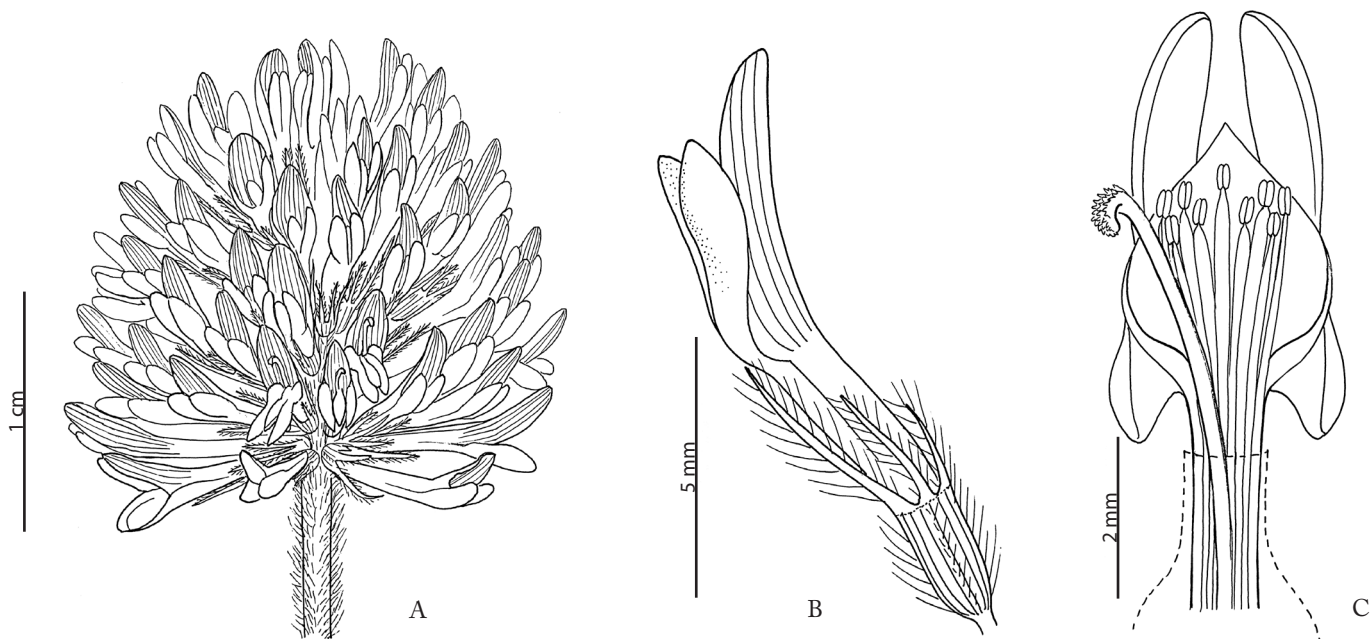


Figure 77: a–c, *Trifolium pratense* inflorescence, flower, and dissected flower showing anthers and style.

- Corolla reddish-purple to pink, rarely whitish, often browning when dried
- Odor fragrant
- Taste weak, first sweet then bitter.

The above characters together distinguish *T. pratense* from all other species of *Trifolium*.

References:

Youngken HW. *Text-Book of Pharmacognosy*, 5th ed. Philadelphia, PA: The Blakiston Company; 1943:439.

Zohary M, Heller D. *The Genus Trifolium*. Jerusalem: The Israel Academy of Sciences and Humanities; 1984.