

Vascular Plants of Williamson County
Trifolium pratense – RED CLOVER [Fabaceae]

Trifolium pratense L., RED CLOVER. Perennial herb (biennial), taprooted later with root crown, initially rosetted, several-stemmed at base, having ascending branches from cauline nodes, in range to 35 cm tall; shoots with basal leaves (often absent at flowering) and cauline leaves, foliage \pm velveteen with pilose hairs; roots nodulated. **Stems:** 8-ridged aging cylindric, to 4 mm diameter, with 3 ridges descending from each leaf, tough, green but purple-red on exposed side, internodes to 115 mm long, densely pilose or with scattered hairs aging glabrescent, dotted with stomates. **Leaves:** helically alternate, palmately 3-foliolate, long-petiolate without pulvinus, with stipules; stipules 2, membranous, fused < 0.5 mm at base, to 20 mm long having wings along lower petiole to 17 mm from base, to 3.5 mm wide, somewhat trapezoidal and short-ciliate on free margins, slender and acuminate at tip and having longer hairs on long tips; petiole shallowly channeled, to 105(–190) mm long above stipule wings, with scattered nonglandular hairs; rachis absent; petiolules pulvinuslike, ± 1 mm long, light green, having several hairs; blades of leaflet \pm equal, ovate to elliptic, 23–40 \times 10–22 mm, green often with pale light green inverted-V on each leaflet, initially folded upward from midrib opening flat, tapered at base, inconspicuously scalloped (subentire), rounded and short-notched at tip, pinnately veined with midrib raised on lower surface, dull, upper surface glabrous with fine veins from midrib ending in minute notches on margins and with pilose hairs (ciliate), lower surface pilose. **Inflorescence:** headlike spike, axillary, hemispheric or ovoid to spheroid, 12–23 mm across, of 40–100+ ascending flowers, not appearing in whorls, bracteate; peduncle low-ridged, < 20 mm long, densely hairy along ridges; **involucre** at top of peduncle, of (1–)2 leafy bracts (= diminutive leaves), bract with wide stipule wings + a short petiole < 1.5 mm long, and a reduced 3-foliolate blade, stipules to 6.5 mm wide white with green veins and having a slender green tip, ciliate with glabrous surfaces, blades of leaflets to 28 \times 8.5 mm on pulvinuslike petiolules, with remote teeth, ciliate on margins, lower surface with scattered pustulate hairs; rachis 12-ridged, white, short-hairy; bractlet subtending flower absent; petiole short with pulvinuslike mound. **Flower:** bisexual, bilateral, pealike (papilionaceous), to 3 mm across (banner), 10–14 mm long, mildly fragrant; **nectary** nectar-producing receptacle below ovary, green, nectar thin; **calyx** 5-lobed, in range 8.5–10 mm long, having pustulate hairs < 2 mm long; tube funnel-shaped, ca. 3 \times 1.5 mm, colorless with 10 green veins to lobes and sinuses, inner surface with stiff erect hairs at top of tube; lobes unequal, lobe opposite keel the longest to 7 mm long, 2 lateral lobes and 2 next to banner \pm equal, 3–3.5 mm long, green, flared at base and linear above, with spreading hairs; **corolla** of 5 petals, heteromorphic, the longest (banner) tubular to midpoint and 11–14 mm long, other petals and stamens fused to top of banner tube with claws; banner tube narrowly funnel-shaped, to 7.5 \times 1.3 mm, white, limb elliptic, to 6.5 \times 3 mm, white at base and above pale pink-purple with ca. 13 fine, darker nectar lines, folded longitudinally, having a pair of colorless, short basal lobes at tube (auriculate), minutely notched or minutely jagged at top; wings 2, oriented parallel edge-on, oblong with pouch at base, ca. 4.5 \times 1.5 mm incl. colorless short claws, light pink-purple; keel of 2 petals partially fused on lower margin from above midpoint, ca. 4 mm long incl. colorless short claws, each keel claw fused laterally with a wing claw, limb light

pink-purple blushed orangish in center of faces, with rounded lobes at base locked with to bladderly pouch of wings; **stamens** 10, diadelphous (9 filaments fused and 1 free), arising at top of “banner tube” with wings and keel; filament sheet ca. 3 mm long, filament free portions ca. 2 mm long, translucent, somewhat expanded approaching anther; anthers dorsifixed, dithecal, 0.25–0.3 mm long, light yellow-orange, longitudinally dehiscent; pollen yellow-orange; **pistil** 1, to 11 mm long, arising base of calyx tube and banner tube; ovary superior, narrowly oblong compressed side-to-side, green, glabrous, 1-chambered with 2 bulging ovules; style colorless, with minute stigma just above anthers. **Fruit:** pod (legume), ± circumscissile near upper end, typically 1-seeded, not stalked, papery with glossy, thicker cap having persistent base of style, obovoid, ca. 2–2.5 × 1.7–1.9 mm, with seed bulging from top of fruit; abscised within persistent calyx and sheathed by dried, papery corolla (banner tube), calyx not inflated. **Seed:** ± ovoid with portion indented at hilum, 1.7–1.8 × 1.3 × 1 mm, dull pale yellow (tan), smooth, hard.

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