

Vascular Plants of Williamson County
Trifolium repens – WHITE CLOVER [Fabaceae]

Trifolium repens L., WHITE CLOVER. Perennial herb, ± evergreen or drought-deciduous, stolon-bearing, fibrous-rooted, several-stemmed at base, loose mat-forming, prostrate with ascending leaves and longer, erect inflorescences, in range to 14 cm tall; shoots with short lateral shoots, ± glabrous; adventitious roots at nodes, nodulated. **Stems (stolons):** cylindric, to 2.5 mm diameter, tough, green, internodes to 75 mm long, with inconspicuous ledge 1/2 around stem at node, eventually forming brownish, thin periderm. **Leaves:** helically alternate, palmately 3-foliolate, petiolate without pulvinus, with stipules; stipules 2, sheathing and fused to each other and stem for short distance (± closed) and to petiole on upper side just above flaring base, wing 7–11 mm long, membranous to radish red with conspicuous green or radish red veins, lacking teeth and bristles on margins, finely pointed at tip; petiole shallowly channeled, 25–160 mm long; petiolules pulvinuslike, to 1 mm long, pale green, hairy; blades of leaflet ± equal, obovate to oval or nearly round, 5–25 × 4–18 mm, initially folded upward from midrib opening flat, subtruncate to broadly tapered at base, short-serrate on margins, obtuse to rounded or scarcely notched at tip, pinnately veined with midrib raised on lower surface, dull, often with a light green arc to midblade. **Inflorescence:** headlike raceme, axillary, hemispheric to spheroid, 12–23 mm across, of 30–50+ flowers in poorly defined whorls (easier to see whorls in fruit) except the lowest and uppermost flowers, the lower whorls ± 6-flowered, flowers at anthesis erect to ascending, bracteate, nearly glabrous; peduncle erect to ascending, 6-ridged, to 140 mm long, with ridges descending from the lowest bractlets, essentially glabrous except having sparse hairs approaching spike; **involucre** of bractlets subtending the lowest whorl of flowers absent; rachis strongly ridged, with each ridge descending from bractlet, green, glabrous; bractlet subtending and cupping pedicel, membranous and awl-shaped, 1–1.5 mm long, acuminate to 2-toothed at tip, persistent; pedicel at anthesis ascending to erect, cylindric, 1–3 mm long later spreading to strongly recurved in fruit, greenish aging reddish, with several scattered hairs. **Flower:** bisexual, bilateral, pealike (papilionaceous), ca. 3 mm across; mildly fragrant; **nectary** nectar-producing receptacle below ovary, green, nectar thin; **calyx** 5-lobed, in range 3–5.5 mm long, glabrous; tube bell-shaped, to 3 mm long, white with green base and 10 slightly raised green veins to each lobe and sinus, sinuses sometimes with purple-red crescent-shaped marks, upper side of tube sometimes tinged red; lobes unequal, narrowly triangular with wide white-membranous margins, to 2.5 mm long, tube > the long 2 upper lobes, 2 lateral lobes overlapping adjacent upper lobes, entire, upper lobes sometimes tinged red with tube; **petals** 5, white or pale pink sometimes aging darker; banner broadly elliptic, 7–10 × 2.5–3 mm, folded longitudinally but partially expanded during its open flowering period, rounded at base, rounded at tip, glabrous, with ± 10 fine veins above midpoint either white and inconspicuous or purplish; wings 2, clawed, claw slender, ± 1.5–2 mm long; limbs irregularly elliptic, 3–4 × ca. 1.3 mm, < banner, white, bladderly-lobed at base above claw, attached to keel above lobe, roundish at tip; keel of 2 petals partially fused on lower edge, clawed, ± scoop-shaped and folded, claw ca. 2 mm long, whitish, limbs ± elliptic, ca. 3 mm long, white at base and above cream white aging pinkish, fused on lower margin from midpoint to tip; **stamens** 10, diadelphous (9 filaments fused and 1 free); filament sheet

4.5–5 mm long, filament free portions 0.7–1.8 mm long, free stamen 2.2–2.5 mm long, white; anthers dorsifixed, dithecal, oblong, < 0.1 mm long, yellow, longitudinally dehiscent; pollen yellow; **pistil** 1, slightly > stamens, short-stalked (stipe); ovary superior, oblong compressed side-to-side, $\pm 1.5 \times 0.35$ mm, green, glabrous, 1-chambered with several ovules attached to upper side; style 2.4–2.8 mm long, green, upcurved at tip into stigma; stigma terminal, green. **Fruit:** pod (legume), \pm dehiscent along upper suture, 1–4(–5)-seeded, oblong compressed side-to-side, ca. $3.5\text{--}4.6 \times 1\text{--}1.4$ mm, with bulging seeds and slight constrictions between them, pale brown and scarious, with persistent style; abscised with recurved pedicel, persistent calyx, and old corolla, calyx smooth (not veiny). **Seed:** \pm plump D-shaped, $0.9\text{--}1.3 \times 0.8\text{--}1$ mm, dull brown, smooth, with hilum on flattish edge.

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