

Vascular Plants of Williamson County
Medicago arabica – SPOTTED BURCLOVER

Medicago arabica (L.) Hudson, SPOTTED BURCLOVER. Annual, taprooted, initially rosetted, several-stemmed at base, mat-forming with procumbent and spreading, decumbent shoots, in range typically < 10 cm tall; shoots with soft hairs to 2 mm long aging villous to sparsely villous on axes and lower surface of foliage; roots conspicuously nodulated. **Stems:** 4-ridged aging cylindrical, to 2 mm diameter, with 3 ridges descending from each leaf, internodes 5–45 mm long, often tinged reddish, pubescent with erect or ascending hairs. **Leaves:** helically alternate, pinnately 3-foliolate with paired lateral leaflets, petiolate with pulvinus, with stipules; stipules 2, winglike along lower petiole and attached to ridge at stem node, asymmetrically ovate, 3.5–7(–8) mm long, green, clasping, dentate to below midpoint, acuminate at tip, in range villous on lower surface, glabrous on upper surface; petiole hemi-cylindric to shallowly channeled, to 75 mm long, with pulvinus just above stipule attachment; rachis narrowly channeled, < 1.5 mm long, often tinged purplish, villous; petiolules = pulvinus, to 1 mm long; blades of leaflets broadly obovate and fan-shaped to shallowly heart-shaped, (< 4–)9–18 × (< 6–)12–23 mm, terminal leaflet > lateral leaflets, dull green to yellow-green with a conspicuous, red-purple blotch in leaflet center or with 1–2 minor spots, broadly tapered at base, entire and wavy margin above midblade, truncate to shallowly notched with minute tooth at tip, pinnately veined with parallel and evenly spaced lateral veins of 5–7 pairs, the blotch irregular to 2-lobed, to 4 × 4 mm, upper surface glabrous, lower surface sparsely villous and short-villose with hairs pointing toward the margin. **Inflorescence:** headlike raceme, axillary, ascending, mostly 2–5-flowered, flowers clustered (pseudowhorled) with the lowest 2 paired side-by-side, bracteate; peduncle inconspicuously ridged descending from bractlets, at anthesis to 5 mm long increasing 2× in fruit, < subtending leaf, light green, villous; rachis short with linear portion above the uppermost pedicel; bractlet subtending pedicel half-sheathing, mostly with 2–3 unequal teeth, ca. 1 mm long, principal teeth often acuminate; pedicel cylindrical, to 1.5 mm long, green. **Flower:** bisexual, bilateral, papilionaceous, 4–5 mm across (spreading banner); **nectary** receptacle below ovary, but nectar not observed; **calyx** 5-lobed, ca. 3 mm long; tube funnel-shaped, light green, appressed short-hairy above midpoint and along sinus; lobes subequal, long-acuminate, ± 1.5 × 0.4 mm, green, 1-veined, outer (lower) surface short-strigose; **petals** 5, ± clawed, glabrous; banner spreading (not reflexed), heart-shaped notched at top lacking well-defined claw, ± 5.5 × 4.5 mm, basal portion broadly tapered, 1 mm long and translucent, limb portion light yellow often with several radiating nectar lines visible above midpoint; wings 2, vertically oriented, claw linear, ± 1.2 mm long, translucent, limbs somewhat elliptic with backward-pointing basal lobe, ca. 2.8 × 0.7–0.8 mm, light yellow with translucent lobe, veins obscure, locked to keel; keel of 2 petals fused most of length on lower edge of limbs, ca. 3.5 mm long, claw sheetlike and ± flat, ca. 2.5 × 1 mm, translucent, limb mostly open and cupped and shallowly notched, 2.2–2.4 mm wide, light yellow; **stamens** 10, diadelphous (9 filaments fused and 1 free), ca. 4 mm long; filament sheet boat-shaped, translucent becoming greenish at top; filament free portions dimorphic, alternating linear and triangular, to 1 mm long; anthers basifixed, dithecal, 0.2–0.35 mm long, colorless, longitudinally dehiscent; pollen colorless; **pistil** 1, at anthesis ca. 4 mm

long with short stalk (stipe); ovary superior, at anthesis strap-like compressed side-to-side, ca. 2.5×0.5 mm, light green, papillate-hairy, 1-chambered with to 8 ovules attached to upper side; style stout and curved, 1 mm long, translucent, with terminal, translucent hemispheroid stigma. **Fruit:** pod (legume), indehiscent, 3+-seeded, spheroid in general shape, overall ca. 9×9 mm covered in range with prickles on 3–5 gyres of a helically twisted ovary, with 2 close rows of weak prickles from edge crisscrossing, the prickles in range 1.3–3.1 mm long, somewhat curved to nearly straight with short hook at tip, aging pale brown. **Seed:** kidney-shaped, ca. 3×1.5 –1.8 mm, glossy reddish brown, with stalked hilum close to midpoint and adjacent micropyle just outside the hilum.

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