

Vascular Plants of Williamson County

Melilotus officinalis – YELLOW SWEETCLOVER, MELILOT [Fabaceae]

Melilotus officinalis (L.) Lam., YELLOW SWEETCLOVER, MELILOT. Annual, taprooted, several-stemmed at base, not rosetted, with principal shoots sometimes branched at every node, the branches ascending with prominent pulvinus in axil on the upper side of each branch, ascending to spreading, in range to 80 cm tall; shoots with only cauline leaves, initially short-hairy becoming glabrescent, pleasantly scented when fresh or drying; roots nodulated. **Stems:** ± cylindric, to 4.5 mm diameter, with 2 low ridges descending from leaf, tough, with projecting leaf bases, sparsely pubescent aging glabrescent. **Leaves:** helically alternate, odd-pinnately 3-foliolate, petiolate with pulvinus, with stipules; stipules 2, attached to leaf base, tapered linear, 1.5–5 mm long, short-hairy, ± persistent; petiole pulvinus 1 mm long, channeled above pulvinus, 7–25 mm long; rachis channeled, < 2–7 mm long; petiolules 0.8–1 mm, light green, short-hairy; blades of leaflets elliptic to ovate or obovate, < 10–25 × < 5–13 mm, terminal leaflet > lateral leaflets, ± rounded at base, serrate to dentate on margins, subtruncate to obtuse with tooth at tip, pinnately veined with midrib slightly sunken on upper surface and raised on lower surface, somewhat glaucous, upper surface glabrous, lower surface short-strigose with upward-pointing hairs.

Inflorescence: raceme, axillary, ascending, at first flowering 30+ mm long increasing to 200+ mm long in fruit, 6–7 mm diameter, 35+-flowered, flowers alternate, oriented ± horizontally on curved pedicel or nodding, bracteate; rachis conspicuously many-ridged, each ridge descending from a bractlet, with short hairs; bractlet subtending pedicel awl-shaped, 1–1.3 mm long, with several short hairs, base of bractlet projecting and persistent; pedicel 2–3 mm long, flexible, light green, curved outward with flower, short-hairy.

Flower: bisexual bilateral, pea-shaped (papilionaceous), ca. 2 mm across (banner spreading) or 1 mm across (banner folded), 4–5 mm long; **calyx** 5-lobed, 1.9–2.4 mm long, green, sparsely short-hairy; tube ± cup-shaped somewhat compressed side-to-side, ca. 1.2 mm long, 5 veined; lobes narrowly triangular, unequal, 0.6–1.1 mm long, the longest 2 lobes on upper side and the shortest lobe on the lower side; **petals** 5, short-clawed; banner mostly folded over wings but for 1 day spreading, obovate, ca. 4.5 × 2 mm, claw and basal limb white, light yellow above, notched at tip, veins inconspicuous; wings 2, spreading, 4.5 mm long, claw slender, ca. 1.5 mm long, limb oblong with short backward-pointing lobe, 3 × 0.6–0.7 mm, pale light yellow, appressed to keel and locked to keel at base of limb, wings not fused at tip; keel of 2 petals partially fused on lower edge, limbs hatchet-shaped, ± 2.5 × 1.1–1.2 mm, pale light yellow, with whitish claws ca. 1.5 mm long, limbs fused midclaw to tip, rounded along fused edge, with small basal lobes on limb; **stamens** 10, appearing diadelphous (9 filaments fused and 1 free; upper stamen departing low on column), 2.7–3.5 mm long; filament column 1–2 mm long, whitish; anthers basifixed, dithecal, ± 0.35 mm long, yellowish, longitudinally dehiscent; pollen yellowish; **pistil** 1, 3.5–4 mm long and slightly > stamens, stalked at base (stipe) ± 0.35 mm long increasing in fruit; ovary superior, narrowly ellipsoid, 1 × 0.4 mm, green, glabrous, 1-chambered with 6 ovules attached to upper side; style gradually curved upward, colorless, glabrous; stigma terminal, minute. **Fruit:** pod (legume), indehiscent, typically 1-seeded, ellipsoid compressed side-to-side, 2.5–3 × 1.7 × 1.2–1.3 mm, tannish and papery, sides veiny,

sutures raised slight; beak absent; calyx 2 mm long, persistent. **Seed:** roundish, 2 × 1.7 × 1–1.1 mm, dull yellow-brown.

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