

Medicago sativa L., ALFALFA, LUCERNE. Perennial herb, diffuse-rooted, many-stemmed at base, decumbent to ± erect, 20–80 cm tall; shoots puberulent or strigose with upward-pointing hairs (glabrate); roots nodulated. **Stems:** initially low-ridged aging cylindrical, to 4 mm diameter, with many ridges descending from each leaf, tough, green often aging purplish red, lower stem 4-stripped, strigose becoming less hairy to glabrescent. **Leaves:** helically alternate, pinnately 3-foliolate with paired lateral leaflets, petiolate without pulvinus, with stipules; stipules 2, fused to petiole base and stem, 4–14.5 × 2–3.5 mm, green, entire or sharply toothed on outer margin, acute to acuminate at tip, parallel-veined; petiole channeled or cylindrical, 5–20 mm long; petiolule = pulvinus, 0.5–1 mm long; blades of leaflets oblanceolate or obovate to elliptic or lanceolate, 5–30 × 2–13 mm, typically entire below midblade and regularly serrate above midblade on margins, truncate with linear point at tip, pinnately veined with midrib conspicuously raised on lower surface, dull, with parallel and evenly spaced lateral veins terminating in each tooth, upper surface glabrescent, lower surface strigose. **Inflorescence:** raceme, axillary and terminal, 10–40 mm long increasing to 60 mm long in fruit, typically 8–25-flowered, flowers helically alternate but the lowest 2 often opposite, bracteate, ± soft-pubescent; peduncle > subtending leaf, 15–20 mm long; axis with ridge descending from each bractlet; bractlet subtending pedicel with conspicuous swollen base, linear, 1.5–2(–3) mm long; pedicel ascending, 0.5–1.5 mm long increasing 2× in fruit. **Flower:** bisexual, bilateral, pealike (papilionaceous), 2–2.5 mm across; **nectary** nectar-producing receptacle below ovary, nectar thin; **calyx** 5-lobed, 4–5.5 mm long, green; tube bell-shaped, 2.2–2.5 mm long; lobes subequal, acuminate, 1.7–3 mm long; **petals** 5, violet to purple with darker veins and paler to whitish at base, or less commonly violet-green to greenish yellow or yellow; banner not clawed, spreading and slightly recurved, narrowly obovate, 8–10 × 3–4.5 mm, folded over other petals and increasingly keeled above midpoint, rounded with slight notch at tip; wings 2, locked to keel, clawed, 7.5–8 × 2.2–2.7 mm (including claw 3 mm long), with acute, whitish, backward-pointing lobe at base; keel of 2 petals partially fused on lower edge from near base of limb but not approaching tip, clawed, 6.3–7 × 1.7 mm, whitish below midpoint; **stamens** 10, diadelphous (9 filaments fused and 1 free); filaments sheet ± 4 mm long, filament free portions 0.6–0.9 mm long, very pale green or whitish; anthers versatile, dithecal, oval, 0.3–0.5 mm long, yellowish green, longitudinally dehiscent; pollen pale yellow; **pistil** 1, ca. 6 mm long, short-stalked (stipe); ovary superior, straight linear, ca. 4 × 0.4 mm, green, inconspicuously appressed soft-hairy, 1-chambered with ± 7 ovules attached to upper side; style curved upward and compressed side-to-side, whitish; stigma discoid with fringe of transparent papillae. **Fruit:** pod (legume), indehiscent, 3–7-seeded, typically coiled 1.5–2.5 turns and compressed, circular in outline, 4.5–6 mm across, sparsely hairy, leathery, without prickles. **Seed:** kidney-shaped but often flattened along edge adjacent to radicle, 2.3–3.2 × 1.4–2 mm, tannish to olive. Early December–mid-October.

Naturalized. Perennial herb appearing occasionally along roadsides, becoming established where fruits of cultivated alfalfa (for livestock) were dropped, but especially in wet soil and along margins of drainage ditches. *Medicago sativa* will resume growth whenever it receives adequate water, and can be found somewhere in range flowering nearly every

week of the year, but characteristically late winter to early summer. Flower color is variable within a single population.

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