

Vascular Plants of Williamson County

Cucurbita foetidissima – BUFFALO GOURD, STICKING GOURD, CALABAZILLA
[Cucurbitaceae]

Cucurbita foetidissima Kunth., BUFFALO GOURD, STINKING GOURD, CALABAZILLA. Perennial herb, geophytic, trailing, tuberous-rooted, tendril-bearing, several–many-stemmed at base, prostrate and climbing on herbs, with unbranched shoots radiating 100–500 cm from root crown; monoecious; shoots robust with large, gray-green (often green while expanding), steeply ascending leaves oriented in 2 ranks and somewhat cupped upward, conspicuously scabrous, densely short-hirsute, the larger hairs rigid, multicellular, and broad-based but < 0.75 mm long, hairs hardened by calcium deposits at base, foul-smelling; tendril 1 per node, arising to 1 side of petiole base or sometimes also slightly below petiole base, 3–8-branched at top of stalk, the stalk 20–65 mm long, the principal branches \leq stalk, occasionally 2-forked, the ultimate branches strongly coiled and sometimes compressed side-to-side, pubescent; root system with 1 crown, the principal branches 25–100 mm thick, fleshy with abundant starch and suds-generating compounds, finer portions of principal branches tapping deep moisture. **Stems:** conspicuously ridged, to 15 mm diameter, tough, the ridges 5 or more, irregular and rounded, flexible, striped pale green, covered with short, erect, rigid hairs and scattered broad-based hairs. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole \pm cylindric, 35–135 mm long, ascending or sometimes sharply upturned at base, tough, striped with 11–13 tough, pale green bundles alternating with narrower darker green strips, pubescent like stem; blade triangular to triangular-ovate and sometimes weakly lobed below midpoint, fully expanded 90–250 \times 70–175 mm, truncate to \pm cordate at base, shallowly toothed on margins (= endings of principal veins), acute at tip often aging obtuse, palmately veined at base with 3 or 5 principal veins and all veins strongly raised on lower side, scabrous and densely stiff-hairy, upper surface with hairs mostly < 0.3 mm long and widely scattered, the longer hairs with wider bases, lower surface with larger hairs (0.5–0.7 mm long) along principal veins, when very young, near leaf base with extrafloral nectaries = peglike projections from scattered vein junctions becoming truncated producing a viscous, sweet liquid (from phloem). **Inflorescence:** flowers solitary, axillary and ascending, unisexual, staminate flowers in a population often more common than pistillate flowers, lacking bracts, pubescent; pedicel ascending, petiolelike, of staminate flower at anthesis 10–20 mm long and abscising at base, of pistillate flower increasing 2 \times in fruit, flexible. **Staminate flower:** radial, 90–120 mm across, densely hairy; hypanthium deeply cup-shaped, 15–25 \times 20–25 mm; **sepals** (4–)5–6, arising from hypanthium, free or barely united, narrowly triangular, 9–25 mm long (if 6, one commonly diminutive), green, flaring at base, parallel-veined with several veins raised on outer (lower) surface; **corolla** 5(–6)-lobed, arising from hypanthium, bell-shaped, 55–70 mm long, orange-yellow inside, green-veined with orange-yellow lobe margins on outside; tube 30–40 mm wide, conspicuously green-veined with \pm 5 raised veins per lobe, densely hirsute, inner surface orange-yellow and densely pubescent with orange-yellow club-shaped hairs having bulging cell outlines; lobes spreading, ovate, 25–33 \times 27–34, < tube, \pm wavy and papillate on margins, obtuse with a green point at tip; **stamens** typically 4, fused at expanded bases; filaments erect, appressed, 10–12 mm long, 2.2 mm thick at base of anther, whitish to pale green, club-shaped to capitate-hairy; anthers fused along connectives, basifixed, dithecal, 20–24 mm long (= 2 \times

filament length), light yellow, longitudinally and outwardly dehiscent, each portion long, linear and twice-folded lengthwise; pollen pale to light yellow or white; **nectary disc** ringlike and 3(–4)-lobed, ± 8 mm across, ca. 1.3 mm thick at lobes, thinner and concave in center, light yellowish; **pistil** absent. **Pistillate flower:** hypanthium saucerlike and 5-sided, 15–22 mm across, 2.5–3 mm thick, with club-shaped hairs on upper surface between corolla and stamens, hairs with convex cell outlines, becoming larger with broad bases approaching tip; **sepals** (4–)5–6, arising from hypanthium, free or barely united, at anthesis wide-spreading, narrowly triangular, 9–25 mm long, often $>$ staminate sepals, green, flaring at base, parallel-veined with several veins raised on outer (lower) surface; **corolla** 5(–6)-lobed, arising from hypanthium, broadly bell-shaped, 55–70 mm long, internally orange-yellow, externally green parallel-veined with orange-yellow lobe margins; tube, 30–40 mm wide, nearly truncate at base, conspicuously green-veined with ± 5 raised veins per lobe, densely hirsute, inner surface orange-yellow and densely pubescent with club-shaped, orange-yellow hairs having bulging cell outlines; lobes spreading, ovate, $25\text{--}33 \times 27\text{--}34$, \pm wavy and papillate on margin, obtuse with a green point at tip, persistent on developing fruit but abscising before fruit matures; **stamens** (3–)4, fused at base forming a cup around nectary, sterile; cup 3–4 mm tall, tips sometimes hooded and 2-toothed at tip; filaments 10–12 mm long but recurved and length $2\times$ height; anthers absent; **nectary disc** ringlike and 3–4-lobed, encircling style base, yellowish, glabrous; **pistil** 1; ovary conspicuously inferior (even in small bud), spheric, at anthesis 20–25 mm, dark green with pale green to whitish longitudinal stripes, rough-hairy to \pm short-hirsute and capitate-glandular, 3-chambered with many ovules attached to outer wall; style 15–20 mm long, 4.5–6.5 mm thick, whitish, narrower at base, \pm glabrous below and hirsute above, 3-branched, the branches ascending, 2.5–5 mm long, hirsute and capitate-glandular, dividing into 2 stigmas; stigmas 6, spreading, slightly twisted and recurved at tip, $10\text{--}12 \times 4.5\text{--}5$ mm, yellow, densely papillate-glandular, sticky. **Fruit:** pepo (= indehiscent berry with hard, breakable outer shell), many-seeded, spheric, $65\text{--}75 \times 70\text{--}85$ mm, dark green with 5 major alternating with 5 minor, whitish longitudinal stripes (meridians), turning bright yellow at maturity and bleaching to tan when dry, \pm glabrate; pulp white, eventually becoming dry; seeds on stringy funiculi. **Seed:** compressed-ovoid, $7\text{--}10 \times 5.2\text{--}5.7 \times 1.5\text{--}1.8$ mm, yellowish tan or yellowish ochre, flat to slightly convex on 1 or 2 surfaces or dimpled on 1 surface with a small concavity on other surface.

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