

16. AGASTACHE Clayton ex Gronovius, Fl. Virgin. 88. 1762.

藿香属 huoxiang shu

Herbs tall perennials. Leaves petiolate, margin dentate. Verticillasters many flowered, in terminal spikes. Calyx tubular-obconical, straight, 15-veined, not hairy annulate inside, throat oblique. Corolla tube straight, gradually dilated to throat, as long as to slightly longer than calyx, not hairy annulate inside, 2-lipped; upper lip straight, 2-lobed; lower lip spreading, 3-lobed, middle lobe widest, spreading, base not clawed, margin undulate, lateral lobes straight. Stamens 4, fertile, much exerted, posterior 2 longer and inclined forward, anterior 2 erect-ascending; anther cells 2, initially almost parallel, later  $\pm$  divergent. Style subequally 2-cleft. Nutlets smooth, apex hairy.

Nine species: eight in North America and one in E Asia.

1. **Agastache rugosa** (Fischer & C. Meyer) Kuntze, Revis. Gen. Pl. 2: 511. 1891.

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*Lophanthus rugosus* Fischer & C. Meyer, Index Sem. Hort. Petrop. 1: 31. 1835; *Elsholtzia monostachya* H. Léveillé & Vaniot; *L. argyi* H. Léveillé; *L. formosanus* Hayata.

Stems erect, 0.5–1.5 m tall, to 7–8 mm in diam., finely pubescent upward, branched, base glabrous. Leaves gradually reduced upward; petiole 1.5–3.5 cm; leaf blade cordate-ovate to oblong-lanceolate, 4.5–11 $\times$ 3–6.5 cm, adaxially subglabrous, abaxially puberulent, glandular, base cordate or rarely cuneate, margin serrate, apex caudate-acuminate. Spikes compact, cylindric, 2.5–12 $\times$ 1.8–2.5 cm; floral leaves lanceolate-linear, less than 5 $\times$ 1–2 mm basally, 2–3 mm apically; peduncles of cymes ca. 3 mm. Calyx  $\pm$  purplish or purple-red, tubular-obconical, ca. 8 $\times$ 2 mm, glandular puberulent, yellow glandular, throat slightly oblique; teeth triangular-lanceolate, 3 posterior teeth ca. 2.2 mm, 2 anterior teeth slightly shorter. Corolla purplish blue, ca. 8 mm, puberulent outside; tube base ca. 1.2 mm wide, slightly exerted, gradually dilated to ca. 3 mm wide at throat; upper lip straight, apex emarginate; middle lobe of lower lip larger, ca. 2 $\times$ 3.5 mm, spreading, margin undulate; lateral lobes semicircular. Ovary apex tomentose. Nutlets brown, ovoid-oblong, ca. 1.8 $\times$ 1.1 mm, adaxially ribbed, apically hirtellous. Fl. Jun-Sep, fr. Sep-Nov.

• Widely distributed, but cultivated as a medicinal plant in China [Japan, Korea, Russia; North America].

Used medicinally for abdominal pain and as the source of an essential oil.

