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ḴAṬMI

ḴAṬMI (or *ḵeṭmi*), "marshmallow," *Althaea officinalis* L. of the family *Malvaceae* (the mallow family), an important pharmaceutical plant. Plants of the genus *Althaea* are annual or perennial herbs, resembling the genus *Malva,* Persian *panirak* (Riedl, pp. 37-41), which includes the common mallow (see below). The underlying Greek name *Althaea* comes from the verb *althaínō* (to cure) and refers to the healing properties of these plants (Guest and Townsend, p. 243; Bown, p. 82). The species name, *officinalis,* is a Latin epithet denoting a plant with medicinal uses.

The marshmallow is an erect, perennial herb, densely grey-pubescent, up to 150 cm high with thick white roots; leaves triangular-ovate, undivided or palmately lobed; flowers solitary or clustered in auxiliary and terminal inflorescences; epicalyx-segments 7-10, linear-lanceolate; sepals 8-10 mm, ovate, acute, curved over the fruit; petals 1.5-2 cm, showy, pale lilac-pink, rarely deeper pink; anthers purplish-red; fruit mericarps, covered with stellate hairs; seeds much compressed, reniform-rotund, brown, 2.5 mm (Riedl, pp. 39-40; Guest and Townsend, pp. 247-48; Tutin et al., p. 253; Zohari, p. 328). This species serves as an ornamental with its large flowers, which also attract honeybees (Zargari. II, p. 352). Thus the poet Saʿdi (p. 906) includes it in his catalogue of springtime pleasures: "*Ḵiri* (see Zimmer,p. 551), marshmallow, water lily, amaranth / all are beauties that capture the eyes" (*ḵiri o ḵaṭmi o nilufar o bostānafruz /naqša-i ke dar u ḵira bemānad abṣār*). For medicinal use, the aerial parts are gathered in summer at the time of anthesis, and the roots are unearthed in autumn (Chevalier, p. 165).

The healing properties of this species were first recorded in the 9th century BCE and widely used in Greek medicine. Theophrastus (ca. 372-286 BCE) reported that marshmallow root was taken in sweet wine for coughs ((*Historia Plantarum* 9.18.2; Chevalier, p. 165). Powdered roots were used to make soft lozenges for throat infections and coughs—forerunners of the popular candy marshmallow, which no longer contains extracts of the herb (Bown, p. 236). Marshmallow root contains about 37 percent starch, 11 percent mucilage, 11 percent pectin, and small amounts of flavonoids, phenolic acids, sucrose, and asparagines. The root extract counters excess stomach acid, peptic ulceration, gastritis, regional ileitis, colitis, hiatus hernia, excess mucus, asthma, whooping cough, and cystitis (Bown, p. 236; Chevalier, pp. 163-65; Prajapati et al., p. 37). Warm infusions of the flowers and leaves treat cystitis and frequent urination (Chevalier, p. 163). It is taken orally as an emollient and expectorant, and externally as an antiseptic (Ross, p. 38), helping to soothe inflamed skin (Prajapati et al., p. 37). The pharmaceutical products of this plant include *Althaea* syrup and a pectoral infusion of the root (Guest and Townsend, pp. 247-48). Common mallow (*Malva sylvestris* L. and *M. neglecta*), with similar properties, is also used as an effective demulcent, emollient, coolant, and as a poultice to reduce swelling and draw out toxins (Chevalier, p. 231; Pullaiah, p. 1301).

The marshmallow was used in traditional medicine in Iran as an ingredient in a number of medicines for the treatment of, for instance, convulsions, blisters, ulcers, sciatica, and hemorrhoids. The oil extracted from its root was used to reduce swelling, remove dirt from the skin, and treat ulcers and chest congestion. It is also mentioned as an effective ingredient of enemas (Jorjāni, II, pp. 115, 125, 150; III, pp. 131-32, 143, 149-50, 201-2; ʿAqili, p. 394; Moḥammad-Moʾmen Ḥosayni, pp. 349-50; Šakurzāda, pp. 218, 236).

Various parts of the marshmallow also have non-medicinal uses. Its fiber can be used for paper manufacturing and its seed oil in paints and varnishes. Its flowers yield a red dye for wool, and its mucilaginous roots can be made into glue (Guest and Townsend, pp. 247-48).

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