

ERVA-CIDREIRA

Scientific name: *Melissa officinalis* Linné^(1,6).

Family: Lamiaceae^(2,5).

Popular names: Sweet Mary, Honey Plant, Cure-All, Dropsy Plant⁽¹⁾, Melissa, Balm^(1,3), Meliteia, Meli, Melitos⁽³⁾, Lemon balm^(4,5).

Used parts: whole plant⁽¹⁾.

Botanical characteristics: The plant is a perennial that grows up to 90 cm high, with an erect, quadrangular, branched and sparsely haired to glabrous stem. The leaves are petiolate and have an ovate to rhomboid, 2 to 6 cm long and 1.5 to 5 cm wide crenate leaf blade, which is shortly pointed at the end, and stunted or wedge-shaped at the base. It is usually only pubescent above or completely glabrous. The small white bilabiate flowers are in 6 one-sided false whorls in the axils of the upper leaves. The calyx is campanulate, bilabiate, and it has a shortly dentate upper lip. The corolla tube is curved upward. The upper lip is slightly domed and divided in two parts, the lower lip is 3-lobed with an extended middle lobe. The flower has 4 stamens. The fruit is an oblong-ovate, 1.5 to 2 mm long and chestnut brown nutlet⁽¹⁾.

Habitat: The plant is indigenous to the east Mediterranean region and west Asia^(1,3), and is cultivated in central Europe or established in the wild⁽¹⁾.

Chemical composition: Volatile oil (geranial, neral, citronellal, linalool, geraniol, geranylacetate, methyl citronellate, trans--ocimene, eugenol, germacrene D, 1-Oc-ten-3-ol, 6-methyl-5-heptene-2-one, beta-caryophyllene, caryophyllene oxide), Glycosides, Caffeic acid derivatives, flavonoids (Cynaroside, cosmosiin, rhamnocitrin, isoquercitrin), triterpene acids^(1,2).

Indications: In folk medicine it is used for nervous complaints, lower abdominal disorders, meteorism, nervous gastric complaints, hysteria and melancholia, chronic bronchial catarrh, nervous palpitations, vomiting, migraine, nervous debility, headache, high blood pressure^(1,3) and functional gastrointestinal disorders⁽⁵⁾. It is used externally for rheumatism, nerve pains and stiff necks^(1,3).

Dose: Daily dosage: 1.5 to 4.5 gm of drug⁽¹⁾.

Others informations:

- The drug has mild sedative and carminative, spasmolytic, antibacterial, antiviral, anti-oxidative and anti-hormonal effects⁽¹⁾.
- Essential oil of *Melissa officinalis* was shown to have anti-bacterial, anti-fungal, anti-parasitic, and anti-histaminic activities⁽²⁾.
- *Melissa officinalis* essential oil and its main component, citral, possess a significant inhibition effect on ileum contractions⁽²⁾.
- The compounds in lemon balm that showed antioxidant activity, caffeic acid and rosmarinic acid, were more than -tocopherol, having an activity comparable with the BHA⁽⁴⁾.
- Rosmarinic acid is antiviral and antioxidant while the essential oil is spasmolytic and antimicrobial⁽⁵⁾.
- The ingestion of single doses of *Melissa officinalis* can modulate both the mood and the cognitive performance of healthy young volunteers in a dose- and time- dependent manner⁽⁶⁾.

References:

1. MEDICAL ECONOMICS COMPANY. **PDR for herbal medicines**. 2. ed. Montvale: Copyright, 2000.
2. SANDRAEI, H.; GHANNADI, A.; MALEKSHAHI, K. Relaxant effect of essential oil of *Melissa officinalis* and citral on rat ileum contractions. **Fitoterapia**, v. 74, p. 445-452, 2003.
3. HERODEZ, S. S. et al. Solvent extraction study of antioxidants from Balm (*Melissa officinalis* L.) leaves. **Food Chemistry**, v. 80, p. 275-282, 2003.
4. RIBEIRO, M. A.; BERNARDO-GIL, M. G.; ESQUÍVEL, M. M. *Melissa officinalis*, L.: study of antioxidant activity in supercritical residues. **Journal of Supercritical Fluids**, v. 21, p. 51-60, 2001.
5. CARNAT, A. A. P.; CARNAT, D.; FRAISSE, J. L. L. The aromatic and polyphenolic composition of lemon balm (*Melissa officinalis* L. subsp. *officinalis*) tea. **Pharmaceutica Acta Helveticae**, v. 72, p. 301-305, 1998.

KENNEDY, D. O. et al. Modulation of mood and cognitive performance following acute administration of *Melissa officinalis* (lemon balm). **Pharmacology, Biochemistry and Behavior**, v. 72, p. 953-964, 2002.