Lemon balm (Melissa officinalis) is a perennial herb in the Lamiaceae family, native to the Mediterranean region. Lemon balm grows 0.7–1.5 m tall, spreads vegetatively or by seed, and can survive over 25 years in the wild. In colder climate zones, the stems die back in winter, but resprout in spring. The plants are killed by hard winters with temperatures below -20 °C. Lemon balm leaves have a minty lemon scent.

Melissa officinalis is wildcrafted in Albania, Bulgaria and other countries in South and East Europe. It is cultivated on a large scale throughout Europe and North America. Cultivars differ in essential oils and rosmarinic acid content. The cultivation period is usually three to four, and in rare cases five, years. Lemon balm seeds require light and temperature above 20 °C to germinate. Small white flowers with nectar appear during summer.

The “honey-leaf” mentioned by Theophrastus may have been Melissa officinalis and lemon balm was already grown in the herbal garden of John Gerard in the late 16th century. Lemon balm is used to flavour ice cream and in herbal teas as well as in traditional and alternative medicine.

Anklam Extrakt purchases its raw material primarily from controlled cultivation in Germany where our skilled partners provide excellent raw material documentation.

Pharmacopoeial and other monographs

General information
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Use as a food
1. The major use of lemon balm is in herbal teas and in herbal tea mixtures. It is also used to flavour wine and beer. Lemon balm (herb, flowers, flower tips) is listed by the Council of Europe as a natural source of food flavouring (category N2).

2. This category indicates that lemon balm can be added to foodstuffs in small quantities, with possible limitations.

3. In the USA, lemon balm is listed as GRAS (Generally Recognised As Safe).

Extract qualities
Documentation to support your regulatory process (up to an ASMF including stability report) is available upon request.

The powdered extract of lemon balm leaves (Melissa officinalis folia) is produced from the herbal drug using water or ethanol-water mixtures as the extraction solvent.

Melissae off e fol extr aq sicc - 00-111-0703-00
Lemon Balm Powdered Extract
DER 5–6:1
Extraction solvent water
89.5 % native extract, 10 % maltodextrin, 0.5 % silicon dioxide

Additional extract qualities are available upon request.
Lemon balm has been traditionally valued for its sedative, spasmolytic and antibacterial properties. It is also stated to be a carminative, diaphoretic and a febrifuge, and has been used for headaches, gastrointestinal disorders, nervousness and rheumatism. Current interests focus on the use of lemon balm as a sedative and for topical application in herpes simplex labialis as a result of infection with herpes simplex virus type 1 (HSV-1).

The German Commission E monographs describes lemon balm as being useful for nervous sleeping disorders and functional gastrointestinal complaints.

**Dosage**

Dried herb

1.5–4.5 g as an infusion in 150 ml water several times daily or preparations thereof in consideration of the drug-to-extract ratio.

**Constituents**

The most important constituents of the dried herb of lemon balm are:

- Essential oils 0.04–0.375 % v/m, with more than 70 components, including: > 60 % monoterpenes (citronellal, geranial, neral; citronellol, geraniol, nerol) and > 35 % sesquiterpenes (Caryophyllene, germacrene)
- Flavonoids 0.5 %, e.g. glycosides of luteolin, quercitin, apigenin and kaempferol
- Polyphenols, rosmarinic acid, protocatechuic acid, hydroxycinnamic acid derivatives, caffeic acid and chlorogenic acid

**Functional properties**

**Literature**


**Disclaimer**

The content of this brochure is based on our findings and experience. Our goal is to inform our customers to the best of our current knowledge. The information is, however, non-binding. Rights of third parties must be observed. The recommended dosages are only guidelines and cannot replace preliminary trials with individual products. Furthermore, before sale, it is essential that all products satisfy local legal requirements.