SOLUTIONS IN THE LAND

CROP PROFILE

LEMON BALM

Melissa officinalis
Member of the Lamiaceae family

History

Lemon balm is a perennial herb in the mint family native to mountainous regions of southern Europe and northern Africa. It has been cultivated for centuries and has since naturalized across most warm and temperate regions of the world. Traditionally valued for its aromatic leaves and calming properties, lemon balm remains a widely grown culinary, medicinal, and pollinator-supporting herb.

Climate Needs

Lemon balm is a hardy perennial that performs best in full sun and when not water-stressed. Lemon balm prefers full sun but tolerates light shade. Plants grown with some shade often produce larger, more succulent leaves. Maintain evenly moist, but not wet, soil conditions. Irrigation may be supplied through drip or overhead systems. Mulching helps conserve soil moisture and moderate temperature.

Lemon Balm Description

Lemon balm produces bright green, crinkled leaves with a strong lemon-like fragrance. Plants typically grow 2–3 ft tall with branching stems. Leaves are oval to heart-shaped, slightly toothed, and arranged in opposite pairs along the stems. Small, inconspicuous white flowers—sometimes tinged with yellow or pink—bloom in the leaf axils throughout summer and are highly attractive to bees. Cutting plants back after flowering promotes a fresh flush of leafy growth. Plants generally decline after 3–4 years and should be replaced or rejuvenated.

Soil

Lemon balm grows well in most soil types provided they are fertile, humus-rich, moist, and well-drained with a pH between 6.0 to 7.5. Consistent soil moisture is important, but waterlogged soils can lead to root diseases.

Seeding

Lemon balm can be propagated from seed, transplants, divisions,or cuttings. Seeds may be started indoors 4–6 weeks before the last frost, or sown outdoors in late spring or fall. Germination is improved by cold stratification. Seeds are small and should be lightly covered with soil and kept consistently moist. Transplant seedlings when they reach 2–3 inches tall. Mature plants reach 2–3 ft in height and should be spaced 18–24 inches apart. Vegetative propagation is often more reliable than seed. Division is the easiest method: root sections containing three or four buds can be taken from established plants in spring or late summer. Divisions made in late August or September should be mulched heavily to improve winter survival.

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Pest & Disease Managment

Lemon balm has few serious pests or disease problems due to its high natural oil content and is rarely damaged by deer or rabbits. Occasional issues include powdery mildew, aphids, mites, and root rots, particularly under conditions of poor air circulation or excessive moisture.

Highlights

Lemon Balm is often referred to as the “happy herb” as it has traditionally been used to uplift spirits and promote a calm sense of well-being. The genus name, Melissa, comes from the Greek word for the honey bee, while officinalis is a Latin word associated with medicine, indicative of the plant’s medicinal nature

Fertility

Lemon balm requires only light fertilization. Apply a general-purpose fertilizer in spring to encourage new growth and again after harvest to promote regrowth. Over-fertilization leads to excessive vegetative growth and reduced flavor quality.

Weed Control

Effective weed control is essential, particularly for production intended for drying, as weed contamination reduces product quality. Regular cultivation, mulching, and timely harvesting help suppress weed pressure.

Harvest

In the first year, harvest lemon balm by cutting several inches of top growth at flowering. Established plants can be harvested two to three times per season. Frequent harvesting encourages branching and maintains a compact, bushy plant form. Harvest approximately one-third of the foliage at monthly intervals, ideally before flowering, and handle leaves gently to avoid bruising. Leaves may be used fresh or dried, though dried leaves retain less aroma than fresh.

Cleaning & Storage

After harvest, bundle stems and hang them in a dark, well-ventilated area, or spread cuttings on screens to dry. Once fully dry, strip leaves from stems and store in airtight containers away from heat and light.

Risk

Lemon balm spreads readily by seed and creeping roots and can become aggressive if unmanaged. Deadheading after flowering helps prevent self-seeding. In garden settings, growing lemon balm in containers or regularly harvesting and edging plants helps limit unwanted spread.

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Rating any crop's production opportunity or risk is subjective and depends on the region where the crop is to be raised. Genetic advancement for pathogen tolerance and adverse weather condition has been more significant for popular, high seed sales crops such as corn and soybeans. The below table lists some of the issues of producing specific crops and helps guide your process of selecting your cropping choice.

Average rating: 3.4

Issue	1	2	3	4	5
Seed availability				X	
Scouting requirements					X
Drought tolerance				X	
Waterlogged soil tolerance			X		
Disease pressure				X	
Wildlife concerns				X	
Yield swings				X	
Harvest ability			X		
Field loss			X		
Market demand			X		
Soil regeneration			X		
Residue value				X	
Storability				X	
Benefit for following crop			X		

1- very low 2- low 3- average 4- moderately high 5- very high

Seed availability – Price, lead time, and required lot size are consideration for these issues
Scouting requirements – What frequency does someone need to look at the crop?
Drought tolerance – Rainfall patterns are requiring crops go longer between rainfall events.
Waterlogged soil tolerance – Rainfall events tend to produce higher volumes than historical averages.
Disease pressure – Plant stress has increased with the rise of daytime temperatures
Wildlife concerns – Deer, rabbits, voles, resident geese, and others can destroy fragile crops.
Yield swings – How predictable will the income be when this crop goes to market?
Harvest ability – Do we need plans B & C if adverse conditions affect the harvest?
Field loss – How much will be left in the field and can we monetize field loss?
Market demand – Does this crop have an elastic delivery window and are there timing penalties?
Profitability – Is there potential for higher margins needed for a shrinking land base?
Soil regeneration – Does this crop support the next crop?
Residue value – What remains after the target crop? Can we monetize the residue?
Storability – How long can we hold this crop? Will quality be challenging to maintain?