# Beebalm Plant part: Leaf Scientific name: Melissa officinalis INCI name: Melissa Officinalis Leaf Extract **IECIC 2015 name: MELISSA OFFICINALIS LEAF EXTRACT**





### **Beebalm**

Product Name: Beebalm
Plant Name: Lemon Balm

Melissa officinalis is a perennial plant that is also known as Beebalm due to its fresh and sweet lemon fragrance that bees love. Since the ancient times, it has been used as a valuable fragrance and medicinal product.

The fragrance of lemon balm has long been used in aromatherapy as it is known to calm emotions and lower the heart rate by lowering blood pressure.

# Harvesting **Lemon Balm**

Our lemon balm is grown and harvested from an established organic Scottish farm.

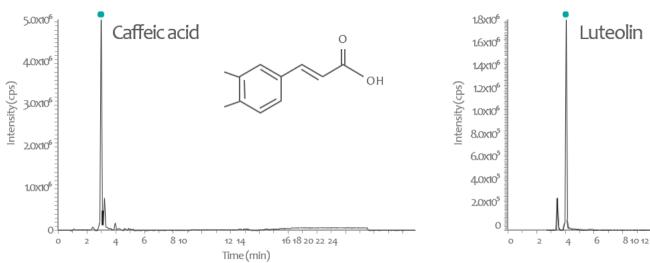
The farmers are always looking for ways to achieve sustainability and produce as little waste as possible, in line with our company values.

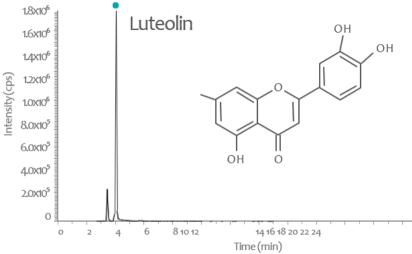




## **Active Compounds Analysis Data**

#### LC-MS/MS Analysis





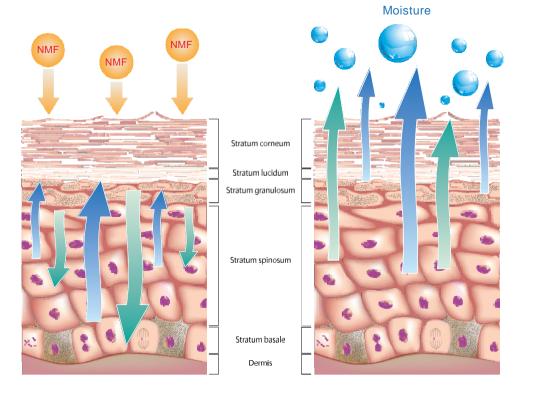
In Western herbal medicine, lemon balm has been used as a relaxant and to calm the nervous system. Studies on the **physiological activity of lemon balm extract have shown antimicrobial, antiviral and antioxidant activities.** 

Lemon balm analysis show this plant contains **high levels of flavonoids**, terpenoic acid, volatile oils, alcohols and phenol compounds, such as **caffeic acid, luteolin** and rosmarinic acid.



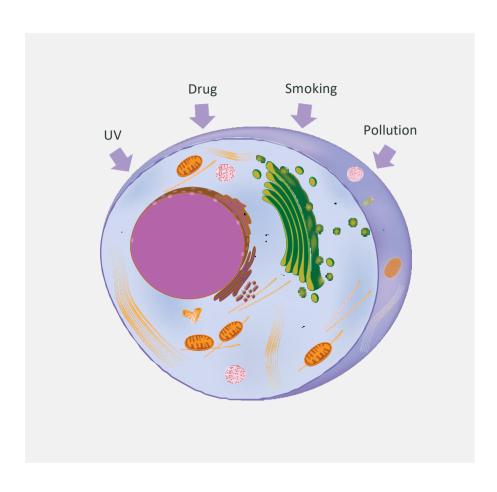
#### **Skin Structure**

The retention of water in the Stratum corneum (SC) is dependent on two major components: (1) the presence of natural hygroscopic agents within the corneocytes (collectively referred to as natural moisturizing factor) and (2) the SC intercellular lipids orderly arranged to form a barrier to transepidermal water loss (TEWL). The water content of the SC is necessary for proper SC maturation and skin desquamation. Increased TEWL impairs enzymatic functions required for normal desquamation resulting in the visible appearance of dry, flaky skin.





### **Anti-oxidation**



#### Why are they important?

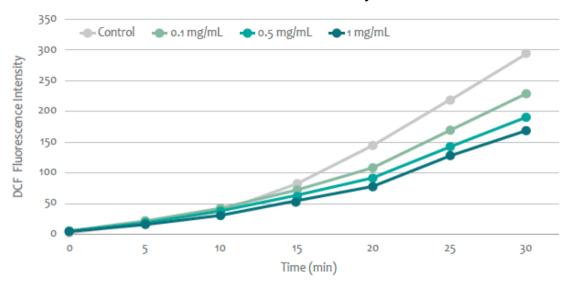
Our skin is under attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS).

Antioxidants from Beebalm can inhibit the generation of ROS and in turn inhibit cellular damage.



## **Anti-oxidation Effect of Beebalm (in vitro)**

#### **ROS Inhibition Activity**

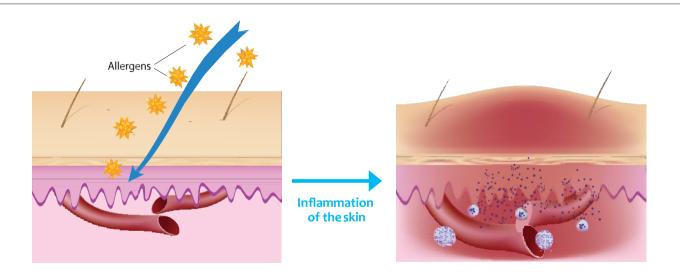


Our cells are under attack from many factors in daily life, such as UV, pollution and stress. These factors increase Reactive Oxygen Species (ROS). Antioxidants from Beebalm can inhibit the generation of ROS in cells and in turn inhibit cellular damage, as demonstrated by the results shown in this graph.





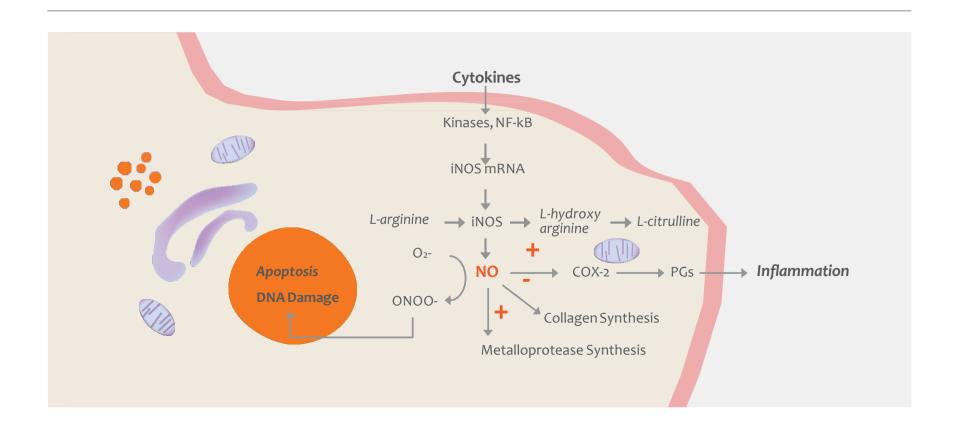
#### What is Inflammation?



Inflammation is part of the complex biological responses to wide range of harmful stimuli including injury, tissue necrosis, infection, and irritants. The purpose of inflammation is to destroy (or contain) the damaging agent, initiate repair processes and return the damaged tissue to useful function. The symptoms of inflammation are redness, swelling, heat, and pain, which are caused by increased blood flow into tissue. The immune system is responsible of protecting our body from the harmful stimuli and of maintaining homeostasis. Disorders of the immune system can result in autoimmune diseases, inflammatory diseases, and cancer. In an attempt to protect the body, the immune system might overreact to the stimuli, and this might cause allergy or inflammatory reactions.

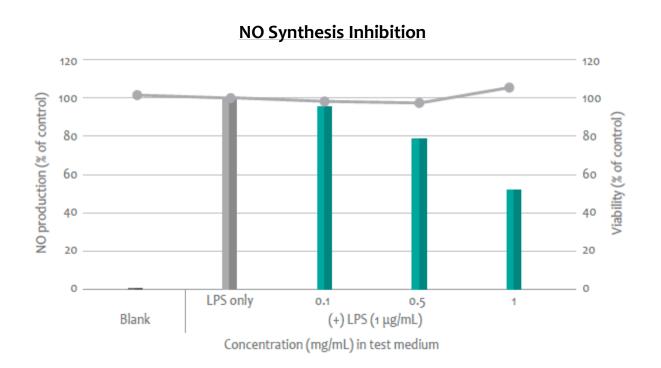


### **Inflammation Mechanism**





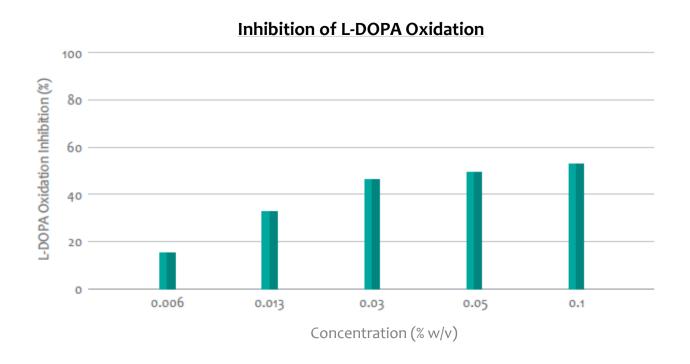
## Anti-Inflammation Effect of Beebalm (in vitro)



Nitric oxide (NO) synthesis was reduced by over 40% in macrophages treated with Beebalm.



# Skin Brightening Effects of Beebalm (in vitro)



Results show that there was a significant decrease in the synthesis of melanin when Beebalm was added to the test medium, in a concentration-dependent manner.



# **Reported functions**

Ingredient: MELISSA OFFICINALIS LEAF EXTRACT

INCI Name	MELISSA OFFICINALIS LEAF EXTRACT
Description	Melissa Officinalis Leaf Extract is an extract of the leaves of the Balmint, Melissa officinalis L., Labiatae
INN Name	
Ph. Eur. Name	
CAS #	84082-61-1
EC #	282-007-0
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	SKIN CONDITIONING
SCCS opinions	
Identified INGREDIENTS or substances e.g.	

Source: European Commission [http://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details\_v2&id=57852]



# Product Information

Product Name: Beebalm

**INCI name:** Melissa Officinalis Leaf Extract

(China Compliant)

**Dosage:** 1 – 3%

Formulation: Add to the formulation

when the temperature is lower than 55°C.

Recommended to add after the cooling process.

**Storage:** Avoid direct light or UV.

Keep it in a cool and dry area.













