





#### **Sweet Calm**

Product Name: Sweet Calm
Plant Name: Lady's Bedstraw

Galium verum is a perennial herbaceous plant. Lady's Bedstraw's name derived from its historical use as a mattress filler, due to its pleasant aroma, springy quality and flea-repellent properties that are as a result of the plant's astringent activities.

This perennial herbaceous plant spreads throughout the most of Europe, Northern Africa, Russia and Asia.

The stems can be so dense with flowers that they carpet the grass with yellow from June to September.

#### **Traditional Use**

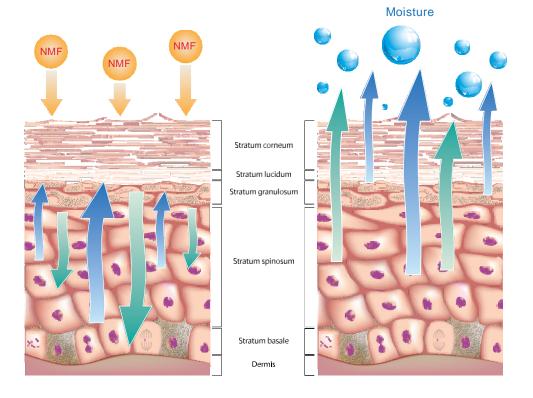
Lady's Bedstraw flower has an association with giving birth in Norse mythology. Historically, Scandinavians used Lady's Bedstraw as a sedative for women during labor, with Frigg, the goddess of married women, who was said to help women give birth, which is where the other name of bedstraw was derived - 'Frigg's grass'.

Historical medicinal uses included making powders from the plant, which was applied to soothe reddened skin and reduce inflammation, whilst the plant was used as a poultice on cuts and skin infections. Extracts of Lady's Bedstraw is proven to be an antioxidant due to the activity from ursolic acid, rubifolic acid and quercetin.



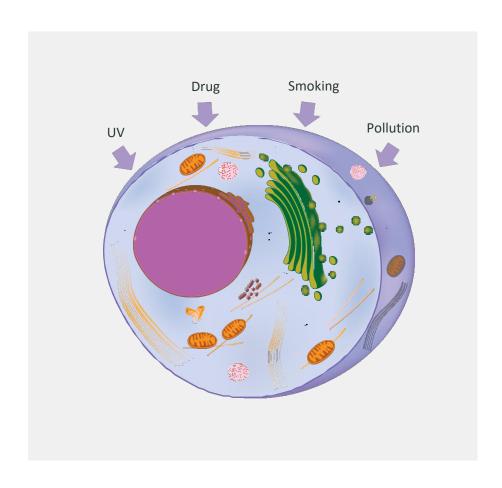
#### **Skin Structure**

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.





### **Antioxidants**

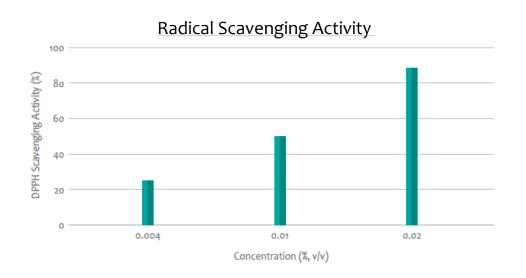


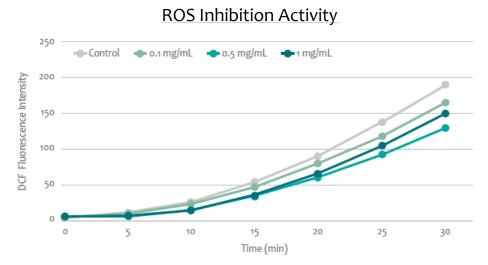
#### Why are they important?

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 Sweet Calm can inhibit the generation of ROS cells and in turn inhibit cellular damage.



### Antioxidant Effects of Sweet Calm (in vitro)

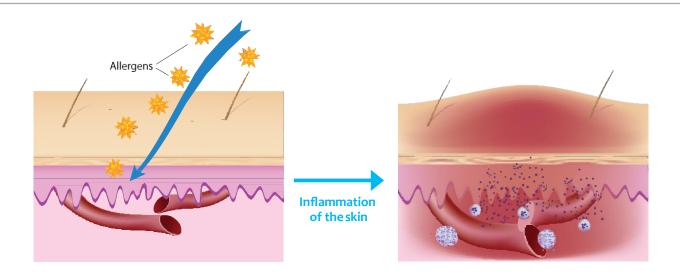




Our skin is under attack from many factors in daily life, such as UV, pollution and stress. These factors increase the Reactive Oxygen Species (ROS). Antioxidants from Sweet Calm can inhibit the generation of ROS and in turn inhibit cellular damage, as demonstrated by the results shown in these graphs.



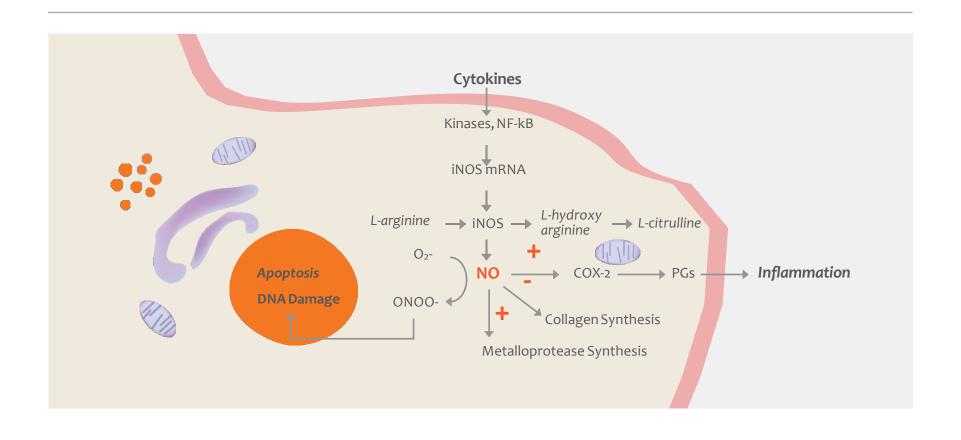
#### What is Inflammation?



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.

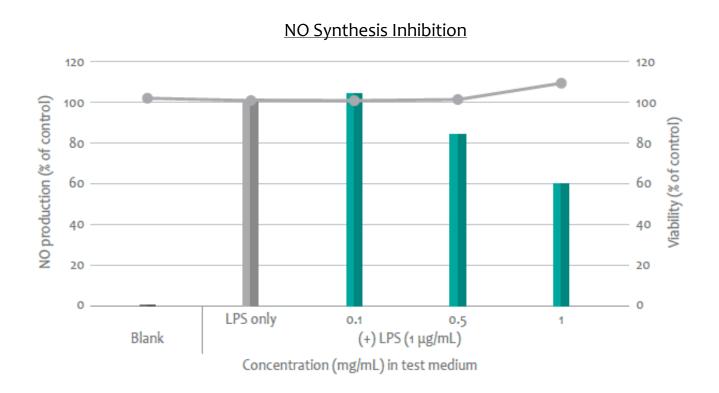


### Inflammation Mechanism





### Anti-inflammatory Effect of Sweet Calm (in vitro)



As the concentration of Sweet Calm increases, nitric oxide (NO), an inflammatory molecule decreases.



## **Reported functions**

#### Ingredient : GALIUM VERUM EXTRACT

INCI Name	GALIUM VERUM EXTRACT
Description	Galium Verum Extract is the extract of the whole plant, Galium verum L., Rubiaceae
INN Name	
Ph. Eur. Name	
CAS #	90028-84-5
EC #	289-878-6
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	SKIN CONDITIONING
SCCS opinions	
Identified INGREDIENTS or substances e.g.	



# Product Information

**Product Name:** Sweet Calm

**INCI name:** Galium Verum Extract

**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.













