



# ALFALFA SEED



UPCYCLED

*A New Outlook*

# FRENCH FIELDS UNSUNG

## SEED

Alfalfa grows across 12,000–15,000 hectares in Centre-West, South-West, and South-East France, cultivated for forage and seed. Seed production is long and demanding, yet some seeds fail germination standards. Though healthy, they remain unsellable. Upcycling these seeds reduces waste, supports French growers, and strengthens local seed sovereignty.

**INCI NAME :** GLYCERIN (AND) WATER (AND) MEDICAGO SATIVA (ALFAFA) SEED EXTRACT

**RECOMMENDED DOSE :** UP TO 1%

**ASPECT :** YELLOW CLEAR LIQUID

**SOLUBILITY :** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 2,57 (kWh/kg)

**WATER CONSUMPTION :** 1,99 (kg/kg)

**ISO :** 16128 **NDI :** 1

**ORIGIN :** FRANCE

100% ANTIOXYDANT

100% ENERGIZING

81% ANTI - INFLAMMATORY

50% HYDRATION

46% PROTECTION





# ALMOND SHELL



## UPCYCLED

*A New Outlook*

# PROVENCE GOLDEN NUT

Almond production generates 2.6 million tons of by-products yearly — 70% are hulls and shells, mostly burned, though rich in cosmetic actives.

In **Provence**, almond trees thrive on sunlit limestone soils. The sector is reviving in **Vaucluse**, **Bouches-du-Rhône**, and **Alpes-de-Haute-Provence**, offering sustainable, local French almonds for cosmetic innovation.



**INCI NAME:** GLYCERIN (AND) WATER (AND) PRUNUS AMYGDALUS DULCIS (SWEET ALMOND) SEEDCOAT EXTRACT

**RECOMMENDED DOSE:** 1%

**ASPECT:** YELLOW CLEAR LIQUID

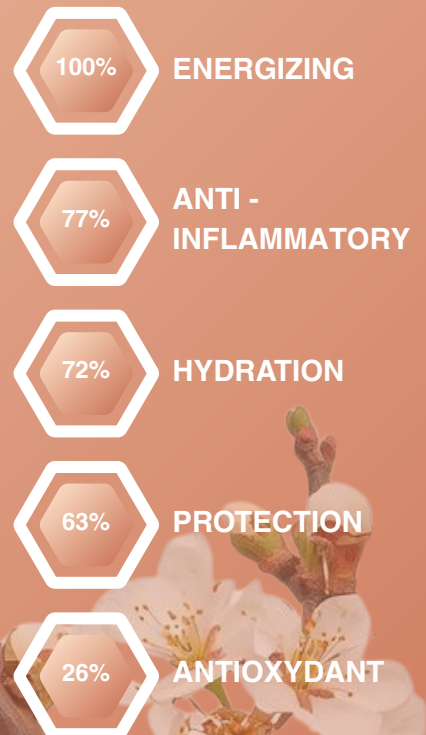
**SOLUBILITY:** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 2,23 (kWh/kg)

**WATER CONSUMPTION :** 2,04 (kg/kg)

**ISO 16128 NDI:** 1

**ORIGIN:** FRANCE





# BIOTECHEMP

*Longevity through low and high-tech*



MULTI-TARGETED ACTION AGAINST THE HALLMARKS OF AGEING

BETTER RESULTS THAN RESVERATROL

HIGH-PERFORMANCE TECHNOLOGIES



# HALLMARKS OF AGING

Primary / Core mechanisms leading to dysfunction



Antagonistic / Factors exacerbating primary effects

Integrative / Outcomes affecting overall aging



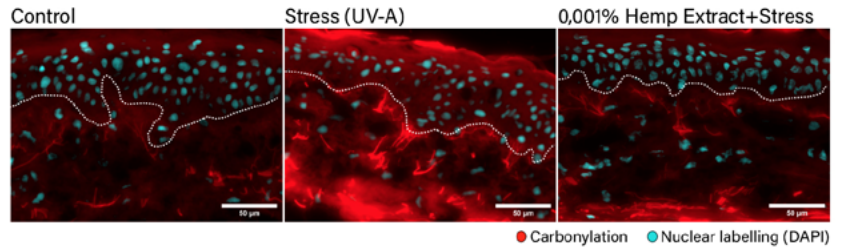
## PRIMARY HALLMARKS



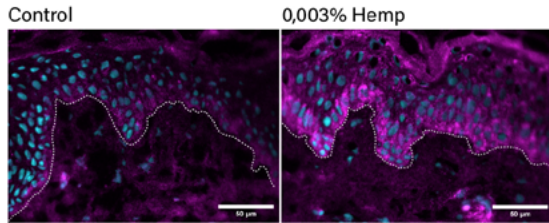
**EFFICACY AGAINST PROTEIN CARBOXYLATION**

### PROTEIN CARBOXYLATION :

The accumulation of damaged proteins contributes to the loss of proteostasis and cellular dysfunction. This can directly affect cellular processes and trigger responses in antagonistic hallmarks.



● Carbonylation ● Nuclear labelling (DAPI)



**LAMP2A** : A decrease in the autophagy leads to the accumulation of damaged proteins and organelles, which can further interact with primary hallmarks by overwhelming cellular repair mechanisms.

● LAMP2A ● Nuclear labelling (DAPI)



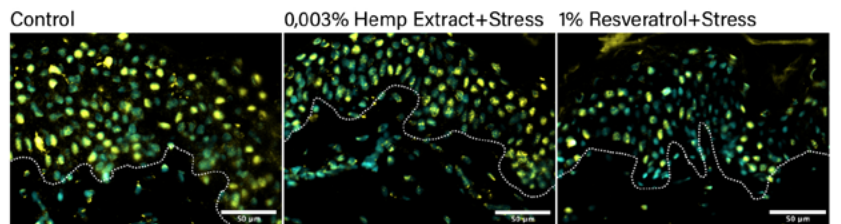
**INDUCTION OF LAMP2A LEVELS**

## ANTAGONISTIC HALLMARKS

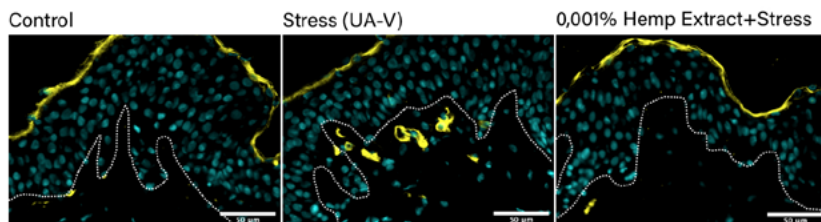


**SIRTUIN INDUCTION COMPARED TO RESVERATROL**

**SIRT-1** loss affects nutrient-sensing pathways and epigenetic modifications, contributing to cellular senescence and inflammation. Reduced SIRT1 activity can exacerbate the effects of primary hallmarks.



● Sirtuin 1 ● Nuclear labelling (DAPI)



● P16INK ● Nuclear labelling (DAPI)

**P16** leads to cellular senescence, where cells stop dividing, contributing to tissue dysfunction and inflammation. This interacts with integrative hallmarks by affecting tissue regeneration.



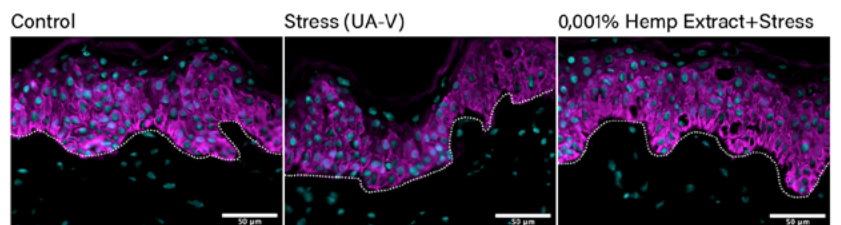
**EFFICACY AGAINST SENESCENT CELLS**

## INTEGRATIVE HALLMARKS

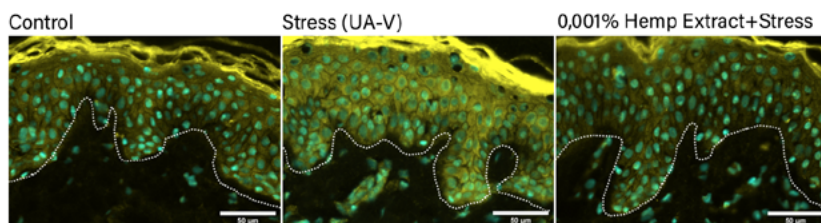


**EFFICACY AGAINST KERATIN 14 REDUCTION**

**K-14** reduction affects the skin's structural integrity and regenerative capacity, contributing to ageing. Dysregulation of K14 can be influenced by the accumulation of senescent cells and inflammation from antagonistic hallmarks.



● Keratin 14 ● Nuclear labelling (DAPI)



● TNFα ● Nuclear labelling (DAPI)

**TNF-α** contributes to chronic inflammation, exacerbating tissue damage and interacting with both primary and antagonistic hallmarks by amplifying the inflammatory response.



**EFFICACY AGAINST TNF-α INDUCTION**



# BIOTECHEMP

Longevity through  
low and high-tech



PRIMARY  
HALLMARKS:



EFFICACY  
AGAINST  
PROTEIN  
CARBONYLATION

ANTAGONISTIC  
HALLMARKS :



SIRTUIN-1  
INDUCTION  
COMPARED TO  
RESVERATROL

INTEGRATIVE  
HALLMARKS:



EFFICACY  
AGAINST  
KERATIN 14  
REDUCTION

## THE POTENTIAL OF PLANT BIOTECHNOLOGY



Combining advanced plant biotechnology and microwave-assisted extraction, this cannabisin-rich ingredient supports the longevity of the skin by maintaining proteostasis, stimulating autophagy and protecting against senescence.

**INCI:** Water & Pentylene Glycol & Cannabis Sativa Root Extract

**pH range of use:** 4-10

**Use level:** 1-3%

**Solubility:** Soluble in water

**Aspect:** Clear liquid

**ISO 16128 NI:** 0,70 **NDI:** 1



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**IK INABATA**



# CARROT SEED



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**INCI NAME :** GLYCERIN (AND) WATER  
(AND) DAUCUS CAROTA SATIVA (CARROT)  
SEED EXTRACT

**RECOMMENDED DOSE :** UP TO 3%

**ASPECT :** YELLOW-ORANGE CLEAR LIQUID

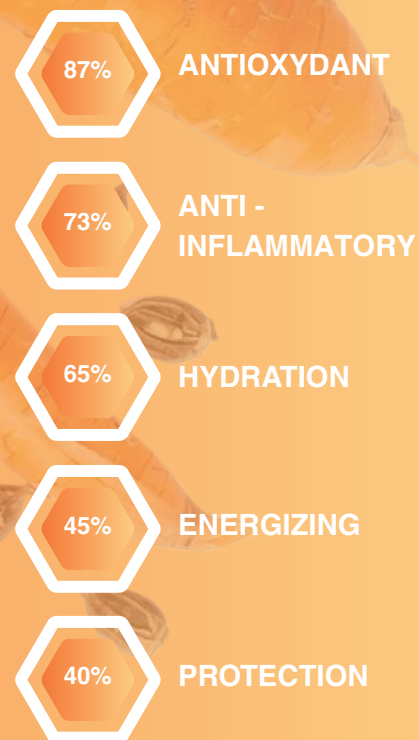
**SOLUBILITY :** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 10,82 (kWh/kg)

**WATER CONSUMPTION :** 5,96 (kg/kg)

**ISO :** 16128 **NDI :** 1

**ORIGIN :** FRANCE



## LOIRE LOST HARVEST

Carrot seeds come from batches rejected due to low germination rates. Though botanically sound, they remain unused. In France, carrots are the second most consumed vegetable, with 9 kg per person annually. Harvested across **Loire and nearby regions**, over **10 tons of downgraded seeds** are available each year. Upcycling them gives new life to this overlooked stream and supports the French seed industry.



COSMOS  
APPROVED



# CHESTNUT BARK

## UPCYCLED

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# OCCITANIE ROOTED HERITAGE



In southern France's Occitanie region, the Cévennes chestnut forests span 60,000 hectares. This self-regenerating ecosystem provides 100,000 m<sup>3</sup> of wood annually, supporting local industries. The bark, a sawmill by-product, is reused as renewable energy—an example of circular economy. Choosing Cévennes chestnut means embracing sustainability, authenticity, and nature.

**INCI NAME:** GLYCERIN (AND) WATER (AND) CASTANEA SATIVA (CHESTNUT) BARK EXTRACT (AND) SODIUM BENZOATE

**RECOMMENDED DOSE:** 1-3%

**ASPECT:** DARK BROWN LIQUID

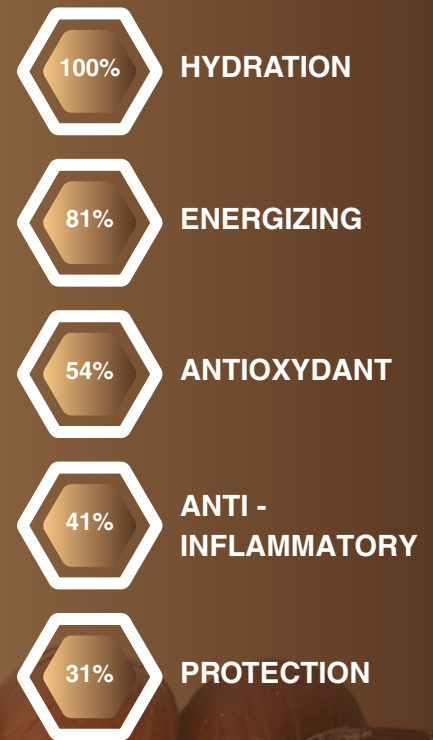
**SOLUBILITY:** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 11,73 (kWh/kg)

**WATER CONSUMPTION :** 6,35 (kg/kg)

**ISO 16128 NDI:** 1

**ORIGIN:** FRANCE





# GRAPEVINE



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**INCI NAME :** PROPYLENE GLYCOL (AND)  
WATER (AND) VITIS VINIFERA (GRAPEVINE)  
EXTRACT

**RECOMMENDED DOSE :** UP TO 2%

**ASPECT :** DARK RED LIQUID

**SOLUBILITY :** SOLUBLE IN WATER

**ISO :** 16128 **NDI :** 1

**ORIGIN :** FRANCE

**ENERGY CONSUMPTION :** 19,10 (kWh/kg)

**WATER CONSUMPTION :** 15,21 (kg/kg)

**ISO 16128 NDI:** 1

**ORIGIN:** FRANCE

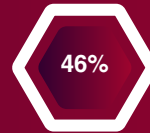


**ANTIMICROBIAL  
PERFORMANCE**



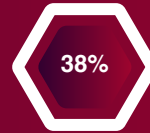
100%

**HYDRATION**



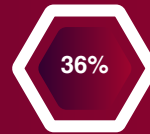
46%

**ANTIOXYDANT**



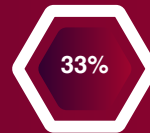
38%

**PROTECTION**



36%

**ANTI -  
INFLAMMATORY**

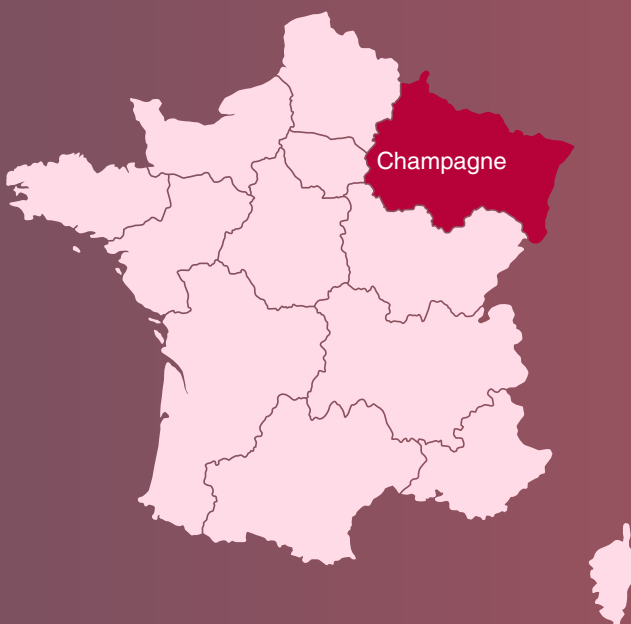


33%

**ENERGIZING**

## CHAMPAGNE REBORN VINE

Each year, **between 3 and 5%** of French vineyards are removed (about **25,000 hectares**) mainly to adjust planting density, change grape varieties, or maintain vineyard age. In the **Champagne region**, we collect vine by-products from cooperatives. Though essential, vine removal is costly, time-consuming, and emits significant CO<sub>2</sub>, as vines are typically burned.





# LEONURUS

*Healthy-looking by nature*



RELIEVES SKIN  
IRRITATION

HELPS AGAINST  
ATOPIC  
DERMATITIS

HIGH  
PERFORMANCE  
ECO-  
EXTRACTION

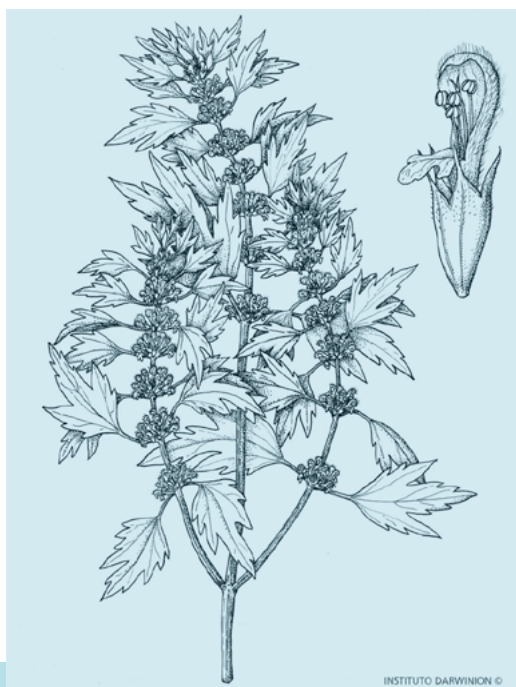
SUSTAINABLE  
TECHNOLOGY

## GROUNDBREAKING ECO-EXTRACTION



**PATENTED TECHNOLOGY:  
3 COMBINED ACTIONS**  
HIGH EFFICIENCY ECO-EXTRACTS  
LESS SOLVENT, TIME AND ENERGY SPENT

- ✓ ENERGY SAVING
- ✓ FASTER PROCESS
- ✓ BETTER YIELD
- ✓ 5 TIMES LESS CO<sub>2</sub>



### THE POWER OF NATURE

The rutin-rich extract of Leonurus Japonicus is one of the 50 fundamental herbs of the Traditional Chinese Medicine. The plant is known as a powerful antioxidant and anti-inflammatory efficient on very dry skin with atopic tendency.

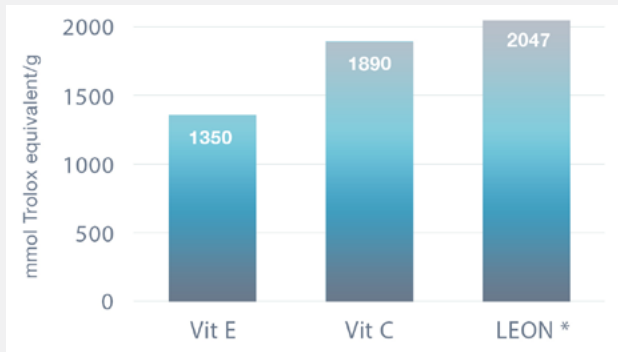
**Place of Origin:**  
Shandong Province, east of China

**Part:**  
Aerial, herbal plants

**Traditional cultivation  
by a farmers' cooperative**



# ANTIOXIDANT POWER : ORAC TEST



Leonurus japonicus extract exhibited good antioxidant power, higher than vitamins E or C. Antioxidant properties will help to fight against free radicals and will help to keep the skin barrier in a healthy state, reducing oxidation and water loss.

<sup>1</sup> *Cosmetic Dermatology: Products and Procedures* Zoe Diana Draelos, 2011, Wiley Blackwell



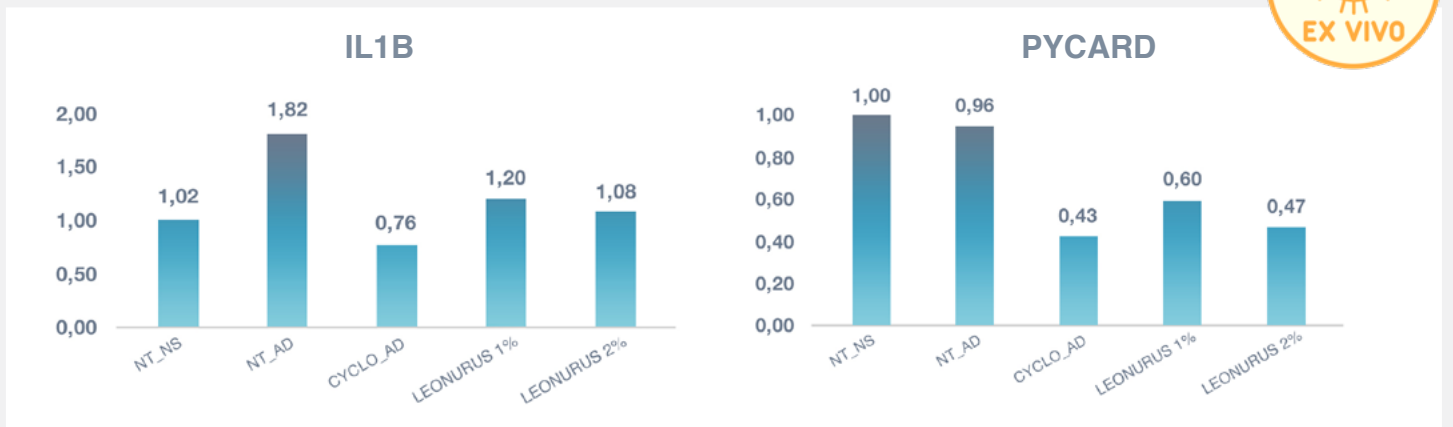
**ANTIOXIDANT POWER COMPARED TO VITAMIN E**

ORAC: Oxygen radical absorbance capacity \*Leonurus Japonicus powder extract

# EX-VIVO STUDY: VERY DRY SKIN WITH ATOPIC TENDENCIES

Skin biopsies in atopic state induced by a cytokine cocktail

INFLAMMASOME GENES MODULATION



NT-NS: Non treated explants ; NT-AD: Explants treated with cytokines cocktail ; Cyclosporin was used as pharmacological control ; Skin explants were either treated for 24h with active ingredient or Cyclosporin or not. Skin explants were then stressed with AD cytokines cocktail with or without active ingredient.

Leonurus extract shows diminution of gene expression related to the inflammatory response.



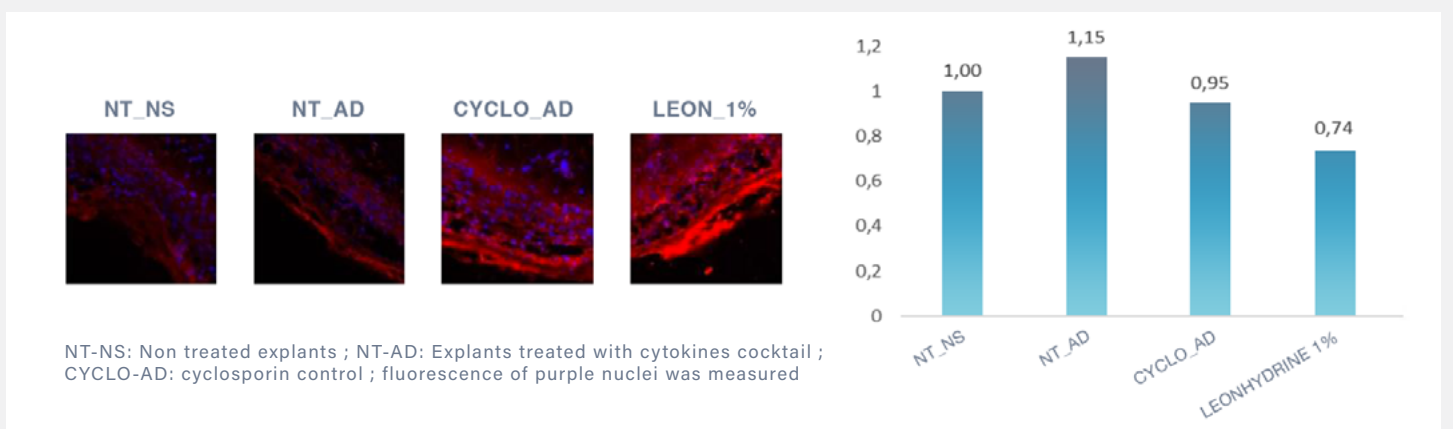
**EXPRESSION OF INFLAMMASOME GENES**



**PRODUCTION OF TSLP AT PROTEIN LEVEL**

## TSLP EPIDERMIS LEVEL MODULATION

Mean intensity of fluorescence in Cy5 after IHC of TSLP : quantity of TSLP in skin explant normalized by non treated explants (NT\_NS).



NT-NS: Non treated explants ; NT-AD: Explants treated with cytokines cocktail ; CYCLO-AD: cyclosporin control ; fluorescence of purple nuclei was measured



## Indispensable ally against inflammation



PRODUCTION OF  
TSLP AT PROTEIN  
LEVEL



EXPRESSION OF  
INFLAMMASOME  
GENES



ANTIOXIDANT  
POWER COMPARED  
TO VITAMIN E

**INCI:** Water & Butylene Glycol & Leonurus Japonicus Extract

**pH range of use:** 4-10

**Use level:** 1-3%

**Solubility:** Soluble in water

**Aspect:** light brown liquid

**ISO 16128 NI:** 0,70

**NDI:** 1

**Shelf life:** 2 years





# LIQUORICE LEAF



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# PROVENCE FORGOTTEN LEAVES

Organic liquorice is grown on just 3.5 hectares in Provence, yielding around 1.5 tons of leaves annually. Often overlooked in favor of the roots, these leaves fall naturally before the November harvest. Though currently unused, they offer potential for upcycling, reducing waste and diversifying applications, while roots are harvested every four years without harming the plant.



**INCI NAME:** GLYCERIN (AND) WATER (AND) GLYCYRRHIZA GLABRA (LICORICE) LEAF EXTRACT

**RECOMMENDED DOSE:** 1-3%

**ASPECT:** YELLOW CLEAR LIQUID

**SOLUBILITY:** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 2,45 (kWh/kg)

**WATER CONSUMPTION :** 1,77 (kg/kg)

**ISO 16128 NDI:** 1

**ORIGIN:** FRANCE



**PROTECTION**



**ENERGIZING**



**HYDRATION**



**ANTIOXIDANT**



**ANTI -  
INFLAMMATORY**





# OLIVE LEAF



UPCYCLED

*A New Outlook*



**INCI NAME :** GLYCERIN (AND) WATER (AND) OLEA EUROPAEA (OLIVE) LEAF EXTRACT

**RECOMMENDED DOSE :** UP TO 1%

**ASPECT :** AMBER LIQUID

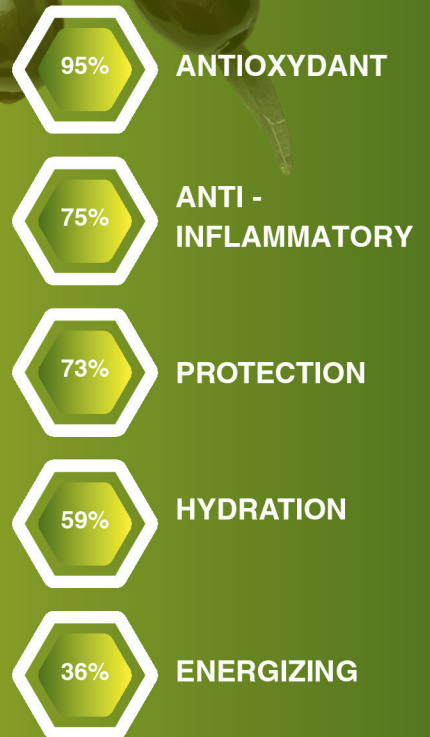
**SOLUBILITY :** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 3,87 (kWh/kg)

**WATER CONSUMPTION :** 2,50 (kg/kg)

**ISO :** 16128 **NDI :** 1

**ORIGIN :** FRANCE



## MEDITERRANEAN SILVER HERITAGE

Provence is the heart of French olive culture, home to over 12,000 hectares of organic groves. While pruning leaves are typically discarded, they are naturally packed with powerful antioxidants.

We upcycle this residue into a premium cosmetic ingredient, certified Organic, Fair for Life, and NOP. Our process supports local heritage while turning agricultural waste into high-performance sustainable beauty.





# POLYPORUS

*Holistic Hair Care*



INCREASED  
HAIR GROWTH  
AND  
DENSITY

REDUCED  
HAIRLESS  
AREAS AND  
HAIR FALL

HIGH  
PERFORMANCE  
ECO-  
EXTRACTION

SUSTAINABLE  
TECHNOLOGY

## GROUND BREAKING ECO-EXTRACTION



**PATENTED TECHNOLOGY:**  
**3 COMBINED ACTIONS**  
 HIGH EFFICIENCY ECO-EXTRACTS  
 LESS SOLVENT, TIME AND ENERGY SPENT



**ENERGY SAVING**



**FASTER PROCESS**



**BETTER YIELD**



**5 TIMES LESS CO<sub>2</sub>**

## THE POWER OF NATURE

**Polyporus Umbellatus**, a precious edible and medicinal fungus, has been traditionally used in Chinese and Japanese medicine primarily for treating urinary systems and related kidney diseases. Recent research has indicated that this fungus also **has potential benefits to stimulate hair regrowth**.



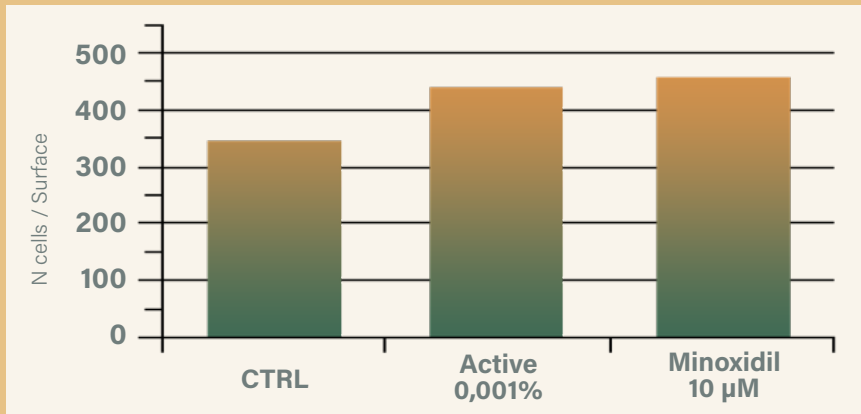
**Place of Origin:**  
 Sichuan,  
 Southwest of China

**Part:**  
 Sclerotia (underground part)



**The mushrooms are grown on buried logs near appropriate hardwood trees**

# EFFICACY TESTS

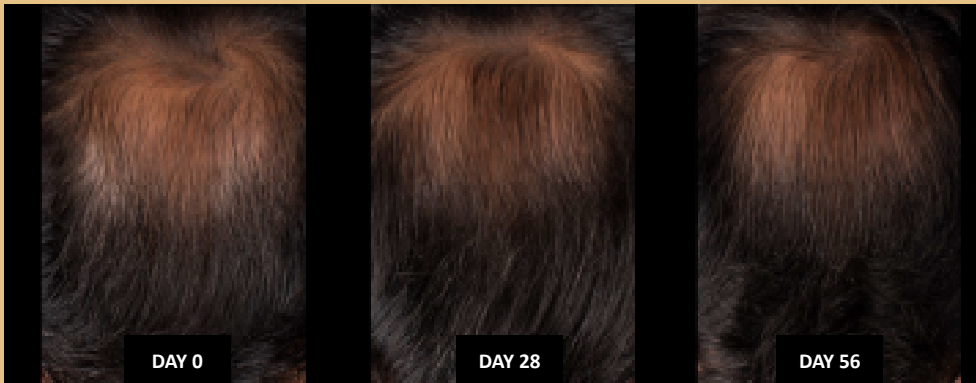


The Polyporus extract presented a significant increase of hair follicle cells similar to Minoxidil.

**UP TO +28%** HAIR REGROWTH



Two 56-day-long clinical studies on 20 volunteers each were performed (equivalent to 6% of Inawave Polyporus).



**REDUCED HAIR FALL**



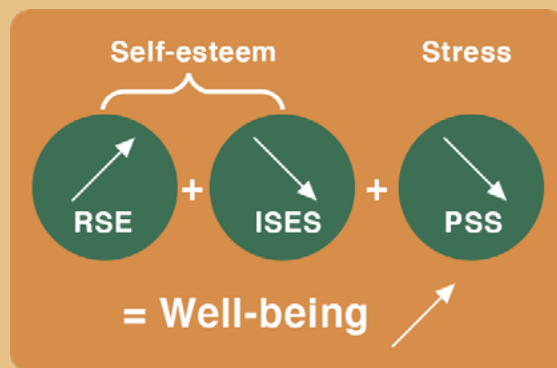
**REDUCED HAIRLESS AREAS**

**INCREASED HAIR DENSITY**

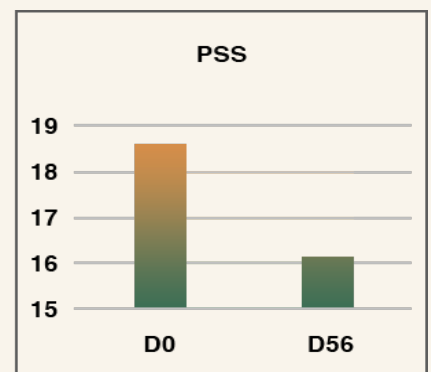
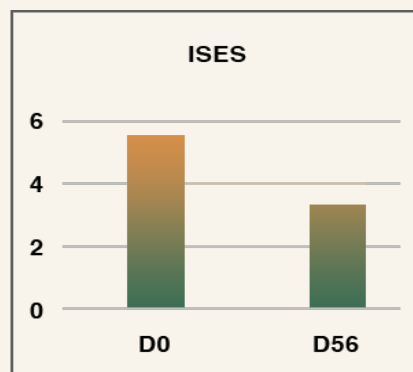
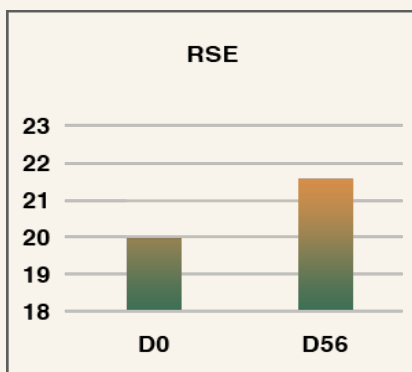


## WELL-BEING IMPROVEMENT

In addition, volunteers completed a self-assessment questionnaire, as well as self-esteem (RSE and ISES) and perceived stress (PSS) surveys, while their reactions were recorded via electroencephalography (EEG).



After 56 days of treatment, participants observed a significant hair shine improvement and hair loss reduction (overall acceptance 82%). Self-esteem of users improved (less instability with time).





OVERALL  
ACCEPTANCE  
82%

INCREASED  
HAIR  
DENSITY  
+6,3%

REDUCED  
HAIRLESS  
AREAS  
-9,6%

REDUCTION  
OF NEGATIVE  
FEELING  
EMOTION  
-99%

REDUCED  
HAIR FALL  
-20%

## No more "bad hair days": A holistic solution for hair and well-being



Inawave Polyporus increases hair growth and density and prevents hair fall, improving at the same time the well-being in general.

**INCI:** Water & Glycerin  
& Polyporus Umbellatus Extract  
& Potassium Sorbate

**pH range of use:** 4-10

**Use level:** Up to 6%

**Solubility:** Soluble in water

**Aspect:** Light brown liquid

**ISO 16128 NI:** 0,70 **NDI:** 0,99



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# STEMONA

*Well-ageing naturally*



RESTORES  
THE COLLAGEN  
NETWORK

IMPROVES  
THE SKIN  
FIRMNESS

HIGH  
PERFORMANCE  
ECO-  
EXTRACTION

SUSTAINABLE  
TECHNOLOGY

## GROUNDBREAKING ECO-EXTRACTION



**PATENTED TECHNOLOGY:  
3 COMBINED ACTIONS**  
HIGH EFFICIENCY ECO-EXTRACTS  
LESS SOLVENT, TIME AND ENERGY SPENT

- ✓ ENERGY SAVING
- ✓ FASTER PROCESS
- ✓ BETTER YIELD
- ✓ 5 TIMES LESS CO<sub>2</sub>



### THE POWER OF NATURE

**Stemona Tuberosa Roots** are used in the traditional medicine for pulmonary diseases, as it **decreases the inflammatory responses** by inhibiting the expression of diverse inflammatory mediators. We discover an interesting antioxidant activity, which contributes to the reinforcement of the collagen fibers and increases the skin firmness.

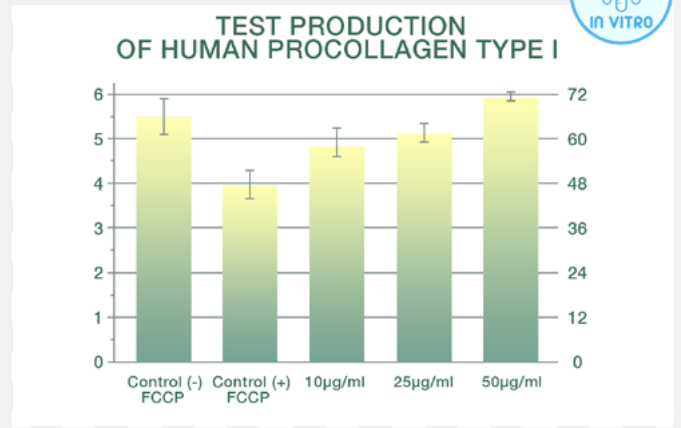
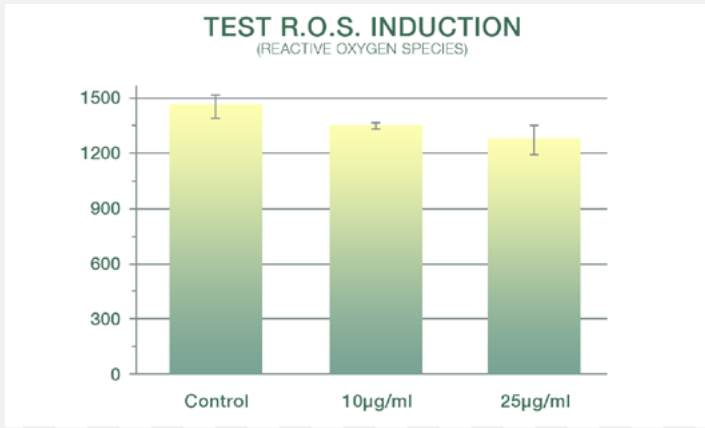
**Place of Origin:**  
Guangxi, South of China

**Part:**  
Root

**Traditional cultivation**  
by a farmers' cooperative



## IN-VITRO STUDY:



**PROCOLLAGEN PRODUCTION**



**INTRACELLULAR ROS SPECIES PRODUCTION**

## EX-VIVO STUDY:

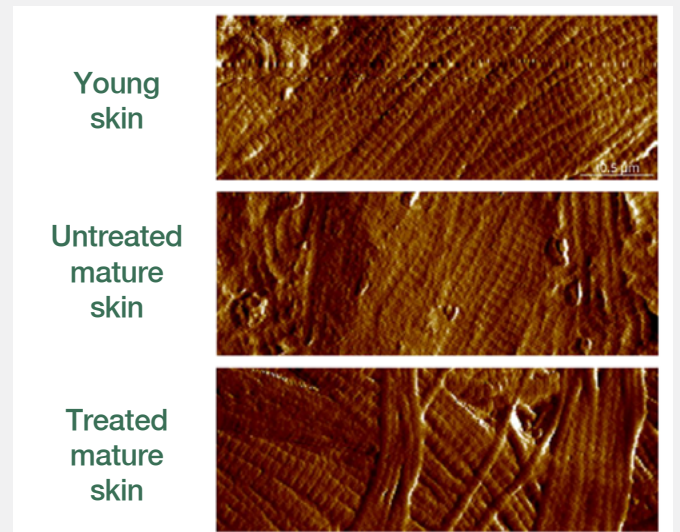


Two abdominal skin explants (young and mature) were used for this study with three conditions:

- Untreated young skin
- Untreated mature skin
- Mature skin treated with Stemona active (1%)

The analysis of the orientation and dispersion of collagen fibers revealed a more homogeneous orientation of fibers from mature skin, compared to fibers from younger skin. Stemona restores this orientation, making it similar to the one observed in the young condition.

AFM topographic images showing the visual quality/aspect of the collagen fibers between non-treated young skin, non-treated mature skin, and treated mature skin condition.



**COLLAGEN FIBRES OCCUPANCY RATE**

## CLINICAL STUDY:

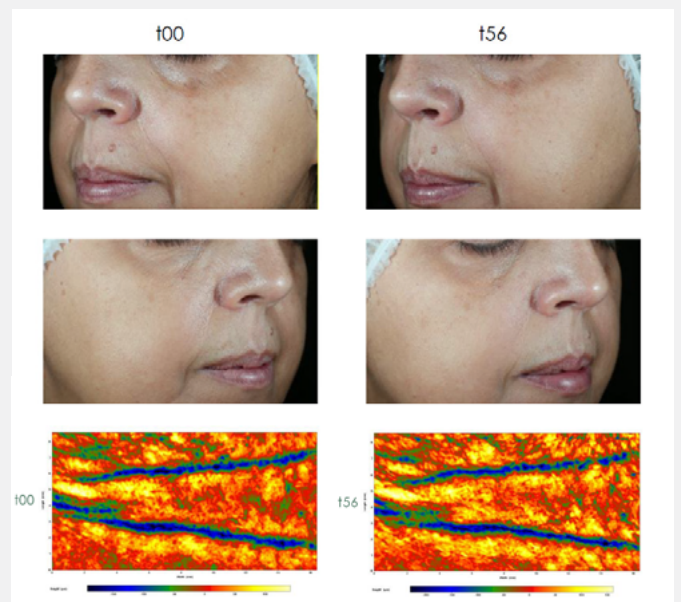


Double-blinded placebo-controlled clinical study, made with 22 women (35-70 years old) to evaluate the effect of Stemona at 1% in a facial emulsion, 56 days after a twice-daily application of the product, in comparison with the baseline and a placebo

Right and left hemi-face photographs before (left - t00) and after (right - t56) the treatment of the product with Stemona twice-daily application. Eye contour coloured depth picture before (t00) and after 56 (t56) consecutive days of twice daily application of the product containing Stemona.



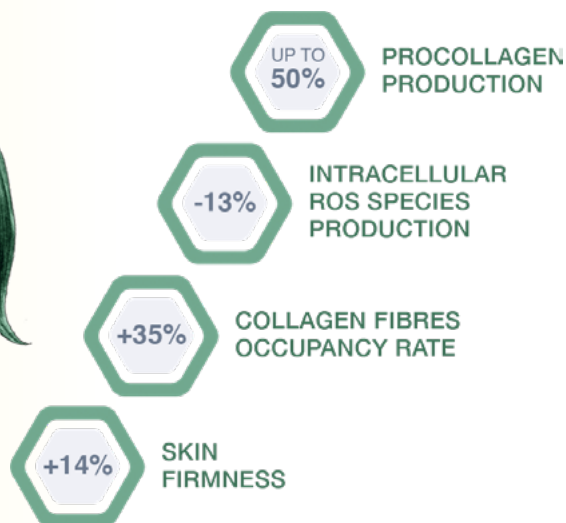
**SKIN FIRMNESS**





## YOUR ALLY IN AGEING WITH CONFIDENCE AND ELEGANCE

Stemona Tuberosa Root Extract is able to reduce the levels of reactive oxygen species and to restore collagen synthesis and cell proliferation depressed by an induced mitochondrial stress in fibroblasts.



**INCI:** Water & Propanediol & Stemona Tuberosa Root Extract

**pH range of use:** 4-10

**Use level:** 1-3%

**Solubility:** Soluble in water

**Aspect:** Light brown liquid

**ISO 16128 NI:** 0,70 **NDI:** 0,99



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WHITE TEA



UPCYCLED

*A New Outlook*

# ZHEJIANG PURE LEAF



White tea leaves come from China's Zhejiang region, where tea is grown in mountain areas, far from urban pollution. End-of-harvest leaves, less prized for their taste, are often left unharvested due to low demand. Yet, they offer high-quality compounds for cosmetics, allowing us to valorize an underused resource and helping Zhejiang farmers make the most of their entire crop.

**INCI NAME :** GLYCERIN (AND) WATER (AND) CAMELIA SINENSIS LEAF EXTRACT

**RECOMMENDED DOSE :** 1-3%

**ASPECT :** YELLOW CLEAR LIQUID

**SOLUBILITY :** SOLUBLE IN WATER

**ENERGY CONSUMPTION :** 1,12 (kWh/kg)

**WATER CONSUMPTION :** 0,68 (kg/kg)

**ISO 16128 NDI:** 1

**ORIGIN:** CHINA

100% HYDRATION

100% ENERGIZING

81% ANTIOXYDANT

59% ANTI - INFLAMMATORY

43% PROTECTION



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