

Avenaseed

Product Name: Avenaseed

Plant Name: Oat

Scientific name: *Avena sativa*



Oat-based food products

We eat oat-based food products in our daily lives like breads, biscuits, cookies, probiotic drinks, breakfast cereals, flakes.

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Health benefits of Oats

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- A nutrient-rich grain
- Lower Cholesterol Levels
- Improve Blood Sugar Control
- Help You Lose Weight



Reference: [1] 9 Health Benefits of Eating Oats and Oatmeal, <https://www.healthline.com/nutrition/9-benefits-oats-oatmeal>

Oats on skin

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Oats are effective in a variety of **dermatologic inflammatory diseases** such as pruritus, atopic dermatitis, acneiform eruptions, and viral infections. Additionally, oats have a skin protection function against ultraviolet rays.

- Psoriasis
- Atopic dermatitis
- Anti-itch activity
- Skin protection
- Moisturizing
- Acneiform eruptions
- Antiviral activity
- Antifungal activity



Reference: [1] Pazyar, Nader, et al. "Oatmeal in dermatology: a brief review. " Indian Journal of Dermatology, Venereology, and Leprology 78.2 (2012): 142.

History of Oats in skin care

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- **Around 2,000 BC**

People in Egypt and the Arabian Peninsula started to use oats in skin care around 2000 BC, where oat bath was a luxury for the rich.

- **27 BC – 476 AD (Roman Empire)**

In Roman times, oats were also used as a topical cleanser and skin treatment. Numerous references in Roman medical literature have reported the use of oatmeal in medicine.

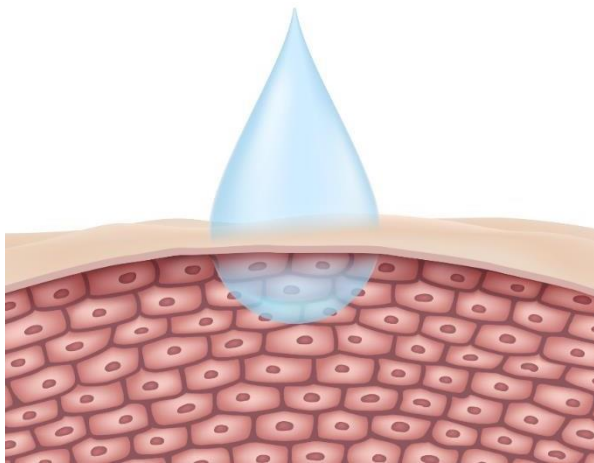
Actually, several studies have proved that oats bath is a good soothing treatment as well as a nonirritating, cleansing formulation for inflamed, itchy skin.

Reference: [1] Kurtz, Ellen S., and Warren Wallo. "Colloidal oatmeal: history, chemistry and clinical properties." *Journal of drugs in dermatology: JDD* 6.2 (2007): 167-170.

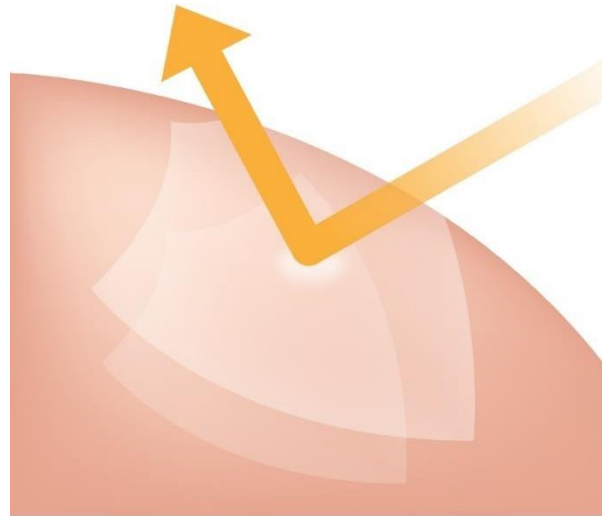
Chemical composition of Oats

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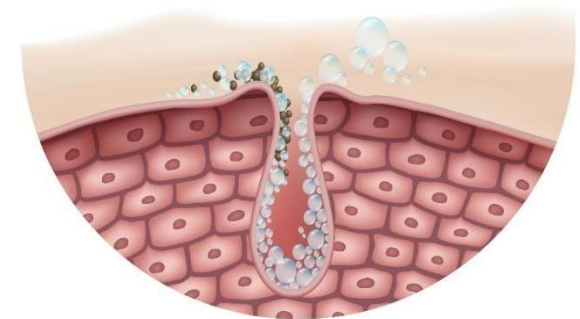
These various clinical properties of oats are derived from its enriched chemical composition. Its abundant starches and β -glucan are responsible for the skin hydration and helps the skin hold water and prevent water loss. The different types of phenols contribute to its antioxidant and anti-inflammatory activity and reduce UV-mediated damage in the skin. In addition, its high concentration of saponins provide the cleansing activity in oats.



β -glucan



phenols

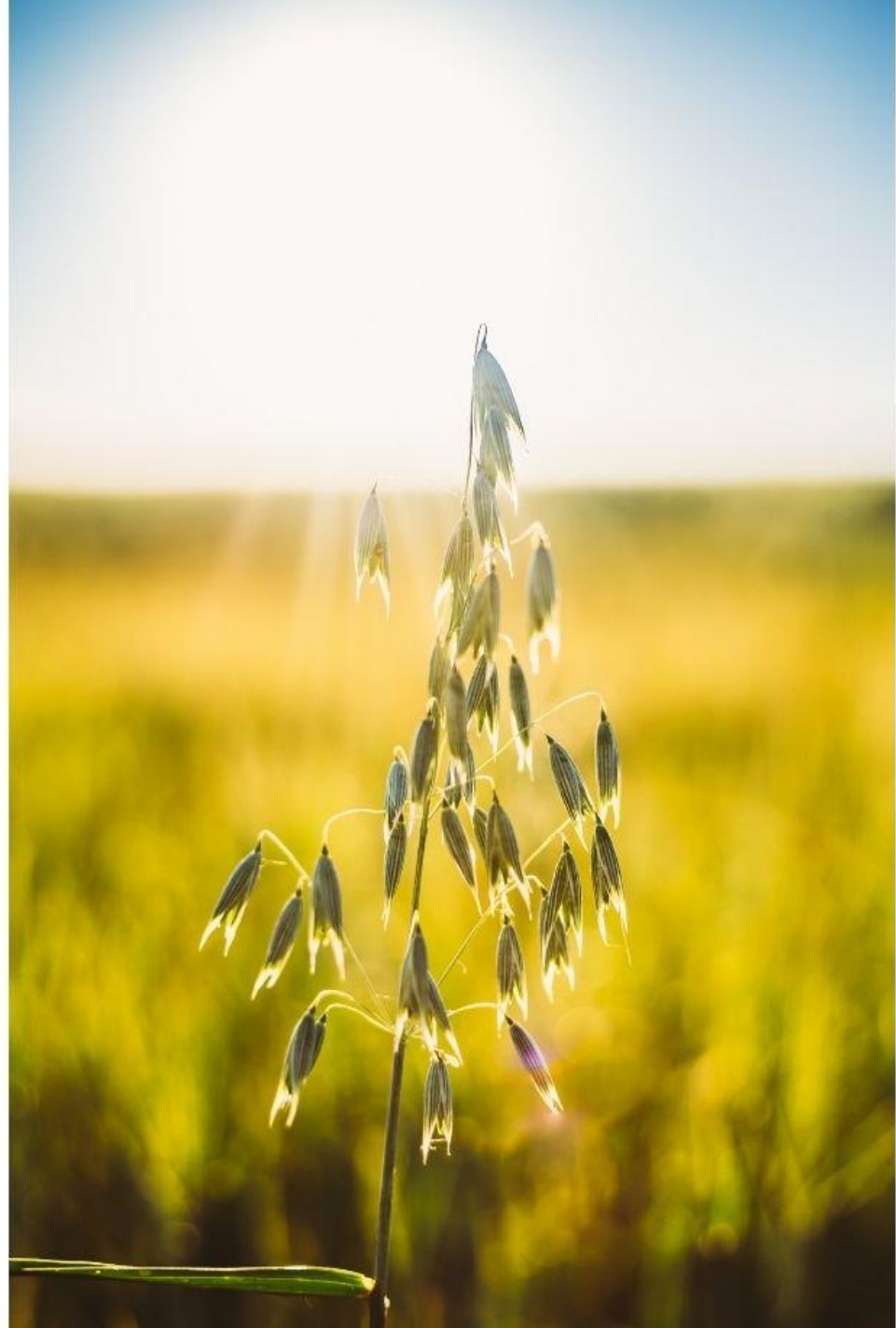


saponins

Reference: [1] Kurtz, Ellen S., and Warren Wallo. "Colloidal oatmeal: history, chemistry and clinical properties." *Journal of drugs in dermatology: JDD* 6.2 (2007): 167-170.
[2] Dimberg, Lena Häll, et al. "Stability of oat avenanthramides." *Cereal chemistry* 78.3 (2001): 278-281.

***In Vitro* efficacy**

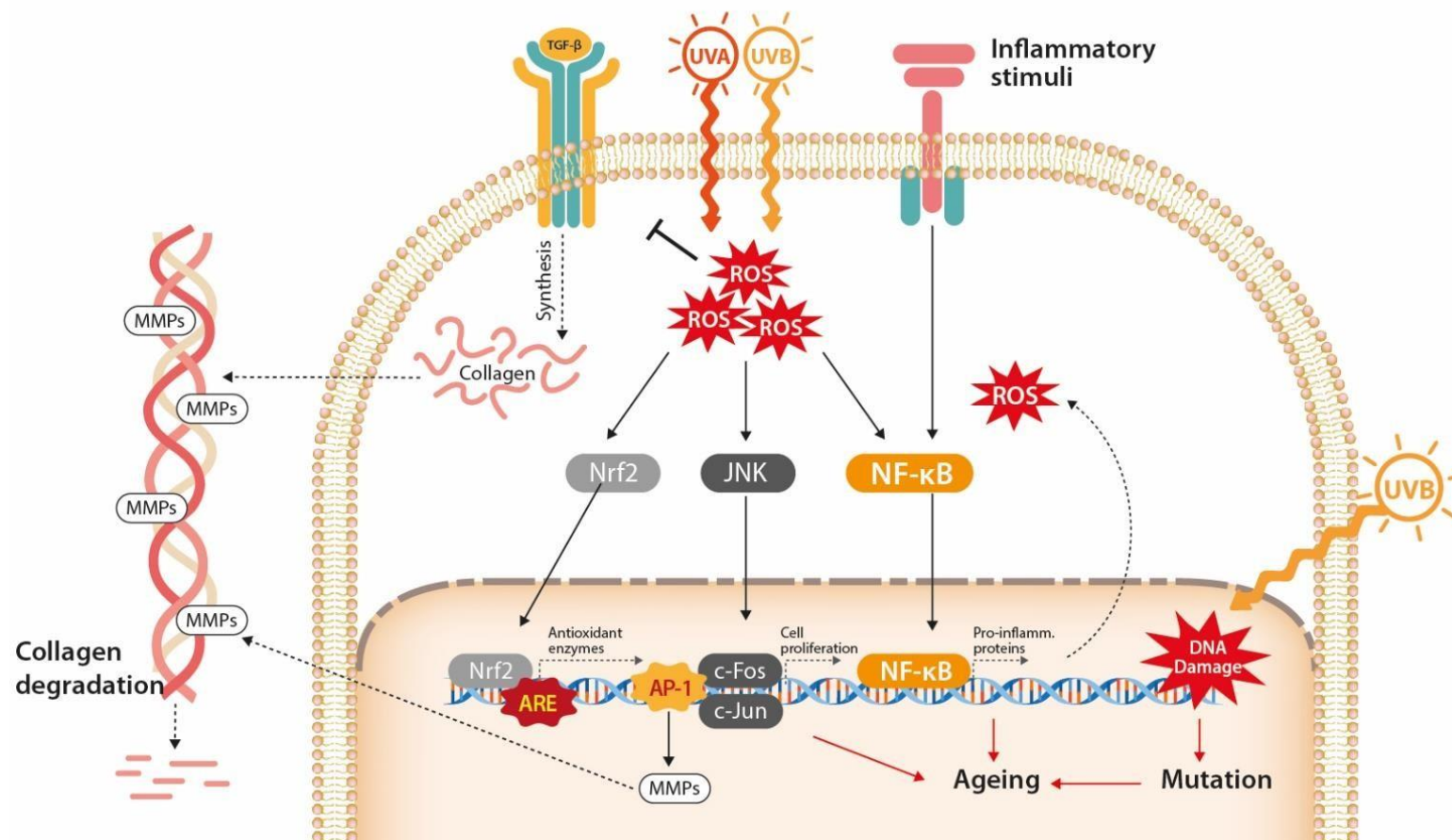
- **Anti-oxidant**
- **Anti-inflammation**
- **Anti-wrinkle Effects**
- **Hair Growth Effects**



Anti-Oxidant mechanism

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Our skin is under attack from many factors in daily life, such as UV, pollution and stress. These factors increase the Reactive Oxygen Species, which plays a major role in the skin aging process.

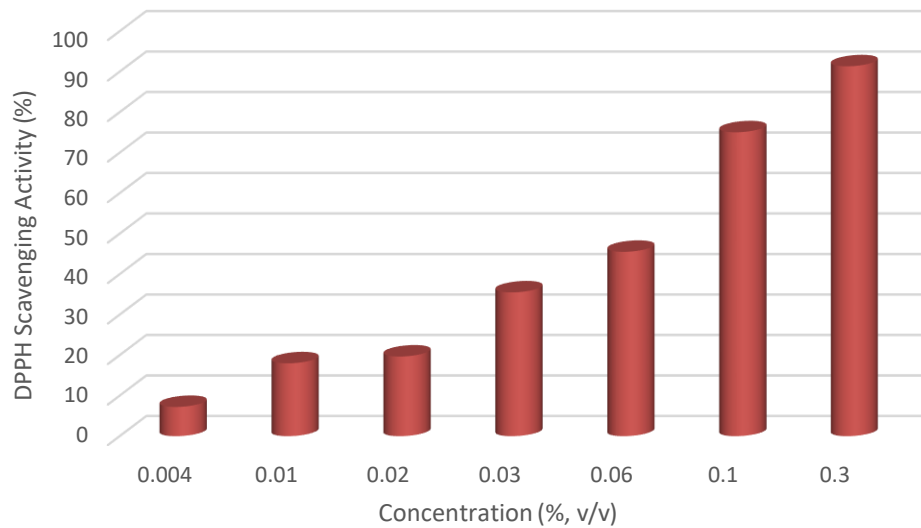


Antioxidant Effects of Avenaseed

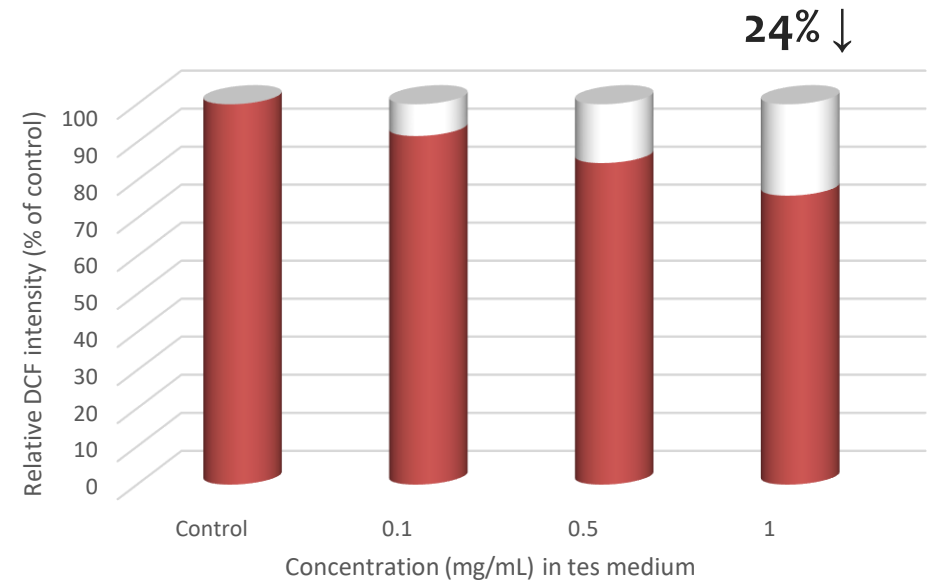
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When testing for free radical scavenging activity, it was confirmed that as the concentration of the Avenaseed increases, the inhibition activity also increases along with it. Avenaseed was also found to reduce oxidative stress by 24%.

Free Radical Scavenging Activity



ROS Inhibition Activity

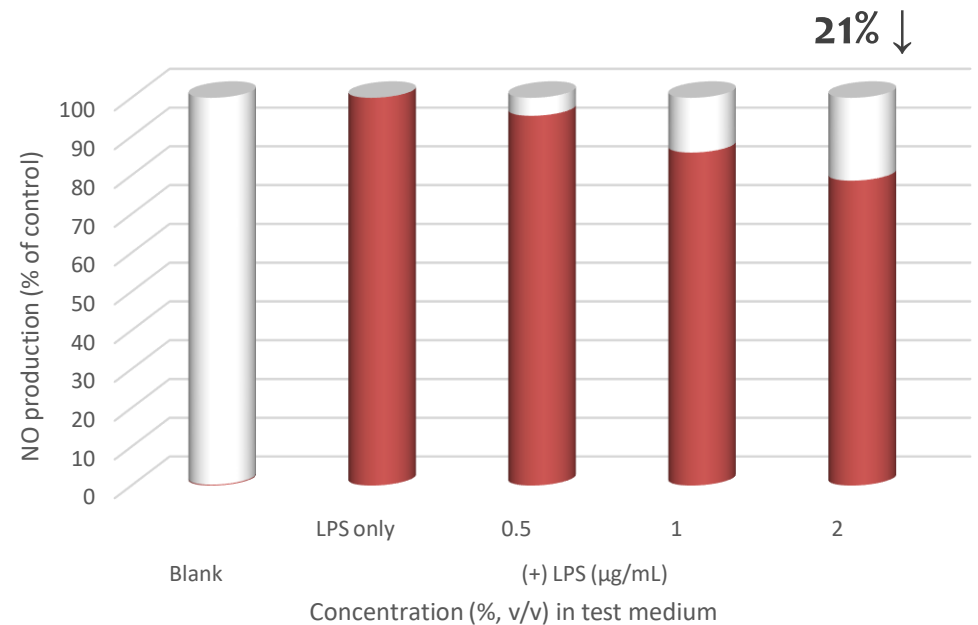
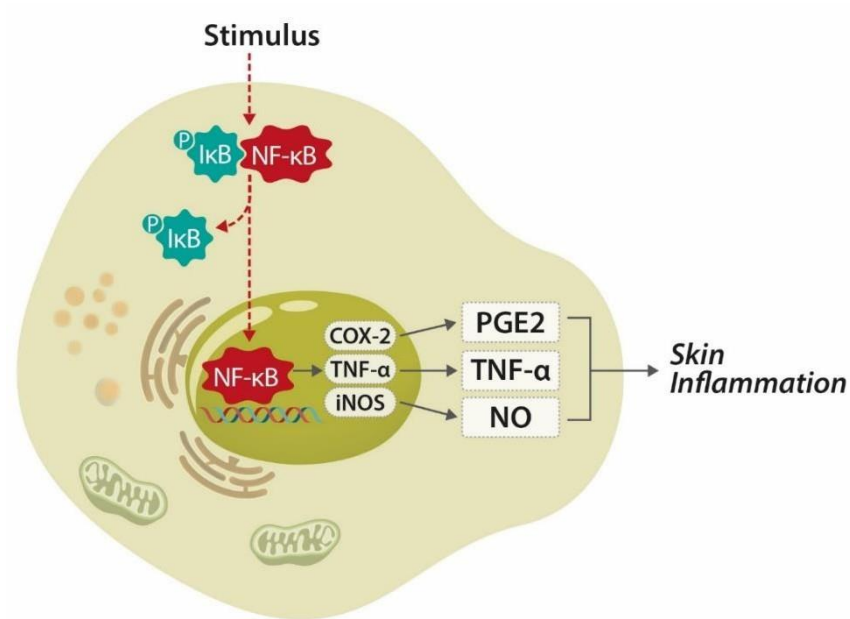


Anti-Inflammatory Effects of Avenaseed

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According to efficacy evaluation result, Avenaseed showed anti-inflammation by inhibiting Nitric oxide.

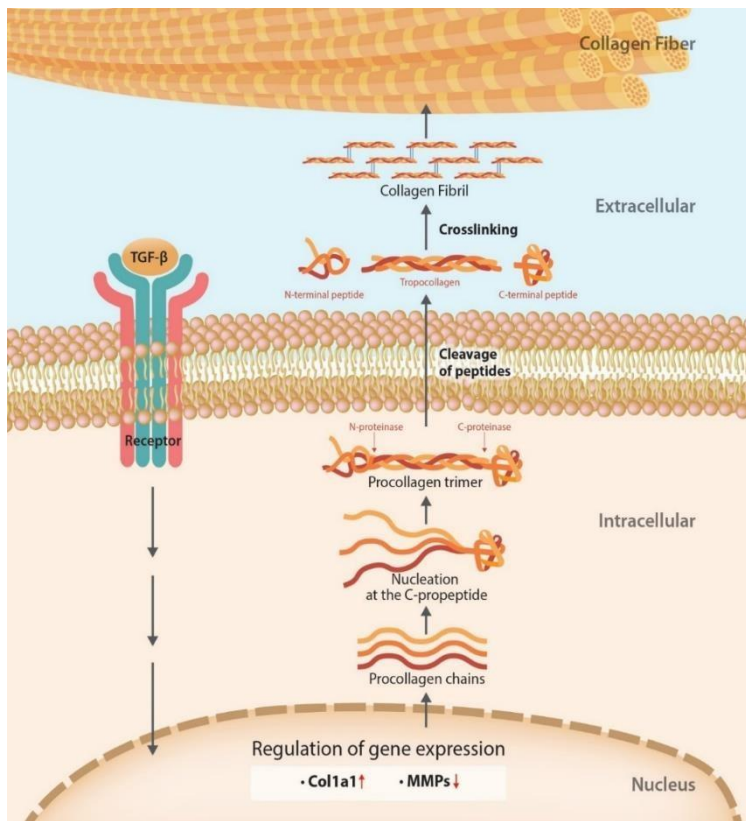
NO Synthesis Inhibition



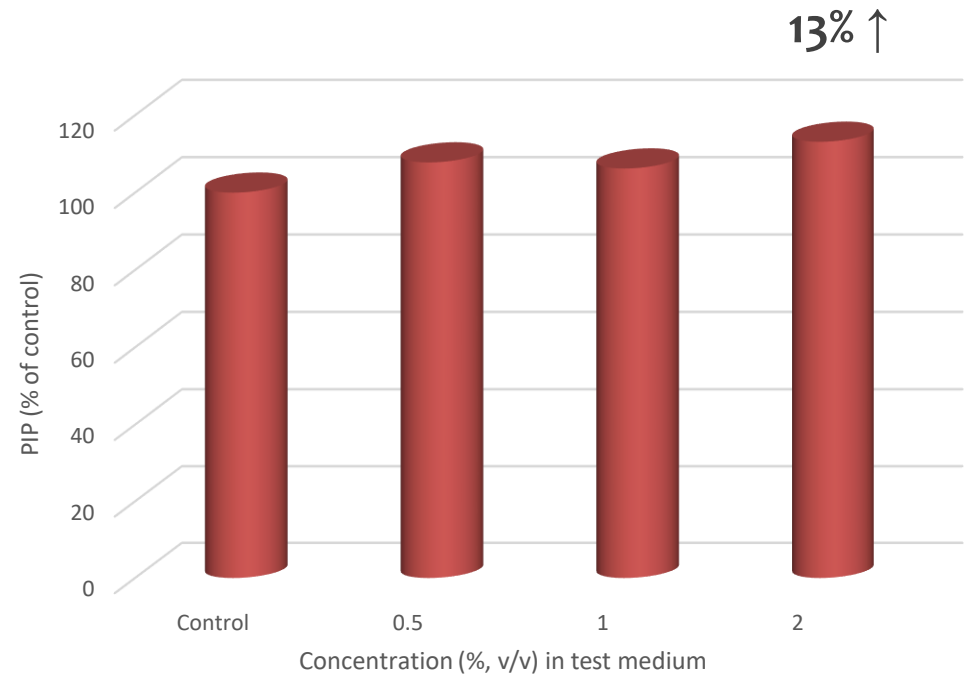
Skin Ageing and Wrinkle Formation

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When treating 2% Avenaseed, we found that collagen production increased by over 13%. This shows its excellent anti-wrinkle property.



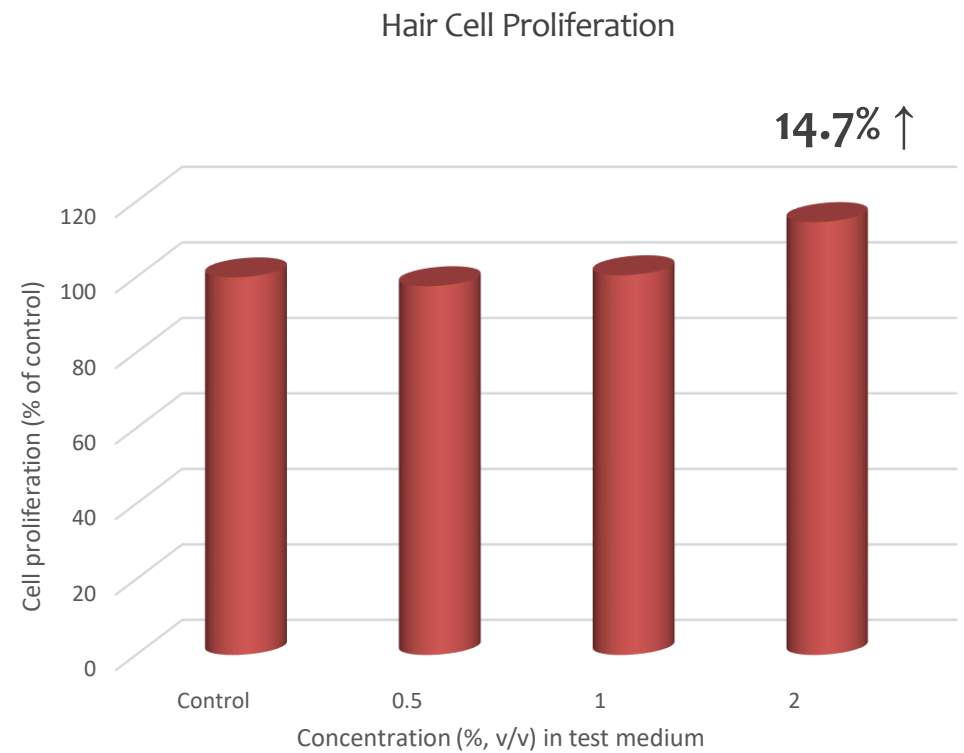
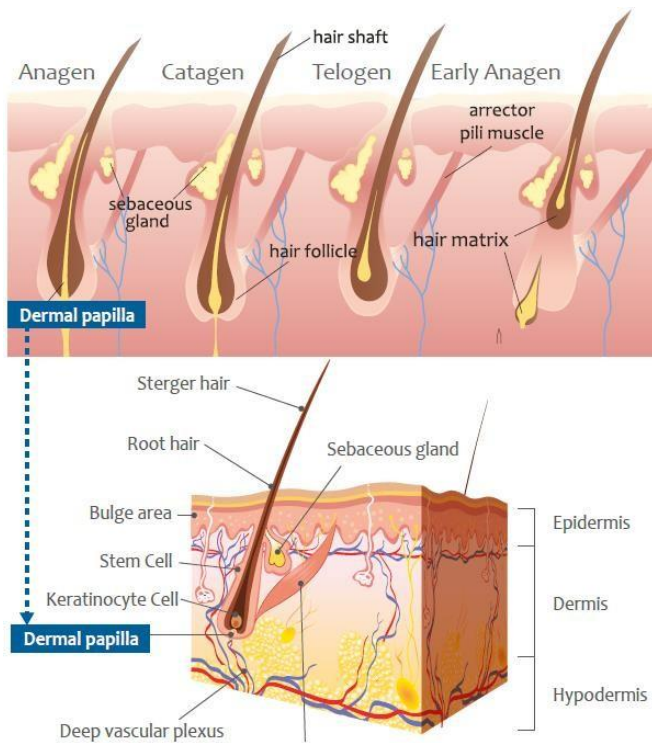
Procollagen Peptide Synthesis



Hair Growth Effects of of Avenaseed

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To evaluate the hair growth effects of Avenaseed, 2% Avenaseed was added to the test medium, and the result confirms its significant hair-growth efficacy by increasing hair cell proliferation by 14.7%.



Summary

- Grow in UK
- Multi-efficacy
- Various formulations of oats extracts



Product Information

- **Product Name** : Avenaseed
- **INCI name** : Avena Sativa (Oat) Seed Extract
- **IECIC 2015:** AVENA SATIVA EXTRACT
- **Dosage** : 1 – 3%
- **Efficacy** : anti-oxidant, anti-inflammation, anti-wrinkle, and hair growth effects .





The Secrets of Caledonia

The Secrets of Caledonia (TSOC) is a supplier of natural cosmetic ingredients inspired by Scottish traditional herbal medicine. Taking advantage of Scotland's biodiversity and working in collaboration with established Scottish herbalists, we aim to provide the most effective and innovative natural ingredients at the highest quality.



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