



Oat COM

DATA PACK



Oat COM: Advanced Protective Ingredient for Pet Grooming

TABLE OF CONTENTS

Tailored Care: Understanding the Unique Needs of Pet Skin and Coat	02-04
Oat COM : Gentle Relief for Sensitive Skin and Coat	05-06
Protect, Moisturise and Soothe Pet Skin with Oat COM	07-09
Strengthen Pet Coat with Oat COM	10
Comprehensive Guide to Pet Grooming Formulations with Oat COM	11
A Trusted and Safe Ingredient	12
A Sustainable Solution	13
Oat COM at a Glance	14
Technical Datasheet	15
References	16

TAILORED CARE: UNDERSTANDING THE UNIQUE NEEDS OF PET SKIN AND COAT

The pet care market, and especially the pet grooming market, is constantly growing. This rise can be explained by the increasing number of pet owners and pet humanisation. Nowadays, pet owners aspire to provide their pets with the same level of care that they give to themselves.

Protecting Pet Skin and Coat

The skin, being the largest organ of the body, serves as the primary barrier against environmental threats and plays a crucial role in thermoregulation. For pets, the health and integrity of their skin and coat are vital, as these animals often spend substantial time outdoors engaging in activities such as walking, running, and playing. During these outdoor excursions, pets are exposed to various forms of environmental pollutants, including wind, UV light and dust. These pollutants can have detrimental effects on their skin and coat, leading to alterations in their protective functions and overall health. Consequently, regular pet grooming is essential to maintain the health of the skin and coat, ensuring they continue to serve their protective and regulatory roles effectively.

Understanding Pets' Skin and Coat

While pets share similar skin anatomy and concerns compared with humans, each species possesses unique characteristics that must be considered. Pet grooming products must be specifically formulated to address the distinct physiological and dermatological needs of different types of pets, to effectively manage skin and coat issues.

Specie	Skin pH	Skin Characteristics	Coat Characteristics
Dog ¹⁻⁴	6.2 - 7.5	<ul style="list-style-type: none">• Skin's structure similar to humans' skin (epidermis, dermis, subcutis)• Epidermis thinner than for humans• Melanin presents to protect from UV damage• Epidermal lipids such as cholesterol esters and free fatty acids have a role in dogs' skin barrier function	<ul style="list-style-type: none">• Hair made of keratin and amino acids (similar to humans' hair)• Primary hair (top coat): long, thick, stiff• Secondary hair (undercoat): small, soft, insulation function
Cat ⁵⁻⁶	6.4 - 6.9	<ul style="list-style-type: none">• Skin's structure similar to humans' skin• Sulphuric amino acids very important for tissue integrity protection, DNA repair, synthesis of vitamins and proteins	<ul style="list-style-type: none">• Hair structure similar to humans' hair• Deficiency in amino acids can lead to hair damage, loss, slow growth and brittleness
Horse ⁷	4.5 - 6.8	<ul style="list-style-type: none">• Skin's structure similar to humans' skin• Thicker epidermis in areas prone to injuries or bites (back, rump, legs)• pH can rise up to 7.9 with sweating	<ul style="list-style-type: none">• Hair structure similar to humans' hair

TAILORED CARE: UNDERSTANDING THE UNIQUE NEEDS OF PETS' SKIN AND COAT

Targeted Pet Grooming: Meeting Pets' Requirements and Bringing Solutions

The skin and coat of pets serve as a natural shield, protecting them from environmental stressors, dust and insects. However, these external factors can compromise the integrity of their skin barrier and coat, disrupting their protective functions. To maintain optimal skin and coat health, it is crucial to provide pets with additional protection.

Pets can be subject to various external aggressors, causing or intensifying diverse skin and coat concerns:

Dryness & Flakiness

As the air temperature decreases, pets' skin becomes more prone to dryness. Cold air lacks humidity, causing the skin to lose its natural oils, which leads to dryness. Additionally, moving between temperature extremes, from heated indoor environments to cold outdoor air, or vice versa, can exacerbate skin **dryness** and result into **flakiness**.

On the other hand, during summer, rising temperatures and intensified UV lights challenge pets' thermoregulation. Sweating is one way to release heat, however, excessive sweating can lead to an important trans epidermal water loss, resulting in **decreased moisture levels**. This often manifests as dryness and irritation. Furthermore, UV lights can break down the skin's structure, leading to a reduction in skin elasticity⁸ and dry skin.

By **nourishing** and **moisturising** the skin, pet grooming products **protect skin** from dryness and prevent flakiness. Maintaining a strong skin barrier is also necessary to retain essential moisture and **reduce the trans epidermal water loss**, improving hydration and minimising dryness.

Inflammation (Irritation, Redness & Sensitivity)

Windy conditions can strip the skin of its natural oils, leaving it dry and vulnerable to damage. Prolonged exposure to strong wind can further lead to **irritation**.

During summer, exposure to **UV light** and high temperatures contribute to skin inflammation. When pets are exposed to these conditions, especially for short-haired pets, whose skin is even more exposed to UV light, they may experience **heat rash**. The damaging effects of UV light on the skin include the manifestation of **inflammation** and visible **redness**.⁸ Pets' skin become irritated, making them scratch themselves.

Additionally, pets repeatedly come into contact with pollen, grass, and dust. These irritants can contribute to the development of **sensitive skin**, but some pets are also prone to this condition due to genetic reasons. Having a sensitive skin means the skin reacts more strongly to environmental triggers, resulting in discomfort such as irritation and redness.⁹

To alleviate the symptoms caused by inflammation, pet grooming products can be applied onto the skin to **soothe irritation, reduce redness, and provide relief** to **sensitive skin**.

Itchiness

Pets experience **insect bites**, leading to itching and tiny insects can be transported to their skin via dust. Even though they may not always be visible, these hidden insect can potentially trigger **allergic reactions**. The major symptom of insects bites or allergic reactions is **itching** and as a result, pets tend to excessively **scratch**.

Pet grooming products can be used to **alleviate itchiness** by **soothing** the skin.

TAILORED CARE: UNDERSTANDING THE UNIQUE NEEDS OF PETS' SKIN AND COAT

Weak Hair

Cold and windy weather can affect pets' coat, which becomes **rough, dull and loses its shine**. Some pets can also have trouble with excessive shedding, resulting in excessive **hair fall**, resulting from a **weakened coat**.

Fortifying the coat's strength and resilience is essential to prevent breakage and counteract excessive shedding. By **nourishing** the hair shaft and improving elasticity, pet grooming products help pets to **keep a shiny, soft and robust coat**.

Dirty, Smelly and Stinky Hair

The fur of pets can trap dirt, sweat, bacteria and various particles. Over time, this accumulation can lead to an unpleasant **odour**, the coat looks and feels **greasy**, impacting both **appearance and comfort** of pets.

Regular grooming is essential to maintain a clean and healthy skin and coat. Creating pet grooming products that efficiently cleanse, promote a shiny coat, and avoid skin irritation can be challenging. To achieve **gentle cleansing**, pet grooming products must contain **effective and mild** ingredients.

Oat COM: A Natural Protection For Sensitive Skin And Strong Coat

Pets commonly experience dryness and irritation due to compromised skin barrier. Their coat can be weakened by external stressors. To address these issues, Oat Services developed: Oat COM, a suitable ingredient able to fight these concerns and enhance overall pets' comfort. Oat COM is designed to protect and repair skin barrier and coat strength by moisturising the skin, alleviating inflammation and irritation, soothing skin and strengthening the coat, while providing gentle cleansing.

Oats are a well-known and trusted plant source for health and skin care, offering exceptional benefits while being gentle to skin. Oat COM, advanced colloidal oatmeal, produced using patented technology and is registered as the FDA as an effective skin protectant. Oat COM can be used to soothe dry, irritated and itchy skin. A range of molecules from oats will promote a healthy appearance of the skin and coat for pets. These properties make it an ideal ingredient to launch into the pet grooming market.

OAT COM: GENTLE RELIEF FOR SENSITIVE SKIN AND COAT

Origin and Production Process

Oat COM, an advanced colloidal oatmeal, is traditionally manufactured by ultra-fine grinding of whole oat kernel. It is notoriously difficult to achieve a fine particle size in oats, due to the high lipid content (7 to 10%), this prevents shattering of the starch particles using traditional milling techniques. Oat Services' Oat COM is manufactured using a patented process, a high beta-glucan oat grain is used as a raw material which is then processed using tailored techniques to optimise activity, functionality and increase the bioavailability of phytochemicals.

Oat Services patented process has identified techniques to improve traditional colloidal oatmeal by using modern techniques to reduce the particle size, rather than traditional over-grinding, which causes the breakdown and degradation of a number of key skin beneficial molecules in oats. The use of a low-pressure extruder in the process enables the starch to be converted to a pre-gelatinised state, offering the following benefits: ¹⁰

- Pre-solubilising the oat starch resulting in significantly fine particle size on milling - ***Elevating formulation overall texture, providing a smoother and more luxurious application experience.***
- Changing the form of the oil/starch complex to create a more efficient particle shattering platform - ***Enhancing ingredient penetration and improving stability, texture and performance of the formulation.***
- Creating sufficient starch wall damage to ensure that the cell actives are soluble and easily absorbed - ***Increasing ingredient solubility, overall bioavailability and maximising effectiveness (easily absorbed into the skin).***
- Reducing microbial loads of bacteria, yeast and moulds to ultra-low levels - ***Crucial for preserving the integrity of the formulation and maintaining its safety, stability, and shelf life.***

Oat COM: A Natural Protection For Sensitive Skin And Strong Coat

Oat COM can be used to moisturise the skin, alleviate inflammation and irritation, soothe skin and maintain a strong and shiny coat:

Bioactive Compounds	Oat COM
Starch (g/100g)	58.00
Oat beta-glucans (g/100g)	5.00
Avenanthramides (mg/100g)	80.00
Lipids (g/100g)	7.00
Amino acids (g/100g)	16.00
Avenacins (g/100g)	15.00

Starch

Oat COM contains a high concentration of starches, which are highly **moisturising** molecules that act as humectants.¹¹ Oat COM enhances hydration and helps counterbalance excessive trans epidermal water loss, effectively **reducing dryness**.¹²

Oat Beta-glucans

Oat Beta-glucans are small particles which, when dispersed into water, create a **protective film barrier**, which enables optimal **water retention** and protects the skin and coat of pets.^{11,13} Oat beta-glucans have also been proven to reduce redness and **relieve irritation** in pet's skin.¹²

Avenanthramides

Avenanthramides, exclusive to oats, possess remarkable properties for pet grooming products. They act as key **anti-inflammatory** agents, **soothing irritation** and **redness**, while also functioning as **antioxidants** to combat UV-induced inflammation.¹⁴ Additionally, avenanthramides serve as **antihistamines**, minimising allergic reactions.¹⁴ Avenanthramides are essential for enhancing pets' well-being and comfort, particularly for those with sensitive skin.

OAT COM: GENTLE RELIEF FOR SENSITIVE SKIN AND COAT

Oat COM: A Natural Protection For Healthy Skin And Strong Coat

Lipids

Lipids are essential components of the skin barrier.¹⁵ Oat COM **supports and rebuilds** a healthy **skin barrier** by replenishing lipids levels. This **fortifies the hair shaft** resulting in more resilient fur, **reducing hair breakage**.¹⁶

Amino Acids

Hair keratin is composed of amino acids, which provide strength to the hair. Due to its high content of amino acids, Oat COM helps to **strengthen and repair weakened hair**, minimising the hair fall.

Avenacins

Avenacins are known for their natural cleansing activity, as they have the ability to attract oil and dirt.¹⁷ Oat COM acts as a **gentle cleanser**, effectively removing impurities while maintaining the skin's natural moisture balance.

PROTECT, MOISTURISE AND SOOTHE PET SKIN WITH OAT COM

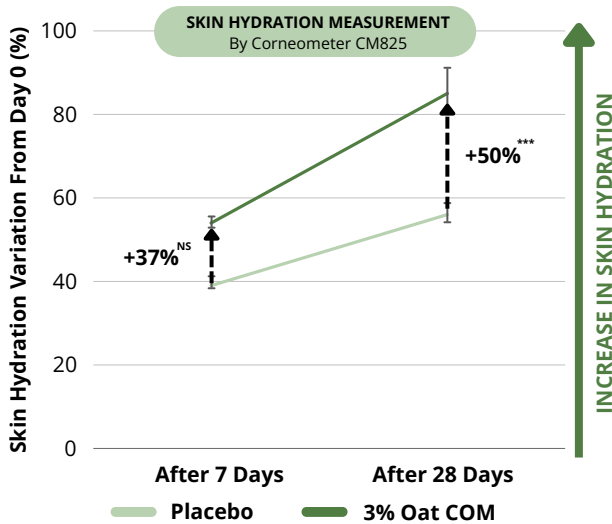
While the *in vivo* study conducted on human participants may not directly involve pets, its findings can be extrapolated to support claims for pet grooming products. The similarity in skin physiology between humans and the target animal species, such as dogs, cats or horses, provides a basis for extrapolating the results. Therefore, the outcomes observed in humans are likely to be applicable to pets, making studies relevant for assessing the efficacy of Oat COM for pet grooming products.

Oat COM for Skin Moisturisation and Skin Barrier Repair

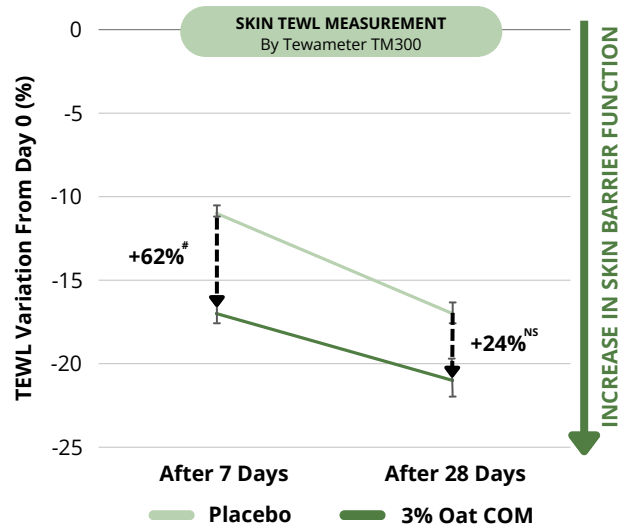
The effectiveness of Oat COM to repair the skin was assessed in a human *in vivo* study:

<p>PANEL 20 participants with dry skin</p>	<p>TREATMENT Irritation: 2% aqueous SLS for 24 hrs Application: 3% Oat COM treatment and placebo treatment</p>	<p>DURATION Application twice a day (AM and PM) For 28 days</p>
---	---	--

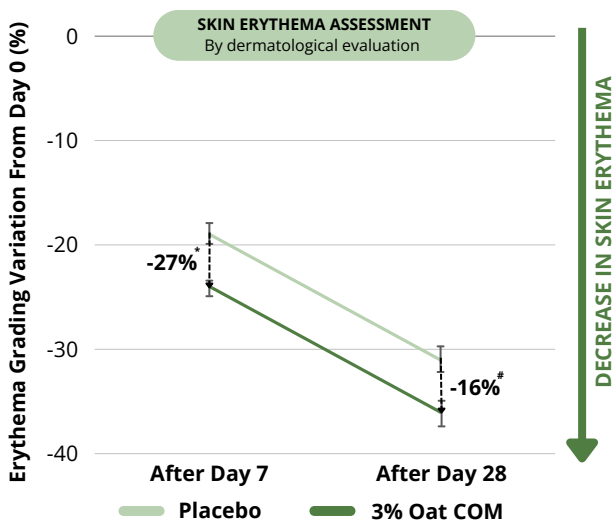
RESULT ON SKIN HYDRATION



RESULT ON TRANS EPIDERMAL WATER LOSS (TEWL)



RESULT ON SKIN ERYTHEMA



Oat COM significantly increases skin hydration and provides protection to the skin.

Oat COM also significantly decreases TEWL and skin erythema, indicating accelerated skin barrier recovery.

Insufficient moisturisation can lead to severe dryness and damaged skin in pets. Oat COM helps counteract this issue.

Oat COM has moisturising properties that help to protect and repair skin barrier.

(T-test, Significant: ***=p<0.001, *=p<0.050 (95%), #=p<0.100 (90%), NS= Non-Significant)

PROTECT, MOISTURISE AND SOOTHE PET SKIN WITH OAT COM

Oat COM for Redness Reduction

The effectiveness of Oat COM to reduce redness was assessed in a human in vivo study:

2 PANELS

19 participants with sensitive skin

TREATMENT

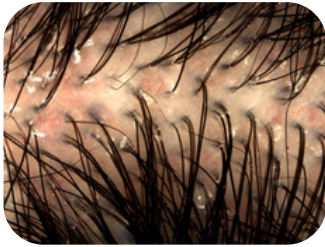
Application: 1% Oat COM leave-on treatment or placebo leave-on treatment

DURATION

Once a day
For 28 days

RESULTS ON SKIN REDNESS

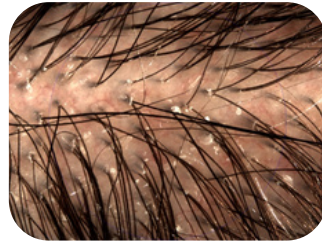
Skin Redness INCREASE With Placebo Leave-on Treatment Over 28 Days



Day 0



Day 7



Day 14



Day 28

Skin Redness REDUCTION With Oat COM Leave-on Treatment Over 28 Days



Day 0



Day 7

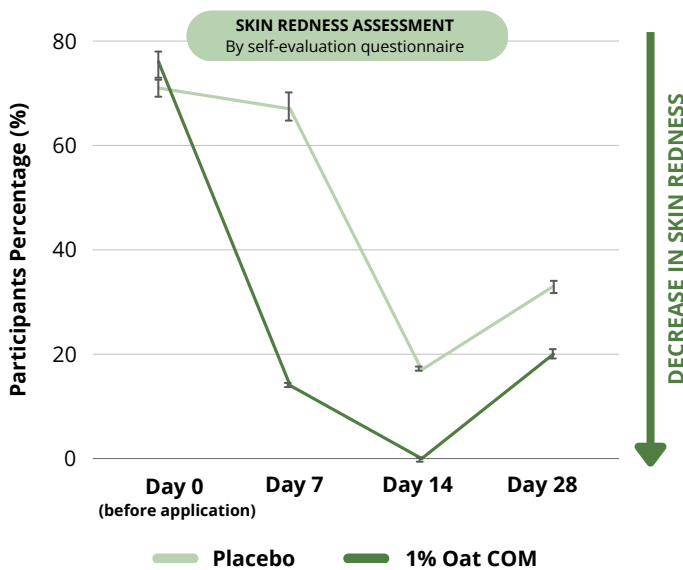


Day 14



Day 28

Participants with sensitive and red skin were treated with the placebo formulation, but there was no improvement after 28 days, and the quantity of flakes increased. In contrast, participants treated with Oat COM showed a significant improvement in skin health, with a marked reduction in redness and no development of skin flakiness.



Oat COM reduces skin redness over 28 days.

UV light and heat (high temperature) can induce inflammation, which is often associated with skin redness, causing major discomfort in pets. Oat COM reduces skin redness, providing relief to pets.

Oat COM visibly reduces skin redness and prevents flakiness, protecting the overall skin health and comfort of pets.

PROTECT, MOSITURISE AND SOOTHE PET SKIN WITH OAT COM

Oat COM for Inflammation and Irritation Alleviation

The effectiveness of Oat COM to soothe skin inflammation was assessed in a human in vivo study:

2 PANELS

19 participants with sensitive skin

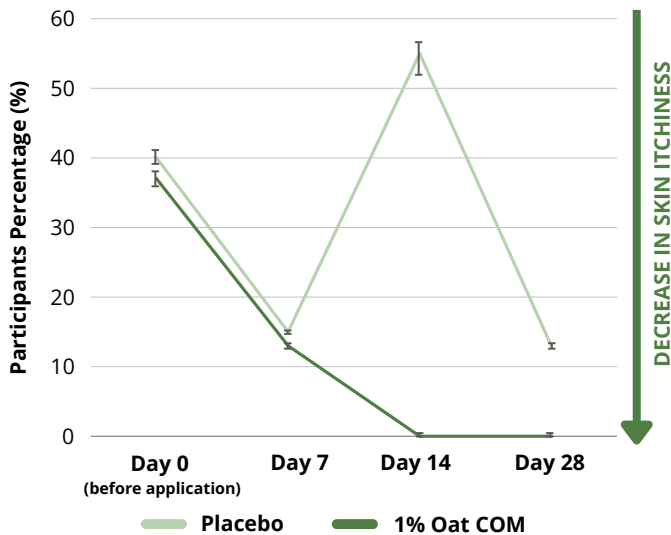
TREATMENT

Application: 1% Oat COM leave-on treatment or placebo leave-on treatment

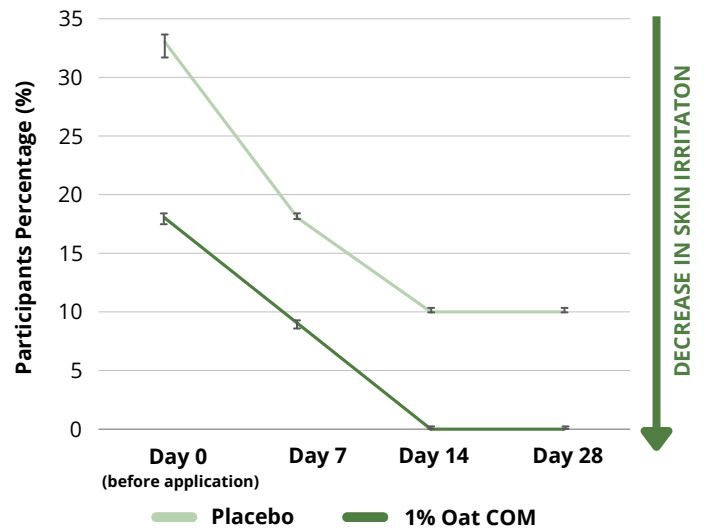
DURATION

Once a day
For 28 days

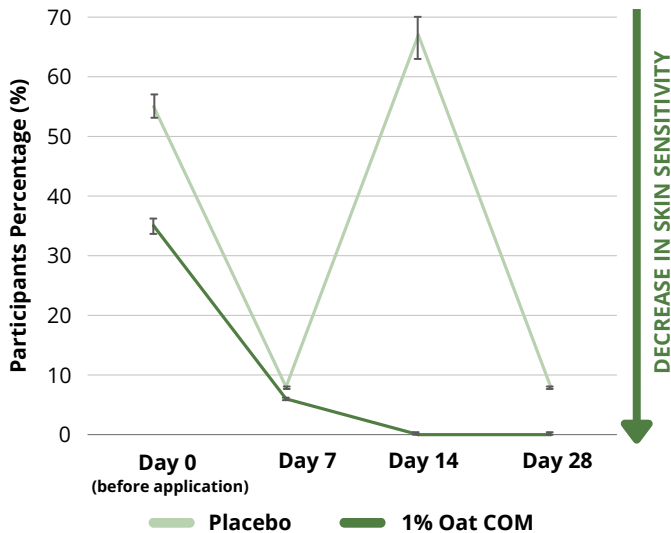
RESULT ON SKIN ITCHINESS



RESULT ON SKIN IRRITATION



RESULT ON SKIN SENSITIVITY



Oat COM significantly reduces skin itchiness, irritation and sensitivity. None of the participants treated with Oat COM had any symptoms after 14 days of treatment.

Pets may experience itchiness and irritation due to insect bites or contact with irritants such as pollen, grass or dust, which leads to increased scratching. To counteract this issue, Oat COM soothes the skin and alleviates itchiness.

Oat COM has anti-itch and anti-irritant properties, providing relief to sensitive skin.

Oat COM can manage symptoms associated with skin inflammation, improving pets' comfort.

STRENGTHEN PET COAT WITH OAT COM

While the ex vivo study on human hair tresses may not directly involve pets, its findings can be extrapolated to support claims for pet grooming products. The similarity in hair physiology between humans and the target animal species, such as dogs, cats or horses, provides a basis for extrapolating the results. Therefore, the outcomes observed in human hair are likely to be applicable to pets, making the study relevant for assessing the efficacy of Oat COM for pet grooming products.

Oat COM for Hair Strengthening

The effectiveness of Oat COM to increase hair strength was assessed in a human ex vivo study:

5 HAIR TRESSES
per conditioner

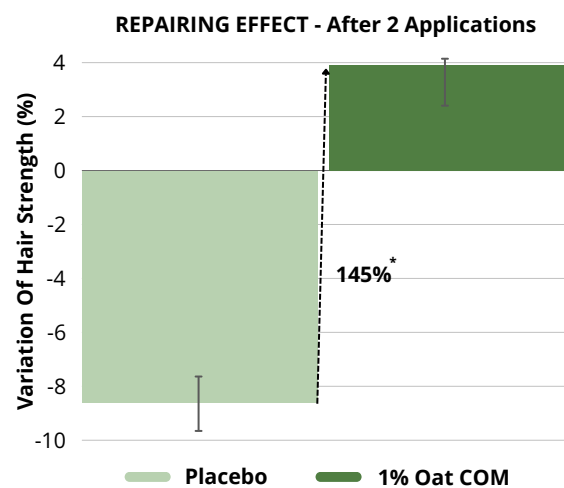
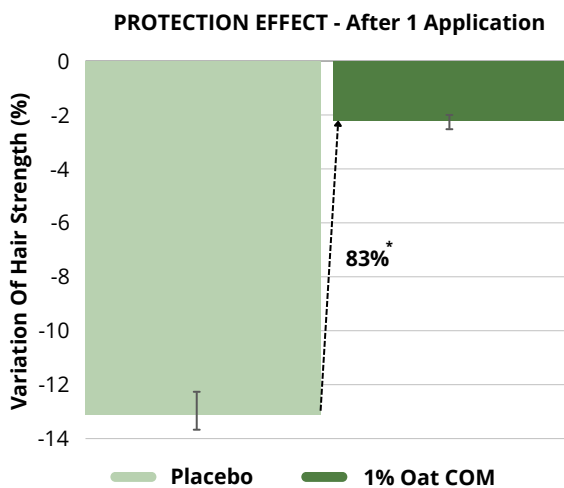
TREATMENT
Application: 1% Oat COM conditioner
and placebo conditioner

HAIR STRENGTH MEASUREMENT
By Tensile Test

The strength of untreated (natural) hair was measured as a reference. To evaluate the protection effect, hair strength was measured after a single application of conditioner followed by exposure to damaging conditions. A second application of conditioner was carried out post-damage, and hair strength was measured again to evaluate the repairing effect.

The difference in hair strength between these measurements and the reference was calculated as a percentage variation.

RESULTS ON HAIR STRENGTH



The variations in hair strength after a single application of conditioner are negative due to the significant decrease in hair strength induced by the damage. However, Oat COM effectively limits the decrease in hair strength compared to placebo, thereby increasing hair strength and providing protection against damage.

Following damage to the hair, the treatment of Oat COM results in a notable improvement in hair strength compared to placebo. This indicates that Oat COM repairs the hair, making it even stronger than before the damage occurred (resulting in a positive variation).

By fortifying the hair, Oat COM ensures that it is more resilient against damage. This enhancing in hair strength contributes to a healthier, stronger and less brittle coat in pets.

Oat COM protects, strengthens and repairs the coat, reducing the likelihood of hair breakage and excessive shedding.

(T-test, Significant: $*=p<0.050$ (95%))

COMPREHENSIVE GUIDE TO PET GROOMING FORMULATIONS WITH OAT COM

Oat Services has created formulations using Oat COM that are suitable for pet grooming products. To optimise formulations containing Oat COM, the following formulation guidelines should be followed:

Usage Level: 1 to 5%.

pH: Can be formulated within pH range of 4.5 to 8.0.

Solubility: Water dispersible.

Incorporation: Add to the cold water phase under mechanical stirring until dispersed. Avoid heating above 75°C.

Dog Shampoo

Dogs are prone to a variety of skin issues and need regular cleansing to keep them free from dirt and other impurities, which can cause irritation. Oat COM has gentle cleansing, moisturising properties and will be ideal for a mild dog shampoo.

Phase	Trade Name	Ingredient Nomenclature	% w/w
	Purified Water BP	Aqua	44.875
A	Versene NA2 Crystals	Disodium EDTA	0.050
A	Cetpro 301	Styrene/Acrylates Copolymer	0.500
A	Oat COM	Avena sativa (Oat) Kernel Flour	2.000
A	WorléeAqua Thix 150	Acrylates copolymer	10.000
A	Resplanta PGF ALM	Sweet Almond Oil Polyglyceryl-4 Esters, Aqua	1.000
B	Resassol PG6 Coconut	Coconut oil polyglyceryl-6 esters	2.000
B	Plantapon SF	Sodium Cocoamphoacetate, Lauryl Glucoside, Sodium Cocoyl Glutamate, Glycerin	28.000
B	Surfac B4	Cocamidopropyl Betaine	10.000
B	NaOH (47% Solution)	Sodium Hydroxide	0.375
B	Perfume AR494102 CPL	Parfum	0.200
B	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	1.000

Method of Manufacture

1. Start the mixer on a fast speed and add Purified Water BP.
2. Add Phase A ingredients, one by one (moving onto the next only when each has fully dispersed).
3. Add Phase B ingredients one by one (moving onto the next only when each has fully dispersed), avoiding aeration.

Equine Bite Relief Gel

Horses can often be bitten by insects and be really uncomfortable, disturbed and in pain. Oat COM has anti-itch, soothing properties and will be ideal for a itch relief gel for horses.

Phase	Trade Name	Ingredient Nomenclature	% w/w
	Purified Water BP	Aqua	81.950
A	Versene NA2 Crystals	Disodium EDTA	0.050
A	Worleealoe IF 200XFD	<i>Aloe barbadensis</i> (Aloe Vera) Leaf Juice	0.100
A	Cetpro Carbomer FD	Carbomer	1.000
A	Oat COM	Avena sativa (Oat) Kernel Flour	5.000
B	Organic Glycerin	Glycerin	5.000
B	Floraesters K-20W Jojoba	Aqua, Hydrolysed Jojoba Esters	5.000
C	Triethanolamine care	Triethanolamine	0.800
C	Euxyl PE9010	Phenoxyethanol and Ethylhexylglycerin	1.100

Method of Manufacture

1. Start the mixer on a fast speed and add Purified Water BP.
2. Add Phase A ingredients one by one (moving onto the next only when each has fully dispersed), ensuring no lumps remain.
3. Mix for 10 minutes, until homogenous.
4. In a separate premix vessel, mix the Phase B ingredients until homogenous.
5. Add the Phase B premix into the main vessel.
6. Turn on the homogeniser, and add Triethanolamine for 5 minutes before mixing the Euxyl PE9010 for 10 minutes at a moderate speed.

A TRUSTED AND SAFE INGREDIENT

Regulatory Compliance

While regulations for pet grooming products may not be fully established, there is a growing awareness of the significant concerns surrounding the presence of toxic substances in these products.

Oat COM doesn't contain any hazardous substances, and is not classified as PBT or vPvB according to current EU criteria.

Oat COM is free from:

- 1,4-dioxane
- parabens
- sulphates
- phthalates
- formaldehyde

Safety Assessment

Human Repeat Insult Patch Test (HRIPT) is conducted to assess the potential of a substance to cause skin sensitisation or irritation in humans. Since pets can also experience skin sensitivities and irritations, the results of HRIPT can help predict potential adverse reactions in pets when exposed to grooming products containing the same ingredient.

A HRIPT was carried out to determine the cutaneous irritation (contact dermatitis) and sensitisation (contact allergy) potential of Oat COM, diluted at 10% with Vaseline and applied to the skin of 52 healthy participants.

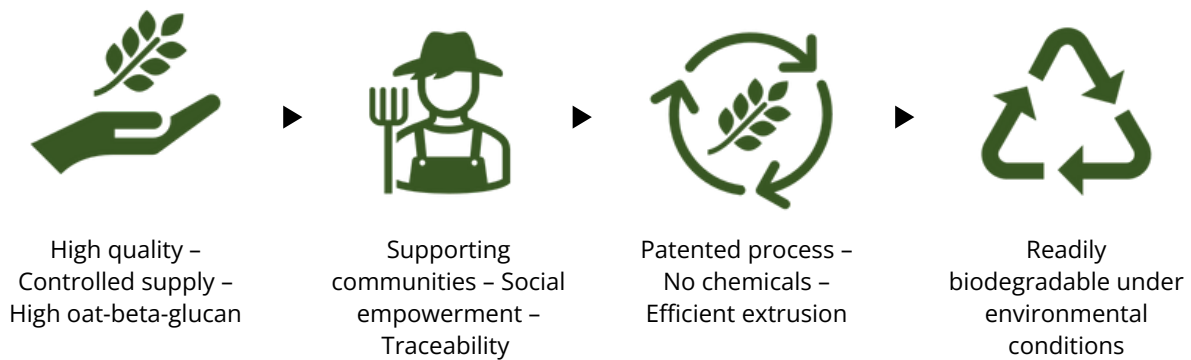
Oat COM did not produce any signs of cutaneous irritation or skin sensitisation in any participant (no oedema, vesicles, blisters, or ulcerations; no redness, irritation, itching or other sensations).

Oat COM can be considered **hypo-allergenic and non-irritant** and has been **dermatologically tested**.

Oat COM is safe to be used in pet grooming products.

A SUSTAINABLE SOLUTION

Sustainable Production



Green Energy & Waste Utilisation

Oat Services supplier places a strong emphasis on green energy use, with an impressive achievement of sourcing 100% of their energy from renewable sources. Side streams such as hulls from production and dust from grain intake and storage, are transformed into valuable energy resources. This practice not only minimises resource wastage but also contributes to a circular economy model and the furthering of sustainability.

Resource Management & Monitoring

Oat Services supplier does not use pesticides and the levels of heavy metal are subject to annual analysis, highlighting their commitment to environmental responsibility. While specific usage figures are not provided, water usage is very minimal in the production process.

By-Product Utilisation

Oat Services supplier maximises the sustainability of Oat COM production process by repurposing by-products. Husks, hulls, and dust from the production are ingeniously transformed into energy, reducing waste and contributing to resource efficiency. Additionally, side streams find a valuable second life as animal feed, further exemplifying the commitment to minimising waste.

People and Ethical Practices

Oat Services supplier prioritises the well-being of the employees by adhering to national and EU regulations and legislations. Equality, fair pay, and good working conditions are maintained, which aligns with shared values of promoting a positive and supportive work environment.

Packaging Practices & Sustainability Goals

Oat Services supplier contributes to packaging sustainability by ensuring the reuse of wooden pallets by other industries. This practice not only minimises waste but also supports a more circular supply chain. Oat Services supplier has set ambitious sustainability goals, aiming to reduce the logistics carbon footprint by 30% by the year 2030. This proactive approach to sustainability demonstrates the commitment to long-term environmental impact reduction.

OAT COM AT A GLANCE

Pet Friendly

- 100% Natural
- pH Balanced
- Vegan, Cruelty Free
- Hypo-allergenic / Ideal for Sensitive Skin
- Gentle cleansing
- Free from sulphates (SLS) / phthalates
- Free from colorants / dyes
- Free from parabens
- Free from harsh chemicals / alcohol

Applications

- Oat COM Protective Shampoo
- Moisturising Oat COM Conditioner
- Oat COM Paw Balm for Dry and Cracked Paws
- Gentle Oat COM Puppy Shampoo
- Oat COM Calming Serum for Sensitive Skin
- Oat COM Itch-Relief Spray
- Oat COM Soothing Shampoo
- Oat COM Deodorising Spray
- Oat COM Leave-In Treatment for Soft Coats
- Oat COM Detangling Spray
- Oat COM Hypoallergenic Cleansing Wipes for Pets

Approvals

- ECOCERT Natural according to COSMOS standard
- NaTrue approved

Shelf-life

- 24 months

Skin and Coat Efficacy

- Increases skin hydration
- Reduces skin redness and inflammation
- Soothes skin irritation and itchiness for increased skin comfort
- Enhances stronger, softer and healthier hair

Patented Process

- Low-pressure extruder (improves solubility & water-binding capacity)
- Break starch wall (increases the molecules' bioavailability)
- Reduction of the microbial loads

Sustainable Production

- Responsible Sourcing
- Green - Gentle on environment
- Supporting communities - Social empowerment - Traceability
- Solvent free
- Preservative Free, Additive Free
- GMO Free
- Readily Biodegradable

Packaging

- 5kg, 20kg

TECHNICAL DATASHEET

Profile

Oat COM*	
Starch (g/100g)	58.00
Oat beta-glucan (g/100g)	5.00
Avenanthramides (ppm)	80.00
Lipids (g/100g)	7.00
Amino acids (g/100g)	16.00
	<i>of which</i>
Alanine	0.73
Arganine	1.04
Aspartic Acid	1.30
Cysteine & Cystine	0.35
Glutamic Acid	3.28
Glycine	0.77
Histidine	0.35
Hydroxyproline	<0.2
Isoleucine	0.57
Leucine	1.16
Lysine	0.62
Methionine	0.24
Ornithine	<0.05
Phenylalanine	0.97
Proline	0.81
Serine	0.78
Threonine	0.55
Tryptophan	0.33
Tyrosine	0.52
Valine	0.80
Avenacins (g/100g)	15.00
Minerals (mg/kg)	
	<i>of which</i>
Zinc	44.00
Potassium	42.67
Magnesium	14.25

Specification

Oat COM*	
<u>Physical</u>	
Colour	Cream to light brown
Odour	Oaty
Form	Powder
Viscosity (cps)	1.00 to 100.00
Particle size distribution (g/100g): >150µm	< 3.00
Particle size distribution (g/100g): >75µm	< 20.00
Moisture (g/100g)	< 10.00
<u>Microbial</u>	
Total viable count bacteria (cfu/g)	< 100.00
Total viable count of yeasts and moulds (cfu/g)	< 100.00
<i>Escherichia coli</i>	Absent
<i>Pseudomonas aeruginosa</i>	Absent
<i>Salmonella</i>	Absent
<i>Staphylococcus aureus</i>	Absent
<i>Candida albicans</i>	Absent

*Typical average values, may vary

REFERENCES

Tailored Care: Understanding the Unique Needs of Pets' Skin and Coat.....02-04

- 1.K. A. Moriello. Structure of the Skin in Dogs. MSD Manual, Veterinary Manual (2018).
- 2.C. Vorbeck. Lab-grown canine skin provides canvas for testing medical treatments. PHYS.ORG, 2024.
- 3.CUTANEOUS ANATOMY & PHYSIOLOGY | Zoetis CA.
- 4.Structure and Function of the Skin and Hair Coat in Dogs | PetPlace.com.
- 5.M. P. Szczepanik, P. M. Wilkolek, L. R. Adamek et al. The examination of biophysical parameters of skin (transepidermal water loss, skin hydration and pH value) in different body regions of normal cats of both sexes. Journal of Feline Medicine and Surgery, 2011; 13: 224-230.
- 6.J. Sato, C. Y. L. Ogawa, M. Sandrini et al. Study of keratin hair of domestic cat under methionine and cystine experimental diet using FT-Raman spectroscopy. Vibrational Spectroscopy, 2019; 100: 1-5.
- 7.Structure and Function of the Skin | Veterian Key.
- 8.M. Olarte Saucedo, S.H. Sánchez Rodríguez, C. F. Aréchiga Flores et al. Effects of ultraviolet radiation (UV) in domestic animals. Review. Rev Mex Cienc Pecu, 2019; 10(2): 416-432.
- 9.The Kennel Club. Sensitive skin in dogs.

Oat COM: Gentle Relief for Sensitive Skin and Coat05-06

10. E. A. Decker, D. J. Rose and D. Stewart. Processing of oats and the impact of processing operations on nutrition and health benefits. British Journal of Nutrition, 2014; 112: S58-S64.
11. J. Fowler, J. Nebus et al. Colloidal Oatmeal Formulations as Adjunct Treatments in Atopic Dermatitis. Journal of Drugs in Dermatology, 2012; 11(7): 804-807.
12. A. Friedman. Colloidal Oatmeal: A Natural Solution for a Dysfunctional Skin Barrier. Dermatology News, Feb 2015.
13. J. Hart and C. Polla. Oat Fractions – Their rejuvenating effects on skin and hair. Cosmetics and Toiletries Brazilian Journal of Pharmaceutical Sciences, 1998; 113: 45-52.
14. K. A. Reynertson, M. Garay, et al. Anti-inflammatory activities of colloidal oatmeal (Avena sativa) contribute to the effectiveness of oats in treatment of itch associated with dry, irritated skin. Journal of Drugs in Dermatology, 2015; 14(1): 43-8.
15. M. L. Grais. Role of colloidal oatmeal in dermatologic treatment of the aged. American Medical Association Archives of Dermatology and Syphilology, 1953; 68: 402-407.
16. E.S. Kurtz, W. Wallo. Colloidal oatmeal: history, chemistry, and clinical properties. Journal of Drugs in Dermatology, 2007.
17. F. W. Collins. Oat phenolics: structure, occurrence, and function. In: Webster FH, ed. Oats: Chemistry and Technology. St. Paul, Minnesota: American Association of Cereal Chemists, Inc; 1986:227-291.