Natural Oils and Fats in Pet Care Products: Good for Pets, Good for the Planet

The trend towards natural cosmetics for humans is increasingly being transferred to animal care. Pet parents wish for care products which fit the individual needs of their domestic animal exactly - for instance its type of fur - and which are beyond that free from petroleum-based components. Natural oils, fats and waxes offer many interesting ingredients, whose "savvy" combination can booster animal well-being.

Pet care products on the rise
In its current market research report on pet products, the global market research company Mintel speaks of "a year of innovation in pet food and products." Mintel's database of global product launches (Mintel GNPD) shows an ever growing number of new pet care products in recent years. The market research report reaffirms that pet parents consider their pets as part of the family and apply the same standards to pet care products as they do to personal care products for themselves: The products should be precisely tailored to the individual needs of the animal, for example regarding the type of coat, allergies, age of the animal and other parameters. Moreover, natural, sustainable and climate-friendly products are in trend. An interesting example: In the last months, more and more (natural) cosmetic brands in Germany launched solid shampoo bars. The sales arguments are sustainability-driven: Firstly, the solid shampoo bars cause clearly fewer transport-induced CO₂-emissions than the heavier liquid shampoos. Secondly, solid shampoos are packed in environmentally friendly (recycled) paper instead of plastic. Such solid shampoos are now also available for pets - in addition to other care products such as nose and paw balms, combing aids, conditioners or shower baths. The aforementioned Mintel pet market report states that "in the 12 months of this review period, some 53 percent of pet food and pet product launches in Europe featured a natural claim."

With all understanding for humanization of animals, one might wonder: Why does a dog need extra care products, whereas wild animals do obviously not use paw balms, shampoos or alike? Concerning paw balms, nature has without any doubt intended that dogs and cats run barefoot all their lives - it's the reason why the skin on the balls is designed 50 times thicker than on the rest of a dog's body. However, we humans add to natural challenges such as little stones, heat and cold: for example road salt or hard grit in winter and particularly hot asphalt in summer. The man-made challenges cause extra care requirements. When it comes to shampoo, a need for care arises because human demands on the appearance of their pets are different from those on animals in nature. In addition, humans have bred animals with very different types of fur, some of which need special care.

Possible ingredients for natural pet care products
Natural oils, fats, waxes and related products are essential ingredients of many cosmetic products. They contribute significantly to desired care effects and influence the texture. Natural pet care products usually do without petroleum-based ingredients such as paraffin oil or petroleum jelly. For natural products, nature has an immense wealth of - mostly vegan - components in store, some of which can be used both internally and externally. They contribute both to the well-being of the animal and to its attractive appearance. To these natural components count for example:

Adeps lanae (Lanolin) acts as an emulsifier and consistency enhancer. At the same time, it protects and cares for skin and coat, preserves the moisture of the skin and has a positive influence on skin irritations and wound healing. Lanolin is a complex mixture of fatty acids, wax esters and alcohols. It is obtained from raw wool wax. Raw wool wax is a secretion from the sebaceous glands of sheep, which is the result of the washing of sheep's wool. A vegan alternative is Vegalan.*

Aloe Vera is known from human cosmetics for its anti-inflammatory, wound-healing and soothing effects and is often used in cosmetic products for dry or irritated skin. Accordingly, in the field of pet care, it is for example found in paw balms for cracked and brittle balls. Aloe vera is also used internally as an additive to animal nutrition.

Argan oil is extracted from the seeds of the Argan tree, which nowadays thrives almost exclusively in Morocco. Argan oil improves the sheen of rinse-off products such as shampoos and conditioners.
Arnica is used for its anti-inflammatory and analgesic effects. However, arnica is not suitable for open wounds as it can cause skin irritations and allergic reactions.

Beeswax has always been valued as an ingredient in cosmetics because it forms a light, enveloping protective film. A vegan alternative in many contexts is Jojoba oil (see Picture 1): The wax esters contained in jojoba oil are similar to the protective film on the skin, so that the application of jojoba oil provides long-lasting protection from environmental influences. Jojoba oil is extracted from the seeds of the jojoba bush. Chemically speaking, it is a liquid wax. Jojoba is used in many cosmetic products, for example in shampoos for sensitive fur types and for dog and cat puppies. As jojoba oil is very stable against oxidation, it is often used in oil blends to stabilize other oils.

Black cumin oil is well known in human cosmetics for its especially nourishing properties and forms an excellent base for creams. Black cumin oil also contributes to skin protection in animal care products or can be added to feed. However, it is not suitable in any form for cats!

Borageseed oil has the highest percentage of gamma-linolenic acid (GLA, omega-6, C18:3) of all plant-derived oils. GLA can be synthesized in the body from precursors of linoleic acid (LA, omega-6, C18:2). With direct feeding or external application, the absorption is faster and higher, with corresponding impacts: One example often given in literature is the positive effect on dry and itchy skin for human beings. This is attributed to the fact that GLA is an important component for the skin and a precursor for the synthesis of the hormone prostaglandin E1, which has anti-inflammatory properties and is known to alleviate itching and skin irritation. Besides, borageseed oil contributes to the maintenance of healthy skin and a thick, shiny coat. The same applies to evening primrose oil which also contains high amounts of GLA. Another plant oil with a high GLA content is black currant seed oil.

Calendula Oil is a blend of a base oil and calendula extract, which is obtained from marigold flowers. It has blood circulation-stimulating, wound-healing and anti-inflammatory properties.

Jan-Christoph Morisse – Head of Animal Nutrition and Care at Henry Lamotte Oils. Henry Lamotte Oils is a leading quality supplier for natural oils and related products such as vegetable butters, waxes, seed flour and oleoresins. The company’s own Oil Mill Lipos mainly processes certified organic seeds to oil, seed flour and press cakes.
Natural Fats and Sustainability: the example of Shea Butter

All around natural oils and related natural raw materials, manifold sustainability aspects can be found for the marketing of animal care products - from organic or even Naturland certification to social audits and projects from specific suppliers. Shea butter from Henry Lamotte Oils is a product with particularly rich sustainability aspects.

Shea butter is extracted from the nuts of the African shea tree. It lasts for over 100 years and is thus a long-term source of income - mostly for women, who thereby gain access to medical care and schooling for their children. For shea butter from Henry Lamotte Oils, the following applies: Regular personal visits to the suppliers provide an unbeatable multi-faceted picture of production and working conditions.

Shea butter can be produced industrially or traditionally by hand. In the case of handicraft production, more added value remains with the women in Africa. However, it requires firewood and can therefore lead to the deforestation of trees in the vicinity of the villages. The suppliers of Henry Lamotte Oils therefore work closely with nature conservation organizations to preserve native tree species and avoid desertification.

With his supplier from Ghana, Henry Lamotte Oils has set up an own sustainability project. In 2019, the Ghanaian partner sent a dedicated report on how much effort people on the ground have put into learning how to plant and care for 150 shea trees and 50 indigenous trees.

Coconut oil is known for its moisturising, replenishing and cooling properties. It contains natural vitamin E and is solid at room temperature, which is why it is often called coconut fat. The high content of lauric acid (C12:0) in natural coconut oil is said to help dogs and cats against ticks. In order to be able to apply the solid oil better, it is advisable to mix it for example with MCT oil (MCT = medium chain trglyceride).

Like borageseed oil (see above), evening primrose oil is characterized by a high content of the rare gamma-linolenic acid (GLA, omega-6, C18:2). Among other things, it helps to maintain a healthy skin and a thick, shiny coat.

Hemp is a raw material which has been rediscovered in recent years and brings considerable sustainability advantages in cultivation. Among other things, the plant does not require pesticides, since it grows faster than (almost) any weed. Hemp oil is rich in natural vitamin E and contains valuable phytosterols, which is why it is often used to care for dry, rough and scaly skin. In addition, hemp oil contains up to four percent of the rare gamma-linolenic acid (GLA, omega-6, C18:2). GLA is an important component of the skin and is known to have anti-inflammatory and anti-itching properties in humans (for details, see borageseed oil above).

Lavender oil is extracted from the fresh blossoms and flower head of the lavender plant using steam distillation. It contributes typically as a fragrance for example to paw care products and also repels insects.

Shea butter contains natural vitamin E and anti-inflammatory triterpene alcohols. It prevents the skin from drying out, and its melting behavior is favorable for care products. Shea butter is a vegetable butter made from the nut kernels of the fruits of the shea tree.

References

For more information
www.lamotte-oils.de
of propionate (Figure 1), lactate, acetate and butyrate (Figure 2) was seen.

Propionate is, in addition to acetate and butyrate, one of the main energy supplier for the gut epithelium (CUMMINGS, 1987). Therefore it significantly contributes to the health and protection of the gut against inflammatory processes. Propionate is supposed to influence the reduction of cholesterol and fatty acid synthesis in the liver (LIN et al 2007, BERGGREN et al 2007) and regulate immune status in adipose tissue (AL LAHAN et al 2010 & 2012). In dogs propionate production has been shown to play a role in the stimulation of gastrointestinal saturation hormones such as GLP-1 and PYY. MASSIMO et al (1998) reported that the secretion of GLP – 1 by enteroendocrine L-cells, which are predominantly present in the distal part of the gastrointestinal tract (HOLST et al 2007), was increased with dietary supplements in healthy dogs. In addition, PAPPAS et al (1986) showed that the perfusion of fatty acids increased the peripheral PYY concentration in the dog’s intestine. LE PAUL (2003) also suspects that propionate is involved in stimulating PYY release by activating receptors GRP41 and GRP 43, both expressed by enteroendocrine L – cells in the distal part of the gastrointestinal tract. So a higher propionate production could have a positive impact on hormonally controlled feeling of satiety, so at the end on weight control or adipose tissues.

Brewers’ yeast cell walls support development and integrity of the intestine

In the study with BIOLEX® MB40 changes in the metabolic activity were able to be directly associated with specific changes to the microbiota, e.g. the stimulation of propionate–producing families, such as Porphyromonadaceae and Prevotellaceae. Even an increase of butyrate concentration could be demonstrated through butyrate producers in Porphyromonadaceae family and through “cross feeding effect” related to the increase of Enterococcaceae in the proximal colon (lactate production). “Cross feeding” means that BIOLEX® MB40 is presumably broken down by a proportion of the microorganisms and