

# Plant Lipids ...

## Nature's Beauty Secret?

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There have been some exciting developments currently progressing in the world of plant botanicals, especially in a little-understood area with regard to health and beauty products – plant lipids. I know that it sounds a little like a chemistry course, but bear with me for the next couple of paragraphs as we explore this important ingredient for skin care products and how it can drive sales to your stores.

### What is a Plant Lipid?

Basically, a lipid is any type of oil or fat that is insoluble in water. Almost all plants produce lipids, which are found in even the smallest of molds. Initially, lipids are in the form of carbohydrates, which, through the ripening process, are converted into more concentrated oils or waxes. Typically, plants will store lipids in the seed or fruit of the plant, either in the embryo of the seed or its endosperm covering. Lipids are what will provide seeds the energy that they need to survive during the germination process as they are then converted back into carbohydrates through the addition of the hydrogen and oxygen found in water.

Vegetable oils are classified by their main source – pulp oils such as avocado, palm and olive oils, and seed oils such as peanut, corn or soybean oils. In many economies in the Far East, plant lipids are the major export product. Plant lipids are added to many everyday products, ranging from margarine to bio-diesel fuels. For 2005, the U.S. Department of Agriculture expects the world production to be approximately 375 million tons.

### Common Oils and HBC Uses

The most commonly produced plant oil in the world is soybean oil, which represents approximately 35% of world production. Soybeans are fairly easy to grow and are therefore produced by many countries. Rounding out the top five world oils are palm oil from Malaysia and Indonesia, rapeseed oil and its cousin the Canadian hybrid canola. These are followed by cottonseed oil and sunflower oil. Of these oils, palm oil and especially palm kernel oil are commonly used in the production of soap and other skin care products.

Recent changes in harvesting and growing methods have resulted in the limited extraction and production of several new oils, which have grown in interest for cosmetic uses. Many manufacturers and consumers have adopted the inclusion of these plant lipids in their products.





## Why Plant Lipids?

Driving the interest in plant lipids and other alternative ingredients in health and beauty care (HBC) products by consumers is the increased demand for natural products overall. As we have seen, the natural sections of chain grocery and drugstores have had significant growth as consumers' acceptance of natural products has grown dramatically. Some of the larger chains have seen revenues per square foot of floor space for these areas as some of their highest-grossing areas in the store. As customers have become more knowledgeable about natural alternatives, they lose their fear of experimentation and will frequently try other natural offerings, resulting in overall increased sales revenues.

The inclusion of these ingredients offers several benefits for health care products. First, they often provide alternatives to chemical products in skin care offerings. Many products are formulated from by-products of the chemical industry. Consumer awareness of ingredients has increased and their scrutiny of parabens, sodium laurel sulfate and other ingredients will lead a group of them to other alternatives for foaming agents and other surfactants. In addition, the emollient feel caused by plant lipids is more frequently gentle on the skin and better than traditional alternatives such as mineral oil. Many other ingredients can offer antioxidant and astringent benefits.

Here are several ingredients, which have been frequently discussed as additions for HBC offerings:

- Aloe – (*INKI Aloe Barbadosis*) – From the aloe vera plant – a healing agent (which has been used topically for cuts, burns, insect stings, bruises, acne and blemishes, sunburn, poison ivy, skin lesions and eczema). Anti-irritant.
- Bisabolol – (*INKI Matricia chamomilla*) – Bisabolol can be extracted naturally from chamomile. It can have a significant anti-inflammatory benefit. Herbal research has showed it to have anti-irritant, soothing and antioxidant properties. It has been used for hundreds of years in medicinal applications and is used to help accelerate the healing process of the skin and is used confidently on sensitive skin. Bisabolol itself is a clear, colorless to slightly yellowish liquid with a faint, floral, sweetish odor.
- Shark Liver Oil – (*INKI Squalene*) – Shark liver oil is derived from shark liver and was originally studied due to the shark's natural resistance to cancer cells. It is a natural component of skin and is considered a good emollient ingredient that also has antioxidant and immune-stimulating properties.
- Calendula Oil – (*INKI Calendula*) – Derived from the marigold plant, calendula has antibacterial and antioxidant properties for skin. Now used in natural creams, oils, powder, shampoos, soaps and skin fresheners. Calendula has great anti-inflammatory properties and vulnerary properties, making it excellent to help with stubborn wounds, inflamed and itchy skin conditions, burns, sore or cracked nipples, ulcers, bedsores, varicose veins, bruises, rashes and eczema.
- Karite Shea Butter – (*INKI Butyrosperum Parkii*) – Shea butter is derived from the fruit of the karite tree. Another plant lipid that is used as an emollient in cosmetics. Shea butter contains an abundance of healing ingredients including vitamins, minerals, proteins and a unique fatty acid profile. These fatty acids are indispensable for their emollient properties and may help in retaining the elasticity of the skin. Shea butter also has natural sunscreen properties.
- Orchid Oil – (*INKI Cymbidium Grandiflorum*) – The orchid flower, the national flower of Thailand, has been used in Asia for centuries for its reparative and protective properties. Orchids are very well known for their emollient properties, antioxidant properties and reducing the appearance of fine lines. Ideal for all skin types and rich in minerals, which exist naturally in the skin, such as zinc, calcium, magnesium, iron and copper. Only recently produced in any quantities, once large-scale orchid production was instituted in Thailand.
- Olive Oil – (*INKI Olea Europaea*) – An emollient plant oil. The concept of olive oil having anti-aging properties stems from some evidence that the Mediterranean diets high in olive oil may help prevent heart disease. Olive oil has a long history of being used as a beauty agent. Tests have shown that topically applied olive oil can protect against UVB damage.
- Wheat Protein – (*INKI Triticum Vulgare*) – Gluten components of proteins (amino acids) can have varying benefits for skin, but overall they are used for their water-binding and emollient properties. Great in shampoos, improves smoothness and shine, stability of foaming ingredients.

This is a brief overview of some of the more common additives and ingredients that are finding their way into products and onto the shelves. Important progress is being made in this area, especially as customer demand continues to focus interest in the use of plant botanicals and lipids. ■