



# Six Key Ingredients to Watch this Year

**In sports, form is everything. Athletes that compete in the highest echelons have the skill and the control to turn a good performance into one that transcends.**

In chemistry, ingredients have that power — the power to enhance products and transform formulas into products that are remarkable in their approach towards personal care.

Formulation is more than the act of developing or mixing a product — it is the cultivation of ideas and ingredients to achieve products and efficacy so exemplary, it stands in a league of its own.

As we identify areas of focus over the next decade — restorative hair therapy, nourishing skincare routines, addressing toxic pollution in our environments — formulators can help lead a revolution with revolutionary ingredients.

Here are six that will lead the way this year:

## **Ginger Root**

*Zingiber officinale*

Ginger root is a strong antioxidant and anti-inflammatory, making it a versatile ingredient in skin and hair care formulations. It is typically sourced from warm, humid areas in Asia and Africa.

Extract from the ginger root brings anti-aging benefits, reduces redness caused by irritation, and repairs sun damage on the skin. It can protect hair follicle stem cells from harmful UVB radiation and can counterbalance the effects of pollution on the skin.



*Ginger root's antioxidant and anti-irritant properties allow for an array of target problems including redness, sun damage, smog damage, and inflammation*

SymVital® AR (Symrise) is a pure extract of ginger root and has been shown to even skin tone and fade dark spots. In a clinical study, the extract reduced redness after three weeks of use and smoothed wrinkle depth by 12% in six weeks in 83% of participants. SymVital was also shown to protect against environmentally-induced pigment spot darkening.<sup>1</sup>

The ginger root even been found to stimulate our natural antioxidant responses from the inside, boosting the natural capacity of the skin to repair itself. These properties help ginger root translate well to skin and hair care products, including serums, oils, and masques.



## Rambutan Seed

*Nephelium lappaceum*

The rambutan plant — a tropical fruit plant aptly named after the Malaysian word for hair due to the seed's shaggy exterior — is rich in antioxidants and minerals and ideal for a wide variety of hair care products. The seed of the rambutan can be extracted for use in shampoo and conditioners, providing moisturizing and repairing effects to damaged or malodorous hair follicles.

Rambutan is typically sourced from southeast Asian or South American countries like Vietnam, Thailand, or Suriname. Farmers who cultivate the rambutan plant normally only utilize the fruits, but the nutrients in the peels, leaves, and seeds can also be extracted for cosmetic products.

Rambuvital® and Nephhydrat™ (BASF) are extracts from the rambutan seed and peel, sourced through BASF's Rambutan Program. The program is a socially-responsible endeavor to upcycle leftover materials and provide local populations with incomes, gender equity, health insurance, and safe working conditions.

Rambuvital detoxifies pollutants to protect sebum. In clinical trials, 87% of participants reported better scalp health, 64% said they experienced less splitting hairs, and 80% said their hair smelled better for longer.<sup>2</sup> Nephhydrat helps fight against the negative impacts of daily stressors on your body. It has been shown to fortify the skin's barrier and improve hydration for more radiant skin.

All of this makes the rambutan seed an ideal extract for prestige hair care products like hair masques and serums.





## Japanese Camellia

*Camellia Japonica*

Known as the rose of winter, Japanese camellia is an abundant plant with a pink or red flower and large brown seeds. It has been found to be a powerful anti-oxidant, anti-bacterial and anti-inflammatory, making it a prime ingredient for skin and hair products.

The camellia is native to China, Taiwan, and Japan, but is often cultivated around the world — it's even the state flower of Alabama. Oil from its seeds, also called Dongbaek oil, is rich in fatty acids, providing nourishment for damaged hair. The extract from the flower and seeds help to protect the skin and hair from pollution and irritation.



K-Oleo (Clariant) is a compound of Japanese camellia oil and extract, castor seed oil, and the tea plant (*camellia sinensis*). In testing, researchers found smoothing of the hair cuticles and increased ability to retain moisture, particularly when tested under thermal and chemical aggressions — the kind of stuff our hair is exposed to in daily life. Results indicated a 21% increase in tensile energy and a 55% increase in hair shine.<sup>3</sup>

Due to the intense restorative properties of Japanese camellia, its practical use in shampoo, conditioner, and other hair care products are far-reaching. Look for this type of ingredient to cornerstone a prestige hair serum or treatment mask.



## Round-Headed Bush Clover

*Lespedeza capitata*

Innovators are always in pursuit of counteracting the stresses we incur throughout our day. Research has shown that stress — both physical and environmental — disrupts our body's natural circadian rhythm which has a direct impact on our overall health as well as our skin. Round-headed bush clover is an ingredient that can provide some respite.

Native to North America, bush clover is a hardy plant, tolerant to drought, and provides nitrogen fixation. It was originally discovered by Native Americans and has been used as a tea, medicine, and antidote.



Stressors — like exposure to blue light from electronic screens — causes an increase in reactive oxygen species and weakens our skin's natural detoxification process, making our skin look tired and dull.

B-Circadin™ (Clariant) is a leaf and stem extract that contains key actives, like carlinoside and isoschaftoside, which help maintain and regulate our circadian rhythm, fighting against blue light damage. In a clinical study after four weeks of use, a 35% improvement in skin complexion was observed and over 75% of volunteers reported they felt their skin looked radiant.<sup>4</sup>

## Citrus Unshiu

*Citrus unshiu*

Unshiu is a fruit that goes by many names — unshu mikan, cold hardy mandarin, naartjie — and is rich in synephrine and hesperidin, which help to regulate eotaxin synthesis and histamine release. Citrus unshiu extract can help to combat many skin abnormalities, including atopic-prone and hypersensitive skin, often caused by pollution and allergens. It has also been shown to strengthen the skin barrier and provide hydration.

The fruit is grown over several regions, most notably in South Africa, South America, and Asian regions like South Korea's Jeju Island.

Eosidin® (Clariant) contains citrus unshiu peel extract, which Clariant touts for its green footprint since it is extracted from the juicing process's leftover waste. Normally discarded, the peels are upcycled and the raw materials are extracted, contributing to a more sustainable supply chain.

Unshiu's practical applications include any kind of prestige skincare product — including serums and liquid-based masques. In a clinical study, 88% of participants observed a decrease in itchiness, and 100% experienced a decrease in dryness.<sup>5</sup> With pollution on the rise and more skin sensitivity due to a variety of allergens, this type of skincare can make a big difference.







*The oil of the baobab seed is yellowish in color, has a light nutty smell, and is easily absorbed into the skin with no oily feel.*

## **Baobab**

*Adansonia digitata*

Known as the “upside-down tree,” the baobab is a deciduous plant native to Africa and Australia and is considered the largest succulent plant in the world. An individual tree can live more than 2,000 years in dry climates, due to its ability to store up to 37,000 gallons of water. The baobab has a long history in pharmacology, having been used as a treatment for fever or as an agent in wound care therapy.

The seed pods of the baobab are extremely rich in vitamins A & E, as well as phytosterols and fatty acids, which provide a variety of benefits, such as moisturizing effect and anti-irritation. This combination of nutrients makes the baobab an attractive ingredient for hair and skin applications, like leave-in conditioners, skin rejuvenators, and masques.

Phytolea™ Baobab EC (Crodarom) is an oil extracted from baobab seeds via cold pressing. Its composition of fatty acids like oleic, linoleic, and palmitic acids, make it an ideal ingredient for beard oil or other hair treatments to improve dry, brittle, damaged hair, as well as nourish the skin underneath.<sup>6</sup>





## accupac cobalt labs<sup>4</sup>

Accupac develops and manufactures a wide-range of consumer, over-the-counter, and personal care products. Our facilities are FDA and ISO certified, designed to integrate seamlessly into your manufacturing workflow. We formulate the same quality product you'd have in-house. We are committed to being a world-class leader in sustainable contract manufacturing and continuously optimize all aspects of our business through 5S lean management initiatives.

<sup>1</sup> SymVital® Age Repair: Unveil the Full Potential of Maintaining Skin Vitality and Repair Process, Symrise.

<https://www.symselect.com/anti-pollution>

<sup>2</sup> Rambuvital®: A Breath of Fresh Air for Your Hair, BASF. <https://www.carecreations.basf.com/product-formulations/product-highlights/product-highlights-detail/RAMBUVITAL%20BC10059/30729730>

<sup>3</sup> K-Oleo®: The Hair Structure Guardian, Clariant. <https://www.clariant.com/>

<sup>4</sup> B-Circadin™: The Circadian Rhythm Resynchronizer Inspired by Nobel Prize, Clariant.

<https://www.clariant.com/en/Solutions/Products/2018/04/10/08/39/BCircadin>

<sup>5</sup> Eosidin®: The Immuno-Modulator for Indoor Pollution Control, Clariant.

<https://www.clariant.com/en/Solutions/Products/2017/04/12/09/50/Eosidin>

<sup>6</sup> Phytolea™ Baobab EC, Crodarom. [https://www.crodapersonalcare.com/en-gb/products-and-applications/product-finder/product/4384/Phytolea\\_1\\_Baobab\\_1\\_EC](https://www.crodapersonalcare.com/en-gb/products-and-applications/product-finder/product/4384/Phytolea_1_Baobab_1_EC)