

News Release

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BASF launches new range of bioactive ingredients for beauty market, from responsibly-cultivated Vietnamese rambutan

- New bioactive ingredients use unique properties of rambutan to hydrate and rejuvenate skin and revitalize hair
- Collaborative cultivation program benefits rural communities and supports biodiversity
- Ingredients are preservative-free, 100 percent natural origin and COSMOSapproved

Hong Kong – June 5, 2019 – BASF Care Creations[™] has launched three new active ingredients for the beauty market which make use of the unique properties of the rambutan tree (*Nephelium lappaceum*) to offer unparalleled skin hydration and rejuvenation for today's globally conscious consumers. These are the first ingredients developed through the BASF Rambutan Program, a socially and environmentally responsible supply chain initiative for the production of sustainable bioactives in Vietnam.

The bioactive ingredients from rambutan were identified and extracted by a global, interdisciplinary BASF team which focuses exclusively on the extraction of valuable substances from plant material. "Plants are at the heart of our value proposition. Our commitment to further improve our sourcing network is driving our innovation to develop new products from sustainably sourced plants," said Lucilene Veira Nunes, Head of Business Management Beauty Care Solutions Europe.

The Rambutan Program for sustainable and responsible beauty

Consumers in the Asia Pacific region and around the world are placing increasing

attention to responsible beauty, creating demand for such products from hair and skin care manufacturers. At the same time, Vietnam has taken a strong stance on fostering biodiversity, for example with the passage of its updated biodiversity law in 2009, accession of the Nagoya Protocol in 2014, and Decree No. 59/2017/NĐ-CP in 2017.

BASF is addressing these needs through its Rambutan Program, which was launched in 2015. This initiative brings together BASF, local growers, scientific partners and non-governmental organizations to create an environmentally and socially responsible sourcing program for Vietnamese rambutan. BASF has found a way to extract the powers of the peel, leaves and seeds for cosmetic products, which avoids waste and minimizes land use. At the same time, the program offers above-average incomes for growers, ensures gender equity, guarantees safer working conditions and provides health insurance.

A dedicated Rambutan Team is supported by the Center for Rural Economy Development (CRED), a leading Vietnam-based non-profit organization which works to ensure greater inclusion of poor and marginalized groups to take the lead in the development of their livelihoods. The Rambutan Team maintains the gardens throughout the year, harvests the fruit, and prepares all raw materials for the extraction of the bioactive ingredients.

Rambutan – a potent source for healthy skin and hair

The rambutan, which is closely related to the lychee, has been used traditionally throughout Asia to promote healthy hair and skin and to quell dysentery. The tree's juicy fruits are rich in iron, vitamin C, fibers, and antioxidants. The rinds contain various compounds with antioxidant properties, and the seeds are known to decrease unwanted fat. The pulp boosts energy and immunity, prevents diseases, and contributes to eliminate free radicals.

Nephydrat™ peel extract hydrates the skin

Nephydrat[™], an extract from the spiny fruit peel, reinforces the skin's capacity for water retention and helps to hydrate the skin – a noticeable effect proven in tests with volunteers. The extract fuels keratinocytes with energy and increases phospholipids and long chain ceramide synthesis for an optimal skin barrier function. Nephydrat provides measurable and perceivable benefits of increased skin hydration and a uniform, fresh complexion.

Nephoria™ leaves extract rejuvenates mature skin

The evergreen-leaves extract Nephoria[™] helps mature skin to rejuvenate through biological pathways similarly to those of retinol. Through its action on several major biological targets involved in collagens synthesis and elastic fiber network, the leaf extract stimulates both collagen and elastic fibers formation *in vitro*. Nephoria *in vivo* showed increased skin elasticity and reducing wrinkles.

Rambuvital™ seed extract protects scalp and hair

The seed extract Rambuvital[™] protects both the scalp and hair follicles against pollution-induced stress. It increases hair follicle vitality and reduces sebum oxidation triggered by exposure to pollutants and UV. The seed extract enhances the cornified scalp's barrier function, contributing to water retention by increasing transglutaminase-1 and loricrin synthesis in keratinocytes. *In vivo*, the scalp was significantly more hydrated within one month and the hair appeared and felt visibly healthier and shinier. Rambuvital also acts as a hair deodorant, repelling the smell of pollution.

100 percent natural-origin and COSMOS-approved extracts

All three bioactives are preservative-free, 100 percent of natural origin, and COSMOS-approved. They are obtained through a unique extraction and purification process, yielding a product with standardized active matter content. For the seed and leaf extracts, the combination of maltodextrin and spray drying allows to obtain concentrated extracts with a recommended dose of use of only 0.1 percent. The recommended dosage of the liquid peel extract is 2 percent.

About the Care Chemicals division at BASF

The BASF division Care Chemicals offers a broad range of ingredients for personal care, home care, industrial & institutional cleaning, and technical applications. We are a leading global supplier for the cosmetics industry as well as the detergents and cleaners industry, and support our customers with innovative and sustainable products, solutions and concepts. The division's high-performance product portfolio includes surfactants, emulsifiers, polymers, emollients, chelating agents, cosmetic active ingredients and UV filters. We have production and development sites in all regions and are expanding our presence in emerging markets. Further information is available online at www.care-chemicals.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the

BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.