



Black BeeOme™

Black bee honey ferment to restore the skin's natural microflora



Black BeeOme™ is an elixir obtained by fermenting the honey of a rare and old honey bee species. It is designed for the recovery of the individual skin microflora after stress which results in a healthy, exceptionally clear and pure skin.

The issue

Under normal conditions, the microbiotic film protects the skin against harmful bacteria or pathogens. This film is constantly stressed not only by factors such as UV light, pollution, domestic chemicals, but also by cosmetic products or treatments. This dynamic creates an imbalance in the skin microflora and their niches may be later colonized by transient, harmful bacteria. Frequent washing of the skin, for example, can reduce and unbalance the skin's ecosystem.

The solution

Black BeeOme™ is an elixir that results from the fermentation of honey of a rare and old honey bee species. The honey of this extremely resistant dark bee is produced in isolated Swiss mountain valleys and it is fermented with the bacteria *Zymomonas mobilis*. The fermentation eliminates the basic sugars glucose, fructose and sucrose in the honey. The remaining longchain sugars stabilize and promote the individual microflora of the skin. Black BeeOme™ has thus a prebiotic effect and restores the skin's natural microbiota following daily stress.

The benefit

Studies have shown that after washing, Black BeeOme™ promotes a faster regeneration of the skin flora as well as the restoration of the skin barrier. Furthermore, fermented black bee honey was shown to reduce sebum production and improve the uniformity of oily and uneven facial skin. Only 15 minutes after a single application on a sheet mask, Black BeeOme™ showed a significant improvement of impure skin of volunteers living in urban, polluted locations.



The source

The honey used for Black BeeOme™ is produced by the rare and old dark bee species, *Apis mellifera mellifera*. Compared to the modern high performance honeybee, the black bee is mostly gentle, lives in small colonies, is very resilient (significant winter hardiness) and is possibly immune to varroa, the mite that attacks bees and is one of the attributed reasons for worldwide bee population decline. Mibelle Biochemistry uses honey which is produced in isolated Swiss mountain valleys.

INCI (EU/PCPC) Declaration: Black BeeOme™ (standard version):
(Honey + *Zymomonas* Ferment) Extract (and) Alcohol (and) Aqua/Water
Other version: Black BeeOme™ pwd (powder version, without preservatives and alcohol)

Study results

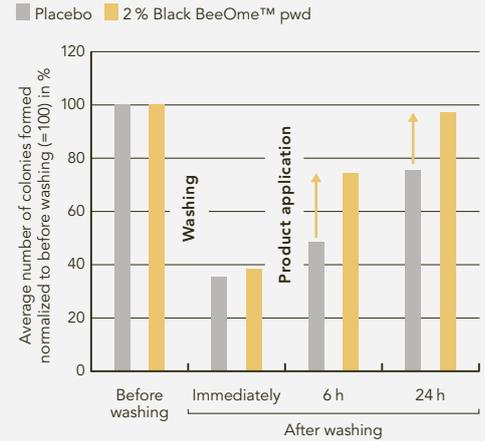
Recolonization of the Skin Microflora after Washing

S-807



Volunteers: 7 (3 m, 4 f), 17–38 years old
Test compound: 2% Black BeeOme™ pwd, placebo
Treatment: Single application after washing the skin with an ethanol/SDS mixture to strip the skin of the microbiome
Parameters: Counting of skin biome colonies on contact plates

- Harsh washing has a detrimental impact on the skin microflora
- Faster recovery of the skin biome



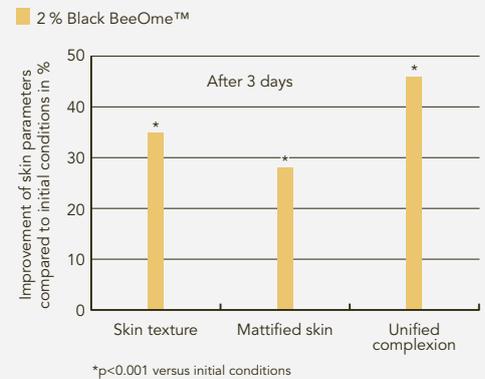
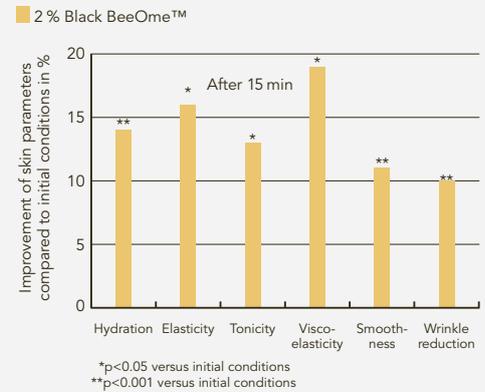
Improvement of Impure Skin in Urban Areas with a Sheet Mask

S-816



Volunteers: 22 (f, Asian, 19–41 y), with oily skin and impurities
Test product: Sheet mask with 2% Black BeeOme™
Treatment: Once daily in the evening for 3 days
Parameters: Immediate effect: after 15 min (day 1). 3-day-effect: morning after 3 times daily application (day 4)

- **After 15 min:** significant effect after a single application (hydration +14%, elasticity +16%, tonicity +13%, visco-elasticity +19%, smoothness +11%, wrinkle reduction –10%)
- **After 3 days:** significantly improved skin complexion (skin texture +35%, mattified skin aspect +28% and unified complexion +46%)
- **After 3 days:** reduction of skin impurities (inflammatory lesions –12%, retentional lesions –9%)
- **Reduction of skin redness:** 2% after 15 min, 5% after 3 days



In Addition

S-746



Improvement of Skin Barrier, Oily Skin and Skin Evenness: A gel with 1% Black BeeOme™ pwd significantly improved the TEWL compared to placebo (8.2%), even despite washing. Improvement of oily skin (–6.8%) and skin evenness (+9%).

Recommended use level: 1–2%

Characteristics: Liquid, water-soluble, without preservatives

Applications: Sheet masks, mattifying skin care, anti-blemish formulations, sensitive skin care

Benefits of Black BeeOme™

- Reduces sebum production for a matte and pure skin
- Regenerates the skin microflora after washing
- Protects and strengthens the damaged skin barrier
- Sheet mask formulation with proven efficacy