

Based on the Tsuruhime Red Wakazumi (picking young) melon from Yamagata

Melon Koken

(CUCUMIS MELO (MELON) FRUIT EXTRACT)

The fresh extract of the Wakazumi (picking young) melon makes the skin finely textured and smooth



Natural ingredient and manufacturing method

Upcycle
Wakazumi (picking young)
100% plant-derived

Beauty ingredients

Citrulline
GABA

Function

Brightening
Promotes turnover
Moisturizing
Improves skin quality



The young picked melon “Tsuruhime Red” grown on sand dunes

The vast Shonai sand dunes lie in the Shonai region along the Sea of Japan in Yamagata. Local farmers have cultivated melons for many generations because the good water drainage of the sand dunes makes the area suitable for melon farming. In particular the JA Tsuruoka original brand of melon, “Tsuruhime Red”, features vivid orange flesh and fresh sweetness.



Fruit thinning is the picking of excess unripe fruit to enable the other fruit to ripe deliciously. Picked unripe fruit are called wakazumi (picking young) fruit. In the dialect of Tsuruoka, Yamagata, unripe melons that have been picked are called “melonko”, which means melon child.



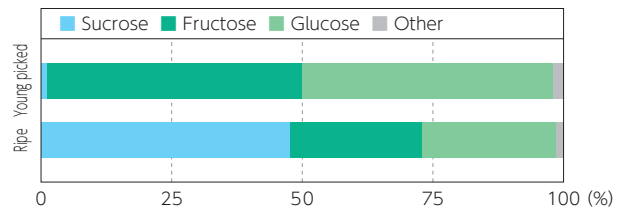
Unripe Wakazumi (picking young) melon Ripe melon

Although they consume melonko in fresh salads or by pickling them, most of the picked unripe melons are discarded. Having identified uses for the wakazumi fruit, which are unused resources with a high nutritional value, we have successfully upcycled the melons into a cosmetic raw material in cooperation with local companies.

Beauty ingredients contained in Wakazumi (picking young) melon

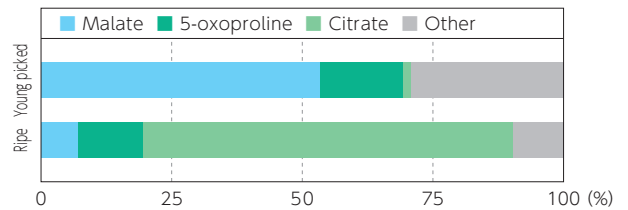
Sugars

Just picked fruit have more monosaccharides with a lower molecular weight. When ripe, the fruit will contain more sucrose.



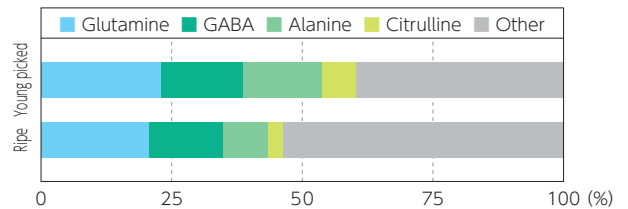
Anionic compound

When just picked, the fruit contain more malate which is expected to have an exfoliating effect. When ripe, they have more citrate.



Amino acids

Includes glutamine, GABA, alanine, and citrulline. Greater amounts in young picked fruit than in ripe fruit.



Natural sugar

(sucrose, fructose, glucose)

Moisture retention ingredient

Organic acids

(malic acid, citric acid)

Smoothens rough skin
Softens the skin and evens out texture

GABA

Promotes collagen production and turnover to support the improvement of the skin by increasing firmness and elasticity

Glutamine

Natural moisturizing factor (NMF)
Moisturizes the corneum

Alanine

Natural moisturizing factor (NMF)
Moisturizes the corneum

Citrulline

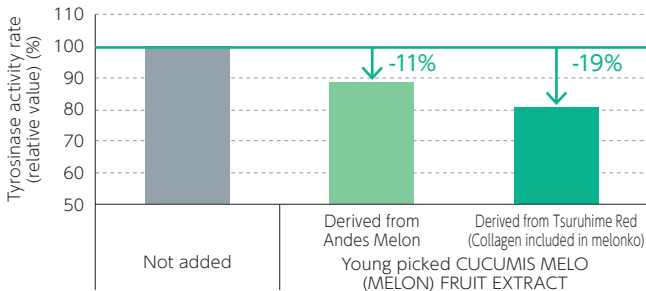
Suppression of collagen degradation and promotion of collagen production
Anti-inflammatory

Function

Brightening

Tyrosinase activity inhibition

[Test method] The mushroom-derived tyrosinase enzyme, a sample, and a matrix (DOPA) were mixed to cause a reaction. Then, the tyrosinase activity inhibition effect of the sample was assessed.



It was confirmed that Tsuruhime Red used in the manufacturing of Melon Koken had a higher tyrosine kinase activity inhibition effect than other varieties of melon.

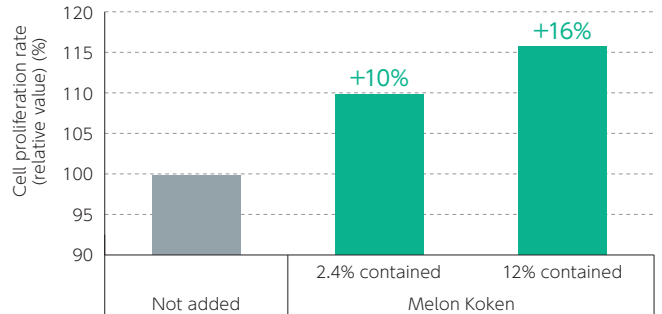
Melon Koken is expected to brighten the skin.

Based on in-house data

Promotes turnover

Fibroblast proliferation activity

[Test method] Each of the samples was added to human fibroblasts. Following cultivation, the cell count was measured.



The concentration dependence of cell proliferation activity was confirmed.

It is expected that Melon Koken will promote turnover.

Based on in-house data

Moisturizing

Promotes HAS2 synthesis

[Test method] Each of the samples was added to fibroblasts. Following cultivation, the expression level of HAS2 (hyaluronan synthase 2) was determined using RT-PCR.



It was confirmed that HAS2 synthesis was promoted.

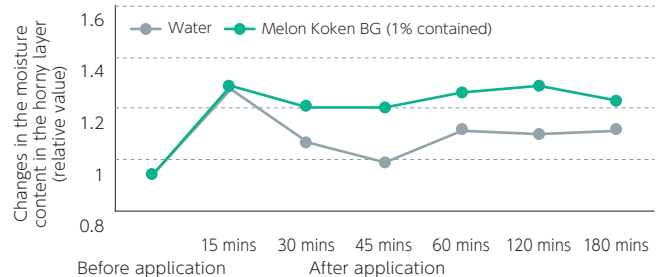
It is expected to increase the innate moisturizing power of the skin from within.

Based on in-house data

Moisturizing (human study)

Moisture content in the horny layer

[Test method] Each of the samples was applied to the forearm. Then, the moisture content in the horny layer was measured.



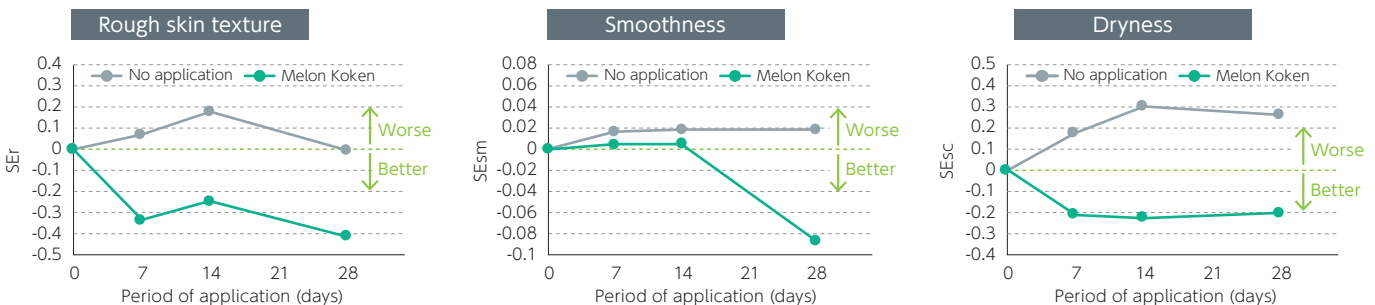
It was confirmed that a higher moisture content in the horny layer was maintained than in the water application group.

It is expected that Melon Koken will moisturize the skin.

Based on in-house data

Improves skin quality (human study)

[Test method] Melon Koken (undiluted) was applied to the skin continuously. Then, the change in the condition of the skin over time at the continued application site was quantified using image analysis.



While all parameters worsened from before testing in the group that did not have Melon Koken applied, the Melon Koken group showed improvements in all parameters.

It is expected that Melon Koken will improve skin quality (texture, smoothness and degree of dryness).

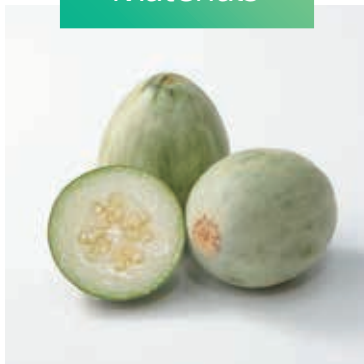
Based on in-house data

Place of origin



Tsuruoka City, Yamagata Prefecture
UNESCO Creative City of Gastronomy
with vast sand dunes
Requests for interviews are welcomed

Materials



The effective use of an unused
resource, the young picked melons
100% plant-derived

Manufacturing method and specifications



Natural manufacturing method
(hot water extraction)

Identifying the usefulness of unused resources in Japan, we will support the creation of a recycling-based society and the future-oriented production of cosmetics.



SUSTAINABLE



UPCYCLING



VEGAN-FRIENDLY



100% NATURAL



JAPANESE
MATERIAL



CHINA NMPA
REGISTERED



NON-CITES
SPECIES



PALM OIL FREE



CRUELTY FREE



GMO FREE



ALCOHOL FREE

Recommended formulation ratio: 1%

Safety evaluation: Human Repeat Insult Patch Test(HRIPT) Conducted・Skin irritation alternative test(OECD TG439) Negative

Product No.	Product Name	INCI name	中文名称	Other ingredients	Package	Sample
MEE-131	Melon Koken BG	CUCUMIS MELO(MELON) FRUIT EXTRACT	甜瓜 (CUCUMIS MELO) 果提取物	Water・BG (Botanical-derived)	1kg	30g

The country of origin: Japan, The place of origin: Yamagata Pref.

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