



AQIA  
QUÍMICA INDUSTRIAL

# SEIVAMEL<sup>®</sup>

NATURAL SHINE FOR HAIR

Plant derivative  
that mimics  
Honey

YACON HYDROLYSATE



100% PLANT ORIGIN



BIOTECHNOLOGY



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## YACON

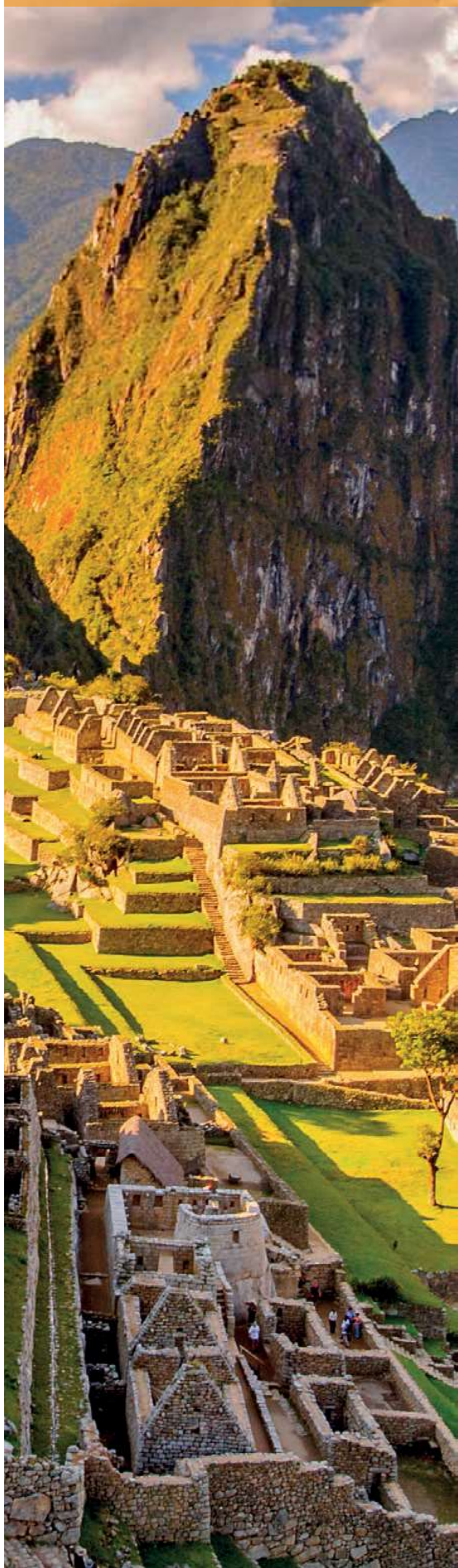
Yacon belongs to the *Asteraceae* family, originating in the Andean regions of Colombia, Ecuador, Peru, Bolivia and Argentina, at altitudes between 2,000 and 3,100 meters. It has been classified under various scientific names: *Polymnia sonchifolia*, *Polymnia edulis* and *Smallantus sonchifolius*. The name yacon derives from the word “yaku” in Quechua, language of the Andean region, which means water. This species is also known by other regional names, such as arboloco, aricoma, jícama, chícama, yíquima, jiquimilla and llacon.

The tuberous roots of yacon are fusiform, and can vary considerably in size, color and taste, with an appearance similar to sweet potatoes, and a taste similar to pear, cantaloupe or watermelon. Recently harvested roots are insipid, but after 3 to 5 days in the sun, they become succulent and sweet, due to the enzymatic reaction of carbohydrates (fructose and glucose).

Yacon has gained attention in recent decades as it presents bioactive compounds that are important to human health. The main substances in its composition are water and carbohydrates, which are stored mainly as **fructooligosaccharides** (FOS), among other free sugars.

The percentage of water in the roots is around 83 to 90% of the fresh weight. With regard to carbohydrates, the sugars found include fructose and glucose monosaccharides, sucrose oligosaccharides and fructooligosaccharides, as well as traces of starch and insulin. The roots contain between 10 and 14% of dry matter, which consists of approximately 90% carbohydrates.

The main minerals present in yacon roots are potassium, iron and zinc, followed by phosphorus and calcium.

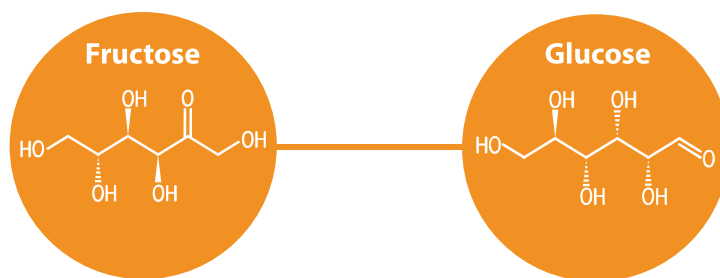






# SEIVAMEL®

It is rich in **fructose** and **glucose**, hydrating and softening agents that give shine to opaque and dry hair.



Seivamel® is a plant-based complex derived from the extraction and partial hydrolysis of yacon.

It has a **high concentration** of carbohydrates and mineral salts, rheologically stabilized with xanthan gum.

Seivamel® is conceptually a derivative of natural origin. It is made without petroleum derivatives (propylene glycol, butylene glycol) and is preserved without parabens.

Its composition rich in nutrients and hydrating agents is ideal for enriching formulations for hair and skin care.



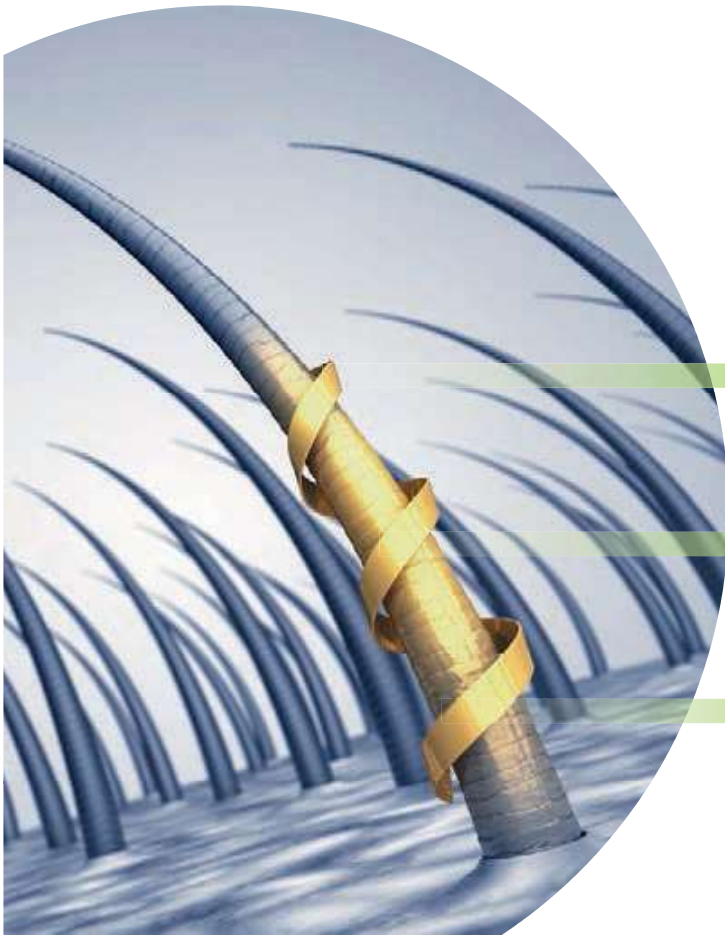
## Benefits

### Shine

Yacon is a natural active substance that gives hair progressive shine, meaning that its effect is cumulative. The more the consumer uses it, the more noticeable the results.

### Hydration

The high content of carbohydrates, sugars and potassium helps to restore the moisture balance of the hair, providing hair fibers with intense hydration and greater elasticity.



It improves the shine of hair fibers



It increases the elasticity of fibers



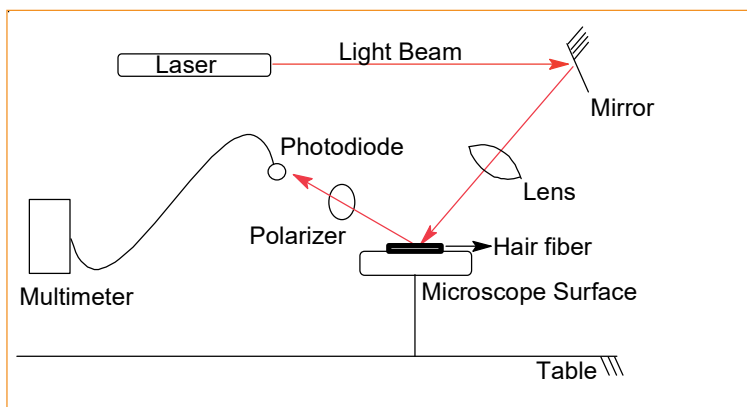
Intense hydration.

## Tests

### Hair shine determination

Methodology – low power laser reflection.

Shine measurement by coherent, collimated and polarized light reflected on the surface at an 80° angle.



**Procedure:** A 30-cm hair fiber of wavy brown hair was divided into 4 equal pieces, which were immersed in solutions (pH 4.5) and different concentrations of Seivamel®.

#### Treatment 1:

Application of Seivamel® solutions on the strands at concentrations of 0, 1, 3 and 5%.

The strands were removed from the solution and left at room temperature to dry for one minute.

Shine was measured using the previously described methodology.

#### Washing 1:

After measuring the shine, each strand was washed for approximately 30 seconds under running water and the measurement procedures were repeated.

#### Treatment 2:

New application of Treatment 1 of the Seivamel® solutions on the same strands at concentrations of 0, 1, 3 and 5%.

The strands went through the same procedure as before, where they were removed from the solution and left at room temperature to dry for one minute.

Shine was measured again.

#### Washing 2:

After the previous measurement, each strand was washed again for approximately 30 seconds under running water, and the measurement procedures were repeated.

# Results

There is a significant and expressive increase in shine according to the concentration of Seivamel up to 5%. As expected, shine decreases with washing at all concentrations, but it increases again significantly after the second treatment (Figure 1).

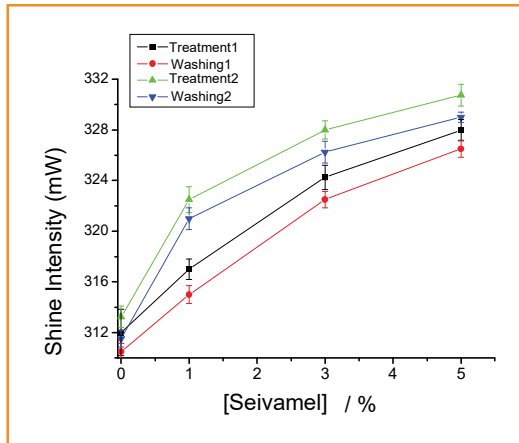


Figure 1: Variation of shine intensity in the hair according to the concentration of Seivamel.

Variation of shine intensity in the hair for Seivamel and at the concentrations of 1%, 3% and 5%, in two consecutive applications and washings.

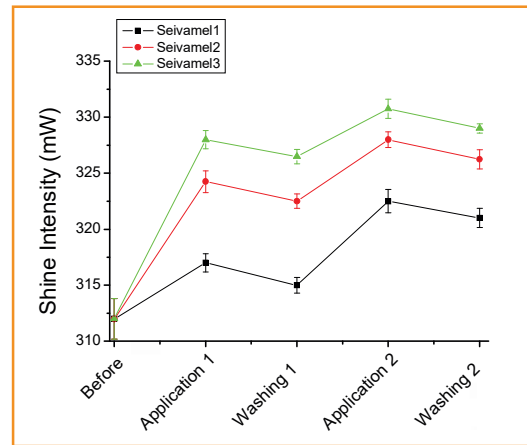


Figure 2: A comparative chart of the effect of Seivamel on hair shine at the three tested concentrations is shown in Figure 2.

Highlighted in figure 3 is the variation in shine after each of the treatments.

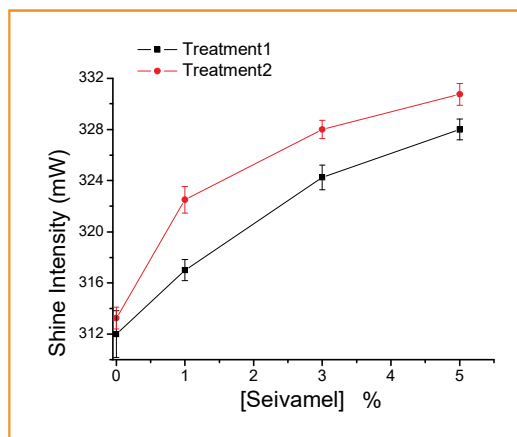


Figure 3: Variation of shine intensity in the hair according to the concentration of Seivamel in two consecutive applications.

## CONCLUSION:

Tests prove that Seivamel® significantly increases hair shine as of 1%. With reapplication, a greater increase in shine is seen, meaning that the effect is cumulative.



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## Technical Information

**INCI Name:** *Polymnia Sonchifolia* Root Extract (and) Water (and) Glycerin

### Physical-Chemical Characteristics

Aspect: medium viscosity liquid, clear to opalescent

Color: yellowish white to ochre beige

Odor: characteristic

pH (25°C): 4.0 – 5.0

Density (25°C): 0.990 – 1.050

Refractive index (25°C): 1.310 – 1.370

Dry matter (105°C, 4h): minimum 3.0%

Solubility: soluble in water, propylene glycol and glycerol

Identification: according to standard ultraviolet spectrum

Microbial count:

- Fungi: max. 100col/g;

- Bacteria: max. 100col/g

Preservatives:

- 0.2% potassium sorbate

- 0.1% sodium benzoate

### Properties and Indications

It improves hair shine and hydration.

### Usage recommendations

Creams and lotions: from 1 to 5%

Shampoos and conditioners: from 1 to 5%

### Applications

Hair



Skin



Kids



Pet



### Storage and shelf life

It should be stored hermetically sealed, away from light and heat (10°C to 35°C).

Shelf life: 24 months after manufacture date (see batch number).

NOTE: Product for topical cosmetic use. During storage, turbidity and/or precipitate formation may occur, but without altering the product's properties.

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