



CRAFTING
THE FUTURE WITH
**PROPOLIS
INNOVATIONS**

www.probee.kr

At Seoul Propolis, we strive to be more than just a company. We aspire to be a beacon of trust and integrity. With every interaction, we honor our customers, cherish the natural world, and ensure that the benefits of propolis are shared with the community.

We cultivate a culture where knowledge blossoms and takes root deep within our community.

Seoul Propolis Founder
Seungwan Lee

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INNOVATION MEETS NATURE CRAFTING THE FUTURE OF PROPOLIS SOLUTIONS

We create innovative propolis products
with a proven positive impact on life,
thanks to a deep integration of research and production

We are a group of researchers and innovators who, through propolis, aim to provide natural solutions that help people live better, in perfect harmony with their bodies and its complex nature.

Our journey began with Seoul Functional Foods Co., Ltd, a functional foods business founded in 1992. The idea of propolis was conceived by Seungwan Lee, whose deep passion for health and natural ingredients led to the development of new extraction methods for human health.

Founded in 2003 as a spin-off from the Korea Atomic Energy Research Institute (KAERI), Seoul Propolis Co., Ltd has focused on in-depth research into the efficacy of propolis, optimizing production processes, and identifying targeted health benefits. This dedication has enabled us to create one of the largest and most scientifically-backed propolis databases available today.





We Experiment and Innovate in Propolis Extraction

In 2006, Seoul Propolis, in collaboration with the Korea Atomic Energy Research Institute (KAERI), co-developed and patented the alcohol-free and water-soluble propolis (WEEP) technology, which remains a core technology to this day.

A major turning point in our company's rapid growth occurred in 2018 when Seoul Propolis completed a GMP-certified factory. This achievement reflects our commitment to innovation, enabling us to offer services as both a producer of raw materials and finished products, all backed by scientific data.

We stand out thanks to our philosophy, which is rooted in the development and manufacturing of finished products made using the latest technology and strong scientific research. We are determined to be seen as the ideal partner for any food, nutraceutical, pharmaceutical, and personal care manufacturers seeking propolis extract or symbiotic products.

Through these efforts, we not only lead in propolis innovation but also actively shape the future of the industry, setting standards and driving scientific discourse through the Bio-Propolis Research Council and the World Propolis Science Forum.

OUR HISTORY

Our Journey Began with Propolis Over 30 Years of R&D Excellence

Today

- Seoul Propolis continues to innovate, introducing propolis into new market scenarios. We have established GMP and HACCP-certified factories for propolis production, and our dedication to quality and innovation is further evidenced by numerous patents and certifications, including HALAL and ISO 9001.

2020s

- Our research efforts continue to uncover the beneficial activities of propolis across various therapeutic areas, validated through clinical trials at major Korean research centers. Thanks to our unwavering commitment to R&D, Seoul Propolis' in-house laboratory has been recognized as an excellent corporate R&D center and a world-class product manufacturer by the Ministry of Science and ICT.

2010s

- Building on our innovative technology, Seoul Propolis diversified propolis extracts tailored to various applications while retaining the beneficial active compounds, including foods, beverages, pharmaceuticals, and cosmetics. We were honored with a gold medal for technology development at the 44th APIMONDIA (International Apicultural Congress).

2000s

- Seoul Propolis was founded as a spin-off company of Korea Atomic Energy Research Institute, focusing on research and development in the early years. We developed the patented technology of 'Manufacturing Method of Water Soluble Propolis' in 2003.

1990s

- Seoul Functional Food Co., Ltd was founded, focusing on the research and development of functional ingredients from nature, especially propolis.

한국원자력연구원 연구소기업
서울프로폴리스
SEOUL PROPOLIS

SEOUL PROPOLIS

UN이 지정한

PROPOLIS AND INNOVATION : FROM NATURE TO NUTRACEUTICALS

We develop some of the most innovative propolis products, designed for applications in both health and skincare, featuring our proprietary alcohol-free and water-soluble propolis extract.



Propolis is a powerful natural defense mechanism created by honeybees. This sticky substance is collected by honeybees from the buds of various plant species, depending on the climate zone. Within the hive, propolis is used to coat the inner walls, protect against intruders, shield from wind and rain, and prevent the growth of fungi and bacteria.

The composition of propolis varies with its source, and over 300 chemical components have been identified, including flavonoids, terpenes, and phenolic acids. The main components of propolis include resin and balsam (45%), wax (30%), essential and

aromatic oils (10%), pollen (5%), and other organic substances (10%).

Thanks to its rich composition, propolis has been used throughout history as a natural remedy. Research has demonstrated that propolis offers various health benefits, including antibacterial, anti-inflammatory, antioxidant/anti-aging, and antiviral properties. With its broad range of beneficial properties, propolis continues to be a vital ingredient in modern health and wellness products.

 **300+**
active compounds

Active Compounds	Functional Properties
Artepillin C	Anti-inflammatory, Anti-tumor, Anti-oxidation
Caffeic Acid Phenethyl Ester	Immunomodulating, Anti-virus, Anti-tumor, Anti-inflammatory
Cinnamic acid	Anti-oxidation, Anti-bacterial, Anti-tumor
p-Coumaric acid	Anti-oxidation
Chrysin	Anti-inflammatory
Kaempferol	Antihyperglycemic, Anti-oxidation
Pinocembrin	Anti-bacterial, Anti-inflammatory, Anti-oxidation
β-amyrin	Anti-tumor, Anti-inflammatory

Category		Nation			
		Korea	Brazil	Australia	China
Phenols	Artepillin C	+	++++	+	+
	CAPE	+	+	+	+
	Cinnamic acid	+	+	+	++
	<i>p</i> -Coumaricacid	+	++	+	+
Flavonoid	Chrysin	++	+	++++	+++
	Kaempferol	+	+	+	+
	Pinocembrin	++++	+	++	+++
Terpene	<i>β</i> -amyrin	+	++	+	+

In our work, we are committed to advancing research and development in the field of propolis. Our goal is to create high-quality, effective, and safe raw materials and finished products within a branch of nutraceutical science that demands specialized technical expertise.

Propolis is rich in flavonoids, vitamins, and minerals, all of which demonstrate significant pharmacological activities. Flavonoids are soluble in alcohol but not in water, while minerals and polysaccharides dissolve in water but not in alcohol. Additionally, since some vitamins are water-soluble and others are fat-soluble, both water and alcohol

are typically required to properly extract all active ingredients.

Our Water-Extractable Propolis (WEEP) technology overcomes the limitations of traditional ethanol-extracted propolis, which does not dissolve well in water and can become sticky. WEEP technology ensures that our propolis is alcohol-free, fully water-soluble, and designed for optimal absorption by the body. We hold a patent for this innovative technology, which allows for the production of a diverse range of water-based products, including nutraceuticals, pharmaceuticals, foods, beverages, cosmetics, personal care items, and animal feeds.



Extraction Methods	Flavonoids	Terpenoids	Polysaccharides	Minerals
WEEP	●	●	●	●
Ethanol Extraction	●	●	×	●
Water Extraction	▲	×	●	●
Supercritical	▲	●	×	▲
Micellization	▲	▲	×	×

● Fully Extracted ▲ Partially Extracted × Not Extracted

Propolis contains a rich array of chemical compounds, including cinnamic acid derivatives (such as *p*-coumaric acid, drupanin, artepillin C, and baccharin), substituted phenolic acids, flavonoids, and amino acids. The chemical composition of propolis varies based on factors such as geographical origin, plant sources, and the season of collection. This variability has significant implications for its use in modern medicine, where there is

growing interest in its diverse chemical properties.

At Seoul Propolis, we have developed and published the 'Blend Technique,' a manufacturing process designed to create synergistic effects by blending propolis from different origins. This innovative method enhances the effectiveness of our propolis-based products across a wide range of applications.

Green Propolis	Brown Propolis	Red Propolis
		
 South America	 Europe, North America, Asia, Oceania	 South America
 <i>Baccharis</i> spp	 <i>Populus</i> spp	 <i>Dalbergia</i> spp

Phytochemical Profiles of Propolis from different Regions



LC-MS/MS Chromatograms of Bioactive Compounds in Propolis Extracts



Our production processes are continuously optimized to improve product performance at all times.

WE STAND BESIDE OUR CUSTOMERS TO PRODUCE EXCELLENCE

At Seoul Propolis, we manage the entire production process within our own facilities. From product design to the finished product, the manufacturing cycle is entirely in-house, comprehensive, and safe, proceeding through the following phases:



Private Label (ODM)

Tincture



Sachet



Spray



Jar



Capsule



Raw Material Application

01. Foods Application



Nutraceutical



Pharmaceutical



Foods



Beverages



Animal Feeds

02. Cosmetics & Personal Care Products Application



Skin Care

- Toner
- Cream
- Soothing Gel

- Serum
- Wet Wipes
- Lip Balm



Oral Care

- Toothpaste
- Toothbrush
- Mouthwash



Rinse-off Products

- Shower Gel
- Shampoo
- Soap
- Feminine Wash

03. Other Application



Filter



Casing



Coating

In compliance with GMP (Good Manufacturing Practices) and HACCP (Hazard Analysis Critical Control Point) guidelines, Seoul Propolis has been authorized by the Korean Ministry of Food and Drug Safety to manufacture active ingredients and food supplements.

Additionally, we have also complied with the requirements of the United States Food and Drug Administration.

PRODUCTION

Our GMP and HACCP-certified factory is where we meticulously select propolis and manufacture both water-soluble propolis extracts as raw materials and finished products. Our facilities meet the highest standards of quality and safety, ensuring that every product we create is of exceptional quality.



RESEARCH AND DEVELOPMENT

At our unique and innovative in-house lab, we conduct scientific and technical investigations. We collaborate on Industry-University-Research joint projects to study the mechanisms and efficacy of propolis. This collaborative approach helps us stay at the forefront of propolis research, continually enhancing the effectiveness and safety of our products.

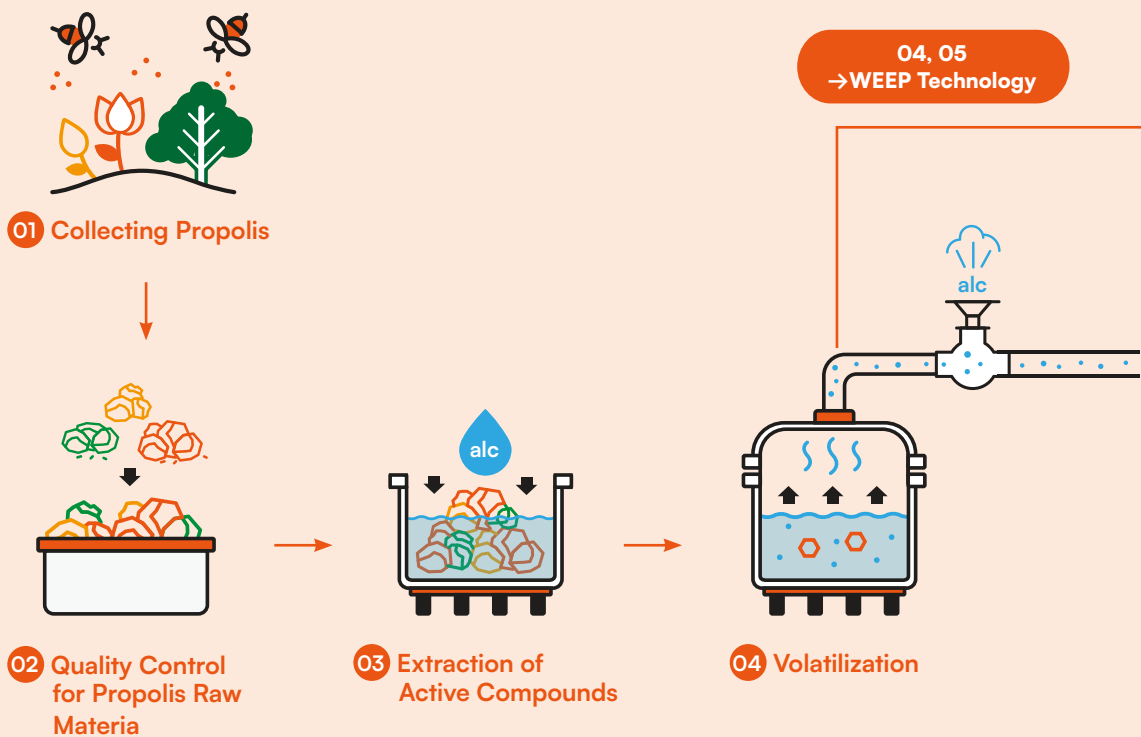


FROM R&D TO RAW MATERIALS AND FINISHED PRODUCTS

We use the finest propolis raw material sourced from credible apiaries committed to meeting our high standards, ensuring high-quality

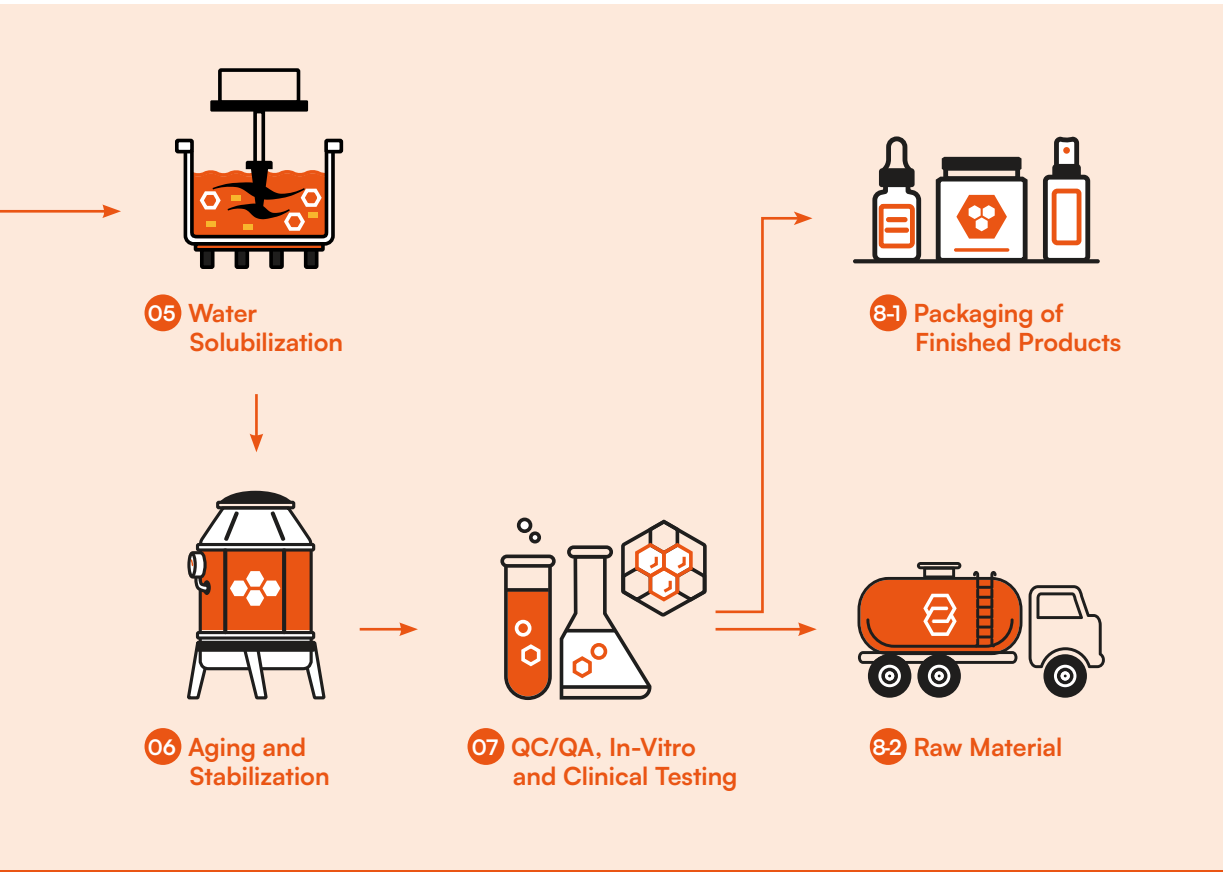
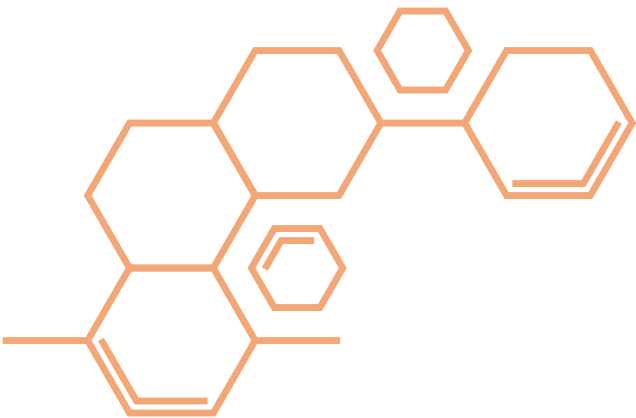
products in our in-house lab.

Additionally, we ensure that collecting propolis does not disrupt the balance



between bees and their environment, promoting sustainability.

Our extraction process begins with an alcohol extraction process to obtain active compounds. Volatilization is then used to remove the alcohol, followed by a water solubilization process that maximizes the retention of active compounds.



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PATENT LIST

- Manufacturing Method for Water- Soluble Propolis (no. 0550165)
- Method for Producing Eco-Friendly, Non-Alcoholic, Water-Soluble Propolis Propolis (no. 10-1403511)
- Method of Using Propolis Mixed with Extracts from Different Origins and Composition for Health Functional Food Using Propolis as an Active Ingredient (no. 10-2041615)
- Water-Soluble Propolis Composition with Immune-Regulating and Activating Functions Using Red, Green, and Brown Propolis, and Method for Manufacturing the Same (no. 10-0150009)
- Method for Manufacturing a Functional Cosmetic Composition for Wrinkle Improvement Using Supercritical Extracts and Extraction Residues (no. 10-2682737)
- Propolis-Infused Fish Feed and Method for its Manufacturing (no. 10-1218086)
- Composition for Sebum Regulation and Acne Improvement Using a Mixture of Water-Soluble Propolis Extracts from Different Origins, and Method for Manufacturing the Same (no. 10-2322130)
- Propolis-Containing Complex Composition with Inhibitory Effects on Damage Caused by Harmful Reactive Oxygen Species and Radiation, and Method for Manufacturing the Same with Enhanced Immune Function (no. 0519720)
- Propolis Composition for Inhibiting Gastritis and *Helicobacter pylori* (no. 10-2001024)
- Propolis Fraction with Improved Efficacy for Anti-Acne and Wrinkle Improvement, and Method for Manufacturing the Same with Enhanced Fragrance (no. 10-1216113)

PROBEE BRAND

PROBEE is the proud brand of Seoul Propolis, offering a premium line of propolis-based products designed to support health and wellness. Our commitment to quality and innovation is evident in every product under the PROBEE brand.



Tincture



Tincture



Tincture



Sachet



Honey Jar



Spray



Soothing Gel



Toothpaste & Soap

RAW MATERIAL LIST

Product Code	Geographic Origin	Botanical Name	pH	Viscosity	Active Compounds	
					Total Flavonoids (Quantitative)	Others (Qualitative)
WEEP-10	Brown / KR, AU Green / BR	<i>Populus spp</i> / <i>B. Dracunculifolia</i>	8.0~9.0	10~100 cps	>1mg/g	<i>p</i> -coumaric Acid, Cinnamic Acid, Artepillin C
WEEP-100	Brown / KR, AU Green / BR		9.0~10.5	10~100 cps	>10mg/g	
WEEP-300	Brown / KR, AU Brown+Green		9.0~10.5	500~1500 cps	>30mg/g	
SEEP-10	Brown / KR, AU Green / BR	<i>Populus spp</i>	8.0~9.0	700~950 cps	>1mg/g	<i>p</i> -coumaric Acid, Cinnamic Acid
SEEP-100	Brown / KR, AU		7.5~8.5	800~1200 cps	>10mg/g	
EEP -50, 100	Brown / KR, AU Green / BR		5.0~6.5	10~20 cps	>5, 10mg/g	
EEP -300, 500	Brown / KR, AU	<i>Populus spp</i>	5.0~6.5	10~20 cps	>30, 50mg/g	<i>p</i> -coumaric Acid, Cinnamic Acid

*WEEP, SEEP Water-soluble Propolis Extract in Liquid Form *EEP Ethanol-extracted Propolis in Liquid Form

Product Code	Geographic Origin	Botanical Name	Particle Size	Active Compounds	
				Total Flavonoids (Quantitative)	Others (Qualitative)
PP -100, 300, 500	Brown / KR, AU Green / BR	<i>Populus spp</i> / <i>B. Dracunculifolia</i>	60~200 mesh	>10, 30, 50mg/g	<i>p</i> -coumaric Acid, Cinnamic Acid, Artepillin C

*PP Propolis in Powder Form



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Spin-off Company of Korea Atomic Energy Research Institute

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