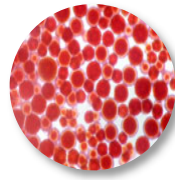


Oryza



Ver.12

# Food Ingredients Products Profile

オリザ油化株式会社

Oryza Oil & Fat Chemical Co., Ltd.

# Revised Content of Ver.12

## ■New Product

- **SAKURA LACTIC ACID BACTERIA (SAKULORA™)** P.52

## ■New Patent (In Japan) :

- **MAQUIBERRY EXTTRACT:** No.7530200 Redness improving agent on the skin P.88
- **PURPLE TEA EXTRACT:** No.7489216 NO production promoter, explosive power improver for lower limb muscles, and agent for reducing muscle damage caused by intensive exercise

## ■New papers :

- **STRAWBERRY GUAVA EXTRACT (Femberry™)**

Yoneda A., Takeda S., Miyasaka K., Manse Y., Morikawa T., Shimoda H. Epidermal and Blood Vessel Barrier Functions of Glucosylceramides and Digalactosyldiacylglycerols Isolated from Yellow Strawberry Guava. PROCESSES. 12(7),1421(2024) P.95

- **VINE TEA EXTRACT (ResoVine™)**

Takara T., Suzuki N., Yamamoto K., Iio S., Kakinuma T., Baba A., Noguchi H., Shimizu N., Yamada W., Wu J., Hirano M., Kuang X., Nagata M., Shimoda H. Hypolipidemic Effects of Resovine™ Standardizes with Amplepsin on Postprandial Serum Triglycerides in Healthy Japanese Participants. Japanese Pharmacology and Therapeutics. 52(5),637-43(2024) P.95

- **MAQUIBERRY EXTRACT**

Yamazaki K., Ishida K., Otsu W., Muramatsu A., Nakamura S., Yamada W., Tsusaki H., Shimoda H., Hara H., Shiazawa M. Delphinidins from maqui berry (*Aristrotilia chilensis*) ameliorate the subcellular organelle damage induced by blue light exposure in murine photoreceptor-derived cells. BMC Complement.Med. Ther. 24(1),3(2024) P.92

■ New specification added :

- ORYZA CERAMIDE-WSP1 (Glucosylceramide 1.0 %)
- KIKU FLOWER EXTRACT-WSP10 (Luteolin 10.0 %)

# Table of Contents

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Products Profile (alphabetical order)

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Products of Which Application for Foods with Function Claims have  
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# How to Use This Catalog

## Food with function

“Accepted” is indicated for ingredients of which an application has been accepted. “Submitted” is indicated for ingredients undergoing the process of application. For ingredients with “Accepted” indicated, details such as their health claims and involved components are described on pages 44 and 45.

## Recommended

Recommended intake is described assuming that products whose name include -P (powder) is ingested. Ingestion dose may differ depending on the grade of products. For details, please contact sales personnel.

## KIKU FLOWER EXTRACT

(Released in May 2014)

Application for food with function claims accepted in Japan

Recommended dosage

100 mg/day (P)

●Japanese patent No. 6452014 (Fibronectin expression promoting material)



-P (powder)

-WSP (water-soluble powder)

### • Anti-gout

*(Double-blind comparative study between parallel groups)*

It has been confirmed to possess uric acid lowering activity.

- Inhibits enzyme which synthesizes uric acid (xanthine oxidase) *(in vitro)*
- Improves symptoms of gout *(in vivo)*
- Suppresses uric acid production *(in vitro)*
- Improves quality of sleep *(in vivo)*
- Anti-wrinkle and skin beautifying effect *(in vivo)*

### [Origin of raw material]

Flower buds or flowers of chrysanthemum

### [Standard component]

Luteolin

### [Safety test]

(Chrysanthemum flower extract)

- Single-dose test  
LD50: 2,000 mg/kg or more
- Repeated dose (28 days) test
- Ames test
- Five times (500 mg) dose intake test on human

## Packing type

The basic packing is described below. If any irregular packing is used, it is described in this area.

- Powder: 1 kg, 5 kg
- Liquid and oil: 16 kg

## Halal authorized ingredient

This mark is the Halal certification mark. This certification mark is added to information on Halal authorized ingredients.

## Product grade

Basically, -P (powder) and -WSP (water-soluble powder) are available. When only the -P (powder) grade is available, -P (powder) is highly water-soluble.

## Description of functionality

Concerning human clinical trials, Oryza's original data is shown in red and data quoted from a published report is shown in blue.

# PRODUCTS from RICE (*Oryza sativa*)

Appeal point Product name		Life style-related diseases					Allergies· Inflammation			Beauty		
		Anti-hypertensive	Prevention of Hyperlipemia Arteriosclerosis	Anti-diabetic	Anti-obesity	Alcohol metabolism Hepatoprotective	Improvement of Hay Fever and atopic dermatitis	Anti-arthritic Pain relief	Anti-inflammation	Whitening effect	Moisturizing effect	Cell activation Improvement of metabolism
FERMENTED RICE GERM EXTRACT	P. 25											
FERULIC ACID	P. 25	○		○						○	○	
GAMMA ORYZANOL ORYZA GAMMAX® (USA)	P. 27		○	○	○		○		○	UV absorption (down) Tyrosinase activity	○	○
OCTACOSANOL	P. 38				(up) Lipid metabolism	○						
ORYZA CERAMIDE™	P. 39						Decrease itching Inhibition of degranulation			(down) Melanin production and tyrosinase activity	○	(up) Dermal fibroblast growth
ORYZA GABA™	P. 40	○	○		(down) Blood TG	○ (up) Alcohol metabolism						
ORYZA PEPTIDE	P. 40	ACE inhibitor			(up)Lipid metabolism					(down) Melanin production	(down) Ceramidase and hyaluronidase gene expression (up) Collagen production	
ORYZA POLYAMINE™	P. 41		○		○		○		○			○
ORYZA PROTEIN™	P. 41		○		(up)Lipid metabolism							
ORYZA STEROL	P. 42		○								○	
ORYZA TOCOTRIENOL™	P. 42		○		(down) Blood TG		○			Anti-pigmentation	(up) hyaluronic acid production	(up) Dermal fibroblast growth
PURPLE RICE EXTRACT	P. 46		○	(down) α-glucosidase, aldose reductase activities	(down) Sugar absorption				○	(down) Melanin production and tyrosinase activity	(down)Elastase, hyaluronidase, collagenase activities	
RED RICE EXTRACT	P. 48		○	○							(down) Collagenase expression	
RICE BRAN OIL	P. 73		○		○					○	○	
DEFATTED RICE BRAN※	P. 74				○							

※ORYZA DRIM, ORYZA GERM-DLP, -DLS

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

Beauty				Anti-aging					Others				
Anti-wrinkle	Anti-acne	Anti-glycation	Others(hair, nail)	Prevention of Ophthalmopathy	Improvement of brain function	Anti-cancer	Nutritional fortification Immunostimulating effect Improvement of libido	Anti-oxidative effect	For feeling of cold Swelling Improvement of peripheral circulation	Improvement of dysautonomia/ post menopausal syndrome	Anti-stress Relax Anti-fatigue Sleep	Antibacterial effect Deodorizing effect	Others
						NK cells proliferation	(up)Phagocytic capacity of macrophages	SOD-like and DPPH radical scavenging abilities					
					○	○		○					
								Suppression of oil peroxidation	○	○	○		
					○		○				○		(up) Endurance
○						(up)Apoptosis/prevention of colon cancer	Anti-influenza effect(BSG) Immunostimulation	○		○			
					○	Prevention of colon cancer			○	○	○	○	
								SOD-like activity					Liver-protective effect
		○					○ Autophagy	○					Effect of radiological protection
			○ (up)Hair growth Effect of hair cuticle repair										(down) TG
						○							Prevention of BPH
(UP) Hyaluronic acid production						Prevention of colon cancer and breast cancer		○	○				Anti-fatigue
			Hair dye	Inhibition of retinal disorders/Retinal angiogenesis		○		SOD-like and DPPH radical scavenging abilities					(down) Vitamin C oxidation
						○		SOD-like and DPPH radical scavenging abilities					(down) TG
			Skin cell activation					○		○			
						○							Relief constipation

# PRODUCTS from OTHER PLANT SOURCES (1)

Appeal point Product name		Life style-related diseases					Allergies· Inflammation			Beauty		
		Anti-hypertensive	Prevention of Hyperlipemia Arteriosclerosis	Anti-diabetic	Anti-obesity	Alcohol metabolism Hepatoprotective	Improvement of Hay Fever and atopic dermatitis	Anti-arthritis Pain relief	Anti-inflammation	Whitening effect	Moisturizing effect	Cell activation Improvement of metabolism
AGUAJE EXTRACT	P. 16		○									
ALPHA-LIPOIC ACID	P. 16			○	(down) Fat accumulation, appetite (up) Muscle strengthening				(down) Melanin production	○		(up) Dermal fibroblast growth
ASTAXANTHIN	P. 17		○					○		○		
BIRD'S NEST EXTRACT	P. 18							○		Moisturizing effect		(up) Dermal keratinocyte / fibroblast growth
BLACK GINGER EXTRACT Staminus® (USA)	P. 19	Blood pressure -lowering effect	○	○	○		○	○	○			
BROCCOLI SPROUT EXTRACT	P. 20								(down) Melanin production/ Tyrosinase activity			
BUCKWHEAT LEAF EXTRACT	P. 20	○	○	○	(up) Lipid metabolism							
COCOA EXTRACT	P. 21	○	○		(down) Fat accumulation, appetite (up) Lipid-metabolism							
CHINESE CHIVE SEED EXTRACT	P. 21					Suppression of lipid peroxidation			(down) Melanin production			
CISTANCHE TUBULOSA EXTRACT	P. 22	○	Suppression of cholesterol		(up) Lipid metabolism	○			(down) Tyrosinase activity	(down) Elastase, hyaluronidase activities		
CITRUS UNSHIU EXTRACT	P. 22		○		○			○	(down) Melanin production/ Tyrosinase activity	○		(up) Dermal fibroblast growth
COFFEE BEAN EXTRACT	P. 23	○		(down) α-glucosidase activities and sugar absorption	(down)Fat absorption (up)Lipolysis, fat decomposition							
COPRINO™ EXTRACT	P. 23							(down) IL-6 production	(down) Melanin production/ Tyrosinase activity			(up) Hyaluronan synthase
EVENING PRIMROSE EXTRACT	P. 24		○	(down) α-glucosidase, α-amylase, aldose reductase activities	(down) Sugar absorption				(down) Tyrosinase activity	○		
EVENING PRIMROSE OIL	P. 24		(up) Cholesterol ester production	○	○		Improvement of GLA deficiency				○	
FUCOXANTHIN	P. 26			○	○				(down) Tyrosinase activity/ Melanogenesis related genes expressions	(down) Elastase, collagenase, hyaluronidase activities		



○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

Beauty				Anti-aging					Others				
Anti-wrinkle	Anti-acne	Anti-glycation	Others(hair, nail)	Prevention of Ophthalmopathy	Improvement of brain function	Anti-cancer	Nutritional fortification Immunostimulating effect Improvement of libido	Anti-oxidative effect	For feeling of cold Swelling Improvement of peripheral circulation	Improvement of dysautonomia/ post menopausal syndrome	Anti-stress Relax Anti-fatigue Sleep	Antibacterial effect Deodorizing effect	Others
								○	○				Female hormone like activity, Anti-androgen effect
			(up) Skin turnover	○				<i>In vivo</i> antioxidant					
○				○	○ (down) Generation of ROS in brain cells			○				○ Anti- <i>H.pylori</i>	
(up) Skin elasticity, Dermal collagen density			(up) Skin tight junction		○		○				○		
			(up) Hair growth HGF, IGF-1, VEGF mRNA		Inhibition of phosphodiesterase 2 activity	○	○	SOD-like and DPPH radical scavenging abilities	Promotion of blood peripheral circulation Improvement of capillary blood vessel shape			○	Improvement of govt/Prevention of BPH/ Prevention of hair loss
		○		○		(up) Phase II enzymes		<i>In vivo</i> antioxidant				Anti- <i>H.pylori</i>	
								SOD-like and DPPH radical scavenging abilities	(up) Peripheral circulation				
								SOD-like and DPPH radical scavenging abilities	○				
							(up) Testosterone secretion/ Immunity	○			Improvement of physical and mental fatigue		(up) Endurance Detoxification
Anti-photo aging			(up) Hair growth	○ (up) Human neuroblast growth		○ (up) Testosterone secretion		SOD-like and DPPH radical scavenging abilities	○ Cerebral or myocardial infarction	○	○		(up) Endurance
						○		SOD-like and DPPH radical scavenging abilities					Inhibition of osteoporosis
				○		Prevention of colon cancer		SOD-like and DPPH radical scavenging abilities					
Anti-photo aging								○					
						(up) Apoptosis		SOD-like and DPPH radical scavenging abilities		○		Inhibition of <i>H. pylori</i> fixation and urease activities Deodorization	
								○		Improvement of GLA deficiency			
(up) Collagen production	(down) Lipase activity	(down) AGE formation				○ Colorectal cancer		SOD-like and DPPH radical scavenging abilities					Inhibition of osteoporosis

PRODUCTS from OTHER PLANT SOURCES (2)

Appeal point Product name		Life style-related diseases					Allergies· Inflammation			Beauty		
		Antihypertensive	Prevention of Hyperlipemia Arteriosclerosis	Anti-diabetic	Anti-obesity	Alcohol metabolism Hepatoprotective	Improvement of Hay Fever and atopic dermatitis	Anti-arthritis Pain relief	Anti-Inflammation	Whitening effect	Moisturizing effect	Cell activation Improvement of metabolism
FucoRex™	P. 26			○	Inhibition of fat accumulation and gain weight				(down) Tyrosinase activity Melanogenesis related genes expression	(down) Elastase, collagenase, hyaluronidase activities		
JAPANESE BUTTERBUR EXTRACT	P. 28	Vaso dilatation				(down) Leukotriene, histamine release and TNF-α production						
KIKU FLOWER EXTRACT	P. 29		○	○	○	○ Improvement of itching in the eyes	○ Anti-gout. Inhibition of XOD,Uric acid excretive effect	○	○			
KIWI SEED EXTRACT	P. 30							(down) PG-production	(down) Melanin production /Tyrosinase activity	Clinical test in human		
KRILL OIL (ISADA OIL)	P. 31	○	○		Inhibition of fat accumulation and gain weight (PPAR activation)		○					
KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria™)	P. 32											
KUZU LACTIC ACID BACTERIA (SkinBarrier Lactic Acid Bacteria™)	P. 32									(up)Collagen,improve TEWL		
LINGONBERRY EXTRACT	P. 33	○							(down) Melanin production/ Tyrosinase activity			
LITCHI SEED EXTRACT	P. 33			(down) Aldose reductase activities and elevation of blood sugar	(up) Lipid metabolism				(down) Melanin production/ Tyrosinase activity	(down)Hyaluronidase activity (up)Collagen production	(up) Dermal fibroblast growth	
LUTEIN	P. 34											
MAQUI BERRY EXTRACT MaquiBright™	P. 35											
MAQUI BERRY EXTRACT Delphinol™	P. 36		○	○				○	(down) Melanin production			
MOUNTAIN CAVIAR EXTRACT (VegCaviar™)	P. 37				Lower Blood Sugar Level After Meals	○						
PASSIONFLOWER EXTRACT	P. 43			○								
PERILLA SEED EXTRACT	P. 44						(down) 5 and 12-lipoxygenase/ histamine release	○		○		
PERILLA SEED OIL	P. 44 - P. 45		○	○			(down) Leukotriene and histamine production			○		

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

Beauty				Anti-aging				Others					
Anti-wrinkle	Anti-ane	Anti-glycation	Others (hair, nail)	Prevention of Ophthalmopathy	Improvement of brain function	Anti-cancer	Nutritional fortification Immunostimulating effect Improvement of libido	Anti-oxidative effect	For feeling of cold Swelling Improvement of peripheral circulation	Improvement of dysautonomia/post menopausal syndrome	Anti-stress Relax Anti-fatigue Sleep	Antibacterial effect Deodorizing effect	Others
(up) Collagen production	(down) Lipase activity	(down) AGEs formation				○		SOD-like and DPPH radical scavenging abilities					Inhibition of osteoporosis
				○				○					
Expression of Fillagrin, Type IV collagen		○		○	○	○		○	○			○	Anti-oxidation, Cardioprotective, Neuroprotective
(up) Dermal fibroblast growth	(down) 5α-reductase /Lipase activities		(up) Dermal fibroblast growth /Anti-under eye darkness					SOD-like and DPPH radical scavenging abilities					
					○			○	○				
							○						
							(UP)saliva IgA						
		○						○	Thermography				Prevention of urinary tract infection
(down) Elastase, collagenase activities						(up) Apoptosis		SOD-like and DPPH radical scavenging abilities <i>in vivo</i> antioxidant		○			
				Prevention of AMD		○		○					
				Anti-dry eye effect Inhibition of retinal photo-damage				○					
Anti-photo aging		Suppresses AGEs production, AGEs degradative effect	(up)Hair growth, Cosmetical effect					○					Inhibition of osteoporosis
							○				Improvement of circadian rhythm, Improvement of quality of sleep		Enhance activity in daytime
								SOD-like activity		○		Anti-cariogenic bacterium Anti-periodontal bacterium Deodorization	

PRODUCTS from OTHER PLANT SOURCES (3)

Appeal point Product name		Life style-related diseases					Allergies· Inflammation			Beauty		
		Antihypertensive	Prevention of Hyperlipemia Arteriosclerosis	Anti-diabetic	Anti-obesity	Alcohol metabolism Hepatoprotective	Improvement of Hay Fever and atopic dermatitis	Anti-arthritis Pain relief	Anti-inflammation	Whitening effect	Moisturizing effect	Cell activation Improvement of metabolism
POLYAMINE (from wheat germ)	P. 45		○		○		○		○			○
PSORALEA CORYLIFOLIA FRUIT EXTRACT	P. 46								○		(down) hyaluronidase activities	
PURPLE TEA EXTRACT Alluvia® (USA)	P. 47				(down)Fat absorption and accumulation (up)Lipolysis					(down) Tyrosinase activity	Moisturizing effect	(up) Dermal collagen density
PURPLE TEA EXTRACT PurepleForce™ (USA)	P. 47											
RED GINGER EXTRACT	P. 48			○	○	○		anti-arthropathia pain relief	○			
RESVERATROL	P. 49	○	○	○	○ Suppression of adipocyte differentiation	○			○	(down) Melanin production	(down) Elastase, collagenase, hyaluronidase activities	
SAFFRON EXTRACT Safleep™	P. 50											
SAKURA EXTRACT Florabella® (USA)	P. 51			aldose reductase activities					(down) NO production	(down) Melanin production/ Tyrosinase activity		(up) Dermal fibroblast growth/ Collagen lattice production
SAKURA LACTIC ACID BACTERIA SAKULORA™	P. 52								Intestinal IgA production enhancement			
SEABERRY EXTRACT	P. 53										Inhibition of dryness stimulation	○
SEABERRY OIL	P. 53		○	○	○					○		
SICHUAN PEPPER OIL	P. 54											
STRAWBERRY GUAVA EXTRACT (FemBerry™)	P. 55										Skin moisture TEWL improvement	
STRAWBERRY SEED EXTRACT	P. 56			(up)GLUT4 and insulin receptor gene expressions	(up)Lipid metabolism/ Lipolysis		Improvement of epidermal hyperplasia Decrease of eosinophils & mast cells			(down)Tyrosinase and its related protein gene expressions	(up)Ceramide synthase and aquaporin gene expressions	
TOMATO SEED EXTRACT LycoLift™	P. 57		○						Suppression of IgE secretion Improvement of cytokine balance		Improvement of TEWL	(up)Metabolism of extracellular matrix in skin
VINE TEA EXTRACT ResoVine™	P. 58				Suppresses fat absorption&fat accumulation, Promotes fat metabolism	Protects liver						

○ : literature citation

Narration: data obtained by Oryza R&D group. (The Red:New datas)

Beauty				Anti-aging					Others				
Anti-wrinkle	Anti-acne	Anti-glycation	Others (hair, nail)	Prevention of Ophthalmopathy	Improvement of brain function	Anti-cancer	Nutritional fortification Immunostimulating effect Improvement of libido	Anti-oxidative effect	For feeling of cold Swelling Improvement of peripheral circulation	Improvement of dysautonomia/post menopausal syndrome	Anti-stress Relax Anti-fatigue Sleep	Antibacterial effect Deodorizing effect	Others
		○	(up) Keratin production				○ Autophagy	○					Protection from radiation
Promote protein expression of Fibrin 4 and Laminin 5													
			Anti-aging of skin, Suppresses AGEs production, AGEs degradative effect					SOD-like and DPPH radical scavenging abilities <i>in vivo</i> antioxidant					
											Promotes NO production in endothelial cell, Activate AMPK in muscle cells		Beneficial effect for exercise
○					○ (down) Generation of ROS in brain cells				○				
	Anti-acne					○	○	SOD-like and DPPH radical scavenging abilities	○ Cardiopathy	○			Protection of nerve cell
					○						○	○	hepato-protective
(up) Collagen lattice production		(down) AGE formation/apoptosis, AGEs degradative effect	Hair care	Inhibition of retinal angiogenesis				○					
Collagen, hyaluronic acid synthase gene expression promotion							IL-10, 12 production promotion						Bowel movement improvement, intestinal serotonin and equal production improvement, EMT (cause of menstrual discomfort symptoms) inhibition
		○ Maintain skin elasticity, improve glycation stress	Inhibition of skin irritation from air pollutants						Elimination of DPPH free radical				Improvement of BPH and urinary disturbance Inhibition of overactive bladder,
													Improvement of benign prostatic hyperplasia
													Inhibition of S.mutans and P.gingivalis
			Hair growth						Platelet aggregation inhibition Promotion of body temperature recovery Swelling improvement Blood flow improvement				
(up) Hyaluronan synthase	(down) Sebum secretion	○ Maintain skin elasticity, improve glycation stress	(up) HSP gene expression barrier function (flaggrin and involucrin expression)					SOD-like and DPPH radical scavenging abilities					
(up) Collagen and elastin production Maintenance of extracellular matrix in skin								○					

PRODUCTS from OTHER PLANT SOURCES (4)


Appeal point Product name		Life style-related diseases					Allergies· Inflammation			Beauty		
		Antihypertensive	Prevention of Hyperlipemia Arteriosclerosis	Anti-diabetic	Anti-obesity	Alcohol metabolism Hepatoprotective	Improvement of Hay Fever and atopic dermatitis	Anti-arthritic Pain relief	Anti-inflammation	Whitening effect	Moisturizing effect	Cell activation Improvement of metabolism
WALNUT POLYPHENOL	P. 59	○	○	○	○	Suppression of fatty liver Hepatoprotection				(down) Melanin production		
WATERSHIELD EXTRACT	P. 60		(down) Cholesterol/ Triglyceride	(down) Elevation of blood sugar	(up)Lipid metabolism/ Adiponectin secretion (down)Fat accumulation/ Calcitriol						(down) Elastase, collagenase, hyaluronidase activities	(up) Dermal fibroblast growth
WHITE JELLY FUNGUS EXTRACT	P. 61		○	(up) Glycolytic activity	(down)Fat absorption and accumulation/ Appetite						Moisturizing effect	
YUZU SEED EXTRACT	P. 62		Hypotriglyceridemic Suppression of cholesterol	(up) Sugar metabolism	(up) Lipid metabolism					(down) Melanin production	○	(up) Dermal fibroblast growth

○ : literature citation


Narration: data obtained by Oryza R&D group.(The Red:New datas)

Beauty				Anti-aging					Others					
Anti-wrinkle	Anti-acne	Anti-glycation	Others (hair, nail)	Prevention of Ophthalmopathy	Improvement of brain function	Anti-cancer	Nutritional fortification Immunostimulating effect Improvement of libido	Anti-oxidative effect	For feeling of cold Swelling Improvement of peripheral circulation	Improvement of dysautonomia/ post menopausal syndrome	Anti-stress Relax Anti-fatigue Sleep	Antibacterial effect Deodorizing effect	Others	
				○		○		○					Inhibition of osteoporosis	
(up) Collagen/ Hyaluronan synthase														Intestinal motility
					○			SOD-like and DPPH radical scavenging abilities						Relief enhance constipation Intestinal motility Protection of gastric mucosa
			(up) Skin turnover			○			Thermography		Anti-stress			

## <To relieve PMS and enhance the beauty of the bust! from fascinating Amazon fruit>

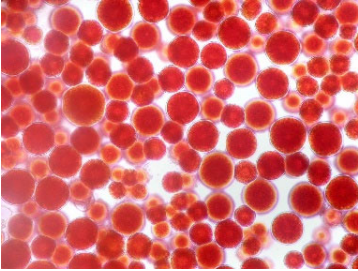
<b>AGUAJE EXTRACT</b>		<b>Recommended dosage</b>
(Released in May 2018)		<b>100 mg/day (oil)</b>
<b>Japanese Patent No. 6742537 (Estrogen activity regulation and indefinite complaints ameliorative agent)</b>		
	<p><b>•Relieves PMS and improves bust size</b>  <i>(Double-blind comparative study between parallel groups)</i>                      It has been confirmed to have effects of reducing complaints of general malaise during menstruation, increase the bust size of slim women, and prevent the bust from sagging due to aging (enhance the beauty of the bust).</p> <p><b>•Improves women's QOL</b>  <i>(Open test)</i>                      Significantly reduced body pains, increased vitality, and improved QOL in both social and mental aspects.</p> <p><b>•Estrogenic effect (in vitro)</b>  <b>•Anti-estrogenic effect (in vitro)</b>  <b>•Anti-androgen effect (in vitro)</b></p>	<p><b>[Origin of raw material]</b>                      Fruits of aguaje</p> <p><b>[Standard component]</b>                      DMM (Dihydroxy-Methoxy-Methylflavan)</p> <p><b>[Safety test]</b>                      (Aguaje extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul>
<ul style="list-style-type: none"> <li>-Extract (oil)</li> <li>-P (powder)</li> <li>-L (emulsion)</li> <li>-Powder (post-ordered production)</li> </ul>		

## <Improved water solubility with no residual solvent! High purity alpha lipoic acid>


<b>ALPHA-LIPOIC ACID</b>		<b>Recommended dosage</b>
(Released in October 2004)		<b>50 to 100 mg/day (P)</b>
<b>Japanese Patent No. 4849792 (Composition for beauty enhancement)</b>		
	<p><b>•Weight management effect</b>  <i>(Open test)</i>                      It has been confirmed to have effects of improving the obesity index, including body fat ratio, impedance, fat amount, hip size, and blood sugar and creatinine level.</p> <p><b>•Increases muscle weight</b>  <i>(in vitro, in vivo)</i></p> <p><b>•Suppresses fat accumulation (in vitro)</b>  <b>•Suppresses pigmentation</b>  <i>(in vivo)</i></p> <p><b>•Antioxidative action (in vitro)</b>  <b>•Prevents weight increase</b>  <i>(in vivo)</i></p> <p><b>•Promotes lipid metabolism (in vitro)</b>  <b>•Promotes skin turnover (in vitro)</b></p>	<p><b>[Origin of raw material]</b>                      Alpha lipoic acid</p> <p><b>[Standard component]</b>                      Alpha lipoic acid</p> <p><b>[Safety test]</b>                      (-P)</p> <ul style="list-style-type: none"> <li>• Single-dose test (male mice)</li> <li>LD50: 405 mg/kg or more</li> <li>• Ames test</li> <li>(-L1)</li> <li>• Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> </ul>
<ul style="list-style-type: none"> <li>-P (powder)</li> <li>-P80 (powder)</li> <li>-WSP7(water-soluble Powder)</li> <li>-L1 (emulsion)</li> </ul>		






<An amazing anti-oxidative power from algae>

<h2 style="margin: 0;">ASTAXANTHIN</h2> <p style="margin: 0;">(Released in May 2006)</p>		<p style="margin: 0;"><b>Recommended dosage</b></p> <hr style="width: 20%; margin: 0 auto;"/> <p style="margin: 0;"><b>400 to 600 mg/day (P1)</b></p>
	<ul style="list-style-type: none"> <li>• <b>Prevents eye fatigue</b> <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to have improving effect on focus adjustment function and reducing subjective symptoms related to eye fatigue.</li> <li>• <b>Takes care of wrinkles and improves skin elasticity</b> <i>(Single-blind study between parallel groups, from literature)</i> It is assumed that the effects are provided by the action to eliminate singlet oxygen species caused by UV-rays.</li> <li>• <b>Improves brain functions</b> <i>(in vivo)</i></li> <li>• <b>Antioxidative effect</b> <i>(in vivo)</i></li> <li>• <b>Suppresses arteriosclerosis</b> <i>(in vitro)</i></li> <li>• <b>Anti-inflammatory effect</b> <i>(in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> <i>Haematococcus pluvialis</i></p> <p><b>[Standard component]</b> ASTAXANTHIN</p> <p><b>[Safety test]</b> (-20 oil)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• No ethoxyquin was detected (Detection limit 0.05 mg/kg)</li> </ul>
<ul style="list-style-type: none"> <li>-5 (oil)</li> <li>-20 (oil)</li> <li>-P1 (powder)</li> <li>-LS1(emulsion)</li> </ul>		






<Promote natural immunity and beautify the skin! Swiftlet nest containing natural EGF>

<b>BIRD'S NEST EXTRACT</b>		<b>Recommended dosage</b>
(Released in May 2013)		<b>70 mg/day (P)</b>
<b>•Japanese Patent No. 6358692 (Tight junctions formation promoter)</b>		
	<p><b>•Regenerates skin</b> (<i>Open study</i>) It reduced moisture evaporation from the skin and reduced peeling of dead skin cells off. It also exhibited a tendency to increase skin elasticity and dermal collagen density.</p> <p><b>•Increases skin cell growth</b> (<i>in vitro</i>)</p> <p><b>•Wound healing activity</b> (<i>in vitro</i>)</p> <p><b>•Strengthens tight junctions of the skin</b> (<i>in vitro</i>)</p> <p><b>•Anti-flu effect</b> (<i>in vitro</i>)</p>	<p><b>[Origin of raw material]</b> Swiftlet nest</p> <p><b>[Standard component]</b> Sialic acid</p> <p><b>[Safety test]</b> (Bird's nest extract)</p> <ul style="list-style-type: none"> <li>•Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> <li>•Ames test</li> </ul>
-P (water-soluble powder)		


**<Improves motor functions in people across many generations!  
A universal extract from the south an country! >**

<b>BLACK GINGER EXTRACT</b>		<b>Application for food with function claims accepted in Japan</b>
(Released in May 2012)	<b>Staminus® (USA)</b>	<b>Recommended dosage</b>
		<b>100 mg/day (P)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 6086953 (AMPK activator)</li> <li>•Japanese Patent No. 67517009 (Energy activator for muscle cells)</li> <li>•Japanese Patent No. 6954960( An inhibitor of TNF-<math>\alpha</math> and IL-6 production and which could be used in muscle inflammation)</li> </ul>		
	<ul style="list-style-type: none"> <li>• <b>Effect of improving motor functions and muscle endurance capacity</b> <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to have improving effects of motor functions such as grip strength, leg strength, balance, and endurance.</li> <li>• <b>Reduces the feeling of coldness and swelling</b> <i>(Open study)</i> It has been confirmed to recover the normal shape of blood capillaries vessels and improve peripheral blood flow. Also, it has been confirmed to maintain blood pressure at a normal level.</li> <li>• <b>Activate AMPK in muscle cells</b> <i>(in vitro)</i></li> <li>• <b>Anti-obesity and anti-diabetic activity</b> <i>(in vivo)</i></li> <li>• <b>Promotes nitric oxide production in vascular endothelial cells</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Rhizome of black ginger</p> <p><b>[Standard component]</b> Total polymethoxyflavones 5,7-Dimethoxyflavone</p> <p><b>[Safety test]</b> (Black ginger extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• 28 days chronic toxicity test</li> <li>• Acute toxicity test (6-month continuous administration)</li> <li>• Five times dose(500mg) intake test on human</li> <li>• Ames test</li> </ul>
<p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p>		




<Super food with excellent to ability activate detoxification enzymes and anti-oxidative effect! >

<b>BROCCOLI SPROUT EXTRACT</b>		<b>Application for food with function claims accepted in Japan</b>
(Released in September 2001)		<b>Recommended dosage</b>
		<b>185 mg/day (EX)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 5571280 (Sebum production promoter)</li> <li>•Japanese Patent No. 6902392 (Carbonylation inhibitor)</li> </ul>		
	<p>• <b>In vivo antioxidative action</b>  <i>(Double-blind comparative study between parallel groups)</i>                      Three-week ingestion of the extract exhibited an effect of suppressing DNA damage caused by active oxygen and lipids oxidation in the body.</p> <p>• <b>Anti-carbonylation effect</b> <i>(in vitro)</i></p> <p>• <b>Suppresses colorectal cancer</b> <i>(in vivo)</i></p> <p>• <b>Suppresses breast cancer</b> <i>(in vivo)</i></p> <p>• <b>Anti-H. pylori activity</b> <i>(in vivo)</i></p> <p>• <b>Inhibits tyrosinase activity</b> <i>(in vitro)</i></p> <p>• <b>Suppresses melanin production</b> <i>(in vitro)</i></p>	<p><b>[Origin of raw material]</b>                      Germinated broccoli                      Broccoli seeds(only -EX)</p> <p><b>[Standard component]</b>                      Sulforaphane</p> <p><b>[Safety test]</b>                      (Broccoli sprout extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test                          LD50: 5,000 mg/kg or more</li> </ul> (Broccoli sprout extract-EX) <ul style="list-style-type: none"> <li>• Ames test</li> </ul>
<ul style="list-style-type: none"> <li>-EXTRACT  (water-soluble powder)</li> <li>-EXTRACT EX  (water-soluble powder)</li> <li>-PS1  (water-soluble powder)</li> <li>-BROCCOLI SPROUT POWDER </li> <li>-BROCCOLI POWDER</li> </ul>		


<Strengthen blood vessels and improve blood circulation with the power of Rutin! Effective on blood circulation cold condition and stiff shoulders! >

<b>BUCKWHEAT LEAF EXTRACT</b>		<b>Recommended dosage</b>
(Released in May 2003)		<b>240 to 600 mg/day (P)</b>
	<p>• <b>Improves blood circulation</b>  <i>(Open test)</i>                      It has been confirmed to improve peripheral blood circulation and promote the recovery of skin temperature. As a result of the measurement of blood components after ingestion, the cyclic AMP (c-AMP) concentration significantly increased. This suggests potential actions similar to those of some phosphodiesterase inhibitors that to improve renal blood flow (action to dilate peripheral blood vessels).</p> <p>• <b>Antioxidative action</b> <i>(in vitro)</i></p> <p>• <b>Diabetes prevention</b> <i>(in vivo)</i></p>	<p><b>[Origin of raw material]</b>                      Leaf of buckwheat or <i>Fagopyrum tataricum</i>, Polygonaceae</p> <p><b>[Standard component]</b>                      Rutin</p> <p><b>[Safety test]</b>                      (P)</p> <ul style="list-style-type: none"> <li>• Single-dose test                          LD50: 5,000 mg/kg or more</li> </ul>
<ul style="list-style-type: none"> <li>-P (powder)</li> <li>-WSP (water-soluble powder)</li> </ul>		

<A weight loss ingredient developed by focusing on fat decomposition and burning>


<b>COCOA EXTRACT</b>		<b>Recommended dosage</b>
(Released in April 2005)		<b>100 to 250 mg/day (P)</b>
	<ul style="list-style-type: none"> <li>• <b>Suppresses fat accumulation</b> <i>(Open test)</i> Four week intake exhibited a tendency to reduce weight, body fat percentage, BMI, amount of fat, obesity level, as well as waist and hip sizes compared to baseline. It exhibited significant effects to reduce body weight, obesity level, and BMI.</li> <li>• <b>Prevents body weight gain</b> <i>(in vivo)</i></li> <li>• <b>Inhibits fat accumulation</b> <i>(in vitro)</i></li> <li>• <b>Promotes fat burning</b> <i>(in vitro)</i></li> <li>• <b>Interferes with fat absorption</b> <i>(in vivo)</i></li> <li>• <b>Antioxidative effect</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Cocoa seed</p> <p><b>[Standard component]</b> Theobromine, polyphenol</p> <p><b>[Safety test]</b> (-P)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Repeated dose (28 days) test</li> <li>• Chromosomal aberration test</li> </ul>
-P (powder)  -WSP  (water-soluble powder)		

<A major stamina-enhancing ingredient!  
For revitalizing, anti-fatigue, and anti-stress measures! >

<b>CHINESE CHIVE SEED EXTRACT</b>		<b>Recommended dosage</b>
(Released in September 2006)		<b>100 mg/day (P, WSP)</b>
<b>•Japanese Patent No. 4925761 (Immunostimulator) (Expiration of validity period)</b>		
	<ul style="list-style-type: none"> <li>• <b>Anti-fatigue</b> <i>(Open study)</i> Slight decrease in lactic acid, a slight rise in noradrenaline, and a significant decrease in cortisol have been observed.</li> <li>• <b>Enhances sexual capacity</b> <i>(in vivo)</i></li> <li>• <b>Reduces mental fatigue</b> <i>(in vivo)</i></li> <li>• <b>Reduces physical fatigue</b> <i>(in vivo)</i></li> <li>• <b>Anti-aging</b> <i>(in vivo)</i></li> <li>• <b>Boosts immunity</b> <i>(in vivo)</i></li> <li>• <b>Whitening effect</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> <i>Allium Tuberosum seed</i></p> <p><b>[Standard component]</b> <i>S-allyl-L-cysteine</i></p> <p><b>[Safety test]</b> <i>(Allium Tuberosum seed extract)</i></p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul>
-P (powder) -WSP (water-soluble powder) -Oil (post-ordered production)		


## <Anti-aging for the entire body!

*Cistanche tubulosa*, a desert plant with a strong life force>




<b>CISTANCHE TUBULOSA EXTRACT</b>		<b>Recommended dosage</b>
(Released in May 2007)		<b>100 to 400 mg/day</b>
	<ul style="list-style-type: none"> <li>• <b>Improves brain functions</b> (Double-blind comparative study between parallel groups) It has been confirmed to have an effect on vascular dementia.</li> <li>• <b>Improves the capabilities to acquire and store memories</b> (<i>in vivo</i>)</li> <li>• <b>Prevents death of brain neurons</b> (<i>in vitro</i>)</li> <li>• <b>Protects nerve cells</b> (<i>in vitro</i>)</li> <li>• <b>Anti-aging</b> (<i>in vivo</i>)</li> <li>• <b>Prevents skin aging</b> (<i>in vitro, in vivo</i>)</li> <li>• <b>Anti-fatigue</b> (<i>in vivo</i>)</li> <li>• <b>Enhances sexual capacity</b> (<i>in vivo</i>)</li> <li>• <b>Boosts immunity</b> (<i>in vivo</i>)</li> <li>• <b>Promote a lipid metabolism</b> (<i>in vivo</i>)</li> </ul>	<p><b>[Origin of raw material]</b> <i>Cistanche Tubulosa</i></p> <p><b>[Standard component]</b> Echinacoside, acteoside, phenylethanoid glycoside</p> <p><b>[Safety test]</b> (<i>Cistanche Tubulosa</i> extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 26.4g/kg or more</li> <li>• Ames test</li> <li>• Micronucleus test</li> <li>• Teratogenicity test</li> <li>• 30 days chronic toxicity test</li> <li>• 180 days chronic toxicity test</li> </ul>
-P25 (water-soluble powder)		

## <To combat the aging of women!


**Ingredient for prevention of osteoporosis and whitening>**

<b>CITRUS UNSHIU EXTRACT</b>		<b>Recommended dosage</b>
(Released in October 2004)		<b>200 to 500 mg/day (P)</b>
	<ul style="list-style-type: none"> <li>• <b>Prevents osteoporosis</b> (<i>in vivo</i>)</li> <li>• <b>Suppresses osteoclast differentiation</b> (<i>in vitro</i>)</li> <li>• <b>Tyrosinase inhibition</b> (<i>in vitro</i>)</li> <li>• <b>Suppresses melanin production</b> (<i>in vivo</i>)</li> <li>• <b>Prevents pigmentation</b> (<i>in vivo</i>)</li> <li>• <b>Antioxidative effect</b> (<i>in vitro</i>)</li> <li>• <b>Fibroblast proliferation</b> (<i>in vitro</i>)</li> </ul>	<p><b>[Origin of raw material]</b> <i>Citrus unshiu</i> peel</p> <p><b>[Standard component]</b> <math>\beta</math>-cryptoxanthin Hesperidin</p> <p><b>[Safety test]</b> (-P)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 5,000 mg/kg or more (Citrus unshiu extract)</li> <li>• Ames test</li> </ul>
-P (powder) -L (emulsion)		

## <Weight control ingredient derived from coffee that is ingested all over the world>

<b>COFFEE BEAN EXTRACT</b> (Released in October 2003)		<b>Application for food with function claims accepted in Japan</b> <b>Recommended dosage</b> <b>300 or 450 mg/day(WSP)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 4499665 (Composition for weight control)</li> <li>•US Patent No. US 8802164 (Composite for weight control)(Expiration of validity period)</li> <li>•Chinese Patent No. CN 1863543(Composite for weight control)(Expiration of validity period)</li> <li>•EP Patent No. EP 1674106 (Composite for weight control)(Expiration of validity period)</li> </ul>		
	<p>•<b>Fat accumulation suppression</b>  <i>(Open test)</i>                      After a four-week ingestion of the extract, the weight, body fat ratio, impedance, fat amount, obesity level, waist size, and the thickness of abdominal subcutaneous fat in subjects showed a tendency of decreasing as compared to baseline.  <i>(Double-blind comparative study between parallel groups)</i></p> <p>An eight-week ingestion test exhibited that the extract significantly improved the body weight, fat ratio, visceral fat, BMI, and arteriosclerotic index in subjects.</p> <p>•<b>Suppresses fat absorption, inhibits fat accumulation, promotes fat decomposition and fat burning</b>  <i>(in vitro, in vivo)</i></p> <p>•<b>Diabetes prevention</b> <i>(in vitro)</i></p> <p>•<b>Antioxidative effect</b> <i>(in vitro)</i></p>	<p><b>[Origin of raw material]</b>                      Coffee tree seed</p> <p><b>[Standard component]</b>                      Chlorogenic acid, chlorogenic acids</p> <p><b>[Safety test]</b>                      (Green coffee bean extract)</p> <ul style="list-style-type: none"> <li>•Single-dose test                          LD50: 1,500 mg/kg or more</li> <li>•Ames test</li> <li>•28 days chronic toxicity test</li> </ul>
<p>-P (water-soluble powder) </p> <p>-WSP                       (water-soluble powder)</p>		

## <Contains a large amount of ergothioneine that is currently in the spotlight A beautifying ingredient from a precious high-class mushroom>

<b>COPRINO™ EXTRACT</b> (Released in October 2010)		<b>Recommended dosage</b> <b>10 to 30 mg/day (P0.5)</b>
	<ul style="list-style-type: none"> <li>•<b>Anti-photoaging effect</b>  <i>(in vitro, in vivo)</i></li> <li>•<b>Suppresses melanin production</b> <i>(in vitro)</i></li> <li>•<b>Tyrosinase inhibition</b> <i>(in vitro)</i></li> <li>•<b>Anti-inflammatory effect</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b>                      Coprinus comatus</p> <p><b>[Standard component]</b>                      Ergothioneine</p> <p><b>[Safety test]</b>                      (Coprinus comatus extract)</p> <ul style="list-style-type: none"> <li>•Single-dose test                          LD50: 2,000 mg/kg or more</li> <li>•Ames test</li> </ul>
<p>-Powder</p> <p>-P0.5                      (water-soluble powder)</p>		

<Evening primrose extract to moderate the rise in blood glucose levels after meals>

**EVENING PRIMROSE EXTRACT**




**\*Health functional food material separately approved by Korean Food & Drug Administration**

Recommended dosage

100 to 300 mg/day (P)

(Released in September 2000)

- Japanese Patent No. 4873824 (Carbohydrate absorption inhibitor and its manufacturing method)(Expiration of validity period)
- US Patent No. US6932990 (Carbohydrate absorption inhibitor)(Expiration of validity period)
- Chinese Patent No. CN1268351 (Carbohydrate absorption inhibitor)(Expiration of validity period)
- EP Patent No. EP1312374 (Carbohydrate absorption inhibitor)(Expiration of validity period)

	<p><b>•Controls blood glucose levels</b> (Double-blind single intake study) In a sugar tolerance test, the extract was confirmed to significantly suppress increase of blood glucose levels after meals.</p> <p><b>•Action to inhibit glycolytic enzyme (in vitro)</b></p> <p><b>•Aldose reductase inhibition (in vitro)</b></p> <p><b>•Suppresses increase of blood glucose levels (in vivo)</b></p> <p><b>•Tyrosinase inhibition (in vitro)</b></p>	<p><b>[Origin of raw material]</b> Evening primrose seed</p> <p><b>[Standard component]</b> Polyphenols</p> <p><b>[Safety test]</b> (P)</p> <ul style="list-style-type: none"> <li>•Single-dose test</li> <li>LD50: 5,000 mg/kg or more</li> <li>•Chromosomal aberration test</li> <li>•Ames test</li> <li>•Mouse micronucleus test</li> </ul>
<p>-P (powder) </p> <p>-WSPS  (water-soluble powder)</p> <p>-OIL</p>		

<Block *Helicobacter pylori* by urease inhibitory action and anti-bacterial action! >

**EVENING PRIMROSE EXTRACT**


**(Anti-*H.pylori*)**

Recommended dosage

90 to 120 mg/day (P)




(Released in October 2003)

- Japanese Patent No. 4541662 (Anti-*H.pylori* composition)(Expiration of validity period)



	<p><b>•Anti-<i>H.pylori</i> effect</b> (Open study) It has been confirmed to reduce <i>H.pylori</i> in the stomach.</p> <p><b>•Inhibits the growth of <i>H.pylori</i> (in vitro)</b></p> <p><b>•Urease inhibition (in vitro)</b></p> <p><b>•Suppresses attachment of <i>H.pylori</i> (in vitro)</b></p> <p><b>•Suppresses <i>H.pylori</i> colonization (in vitro)</b></p> <p><b>•Eliminates <i>H.pylori</i> (in vivo)</b></p> <p><b>•Anti-tumoractivity (in vivo)</b></p>	<p><b>[Origin of raw material]</b> Evening primrose seed</p> <p><b>[Standard component]</b> Polyphenol</p> <p><b>[Safety test]</b> (PH)</p> <ul style="list-style-type: none"> <li>•Single-dose test</li> <li>LD50: 5000 mg/kg or more</li> <li>•Chromosomal aberration test</li> <li>•Ames test</li> <li>•Micronucleus test on mice</li> </ul>
<p>-PH (powder)</p> <p>-WSPH (water-soluble powder)</p>		



<New possibilities of rice germ have been discovered through traditional Japanese fermentation technique by *Apergillus oryzae*! >



<b>FERMENTED RICE GERM EXTRACT</b>		<b>Recommended dosage</b>
(Released in September 2001)		<b>200 to 500 mg/day (P)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 6604806 (To provide a method for producing <math>\beta</math>-sitosterol glucoside containing composition)</li> <li>•Japanese Patent No. 6584899 (The method of stigmasterol Containing Compositions)</li> <li>•Japanese Patent No. 6579619 (The method of glucosylceramide-containing composition)</li> <li>•Japanese Patent No. 6645791 (Producing method of composition containing ergosterol peroxide)</li> <li>•Japanese Patent No. 7104193 (Muscle enhancer)</li> </ul>		
	<ul style="list-style-type: none"> <li>• <b>Immunostimulatory effect</b> <i>(in vitro)</i></li> <li>• <b>Prevents bacterial infections</b> <i>(in vitro)</i></li> <li>• <b>Prolyl endopeptidase inhibitory activity</b> <i>(in vitro)</i></li> <li>• <b>Promotes muscle formation</b> <i>(in vitro)</i></li> <li>• <b>Maintains muscle mass</b> <i>(in vivo, in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Rice germ</p> <p><b>[Standard component]</b> Polyphenol</p> <p><b>[Safety test]</b> (-P) • Single-dose test LD50: 5,000 mg/kg or more</p>
-P (powder)  -WSP  (water-soluble powder)		

<Polyphenol that helps to prevent Alzheimer's disease and improve brain function>

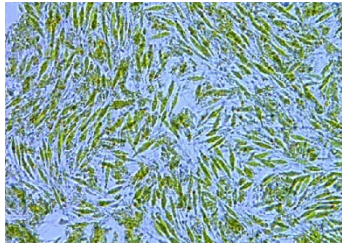
<b>FERULIC ACID</b>		<b>Recommended dosage</b>
(Released in March 1998)		-
•Japanese Patent No. 1371867( Oil-solubilized skin rub for ferulic acid ester )(Expiration of validity period)		
	<ul style="list-style-type: none"> <li>• <b>Prevents color degradation and discoloration of foods</b> <i>(in vitro, in vivo)</i></li> <li>• <b>whitening effect</b> <i>(in vivo)</i></li> <li>• <b>Blood sugar lowering activity</b> <i>(in vivo)</i></li> <li>• <b>Blood pressure lowering activity</b> <i>(in vivo)</i></li> <li>• <b>Improves brain functions</b> <i>(in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> Rice seed</p> <p><b>[Standard component]</b> Ferulic acid</p> <p><b>[Safety test]</b> • Single-dose test LD50: 857 mg/kg or more • Ames test</p>
-Ferulic Acid 		

## <Prevent metabolic syndrome!




### A carotenoid from sea Algae with strong anti-oxidative activity>

<b>FUCOXANTHIN</b> <span style="float: right; background-color: red; color: white; padding: 2px;">Application for food with function claims accepted in Japan</span>		Recommended dosage
(Released in September 2008)		60 mg/day (5KW)
<b>Japanese Patent No.7246965 (Sarcopenia obesity preventive/improving agent)</b>		
	<ul style="list-style-type: none"> <li>• <b>Action to suppress fat accumulation</b>  <i>(Double-blind comparative study between parallel groups)</i>                              Four-week ingestion exhibited a selective anti-obesity effect on visceral fat.</li> <li>• <b>Increases the UCP-1 activity in brown adipocytes</b>  <i>(in vivo)</i></li> <li>• <b>Whitening effect</b> <i>(in vitro, in vivo)</i></li> <li>• <b>Anti-glycation activity</b> <i>(in vitro)</i></li> <li>• <b>Antioxidative activity</b> <i>(in vitro)</i></li> <li>• <b>Anti-acne activity</b> <i>(in vitro)</i></li> </ul>	<ul style="list-style-type: none"> <li><b>[Origin of raw material]</b>                              Japanese kelp or <i>wakame</i> seaweed belong to algae</li> <li><b>[Standard component]</b>                              Fucoxanthin</li> <li><b>[Safety test]</b>                              (Kelp extract)                             <ul style="list-style-type: none"> <li>• Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> <li>• 90 days chronic toxicity test</li> <li>• Micronucleus test</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>-5KW (oil) </li> <li>-1KW (oil)</li> <li>-P1KW (powder)</li> <li>-WSP0.1KW (water-soluble powder)</li> </ul>		


## <Worlds' Pioneer! Fucoxanthin extracted and purified from microalgae >

<b>FucoRex™</b> <span style="float: right; background-color: red; color: white; padding: 2px;">Application for food with function claims accepted in Japan</span>		Recommended dosage
(Released in May 2017)		100 mg/day (3)
	<ul style="list-style-type: none"> <li>• <b>Suppresses visceral fat accumulation</b> <i>(in vivo)</i></li> <li>• <b>Hepatoprotective effect</b> <i>(in vivo)</i></li> <li>• <b>Skin beautifying activity</b> <i>(in vivo)</i></li> </ul>	<ul style="list-style-type: none"> <li><b>[Origin of raw material]</b>                              Microalgae</li> <li><b>[Standard component]</b>                              Fucoxanthin</li> <li><b>[Safety test]</b>                              (Microalgae extract)                             <ul style="list-style-type: none"> <li>• Single-dose test</li> <li>LD50: 1,000 mg/kg or more</li> <li>• Ames test</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>-3 (oil)</li> <li>-1 (oil)</li> </ul>		



## <"Rejuvenating vitamin" contained only in rice oil>

<b>GAMMA ORYZANOL</b> ORYZA GAMMAX® (USA)		<b>Recommended dosage</b> <b>10 to 800 mg/day</b>
(Released in September 1982)		
<b>•Japanese Patent No. 6639892 ( <math>\gamma</math>-Oryzanol soluble liquid composition)</b>		
 <p>-Gamma-Oryzanol                   (Powder)</p> <p>-GAMMAX (powder)   <u>[Compliant with U.S. FDA GRAS]</u></p>	<ul style="list-style-type: none"> <li>• <b>Action to relieve postmenopausal disorders and dysautonomia</b>                      (Multiple human clinical trials, from literature)</li> <li>• <b>Cholesterol lowering effect</b>                      (Multiple human clinical trials, from literature)</li> <li>• <b>Muscle-building</b>                      (Double-blind comparative study between parallel groups, from literature)</li> <li>• <b>Antioxidative activity</b> (<i>in vitro</i>)</li> <li>• <b>Prevents irritable bowel syndrome</b> (<i>in vivo</i>)</li> <li>• <b>Anti-allergic effect</b> (<i>in vivo</i>)</li> </ul>	<p><b>[Origin of raw material]</b>                  Rice bran oil</p> <p><b>[Standard component]</b>                  Gamma-Oryzanol</p> <p><b>[Safety test]</b></p> <ul style="list-style-type: none"> <li>• Single-dose test                      LD50: 10,000mg/kg or more</li> <li>• 180 days chronic toxicity test</li> <li>• 90 days chronic toxicity test</li> <li>• Teratogenicity test</li> <li>• Carcinogenicity test</li> </ul>




<Safe and reliable anti-allergic ingredient made in Japan>

<b>JAPANESE BUTTERBUR EXTRACT</b> (Released in April 2004)		<b>Recommended dosage</b> <b>250 mg/day (P)</b>
<b>•Japanese Patent No. 4822246 (Anti-allergic agent)</b>		
	<ul style="list-style-type: none"> <li>• <b>Anti-allergic activity (helps hay fever)</b>                              (<i>Open study</i>)                              It has been confirmed to reduce sneezing, eye itch, and improve the sense of smell. It has also been confirmed to reduce the ratio of the blood eosinophil and basophil.</li> <li>• <b>Action to suppresses mast cell degranulation</b> (<i>in vitro</i>)</li> <li>• <b>Suppresses leukotrienes release</b> (<i>in vitro</i>)</li> <li>• <b>Suppresses TNF-<math>\alpha</math> production</b> (<i>in vitro</i>)</li> <li>• <b>Anti-inflammatory effect</b> (<i>in vivo</i>)</li> <li>• <b>Suppresses vascular and tracheal contractions</b> (<i>in vitro</i>)</li> </ul>	<ul style="list-style-type: none"> <li><b>[Origin of raw material]</b> Aerial part of Japanese butterbur</li> <li><b>[Standard component]</b> Total polyphenols Total terpenoids</li> <li><b>[Safety test]</b> (Japanese butterbur extract)                             <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• 28 days chronic toxicity test</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>-P (powder)</li> <li>-WSP (water-soluble powder)</li> </ul>		


## <Skin care ingredient that prevents gout and cares deep layers of the skin>

<b>KIKU FLOWER EXTRACT</b>		<b>Application for food with function claims accepted in Japan</b>
(Released in May 2014)		<b>Recommended dosage</b>
		<b>100 mg ~ 200mg/day (P, WSP10)</b>
<b>•Japanese patent No. 6452104 (Fibronectin expression promoting material)</b>		
	<ul style="list-style-type: none"> <li>• <b>Anti-gout</b> <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to possess uric acid lowering activity .</li> <li>• <b>Anti-allergic effect</b> <i>(Double-blind comparative study between parallel groups)</i> Improves itching in the eyes</li> <li>• <b>Inhibits enzyme which synthesizes uric acid (xanthine oxidase) (in vitro)</b></li> <li>• <b>Improves symptoms of gout (in vivo)</b></li> <li>• <b>Suppresses uric acid production (in vitro)</b></li> <li>• <b>Uric acid excretive effect (in vivo)</b></li> <li>• <b>Improves quality of sleep (in vivo)</b></li> <li>• <b>Anti-wrinkle and skin beautifying effect (in vitro)</b></li> </ul>	<p><b>[Origin of raw material]</b> Flower buds or flowers of chrysanthemum</p> <p><b>[Standard component]</b> Luteolin</p> <p><b>[Safety test]</b> (Chrysanthemum flower extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• 28 days chronic toxicity test</li> <li>• Ames test</li> <li>• Five times (500 mg, 1,000mg) dose intake test on human</li> </ul>
-P (powder)  -WSP (water-soluble powder) -WSP10 (water-soluble powder)		


<A natural ingredient with the ability to prevent acne, reduce wrinkles, and prevent dark pigmentation under the eyes>

KIWI SEED EXTRACT		Recommended dosage
(Released in September 2005)		50 to 100 mg/day (P)
<ul style="list-style-type: none"> <li>• Japanese Patent No. 4925692 (Composition for skin improvement)</li> <li>• Japanese Patent No. 5462430 (Anti-inflammatory agent and painkiller)</li> </ul>		
	<ul style="list-style-type: none"> <li>• <b>Effect on sebum secretion (anti-acne)</b> <i>(Open study)</i> Inhibited 5<math>\alpha</math>-reductase that generates DHT which is related to sebaceous secretion and suppressed excessive secretion of sebum.</li> <li>• <b>Anti-wrinkle action</b> <i>(Open study)</i> Effects observed included reduction of wrinkles, normalization of skin pH and skin condition.</li> <li>• <b>Action to prevent dark pigmentation under eyes</b> <i>(Open study)</i> The extract was confirmed to increase the brightness of skin surface around the eyes, suggesting that it can prevent dark pigmentation under eyes.</li> <li>• <b>Inhibits <i>C. acnes</i>-derived lipase</b> <i>(in vitro)</i></li> <li>• <b>Induces the proliferation of fibroblasts</b> <i>(in vitro)</i></li> <li>• <b>Tyrosinase inhibitory effect</b> <i>(in vitro)</i></li> <li>• <b>Suppresses melanin production</b> <i>(in vitro)</i></li> <li>• <b>Reduces pigmentation</b> <i>(in vivo)</i></li> <li>• <b>Anti-inflammatory effect</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Kiwi seed</p> <p><b>[Standard component]</b> Quercitrin Polyphenols</p> <p><b>[Safety test]</b> (Kiwi seed extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul> <p>(Oil)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 5,000mg/kg or more</li> </ul>
-P (powder)  -WSP  (water-soluble powder) -OIL		

<Japanese krill oil containing a new component, 8-HEPE>



<b>KRILL OIL (ISADA OIL)</b>		<b>Recommended dosage</b>
(Released in May 2018)		<b>210 mg/day (oil)</b>
	<ul style="list-style-type: none"> <li>• <b>Improving effect on dyslipidemia</b> <i>(Single-blind comparative study between parallel groups)</i> It has been confirmed to improve blood LDL-cholesterol, triglycerides, and free fatty acids levels. As for body parameters, it has been confirmed to reduce the body fat ratio, waist size, and hip size.</li> <li>• <b>Improving effect in brain functions</b> <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to improve memory and the ability of simple calculation.</li> <li>• <b>Anti-obesity effect</b> <i>(in vivo)</i></li> <li>• <b>Improves the quality of sleep</b> <i>(in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> Isada (Pacific Krill) <i>Euphausia pacifica</i></p> <p><b>[Standard component]</b> 8-HEPE</p> <p><b>[Safety test]</b> (Isada oil)</p> <ul style="list-style-type: none"> <li>• Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul>
-OIL		

< **Moisturize the skin, improve barrier function, activate immunity, reduce the infection!** >




<b>Kuzu Lactic Acid Bacteria</b>		<b>Recommended dosage</b>
(Released in November 2020)		<b>50mg/day (P)</b>
	<p><b><u>SkinBarrier Lactic Acid Bacteria™</u></b></p> <ul style="list-style-type: none"> <li>• <b>Skin care effect</b></li> </ul> <p>(Double-blind comparative study between parallel groups)</p> <p>It has been confirmed that the TEWL (cheek), saliva IgA, collagen score, and questionnaire (gloss, firmness, dryness) were improved.</p> <ul style="list-style-type: none"> <li>• Moisturize the skin, improve barrier function (<i>in vivo</i>)</li> </ul> <p>(Promote the protein expression of cornified envelope, improve TEWL)</p>	<p><b>【Origin of raw material】</b></p> <p>Lactic Acid Bacteria (derived Kuzu)</p> <p><b>【Standard component】</b></p> <p>Bacteria No: <math>2 \times 10^{12}</math> / g</p> <p><b>【Safety test】</b></p> <p>(SkinBarrier Lactic Acid Bacteria™)</p> <ul style="list-style-type: none"> <li>• Ames test</li> <li>• Human test</li> <li>50 mg/kg 6 weeks</li> <li>• Single-dose test</li> </ul> <p>LD50: 2,000 mg/kg or more</p>
-P (powder)	<p><b><u>ImmnoRise Lactic Acid Bacteria™</u></b></p> <ul style="list-style-type: none"> <li>• <b>Reduce the risk of virus infection</b></li> </ul> <p>(Parallel group comparison test)</p> <p>It was confirmed that the morbidity of virus infection was significantly reduced in the children who took the ImmnoRise Lactic Acid Bacteria compared to those who did not take ImmnoRise Lactic Acid Bacteria.</p> <ul style="list-style-type: none"> <li>• Immune activation (produce IL-12)</li> </ul> <p>(<i>in vitro</i>)</p> <ul style="list-style-type: none"> <li>• Reduce amount of influenza virus, increase the value of neutralizing antibody against virus (<i>in vivo</i>)</li> </ul>	






## <A berry from Northern Europe containing a whitening ingredient “Arbutin”>

<b>LINGONBERRY EXTRACT</b>		<b>Recommended dosage</b>
(Released in April 2009)		<b>50 to 100 mg/day (P0.5)</b>
<b>•Japanese Patent No. 5525716 (Pigmentation suppressor)</b>		
	<p><b>•Improves blood circulation</b> (Open test) Single dose ingestion of the extract improved human skin temperature after loading hypothermic condition.</p> <p><b>•Effect of suppression of melanin production</b> (in vitro, in vivo)</p> <p><b>•Tyrosinase inhibition</b> (in vitro)</p> <p><b>•Prevents pigmentation</b> (in vivo)</p>	<p><b>[Origin of raw material]</b> Lingonberry juice or fruit</p> <p><b>[Standard component]</b> Arbutin</p> <p><b>[Safety test]</b> (-P0.5)</p> <ul style="list-style-type: none"> <li>•Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> <li>•Ames test</li> </ul>
<p>-J  (concentrated fruit juice)</p> <p>-PJ (water-soluble powder)</p> <p>-P0.5 (water-soluble powder)</p>		

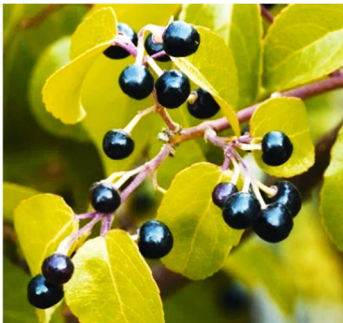


## <The beautifying ingredient which Yang Guifei loved. Supports the skin beauty with a wide range of beautifying functions>

<b>LITCHI SEED EXTRACT</b>		<b>Recommended dosage</b>
(Released in November 2001)		<b>150 to 300 mg/day (P, WSP)</b>
<b>•Japanese Patent No. 3708036 (Composition for skin improvement)(Expiration of validity period)</b> <b>•Japanese Patent No. 3953387 (Elastase inhibitor)(Expiration of validity period)</b> <b>•Japanese Patent No. 4982052 (Composition for skin improvement)(Expiration of validity period)</b>		
	<p><b>•Effects to beautify the skin</b> (Open study) It has been confirmed to improve the moisture and pH of the skin.</p> <p><b>•Collagen production effect</b> (in vitro)</p> <p><b>•Collagenase inhibition</b> (in vitro)</p> <p><b>•Elastase inhibition</b>(in vitro)</p> <p><b>•Hyaluronidase inhibition</b> (in vitro)</p> <p><b>•Antioxidative effect</b>(in vitro)</p> <p><b>•Whitening effect</b> (in vitro, in vivo)</p> <p><b>•Diabetes prevention</b> (in vitro, in vivo)</p>	<p><b>[Origin of raw material]</b> Litchi seed</p> <p><b>[Standard component]</b> Polyphenols</p> <p><b>[Safety test]</b> (Litchi seed extract)</p> <ul style="list-style-type: none"> <li>•Single-dose test</li> <li>LD50: 5,000 mg/kg or more</li> <li>•28 days chronic toxicity test</li> <li>•Ames test</li> <li>•Chromosomal aberration test</li> </ul>
<p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p>		

<Prevent age-related Macular degeneration and Cataract.  
High absorbable ingredient “lutein ester”>




<b>Application for food with function claims accepted in Japan</b>	
<b>LUTEIN</b>	
(Released in May 2002)	
<b>Recommended dosage</b>	
<b>15 to 20 mg/day (P80)</b>	
<b>50 or 100mg/day (20F)</b>	
	<p><b>•Prevent age-related macular degeneration (AMD) and cataract</b> <i>(Multiple human clinical trials, from literature)</i></p> <p>It is considered that AMD can be prevented by supplying lutein to the macula as its amount decreases due to aging. The mechanism to prevent cataract has been unknown.</p>
<p>-P80 (powder) </p> <p>-P40 (powder)</p> <p>-L8 (water-soluble emulsion, post-ordered production)</p> <p>-20F(oil) </p>	<p><b>[Origin of raw material]</b> Marigold flowers</p> <p><b>[Standard component]</b> lutein (ester), Total carotenoids (ester) (Only -20F) Lutein (free), Zeaxanthin (free)</p> <p><b>[Safety test]</b> (-P80) •Single-dose test LD50: 5,000 mg/kg or more</p>

<For the treatment of dry eyes:  
A wild berry from the Patagonian wilderness in South America>




<b>MAQUI BERRY EXTRACT</b> (Released in May 2012) <b>MaquiBright™</b>		Application for food with function claims accepted in Japan	Recommended dosage <b>30~60 mg/day (P35)</b>
<ul style="list-style-type: none"> <li>●Japanese Patent No. 6265500 (Dry eye prevention and treatment agent)</li> <li>●EP Patent No. EP2937091 (Dry eye prevention and treatment agent)</li> <li>●CANADA Patent No. CA2895353 (Dry eye prevention and treatment agent)</li> <li>●ISRAEL Patent No. 239478 (Dry eye prevention and treatment agent)</li> <li>●Korea Patent No. 10-2070479 (Prevention and treatment agent of dry eye)</li> <li>●US Patent No. US11033566 (Prevention and treatment agent of dry eye)</li> <li>●Japanese Patent No.7530200 (Redness improving agent on the skin)</li> </ul>			
	<p style="text-align: center;"><b>MaquiBright</b></p> <ul style="list-style-type: none"> <li>• <b>Improve conditions of dry eye and eyestrain</b>                              (<i>Double-blind comparative study between parallel groups</i>)                              A test was carried out on healthy adult men and women involved in VDT work for four hours a day or longer who feel dryness and strain in their eyes. As a result, ingestion of delphinidin 3,5-diglucoside (4 mg/day) significantly increased tear secretion and improved “bothersome ocular symptoms” and “feeling of a foreign matter in the eye” before starting VDT work and relieved shoulder strain as compared to placebo.</li> <li>• <b>Suppresses photodamage in visual cells</b> (<i>in vitro</i>)</li> <li>• <b>Improves dry eye</b>                              (<i>in vitro, in vivo</i>)</li> </ul>	<p><b>[Origin of raw material]</b> Maqui berry fruit</p> <p><b>[Standard component]</b> Total anthocyanins Total delphinidins</p> <p><b>[Safety test]</b> (Maqui berry extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Chromosomal aberration test</li> <li>• Five times (300 mg)dosage intake test on human</li> <li>• Ames test</li> <li>• 90 days chronic toxicity test</li> </ul>	
-P35  (water-soluble powder)			
-J  (concentrate fruit juice)			

< Cosmetical effect :

A wild berry from the Patagonian wilderness in South America>


<b>MAQUI BERRY EXTRACT</b> (Released in May 2012) <b>Delphinol™</b>		<b>Recommended dosage</b> <b>60 mg/day (P35)</b>
<b>●Japanese Patent No. 6144536 ( Whitening agent )</b>		
 <p>-P35                   (water-soluble powder)                  -J                   (concentrate fruit juice)</p>	<p><b>Delphinol™</b>  <b>Cosmetical effect</b>  <i>(Double-blind comparative study between parallel groups)</i>                  Ameliorating effects on skin brightness and redness.</p> <p>• <b>Prevents metabolic syndrome</b>  <i>(Double-blind comparative study between parallel groups)</i>                  Blood glucose, hemoglobin A1c, and HDL-cholesterol levels were improved.</p> <p>• <b>Promotes hair growth</b> <i>(in vitro)</i></p> <p>• <b>Suppresses aging of skin</b> <i>(in vitro)</i></p> <p>• <b>Suppresses AGEs production</b> <i>(in vitro)</i></p> <p>• <b>AGEs degradative effect</b> <i>(in vitro)</i></p> <p>• <b>Antioxidative effect</b> <i>(in vitro)</i></p> <p>• <b>Anti-inflammatory effect</b> <i>(in vitro)</i></p> <p>• <b>Anti-diabetes effect</b> <i>(in vivo)</i></p> <p>• <b>Prevents arteriosclerosis</b> <i>(in vitro)</i></p> <p>• <b>Prevents osteoprosis</b> <i>(in vivo)</i></p>	<p><b>[Origin of raw material]</b>                  Maqui berry fruit</p> <p><b>[Standard component]</b>                  Total anthocyanins                  Total delphinidins</p> <p><b>[Safety test]</b>                  (Maqui berry extract)</p> <p>• Single-dose test                  LD50: 2,000 mg/kg or more</p> <p>• Chromosomal aberration test</p> <p>• Five times (300 mg) dosage intake test on human</p> <p>• Ames test</p> <p>• 90 days chronic toxicity test</p>

<Mono sugar absorption inhibition from *Mountain Caviar* !  
 For people who are worried about postprandial glucose spiking! >

MOUNTAIN CAVIAR EXTRACT <i>VegCaviar</i> <sup>TM</sup>		Recommended Dosage
(Released in October 2022)		200-400 mg/day (P)
 	<p>• <b>Lowers postprandial blood sugar level</b></p> <p><i>New!</i> (Randomized, Double-blind, Placebo-controlled Crossover Trial)  <math>C_{max}</math> (maximum blood sugar level) after glucose intake was significantly reduced compared to the placebo.                  (Open test)                  It could reduce the blood sugar level significantly 30 and 60 minutes after intake glucose compared to the placebo group.</p> <p>• <b>Suppresses blood sugar level rise (delays sugariness absorption)</b> (<i>in vivo</i>)</p> <p>• <b>Anti-obesity</b> (<i>in vivo</i>)</p> <p>• <b>Antipruritic effect</b> (<i>in vivo</i>)</p> <p>• <b>Suppresses TG absorption</b> (<i>in vivo</i>)</p>	<p><b>【Origin of raw material】</b>                  Fruits of <i>Kochia scoparia</i> (L.)</p> <p><b>【Standard component】</b>                  Momordin Ic</p> <p><b>【Safety test】</b>                  (P)</p> <p>• Single-dose test                  LD50 : 2000 mg/kg or more</p> <p>• Ames test</p> <p>• Five times (1,000mg) dose intake test on human</p>
-P (water-soluble powder) 		

## <Increase physical strength and improve motor functions!

### A sports-assisting ingredient>

<h1>OCTACOSANOL</h1> <p>(Released in October 2000)</p>		<b>Recommended dosage</b> <b>40 to 100 mg/day (P10)</b>
	<p>• <b>Ability to generate energy and muscle growth</b></p> <p><i>(Multiple human clinical trials, from literature)</i></p> <p>The following effects have been confirmed.</p> <ol style="list-style-type: none"> <li>① Enhances physical endurance, vitality, and strength</li> <li>② Improves reflexes and sensitivity</li> <li>③ Increases resistance to stress</li> <li>④ Stimulate the secretion of sexual hormones and reduce muscle spasms</li> <li>⑤ Improve functions of muscles including cardiac muscle</li> <li>⑥ Reduce systolic blood pressure</li> <li>⑦ Improve basal metabolic rate</li> </ol>	<p><b>[Origin of raw material]</b> Seed of rice, Gramineae</p> <p><b>[Standard component]</b> Octacosanol</p> <p><b>[Safety test]</b> • Single-dose test LD50: 2,000 mg/kg or more</p>
<ul style="list-style-type: none"> <li>- P1 (powder),- P8 (powder)</li> <li>- P10 (powder)</li> <li>- P12 (powder)</li> <li>- P30 (powder)</li> <li>- P45 (powder)</li> <li>- P60 (powder)</li> <li>- L0.5 ( emulsion )</li> </ul>		

<Maintain moisture and boost barrier function! “Edible ceramide”>

<p><b>ORYZA CERAMIDE™</b></p> <p>(Released in September 1999)</p>		<p><b>Application for food with function claims accepted in Japan</b></p>	
		<p><b>Recommended dosage</b></p> <p><b>40 mg/day (PCD,PT,WSP)</b></p>	
<p><b>•Japanese Patent No. 6723737</b> (Glucosylceramide production and metabolic gene expression promotive agent used on the skin )</p>			
		<p><b>•Moisturizing effect</b> <i>(Double-blind comparative study between parallel groups)</i> It is expected to enhance skin barrier function and provide a moisturizing effect by reconstructing ceramides, promoting the formation of cornified envelopes, and enhancing the function of tight junctions in epidermis.</p>	
<p><b>•Skin beautifying effect (improve acne and skin condition) through the use with kiwi seed extract</b> <i>(Open study)</i></p> <p><b>• Improving cold symptoms and immunity score</b> <i>(Double-blind comparative study between parallel groups)</i></p> <p><b>•Barrier Enhancement</b> <i>(in vivo)</i></p> <p><b>•Whitening effect</b> <i>(in vitro)</i></p> <p><b>•Reduces symptoms of atopic dermatitis</b> <i>(in vivo)</i></p> <p><b>•Anti-influenza effect(BSG)</b><i>(in vivo)</i></p> <p><b>New! Immunostimulatory effect</b> <i>(in vitro)</i></p>		<p><b>[Origin of raw material]</b> Rice bran and rice germ</p> <p><b>[Standard component]</b> Glycosphingolipids</p> <p><b>[Safety test]</b> (Rice extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test</li> <li>LD50: 5,000mg/kg or more</li> <li>• 28 days chronic toxicity test</li> </ul>	
<p>-PT (powder)</p> <p>-PCD (powder) </p> <p>-WSP  (water-soluble powder)</p> <p>-WSP1 (water-soluble powder)</p> <p>-L (emulsion)</p> <p>-L0.8 ( emulsion ) </p>			

## <Worlds' pioneer! Success in concentration of rice-derived GABA! >

<b>ORYZA GABA™</b> (Released in September 1996)			<b>Application for food with function claims accepted in Japan</b>	<b>Recommended dosage</b> 13.7 to 111 mg/day (HC90)
<b>•Japanese Patent No. 2810993</b> ( Degreased food material enriched with $\gamma$ -aminobutyric acid)(Expiration of validity period)				
	<b>•Tranquillizing effect</b> <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to enhance parasympathetic nerve activities to ease tensions and provide a relaxing effect.		<b>[Origin of raw material]</b> Rice germ	
	<b>•Suppresses blood pressure elevation</b> <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed to suppress the activities of sympathetic nerves and lower blood pressure by activating GABA (B) receptors in peripheral nerves and controlling the release of noradrenaline.		<b>[Standard component]</b> Gamma-aminobutyric acid (GABA)	
-HC5 (water-soluble powder)			<b>[Safety test]</b> (-HC90, -Germ P)	
-HC90(water-soluble Powder)			• Single-dose test LD50: 2,000 mg/kg or more	
- C (water-soluble powder)			(-HC5, -C)	
-Germ P (germ powder)			• Single-dose test LD50: 5,000mg/kg or more	
- F95R(water-soluble Powder)			(-HC90)	
			• Ames test	

## <Featuring high absorption and excellent water solubility! Peptides which are improve to enhance skin conditions>

<b>ORYZA PEPTIDE™</b> (Released in September 2009)			<b>Recommended dosage</b> 500 to 1000 mg/day (P60)
<b>•Japanese Patent No. 6811455</b> ( N-acetyltransferase activator )			
	<b>•Weight-controlling action</b> <i>(Double-blind comparative study between parallel groups)</i> Combination of ingestion of a beverage containing 1 gram of Oryza Peptide and light exercise demonstrated weight loss, as and as subcutaneous fat reduction, while improving body shape.		<b>[Origin of raw material]</b> Rice
	<b>•Anti-obesity action</b> ( <i>in vivo</i> ) <b>•Whitening and beautifying effects</b> ( <i>in vitro, in vivo</i> ) <b>•Liver-protective effect</b> ( <i>in vitro</i> ) <b>•Antioxidative effect</b> ( <i>in vitro</i> )		<b>[Standard component]</b> Peptides
-P60 (water-soluble powder)			<b>[Safety test]</b> (-P60)
			• Single-dose test LD50: 5,000mg/kg or more
			• Ames test




<Use this to promote good conditions of hair, nails and eyelashes!  
A versatile beautifying ingredient>

<b>ORYZA POLYAMINE™</b> (Released in May 2012)			<b>Recommended dosage</b> 50 to 100 mg/day (P)
•Japanese Patent No. 6192036 (Ingredient of cosmetics for eyelashes and cosmetics for eyelashes using it)			
	<ul style="list-style-type: none"> <li>• <b>Improves nail conditions</b>                              (Double-blind comparative study between parallel groups)                              It has been confirmed to improve the conditions of the nail by increasing the ceramide content in the nail and to prevent moisture evaporation.</li> <li>• <b>Promotes hair growth</b> (<i>in vitro</i>)</li> <li>• <b>Anti-glycation effect</b> (<i>in vitro</i>)</li> </ul>	<b>[Origin of raw material]</b> Rice germ <b>[Standard component]</b> Polyamine <b>[Safety test]</b> (Rice germ extract) • Single-dose test LD50: 2,000 mg/kg or more • Ames test	
-P (water-soluble powder)			


<Allergen-free, gluten-free, and non-GMO “rice-derived protein”>

<b>ORYZA PROTEIN™</b> (Released in September 2009)			<b>Recommended dosage</b> 440 to 880 mg/day (P80)
	<ul style="list-style-type: none"> <li>• <b>Prevents weight gain</b> (<i>in vivo</i>)</li> <li>• <b>Lowers cholesterol levels</b> (<i>in vivo</i>)</li> </ul> <p>*The emulsifying capacity of Oryza Protein® was compared with soy protein, wheat protein, milk protein, and pea protein. As a result, Oryza Protein was confirmed to have an emulsifying capacity which is equivalent to or higher than the proteins mentioned above.</p>	<b>[Origin of raw material]</b> Rice <b>[Standard component]</b> Protein <b>[Safety test]</b> (-P70) • Single-dose test LD50: 2,000 mg/kg or more • Melamine analysis (not detected)	
-P80(powder)			

## <100% rice-derived sterol>

<b>ORYZA STEROL</b>		<b>Recommended dosage</b>
(Released in September 1999)		<b>500 mg/day (P)</b>
	<ul style="list-style-type: none"> <li>• <b>Reduces blood cholesterol levels</b> <i>(Single-blind crossover study, from literature)</i> Ingestion of <math>\beta</math>-sitosterol is expected to reduce the amount of dissolved cholesterol and suppressing cholesterol absorption from gut.</li> <li>• <b>Alleviates urinary disorders caused by benign prostatic hypertrophy</b> <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to alleviate BPH and help improve the QOL of men.</li> <li>• <b>Blood triglyceride lowering effect</b> <i>(in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> Rice bran and rice germ</p> <p><b>[Standard component]</b> Sterol</p> <p><b>[Safety test]</b> (-P)</p> <ul style="list-style-type: none"> <li>• Single-dose test</li> <li>LD50: 2,000 mg/kg or more</li> </ul>
-P (powder) (post-ordered production)  -L (emulsion) (post-ordered production)		


## <Protect the body from oxidation by strong anti-oxidative power! Super vitamin E>

<b>ORYZA TOCOTRIENOL™</b>		<b>Recommended dosage</b>
(Released in September 1998)		<b>160 to 380 mg/day (oil)</b>
● Japanese Patent No. 5306626 (A technology of powder preparation which could be used in food material and cosmetic material) (Expiration of validity period)		
	<ul style="list-style-type: none"> <li>• <b>Cholesterol reducing effect</b> <i>(Multiple human clinical trials, from literature)</i> It has been confirmed to act on liver cells to selectively lower LDL-cholesterol level.</li> <li>• <b>Improves Atherosclerosis</b> <i>(Double-blind comparative study between parallel groups, from literature)</i> It has been confirmed to suppress platelet aggregation or inhibit vasoconstriction.</li> <li>• <b>Anti-cancer</b> <i>(in vivo)</i></li> <li>• <b>Antioxidative effect</b> <i>(in vivo)</i></li> <li>• <b>hyaluronic acid production</b> <i>(in vivo)</i></li> <li>• <b>Suppresses pigmentation</b> <i>(in vivo)</i></li> <li>• <b>Activation of cells</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Rice bran and rice germ</p> <p><b>[Standard component]</b> Total Tocopherol Total Tocotrienol</p> <p><b>[Safety test]</b> • Single-dose test</p> <p>LD50: 5,000mg/kg or more</p>
- (oil) -90 (oil) -P15CD (powder) -P27CD (powder) -L10 (water-soluble emulsion)		





\*-Packaging size of Tocotrienol and -90 : 15 kg is also available.

## <Improve the circadian rhythm!



A blessing of beautiful flowers required by busy people in modern life >

<b>PASSIONFLOWER EXTRACT</b>		<b>Application for food with function claims accepted in Japan</b>
(Released in October 2016)		<b>Recommended dosage</b> 200 mg/day (P)
●Japanese Patent No. 6909569 (Skin care material) ●Japanese Patent No. 7007798 ( Improving Life Rhythm )		
	<ul style="list-style-type: none"> <li>• <b>Improves mental QOL and vitality</b>                      (<i>Double-blind comparative study between parallel groups</i>)                      It improved mental health in people with irregular lifestyles and people with low motivation to do work or housework.</li> <li>• <b>Increases the expression of clock genes</b>(<i>in vitro, in vivo</i>)</li> <li>• <b>Improves the quality of sleep</b>                      (<i>in vivo</i>)</li> <li>• <b>Antioxidative effect</b> (<i>in vitro</i>)</li> </ul>	<ul style="list-style-type: none"> <li><b>[Origin of raw material]</b> Aerial part of passion flower</li> <li><b>[Standard component]</b> Total flavonoids</li> <li><b>[Safety test]</b>                      (Passion flower extract)                     <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> <li>• Micronucleus test Comet assay test</li> <li>• Five times (1,000mg)dose intake test on human</li> </ul> </li> </ul>
-P (powder) -WSP (water-soluble powder)		



<Prevent dental cavity and periodontal disease  
with the antibacterial power of the perilla seed! >

<b>PERILLA SEED EXTRACT</b> (Released in September 1997) (Anti-allergic)		Recommended dosage <b>100 to 150 mg/day (P)</b>
●Japanese Patent No. 4231559 (Lipoxygenase inhibiting agent)(Expiration of validity period) ●US Patent No. US 6217875 (Lipoxygenase inhibiting agent)(Expiration of validity period)		
	<b>Selectively suppresses IgE</b> (Open study) It has been confirmed to reduce allergic reactions by selectively suppressing IgE concentration which is directly involved in type I allergies. No adverse effects to reduce the immune system were observed.	<b>[Origin of raw material]</b> Perilla seed  <b>[Standard component]</b> Polyphenols  <b>[Safety test]</b> (-P) • Single-dose test LD50: 2,000 mg/kg or more • 28 days chronic toxicity test
	• Action to reduce aging odor (Open study) An effect against elders person's smell (aldehyde odor) has been confirmed.	
-P (powder)  -WSP (water-soluble powder)  -L (liquid) -OIL 	• Anti-allergic and anti-inflammatory effects (in vivo) • Inhibits 5-lipoxygenase and suppresses histamine release (in vitro)	



<Relieve allergic symptoms in modern people by the power of perilla seed>

<b>PERILLA SEED EXTRACT (Oral care)</b> (Released in September 1999)		Recommended dosage <b>80 to 160 mg/day (PO)</b>
●Japanese Patent No. 4112730 (Antibacterial agent for oral cavity)(Expiration of validity period)		
	• Antibacterial effect against dental cavity and periodontal disease (in vitro) • Antioxidative effect (in vitro) • Anti-inflammatory effect (in vivo) • Deodorant effect against cigarette breath, bad breath, and sweat smell	<b>[Origin of raw material]</b> Perilla seed  <b>[Standard component]</b> Polyphenols  <b>[Safety test]</b> (-PO) • Single-dose test LD50: 2,000 mg/kg or more
	(in vitro)	
-PO (powder)  -LO (liquid)		




### <Lower LDL (Low-density lipoprotein) cholesterol and high blood pressure ! >

		Application for food with function claims accepted in Japan
<h2>PERILLA SEED OIL</h2> <p>(Released in September 1997)</p>		<b>Recommended dosage</b> <b>LDL cholesterol : 10 g/day</b> <b>High blood pressure : 5 g/day</b>
	<ul style="list-style-type: none"> <li>• <b>Lower LDL cholesterol</b>  <i>(Double-blind comparative study between parallel groups)</i>                      Improved the level of LDL cholesterol in healthy adult people.</li> <li>• <b>Lower high blood pressure</b>  <i>(Double-blind comparative study between parallel groups)</i>                      Lower the high blood pressure of healthy adult people.</li> </ul>	<b>【Origin of raw material】</b> Seed of <i>Perilla frutescens</i> <b>【Standard component】</b> α-Linolenic acid
- Oil 		



### <An ingredient extracted from wheat for beauty hair, nails, and eyelashes, as well as accelerating hair growth>

		Recommended dosage
<h2>POLYAMINE</h2> <p>(Released in October 2011)</p>		<b>70 mg/day (P)</b>
<b>●Japanese Patent No. 5877980 (Keratin expression promoter and nail beautifying composition using the same)</b>		
	<ul style="list-style-type: none"> <li>• <b>Action to improve nail conditions</b>  <i>(Open)</i>                      It has been confirmed to improve the shine and color of nails and to reduce vertical lines on nails.</li> <li>• <b>Promotes nail growth</b> <i>(in vivo)</i></li> <li>• <b>Promotes fibroblast growth</b>  <i>(in vitro)</i></li> <li>• <b>Promotes collagen production</b>  <i>(in vitro)</i>                      *In addition, the ability to enhance hair growth, pregnancy, and life expectancy (autophagy activation), and protect from radiation.</li> </ul>	<b>【Origin of raw material】</b> Wheat germ <b>【Standard component】</b> Polyamine <b>【Safety test】</b> (Wheat germ extract) • Single-dose test LD50: 2,000 mg/kg or more • Ames test
-P (water-soluble powder) 		

<Anti-wrinkle product extracted from fruits of Psoralea corylifolia, edible and drinkable!>

<b>PSORALEA CORYLIFOLIA FRUIT EXTRACT (PhytoRetinol™)</b>		<b>Recommended dosage</b>
(Released in November 2020)		<b>35mg/day (oil)</b>
	<ul style="list-style-type: none"> <li>• <b>Improve Wrinkle</b> (open test) Improvement in wrinkle area and depth.</li> <li>• suppress the atrophy of fibroblast induced by UV-A (<i>in vitro</i>)</li> <li>• Contract the Collagen gel and increase protein of integrin 1 (<i>in vitro</i>)</li> <li>• Promote mRNA expression of Fibrin 4 (<i>in vitro</i>)</li> <li>• Promote protein expression of Laminin 5 (<i>in vitro</i>)</li> <li>• Inhibit hyaluronidase (<i>in vitro</i>)</li> </ul>	<p><b>【Origin of raw material】</b> Fruits of Psoralea corylifolia</p> <p><b>【Standard component】</b> Bakuchiol</p> <p><b>【Safety test】</b> (PhytoRetinol™)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> <li>• Phototoxicity test (rats) 500mg / kg</li> <li>• Phototoxicity test (fibroblast)</li> </ul>
-3 (oil)  -P1 (powder) 		

<Protect the eyes and skin! Power of anthocyanins from purple rice>




<b>PURPLE RICE EXTRACT</b>		<b>Recommended dosage</b>
(Released in September 2002)		<b>200 to 400 mg/day (P)</b>
<b>•Japanese Patent No. 5916203 (ER stress reducer)</b>		
	<ul style="list-style-type: none"> <li>• <b>Suppresses blood sugar elevation after meals</b> (Double-blind single intake study) It has been confirmed that the blood sugar elevation 30 minutes after meals was significantly suppressed.</li> <li><b>Prevents eye diseases</b> (<i>in vitro, in vivo</i>)</li> <li>• <b>Inhibit s carbohydrate absorption</b> (<i>in vitro</i>)</li> <li>• <b>Beautifying effect</b>(<i>in vitro</i>)</li> </ul>	<p><b>【Origin of raw material】</b> Purple rice seed</p> <p><b>【Standard component】</b> Polyphenols Anthocyanins</p> <p><b>【Safety test】</b> (Purple rice extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 5,000 mg/kg or more</li> <li>• 28 days chronic toxicity test</li> <li>• Ames test</li> </ul>
-P (water-soluble powder) 		

\*Packaging size of -P : 3 kg




## <From a tea country, Kenya! Healthy and beauty promoting tea>

<b>PURPLE TEA EXTRACT</b>			<b>Recommended dosage</b>
(Released in October 2013)			<b>100 mg/day (P)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 6933781 (AMPK activator)</li> <li>•Japanese Patent No. 6227851 (Circadian rhythm adjustment agent ) <small>(Expiration of duration of patent right)</small></li> <li>•US Patent No.11478495 (AMPK activator)</li> <li>•Japanese Patent No.7489216 (NO production promoter, explosive power improver for lower limb muscles, and agent for reducing muscle damage caused by intensive exercise)</li> </ul>			
	<ul style="list-style-type: none"> <li>• <b>Weight controlling and beautifying effects</b> <i>(Open study)</i> It has been confirmed to reduce the thickness of subcutaneous fat in the abdomen and upper arms. It lowered body fat percentage, LDL-cholesterol, and blood glucose of women. As for beautifying effects, an increase in collagen score and moisture content on the cheeks, and a decrease in oil on the forehead were observed.</li> <li>• <b>Suppresses aging of skin</b> <i>(in vitro)</i></li> <li>• <b>Antioxidative effect</b> <i>(in vitro)</i></li> <li>• <b>Whitening effect</b> <i>(in vitro)</i></li> <li>• <b>Suppresses AGEs production</b> <i>(in vitro)</i></li> <li>• <b>AGEs degradative effect</b> <i>(in vitro)</i></li> <li>• <b>Activate AMPK in muscle cells</b> <i>(in vitro)</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Beneficial effect for exercise</b> <i>(Randomized double-blind comparative study between parallel groups)</i> The endurance ability of exercise in muscle of lower body was improved, and the value of lactate dehydrogenase (LDH), which is a general index for measuring muscle damage, was decreased. Meanwhile, it was confirmed that the motivation of exercise was improved.</li> <li>• <b>Promotes NO production in endothelial cell</b> <i>(in vitro)</i></li> </ul>	<ul style="list-style-type: none"> <li><b>[Origin of raw material]</b> Purple tea leaf</li> <li><b>[Standard component]</b> Total polyphenols GHG</li> <li><b>[Safety test]</b> (Purple tea extract)                             <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul> </li> </ul>
-P (powder)	-WSP (water-soluble powder)		

<To relieve arthritic symptoms and support joints care!  
Anti-inflammatory ingredient>



<b>RED GINGER EXTRACT</b> (Released in May 2006)		<b>Recommended dosage</b> <hr/> <b>15 to 20 mg/day (P)</b>
<ul style="list-style-type: none"> <li>• Japanese Patent No. 5303697 (Anti-inflammatory agent and painkiller)</li> <li>• US patent: 8017162 (Anti-inflammatory agent)</li> </ul>		
	<p>• <b>Action to prevent arthritis</b> (Open study) It has been confirmed to significantly reduce hyaluronic acid which is a blood inflammation parameter.</p> <p>• <b>Suppresses acute and chronic inflammation</b> (in vivo)</p> <p>• <b>Selectively inhibits COX-2</b> (in vivo)</p> <p>• <b>Suppresses prostaglandin (PG) production</b> (in vitro)</p> <p>• <b>Synergistic action with glucosamine (suppress Nitric Oxide production)</b> (in vitro)</p>	<p><b>[Origin of raw material]</b> Red ginger rhizome</p> <p><b>[Standard component]</b> [6]-Gingerol and [6]-shogaol Tannins</p> <p><b>[Safety test]</b> (Red ginger extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> <li>• 28 days chronic toxicity test</li> </ul>
-P (powder)  -WSP  (water-soluble powder)		

<Ancient rice eaten since the Yayoi Period (400 B.C. to A.D. 300)  
Use the power of the pigment of red rice to fight against metabolic syndrome! >


<b>RED RICE EXTRACT</b> (Released in November 2007)		<b>Recommended dosage</b> <hr/> <b>50 mg/day (P)</b>
	<p>• <b>Improves conditions of metabolic syndrome</b> (Open study) It has been confirmed to lower cholesterol and triglyceride levels in people with hyperlipidemia.</p> <p>• <b>Antioxidative effect</b> (in vitro)</p> <p>• <b>Improves conditions of hypertriglyceridaemia</b> (in vivo)</p> <p>• <b>Improves conditions of hypercholesterolemia</b> (in vivo)</p> <p>• <b>Promotes lipid metabolism</b> (in vitro)</p>	<p><b>[Origin of raw material]</b> Red rice</p> <p><b>[Standard component]</b> Polyphenols</p> <p><b>[Safety test]</b> (Red rice extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 1,000mg/kg or more</li> <li>• Ames test</li> <li>• (-P)</li> <li>• Intaking test in human 50 mg, 3 weeks</li> </ul>
-P (powder)  -WSP  (water-soluble powder)		



## <A leading anti-aging ingredient! A polyphenol derived from grapes>

<b>RESVERATROL</b>		<b>Recommended dosage</b>
(Released in September 2007)		<b>20 to 40 mg/day (P5)</b>
	<ul style="list-style-type: none"> <li>• <b>Anti-metabolic syndrome effect</b> <i>(Open study)</i> A four-week ingestion of RESVERATROL exhibited decrease in lipid and glucose levels. It also reduced oxidative stress.</li> <li>• <b>Anti-aging effect</b> <i>(in vitro, in vivo)</i></li> <li>• <b>Anti-oxidative effect</b> <i>(in vitro)</i></li> <li>• <b>Beautifying effect</b> <i>(in vitro)</i></li> <li>• <b>Anti-P. acnes effect</b> <i>(in vitro)</i></li> <li>• <b>Neuroprotective effect</b> <i>(in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> Grape leaf, seed, skin</p> <p><b>[Standard component]</b> Polyphenols Trans-resveratrol</p> <p><b>[Safety test]</b> (-P10 *Test on products with a high resveratrol content)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>(-P5)</li> <li>• 28 days chronic toxicity test</li> <li>• Micronucleus test</li> </ul>
-P5 (powder)  -WSP0.5 (water-soluble powder)		



<Sleep quality improvement & Motivation maintenance for getting things done>

<b>SAFFRON EXTRACT</b> <i>Safleep™</i>		Application for food with function claims accepted in Japan
( Released in May 2023)		<b>Recommended dosage</b> 22 mg/day (P)
	<ul style="list-style-type: none"> <li>• <b>Sleep quality improvement</b>  <i>( Multiple human clinical trials )</i>            It has been confirmed to have improving effects on sleep quality, and maintaining effects on motivation for things done.</li> <li>• <b>Anxiolytic effect</b>  <i>( Double-blind comparative study between parallel groups )</i>            Ingestion of saffron extract reduced anxiety symptoms.</li> <li>• <b>Non REM sleep extension</b> <i>( in vivo )</i></li> </ul>	<b>【Origin of raw material】</b> saffron stigmas <b>【Standard component】</b> Crocin <b>【Safety test】</b> (P) • Single-dose test LD50 : 2000 mg/kg or more • Ames test
-P (water-soluble powder)		

● Japanese Patent No. 5610577 (Sleep improvement agent and sedative and their use\*)

\*Owned by Daiichi University of Pharmacy



<Excellent anti-glycative action of Japanese National flower “Sakura” (cherry blossom)>

<b>SAKURA EXTRACT</b> <i>Florabella</i> (USA)		<b>Recommended dosage</b> 50 to 150 mg/day (P)
(Released in April 2010)		
<ul style="list-style-type: none"> <li>•Japanese Patent No. 5783784 (Nitric oxide production inhibitor)</li> <li>•Japanese Patent Nos. 5878023 and 5792844 (Suppression of AGE production)</li> <li>•US Patent No. US9381223 (Suppression of AGE production)</li> <li>•Chinese Patent No. CN102883733 (Suppression of AGE production)</li> <li>•Malaysia Patent No. MY173496 (Suppression of AGE production)</li> </ul>		
	<ul style="list-style-type: none"> <li>•<b>Anti-glycation</b>                              (Double-blind comparative study between parallel groups)                              An eight-week intake of the extract exhibited the following effects. (1) Reduction of AGEs (2) Suppression of the reduction in skin elasticity (3) Reduction of dark spots and red areas (4) Prevention of pore formation (5) Prevention of dry skin caused by decrease in humidity (6) Increase in the smoothness of the skin</li> <li>•<b>Suppresses AGE production</b> (<i>in vitro</i>)</li> <li>•<b>AGEs degradative effect</b> (<i>in vitro</i>)</li> <li>•<b>Produces collagen and forms matrices</b> (<i>in vitro</i>)</li> <li>•<b>Suppress fibroblast apoptosis</b> (<i>in vitro</i>)</li> <li>•<b>Suppress melanin production</b> (<i>in vitro</i>)</li> <li>•<b>Anti-inflammatory action</b> (<i>in vitro</i>)</li> </ul>	<ul style="list-style-type: none"> <li><b>[Origin of raw material]</b> Cherry Blossom flower</li> <li><b>[Standard component]</b> Caffeoyl glucose Quercetin glucoside</li> <li><b>[Safety test]</b> (Cherry Blossom flower extract)                             <ul style="list-style-type: none"> <li>•Single-dose test LD50: 2,000 mg/kg or more</li> <li>•28 days chronic toxicity test</li> <li>•90 days chronic toxicity test</li> <li>•Ames test</li> </ul> </li> </ul>
-P  (water-soluble powder)		
-SYRUP		





\* Packaging size of -SYRUP : 20 kg

## 【New Product】





<Lactic acid bacteria isolated from “Sakura”! Not only good for Gut regulation, but also expected to have beauty benefits.>

<b>Sakura Lactic acid bacteria</b> <b>(SAKULORA™)</b> (Released in October 2024)		 <b>Recommended dosage</b> <b>50mg/day (P)</b>
	<ul style="list-style-type: none"> <li>• <b>Bowel movement improvement</b>                              (<i>Single-blind, parallel-group comparative study</i>)                              After 2 weeks of intake, the amount of bowel movements and stool shape scores were significantly improved, and the number of bowel movements and the feeling of residual stool also improved.</li> <li>• <b>Immune activation (promotion of IL-10 and IL-12) function</b> (<i>in vitro</i>)</li> <li>• <b>Enhancement of intestinal IgA production</b> (<i>in vivo</i>)</li> <li>• <b>Enhancement of intestinal serotonin production</b> (<i>in vivo</i>)</li> <li>• <b>Promotion of collagen and hyaluronic acid synthase gene expression</b> (<i>in vitro</i>)</li> <li>• <b>Promotion of equol production</b> (<i>in vivo</i>)</li> <li>• <b>EMT inhibition</b> (<i>in vitro</i>)</li> </ul>	<p><b>【Origin of raw material】</b> Lactic acid bacteria (derived from cherry blossoms)</p> <p><b>【Standard component】</b> colony-forming units (CFU)</p> <p><b>【Safety test】</b> (P)</p> <ul style="list-style-type: none"> <li>• Single-dose test</li> </ul> <p>LD50: 2,000 mg/kg or more</p> <ul style="list-style-type: none"> <li>• Ames test</li> </ul>
-P (powder) -PD (powder)		

## <Support urinary problems caused by overactive bladder or benign prostatic hyperplasia! >

<b>SEABERRY EXTRACT</b>		<b>Recommended dosage</b>
(Released in May 2015)		<b>200~400 mg/day (P)</b>
<b>Japanese Patent No.7237204 (5<math>\alpha</math>-reductor inhibitor)</b>		
	<ul style="list-style-type: none"> <li>• <b>Suppresses overactive bladder</b> <i>(Double-blind comparative study between parallel groups)</i> Improved urinary problems by suppressing the excessive contractions of bladder smooth muscles and relieving urination-related anxiety and urinary urgency.</li> <li>• <b>Suppresses prostatic hypertrophy</b> <i>(Open study)</i></li> <li>• <b>Suppresses excessive contractions of the bladder</b> <i>(in vitro, in vivo)</i></li> <li>• <b>5<math>\alpha</math>-reductase inhibition effect (Synergistic effect with Saw palmetto)</b><i>(in vivo)</i></li> <li>• <b>Suppresses BPH</b> <i>(in vivo)</i></li> <li>• <b>Relieves and reduces irritation by air pollutants and dryness</b> <i>(in vitro)</i></li> <li>• <b>Anti-oxidative action</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Seaberry fruit</p> <p><b>[Standard component]</b> Ursolic acid</p> <p><b>[Safety test]</b> (Seaberry extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> <li>• Five times dosage intake test in human (Seaberry fruit oil)</li> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul>
<p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p> <p>-FRUIT OIL </p>		

## < Oral cavity care material which improves dry mouth and bad breath! >

<b>Sichuan Pepper Oil (SalivaMoist™) SalivaMoist™</b> (Released in November 2020)		Recommended dosage <b>50~100 mg/day (-P5)</b>
	<ul style="list-style-type: none"> <li>• <b>Promote saliva secretion</b> (Open test)</li> <li>• <b>Promote saliva secretion</b> (Compared intake of before and after by Saxon test)</li> </ul> <p>It was confirmed that the amount of saliva was improved. The related symptoms of oral cavity were improved.</p>	<p><b>【Origin of raw material】</b> Sichuan pepper rind</p> <p><b>【Standard component】</b> Total hydroxy-sanshools</p> <p><b>【Safety test】</b> (Sichuan pepper Oil)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 1,000 mg or more</li> <li>• Ames test</li> </ul>
	<ul style="list-style-type: none"> <li>-5 (oil) </li> <li>-P5 (podwer) </li> <li>-P10 (podwer) </li> </ul>	<ul style="list-style-type: none"> <li>• Activate TRP channel (<i>in vitro</i>)</li> <li>• Anti-bacterial activity against <i>S. mutans</i> and <i>P. gingivalis</i> (<i>in vitro</i>)</li> </ul>

<Smooth blood flow, improvement of cold sensitivity & swelling!  
Beauty benefits expected from blood circulation improvement ingredients.>


**STRAWBERRY GUAVA EXTRACT FemBerry™**  
**(FemBerry™)**

Recommended dosage

100mg/day (P)

(Released in October 2023)



-P (water-soluble powder) 

• **Platelet aggregation inhibition**

(Placebo-controlled trial)

A single intake significantly reduced platelet aggregation rate.

• **Body temperature recovery promotion**

(Placebo-controlled trial)

A cold water stress test was conducted 30 minutes after ingestion, and it was confirmed that it had an effect on promoting recovery of skin surface temperature.

• **Blood flow improvement**

(Placebo-controlled trial)

When the finger peripheral blood flow velocity was measured 30 minutes after ingestion, an example of acceleration was observed.

• **Swelling improvement**

(Single-blind crossover study)

Six hours after ingestion, water retention in the legs tended to improve.

• **Platelet aggregation inhibition**

(*in vitro*)

• **Skin barrier function enhancement** (*in vitro*)

• **Vascular barrier function enhancement** (*in vitro*)

**New! Hair growth effect**

**【Origin of raw material】**

Fruits of strawberry guava

**【Standard component】**

Adenosine

Glucosylceramide

**【Safety test】**



(P)

• Single-dose test

LD50 : 2,000 mg/kg or more



• Ames test

<Expected to show synergistic effects with ceramide!  
 An ingredient to moisturize the epidermis and improve skin barrier function>

<b>STRAWBERRY SEED EXTRACT</b>		<b>Recommended dosage</b>
(Released in May 2008)		<b>40 to 80 mg/day (P)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 5996156 (Gene expression promoter for skin beautification, moisturizing composition and skin beautifying composition using them)</li> <li>•Japanese Patent No. 6516246 (Gene expression promoter for filaggrin and involucrin)</li> <li>•Japanese Patent No. 6433053 (Lipid accumulation promoter in sebaceous gland cells)</li> <li>•Japanese Patent No. 6635615 (Lipid accumulation promoter in sebaceous gland cells)</li> </ul>		
	<ul style="list-style-type: none"> <li>• <b>Beauty enhancing action (moisturizing, beautifying, and whitening)</b>  <i>(Open study)</i>                      It has been confirmed to improve subjective outcomes related to skin moisture e.g. moist feeling and rough feeling of the skin</li> <li>• <b>Reinforces the skin's barrier function</b>  <i>(in vivo)</i></li> <li>• <b>Moisturizing effect</b> <i>(in vivo)</i></li> <li>• <b>Increases ceramide content</b> <i>(in vitro)</i></li> <li>• <b>Increases filaggrin and involucrin content</b> <i>(in vitro)</i></li> <li>• <b>Anti-obesity effect</b> <i>(in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> Strawberry seed</p> <p><b>[Standard component]</b> Polyphenols Tiliroside</p> <p><b>[Safety test]</b> (Strawberry seed extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> </ul>
-P (powder)  -Seed oil (post-ordered production)		




<Focusing on the beautifying action of Saponin that is characteristic to the seeds!  
Make your skin as firm as tomatoes! >

<b>TOMATO SEED EXTRACT</b>		<b>Application for food with function claims accepted in Japan</b>
(Released in October 2018) <b>LycōLife™</b>		<b>Recommended dosage</b> 200 mg/day (P)
<ul style="list-style-type: none"> <li>•Japanese Patent No. 6799114 ( ECM cycle normalizing agent )</li> <li>•Japanese Patent No. 7026181( ECM cycle normalizing agent )</li> </ul>		
	<ul style="list-style-type: none"> <li>• <b>Maintain skin elasticity, improve glycation stress</b> <i>(Double-blind comparative study between parallel groups)</i> After 8 weeks of intake, it was confirmed that the decrease in skin elasticity was significantly suppressed and the glycation stress was also reduced.</li> <li>• <b>Improves the skin elasticity and increases collagen content</b> <i>(Open test)</i> A four-week intake significantly increased the skin collagen score skin and improved in questionnaire skin conditions.</li> <li>• <b>Promotes collagen production</b> <i>(in vitro)</i></li> <li>• <b>Promotes elastin production</b> <i>(in vitro)</i></li> <li>• <b>Promotes uptake of collagen and elastin degradation</b> <i>(in vitro)</i></li> <li>• <b>Increases number of intradermal lysosomes</b><i>(in vitro)</i></li> <li>• <b>Anti-allergic effect</b><i>(in vitro, in vivo)</i></li> <li>• <b>Dry skin ameliorative effect</b> <i>(in vitro, in vivo)</i></li> </ul>	<p><b>[Origin of raw material]</b> Tomato seed</p> <p><b>[Standard component]</b> Total Lycoperside</p> <p><b>[Safety test]</b> (Tomato seed extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Ames test</li> <li>• Five times (1,000mg)dose intake test on human</li> </ul>
<p>-P (water-soluble powder) </p>		




<Suppress fat absorption and fat accumulation, protect liver, No caffeine>

VINE TEA EXTRACT 		Recommended dosage
(Released in November 2021)		250mg/day (P)
 	<ul style="list-style-type: none"> <li>• <b>Suppresses fat absorption</b> <i>(Double-blind comparative study between parallel groups)</i> It has been confirmed that the visceral fat area and abdominal circumference were decreased after 12 weeks intake. <i>(Single-blind crossover study)</i> The increasing of serum triglyceride was significantly suppressed after 2 hours intake under high-fat diet, and the AUC of triglyceride was also significantly reduced.</li> <li>• <b>Suppresses fat absorption</b> <i>(in vivo)</i></li> <li>• <b>Suppresses fat accumulation</b> <i>(in vitro, in vivo)</i></li> <li>• <b>Promotes fat metabolism</b> <i>(in vitro)</i></li> <li>• <b>Inhibits activity of pancreatic lipase</b> <i>(in vitro)</i></li> <li>• <b>Protects liver (non-alcohol and alcohol induced fatty liver)</b> <i>(in vitro, in vivo)</i></li> </ul>	<p><b>【Origin of raw material】</b> Leaves of Vine tea</p> <p><b>【Standard component】</b> Ampelopsin</p> <p><b>【Safety test】</b> (powder)</p> <ul style="list-style-type: none"> <li>• Singer-dose test LD50 : 2000 mg/kg or more</li> <li>• Ames test</li> </ul>
-P (powder) 		



<Protect liver and prevent metabolic syndrome!  
Hydrolyzable polyphenols with an anti-oxidative effect>

<b>WALNUT POLYPHENOL</b>		<b>Recommended dosage</b>
(Released in September 2006)		50 to 150 mg/day (P10, WSP10)
	<p>• <b>Prevention of metabolic syndrome</b> <i>(Multiple human clinical trials, from literature)</i> As the intake of walnut has been confirmed to be effective for improving blood cholesterol levels and preventing arteriosclerosis, walnut seed oil, which contains a large amount of unsaturated fatty acids, is expected to have a similar effect.</p> <p>• <b>Liver-protective effect</b> <i>(in vitro, in vivo)</i></p> <p>• <b>Improves lipid metabolism</b> <i>(in vitro, in vivo)</i></p> <p>• <b>Anti-diabetic effect</b> <i>(in vitro, in vivo)</i></p> <p>• <b>Suppresses melanin production</b> <i>(in vitro)</i></p>	<p><b>[Origin of raw material]</b> Walnut seed skin</p> <p><b>[Standard component]</b> Tellimagrandin I Polyphenols</p> <p><b>[Safety test]</b> (Walnut extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>• Intake test on human (-P10) 50 mg, 4 weeks</li> </ul>
<p>-P10 (powder) -WSP10 (water-soluble powder) -OIL</p>		




<Watershield, a speciality of Akita Prefecture in Japan, is tasty and skin applicable!  
Prevent and reduce cellulite! >

<b>WATERSHIELD EXTRACT</b>		<b>Recommended dosage</b>
(Released in September 2012)		<b>150 mg/day (P)</b>
<ul style="list-style-type: none"> <li>•Japanese Patent No. 6075025 (New compound and its use)</li> <li>•Japanese Patent No. 6198463 (Composition for anti-aging of skin)</li> </ul>		
	<ul style="list-style-type: none"> <li>• <b>Reduces fats</b> <i>(Open study)</i> A three-week intake of the extract reduced the thickness of abdominal subcutaneous fat (males).</li> <li>• <b>Reduces body fats and cellulite</b> <i>(Open study)</i> A three-week intake reduced body fat percentage, visceral fat index, and hip size. It has been also confirmed to reduce cellulite and improved collagen score (females).</li> <li>• <b>Suppresses fat accumulation</b> <i>(in vitro, in vivo)</i></li> <li>• <b>Suppresses fibroblast damage and promotes collagen production</b> <i>(in vitro)</i></li> <li>• <b>Stimulates production of adiponectin and hyaluronic acid</b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Watershield leaf</p> <p><b>[Standard component]</b> Total polyphenols Junsainoside A Polysaccharides</p> <p><b>[Safety test]</b> (Watershield extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 2,000 mg/kg or more</li> <li>(-WSP)</li> <li>• Ames test</li> </ul>
-P (powder)  -WSP  (water-soluble powder)		

<A beautifying and weight control ingredient which is loved by Yang Guigei >

<b>WHITE JELLY FUNGUS EXTRACT</b> (Released in October 2007)		<b>Recommended dosage</b> <b>50 to 200 mg/day (P)</b>
<b>•Japanese Patent No. 5525700 (liquid composition as well as beverages and cosmetics using it)</b>		
 <p>-P (water-soluble powder) </p>	<ul style="list-style-type: none"> <li>• <b>Suppresses hyperlipidemia</b> <i>(Open study)</i> Exhibited a tendency to reduce LDL cholesterol, triglyceride, as well as free fatty acids and to increase HDL cholesterol. A tendency to improve hyperlipidemia has been confirmed.</li> <li>• <b>Action to activate enzymes that metabolize sugars</b> <i>(in vitro)</i></li> <li>• <b>Interferes with fat accumulation</b> <i>(in vivo)</i></li> <li>• <b>Interferes with fat absorption</b> <i>(in vivo)</i></li> <li>• <b>Lowers triglyceride and cholesterol levels</b> <i>(in vivo)</i></li> <li>• <b>Promotes bile acid secretion</b> <i>(in vivo)</i></li> <li>• <b>Promotes the growth of <i>Lactobacillus</i> and <i>Bifidobacterium</i></b> <i>(in vitro)</i></li> </ul>	<p><b>[Origin of raw material]</b> Fruiting body of white jelly fungus</p> <p><b>[Standard component]</b> Glucuronic acid White jelly fungus polysaccharides</p> <p><b>[Safety test] (-P)</b></p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 1,000 mg/kg or more</li> <li>• 30 days chronic toxicity test</li> <li>• Ames test</li> <li>• Subacute toxicity test</li> <li>• Teratogenicity test</li> <li>• Intake test in human 50 mg, 3 weeks</li> </ul>

## <Beautifying and relaxing effects of Yuzu seed with a high limonin content>

YUZU SEED EXTRACT		Recommended dosage
(Released in April 2005)		200 to 300 mg/day (P)
<b>•Japanese Patent No. 5014569 (Composition for skin improvement)</b>		
 <p>-P (powder) </p> <p>-WSP  (water-soluble powder)</p> <p>-OIL</p>	<p><b>• Beautifying effects</b> (<i>Open study</i>) A four-week ingestion resulted in increase in skin moisture in and improved skin texture <i>via</i> the promotion of skin turnover and expression of the hyaluronic acid synthesizing enzyme.</p> <p><b>• Anti-stress effect</b> (<i>Open study</i>) A single dose ingestion exhibited a relaxing effect <i>via</i> the enhancement of electroencephalogram(alpha waves) and improvement of blood flow.</p> <p><b>• Improves blood circulation</b> (<i>Open test</i>)</p> <p><b>• Whitening effect</b> (<i>in vitro</i>)</p> <p><b>• Increases fibroblast proliferation</b> (<i>in vitro</i>)</p> <p><b>• Promotes skin turnover</b> (<i>in vitro</i>)</p> <p><b>• Suppresses expression of enzymes which decompose skin components</b> (<i>in vitro</i>)</p> <p><b>• Anti-metabolic syndrome effect</b> (<i>in vivo</i>)</p>	<p><b>[Origin of raw material]</b> Yuzu seed</p> <p><b>[Standard component]</b> Limonin</p> <p><b>[Safety test]</b> (Yuzu seed extract)</p> <ul style="list-style-type: none"> <li>• Single-dose test LD50: 5,000 mg/kg or more</li> <li>• Ames test</li> <li>• 28 days chronic toxicity test</li> </ul>

## APPENDIX 1. List of Recommended Dosage

Products	Grade	Recommended Dosage/day	
A	AGUAJE EXTRACT	- (Oil)	100mg
		-P (Powder)	330mg
		-L (Emulsion)	330mg
	ALPHA LIPOIC ACID	-P (Powder)	50-100mg
		-P80 (Powder)	60-120mg
		-WSP7(Water-Soluble Powder)	700-1,400mg
		-L1 (Emulsion)	500-1,000mg
	ASTAXANTHIN	- 5 (Oil)	80-120mg
		-20 (Oil)	20-30mg
		-P1 (Powder)	400-600mg
		-LS1 (Emulsion)	400-600mg
	B	BIRD'S NEST EXTRACT	-P (Water-Soluble Powder)
BLACK GINGER EXTRACT <small>※In the case of foods with function claims : P Recommended Dosage: 100mg/day</small>		-P (Powder)	50-150mg
		-WSP (Water-Soluble Powder)	500-1,500mg
BROCCOLI SPROUT EXTRACT <small>※In the case of foods with function claims : EX Recommended Dosage: 185mg/day</small>		-EXTRACT (Water-Soluble Powder)	90-180mg
		-PS1 (Water-Soluble Powder)	180-360mg
		-EX (Water-Soluble Powder)	35-70mg
		-BROCCOLI SPROUT POWDER	150-300mg
		-BROCCOLI POWDER	4.5-9g
BUCKWHEAT LEAF EXTRACT		-P (Powder)	240-600mg
		-WSP (Water-Soluble Powder)	12-30g
C	COCOA EXTRACT	-P (Powder)	100-250mg
		-WSP (Water-Soluble Powder)	400-1,000mg
	CHINESE CHIVE SEED EXTRACT	-P (Powder)	100mg
		-WSP (Water-Soluble Powder)	100mg
	CISTANCHE TUBULOSA EXTRACT	- P25 (Water-Soluble Powder)	100-400mg
	CITRUS UNSHIU EXTRACT	-P (Powder)	200-500mg
		-L (Emulsion)	600-1,500mg
	COFFEE BEAN EXTRACT <small>※In the case of foods with function claims : WSP Recommended Dosage: 300mg or 450mg/day</small>	-P (Water-Soluble Powder)	100-200mg
		-WSP (Water-Soluble Powder)	100-200mg
	COPRINO™ EXTRACT	- POWDER	20-60mg
		- EXTRACT P0.5 (Water-Soluble Powder)	10-30mg

Products		Grade	Recommended Dosage/day
E	EVENING PRIMROSE EXTRACT	-P (Powder)	100-300mg
		-WSPS(Water-Soluble Powder)	100-300mg
	EVENING PRIMROSE EXTRACT (Anti-H.pylori)	- PH (Powder)	90-120mg
		-WSPH (Water-Soluble Powder)	180-240mg
F	FERMENTED RICE GERM EXTRACT	-P (Powder)	200-500mg
		-WSP (Water-Soluble Powder)	1.4-3.5g
	FUCOXANTHIN ※In the case of foods with function claims : 5KW (oil) Recommended Dosage: 60mg/day	-5KW (Oil)	10-60mg
		-1KW (Oil)	50-300mg
		-P1KW (Powder)	50-300mg
		-WSP0.1KW (Water-Soluble Powder)	500-3,000mg
	FucoRex™ ※In the case of foods with function claims : 3 (oil) Recommended Dosage: 100mg/day	-3 (Oil)	100mg
-1 (Oil)		300mg	
G	GAMMA ORYZANOL	- (Powder, Food Additive)	Menopause : 10-600mg
			Dysautonomia : 130-140mg
			Hyperlipidemia / cholesterol : 50-800mg
J	JAPANESE BUTTERBUR EXTRACT	-P (Powder)	250mg
		-WSP (Water-Soluble Powder)	250mg
K	KIKU FLOWER EXTRACT ※In the case of foods with function claims : P Recommended Dosage: 100mg or 200mg/day	-P (Powder)	100mg
		-WSP10 (Water-Soluble Powder)	100mg
		-WSP (Water-Soluble Powder)	-
	KIWI SEED EXTRACT	-P (Powder)	50-100mg
		-WSP (Water-Soluble Powder)	50-100mg
	KRILL OIL(ISADA OIL)	- (Oil)	210mg
	KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria™/SkinBarrier Lactic Acid Bacteria™)	-P (Powder)	50mg
	L	LINGONBERRY EXTRACT	-J (Concentrated Fruit Juice )
-PJ (Water-Soluble Powder)			5-10g
-P0.5 (Water-Soluble Powder)			50-100mg
LITCHI SEED EXTRACT		-P (Powder)	150-300mg
		-WSP (Water-Soluble Powder)	150-300mg
LUTEIN ※In the case of foods with function claims : P80 Recommended Dosage: 50mg/day 20F Recommended Dosage: 50mg or 100mg/day		-P80- (Powder)	15-20mg
		-P40- (Powder)	30-40mg
		-L8 (Water-Soluble Emulsion) * post-ordered production	150-200 mg
	-20F (Oil)	60-100 mg	
M	MAQUI BERRY EXTRACT ※In the case of foods with function claims : P35 Recommended Dosage: 40mg/day	-P35 (Water-Soluble Powder)	30-60mg
		-J (Concentrated Fruit Juice)	0.6-1.3g



Products		Grade	Recommended Dosage/day		
M	MOUNTAIN CAVIAR EXTRACT	-P (Water-Soluble Powder)	200-400mg		
O	OCTACOSANOL	-P1 (Powder)	400-1,000mg		
		-P8 (Powder)	50-125mg		
		-P10 (Powder)	40-100mg		
		-P12 (Powder)	34-84mg		
		-P30 (Powder)	14-34mg		
		-P45 (Powder)	9-22mg		
		-P60 (Powder)	7-17mg		
		-L0.5 (Emulsion)	800-2,000mg		
	ORYZA CERAMIDE™ ※In the case of foods with function claims : PCD, WSP, PT Recommended Dosage: 40mg/day			Whitening :	Moisturizing :
		-PT (Powder)		30-50mg	20-40mg
		-PCD (Powder)			
		-WSP (Water-Soluble Powder)		90-150mg	60-120mg
		-WSP1 (Water-Soluble Powder)		300-500mg	200-400mg
		-L (Emulsion)		113-188mg	75-150mg
	ORYZA GABA™ ※In the case of foods with function claims : HC90 Recommended Dosage: 13.7mg or 31mg or 111mg/day F95R Recommended Dosage: 12.9mg or 30mg or 106mg/day	-HC5 (Water-Soluble Powder)	120-400mg		
		-HC90 (Water-Soluble Powder)	6.7-22mg		
		-C (Water-Soluble Emulsion)	1.2-4g		
		-Germ-P (germ powder)	2.4-8g		
	ORYZA PEPTIDE	- P60 (Water-Soluble Powder)	500-1,000mg	Beauty : 100-200mg	
	ORYZA PROTEIN™	- P80 (Powder)	440-880mg		
	ORYZA POLYAMINE™	- P (Water-Soluble Powder)	50-100mg		
ORYZA STEROL	-P (Powder) * post-ordered production	500mg			
	-L (Emulsion) * post-ordered production	15g			
ORYZA TOCOTRIENOL™	- (Oil)	160-380mg			
	- 90 (Oil)	42-100mg			
	- P15CD (Powder)	320-750mg			
	- P27CD (Powder)	140-330mg			
	- L10 (Emulsion)	360-860mg			
P	PASSIONFLOWER EXTRACT	-P (Powder)	200mg		
		-WSP (Water-Soluble Powder)	600mg		
	PERILLA SEED EXTRACT (Anti-allergic) ※In the case of foods with function claims : Oil Recommended Dosage: 5g or 10g/day	-P (Powder)	100-150mg		
		-WSP (Water-Soluble Powder)	100-150mg		
		-L (Emulsion)	150-225mg		
	-Oil	lowering blood pressure 5g	Lowering LDL cholestrol 10g		

Products		Grade	Recommended Dosage/day
P	PERILLA SEED EXTRACT (Anti-dental caries)	-PO (Powder)	80-160mg
		-LO (Liquid)	120-240mg
	POLYAMINE	-P (Water-Soluble Powder)	70mg
	PSORALEA CORYLIFOLIA FRUIT EXTRACT	-3 (Oil)	35mg
		-P1 (Powder)	100mg
	PURPLE RICE EXTRACT	-P (Water-Soluble Powder)	200-400mg
	PURPLE TEA EXTRACT	-P (Powder)	100mg
-WSP (Water-Soluble Powder)		150mg	
R	RED GINGER EXTRACT	-P (Powder)	15-20mg
		-WSP (Water-Soluble Powder)	30-40mg
	RED RICE EXTRACT	-P (Powder)	50mg
		-WSP (Water-Soluble Powder)	250mg
	RESVERATROL	-P5 (Powder)	20-40mg
		-WSP0.5 (Water-Soluble Powder)	200-400mg
S	SAFFRON EXTRACT(Safleep™)	-P (Water-Soluble Powder)	22mg
	SAKURA EXTRACT	-P (Water-Soluble Powder)	50-150mg
	SAKURA LACTIC ACID BACTERIA (SAKULORA™)	-P (Powder)	50mg
		-PD (Powder)	-
	SEABERRY EXTRACT	-P (Powder)	200-400mg
		-WSP (Water-Soluble Powder)	400mg
		- FRUIT OIL	150-450mg
	SICHUAN PEPPER OIL	- (Oil)	50mg/intake
		-P5 (Powder)	50-100mg/intake
-P10 (Powder)		25-50mg/intake	
STRAWBERRY GUAVA EXTRACT(FemBerry™)	-P(Water-Soluble Powder)	100mg	
STRAWBERRY SEED EXTRACT	-P (Powder)	40-80mg	
T	TOMATO SEED EXTRACT (Lycolift™)  ※In the case of foods with function claims : P Recommended Dosage: 200mg/day	-P(Water-Soluble Powder)	200mg
V	VINE TEA EXTRACT (ResoVine™)	-P (Powder)	250mg
W	WALNUT POLYPHENOL	- P10 (Powder)	50-150mg
		- WSP10(Water-Soluble Powder)	50-150mg
	WATERSHIELD EXTRACT	-P (Powder)	150mg
		-WSP (Water-Soluble Powder)	150mg
	WHITE JELLY FUNGUS EXTRACT	-P (Water-Soluble Powder)	50-200mg

Products		Grade	Recommended Dosage/day
Y	YUZU SEED EXTRACT	-P (Powder)	200-300mg
		-WSP (Water-Soluble Powder)	800-1,200mg

## APPENDIX 2. List of Specification

Products	Grade	Standard Component	
A	AGUAJE EXTRACT	- (Oil)	DMM*20 $\mu$ g/g (*Dihydroxy-Methoxy-Methylflavan)
		-P (Powder)	DMM*5 $\mu$ g/g
		-L (Emulsion)	DMM*5 $\mu$ g/g
	ALPHA LIPOIC ACID	-P (Powder)	$\alpha$ -Lipoic Acid 98.0 %
		-P80 (Powder)	$\alpha$ -Lipoic Acid 80.0 %
		-WSP7(Water-Soluble Powder)	$\alpha$ -Lipoic Acid 7.0 %
		-L1 (Emulsion)	$\alpha$ -Lipoic Acid 10.0 %
	ASTAXANTHIN	- 5 (Oil)	Astaxanthin (Free) 5.0 %
		-20 (Oil)	Astaxanthin (Free) 20.0 %
		-P1 (Powder)	Astaxanthin (Free) 1.0 %
		-LS1 (Emulsion)	Astaxanthin (Free) 1.0 %
	B	BIRD'S NEST EXTRACT	-P (Water-Soluble Powder)
BLACK GINGER EXTRACT		-P (Powder)	Total Polymethoxyflavone 10.0 % 5,7-Dimethoxyflavone 2.5 %
		-WSP (Water-Soluble Powder)	Total Polymethoxyflavone 1.00 % 5,7-Dimethoxyflavone 0.25 %
BROCCOLI SPROUT EXTRACT		-EXTRACT (Water-Soluble Powder)	Glucoraphanin 5.0 % Sulforaphane 2.0 %
		-PS1 (Water-Soluble Powder)	Glucoraphanin 2.5 % Sulforaphane 1.0 %
		-EX (Water-Soluble Powder)	Sulforaphane glucosinolate 13.0 %
		-BROCCOLI SPROUT POWDER	Glucoraphanin 3.0 % Sulforaphane 1.2 %
		-BROCCOLI POWDER	Glucoraphanin 500 ppm Sulforaphane 200 ppm
BUCKWHEAT LEAF EXTRACT		-P (Powder)	Rutin 5.0 %
		-WSP (Water-Soluble Powder)	Rutin 0.1 %
C	COCOA EXTRACT	-P (Powder)	Theobromine 10.0 % Polyphenols 20.0 %
		-WSP (Water-Soluble Powder)	Theobromine 0.1 % Polyphenols 0.2 %
	CHINESE CHIVE SEED EXTRACT	-P (Powder)	S-allyl-L-cysteine Min. 0.1 %
		-WSP (Water-Soluble Powder)	S-allyl-L-cysteine Min. 0.1 %
	CISTANCHE TUBULOSA EXTRACT	- P25 (Water-Soluble Powder)	Echinacoside 25.0 % Acteoside 9.0 % Phenylethanoid glycosides 50.0 %

Products		Grade	Standard Component	
C	CITRUS UNSHIU EXTRACT	-P (Powder)	$\beta$ -cryptoxanthin 1000 $\mu$ g/100g Hesperidin 0.3 %	
		-L (Emulsion)	$\beta$ -cryptoxanthin 330 $\mu$ g/100g Hesperidin 0.10 %	
	COFFEE BEAN EXTRACT	-P (Water-Soluble Powder)	Chlorogenic acid 24.0 % Chlorogenic acids 45.0 %	
		-WSP (Water-Soluble Powder)	Chlorogenic acids (9 peaks) 40.0 %	
	COPRINO™ EXTRACT	- POWDER	Ergothioneine 0.3 %	
		- EXTRACT P0.5 (Water-Soluble Powder)	Ergothioneine 0.5 %	
E	EVENING PRIMROSE EXTRACT	-P (Powder)	Polyphenols 60.0 %	
		-WSPS(Water-Soluble Powder)	Polyphenols 50.0 %	
	EVENING PRIMROSE EXTRACT (Anti-H.pylori)	- PH (Powder)	Polyphenols 18.0 %	
		-WSPH (Water-Soluble Powder)	Polyphenols 15.0 %	
F	FERMENTED RICE GERM EXTRACT	-P (Powder)	polyphenols 3.0 %	
		-WSP (Water-Soluble Powder)	polyphenols 0.4 %	
	FUCOXANTHIN	-5KW (Oil)	Fucoxanthin 5.0 %	
		-1KW (Oil)	Fucoxanthin 1.0 %	
		-P1KW (Powder)	Fucoxanthin 1.0 %	
		-WSP0.1KW (Water-Soluble Powder)	Fucoxanthin 0.1 %	
	FucoRex™	-3 (Oil)	Fucoxanthin 3.0 %	
		-1 (Oil)	Fucoxanthin 1.0 %	
	G	GAMMA ORYZANOL	-(Powder)	$\gamma$ -Oryzanol 98.0 %
	J	JAPANESE BUTTERBUR EXTRACT	-P (Powder)	Total polyphenols 1.0 %
-WSP (Water-Soluble Powder)			Total polyphenols 1.0 %	
K	KIKU FLOWER EXTRACT	-P (Powder)	Luteolin 10 %	
		-WSP10 (Water-Soluble Powder)	Luteolin 10 %	
		- WSP (Water-Soluble Powder)	Luteolin 0.1 %	
	KIWI SEED EXTRACT	-P (Powder)	Polyphenols 2.0 % Quercitrin 5.0 mg/100 g	
		-WSP (Water-Soluble Powder)	Polyphenols 2.0 % Quercitrin 5.0 mg/100 g	
	KRILL OIL (ISADA OIL)	-(Oil)	8-HEPE 0.10 %	
	KUZU LACTIC ACID BACTERIA(ImmnoRise Lactic Acid Bacteria™/SkinBarrier Lactic Acid Bacteria™)	-P (Powder)	Viable cell count $2 \times 10^{12}$ cfu/g	

Products		Grade	Standard Component	
L	LINGONBERRY EXTRACT	-J (Concentrated Fruit Juice )	-	
		-PJ (Water-Soluble Powder)	-	
		-P0.5 (Water-Soluble Powder)	Arbutin 0.50 %	
	LITCHI SEED EXTRACT	-P (Powder)	Polyphenols 12.0 %	
		-WSP (Water-Soluble Powder)	Polyphenols 12.0 %	
	LUTEIN	-P80 (Powder)	Lutein (free) 40.0 % lutein ester 80.0 %	
		-P40 (Powder)	Lutein (free) 20.0 % lutein ester 40.0 %	
		-L8 (Water-Soluble Emulsion) * post-ordered production	Lutein (free) 4.0 % lutein ester 8.0 %	
		-20FA (Oil)	Lutein (free) 20.0 % Zeaxanthin (free) 4.0 %	
	M	MAQUI BERRY EXTRACT	-P35 (Water-Soluble Powder)	Total anthocyanins 35.0% Total delphinidins 25.0%
			-J (Concentrated Fruit Juice)	-
		MOUNTAIN CAVIAR EXTRACT	-P (Water-Soluble Powder)	Momordin Ic 2.0 %
O	OCTACOSANOL	-P1 (Powder)	Octacosanol 1 .0%	
		-P8 (Powder)	Octacosanol 8 .0%	
		-P10 (Powder)	Octacosanol 10 .0%	
		-P12 (Powder)	Octacosanol 12.0%	
		-P30 (Powder)	Octacosanol 30 .0%	
		-P45 (Powder)	Octacosanol 45 .0%	
		-P60 (Powder)	Octacosanol 60.0%	
		-L0.5 (Emulsion)	Octacosanol 0.5%	
	ORYZA CERAMIDE™	-PT (Powder)	Ceramide (Glycosphingolipids) 3.0 %	
		-PCD (Powder)	Ceramide (Glycosphingolipids) 3.0 %	
		-WSP1 (Water-Soluble Powder)	Ceramide (Glycosphingolipids) 1.0 %	
		-WSP (Water-Soluble Powder)	Ceramide (Glycosphingolipids) 3.0 %	
		-L (Emulsion)	Ceramide (Glycosphingolipids) 0.3%	
		-L0.8 (Emulsion)	Ceramide (Glycosphingolipids) 0.8 %	
	ORYZA GABA™	-HC5 (Water-Soluble Powder)	$\gamma$ -aminobutyric acid 5.0%	
		-HC90 (Water-Soluble Powder)	$\gamma$ -aminobutyric acid 90.0%	
		-F95R (Water-Soluble Powder)	$\gamma$ -aminobutyric acid 95%	
		-C ( Water-Soluble Emulsion)	$\gamma$ -aminobutyric acid 500 mg/100 g	
		Germ-P (germ powder)	$\gamma$ -aminobutyric acid 250 mg/ 100 g	
ORYZA PEPTIDE	- P60 (Water-Soluble Powder)	Peptide 60.0 %		
ORYZA PROTEIN™	- P80 (Powder)	Protein 80.0 %		



Products		Grade	Standard Component
O	ORYZA POLYAMINE™	- P (Water-Soluble Powder)	Polyamine 0.2%
	ORYZA STEROL	-P (Powder) * post-ordered production	Sterol 90.0 %
		-L (Emulsion) * post-ordered production	Sterol 3.0 %
	ORYZA TOCOTRIENOL™	- (Oil)	Total tocopherols and tocotrienols 30.0 % Total tocotrienols 16.0 %
		- 90 (Oil)	Total tocopherols and tocotrienols 90.0 % Total tocotrienols 60.0 %
		- P15CD (Powder)	Total tocopherols and tocotrienols 15.0 % Total tocotrienols 8.0 %
		- P27CD (Powder)	Total tocopherols and tocotrienols 27.0 % Total tocotrienols 18.0 %
		- L10 (Emulsion)	Total tocopherols and tocotrienols 10.0 % Total tocotrienols 7.0 %
	P	PASSIONFLOWER EXTRACT	-P (Powder)
-WSP (Water-Soluble Powder)			Total flavonoids 1.0 %
PERILLA SEED EXTRACT (Anti-allergic)		-P (Powder)	Polyphenols 3.0 % Certification Test Flavonoid
		-WSP (Water-Soluble Powder)	Polyphenols 3.0 % Certification Test Flavonoid
		-L (Emulsion)	Polyphenols 2.0 % Certification Test Flavonoid
		-Oil	Alpha Linolenic Acid 55.0 %
PERILLA SEED EXTRACT (Anti-dental caries)		-PO (Powder)	Polyphenols 3.0 % Certification Test Flavonoid
		-LOGC (Liquid)	Polyphenols 2.0 % Certification Test Flavonoid
POLYAMINE		-P (Water-Soluble Powder)	Polyamine 0.15 %
PSORALEA CORYLIFOLIA FRUIT EXTRACT		-3 (Oil)	Bakuchiol 3.0 %
		-P1 (Powder)	Bakuchiol 1.0 %
PURPLE RICE EXTRACT		-P (Water-Soluble Powder)	Polyphenols 15.0 % Anthocyanins 5.0 %



Products		Grade	Standard Component
P	PURPLE TEA EXTRACT	-P (Powder)	Polyphenols 30.0 % GHG* 3.0 % <small>(*1,2-di-O-galloyl-4,6-O-(S)-hexahydroxydiphenoyl-β-D-glucose)</small>
		-WSP (Water-Soluble Powder)	Polyphenols 10.0 % GHG* 2.0 %
R	RED GINGER EXTRACT	-P (Powder)	[6]-gingerol and [6]-shogaol 6.0 % Tannin 1.5 % Certification Test 3R,5S-[6]-gingerdiol
		-WSP (Water-Soluble Powder)	[6]-gingerol and [6]-shogaol 3.0 % Tannin 0.5 % Certification Test 3R,5S-[6]-gingerdiol
	RED RICE EXTRACT	-P (Powder)	Polyphenols 5 % Certification Test Proanthocyanins
		-WSP (Water-Soluble Powder)	Polyphenols 1 % Certification Test Proanthocyanins
	RESVERATROL	-P5 (Powder)	Polyphenols 25.0 % trans-Resveratrol 5.0 %
		-WSP0.5 (Water-Soluble Powder)	Polyphenols 2.5 % trans-Resveratrol 0.5 %
S	SAFFRON EXTRACT(Safleep™)	-P (Water-Soluble Powder)	Crocin 3.0 %
	SAKURA EXTRACT	-P (Water-Soluble Powder)	Caffeoyl Glucose 2.0 Quercetin Glucoside 0.05 %
	SAKURA LACTIC ACID BACTERIA (SAKULORA™)	-P (Powder)	Count 1 × 10 <sup>12</sup> cfu/g
		-PD (Powder)	Count 1 × 10 <sup>11</sup> cfu/g
	SEABERRY EXTRACT	-P (Powder)	Ursolic acid 0.1 %
		-WSP (Water-Soluble Powder)	Isorhamnetin rhamnoside 0.1 %
		- FRUIT OIL	Palmitoleic Acid (ω-7) 30.0 % Certification Test Carotenoids
	SICHUAN PEPPER OIL	-5 (Oil)	Hydroxy sanshools 0.1 %
		-P5 (Powder)	Hydroxy sanshools 0.1 %
		-P10 (Powder)	Hydroxy sanshools 0.2 %
STRAWBERRY GUAVA EXTRACT(FemBerry™)	-P(Water-Soluble Powder)	Adenosine 5 μg/g Glucosylceramide 50 μg/g	
	-P (Powder)	Tiliroside 0.5 % Polyphenols 2.0 %	
T	TOMATO SEED EXTRACT (LycoLift™)	-P(Water-Soluble Powder)	Total lycopersides 0.5 %






Products		Grade	Standard Component
V	VINE TEA EXTRACT(ResoVine™)	-P (Powder)	Ampelopsin (Dihydromyricetin) 50.0 %
W	WALNUT POLYPHENOL	- P10 (Powder)	Polyphenols 10.0 % Tellimagrandin I 0.1 %
		- WSP10(Water-Soluble Powder)	Polyphenols 10.0 % Certification Test Tellimagrandin I
	WATERSHIELD EXTRACT	-P (Powder)	Polyphenols 5.0 % Junsainoside A 0.01 % Polysaccharides 2.5 %
		-WSP (Water-Soluble Powder)	Polyphenols 5.0 % Junsainoside A 0.01 % Polysaccharides 2.5 %
	WHITE JELLY FUNGUS EXTRACT	-P (Water-Soluble Powder)	Total Saccharides 80.0 % Glucuronic Acid 10.0 - 30.0 %
	Y	YUZU SEED EXTRACT	-P (Powder)
-WSP (Water-Soluble Powder)			Certification Test Limonin


## List of Foods with Function Claims in Japan for Which Application Has been Accepted


 <p>Skin Moisturization</p> 	Product Name	ORYZA CERAMIDE™
	Ingredient Involved with the Functionality/Daily Intake	Rice-derived glucosyl ceramide /1.8mg
	Daily Intake (Product)	-PCD、-WSP、PT/60mg
	Applied Indication (Example)	It has been reported that for those who are concerned about dry skin, rice-derived glucosyl ceramide prevents moisture evaporation from the skin surface and helps the skin to stay moist.
	Scientific Basis of Functionality	SR


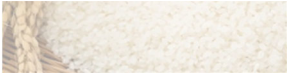
 <p>Skin Moisturization</p> 	Product Name	ORYZA CERAMIDE™
	Ingredient Involved with the Functionality/Daily Intake	Rice-derived glucosyl ceramide /1.2mg
	Daily Intake (Product)	-PCD、-WSP、PT/40mg
	Applied Indication (Example)	It has been reported that for those who tend to have dry skin, rice-derived glucosylceramide prevents moisture evaporation from the skin (cheeks), and increases the barrier function (moisturizing power) of the skin (cheeks).
	Scientific Basis of Functionality	SR



 <p>Skin Moisturization</p> 	Product Name	ORYZA CERAMIDE™
	Ingredient Involved with the Functionality/Daily Intake	Rice-derived glucosyl ceramide /0.6mg
	Daily Intake (Product)	-PCD、-WSP、PT/20mg
	Applied Indication (Example)	It has been reported that rice-derived glucosylceramide makes it difficult for skin to lose moisture and increases the skin's barrier function (moisturizing power) for those who are concerned about dry skin.
	Scientific Basis of Functionality	SR


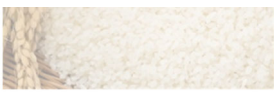
 <p>Improvement of Liver Function(Lower Blood ALT Level)</p>	Product Name	BROCCOLI SPROUT EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Sulforaphane glucosinolate /24mg
	Daily Intake (Product)	-EX/190mg
	Applied Indication (Example)	Sulforaphane glucosinolate which could lower a slightly elevated ALT near to healthy region (a marked of liver function) value in blood of health middle aged and elderly” has been reported.
	Scientific Basis of Functionality	SR


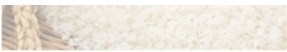
 <p>Quality of Sleep</p>	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid)/100mg
	Daily Intake (Product)	-HC90/111mg、-F95R/106mg
	Applied Indication (Example)	ABA improves quality of sleep (Depth of sleep, Clean awakening) Which were reported to have useful features is.
	Scientific Basis of Functionality	SR



 <p>Lower Blood Pressure</p>	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid)/12.3mg
	Daily Intake (Product)	-HC90/13.7mg、-F95R/12.5mg
	Applied Indication (Example)	It has been reported that GABA has a function to lower blood pressure of people with high blood pressure.
	Scientific Basis of Functionality	SR



 <p><b>Skin Elasticity</b></p> 	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid)/100mg
	Daily Intake (Product)	-HC90/111mg、-F95R/106mg
	Applied Indication (Example)	GABA inhibit the decrease in skin elasticity There are functions that help skin health which has been reported.
	Scientific Basis of Functionality	SR


 <p><b>Relieving Mental Stress</b></p> 	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid)/28mg
	Daily Intake (Product)	-HC90/31mg、-F95R/30mg
	Applied Indication (Example)	It has been reported that GABA has an effect of temporarily relieving mental stress caused by desk work.
	Scientific Basis of Functionality	SR


 <p><b>Relieving Mental Stress &amp; Relaxing</b></p> 	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid)/100mg
	Daily Intake (Product)	-HC90/111mg、-F95R/106mg
	Applied Indication (Example)	It has been reported that GABA has an effect of temporarily relieving mental stress caused by desk work as well as relaxing effect.
	Scientific Basis of Functionality	SR


 <p>Maintaining muscle mass</p> 	Product Name	ORYZA GABA™ EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	GABA (Gamma-aminobutyric acid)/100mg
	Daily Intake (Product)	-HC90/111mg, -F95R/106mg
	Applied Indication (Example)	GABA has been reported to have the ability to maintain muscle mass, which decreases as middle-aged and elderly people age, through daily physical activity.
	Scientific Basis of Functionality	SR


 <p>Lower on Uric</p> 	Product Name	KIKU FLOWER EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Luteolin /10mg
	Daily Intake (Product)	-P, -WSP10/100mg
	Applied Indication (Example)	It has been reported that luteolin has lowering effect of lowering on uric acid level people with relatively high uric acid level.
	Scientific Basis of Functionality	SR, Clinical testing


 <p>Reduce Eye Discomfort</p> 	Product Name	KIKU FLOWER EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Luteolin /20mg
	Daily Intake (Product)	-P, -WSP10/200mg
	Applied Indication (Example)	Luteolin has been reported to reduce eye discomfort caused by pollen, dust, and house dust.
	Scientific Basis of Functionality	SR


 <p>Skin Elasticity</p>	Product Name	TOMATO SEED EXTRACT (Lycolift™)
	Ingredient Involved with the Functionality/Daily Intake	Lycoposide H /1mg
	Daily Intake (Product)	-P/200mg
	Applied Indication (Example)	Lycoposide H has been reported to maintain skin elasticity and promote skin health.
	Scientific Basis of Functionality	SR

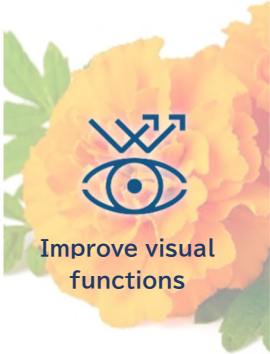
 <p>Motor Function</p>	Product Name	BLACK GINGER EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	①Black ginger-derived 5,7-dimethoxy-flavone/2.5mg ②Black ginger-derived 5-hydroxy-7-methoxyflavone /0.5mg
	Daily Intake (Product)	-P/100mg
	Applied Indication (Example)	It has been reported that 5,7-dimethoxyflavone and 5-hydroxy-7-methoxyflavone derived from black ginger have effects to support and maintain the walking function which declined by age.
	Scientific Basis of Functionality	SR, Clinical testing


 <p>Improvement of BMI by Reducing Visceral fat and Weight</p>	Product Name	COFFEE BEAN EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Chlorogenic acids/180mg
	Daily Intake (Product)	-WSP/450mg
	Applied Indication (Example)	Chlorogenic acids from green coffee beans reduce body mass index (BMI) of people who with a higher BMI value, which indicates the degree of obesity.
	Scientific Basis of Functionality	SR


 <p>Lower Blood Sugar Level After Meals</p>	Product Name	COFFEE BEAN EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Chlorogenic acids /120mg
	Daily Intake (Product)	-WSP/300mg
	Applied Indication (Example)	“Lowering postprandial glucose Level in blood by chlorogenic acids from green coffee beans” has been reported.
	Scientific Basis of Functionality	SR

 <p>Eye Moisturization Reducing Eye Fatigue</p>	Product Name	MAQUI BERRY EXTRACT (MaquiBright®)
	Ingredient Involved with the Functionality/Daily Intake	Delphinidin-3,5-diglucoside /4mg
	Daily Intake (Product)	-P35/40mg
	Applied Indication (Example)	Delphinidin-3,5-diglucoside supports the deteriorating eye moisturization of healthy people who do VDT work such as smartphones and video games on daily basis, and causes temporary eye fatigue, temporary feeling and shoulder strain due to VDT work.
	Scientific Basis of Functionality	SR, Clinical testing


 <p>Protect the Eye From Daily Photoirritations</p>	Product Name	LUTEIN
	Ingredient Involved with the Functionality/Daily Intake	Lutein ester /40mg
	Daily Intake (Product)	-P80/50mg
	Applied Indication (Example)	It has been reported that lutein ester has the ability to increase the concentration of pigments accumulated in the central part of the retina and protect the eye from daily photoirritations such as blue light.
	Scientific Basis of Functionality	SR


 <p>Improve visual functions</p>	Product Name	LUTEIN (FREE)
	Ingredient Involved with the Functionality/Daily Intake	Lutein 10 mg, Zeaxanthin 2mg
	Daily Intake (Product)	-20F/50mg
	Applied Indication (Example)	It has been reported that free lutein & zeaxanthin have functions of working to increase the amount of pigment in the macula of the eye, protecting against light stress such as ultraviolet rays and blue light, improving contrast sensitivity (visual function that distinguishes color shades and reduces blurring and haze) and glare recovery (visual function that recovers from glare).
	Scientific Basis of Functionality	SR


 <p>Cognitive enhancement</p>	Product Name	LUTEIN (FREE)
	Ingredient Involved with the Functionality/Daily Intake	Lutein 10 mg, Zeaxanthin 2mg
	Daily Intake (Product)	-20F/50mg
	Applied Indication (Example)	It has been reported that free lutein & zeaxanthin are responsible for maintaining some of the cognitive functions that decline with age: judgment (the ability to respond and reason appropriately in changing situations) and attention (the ability to focus on one thing and the ability to pay attention to multiple things).
	Scientific Basis of Functionality	SR


 <p>Sleep</p>	Product Name	LUTEIN (FREE)
	Ingredient Involved with the Functionality/Daily Intake	Lutein 20 mg, Zeaxanthin 4.08mg
	Daily Intake (Product)	-20F/100mg
	Applied Indication (Example)	It has been reported that free lutein & zeaxanthin help reduce eye fatigue. It also been reported to reduce temporary mental stress and improve sleep quality.
	Scientific Basis of Functionality	SR





 <p>Lower Blood Pressure</p>	Product Name	PERILLA SEED Oil
	Ingredient Involved with the Functionality/Daily Intake	$\alpha$ -linolenic acid /2.6g
	Daily Intake (Product)	OIL/5g
	Applied Indication (Example)	It has been reported that $\alpha$ -linolenic acid has a function of lowering blood pressure in people with high blood pressure.
	Scientific Basis of Functionality	SR

 <p>Lower LDL Cholesterol Level</p>	Product Name	PERILLA SEED Oil
	Ingredient Involved with the Functionality/Daily Intake	$\alpha$ -linolenic acid /5.49g
	Daily Intake (Product)	OIL/10g
	Applied Indication (Example)	$\alpha$ -Linolenic acid has been reported to lower the level of bad (LDL) cholesterol in the blood.
	Scientific Basis of Functionality	SR

 <p>Improvement of BMI by Reducing Visceral fat and Weight</p>	Product Name	FUCOXANTHIN 、 FucoRex <sup>TM</sup>
	Ingredient Involved with the Functionality/Daily Intake	FUCOXANTHIN /3mg
	Daily Intake (Product)	FUCOXANTHIN –5KW/60mg、 FucoRex <sup>TM</sup> –3/100mg
	Applied Indication (Example)	Fucoxanthin which could help to lower BMI value by reducing visceral fat and body weight” has been reported. It is a food suitable for those who possess a higher BMI value.
	Scientific Basis of Functionality	SR




 <p>Reduce temporary loss of vitality</p>	Product Name	PASSIONFLOWER EXTRACT
	Ingredient Involved with the Functionality/Daily Intake	Flavonoids from passionflower/6 mg
	Daily Intake (Product)	-P/200mg
	Applied Indication (Example)	Flavonoids from passionflower have been reported to have the function of reducing the temporary loss of vitality (feeling full of energy, full of vitality, etc.) that occurs in daily life such as work and housework.
	Scientific Basis of Functionality	SR

 <p>Lower triglycerides and total cholesterol in the blood</p>	Product Name	RICE BRAN OIL
	Ingredient Involved with the Functionality/Daily Intake	GAMMA ORYZANOL/22.3mg
	Daily Intake (Product)	oil/14g
	Applied Indication (Example)	This product contains ingredients that have been reported to lower blood neutral fat and total cholesterol.
	Scientific Basis of Functionality	SR

 <p>Sleep</p>	Product Name	Safleep™ (Saffron extract)
	Ingredient Involved with the Functionality/Daily Intake	crocin/0.66mg
	Daily Intake (Product)	-P/22mg
	Applied Indication (Example)	It has been reported that crocin derived from saffron can quickly bring deep sleep to those who feel that their sleep quality is low, and improve sleep quality (falling asleep, sleeping soundly, sleeping deeply, and not waking up during sleep), and allows you to wake up feeling refreshed.
	Scientific Basis of Functionality	SR



## Oryza's Rice Oils and Defatted Bran Products




<Rice Oil>		
Product Name	Features and Main Functions	Packaging
<b>RICE BRAN OIL</b> (JAS product) 	<ul style="list-style-type: none"> <li>• Edible oil purified from rice bran by low temperature extraction (NEM) and NRM method.</li> <li>• <b>Its features are a good flavor and taste, high stability against oxidation, and high stability at low temperatures.</b></li> </ul> <p>*NEM (New Extraction Method) *NRM (New Refining Method)</p>	600 g 1500 g 1650 g 16.5 kg 181.5 kg Lorry
<b>RICE FRYING OIL</b> (JAS product) 	<ul style="list-style-type: none"> <li>• Edible oil purified from rice bran by low temperature extraction (NEM) and NRM method.</li> <li>• Its features are a refreshing taste and smooth texture.</li> </ul>	600 g 16.5 kg 181.5 kg Lorry
<b>ORYZA RICE GERM OIL</b> 	<ul style="list-style-type: none"> <li>• <b>Rice germ oil with high antioxidative property containing 1.2 to 1.5% gamma-oryzanol.</b></li> <li>• It provides a moisturizing effect, UV-ray absorbing effect, and tyrosinase inhibition.</li> </ul>	16 kg
<b>RICE GERM OIL</b>	<ul style="list-style-type: none"> <li>• Liquid oil extracted from brown rice germ and the membrane layer of brown rice seeds by the NEM method and generated by the physical refining method.</li> <li>• <b>It contains many active ingredients such as gamma-oryzanol, vitamin E, and phytosterol which are present in germs and membrane layer of seeds in a sugar-coated form.</b></li> <li>• It has an anti-oxidative effect as well as cholesterol-lowering, UV-ray absorption, and lipid peroxides reducing effect.</li> </ul>	16 kg
<b>ORYZA OIL-EX</b>	<ul style="list-style-type: none"> <li>• <b>Functional edible oil</b> extracted from rice bran and purified by the NEM and NRM methods.</li> <li>• <b>It contains functional components specific in rice.</b></li> <li>→ Tocopherol (vitamin E): 82 mg/100 g or more</li> <li>→ Tocotrienol: 89 mg/100g or more</li> <li>→ Gamma-oryzanol: 71 mg/100 g or more</li> <li>→ Sterol: 1,071 mg/100 g or more</li> <li>• It has an anti-oxidative effect, lowers LDL-cholesterol, and suppresses generation of lipid peroxides.</li> </ul>	16 kg

<Defatted Bran (Food)>		
Product Name	Features and Main Functions	Packaging
ORYZA DRIM	<ul style="list-style-type: none"> <li>• Special defatted bran containing large amounts of plant fibers, proteins, and sugars.</li> <li>• Finely-ground and grain size adjusted. Water contents is less than 2%.</li> <li>• Dietary fiber content: 33.2 g/100 g</li> <li>• Suitable for weight control and constipation.</li> </ul>	15 kg
ORYZA GERM-DLP	<ul style="list-style-type: none"> <li>• Special defatted rice germ created by grinding carefully-selected NEM defatted rice germ. Its grain size is adjusted so that the pass through rate is 90% or more for a 42 mesh and 70% or more for a 60 mesh.</li> <li>• Single-dose test, LD50: 2,000 mg/kg or more</li> </ul>	15 kg 20 kg
ORYZA GERM-DLS	<ul style="list-style-type: none"> <li>• Special defatted rice germ created by grinding carefully-selected NEM defatted rice germ. Its grain size is adjusted so that the pass through rate is 90% or more for a 200 mesh.</li> <li>• Single-dose test, LD50: 2,000 mg/kg or more</li> </ul>	15 kg 20 kg

<Defatted Bran (Feed)>		
Product Name	Features and Main Functions	Packaging
DEFATTED BRAN 12M	<ul style="list-style-type: none"> <li>• Its feature is high storage efficiency (bridge formation does not occur). This is achieved as bran particles are fine and spherical because extruder processing is used in the rice bran low temperature extraction method (NEM).</li> <li>• As it does not go through harsh heat treatment, it contains high water-soluble protein content and phospholipid remains in the defatted bran, which makes it easy to digest and be absorbed.</li> <li>• It is suitable for animal feed, fertilizer, and culture media.</li> </ul>	20 kg Contact us for smaller portions
DEFATTED BRAN 25M	<ul style="list-style-type: none"> <li>• Special defatted rice bran created by grinding carefully-selected NEM defatted rice bran and adjusting the grain size.</li> <li>• It is suitable for culture media of various fungi, diluent for calibration substances for animal drugs, and diluent for premixing vitamins, etc.</li> </ul>	15 kg 20 kg



## Oryza's Rice Oils

Product Name			
	ORYZA RICE BRAN OIL	ORYZA RICE BRAN OIL	ORYZA RICE OIL
Raw Material	Rice Bran Oil	Rice Bran Oil	Rice Bran Oil
Packaging	600 g x 20	1500 g x 10	1650 g x 6
Expiration Date	2 years	2 years	2 years

Product Name		
	Rice Frying oil With/without silicon	Rice Bran Oil With/without silicon
Content	16.5 kg	16.5 kg
Expiration Date	2 years	2 years

### [Other]

For retailers and mass merchants, 600 g and 1650 g specification products as well as PB manufacture are available.

Please contact our sales personnel for production lot and other details.

## List of Patent

### Japanese Patent

No.	Products	Title of the invention	Patent No.
1	RICE BRAN OIL	Molding equipment used for pretreatment to extract crude oil from rice bran	1192721 (Expiration of validity period)
2	FERULIC ACID	Oil-solubilized skin rub for ferulic acid ester	1371867 (Expiration of validity period)
3	RICE BRAN OIL	Filtration device	1480318 (Expiration of validity period)
4	MELANOIDIN	Melanoidin-containing skin cosmetics	1401763 (Expiration of validity period)
5	RICE BRAN OIL	Method for separating fatty acids from crude oils and fats	1998674 (Expiration of validity period)
6	PEARL BARLEY	Hair nourishing agent and hair cosmetics	3496896 (Expiration of validity period)
7	ORYZA GABA	Degreased food material enriched with $\gamma$ -aminobutyric acid	2810993 (Expiration of validity period)
8	PERILLA SEED EXTRACT	Lipoxygenase inhibitor	4231559 (Expiration of validity period)
9	PERILLA SEED EXTRACT	Antibacterial agent for oral cavity	4112730 (Expiration of validity period)
10	EVENING PRIMROSE EXTRACT	Carbohydrate absorption inhibitor and its manufacturing method	4873824 (Expiration of validity period)
11	LITCHI SEED EXTRACT	Composite for beauty enhancement	3708036 (Expiration of validity period)
12	ORYZA TOCOTRIENOL™	A technology of powder preparation which could be used in food material and cosmetic material	5306626 (Expiration of validity period)
13	FUCOIDAN	An immunological determination method of fucoidan content which used a fucoidan specific antibody	5502298 (Expiration of validity period)
14	BROCCOLI SPROUT EXTRACT	For external use on skin	3754646 (Expiration of validity period)
15	RICE BRAN OIL	For external use on skin	3704498 (Expiration of validity period)
16	LITCHI SEED EXTRACT	Elastase inhibitor	3953387 (Expiration of validity period)
17	EVENING PRIMROSE EXTRACT	Anti-H.pylori composite	4541662 (Expiration of validity period)
18	ALPHA LIPOIC ACID	Composite for beauty enhancement	4849792 (Expiration of validity period)
19	YUZU SEED EXTRACT	Composite for skin improvement	5014569
20	COFFEE BEAN EXTRACT	Composite for weight control	4499665 (Expiration of validity period)
21	JAPANESE BUTTERBUR EXTRACT	Anti-allergic agent	4822246
22	LITCHI SEED EXTRACT	Composite for skin improvement	4982052 (Expiration of validity period)
23	KIWI SEED EXTRACT	Composite for beauty enhancement)	4925692
24	KIWI SEED EXTRACT	Anti-inflammatory agent and painkiller	5462430
25	CHINESE CHIVE SEED EXTRACT	Immuno-stimulator	4925761 (Expiration of validity period)
26	RED GINGER EXTRACT	Anti-inflammatory agent and painkiller	5303697
27	BROCCOLI SPROUT EXTRACT	Sebum production promoter	5571280

※This list includes patents for preparations for topical use (cosmetics) as well.

No.	Products	Title of the invention	Patent No.
28	LITCHI SEED EXTRACT,WALNUT POLYPHENOL,STRAWBERRY SEED EXTRACT,LINGONBERRY EXTRACT, WHITE JELLY FUNGUS EXTRACT	Liquid composite, as well as beverages and cosmetics using it	5525700 (Expiration of validity period)
29	STRAWBERRY SEED EXTRACT	Gene expression promoter for skin beautification, as well as moisturizing and skin beautifying composites using it	5996156
30	LINGONBERRY EXTRACT	Pigmentation suppressor	5525716
31	SAKURA EXTRACT	Nitric oxide production inhibitor	5783784
32	POLYAMINE	Keratin expression promoter and nail beautifying composite using the same	5877980
33	PURPLE RICE EXTRACT	ER(Endoplasmic reticulum) stress reducer	5916203
34	WATERSHIELD EXTRACT	New compound and its use	6075025
35	BIRD'S NEST EXTRACT	Tight junctions formation promoter	6358692
36	MAQUI BERRY EXTRACT	Whitening agent	6144536
37	ORYZA POLYAMINE	Ingredient of cosmetics for eyelashes and cosmetics for eyelashes using it	6192036
38	WATERSHIELD EXTRACT	Composite for anti-aging of skin	6198463
39	MAQUI BERRY EXTRACT	Dry eye prevention and treatment agent	6265500
40	SAKURA EXTRACT	Suppression of AGE production	5878023
41	SAKURA EXTRACT	Suppression of AGE production	5792844
42	FERMENTED STRAWBERRY SEED PRODUCT	Lipid accumulation promoter in sebaceous gland cells	6433053
43	BLACK GINGER EXTRACT	AMPK activator	6086953
44	PURPLE TEA EXTRACT	Circadian rhythm adjustment agent	6227851 Expiration of duration of patent right
45	KIKU FLOWER EXTRACT	Fibronectin expression promoting material	6452104
46	STRAWBERRY SEED EXTRACT	Gene expression promoter for filaggrin and involucrin	6516246
47	STRAWBERRY SEED EXTRACT	Gene expression promoter for filaggrin and involucrin	6635615
48	NADESHIKO	Nrf2 related gene expression promoter	6529119
49	NADESHIKO	Foam stabilizer and detergent	6635615
50	BLACK CUMIN	Body odor component-reducing agent, as well as body odor-reducing agents using this component	6547050
51	FERMENTED RICE GERM EXTRACT	To provide a method for producing $\beta$ -sitosterol glucoside containing composition	6604806
52	FERMENTED RICE GERM EXTRACT	The method of stigmasterol Containing Compositions	6584899
53	FERMENTED RICE GERM EXTRACT	The method of glucosylceramide-containing composition	6579619
54	FERMENTED RICE GERM EXTRACT	Producing method of composition containing ergosterol peroxide	6645791
55	GAMMA ORYZANO	$\gamma$ -Oryzanol soluble liquid composition	6639892
56	ORYZA CERAMIDE™	Glucosylceramide production and metabolic gene expression promotive agent used on the skin	6723737
57	AGUAJE EXTRACT	Estrogen activity regulation and indefinite complaints ameliorative agent	6742537

※This list includes patents for preparations for topical use (cosmetics)

No.	Products	Title of the invention	Patent No.
58	BLACK GINGER EXTRACT	Energy activator for muscle cells	6751709
59	TOMATO SEED EXTRACT	ECM cycle normalizing agent	6799114
60	ORYZA PEPTIDE	N-acetyltransferase activator	6811455
61	BROCCOLI SPROUT EXTRACT	Carbonylation inhibitor	6902392
62	PASSIONFLOWER EXTRACT	Skin care material	6909569
63	PURPLE TEA EXTRACT	AMPK activator	6933781
64	CALLUNA VULGARIS	Carbonylation and saccharification inhibitor	6964393
65	BLACK GINGER EXTRACT	An inhibitor of TNF- $\alpha$ and IL-6 production and which could be used in muscle inflammation	6954960
66	cosmeHerbest™ JUNSAI	Hair care material	6945261
67	PASSIONFLOWER EXTRACT	Improving Life Rhythm	7007798
68	NADESHIKO	Prevention and improvement agent for obvious pore	7007788
69	TOMATO SEED EXTRACT	ECM cycle normalizing agent	7026181
70	FERMENTED RICE GERM EXTRACT	Muscle enhancer	7104193
71	SEABERRY EXTRACT	5 $\alpha$ -reductor inhibitor	7237204
72	FUCOXANTHIN	Sarcopenia obesity preventive/improving agent	7246965
73	CosmeHerbest™ BLACK CUMIN	Stress odor component reducer	7297454
74	COCOA EXTRACT	Lipin 1 gene expression promoter	7427397
75	Sichuan Pepper Oil	Oral antibacterial agent	7433125
76	TOMATO SEED EXTRACT	Oral skin care composition	7405543
77	MAQUIBERRY EXTRACT	Redness improving agent on the skin	7530200
78	PURPLE TEA EXTRACT	NO production promoter, explosive power improver for lower limb muscles, and agent for reducing muscle damage caused by intensive exercise	7489216

※This list includes patents for preparations for topical use (cosmetics) as well.



## International Patent

No.	Products	Title of the invention	Country	Patent No.
1	RICE BRAN OIL	Preprocessing method for extraction of oil from rice bran, as well as the processor using this method	USA	4384837 (Expiration of validity period)
			Taiwan	13898 (Expiration of validity period)
			Korea	16077 (Expiration of validity period)
2	PERILLA SEED EXTRACT	Lipoxygenase inhibiting agent	USA	US 6217875 (Expiration of validity period)
3	EVENING PRIMROSE EXTRACT	Carbohydrate absorption inhibitor	USA	US 6932990 (Expiration of validity period)
			EU	EP 1312374 (Expiration of validity period)
			China	CN 1268351 (Expiration of validity period)
4	COFFEE BEAN EXTRACT	Composite for weight control	USA	US 8802164 (Expiration of validity period)
			EU	EP 1674106 (Expiration of validity period)
			China	CN 1863543 (Expiration of validity period)
5	RED GINGER EXTRACT	Anti-inflammatory agent	USA	US 8017162
6	SAKURA EXTRACT <i>Florabella</i> (USA)	Suppression of AGE production	USA	US 9381223
			China	CN 102883733
			Malaysia	MY173496
7	MAQUI BERRY EXTRACT <i>MaquiBright</i> <sup>TM</sup>	Dry eye prevention and treatment agent	EU	EP 2937091
			Canada	CA2895353
			Israel	239478
			Korea	10-2070479
			USA	US11033566
8	PURPLE TEA EXTRACT <i>PURPLE FORCE</i>	AMPK activator	USA	US11478495

## List of Papers

A	AGUAJE EXTRACT	Takara T., Yamamoto K., Suzuki N., Yamashita S., Iio S., Noguchi H., Kakinuma T., Baba. Yamamoto S., Morikawa T., <a href="#">Takeda S.</a> , <a href="#">Shimoda H.</a> Moriche Palm (Aguaje) Extract improves indefinite complaints in Japanese females: a randomized, placebo-controlled, double-blind trial. <i>Functional Foods in Health and Disease</i> , 10(9), 379-396 (2020).
		<a href="#">Miyasaka K.</a> , <a href="#">Takeda S.</a> , Nakamura S., Matsuda H., <a href="#">Shimoda H.</a> Estrogenic and antiandrogenic activities of methoxyflavans isolated from the fruit of <i>Mauritia Flexuosa</i> (Moriche Palm). <i>J food Biochem.</i> 45(1), (2021)
	ALPHA LIPOIC ACID	<a href="#">下田博司</a> , <a href="#">田中潤司</a> , <a href="#">関あずさ</a> , <a href="#">本田晴哉</a> , <a href="#">赤荻誠一郎</a> , <a href="#">小松原博文</a> , <a href="#">鈴木信夫</a> , <a href="#">亀山眞由美</a> , <a href="#">田村理</a> , <a href="#">村上啓寿</a> $\alpha$ -リポ酸の製造工程で生成する重合物の安全性と構造解析 <i>食衛誌</i> 48,125-131(2007).
B	BLACK GINGER EXTRACT	<a href="#">Toda K.</a> , <a href="#">Takeda S.</a> , <a href="#">Hitoie S.</a> , Nakamura S. Matsuda H., Shimoda H. Enhancement of energy production by black ginger extract containing polymethoxy flavonoids in myocytes through improving glucose. <i>J. Natur.Med.</i> 70,163-72(2016).
		<a href="#">Toda K.</a> , <a href="#">Hitoie S.</a> , <a href="#">Takeda S.</a> , <a href="#">Shimoda H.</a> Black ginger extract increases physical fitness performance and muscular endurance by improving inflammation and energy metabolism. <i>Heliyon</i> 2:e00115(2016).
		<a href="#">Toda K.</a> , <a href="#">Kohatsu M.</a> , Takeda S., <a href="#">Hitoie S.</a> , <a href="#">Shimizu N.</a> , <a href="#">Shimoda H.</a> Enhancement of physical fitness by black ginger extract rich in polymethoxyflavones: a double-blind randomized crossover trial. <i>Integrative Mol.Med.</i> 3,628-634(2016).
	BROCCOLI SPROUT EXTRACT	Suzuki R., Kohn H., Sugie S., <a href="#">Okada T.</a> , Tanaka T. Preventive effects of powdered broccoli sprout on azoxymethane-induced rat colonic aberrant crypt foci. <i>J.Toxicol.Pathol.</i> 17,119-26(2004).
		<a href="#">Hirano M.</a> , <a href="#">Takeda S.</a> , <a href="#">Hitoie S.</a> , <a href="#">Shimoda H.</a> Glucosinolates and isothiocyanates from broccoli seed extract suppress protein glycation and carbonylation. <i>Functional Foods Health and Disease.</i> 8, 35-48(2018).
	BIRD'S NEST EXTRACT	Terazawa S., <a href="#">Shimoda H.</a> Keratinocyte Proliferative and Wound Healing Effects of Edible Bird's Nest Extract on Human Skin. <i>Int J Biomed Sci.</i> 16(4), (2020)
Kim O., Kim D., Lee M., Park S., <a href="#">Yamada W.</a> , Eun S., Lee J. Standardized Edible Bird's Nest Extract Prevents UVB Irradiation-Mediated Oxidative Stress and Photoaging in the Skin. <i>Antioxidants.</i> 10(9), 1452 (2021).		
Kim HM., Lee YM., Kim EH., Eun SW., Sung HK., Ko H., Youn SJ., Choi Y., <a href="#">Yamada W.</a> , Shin SM. Anti-Wrinkle Efficacy of Edible Bird's Nest Extract: A Randomized, Double-Blind, Placebo-Controlled, Comparative Study. <i>Front Pharmacol.</i> , 13, 843469 (2022).		
C	CISTANCHE TUBULOSA EXTRACT	<a href="#">Shimoda H.</a> , <a href="#">Tanaka J.</a> , Takahara Y., Takemoto K., Shan S.J., Su M.H. The hypocholesterolemic effects of Cistanche tubulosa extract, a Chinese traditional clued medicine, in mice. <i>Am. J.Chin.Med.</i> 37, 1125-1138(2009).
	CITRUS UNSHIU EXTRACT	<a href="#">Shimoda H.</a> , <a href="#">Shan S.H.</a> , <a href="#">Tanaka J.</a> , Maoka T., Cryptoxanthin suppressed UVB-induced melanogenesis in mouse: involvement of the inhibition of prostaglandin E2 and melanocyte-stimulating hormone pathway. <i>J. Pharmacy Pharmacol.</i> 64,1165-1176(2012).

★ : A study on Oryza products conducted by an outside party.

C	COFFEE BEAN EXTRACT	<p>Shimoda H., Ski E., Aitani M. Inhibitory effect of green coffee bean extract on fat accumulation and body weight gain in mice. BMC Complement. Altern. Med. 6-9(2006).</p> <p>Tanaka K., Nishizono S., Tamaru S., Kondo M., Shimoda H., Tanaka J., Okada T. Anti-obesity and hypotriglyceridemic properties of coffee bean extract in SD rats. Food Sci. Technol. Res. 15, 147-152(2009).</p> <p>★Yeon P.J., Young K.J., Pyo L.S., Ho L.J. The effect of green coffee bean extract supplementation on body fat reduction in over weight/obese woman. Korean J. Nutr. 43, 374-381(2010).</p>	
	COPRINO®	<p>Asahi T., Wu Xiaohong, Shimoda H., Harada E., Kanno T., Nakamura Y., Kato Y., Osawa T. A mushroom-derived amino acid, ergothioneine, is a potential inhibitor of inflammation related DNA halogenation. Biosci. Biootechnol. Biochem. 80, 313-317(2016).</p>	
E	EVENING PRIMROSE EXTRACT	<p>★木場孝繁、濱田広一郎、木村弘之、阿比留康弘、曲田清彦、菊池範昭、宗行哲、高沢謙二 月見草エキス含有錠剤食品が食後血糖値に及ぼす影響と1日1回の長期摂取における空腹時血糖値の変動および安全性に関する検討 健康・栄養食品研究. 5(4), 55-68(2002).</p> <p>藍谷教夫、西村明、濱田広一郎、木場孝繁、小西洋太郎 月見草エキスのヒトにおける食後血糖値上昇抑制作用 日本食品科学工学会誌. 50(10), 451-456(2003).</p> <p>藍谷教夫、木村弘之、阿比留康弘、曾山裕子、村上裕子、張慧利、杉下朋子、小西洋太郎 月見草エキスの血糖値上昇抑制作用とその関与成分 日本食品科学工学会誌. 50(4), 180-187(2003).</p> <p>★Cai J., Kim T., Jang J.Y., Kim J., Shin K., Lee S., Choi E., Kim S., Park M., Kim J.B., Kim Y. In vitro and in vivo anti-Helicobacter pylori activities of FEMY-R7 composed of fucoidan and evening primrose extract. Lab Anim Res. 30, 28-34(2014).</p>	
		FERMENTED RICE GERM EXTRACT	<p>Tanaka M., Yoshino Y., Takeda S., Toda K., Shimoda H., Tsumura K., Shimazawa M., Hara H. Fermented rice germ extract alleviates morphological and functional damage to murine gastrocnemius muscle by inactivation of AMP-activated protein kinase. J. Med. Food., 20, 969-980(2017).</p>
		FUcoxanthin	<p>Shimoda H., Tanaka J., Shan S. J., Maoka T. Anti-pigmentary activity of fucoxanthin and its influence on skin mRNA expression of melanogenic molecules. J. Pharmacy Pharmacol. 62, 1137-1145(2010).</p> <p>Hitoe S., Shimoda H. Seaweed fucoxanthin supplementation improves obesity parameters in mildly obese Japanese subjects. Functional Foods Health and Disease 7(4), 246-262(2017).</p> <p>★Terasaki M, Ikuta M, Kojima H, Tanaka T, Maeda H, Miyashita K, Mutoh M. Dietary fucoxanthin induces anoikis in colorectal adenocarcinoma by suppressing integrin signaling in a murine colorectal cancer model. J Clin Med. 9(1), 90 (2019)</p> <p>★Terasaki M, Masaka S, Fukada C, Houzaki M, Endo T, Tanaka T, Maeda H, Miyashita K, Mutoh M. Salivary glycine is a significant predictor for the attenuation of polyp and tumor microenvironment formation by fucoxanthin in AOM/DSS mice. In Vivo. 33, 365-374 (2019).</p> <p>★Terasaki M, Matsumoto N, Hashimoto R, Endo T, Maeda H, Hamada J, Osada K, Miyashita K, Mutoh M. Fucoxanthin administration delays occurrence of tumors in xenograft mice by colonospheres, with an anti-tumor predictor of glycine. J Clin Biochem Nutr. 64, 52-58 (2019).</p> <p>★Tamura S, Narita T, Fujii G, Miyamoto S, Hamoya T, Kurokawa Y, Takahashi M, Miki K, Matsuzawa Y, Komiya M, Terasaki M, Yano T, Mutoh M. Inhibition of NF-<math>\kappa</math>B transcriptional activity enhances fucoxanthin-induced apoptosis in colorectal cancer cells. Genes Environ. 41, 1 (2019).</p> <p>★Yoshikawa M., Hosokawa M., Miyashita K., Nishino H., Hashimoto T. Effects of Fucoxanthin on the Inhibition of Dexamethasone-Induced Skeletal Muscle Loss in Mice. Nutrients, 13(4), 1079. (2021).</p>

★ : A study on Oryza products conducted by an outside party.

G	GAMMA ORYZANOL	岡田忠司、中川紀代司、山口直彦 フェルラ酸エステルの抗酸化性及びアミノ化合物との相乗性に関する研究 日本食品工業学会誌 29(5),305-9 (1982).
		岡田忠司、山口直彦 オリザノールの抗酸化性と薬理作用 油化学 33(6),305 (1983).
		Moon S.H., Kim D., Shimizu N., Okada T., Hitoe S., Shimoda H. Ninety-day oral toxicity study of rice-derived $\gamma$ -oryzanol in Sprague-Dawley rats.
J	JAPANESE BUTTERBUR EXTRACT	Shimoda H., Tanaka J., Yamada E., Morikawa T., Kasajima N., Yoshikawa M. Anti type I allergic property of Japanese butterbur extract and its mast cell degranulation inhibitory ingredients. J. Agric.Food Chem.54,2915-2920(2006).
		Yoshikawa M., Morikawa T., Tanaka J., Shimoda H. Medicinal food stuffs. XXXII. Novel sesquiterpene glycoside sulfate, fukinoside A, with antiallergic activity from Japanese butterbur (Petasites Japonicus) Heterocycles.68,2335-2342(2006).
K	KIKU FLOWER EXTRACT	Hirano M., Takeda S., Hitoe S., Shimoda H. Luteolin-rich chrysanthemum flower extract suppresses baseline serum uric acid in Japanese subjects with mild hyperuricemia. Integrative Mol. Med.,4 (2),1-5(2017).
		「Tsuayoshi Takara., Kazuo Yamamoto., Naoko Suzuki.,Shin-ichiro Yamashita., Shinichiro Iio., Toshihiro Kakinuma., Asami Baba., Shogo Takeda., Wakana Yamada.,Masafumi Nagata., Hiroshi Shimoda.Effects of luteolin-rich chrysanthemum flower extract on purine base absorption and blood uric acid in Japanese subjects.Functional Foods in Health and Disease (2022)」
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M	MAQUI BERRY EXTRACT	Tanaka J., Kadekaru T., Ogawa K., Hotoe S., Shimoda H., Hara H. Maqui berry (Aristotelia chilensis) and the constituent delphinidin glycoside inhibit photoreceptor cell death induced by visible light. Food Chem.139,129-137(2013).
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★ : A study on Oryza products conducted by an outside party.

M	MOUNTAIN CAVIAR EXTRACT	Takara T., Suzuki N., Yamamoto K., Iio S., Kakinuma T., Baba A., Noguchi H., Yamada W., Hirano M., Yoneda A., Nagata M., Shimoda H. Hypoglycemic Effects of VegCaviar™ Standardized with Momordin Ic on the Oral Glucose Tolerance Test in Healthy Japanese Subjects. -A Randomized, Double-blind, Placebo-controlled Crossover Trial-. <i>Jpn Pharmacol Ther.</i> 51(11): 1763-1770 (2023)
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O	ORYZA CERAMID™	下田博司 コメ由来スフィンゴ糖脂質の作用 細胞 41(5),203-205(2009).
		Shimoda H., Terazawa S., Hitoe S., Tanaka J., Nakamura S., Matsuda H., Yoshikawa M. Changes in ceramides and glucosylceramides in mouse skin and human epidermal equivalents by rice-derived glucosylceramide. <i>J. Med. Food</i> 15,1064-1072(2012).
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★ : A study on Oryza products conducted by an outside party.

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	PURPLE RICE EXTRACT	Tamura S., Yan K., Shimoda H., Murakami N. Anthocyanins from <i>Oryza sativa</i> L. subsp. indica. <i>Biochem. System. Ecology.</i> 38,438-440(2010).
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R	RED GINGER EXTRACT	Shimoda H., Shan S. J., Tanaka J., Seki A., Seo J. W., Kasajima N., Kasajima N., Tamura S., Ke Y., Murakami N. Anti-inflammatory properties of red ginger ( <i>Zingiber officinale</i> var. <i>Rubra</i> ) extract and suppression of nitric oxide production by its constituents. <i>J. Med.Food</i> 13,156-162(2010).
	RED RICE EXTRACT	Tamura S., Yan K., Kawano T., Ohnishi-Kameyama M., Tanaka J., Shimoda H. and Murakami N.. Identification of Chemical Structures of Hypolipidemic Proanthocyanidins in Red Rice Enhancing Acyl CoA Oxidase Expression. <i>J Rice Res</i> , 8:2 (2020).
S	SAKURA EXTRACT	Shimoda H., Nakamura S., Morioka M., Tanaka J., Matsuda H., Yoshikawa M. Effect of cinnamoyl and flavonol glucosides derived from cherry blossom glowers on the production of advanced glycation end products (AGEs) and AGE-induced fibroblast apoptosis. <i>Phytotherapy Res.</i> 25,1328-1335(2011).
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★ : A study on Oryza products conducted by an outside party.

S	SEABERRY EXTRACT	Takara T., Hirano M., Yamamoto K., Suzuki N., <a href="#">Shimizu N.</a> , <a href="#">Shimoda H.</a> . Stratified analysis of a clinical trial of ursolic acid in seaberry extract on urinary anxiety in healthy Japanese subjects. Jpn. Pharmacol. Ther. 48, 1198-1205 (2020).
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STRAWBERRY GUAVA EXTRACT	<a href="#">Yoneda A.</a> , <a href="#">Takeda S.</a> , <a href="#">Miyasaka K.</a> , Manse Y., Morikawa T., <a href="#">Shimoda H.</a> . Epidermal and Blood Vessel Barrier Functions of Glucosylceramides and Digalactosyldiacylglycerols Isolated from Yellow Strawberry Guava. PROCESSES. 12(7),1421(2024)	
T	TOMATO SEED EXTRACT	<a href="#">Takeda S.</a> , <a href="#">Miyasaka K.</a> , <a href="#">Shimoda H.</a> Lycoperoside H, a steroidal alkaloid saponin in tomato seeds, ameliorates atopic dermatitis-like symptoms in IL-33 transgenic mice. J Food Biochem. 45(9), (2021) .J
		Izumi T., Yamamoto K., Suzuki N., Yamashita S., Iio S., Noguchi H., Kakinuma T., Baba A., <a href="#">Takeda S.</a> , <a href="#">Yamada W.</a> , <a href="#">Shimoda H.</a> Tomato Seed Extract Containing Lycoperoside H Improves Skin Elasticity in Japanese Female Subjects: A Randomized, Placebo-Controlled, Double-Blind Trial. J. Cosmetics.11(4), 217-236 (2021).
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V	VINE TEA EXTRACT	<a href="#">Wu J.</a> , <a href="#">Miyasaka K.</a> , <a href="#">Yamada W.</a> , <a href="#">Takeda S.</a> , <a href="#">Shimizu N.</a> and <a href="#">Shimoda H.</a> The Anti-Adiposity Mechanisms of Ampelopsin and Vine Tea Extract in High Fat Diet and Alcohol-Induced Fatty Liver Mouse Models.Molecules 27(3), 607(2022)
		Takara T.,Suzuki N.,Yamamoto K., Iio S., Kakinuma T., Baba A., Noguchi H., <a href="#">Shimizu N.</a> , <a href="#">Yamada W.</a> , <a href="#">Wu J.</a> , <a href="#">Hirano M.</a> , <a href="#">Kuang X.</a> , Nagata M., <a href="#">Shimoda H.</a> Hypolipidimic Effects of Resovine™ Standardizes with Amplepsin on Postprandial Serum Triglycerides in Healthy Japanese Participants. Japanese Pharmacology and Therapeutics. 52(5),637-43(2024)
W	WALNUT POLYPHENOL	<a href="#">Shimoda H.</a> , <a href="#">Tanaka J.</a> , <a href="#">Kikuchi M.</a> , Fukuda T., Ito H., Hatano T., Yoshida T. Walnut polyphenols prevent liver damage induced by carbon tetrachloride and D-galactosamine: hepatoprotective hydrolyzable tannins in kernel pellicles of walnut. J. Agricul. Food Chem.56, 4444-4449(2008).
		<a href="#">Shimoda H.</a> , <a href="#">Tanaka J.</a> , <a href="#">Kikuchi M.</a> , Fukuda T., Ito H., Hatano T., Yoshida T. Effect of polyphenol-rich extract from walnut on diet-induced hypertriglyceridemia in mice via enhancement of fatty acid oxidation in the liver. J. Agricul. Food Chem.57,1786-1792(2009).
		<a href="#">下田博司</a> コーヒー生豆およびクルミ種皮の肝保護・脂肪肝抑制成分 Foods & food ingredients of Japan 217(1),52-9(2012).
WATERSHIELD EXTRACT	<a href="#">Shimoda H.</a> , Nakamura S., <a href="#">Hitoe S.</a> , <a href="#">Terazawa S.</a> , <a href="#">Tanaka J.</a> , <a href="#">Matsumoto T.</a> , Matsuda H. Anti-adipogenic polyphenols of water shield suppress TNF- $\alpha$ -induced cell damage and enhance expression of HAS2 and HAPB2 in adiponectin treated dermal fibroblasts. Natur. Products Chem. Res.2:5(2014).	
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★ : A study on Oryza products conducted by an outside party.



## List of Halal Authorized Products



Products			Products		
1	BLACK GINGER EXTRACT-P	Food	31	ORYZA FERULIC ACID	Food
2	BLACK GINGER EXTRACT-PC	cosmetic	32	ORYZA FERULIX	cosmetic
3	BLACK GINGER EXTRACT-WSP	Food	33	FUCOXANTHIN-5KW	Food
4	BLACK GINGER EXTRACT-WSPC	cosmetic	34	FUCOXANTHIN-5CKW	cosmetic
5	ORYZA BROCCOLI SPROUT POWDER	Food	35	ORYZA GAMMA ORYZANOL	Food
6	ORYZA BROCCOLI SPROUT EXTRACT	Food	36	ORYZAGAMMA™-V	cosmetic
7	BROCCOLI SPROUT EXTRACT-PC	cosmetic	37	GAMMA ORYZANOL-E	Food
8	BROCCOLI SPROUT EXTRACT -PS1	Food	38	ORYZA GAMMAX®	Food
9	BROCCOLI SPROUT EXTRACT -PSC1	cosmetic	39	KIKU FLOWER EXTRACT-P	Food
10	BROCCOLI SPROUT EXTRACT-EX	Food	40	KIKU FLOWER EXTRACT-PC	cosmetic
11	COCOA EXTRACT-P	Food	41	KIWI SEED EXTRACT-P	Food
12	COCOA EXTRACT-PC	cosmetic	42	KIWI SEED EXTRACT-PT	Food
13	COCOA EXTRACT-WSP	Food	43	KIWI SEED EXTRACT-PC	cosmetic
14	COCOA EXTRACT-WSPC	cosmetic	44	KIWI SEED EXTRACT-WSP	Food
15	CITRUS UNSHIU EXTRACT-P	Food	45	KIWI SEED EXTRACT-WSPC	cosmetic
16	CITRUS UNSHIU EXTRACT-PC	cosmetic	46	KIWI EXTRACT-P1	Food
17	CITRUS UNSHIU EXTRACT-LC	cosmetic	47	KRILL OIL	Food
18	COFFEE BEAN EXTRACT-P	Food	48	LINGONBERRY EXTRACT-J	Food
19	COFFEE BEAN EXTRACT-PCR	cosmetic	49	LITCHI SEED EXTRACT-P	Food
20	COFFEE BEAN EXTRACT-WSP	Food	50	LITCHI SEED EXTRACT-PC	cosmetic
21	COPRINO EXTRACT-P0.5	Food	51	LITCHI SEED EXTRACT-WSP	Food
22	COPRINO EXTRACT-PC0.5	cosmetic	52	LITCHI SEED EXTRACT-WSPC	cosmetic
23	EVENING PRIMROSE EXTRACT-P	Food	53	LITCHI EXTRACT-P	Food
24	EVENING PRIMROSE EXTRACT-PC	cosmetic	54	LUTEIN-P80A	Food
25	EVENING PRIMROSE EXTRACT-WSPS	Food	55	LUTEIN-PC80	cosmetic
26	EVENING PRIMROSE EXTRACT-WSPSC	cosmetic	56	LUTEIN-P80	Food
27	FERMENTED RICE GERM EXTRACT-P	Food	57	LUTEIN-P40	Food
28	FERMENTED RICE GERM EXTRACT-PC	cosmetic	58	LUTEIN-PC40	cosmetic
29	FERMENTED RICE GERM EXTRACT-WSP	Food	59	LUTEIN-20FA	Food
30	FERMENTED RICE GERM EXTRACT-WSPC	cosmetic	60	LUTEIN-P20FA	Food



Products			Products		
61	MAQUI BERRY EXTRACT-P35	Food	94	PERILLA SEED EXTRACT-LC	cosmetic
62	MAQUI BERRY EXTRACT-PC35	cosmetic	95	PERILLA SEED EXTRACT-LOGC	cosmetic
63	MaquiBright™	Food	96	POLYAMINE-P	Food
64	MAQUI BERRY EXTRACT-LC	cosmetic	97	PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-3	Food
65	MAQUI BERRY EXTRACT-J	Food	98	PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-3C	cosmetic
66	MOUNTAIN CAVIAR EXTRACT-P	Food	99	PSORALEACORYLIFOLIAFRUITEXTRACT (PhytoRetinol™)-P1	Food
67	ORYZA CERAMIDE™-PCD	Food	100	PSORALEACORYLIFOLIAFRUITEXTRACT(PhytoRetinol™)-PC1	cosmetic
68	ORYZA CERAMIDE™-PC	cosmetic	101	PURPLE RICE EXTRACT-P	Food
69	ORYZA CERAMIDE™-WSP	Food	102	PURPLE RICE EXTRACT-PC	cosmetic
70	ORYZA CERAMIDE™-WSPC	cosmetic	103	PURPLE TEA EXTRACT-P	Food
71	ORYZA CERAMIDE™-L0.8	Food	104	PURPLE TEA EXTRACT-PC	cosmetic
72	ORYZA CERAMIDE™-LC0.8	cosmetic	105	PURPLE TEA EXTRACT-WSPS	Food
73	ORYZA GABA™ GERM-P	Food	106	PURPLE TEA EXTRACT-WSPD	Food
74	ORYZA GABA™ EXTRACT-C	Food+cosmetic	107	PURPLE TEA EXTRACT-WSPDT	Food
75	ORYZA GABA™ EXTRACT-HC5	Food+cosmetic	108	PURPLE TEA EXTRACT-LC	cosmetic
76	ORYZA GABA™ EXTRACT-F95	Food	109	RED GINGER EXTRACT-P	Food
77	ORYZA GABA™ EXTRACT-F95R	Food	110	RED GINGER EXTRACT-WSP	Food
78	ORYZA PEPTIDE™-P60	Food	111	RED GINGER EXTRACT-LC	cosmetic
79	ORYZA PEPTIDE™ PC60	cosmetic	112	RED RICE EXTRACT-P	Food
80	ORYZA POLYAMINE™-LC(BG30)	cosmetic	113	RED RICE EXTRACT-PC	cosmetic
81	ORYZA POLYAMINE™-P	Food	114	RED RICE EXTRACT-WSP	Food
82	ORYZA PROTEIN™ -P80	Food	115	RED RICE EXTRACT-WSPC	cosmetic
83	ORYZA PERILLA SEED OIL	Food+cosmetic	116	RESVERATROL-P5	Food
84	PASSIONFLOWER EXTRACT-P	Food	117	RESVERATROL-PC5	cosmetic
85	PASSIONFLOWER EXTRACT-PC	cosmetic	118	Safleep™ (SAFFRON EXTRACT)-P	Food
86	PASSIONFLOWER EXTRACT-WSP	Food	119	SAKURA EXTRACT-P	Food
87	PASSIONFLOWER EXTRACT-WSPC	cosmetic	120	SAKURA EXTRACT-PC	cosmetic
88	PERILLA SEED EXTRACT-P	Food	121	SAKURA EXTRACT-LC	cosmetic
89	PERILLA SEED EXTRACT-PC	cosmetic	122	SAKURA SYRUP	Food
90	PERILLA SEED EXTRACT-PO	Food	123	SEABERRY EXTRACT-P	Food
91	PERILLA SEED EXTRACT-POC	cosmetic	124	SEABERRY EXTRACT-PC	cosmetic
92	PERILLA SEED EXTRACT-WSP	Food	125	SEABERRY EXTRACT-WSP	Food
93	PERILLA SEED EXTRACT-WSPC	cosmetic	126	SEABERRY EXTRACT-WSPC	cosmetic
			127	SEABERRY FRUIT OIL	Food+cosmetic

Products			Products		
128	FemBerry™ (STRAWBERRY GUAVA EXTRACT)-P	Food	151	ORYZA RICE GERM OIL	Food・cosmetic
129	STRAWBERRY SEED EXTRACT-P	Food	152	ORYZA OIL S-1	cosmetic
130	STRAWBERRY SEED EXTRACT-PC	cosmetic	153	ORYZA RICE BRAN OIL (こめサラダ油)	Food
131	Lycolift™(TOMATO SEED EXTRACT)-P	Food	154	ORYZA RICE BRAN OIL (オリザこめ油)	Food
132	Lycolift™(TOMATO SEED EXTRACT)-PC	cosmetic	155	ORYZA RICE BRAN OIL (オリザ白しめ油)	Food
133	Lycolift™(TOMATO SEED EXTRACT)-LC	cosmetic	156	ORYZA RICE BRAN OIL (こめ白絞油)	Food
134	TOMATO EXTRACT-P	Food	157	ORYZA RICE BRAN OIL (お米の糠からとれたサラダ油)	Food
135	ResoVine™(VINE TEA EXTRACT)-P	Food	158	ORYZA RICE BRAN OIL (お米のぬかからとれたサラダ油)	Food
136	ResoVine™(VINE TEA EXTRACT)-LC	cosmetic	159	ORYZA RICE BRAN OIL (玄米油)	Food
137	WATER SHIELD EXTRACT-P	Food	160	ORYZA RICE BRAN OIL (オリザの米油)	Food
138	WATER SHIELD EXTRACT-PC	cosmetic	161	ORYZA RICE BRAN OIL (こめ油)	Food
139	WATER SHIELD EXTRACT-WSP	Food	162	ORYZA DRIM V-50	Food
140	WATER SHIELD EXTRACT-WSPC	cosmetic	163	cosmeHerbest™ ORANGE	cosmetic
141	WHITE JELLY FUNGUS EXTRACT- P	Food	164	cosmeHerbest™ KIWI	cosmetic
142	WHITE JELLY FUNGUS EXTRACT- PC	cosmetic	165	cosmeHerbest™ SAKURA	cosmetic
143	YUZU SEED EXTRACT-P	Food	166	cosmeHerbest™ SEABERRY	cosmetic
144	YUZU SEED EXTRACT-PC	cosmetic	167	cosmeHerbest™ STRAWBERRY	cosmetic
145	YUZU SEED EXTRACT-WSP	Food	168	cosmeHerbest™ NADESHIKO	cosmetic
146	YUZU SEED EXTRACT-WSPC	cosmetic	169	cosmeHerbest™ YUZU	cosmetic
147	YUZU SEED EXTRACT-PS20	Food	170	cosmeHerbest™ LITCHI	cosmetic
148	Zanthoxylum Bungeanum Oil (SalivaMoist™) -5	Food	171	cosmeHerbest™ PASSIFLORA	cosmetic
149	Zanthoxylum Bungeanum Oil (SalivaMoist™) -P5	Food	172	cosmeHerbest™ JUNSAI	cosmetic
150	Zanthoxylum Bungeanum Oil (SalivaMoist™) -P10	Food	173	cosmeHerbest™ BLACK CUMIN	cosmetic

※All list of halal authorized products of Oryza were introduced in this chapter.

※Please check with our staff regarding the HALAL status of these products outside Japan, before exporting them.

# Guide to Contract Manufacturing

## 1. Contract Manufacturing operations

Food ingredients, food additives, health food ingredients, functional food ingredients, cosmetic ingredients, pharmaceutical ingredients/intermediates, chemical products, fertilizers, feed, etc.

## 2. Overview of the production process

General-purpose processing

Process	Device name, characteristics, etc.
Extraction	Batch system/organic solvent, water
Filtration, solid-liquid separation	Centrifuge, filter press, sparkler
Heating, distillation, concentration	Simple distillation, vacuum distillation
Cooling, refrigeration, crystallization	-10 °C to room temperature
Column purification	Silica gel, ion exchange resin, and others
Mixing, emulsified dispersion	Various tanks with stirrers attached, high-speed stirrer type homogenizers
Drying	Spray dryer, shelf-type hot air/vacuum dryer, vacuum tumble dryer, vacuum freeze dryer
Crushing, classification	Feather mill
Mixing, granulation	V blender
Subdivision, filling	Liquid, powder/ 5 kg~/ cans, cubitainers, drums etc.

General oil extraction refinement

Solvent extraction, degumming, deoxidation, decolorization, deodorization, wintering
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## 3. Features of Oryza's Contract Manufacturing production

Not only cold and hot water, but a wide variety of organic solvents can also be used.

n-hexane (food additive), fermented ethanol (99 %, 95 %), methanol etc.

24-hour production is possible.

Boiler, utilities such as electricity, shift personnel

From small-scale to mass production

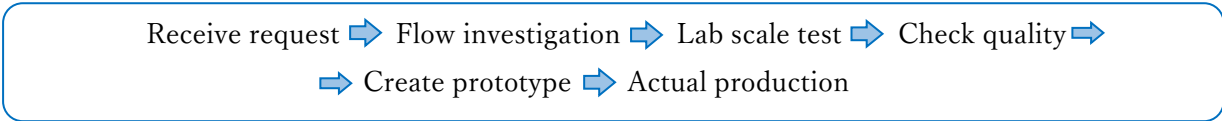
From laboratory scale test production to 5-ton level production

Processing and integrated production other than the above are possible using the networks of partner companies.

Spray dryer, freeze dryer, tablets, capsules, cans, portions, cheer pack filling, etc.

## 4. Contract Manufacturing processing system

Centered around the Production Technical Development Team, we quickly carry out processes toward actual production using an integrated system.



### 5. Convenient access

By car : Approximately 30 minutes from Meishin Ichinomiya IC, approximately 10 minutes from Tokai Hokuriku Expressway Kisogawa IC

By train : Approximately 15 minutes on foot from JR Kisogawa station

Approximately 10 minutes on foot from Meitetsu Kuroda station

Other : Nagoya Port, Chubu International Airport, Komaki Airport

### 6. Production equipment list (There is related equipment other than the list below.)

Device name	Material	Specifications
Reaction tank with stirrer	SUS	With jacket 200-7000 L To 120 °C
Reaction tank with stirrer	GL	With jacket 3000 L
Extraction tank	SUS	With jacket 2000 L 4 units, 3000 L 1 unit, others
Emulsifier	SUS	50 L, 300 L Max revolutions 4300 rpm, high-pressure emulsifier
Basket-type centrifugal device	SUS, RUBBER	Upper drain type 42 to 54-inch Various filters 3 units Lower drain type 1 unit
Filter press, sparkler	SUS, CAST IRON	Filter chamber capacity 50 L to 200 L, all stainless steel available
Column centrifuge device (column tower)	SUS	50 L 2 units, 500 L 1 unit Support silica gel, ion exchange resin, etc.
Spray dryer	SUS	Moisture evaporation 25 kg/Hr, dry powder quantity Approx. 5 kg/Hr
Freeze dryer machine	SUS	Condensation quantity 80 kg/Batch, dry powder quantity 24 kg/Batch
Vacuum tumble dryer	SUS	1000 L, heating/cooling enabled, vacuum level 10 torr
Shelf type hot air dryer	SUS (SS)	Counterflow type, parallel flow type, steam sterilization type 250 to 900 L 3 units
Shelf type vacuum dryer	SUS	190 L 1 unit, 470 L 2 units, vacuum level 5 torr 1 unit
Grinder	SUS	Feather mill 3 units, cutter mill 2 units
Powder mixing machine	SUS	V blender
Deodorizing plant	SUS	Versatile batch system, consecutive processing system, pure water vapor blowing device
Wintering room	SUS	0 to 10 °C, filter equipment built in
Concentrator	SUS	With jacket 200 to 5000 L, defoaming concentrator

Feel free to consult with us on any matter.

Please contact us initially by telephone, FAX, or email.

## Guide to Oryza Oil & Fat Chemical Co. Ltd.

Oryza Oil & Fat Chemical Co. Ltd, based on the concept of “contributing to the health and beauty of people”, is engaged in R&D focusing on lifestyle-related diseases, aging, and cosmetic fields, from the position of preventive medicine and anti-aging.

We are preparing various types of functional food ingredients, using a large amount of food product information. Please feel free to consult us regarding all matters from product planning to OEM production.

### ■ Head office

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### ■ Malaysia representative office

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TEL (+66)2 612 7347

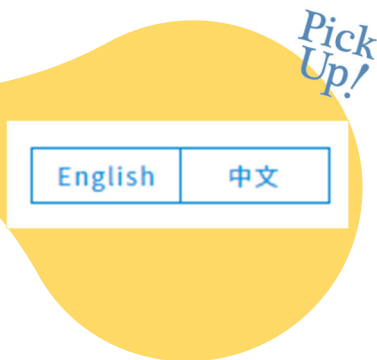
### ■ Vietnam representative office

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## Please make use of the Oryza Oil & Fat Chemical Co. Ltd website

“Contents only for WEB members” are available on the Oryza website.

If you register as a member, you can download the complete Oryza product catalog (in Japanese) .We hope you can make use of this.



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Ver.12

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ORYZA OIL & FAT CHEMICAL CO.,LTD.