



Sustainable Natural Astaxanthin



2022

Photograph: Simone Tramonte



ENVIRONMENTAL
PHOTOGRAPHER
OF THE YEAR 2021



Quality Reliability Sustainability

Algalif is an internationally awarded industry leader in production of high quality sustainable natural astaxanthin from microalgae. We are an Icelandic company and highly committed to sustainability.

At our state of the art production facility in Iceland we only use green renewable geothermal energy and pure pristine natural water. We take pride in being renowned around the world for sustainability, reliability, and superb quality.



*“Our success
is based on our
excellent team
and our sincere
commitment to
sustainability
and quality.”*

Orri Bjornsson
CEO of Algalif Iceland



Icelandic Purity Is Unmatched

Iceland provides the perfect starting point for our algae cultivation – an astoundingly pristine environment, free of contaminants and pollutants; access to abundant, pure natural water; and a continuous supply of green renewable energy.

Algalif follows a comprehensive all-around environmental policy including Zero Fossil Fuel and Zero Waste policies.

A Pristine Environment

Iceland has one of the most pristine environments on Earth and is committed to preserving it. The country is regarded as one of the most sustainable nations in the world.

Pure Water in Abundance

Iceland has clean, natural freshwater in abundance. It is naturally filtered through layers of volcanic rock and is extremely clean, low in minerals and unchlorinated.

Leader In Renewable Energy

Abundant geothermal and hydro resources have made Iceland a global leader in renewable energy. The country generates 100% of its electricity from clean energy. Algalif is a leader in Iceland's fast growing biotechnology and green industry.



Algalif supports the Sustainable Development Goals





Brand New, State of the art Cultivation Facility

Algalif's brand-new cultivation facility in Iceland is designed to deliver high yields of premium quality natural astaxanthin, with full contamination control, and no supply disruptions.

Latest Technology

- A designated scale-up clean room
- Indoor enclosed photobioreactor cultivation system
- Proprietary lighting system

Superior Cultivation Protocols

- High level of astaxanthin content in the dried algal biomass (up to 7%)
- High ratio of pure astaxanthin to other carotenoids ($\geq 95\%$)
- One of the lowest heavy metal profiles in the Industry

Outstanding Processes

- cGMP compliant
- Automated 24/7 monitoring systems
- Full analytical characterization of our products

Pure & Sustainable Inputs

- Pure Icelandic natural water
- 100% renewable geothermal energy
- Algae cultivated using high-quality nutrients ($>98\%$ purity)



How we produce astaxanthin

Algalif has developed a proprietary 3-phase cultivation process based on the life cycle of *Haematococcus pluvialis*.



Pure Icelandic Natural Water



Renewable Geothermal Energy

Green Phase

- 2 Scale Up**
The cultures are transferred to sterile Erlenmeyer flasks and then onto larger cultivation units. Our inoculation photobioreactors ensure a steady flow of clean inoculum to our production units.

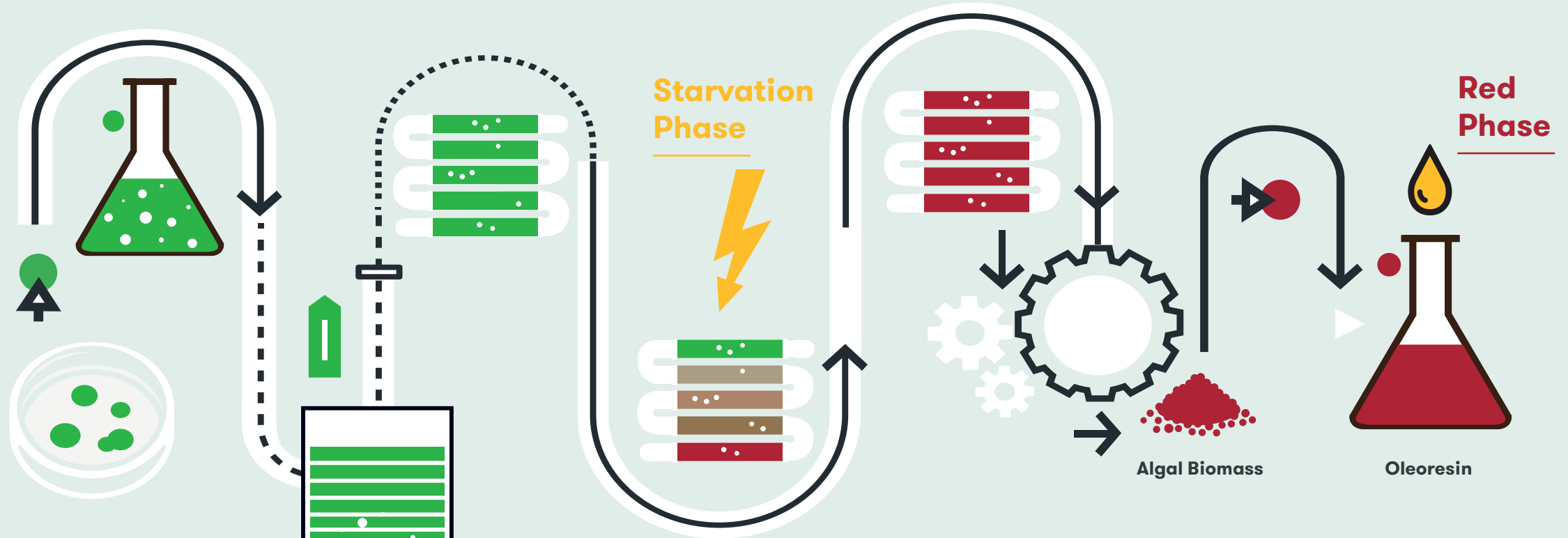
- 1 The Beginning**
The process starts in our clean room where pure algae colonies are cultivated under controlled conditions by a team of dedicated cultivation experts.

- 4 Astaxanthin Synthesis**
The algae culture is gradually exposed to stress conditions to induce rapid astaxanthin synthesis. When a high amount of astaxanthin is accumulated, the culture is harvested.

- 6 Astaxanthin Recovery**
Astaxanthin is recovered using solvent-free, supercritical CO₂ extraction and standardized with high-oleic sunflower oil to produce a premium astaxanthin oleoresin.

- 3 Industrial Cultivation**
Indoor enclosed photobioreactors are used to accumulate a large amount of biomass. All conditions are optimized for rapid growth. When high-cell density is reached, 80-90% of the culture is transferred to the next phase and the remaining culture is recycled.

- 5 Harvesting & Biomass Processing**
The algal biomass is separated from the medium and dehydrated. The algal cells are cracked to produce a high-quality astaxanthin biomass.





Purely Icelandic Astaxanthin

Astalíf Astaxanthin is a powerful natural antioxidant with multiple health benefits and a solid scientific foundation. Produced to rigorous quality and sustainability standards, Astalíf has applications in brain health, eye health, healthy aging, cardiovascular health, muscle endurance/recovery and skin health.

Quality, Safety & Sustainability

- 100% natural
- Non-GMO
- cGMP compliant
- GRAS status in the United States
- Novel Food in Europe
- Gluten-free
- One of the lowest heavy metal profiles in the industry
- Allergen-free
- Organic solvent-free
- Cultivated with pure Icelandic natural water
- Facility 100% powered by renewable geothermal energy



Whole-Body Protection

The numerous health benefits of natural astaxanthin are documented by extensive research, including over 46 human clinical trials and more than 252 peer-reviewed papers*.

Brain Health, Eye Health & Healthy Aging

Improves cognitive function in healthy seniors.
Delays aging through reduced oxidative damage of blood lipids and delays age-related vision degeneration.

Cardiovascular Health

Reduces oxidative stress and inflammation
Improves lipid profiles and promotes better blood flow in capillaries.

Muscle Endurance & Recovery

Improves muscle endurance and strength
Prevents exercise-induced free radical production
Inhibits the formation of lactic acid and prevents muscle fatigue.

Skin Health

Reduces hyperpigmentation, wrinkle formation and collagen breakdown. Improves skin elasticity and moisture content. Prevents UV-induced skin thickening.

*For more details please visit algalif.com



The Antioxidant Powerhouse

Natural astaxanthin is a carotenoid (organic colour pigment) produced by the microalgae *Haematococcus pluvialis* as a defense mechanism against harsh environmental conditions. For humans, natural astaxanthin is one of the most powerful antioxidants known, with numerous health benefits supported by extensive scientific research, including clinical trials.





Natural Astaxanthin Promotes Healthy Oxidative Balance






The human body naturally produces free radicals, harmful molecules that can damage our cells, resulting in a condition called ‘oxidative stress.’ Many factors in everyday life such as pollutants, unhealthy diet, excessive sun bathing, heavy exercise and smoking can further increase the number of free radicals in the body, causing premature aging and several disorders. Antioxidants like natural astaxanthin help to counteract the damaging effects of these free radicals, promoting a healthy oxidative balance.

A Superior Antioxidant

Natural astaxanthin is stronger than other antioxidants. Due to its unique chemical structure, natural astaxanthin can neutralize many different types of radicals both at the surface and interior of the cell membrane, giving better overall protection. Unlike other antioxidants, natural astaxanthin does not become a pro-oxidant, which can bring harm to the body.

algalif Algalif product list

	Product	Description	MOQ	Packaging size	Packaging type	Packaging measure	Gross weighth	Certification	Notified	
Astalif oleoresin		Astalif 5 5% astaxanthin oleoresin	50 kg	5 kg	Plastic drum	21x21x33	6 kg	Non Gmo	Carbon Neutral certified	Vegetarian
10 kg				Plastic drum	29x29x39	11,8 kg	Halal	US FDA GRAS-recognized	Non-allergenic	
20 kg				Plastic drum	33x33x45	22,3 kg	Kosher	EU Novel Food-authorized	cGMP-produced	
Astalif oleoresin		Astalif 10 10% astaxanthin oleoresin	25 kg	5 kg	Plastic drum	21x21x33	6 kg	Non Gmo	Carbon Neutral certified	Vegetarian
10 kg				Plastic drum	29x29x39	11,8 kg	Halal	US FDA GRAS-recognized	Non-allergenic	
20 kg				Plastic drum	33x33x45	22,3 kg	Kosher	EU Novel Food-authorized	cGMP-produced	
Astalif oleoresin		Astalif Crude Crude astaxanthin oleoresin 13% - 20%	20 kg					Non Gmo	Carbon Neutral certified	Vegetarian
							Halal	US FDA GRAS-recognized	Non-allergenic	
				10 kg	Plastic drum	29x29x39	11,8 kg	Kosher	EU Novel Food-authorized	cGMP-produced
Astalif powder		Astalif Powder 5% Astaxanthin powder	50 kg	10 kg	Vacuum bag	*58x22x38	11,1 kg	Non Gmo	Carbon Neutral certified	Vegetarian
				50 kg	Vacuum bag	*58x22x38	51 kg	Halal	US FDA GRAS-recognized	Non-allergenic
								Kosher	EU Novel Food-authorized	cGMP-produced

	Product	Description	MOQ	Packaging size	Packaging type	Packaging measure	Gross weight	Certification		Notified
Softgel capsules										
 Iceland Harvest	Iceland Harvest 4 mg bulk	4 mg vegetarian softgel capsules	120.000 capsules	Box of 15.000	Paper box	37 x 24 x 16	5.5 kg	Carbon Neutral certified		Vegetarian
									US FDA GRAS-recognized	Non-allergenic
									EU Novel Food-authorized	cGMP-produced
In plastic jars										
 Iceland Harvest	Iceland Harvest jar of 60 x 4 mg	Jar of 60 x 4 mg vegetarian softgel capsules	1.728 jars	Jar of 60 capsules	Plastic glass	5.5x5.5x9.7	50 g	Carbon Neutral certified		Vegetarian
				24 jars in a box	Paper box	24x32x12	1.2 kg		EU Novel Food-authorized	Non-allergenic
				72 boxes on a pallet	Pallet	80x120x110	100 kg		US FDA GRAS-recognized	cGMP-produced
Beta Glucan										
 Nutramunity	Nutramunity Beta Glucan	Extra Washed 1,3/1,6-Beta Glucan from yeast	20 kg	Box of 10 kg	Paper box	30x40x29	10.8 kg	Informed-sports®	EU Novel Food-authorized	Vegetarian
				Box of 25 kg	Paper box	30x40x60	26.7 kg	Informed-choice®	US FDA GRAS-recognized	Non-allergenic
								Non Gmo Halal Kosher		GMP-produced
Beadlets										
 AstaBead™	Astaxanthin 2.5%DG/Q	Specifically formulated for use in powdered drink mixes and beverages. It offers quick dissolution when added to water.	100 kg	Box of 25 kg	Aluminium bag in a card-board box	Box of 25 kg		Non Gmo		Vegetarian
							Halal		Non-allergenic	
	Astaxanthin 5%DG/Q						Kosher			
Beadlets										
 AstaBead™	Astaxanthin 2.5%DC/AFN-X	Astaxanthin beadlets used for nutritional bars and soft tablets. It offers direct compressibility without oil extrusion and discoloration of tablets.	100 kg	Box of 25 kg	Aluminium bag in a card-board box			Non Gmo		
							Halal		Vegetarian	
	Astaxanthin 5%DC/AFN-X						Kosher		Non-allergenic	



Get your quote at sales@algalif.com



Algalif's new state of the art astaxanthin production facility in Iceland will be fully operational in 2023.

Head office, Sales and Cultivation Facility in Iceland

Algalif Iceland ehf.
Bogatrod 10
262 Reykjanesbaer
Iceland

Website

www.algalif.com

Contact info

Tel: +354-571-1066
sales@algalif.com
info@algalif.com



Algalif's Knowledge Center



Printed on environmentally certified paper from UPM Communications Papers

