

## Uses & Benefits Of Thorvin – Certified Organic Kelps

Thorvin products support optimal health by delivering a **complex array of bioavailable minerals, vitamins, and beneficial phytonutrients, including polysaccharides and antioxidants.** Our organic kelp ingredients and branded formulas support a range of applications and will enhance the benefits of both existing and new products.



Ingredients for  
Animals, Plants and Pets



### Animal Feed

Healthy animals require a balanced diet, including many vitamins and minerals not found in today's forages or feed. As an exceptional source of essential micronutrients and complex phytonutrients, Thorvin is fed to hundreds of thousands of livestock across North America.

### Plant Nutrition

Thorvin offers a range of kelp-based solutions for commercial and market farmers. Whether delivered in a fertilizer blend or as a standalone application, Thorvin mineralizes the soil, supports plant growth, and contributes to the nutrient density of crops, vegetables and fruits. Earthworms love Thorvin, too.

Thorvin sources several species of seaplants to meet your specific application or nutrient profile. To satisfy your formulating requirements, Thorvin is available in granules, fine, and powder mesh sizes. Complete analysis, specifications, and samples are available upon request.

### Pet Food and Supplements

A plant-based complex, Thorvin delivers readily utilized micronutrients, while its phytonutrient attributes support healthy skin, coat, and digestion. Thorvin is also a 100% natural botanical iodine source. Pets thrive on Thorvin<sup>SM</sup>

Thorvin, Inc., 49 Race Street, P.O. Box 730,  
New Castle, VA 24127

800.464.0417  
Office 540.864.5108  
Fax 540.864.5161  
sales@thorvin.com  
thorvin.com

Harvested from the cleanest  
seaweed beds on earth

Nature's most nutrient-rich source of  
minerals, vitamins, and phytonutrients

Dried with geothermal energy to  
preserve Thorvin's goodness

## Seaplants Are Powerful Bioaccumulators

Seaplants, or sea vegetables, absorb nutrients from the seawater directly through their leaf-like fronds. Land plants, in contrast, can only feed from the limited minerals present around their roots.

Remarkably, seawater contains all the essential minerals for sustaining our lives – in the same ratios as in the human blood stream. Perhaps this is why the sea is described as a source of life—the Mother.

Kelps are among the most useful species of seaweeds. The most valuable kelps grow in cold, mineral-rich waters and grow more slowly. These kelps collect minerals, vitamins, enzymes, amino acids, and other beneficial bioactive properties.

Producing effective products from these kelps requires careful selection, management, harvesting, drying, and handling.

### The World's Finest Nutrient Source

Thorvin selects the best species of sea vegetation from seasonal harvests to deliver the World's Finest Nutrients, for enhancing foods and nutraceuticals, personal care products, pet food, animal feeds, and plant foods.



### Cleanest Site on Earth

Thorvin's leading products are harvested in a magnificent certified organic area of the Breidafjord in northwest Iceland, near the Arctic Circle. Here, conditions are perfect for the growth of spectacular kelps.

### Abundantly Rich Sea Water

The waters of the fjord are richly mineralized by many geothermal vents in the ocean floor, supplying deep earth minerals; by glacial milk (gletscher milch) rivers, which carry fine minerals from surrounding glaciers; and by the nearby upsurge from the meeting of Arctic and Gulf currents.

### Careful Harvesting

Selected kelps are fresh cut from managed beds using sustainable harvest methods that protect the biodiversity of the fjord. Only a tiny percentage of the annual new growth is harvested each year. The kelp is immediately brought to the dryer, near the harvest area.



### Special Dryer Preserves Thorvin's Essence

Thorvin is fresh-dried at controlled low temperatures, protecting its biological values and preventing surface oxidation or browning. The dryer is powered by indigenous geothermal hot water, a renewable resource.



### Certified Organic

Thorvin is the finest certified organic kelp available. Independent inspection verifies that the site meets organic production standards as a wild crop harvest, which requires sustainable harvesting practices, cleanliness of site, and protection of biodiversity. The organic guarantee is a way to safeguard our ocean's nurseries – the kelp beds – for future generations.



### Certified Kosher

The gold standard for cleanliness, Thorvin is Certified Kosher by Star-K. Whether your customers follow kosher dietary rules or not, kosher stands for purity, so you can be confident that our kelp ingredients are of the highest quality.



### OMRI Listed

Thorvin formulations for agricultural uses are also OMRI Listed (Organic Materials Review Institute) for organic production.

Dear Friends,

*Seaweeds became a passion for me in 1971, while I was working with Bucky Fuller, studying the impact of human behavior on Earth's resources. I discovered that the locals ate seaweed, fertilized their gardens, fed their livestock, and banked the foundations of their buildings with seaweed in order to insulate against the cold and winter wind. What useful plants!*

*Since that summer, I've learned a great deal more about the oceans and the plants that grow in them. To date, over 25,000 species of seaplants have been identified. They are a sustainable resource and produce the majority of our oxygen and carbon collection.*

*I've searched the world for the finest sea vegetables and the best ways to capture their value. I am pleased to offer several species through our Thorvin brand, and am especially proud of our certified organic kelps from Iceland, the finest certified organic kelps available in commercial quantities.*

*Thorvin is useful in foods, supplements, cosmetics, fertilizers, and animal feeds. Think Thorvin for healthy people, and for healthier soils, plants, and animals.*

*Working together for a greener planet, we are making a difference.*

Bill Wolf  
President