



SEAWEED POWDER

Botanical Name: *Ascophyllum nodosum*

Scientific classification

Domain: Eukaryota
Kingdom: Protista
(unranked): Chromista
Phylum: Heterokontophyta
Class: Phaeophyceae
Order: Fucales
Family: Fucaceae
Genus: *Ascophyllum*
Species: *A. nodosum*

Ascophyllum nodosum is a large, common, brown alga, in the Class Phaeophyceae. It is seaweed of the northern Atlantic Ocean, also known as Norwegian Kelp, Knotted Kelp, knotted wrack or egg wrack. It is common on the north-western coast of Europe (from Svalbard to Portugal) including east Greenland and the north-eastern coast of North America. *Ascophyllum* is very popular amongst the science community and has been claimed to be both the best known seaweed on the planet as well as the most researched by the academic community.

Description

Ascophyllum nodosum has long fronds with large egg-shaped air-bladders set in series at regular intervals in the fronds and not stalked. The fronds can reach 2 m in length and are attached by a holdfast to rocks and boulders. The fronds are olive-brown in color and somewhat compressed but without a mid-rib.

Life history is of one diploid plant and gametes. The gametes are produced in conceptacles embedded in yellowish receptacles on short branches.

Varieties and forms

Several different varieties and forms of this species have been described.

- *Ascophyllum nodosum* var. minor has been described from Larne Lough in Northern Ireland.

There are free floating ecads of this species such as *Ascophyllum nodosum mackaii* Cotton, which is found at very sheltered locations, such as at the heads of sea lochs in Scotland and Ireland.



Ecology

Ascophyllum nodosum is found mostly on sheltered sites on shores in the mid-littoral where it can become the dominant species in the littoral zone. The species is found in a range of coastal habitats from sheltered estuaries to moderately exposed coasts, often it dominates the inter-tidal zone (although sub-tidal populations are known to exist in very clear waters). However it is rarely found on exposed shores, and if it is found the fronds are usually small and badly scratched. This seaweed grows quite slowly and can live for several decades; it may take approximately five years before becoming fertile. *Polysiphonia lanosa* (L.) Tandy is a small red alga, commonly found growing in dense tufts on *Ascophyllum* whose rhizoids penetrate the host. It is considered by some as parasitic.

Uses

Ascophyllum nodosum is harvested for use in alginates, fertilisers and for the manufacture of seaweed meal for animal and human consumption. It has long been used as an organic and mainstream fertilizer for many varieties of crops due to its combination of both macronutrient, (eg. N, P, K, Ca, Mg, S) and micronutrients (eg. Mn, Cu, Fe, Zn, etc). It also host to cytokinins, auxin-like, gibberellins, betaines, mannitol, organic acids, polysaccharides, amino acids, and proteins which are all very beneficial and widely used in agriculture. Ireland, Scotland and Norway have provided the world's principal alginate supply.

Medical Uses

Ascophyllum nodosum may reduce, or even eliminate, not only bacterial plaque and dental caries but also arteriosclerotic plaque, atherosclerotic plaque, pleural plaque, renal calculus, biliary calculus, and prostatic calculus. Furthermore, the medicinal and dental uses have been recognized for well over a century.

Top 10 Natural Seaweed Skin Care Health Benefits

1. Get Rid of your Acne Toxins - Purifying & Detoxifying

Seaweed is high in anti-bacterial properties that works well for the treatment of acne. Red seaweed for example is best for drawing out impurities and toxins and regulating oil levels on your face. When applied topically, seaweeds draw out toxins from our body and your skin will absorb its nutrients through the pores. Beauty treatments such as face mask or spa treatments using natural red seaweed ingredients is popular for oily or acne prone skin because of it's ability to work gently to purify and detoxify whilst promoting circulation and healthy skin rejuvenation.

2. Look years younger with its anti aging effects - Potent antioxidants and cell regenerating properties

The vitamins, minerals, amino acids, and enzymes present in sea seaweeds, are potent antioxidants with a lot of skin healing and rejuvenating properties. Seaweed does wonders to aging skin by working to promote tissue regeneration activities in the skin to create skin elasticity. It maybe one of the reasons why the Japanese people have such youthful looking skin. Much of their diet and skin



care ingredients is dominated by the use of seaweed and in particular Wakame. For an external treatment, a seaweed bath can help to maintain hormone balance, and increase blood flow at the surface of the skin to make your skin more supple, smooth and radiant, for a more youthful appearance.

3. Prevents and Treats Diseases and Ailments

Seaweed captures all the richness from the sea. A good protective food, valuable in overcoming poor digestion, preventing and overcoming goiter (because it is the richest source of iodine), and rebuilding and maintaining the proper function of all glands. Reported to aid in brain development, prevent osteoporosis and helps to detoxify the body. Seaweed is noted for being ten times richer in trace elements than land plants.

4. Have shining Lustrous Hair - Rich Nourishing & Mineral Properties

Beautiful shining hair and healthy hair growth is the result of a diet rich in vitamins and minerals. Seaweed helps to nourish the hair by feeding the shafts and the ducts of the scalp with nutrients to help improve the health of the hair. Seaweed has a complete spectrum of chelated minerals, which makes it easy to absorb into your hair giving dull lifeless hair their texture and shine.

5. Treatment for Chronic Dry Skin - Hydrating, Nourishing and Ability to Penetrate Deep Into the Skin

Continual use of natural seaweed skin care can increase levels of skin hydration and to promote a healthy glowing complexion. Seaweed is full of lipids, proteins, minerals and vitamins, which are easy to absorb to deeply moisturize and nourish the skin. Research also shows that nutrients from seaweeds are better able to penetrate deep into the skin more efficiently than other skin care ingredients to help your skin maintain its firmness and hydration.

6. Improve Skin Tone & Blotchy Skin Colour - Re-mineralizing & Nourishing

Seaweed is packed with high concentrations of minerals such as fluorine, magnesium and calcium which will enable you to achieve and restore a radiant skin complexion. The minerals contained in seaweed help to maintain the skin's natural moisture balance - which is neither too dry or too oily.

7. Helps to Tone Your Skin and Loss Weight

Oxygenating & Activates Cell Metabolism-Slimming Action & Increase Blood Flow Loss weight - that's a bit far fetching you might say! Well, seaweed can help in controlling obesity because it can dissolve fatty wastes through the skin, improve blood circulation, and increase metabolism, all of which helps to maintain the tone of the fatty tissues to create a slimming action. Combine seaweed into a massage for approximately 10 minutes and the oxygen content on the massaged areas will have increased by up to 15 percent! Lymphatic drainage is also improved since the strokes and pressure on the skin helps in the release of toxins.

8. Seaweed is Chemical Free Meaning it's Natural, Organic and Pure

Unlike a lot of fruits and vegetables which are picked from land which are treated with large amounts of pesticides, herbicides and fungicides, seaweed in the deep seas is as pure as they come. You can be sure that there are no artificial genetic manipulation or fertilizers used meaning what you are putting on and into your bodies is chemical free.



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9. Great for Sensitive Skin Types, and People with Eczema or Rosacea

Seaweed is known for its anti-inflammatory actions as well as its therapeutic properties in the treatment of sensitive and allergy-prone skin. Seaweed is high in vitamins B1, B2, B3, B6, and B12, which is useful in protecting the skin's surface and reducing inflammation. It is used as an active ingredient for many in modern skin care products because of its natural tendency to reduce excessive irritation and redness.

10. Seaweed can Help Treat Diabetes

Seaweed could hold the secret to curing diabetes. Tests have been done to take "Alginate" from seaweed and wrap it around insulin-producing cells and inject it into patients' bodies. Some sufferers have been 'cured'. Still, further tests need to be done, but the future is looking bright for diabetes sufferers.