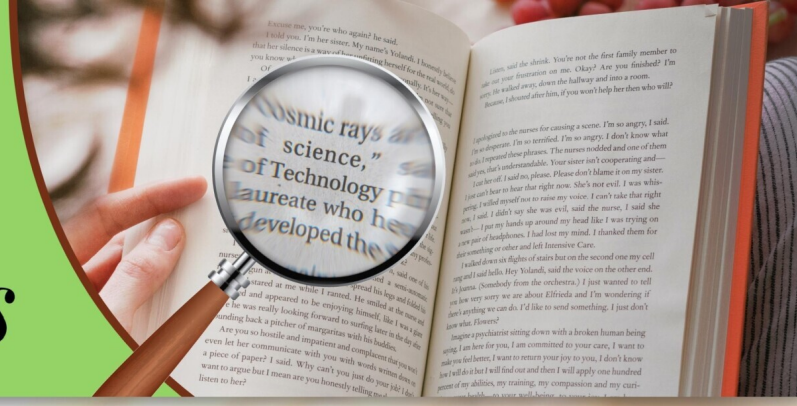
BaronE Health Reviews



Algae and sustainable food?

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Holistic Natural Health Experts

About us

Why Barone Health Reviews ?

Because today, although there is an incredible amount of information on the internet about health, finding authentic, professional, unbiased knowledge that is accessible to everyone's understanding is difficult.

In this era of technology and globalization, where there is an overwhelming amount of information, this may seem shocking but it is the sad truth. A responsible, self-reliant person can spend months searching for answers and solutions for their health and never find them.

On the internet, it is possible to find all types of information on health: courses, products, methods, practices, advice, opinions, explanations, scientific studies, devices, techniques, medicines, life experiences, anatomy, biology, medical research, etc...

Drowning in this ocean of health content, how can an average person tell the difference between lies and truths, misinformation and information, propaganda and knowledge, technical data and knowledge applicable to daily life?

How is this different from ebooks, webinars, articles, etc.?

Like all content created by Holistic Natural Health Experts, the health review contains our independent expert opinions, tips and recommendations for anyone looking to improve their health.

However, the review offers you a different perspective. Unlike our articles, ebooks and webinars, where we develop our knowledge of a specific health topic with you, in the health analysis, we start from an external source that we dissect and analyze.

What will I learn?

By dissecting and analyzing these external sources, we show you how we avoid the countless traps present in the majority of content available on the internet (especially free content). A bit like a magician revealing his tricks!

By bringing to light what is hidden behind a so-called "revolutionary" method, a "miracle product" or a so-called "holistic" medicine, you realize what is really possible and what is charlatanism or simply pure fraud.

This way, you make better decisions for your health, based on knowledge and true understanding.

Who are the Barones ?

We are a family of three holistic health experts. Barone Santé is the name of our natural medicine practice in Switzerland, opened since 1993. Barone is simply our last name: Marina, Pascal and Philippe-Abraham Barone.

We have over 30 years of training and experience and have helped over 5,000 clients improve their health through natural medicines.

In 2021, our health education and online consultation platform is born: Holistic Natural Health Experts.

Since then, we never stop working for the health of our patients and developing this platform for all people who want to learn about health and gain independence.

Original article

https://www.medicalnewstoday.com/articles/best-food-forward-are-algae-the-future-of-sustainable-nutrition

> *Best food forward: Are algae the future of sustainable nutrition?*
>
> *By Corrie Pelc on March 4, 2023 — Fact checked by Rita Ponce, Ph.D.*
>
> *For years now, scientists have been telling the world we are starting to run out of land to grow crops and raise farm animals, causing future food concerns. Researchers are now looking for different ways of growing nutritious foods to replace the ones whose cultivation is no longer as sustainable. One of these is algae.*
>
> *The first title of this article starts off badly, as it asks whether algae is the future of sustainable food. It is terrible this habit of wanting to find a leading food at the head of sustainable food, whereas healthy food is based on food diversity.*

We will see later that the real motivation is to transition from devastating agriculture to healthier food production, but always with the aim of monopoly, control, and, therefore privatization of profits.

In the statement: "to replace those whose cultivation is no longer sustainable", is there any mention of livestock? Because breeding is not a culture! And it is not sustainable, no matter how it is done! Remember that we are talking about individuals killed by hundreds of billions every year for nothing.

> *Could algae become a staple of our daily meals?*
>
> *As the world's population continues to increase, the need for food also increases. However, research shows we are quickly running out of farmable land.*

Seaweed should already be a daily part of a healthy diet. So there is no question about it.

In fact, Marina Barone, co-founder of Holistic Natural Heath Experts, prefaced the book of Carole Dougoud, an expert in the culinary use of seaweed:

https://www.payot.ch/Detail/les_algues_de_a_a_z-carole_dougoud_chavannes-9782889112845

Using the phrase "research shows" immediately gives scientific authority to the statement that arable land is rapidly being depleted.

However, it is this same "research", defended by those who were saying the same thing: "The increase in the world's population is accompanied by an increase in the need for food", that justified the "green" revolution.

Here is how and why this devastating agriculture was born:

https://www.youtube.com/watch?v=ICa3b0q3pFE

The green revolution, in fact, the industrialization and chemization of agriculture, began after the war, in the 1960s. After having knowingly caused the destruction of soils, it was given a face-lift in the 1990s to try to reconcile the irreconcilable: pesticides, GMOs, and fertilizers with healthy food and sustainable agriculture.

This vast joke is therefore the cause of the destruction of soils and therefore the cause of the depletion of cultivable land.

Let's not forget that the industrialization of agriculture has allowed the explosion of livestock farming. Today, 80% of arable land is used to feed livestock, which causes deforestation and soil destruction. Let's also add fishing, a great destroyer of ocean life, of which an important part is used to transform fish and marine mammals into food in the form of meal for farm animals.

> *According to the Food and Agriculture Organization of the United Nations, the world can lose up to 250 million crop production acres by 2050 due to urbanization, soil degradation, and climate change.*

The Food and Agriculture Organization of the United Nations (FAO) is concerned about the loss of agricultural soils, but was it not the FAO that encouraged destructive agriculture, which is also responsible for the loss of ancestral agricultural knowledge?

Only a short-sighted view of the future and a great ignorance of soil life could make us believe for a moment that life-destroying agriculture is the future of humanity. In fact, there was neither, but only a limitless greed.

There is no way out if we kill the soil, as Claude and Lydia Bourguignon explain very well.

https://www.youtube.com/watch?v=tf2zNgrzWg0

https://www.youtube.com/watch?v=K7wbDr_P8NU&t=173s

Let's look at the reasons given in this article that mix responsibilities to create a kind of eco-anxiety that we discussed in a previous analysis.

First reason: urbanization

From the very beginning of the massive and uncontrolled urbanization, voices were raised to oppose this crazy development. Unfortunately, financial interests and systemic institutional corruption have been enough to make the agricultural programs associated with massive, uncontrolled urbanization totally unreasonable.

The concreting, deforestation, draining of wetlands, detour of waterways, and land consolidation have caused considerable damage, and those responsible should now pay the price.

Second reason: soil degradation

Here the responsibility of the agribusiness multinationals is indisputable. Not only is there no government that does not ask them for any compensation, but they still control the agricultural program of most countries. They have even come to own the seeds without any major country standing in their way. Unbelievable but true. Land grabbing is also allowed without limits and this goes against the common good.

To better understand what is at stake for the planet and our health, don't miss the film by Vandana Shiva, one of the most active activists for sustainable, organic and peasant agriculture.

https://vandanashivamovie.com/

Third reason: climate change

This reason is fashionable. However, let's distinguish in climate change what depends on man and what does not.

Let's look at the activities that are harmful to nature and depend on humans:

- Deforestation
- The destruction of biodiversity
- Animal husbandry
- Depletion and detour of water
- All pollutions (air, water, soil)

Finally, all these points are connected in one way or another to the "green revolution".

The circle is complete, allowing us to identify how we got here and why fully.

The why is very important, because if we do not understand the mechanisms and forces that have generated the current disaster, it will inevitably be repeated in another form in the future.

> *And factors like climate change, maintenance costs, and access to water are causing problems with raising livestock.*

Yes! But this has been known for over 60 years. So why did the same people making this observation today encourage these practices in the past? Before World War II, meat consumption was minimal (with rare exceptions). Then, propaganda was pushed to the limit so that the consumption of meat, dairy products, eggs and fish, and all their derivatives, became the daily diet of billions of people, leading to ecological disasters and diseases.

What is the real message of this sentence? If water supply was not a problem, would we continue to raise livestock? Or is it all just a global alibi because the time has come for those who still want to control the food chain to impose their solutions on us?

> *As people need to eat to survive, researchers are now looking for alternative food options that are more sustainable, yet still provide the nutrition people require to thrive.*
>
> *For these reasons, some scientists believe algae may be the answer.*

One word reveals the matter: the need to eat to survive. Survive? Perhaps it is time that individuals are no longer considered an undifferentiated living mass allowed to survive.

Then comes the word thrive! Either we survive or we thrive, let's agree. So, researchers are looking for alternative solutions for us to thrive, but alternatives to what?

Neither meat nor any animal product is necessary for our food fulfillment. And we don't need researchers to tell us what to eat.

This ambivalence shows how everything is a matter of calculation. When we approach the question of food without any ethics, it can only go wrong again.

> *What are algae?*
>
> *Algae are naturally occurring water-based, simple photosynthetic organisms. They grow in all types of natural bodies of water, both fresh and saltwater.*
>
> *Like all plants, algae live by using photosynthesis to create their own nutrients and add oxygen to the air and water around them. Unlike other aquatic plants, algae do not have any leaves, roots, or stems.*
>
> *Algae can range in size from extremely small microalgae to large colonies of seaweed. It is a diverse group that includes blue-green, green, red, and brown algae.*

Seaweed, which we could call the vegetables of the sea, has been part of the human diet for thousands of years.

Seaweeds do not belong to anyone since they can be harvested directly from the sea, except for those that are cultivated like wakame or nori.

Moreover, the cultivation of seaweed should be developed more widely, thus allowing the farmers of the sea to live correctly.

Then there are the microscopic algae such as spirulina. The particularity of spirulina is that it can be easily cultivated at home, even in apartments!

It remains to develop small basins and all the necessary kit for a successful culture.

https://spiruline-akalfood.com/cultiver-spiruline-chez-soi/

However, spirulina is now available in all countries and its consumption is highly recommended for its nutritional benefits.

> *Previous studies have shown that different types of algae have potential medicinal benefits. For example, one study found that red marine algae could help treat fatty liver disease.*
>
> *And other research found that taking spirulina — a type of blue-green algae — may help lower blood pressure.*

Seaweeds, like all natural foods, have nutritional properties and biological activities that support health. Basil and tarragon have digestive properties, hibiscus lowers blood pressure, lemon circulates energy and helps the liver in its functions, garlic is anti-infectious, anti-hypertensive and vermifuge, cinnamon is anti-infectious and warming, we could go on and on because all healthy foods contribute to our health.

Medicinal plants have a more concentrated and specific therapeutic action, which is why they are used in natural medicine.

It is therefore useless to boast about the consumption of seaweed under the pretext of its medicinal virtues.

> *What makes algae nutritious?*
>
> *According to Dr. Stephen Mayfield, a professor of biology at the University of California, San Diego, director of the California Center for Algae Biotechnology, and senior author of the study "Developing Algae as a Sustainable Food Source," algae are, biochemically speaking, a superfood.*
>
> *That is because of their high content of protein, essential fatty acids, minerals and vitamins.*
>
> *"Part of that is because algae [don't] have to have stems, roots, or branches to hold [themselves] up, so [they] dedicate all of [their] energy to making more protein, fatty acids, etc., rather than cellulose," Dr. Mayfield explained.*

Indeed, algae are a very important nutritional source.

Here is for example the composition of spirulina:

Average standard analysis for: 100g

Vegetable protein 63.0 g, Carbohydrates 22.0 g, Fat 2.2 g, Minerals 8 g, Fiber 7 g, Chlorophyll 600 mg, Calcium 1000 mg, Phosphorus 800 mg, Magnesium 400 mg, Iron 58 mg, Zinc 3 mg, Copper 1.2 mg, Calcium 1000 mg, Manganese 5 mg, Chromium 0.3 mg, Potassium 1400 mg, Chlorophyll 600 mg 3 mg, Gamma linoleic acid 1000 mg, Vitamin E 10 mg, Vitamin A (beta-carotene) 212 mg, Vitamin B1 3.5 mg, Vitamin B2 4 mg, Vitamin B3 13 mg, Vitamin B5 2 mg, Vitamin B6 6 mg, Vitamin B8 0.005 mg, Vitamin B9 0.05 mg, Vitamin B12 0.35 mg, Gamma linoleic acid 1000 mg, Vitamin E 10 mg

There is no other food that can give you so much protein in so little quantity.

Although the composition of an active vitamin B12 is still debated, we have indicated its content as an example. B12 supplementation is perhaps the most readily available supplement.

Spirulina and chlorella have a very low iodine content because they are derived or cultivated in fresh water. They can therefore be consumed by anyone who has restrictions in iodine intake (for example thyroid problems).

A daily consumption of 3 to 6 g of spirulina is strongly recommended.

Seaweeds have a different composition and are an extremely important source of iodine.

Here is a simplified composition of dulse for 100 gr:

Protein 17,2 gr, Carbohydrates 21,8 gr, Fat 1,4 gr, Fiber 28,9 gr, Magnesium 222 mg, Potassium 7040 mg Calcium 411 mg Iron 35,2 mg, Iodine 28,9 mg, Sodium 1547 mg, Vitamin C 83,9 mg

Thus, by consuming even 2 grams of dried seaweed flakes on your salad, you will have more than your daily iodine intake.

https://lafourche.fr/products/marinoe-salade-du-pecheur-en-paillettes-35g

One bag is enough for 2 weeks!

> *"It is one of the oldest plant foods in the world," Dr. William Sears, pediatric and family medicine practitioner and author of The Healthy Brain Book told Medical News Today.*
>
> *"There are thousands of species of algae and each one produces lots of healthy nutrients we all need, but most of us don't eat enough of [them]," he noted. "[They are] a rich source of B vitamins, vitamin K, iron, magnesium, calcium, iodine, and more."*
>
> *"The root cause of many illnesses is oxidation — wear and tear on the body," said Dr. Sears. "Algae [are] rich in antioxidants. Many different microalgae species are rich sources of different antioxidants."*
>
> *"Only a small fraction of algae species have been consumed by humans, but those are well known for their nutrient density and quality," added Aletta Mayorga, head of research and development at the pregnancy nutrition company Needed.*

"Most of us don't eat enough...". Normal, and whose fault is that? Who promotes junk food from morning to night in the media? One only has to look at the food served in hospitals or schools to understand how systemic the corruption of institutions is.

> *"The microalgae chlorella and spirulina, for example, contain 50-70% by dry weight, including all nine essential amino acids, and edible macroalgae like seaweeds are a great source of gut-friendly soluble fiber."*
>
> *– Aletta Mayorga*
>
> *Additionally, Mayorga said, algae provide a source of vegetarian-friendly omega-3 fatty acids, such as docosahexaenoic acid (DHA).*
>
> *"Although we primarily think of fish as being a key omega-3 source in the human diet, fish do not produce omega-3s on their own but rather consume them from algae and plankton," she explained. "And according to this study, DHA from algae oil is as bioavailable as DHA from cooked salmon."*

One of the biggest deceptions of health institutions has been to promote fish consumption for its omega 3 content, mainly DHA and EPA, when fish do not produce them!

This is a horrible, evil lie motivated by the astronomical profits from the sale of fish oil, a multi-billion dollar industry.

So, where do the omega 3 DHA and EPA come from?

First, from our own synthesis, because we can synthesize them from the first omega 3, alpha linolenic acid, which is found in abundance in plant sources; then, by consuming algae, as do fish, which cannot synthesize them.

We have developed this subject in our book: "Healthy Food: Your Fundamental Right".

> *What makes algae sustainable?*
>
> *According to Dr. Mayfield, we need to look for alternative protein sources as the world needs more protein right now.*
>
> *"And we do not have additional cropland to grow more soybeans or other legumes, which are plants rich in protein," he told us. "We can grow algae on non-arable land using non-potable water and it produces protein at up to 20 [times] the amount as soybean, our current protein-producing champion."*

Yes, algae and especially microalgae have more protein than soy, but let's not mix things up.

Organic soy is a valuable food source for human consumption.

Human consumption of this type of soy is a minority of the total soy cultivated in the world and requires little agricultural land, a few hundred thousand hectares. On the other hand, the cultivation of GMO soybeans exceeds 100 million hectares taken from forests and agricultural land diverted from their function. The destruction of the Amazon rainforest has mainly 3 causes:

- The cultivation of GMO soy for livestock
- Pastures for livestock
- The exploitation of the wood

GMO soy is still widely supported by all European governments, which are, after the US, the main importers.

The cultivation of organic soybeans is mainly European and fits perfectly into organic agriculture. It is intended for human consumption and its nutritional richness makes it one of the preferred legumes for healthy eating. There is therefore no need to replace it, because it is enough to eliminate the cultivation of GMO soybeans to recover millions of hectares of agricultural land and to reforest those that have been unduly taken from the forests.

> *"Our current agricultural system faces extreme stress from the forces of climate change, combined with a growing population," added Erin Stokes, medical director of MegaFood, a health and wellness company that specializes in vitamin dietary supplements.*

We have already analyzed the above point. In order to meet food needs, the agricultural system must be completely rethought and reorganized on the basis of the models that already exist, namely permaculture and all forms of organic agriculture.

To believe that we can continue with a model that pollutes land, water and food and ultimately destroys soils and biodiversity is a folly that has gone on far too long.

Growing seaweed in farms or on the seashore will not change anything.

> *"Algae has the ability to sequester CO2, which greatly increases its long-term sustainability in the food sector," she explained. "As long as the algae are grown in clean waters, it is a highly nutritious food with a minimal impact on the environment."*

We come back to the myth of CO2 which is the natural food of plants to produce photosynthesis, the source of life of the entire animal kingdom.

As for the impact of seaweed cultivation, it is indeed almost zero. However, they require a clean sea and, currently, the places suitable for the cultivation of seaweed are becoming scarce due, among other things, to the pollution of agricultural land. Indeed, the seas and oceans are increasingly sick and polluted, but it is apparently too complicated to talk about it.

Growing algae because they use CO2 to photosynthesize is ridiculous. Seaweed is cultivated because it is a healthy food, rich in nutrients and it brings a very important value to a healthy diet.

Monique Richard, national spokesperson for the Academy of Nutrition and Dietetics, and owner of Nutrition-In-Sight in Johnson City, TN also noted that:

"Algae [have] chelating benefits, meaning the algae's minerals can bind to metal ions and pull them out of the water, which could clean wastewater and runoff. [They] can be beneficial in cleaning water, promoting sustainability and protection in aquaculture systems, and increasing resources for agricultural practices."

"An additional benefit includes that the environment in which algae grow can be controlled without herbicides and pesticides, or any other toxic substances, which is important for human health and food production," she added.

Monique Richard, porte-parole nationale de l'Academy of Nutrition and Dietetics et propriétaire de Nutrition-In-Sight à Johnson City, TN, a également noté que :

Absolutely, algae have other properties that have been known for a long time and can be used as a living tool to clean up water.

And of course, they do not require any poison to grow.

We also spoke to Dr. Charles H. Greene about how algae might improve food sustainability. Dr. Greene is an associate director for research and strategic planning at the University of Washington's Friday Harbor Laboratories (FHL) in Friday Harbor, WA.

He is also co-author of the papers "Algal solutions: Transforming marine aquaculture from the bottom up for a sustainable future" in PLOS Biology, and "Transforming the Future of Marine Aquaculture: A Circular Economy Approach" in Oceanography.

Dr. Greene argued that microalgae have potential chiefly because they can be cultivated in smaller areas and still produce a significant amount of food.

In the latter paper, Dr. Greene and his colleagues highlight:

"Food production from marine microalgae cultivated in onshore aquaculture facilities offers several environmental sustainability advantages relative to terrestrial agriculture. [...] Microalgae exhibit primary production rates that are typically more than an order of magnitude greater than the most productive terrestrial crops. [...] Thus, with regard to land use, the cultivation of marine microalgae in onshore aquaculture facilities has the potential to produce an equivalent amount of food from less than one-tenth the land area."

Indeed, the cultivation of algae and especially spirulina can be developed almost everywhere, but not as a replacement for fruits, vegetables, cereals, legumes and seeds that we also need. Permaculture, bio-dynamics or any other culture that respects and integrates into the natural biodiversity is fully compatible with the development of a sustainable agriculture.

> *Challenges*
>
> *While it sounds like growing algae as a food source is a no-brainer, this approach still faces some challenges. Dr. Mayfield told MNT the main one is scalability.*
>
> *"The main challenge is getting it to world scale, and with that scale should come economies of scale, that will bring the price down — which is the main challenge right now," he emphasized.*

Wanting to globalize production is always a mistake and results in establishing a monopoly and unified protocols. However, the planet is diverse, and even the seas and oceans have their own characteristics of composition, temperatures, tides, sunshine and currents. There are globally 3 sources of algae:

- Wild seaweed gathered from the sea
- Cultivated seaweed
- Cultivated microalgae

Except for the spirulina culture developed in most countries, which can be easily decentralized in specialized farms, the other algae must be obtained locally and distributed as they are today.

Lower the price? Here are several solutions:

- Stop subsidizing destructive agriculture with public money, it will collapse because it is not viable. Automatically, organic crops will be able to take their rightful place and produce more.
- Stop taxing food: indeed, paying a VAT, however small, is absurd on principle. We must feed ourselves with our own money, which has already been heavily taxed.
- Valorize organic agricultural work by reducing the charges related to the farm.
- Promote food autonomy wherever possible.

There are of course many other solutions, but we do not see any coming. On the other hand, the "experts in all fields" widely quoted here, continue with the same reflections developed during the industrialization and chemicalization of agriculture. To obtain quantity and price, all means are good, never mind quality and diversity.

> *Dr. Greene and his colleagues agree in their Oceanography paper: "Although there are large areas of suitable land with proper topography and insolation available in the tropics and subtropics, cultivation facilities must be close enough to sources of seawater or brackish water to avoid excessive transport costs."*

Absolutely, and this is already the case today since seaweed is harvested and cultivated on all seas and oceans, but the harvesting is still too modest and the farms are too rare.

Moreover, the development of the cultivation of macro-algae inland, a recent practice, must also be encouraged, as transportation costs are totally incidental compared to the food autonomy that these crops provide.

https://www.mangeons-local.bzh/algues-comestibles/

The cultivation of microalgae is fully operational technically and can be developed everywhere.

The cultivation of macro-algae requires larger farms of a few hectares but should in no way be centralized or owned by multinationals. Moreover, it is widely spread in Asia on all oceanic or maritime coasts.

Fish farms are still being developed and are a total ecological aberration. Suffering of the animals, plundering of the seas to feed them, water pollution, development of infectious diseases, and transportation costs.

It is therefore not appropriate to write that: "...in tropical and subtropical regions large areas of land are adapted..." Because you see, macro-algae such as kelp are also cultivated in Russia!

> *And although the nutritional value of algae would make [them] a highly versatile food source, [they] tend to have a characteristic odor, and taste and overall sensory acceptance can be a limiting factor," Mayorga admitted.*

Absolutely not. First of all, the taste of seaweed varies greatly from one species to another. Dulse does not taste at all like Nori. Dulse is much sweeter and more neutral than Nori.

Nori is known for its use in making sushi and it is the use of fish that gives sushi an ammonia taste. Moreover, seaweed cuisine is as varied as it is regional, raw seaweed has a much less strong taste than cooked seaweed.

Microalgae can be taken in tablets but are delicious in drinks or incorporated in smoothies. They can be integrated into flours, for example pasta with spirulina, which harmoniously enhances the taste.

All of this has already been put into practice for years, but it would seem that, too busy managing technology and bureaucracy, these experts are not aware of this.

> *Stokes added that, as with any foods and supplements, the source where algae are grown needs to be verified for quality.*
>
> *"This is of particular importance with algae as [algae] can absorb substances from the water medium [they] grow in, including heavy metals and other contaminants," she explained.*
>
> *"There are now some unique manufacturing processes being utilized — such as closed glass tube systems — that are designed for optimal conditions for algae growth," Stokes added.*

Seaweed is a food and like any food, its quality must be controlled.

It would seem that this is not the case for the foods that Ms. Stokes does not mention. Here is an example, the pollutants found in the analysis of salmon:

- 2,2',4-TriBDE (BDE-17)
- 2,4,4'-TriBDE (BDE-28)
- 2,2',4,4'-TetraBDE (47)
- 2,2',4,5'-TetraBDE (BDE-49)
- 2,3' ,4,4'-TetraBDE(66)
- 2,2' ,4,4' ,5-PentaBDE(99)
- 2,2',4,4',6-PentaBDE (100)
- 2,2' ,4,4' ,5,5' HexaBDE (153)
- 2,2',4,4',5,6' HexaBDE(154)
- 2,2',3,3',4,4',5,5',6-NonaBDE (BDE-206)
- DecaBDE(209)
- DDT (total)
- Dieldrin
- p,p'-DDE
- Arsenic
- 2, 3, 7, 8-TCDD
- 1,2,3,7,8-PeCDD
- 1,2,3,6,7,8-HxCDD
- 2,3,7,8-TCDF
- 1,2,3,7,8-PeCDF
- 2,3,4,7,8-PeCDF
- 2,3,4,6,7,8-HxCDF
- PCB 77, 81, 105, 114, 118, 123, 126, 156, 157, 167, 169, 189

https://www.generations-futures.fr/publications/menus-toxiques-128-residus-chimiques-ingeres-journee/

We know that the higher up the food chain you go, the more polluted the food is and if the seaweed harvested from the sea is polluted, we would have to ban fishing... which is never going to happen. As for fish farming compared to seaweed farming, there is no comparison either.

Seaweed culture is easily controlled by the quality of the water used and by the culture environment itself.

There is no reason to develop a closed tube culture system for algae for food use.

These systems can be useful for experimental research in the cultivation of algae used as biofuel or as depollutant.

As for quality control of harvested or cultivated food grade algae, independent producers must be trained like those already trained, no more and no less.

> *Getting algae into your diet*
>
> *Ready to start adding algae to your diet? The good news is you already can.*
>
> *Richard said algae can be found commercially in options like seaweed, dried seaweed snacks, and nori sheets, and can be found in supplements, powders, or meat replacement products.*
>
> *"[They] may [even] be found in fermented products or dairy [products] such as yogurts, milk, or cheeses," she added.*

Seaweed has been part of our diet for thousands of years, as we have already explained in the analysis of this article. The recipes are numerous and come from both traditional and modern cuisine. We have already mentioned the book by Carole Dougoud as an example.

Meat does not have to be replaced, as it is not a food that can claim to be healthy. As for incorporating seaweed into dairy products...what the hell! Dairy products are obtained by the most inhumane breeding and are necessarily linked to the meat industry.

To have milk, you need babies, and these will go to the slaughterhouse or will be fattened to become, in their turn, "producers" of milk, then will go back to the slaughterhouse anyway, once worn out, after a few years of exploitation. Forage (GMO soy), water, land, hormones, antibiotics, vaccines, in short, everything that makes livestock farming incompatible with sustainable agriculture.

We can see here the inconsistencies between theory and practice and the ignorance, intended or not, of the causes of destructive agriculture.

Let us recall the beginning of the article:

"Researchers are now working to find other ways to produce nutritious food to replace those whose cultivation is no longer as sustainable."

So let's stay consistent!

> *Moreover, Richard noted, algae could also have other uses in terms of cooking and the food industry:*
>
> *"Algae can [have] qualities such as thickening, gelling, and emulsifying [properties] — such as algae-extracted ingredients carrageenan, alginate, and agar [for example] — possibly replacing ingredients like palm oil, which are associated with devastating environmental contributions and adverse health conditions. The range of colors in algae can also provide a natural way to source blue and green coloring for confections and beverages."*

The food industry at last named... here is the true objective of the industrial and monopolized cultivation of algae. This same industry that uses palm oil almost everywhere as well as hydrogenated oils, but also toxic colorants, refined sugars, synthetic flavors and synthetic sweeteners, and that is intimately linked to industrial agriculture.

The objective is therefore clearly stated: to introduce healthy food (for now) in the food industry in order to practice soft greenwashing.

> *"EPA [eicosapentaenoic acid] and DHA are essential omega-3 fatty acids that are commonly under-consumed but carry tremendous benefits for brain health, eye health, and cardiovascular health to name a few," Mayorga added, speaking of the health benefits.*
>
> *"Algal oil supplements have come a very long way to help consumers optimize their omega-3 intake while also minimizing off-putting sensory qualities. Moreover, algal oil supplements [...] are a great way to ensure a supplement with a very low heavy metal content, which can be a concern with some fish oils, particularly those sourced from larger fish," she said.*

There is nothing new in this statement since seaweed oil capsules have been around for over twenty years. We have already talked about them.

> *And Dr. Sears said that people can easily add algae to their diet by eating algae-based supplements. His top three recommendations are algae-based DHA/ EPA, Hawaiian astaxanthin, and Hawaiian spirulina.*
>
> *In his opinion, "because algae contain lots of nutrients per calorie, are grown in nature, and are good for our health and the health of our planet, they truly merit the label as 'nature's superfood'."*

Among these recommendations, there are two supplements:

- Algae oil in capsule which contains DHA and EPA
- Astaxanthin, an antioxidant extracted from the Haematococcus Pluvialis algae
- Spirulina which is a microalgae and therefore a food

So let's not confuse supplements derived from algae and algae themselves as a nutritional source.

And of course, we can call algae a superfood like so many other plant foods.

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