Algae: A Circular Food Source That Can End Word Hunger

High quality food for every person on earth sustainably. The production of algae is environmentally friendly and improves the health of the oceans and nature on earth.

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CHAPTER 1.

Algae: A Circular Food Source

Nature's 'green gold' that can end world hunger while saving the planet

Microalgae, such as the well known Chlorella and Spirulina algae, have the potential to end world hunger while in the same time improving the health and physical performance of people significantly.

The production of algae is environmentally friendly and improves the health of the oceans and nature on earth, resulting in a ∞ circular food source.

The global food supply faces a range of threats including climate change, wars, pests and diseases. An organism too small for the human eye to see—microalgae—could offer a sustainable solution.

Algae offers the advantage of requiring neither soil nor pesticides nor irrigation. On top of that it provides enormous ecosystem services, creating a very rich habitat for fauna (shellfish, fish) and flora while also feeding the top of the ocean food chain (phytoplankton, bivalves) and ultimately land animals.

(2022) Microalgae are nature's 'green gold' Abundant sustainable food of the future to end global hunger and save the planet.

Source: Phys.org | The Conversation | UP TO US

CHAPTER 1.1.

Most Complete Food Source

Chlorella algae is the most complete food source for humans on earth. It contains all essential vitamins and minerals including vitamins D and B12, protein and the most healthy variant of Omega 3-6-9 acids. In theory, a human can perform optimally on a diet with just Chlorella.

Spirulina is an algae that is similar to Chlorella that is popular with athletes.

CHAPTER 1.2.

Health Advantages

Chlorella is used by most people in Japan and people in Japan are the most healthy people in the world that live the longest. Chlorella was first used as food in Japan.

(2020) Potential of Chlorella Algae to Promote Human Health

Source: ncbi.nlm.nih.gov

In studies it is shown that Chlorella and Spirulina can stop the growth of cancer and prevent many other diseases.

Marine biologists recently discovered that zebrafish had an amazing capacity to regenerate severe eye damage. Upon further research they discovered that the fish obtain that capacity by eating Spirulina algae.

(2022) Spirulina promotes regeneration and wound healing in zebrafish

Source: pubmed.ncbi.nlm.nih.gov | ncbi.nlm.nih.gov | ncbi.nlm.nih.gov | "Could a tiny fish hold the key to curing blindness?"

CHAPTER 1.3.

Cost Efficient Production

The cell core of algae is to hard to be broken for the human digestive system and requires processes to unlock access to its nutrients. Technological advancements in recent years have achieved low cost mass production capacity.

(2022) Cost Effective Production of Chlorella

Source: Springer.com

CHAPTER 1.4.

Algae As Primary Food

The use of microalgae as a primary food product is a recent development.

In 2021, a Singapore company created the first microalgae burger that looks like a normal burger and that provides all essential vitamins, minerals and amino acids and twice the protein of a beef or fish burger.



(2021) Sophie's Bionutrient debuts new burger made from microalgae

According to the press announcement, each patty weighs about 60 grams and has 25 grams of protein, consisting of all nine essential amino acids, including histidine and leucine. Sophie's Bionutrients also says its algaebased patty has twice the protein of beef. or fish.

"Microalgae [are] a vital source of nutrients in the ocean. By developing this burger, we hope to showcase the versatility of the microalgae protein meal beyond making plant-based seafood products," Wang shared. "We will continue to synergize the power of nature and technology to broaden our range of algae-based products while doing good for the planet and the oceans."

Source: the spoon.tech | Asian Scientist

The US startup Back of the Yards Algae Sciences (BYAS) uses algae for taste optimization in plant based meat replacements.

(2018) Back of the Yards Algae Sciences (BYAS)

Byas was founded in Chicago at the end of 2018 at www.insidetheplant.com with a vision to innovate at the interface between the circular economy (zero waste and sustainable reuse of limited resources) and the wealth of the algae resources of our planet. This breakthrough. Site plays a vital role in bringing anaerobic digestion to its rightful place as the foundation of a sustainable urban food chain.

BYAS is committed to researching, developing and implementing new ways to make our food better, more accessible and healthier and to reduce the environmental burden of food production on our precious planet.

Source: algaesciences.com

CHAPTER 2.

Big Agriculture Is Killing The Planet

S cientists are warning that big agriculture companies are destroying the planet.

(2022) Big Agriculture Companies Are Killing the Planet Source: New York Times

(2022) Big agriculture warns farming must change or risk 'destroying the planet'

Report sponsored by some of the largest food and farming businesses finds pace of shift to sustainable practices too slow. "We are at a critical tipping point where something must be done."

Source: The Guardian

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