



Feed The World With Algae

The Harvesting Breakthrough That
Makes It Possible

A horizontal graphic showing a splash of water with bubbles and droplets, rendered in shades of blue and white, spanning the width of the slide.

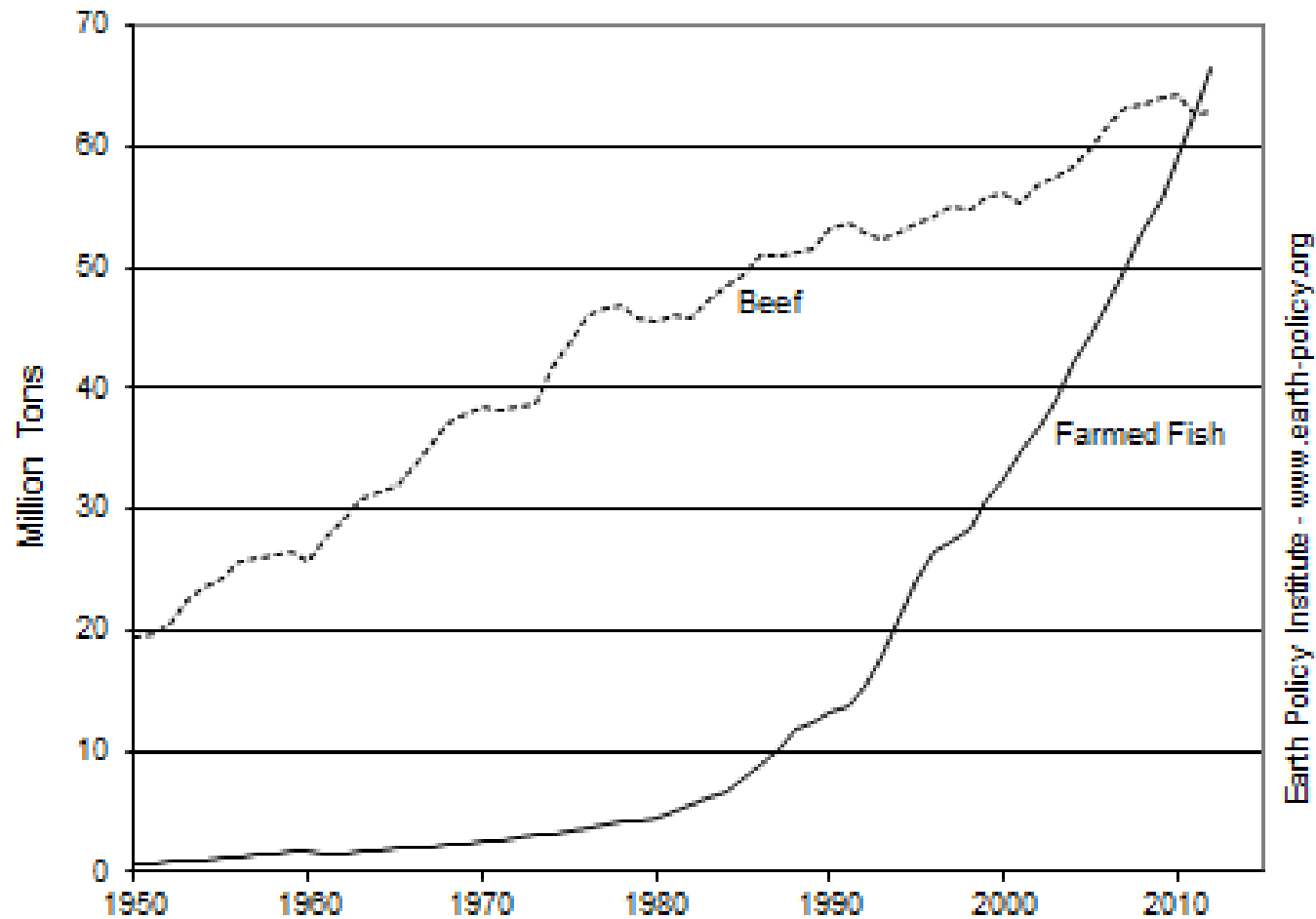
*Breakthrough water cleanup technology for oil & gas,
algae and other water-intensive industries*

World population 9B by 2050

- Quality of life rapidly improving in developing countries.
 - China, India, SE Asia, Africa
- Demand for animal products rising fast.
- Depletion of wild fisheries driving a boom in fish and shrimp farming.
- Fish farming surpassed beef production in 2010... and rising 10 times faster.

Animal Product Demand Grows

World Farmed Fish and Beef Production, 1950-2012



Earth Policy Institute - www.earth-policy.org

Source: EPI based on FAO, USDA

Harvesting Barriers

ENABLING THE ALGAE ALTERNATIVE

OriginOil Harvesting

- Enables commercial algae harvesting:
 - ✓ Enables *daily harvest* of low density Algae*.
 - ✓ Continuously delivers whole, live algae concentrate.
 - ✓ Bacteria free, extends shelf life from hours to days or even weeks.
 - ✓ Low energy cost, (~US\$19 per dry ton of algae).

**Continuous algae growing is
now viable for feed.**

* 0.3 to 1 g/L

Video: EWS Algae Harvester



Click video in slide mode to view or click:

www.originoil.com/video/an-animated-guide-to-ews-algae

OriginOil Harvesting Benefits

- 100% CHEMICAL-FREE.
- Continuous recycling of sanitized water keeps predator and bacteria levels low.
- Low-density: shadowing isn't an issue.
- Daily turnover: crash risk greatly reduced.
- Clean concentrate, easy to dry or mix.
- Stable and predictable production costs.

OriginOil Harvesting

End Product:

An intact, clean, nutrient-rich algae concentrate with extended shelf life, ready for blending.

OriginOil Algae Harvester™



Harvested Paste



Pellets From Algae Paste



Producing at Massive Scale

- The Big Showstoppers:
 - Invasions
 - Contamination
 - Strain Management
 - Ambient Heat
 - Keeping Things Cheap

Solution:

Algasol's Floating-Bag PBR

- It's simple.
- It's cheap, (about \$210 per ton of algae*).
- You can control your strain.
- Invaders are kept at bay.
- It floats in water, so temperature is controlled

* Source: Algasol

Enclosed, Resource Efficient, Patented PBR



“Algasol Renewables’ approach is expected to be the pioneer to achieve an economically and environmentally sustainable large-scale algae biofuels production,” says Frost & Sullivan Global Program Manager, Transportation Chemicals, Robert Outram.

“Algasol Renewables provides a critical and innovative method for micro algae biomass production. Its modular floating bag technology, a new variation of photobioreactors (PBRs), provides a low-cost design coupled with industrial scalability, optimal light exposure, high biomass concentration, low energy consumption, and efficient system control.”

- Frost & Sullivan press release, 20 August 2010.



Algasol's Patented Floating PBR System



Mallorca, Spain



Keeping It Simple

- OriginOil is partnering with Algasol in the Bangladesh Delta.
- Imagine: thousands of micro-plots, funded by micro-loans...
- That means:
 - VERY Cheap
 - VERY Durable
 - Solar and Human Power Options!



In Closing..

- Algae is the key to solving the feed problem.
- The OriginOil Algae Harvester™ is proven.
- It is critical to producing algae at scale.
- We'll make it work throughout the world.

Partner With Us!

Call (toll free): +1-877-999-6645 Ext. 5
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THANK YOU!