Commercial Duckweed Farming
Case Study:

Green Sun
DUCKWEED-BASED PET FOOD

2013 International Duckweed Conference on Research and Applications
GSP Presentation Overview

- “THE ONE”
- Initial Burning Questions Answered
- She snagged the best niche... or not?
- GreenSun Team, Advisors, and Collaborators
- Wish list for GSP
- Questions/Comments
The “ONE”
Our VISION…

GreenSun is dedicated to producing and marketing high quality, sustainable duckweed-based pet foods, treats, and supplements for pet owners everywhere.
A Few Details…

How-  Sustainable production (organic- spring 2014)

When-  Initial product roll-out this fall

Where- Initially, online and regional mom and pop pet stores and then big box stores

What-  Partial or full substitute for grains, dairy, fillers, and/or fishmeal in TBA pet food products- formulations patent-pending
Duckweed Pellets
Duckweed Flakes
Is it possible to utilize abandoned catfish ponds for duckweed production?
Original pond turbidity and overgrowth
Could I develop low cost ways to harvest duckweed?
Borrowing Harvesting Ideas from Other Industries
Corralling Duckweed for Manual Harvest
Could I develop a simple way to remove unbound water in preparation for drying?
Dewatering 40 pounds of duckweed in 90 seconds
Could I integrate solar energy to dry duckweed?
Assembling drying screens
GSP Solar Dryer
Heavy Overcast and still...
GreenSun Products, LLC
state of the company as of 08/12/13

Production- presently 3+ water acres (10 total)
Output- pond growth doubling every two days
Harvesting- behind schedule due to heavy rains
Processing- currently moving to Phase 2 😊
Product lines- Initial product line formulations completed
Sales- team established. MOU’s from retail small mom and pops in place. Private customers on waiting list.
Marketing – team is fine-tuning branding and sustainable packaging
Did She Snag the Best Niche...or Not???
Duckweed Whiskey, Anyone?
Why Specialty Niche Markets Instead of Biofuels or Commodities?

- Niche markets are WIDE open in all sectors
- Will not have to compete on price against commodities
- Lower volume of initial product needed to test market acceptance and orders
- Novelty of duckweed story will aid in faster acceptance and investment interest across the board for all growers and researchers
Challenges in Going This Route

- Smaller customer base means creative upselling
- Duckweed education costs time and money
- “But no niche pencils out!”

Conclusion:

*Inventive, out-of-box thinking is necessary when selecting duckweed niche markets.*
Duckweed Niche Market Ideas

From www.DuckweedFarming.com
Simple Duckweed Seeding for Low Tech Farming Applications
Open Pond Comparison:

Dirt/gravel based with existing flora and fauna

vs

Plastic Lined and fresh well water
Duckweed Farming…

It’s about the journey, not the destination.
GreenSun Core Team

President/Founder- Tamra Fakhoorian

Natl. Sales- Kristin Johnson, Sioux City IA

Chief Engineer- Ron Putt, Auburn AL

Marketing R@D- Susan Metzger, Renaissance Marketing
Advisory Team:

Production: Paul Skillicorn/Agriquatics

Production: Dr. Louis Landesman

Research: Hamdi Shaar/Beruit, Lebanon

Marketing: Robert Fulton/Turbine Biofuel

Process: Mark Johnson/Siouxf City, IA

Funding: Ryan Integlia/em[POWER]
In Collaboration With:

- Envirobossy
- Vegan Metal Fabricators Company
- Operation Jump Start
- Kentucky Innovation Network
- Weedy Knights
- Agriquatics
- Turbine BioFuel
- GardenHeat.com
Special thanks to all of our
ILA Round Table Members

“You rock!”
The ILA Round Table is a high profile bi-weekly concall for its members and invited guests. Topics are based on current developments in the industry.

Our members are paving the way for global education, research, and production of commercial duckweed products.
GreenSun Products Wishlist

Equipment Needs:

Microgrinder
Pelletizer
Lab equipment
Rotary dryer to handle 2 wet tons duckweed/hr
GreenSun welcomes opportunities for collaboration, consulting, internship (spring 2014) and research.
Life isn’t about finding yourself.

Life is about creating yourself.
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