LemPro® DUCKWEED PROJECT

A Small Plant with a Big Future

DUCKWEED (LEMNA)

A Small Plant with a Big Future



Duckweed is a tiny aquatic plant when processed with our proprietary process produces a single cell protein providing a single solution to address food, energy and water shortages around the globe:

- Healthy Organic* Food Source Solution for Animals and Humans
- Sustainable Clean Energy Source Solution
- Sustainable Direct Application Fertilizer Solution
- Affordable, Year-Round Cash Crop Solution
- Waste Water Treatment Solution

**Note: Organic Certification Pending.*

EXECUTIVE SUMMARY

The LemPro® Duckweed Project is a development equipped with a proprietary system used to accelerate duckweed's growth rates and process it in an affordable manner year round. The Project will have small and large-scale community farming impact in rural America and under developed nations around the world. Farmers and communities will receive the many benefits aligned with the introduction of a new cash crop which has high financial yields and low labor demands for planting and harvesting. The products produced from this process will allow farmers to significantly increase their profitability while keeping their costs low.

The LemPro® proprietary system processes duckweed into a highly in-demand organic* protein concentrate, which will help to address the global shortage on protein. This organic* protein concentrate can be used in fishmeal, animal feed, fertilizer, and with minimal adaptations can be utilized for human consumption.

The LemPro® Duckweed Project secured funding in 2013-15 to support the fundamental research on feasibility and implementation of this new technology, and to explore its potential to change the living conditions of people in rural America, the underserved and developing nations across the globe. These living conditions stem from challenges in growing their economy and maintaining an educated and healthy labor force. The LemPro Duckweed Project is designed to address these needs by creating hundreds of thousands of jobs in agriculture empowering farmers, providing best quality organic* protein to the world alleviating hunger and malnutrition, and providing zero emission biomass energy for clean electricity in every corner of the world.

**Note: Organic Certification Pending.*

DUCKWEED GENERAL INFORMATION

WHAT IS DUCKWEED?

- Duckweed is a fast growing, tiny aquatic plant which floats on or just beneath the surface of bodies of fresh water and wetlands. It is the world's smallest flowering aquatic plant.

- Lemna (Duckweed) is a genus of free-floating aquatic plants from the duckweed family. These rapidly growing plants have proven useful as a model system for studies in community ecology, basic plant biology, ecotoxicology, production of biopharmaceuticals, and as a source of animal feeds for agriculture and aquaculture.

- Lemna (Duckweed) is a vital solution to alleviate starvation, address water contamination and provide clean energy worldwide due to its highly efficient absorption capability of soluble nutrients.

WHAT'S SO GREAT ABOUT DUCKWEED?

Scientists view duckweed as:

- **A natural wastewater treatment option**: This fast growing aquatic plant grows in clean or brackish water. The plant feeds on nitrogen and phosphate organic pollutants, the very stuff treatment plants remove from wastewater.

- **The world's "greenest" feedstock**: Fast growing, high in protein content and dietary minerals, and easily harvested, the plant is cultivated as a feed supplement for chicken, livestock, and farmed fish, and is ideal for use in developing countries.

- **An inexpensive, eco-friendly source of ethanol:** Unlike corn, duckweed requires minimal human-made energy to grow and doesn't deplete the human food supply.

- **A cleaner fuel -** While duckweed-produced ethanol, like other plant-based fuels, releases some carbon dioxide into the atmosphere, the plant also absorbs CO2 as it grows.

- **A sustainable organic* direct-application fertilizer -** In soil or aquaponics farming, this organic fertilizer makes the soil or water nutrient rich, transforms unhealthy soil or water, and corrects nutrient imbalances.

** Note: Organic Certification Pending.*

BENEFITS OF ORGANICALLY PRODUCING DUCKWEED

❖ **Affordable Food Source:**

- The vast quantities of human and animal grade protein that can be produced will address the food needs of our growing population and help alleviate starvation and malnutrition worldwide
- Organically grown Lemna (Duckweed) once processed with our (LemPro®) proprietary system will offer a healthy food protein source for humans and animals.
- LemPro® organic* protein selling price of $1,100 per ton is equivalent to soy meal's selling price of $1,175 -$1,300 per ton: LemPro's Price of $1,100/ton x 570 tons/month = $627,000 monthly revenue
- Fish Meal replacement's value has exceeded $2500 per ton

❖ **Benefits of Duckweed as an Alternative Fuel Source:**

- Produces more starch per acre than corn
- High starch and low lignin—is ideal for ethanol production
- Produces biofuel without waste
- Does not compete with land crops
- Grows rapidly
- Easily harvested

❖ **Affordable Energy Source:**

- At current corn price of around $3.78 per bushel, just the corn feedstock cost for corn-based ethanol should be about $1.37 per gallon. On an equivalent energy basis, the cost of the corn feedstock for corn-based ethanol is $2.05 per gallon of gasoline.
- Ethanol produced from duckweed cost $0.52/gal. versus ethanol produced from corn that cost $1.37/gal.+ ($.85 savings using duckweed)
- Produce 2,380 gallons of ethanol per day and 65,463 gallons per month

Note: The above calculations/yields are based on a 400 acre growing area.

MARKET CHALLENGE AND SOLUTION

Market Challenge And Solution

❖ **Challenge with Growing Lemna Duckweed**

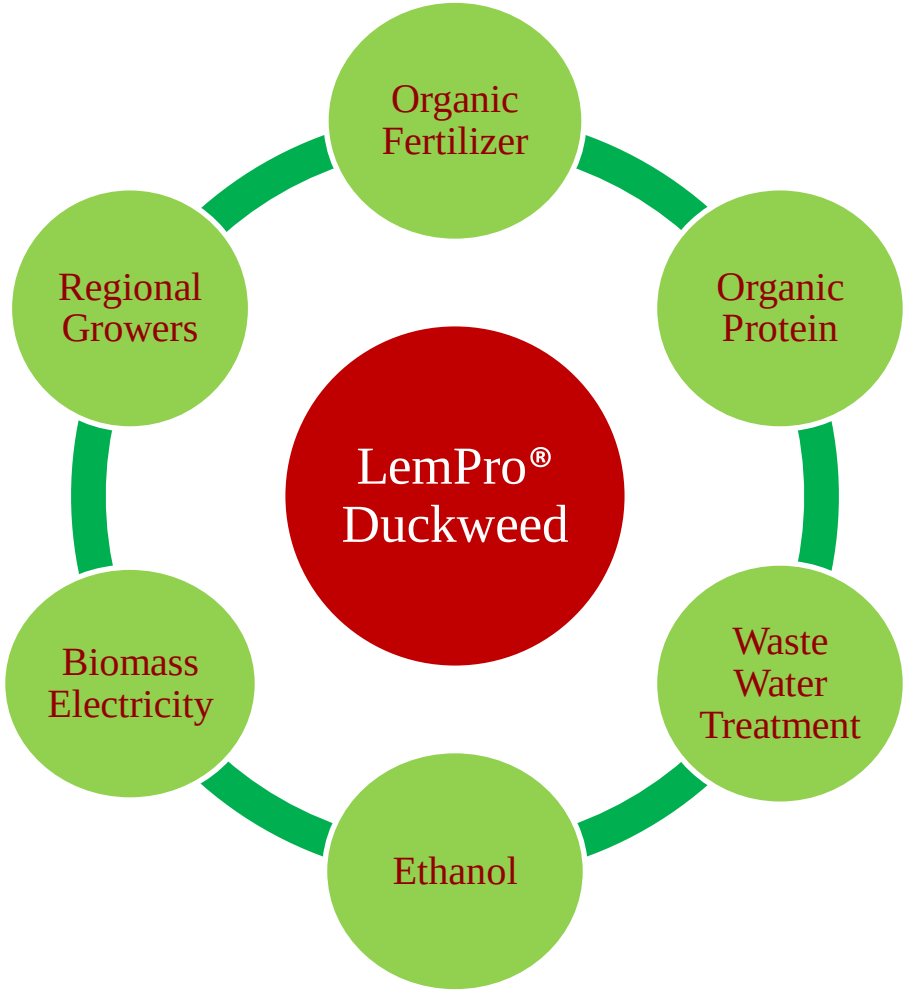
- The high cost to fertilize duckweed has made it prohibitive to grow commercially for producing protein concentrate for market demand.

❖ **Solution to Growing Lemna Duckweed**

- We have created a proprietary method that is self-sustaining to fertilize duckweed at an affordable cost. This unique fertilizing method is anticipated to increase duckweed's growth rate from 30 tons/acre/year to 75 tons/acre /year.

- LemPro® Organic Protein Concentrate is produced by using a known ethanol manufacturing process to remove the starch from duckweed leaving an organic concentrate of more than 50% protein and 8% lysine behind. LemPro's proprietary process makes it possible to grow the duckweed twice its normal size with no outside nitrogen inputs (aka fertilizers).

LemPro® KEY SOLUTIONS



DUCKWEED MARKET SEGMENTS

❖ **Market for LemPro® Protein:**

- LemPro® will initially be marketed as an Organic Soybean Meal replacement *(Organic Certification Pending*). There is strong demand for a substitute product because of nutrition and production shortages of Organic Soybean Meal, especially in the winter.
- The following are some of the companies that have provided letters of interest to LemPro® requesting samples prior to placing orders : Organic Valley Coop which (has 1,800 members), Modesto Milling, Coyote Creek Organic feed Mill, Robert Land of McGeary grain , Cissy Bowman , Center Valley Organics , Millers Organics & Country side organics.

Organic Gardening	Animal Feedstock	Aquaculture	Bioenergy
1. Compost 2. Soil Amendment 3. Green mulch in Vegetable Gardens 4. Green mulch in fruit orchards 5. Green mulch for potted plants 6. Green mulch for flower beds	1. Ducks and geese 2. Chickens – layers and brooders 3. Peal fowl 4. Rabbits 5. Sheep 6. Hogs 7. Goats 8. Cattle 9. Fermented feed for livestock	1. Tilapia 2. Grass Carp 3. Koi 4. Catfish	1. Biomethane 2. Ethanol Production 3. Duckweed pellets for home heating 4. Electricity

PROJECT OBJECTIVES AND IMPACT

Project Objectives

- The overall objective of the project is in accordance with the government's agricultural policy of increasing food production and diversification of existing farming processes

❖ Special Objectives

- To increase the production of duckweed crops
- To produce high-quality organic protein for fishmeal in large quantities to cater to global rising demand
- To increase farmers' profitability by introducing new in-demand cash crops
- To teach farmers how to create sustainable agriculture production systems
- To produce anhydrous ethanol at a substantially lower cost
- To produce educational and training materials
- To create jobs by introducing a replicable fertilizing/growth closed loop processing system
- To create sustainable food and energy systems

Project Impact

❖ Impact on Environment

- Production of Duckweed will help to reduce the following environmental hazards:
  - Smog from coal and ethanol (corn produced) burning plants that emit green house gases
  - Depletion of the forest and tree cover, due to demands for fuel wood and timber activities which have increased run-off and soil erosion, especially on derived watersheds leading to loss of soil nutrients, impacted waterways and damage to fisheries

❖ Project Replicability

- This project when fully implemented will serve as a model/ pilot project that could be replicated in other areas of the country and around the globe.

❖ Role of Farmers

- Integration of the farmers into mainstream development once the Project is completed. Training/Education programs will be provided to help farmers' expand their knowledge base and skillset to take advantage of the multitude of business opportunities available from growing duckweed.

SOCIAL IMPACT

Impact on

American agriculture has long provided adequate quantities of low-cost, healthy food for domestic consumption and substantial quantities for export. Agriculture's ability to continue meeting those needs is challenged by emerging domestic constraints on land use, water availability, and the environment - driven by broad concerns of U.S. society.

Due to these challenges, agriculture in the 21st century has to produce more food and fiber to feed a growing population with a smaller rural labor force, more feed stock for a potentially huge bioenergy market, contribute to the overall development in the many agriculture-dependent developing countries, adopt more efficient and sustainable production methods and adapt to climate change. The introduction of Duckweed as a new fast growing crop with multiple benefits will help the United States regain it's ability to produce an organic sustainable protein that will have a major impact on all aforementioned challenges.

LemPro® DUCKWEED PROJECT
Pilot Plant

LemPro® DUCKWEED PILOT PLANT

Pilot Plant

Location: Gueydan, Louisiana – 2.5 acres
# of Jobs Created in Pilot Plant: 6

- This facility demonstrates the fully integrated processes of the LemPro® Duckweed system. Additionally, the facility enables the full evaluation and development of the process as well as the start-up, shut down and normal operating procedures.

- The facility provides valuable operability data that will feed into our larger full-scale commercial plant project. In addition to the future use of the Pilot Plant as a facility for customer operative training, it will also serve as a tour facility.

- Rockwell Automation will perform third party testing to verify measured results that will be fed into the decision making process when scaling the Pilot Plant. Rockwell will also hold the key position of Engineering, Procurement, and Construction Management (EPCM).

- In the Summer of 2015 the project is scheduled to start the expansion of the Pilot Plant by adding additional equipment, duckweed growing areas and green houses for Aquaponics.

Primary Lagoon Duckweed Growing Area
Day #1

Duckweed Day #1

Our Nutrient Rich Duckweed
Day #2 (Left)

Our Nutrient Rich Duckweed
Day #3 (Right)

Duckweed Growing Area Lagoon #2

Lagoon #2 Duckweed Growth multiplied by adding sustainable organic fertilization waste product from abundant source

Pilot Plant Processing Lab
(Exterior)

Pilot Plant Processing Lab
(Interior)

LemPro® PROTEIN CONCENTRATE

LAB TEST REPORT OF LemPro® PROTEIN CONCENTRATE

Note: The results of this Feed Analysis Report reflect early stage testing, which is equal to or greater than comparable organic protein concentrates on the market. We are confident that our proprietary processing method will ultimately produce results of 50% - 61% protein concentrate which will be one(1) of the highest quality proteins in the industry.

Rock River Laboratory, Inc
P.O. Box 169
Watertown, WI 53094-0169
920-261-0446
office@rockriverlab.com

Feed Analysis Report

LemPro Inc. 2619
207 Dixie Road
Gueydan , LA 70542

2014 Certified Chemistry by NFTA

1	Lempro Duckweed Protein					
Lab #	83659	**Sampled**	3/23/2015	**Received**	3/23/2015	**Charge** $344.00
Farm	Lempro					

Moisture 7.46% **Dry Matter** 92.54%

Description (%DM unless specified)	**Dry Matter Basis**
Crude Protein	46.56%
ADF	23.20%
Calcium	0.96%
Phosphorus	1.54%
Magnesium	0.21%
Potassium	1.51%
Sulfur	0.30%
Fat (EE)	1.64%
Crude Fiber	19.31%
Ammonia-N	0.06%
pH	5.42
Calculations	
TDN (ADF Calc)	70.08%
Net energy lactation (ADF Calc) Mcal/lb	0.759
Net energy of gain (ADF Calc) Mcal/lb	0.514
Net energy maint. (ADF Calc) Mcal/lb	0.796

For Rock River Lab Analysis Guidelines, please visit www.rockriverlab.com

Comments

Minerals by ICP
Analyzed by wet chemical methods.

Amino Acid	% of sample
Methionine	0.58
Cystine	0.45
Lysine	3.03
Phenylalanine	1.63
Leucine	2.64
Isoleucine	1.58
Threonine	1.83
Valine	1.98
Histidine	0.82
Arginine	2.41
Glycine	1.57
Aspartic Acid	4.02
Serine	2.16
Glutamic Acid	6.05
Proline	1.56
Hydroxyproline	0.06
Alanine	2.38
Tyrosine	1.19
TOTAL:	35.94

LemPro® DUCKWEED PROJECT TEAM

The following team members and subject matter experts are involved to make this project successful. Key project participants include:

- **Freddie Herbert – Founder, President, and Chief Technology Officer**
- Darryl Baldwin – Co-Founder and Chief Executive Officer (Interim)
- Katrina Strickland – Chief Financial Officer
- Vince Curasi – Chief Operating Officer
- Boris Gorinshteyn, ND – VP Product Development
- Nader Alborno – SVP Acquisition & Development
- Rockwell Automation – Engineer, Procurement, Construction, and Management (EPCM)

Business Advisors:

- Jay Moscowitz – Special Advisor to CEO and President

LemPro® DUCKWEED PROJECT TEAM BIO's

Freddie Hebert is the Founder and President of LemPro®. He is an inventor and the lead technical force behind the Duckweed project. Freddie has been a licensed Ethanol producer since 1979. He learned to make ethanol at an early age by working with his grandfather in West Virginia. Freddie learned to build refineries working with his father, a superintendent who built refineries in Lake Charles, Louisiana. Freddie is a gifted technician and tradesman. He has experience in building homes, farming, and general repair and building maintenance. In 1979, when President Jimmy Carter was in Office, he sent farmers a book called Fuel From Farms. This book, coupled with the gas spike, and his family experience working with ethanol inspired Freddie to enroll in an Ethanol production course in Colby, Kansas. Freddie has been producing Ethanol out of a number of different Louisiana feedstock for the last 35 years. He won the National Energy Award in 1992 for a farm energy demonstration project where he produced electricity using methane. Freddie has been a leading duckweed expert and helped support the expansion of research with this cash crop for over 20 years. Freddie's ground-breaking research created an affordable proprietary process which produces an increase in the duckweed growth cycle that is poised to change the future for farmers in the US, and help eradicate hunger around the globe.

Darryl Baldwin has over 20 years of experience as a sales and marketing professional/entrepreneur in small business development from startups, to turn-around distressed companies. He comes from a strong business background rooted in real estate, business development, and information systems technology. Professionally, he has worked for Fortune 50 and Fortune 500 companies such as IBM, Ameritech and B&L Concepts. He designed and developed a proprietary software that facilitates real estate investment and flow analysis in business operations. He has shared his hands-on expertise in real estate techniques with thousands of people by organizing professional workshops. Baldwin also attended and taught courses at Central Texas College, Okinawa Japan, and honed his business skills at Embry Riddle Aeronautics University, Chaminade University in Hawaii, and DeVry University in Atlanta. He completed the Master's course for Aquaponics which was accredited by Wisconsin University. Baldwin is veteran of the United States Marine Corps. As a dedicated Marine, his military experience included working in operations and logistics management with an extensive knowledge of administration systems' setup. He was also a member of the U.S. Karate Team representing the United States in the World Karate Championships in Tokyo, Japan. In his current role as the CEO (Interim) of LemPro® Darryl's responsibility of communicating the Company's Vision in a compelling and complete manner is essential in the Company's success. Whether he is introducing LemPro® to room full of Farmers, a Board of Directors at an Ingredient/Feed Company, shareholders, or employees he is well versed at engaging the audience and clearly communicating the direction of this Global Impacting Company called LemPro®.

LemPro® DUCKWEED PROJECT TEAM BIO's

Jay Moscowitz, Jay Moskowitz is a 30+ year seasoned executive and management consultant with broad cross industry experience and skill in leading, transforming, and managing successful companies. As an entrepreneur he has built and managed four successful companies, and as consultant has serviced multi-national "Fortune 500" enterprises in diverse industries such as manufacturing, retail and grocery, health care, pharmaceutical, technology and financial services. Jay has worked closely with companies such as Alcoa, Honeywell, Bayer, International Paper, United Technologies, General Motors and Freudenberg-NOK. His areas of expertise include organization development, change management, strategic planning, turnaround deployments, marketing and merchandising strategies, and the utilization of "Lean", "Six Sigma", and "Theory of Constraints (TOC)" principles, practices and processes. Jay served as Chairman & CEO of Step3 Consulting from 1986-2007 and as Chairman & CEO of eMedicalFiles from 2003-2009. Most recently Jay serves as CEO of NeoSys International, a consulting company specializing supply synchronization and technological innovation. Jay received his Baccalaureate degree from Hunter College of the City University of New York and did his Masters and Doctoral work at the University of Pennsylvania and the University of Rochester respectively. In his current role as Special Advisor to the President and CEO, Jay works closely with the President and CEO in support of issues that require specific follow-up. He provides leadership to further the strategic agenda of the President, CEO and Board of Directors.

Katrina Strickland, MBA has over 25 years of experience in economic development, business development and corporate finance. Katrina Strickland has served as the Executive Director of the CAU Economic Development Center at Clark Atlanta University where she created and managed a Community Development Entity to support community development projects; she also wrote and managed grants, and organized and implemented economic and business development summits in Washington, DC., Atlanta, GA and Liberia. Katrina has managed real estate portfolios valued over $10M, and has supported numerous community development initiatives in Atlanta, GA. Katrina is a graduate of the Atlanta University MBA program with a concentration in finance, and worked in this field at General Motors Corporation and the Pepsi-Cola Company. In her current role as CFO of LemPro®, Katrina is a key member of the Executive Management team, she will assume a strategic role in the overall management of the company. Her primary day-to-day responsibilities are planning, implementing, managing and controlling all financial-related activities of the company.

LemPro® DUCKWEED PROJECT TEAM BIO's

Vince Curasi, as a seasoned business executive, has both operational and leadership experience. As an entrepreneur he built and led a successful manufacturing business. He has held senior level executive positions in publicly traded companies and worked as a consultant to a number of global businesses in the food and grocery industry. His extensive experience includes leadership positions in operations, product development, logistics, contracting and construction, as well as business consulting in the US, Canada, Switzerland and the UK. Most recently, Vince has been consulting in Canada. He led a team implementing major business, manufacturing, operational and sourcing changes for the largest grocery retailer in the country. While in Canada he also led a turnaround and then ran a cattle company specializing in all natural beef. Vince began his career as a military officer, serving with distinction in the US Army. He earned his Bachelor of Science degree in Engineering from the United States Military Academy at West Point. Vince earned his Masters of Public Administration and Organizational Development at the University of Missouri, Bloch School of Management. Prior to his engagements in Canada, Vince was an active participant in the Atlanta International business community. Affiliations included the German American Chamber of Commerce, the British American Business Group, The French American Chamber of Commerce and the Australian New Zealand American Chamber of Commerce. In his current role as the COO of LemPro® Vince is responsible for directing, administering, and coordinating, the internal operational activities of the organization in accordance with the policies, goals, and objectives established by the Founder, Chief Executive Officer, and the Board of Directors.

Nader Alborno has over 29 Years of Experience in Real Estate Development, Investment, Asset and Project Management of multi-million dollar Projects in the United States, and the United Kingdom. Nader has extensive experience in Business Development in the US and European based companies for their activities in the US, and the Middle East "UAE and KSA". Nader is adept at developing effective business strategies and plans as well as negotiating contracts. Nader is a UK qualified Chartered Civil Engineer (C. Eng.) since 1985, and a Member of the Institution of Civil Engineers (M.I.C.E.), U.K. since 1985, with a B.Sc. with Honors in Engineering Science from the University of Exeter, U.K., 1981. In his current role as the Director of real estate acquisition, Development and Management, his responsibilities include targeting, negotiating, assessing, and designing strategic sites for future plants with focus on the scope of buildings, water supply, sewage systems, roads, airports, dams, and bridges. As a civil engineer, Nader offers his expertize in the design process relating to construction costs, expected lifetime of projects, government regulations, and potential environmental hazards such as hurricanes, tornadoes, and earthquakes.

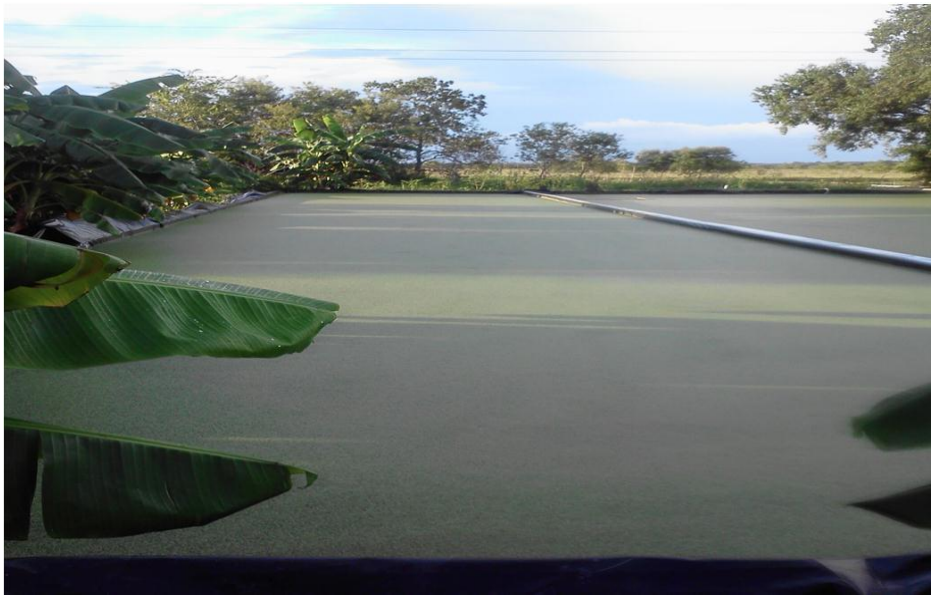
LemPro® DUCKWEED PROJECT TEAM BIO's (cont'd)

Boris Gorinshteyn, Dr. Gorinshteyn has broad experience in research and product development. He currently holds position of Chief Science Officer and is a sole inventor of BerbereX® and Nuvileo™ platform technologies that brings novel and unique approach to formulation of pharmaceutical products based on botanicals. Dr. Gorinshteyn is a licensed doctor of naturopathy with an active practice in Atlanta, GA. His journey began in Russia where he started learning phytotherapy at the Department of Alternative Medicine of Athletic Rehabilitation Center. Later, Dr. Gorinshteyn conducted research in magneto-biology at Central Research Laboratory of Rostov Medical School. The research findings were presented at conferences of Russian Academy of Science. After immigration Boris has continued his education. Dr. Gorinshteyn has received a degree in Biology from Georgia State University and later received a degree Doctor of Naturopathy at United States School of Naturopathy and Allied Science. In his current role as VP of Product Development, Dr. Gorinshteyn collaborates with Founder, Freddie Hebert, and Sales to develop products that support strategic business relationships. He is responsible for product development strategies in alignment with LemPro's goals, desired customer experience, customer feedback and overall market opportunities in the human and livestock nutritional industries.

LemPro® DUCKWEED PROJECT TEAM BIO's (cont'd)

Boris Dubovis, MBA a professional with over 30 years of experience in international business development in Russia, Ukraine, Europe and the US in both Corporate Relations Advisory, and in Market Development. He has a strong proven business development and origination capabilities, as well as an outstanding track record managing project teams and forging long lasting client relationships. Mr. Dubovis customers range from International Sporting events, national stage business and government relation management and start-up ventures development. In his current role as SVP of Business Development, Mr. Dubovis is responsible for acquiring new business relationships in the areas of finance and ingredient based clients seeking high quality protein concentrate.

LemPro® DUCKWEED PROJECT Recap



The following are major benefits from implementing LemPro® Inc. technologies by constructing a plant:

- ❑ 1. Healthy Organic Food Source Solution for Animals and Humans
- ❑ 2. Sustainable Clean Energy Source Solution
- ❑ 3. Sustainable Organic Direct Application Fertilizer Solution
- ❑ 4. Affordable, Year-Round Cash Crop Solution
- ❑ 5. Waste Water Treatment Solution

Thank You!

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