Economic Development Incentive Grant 2014-15 Annual Report – Aquaculture Technologies

Directions

Please submit the annual report as a **Word document via email** to ttalukdar@uwsa.edu (no hard copies please). The annual report is due by **Friday, July 3, 2015 at noon**. The following information must be provided:

Institution Name(s): UW Milwaukee School of Freshwater Sciences	**Project Title: Research and Training Center for the Commercialization of Intensive Aquaculture**
Principal Investigator: David EJ Garman	**Person submitting Report: Eric Leaf**
Email:garmand@uwm.edu	**Contact Phone #:414 382 1700**
Grant Award Amount:$2.3m	**Report Date: June 30 2015**
Grant Funding Spent (to date):	**Date project began: March 2014**
	Date project ends (projected):June 30 2016

I. Status Report

The project has made steady progress despite a major delay with the construction of the workforce training lab and a possible cost overrun on the construction. An extension to June 30 2016 was sought and granted. Industry interest remains high and a possible full scale recirculating aquaculture system is under negotiation with investors.

II. Updated Goals/Performance Metrics and Assessment Plans

See attached spreadsheets

III. Project/Program Budget and Expenditures

Project Scope:

- 5000 sq ft workforce training in new biosecure laboratory with 3 lines of aquaculture recirculation tanks for raising fish from fingerlings to market size
- Enhanced hatchery and fingerling production tanks with associated green-tanks
- Aquaponics teaching and research laboratory
- Research on recirculation aquaculture and nutrient removal
- Improvements in fish nutrition for improved aquaculture profitability

Budget		**Revised Estimate**
Training Lab & Equipment	$800,000	$ 900,000
Technical support for lab	$305,000	$ 442,500
Nutrient removal	$300,000	$ 437,500

Nutrition improvement	$552,500	$ 552,500
Aquaponics lab	$375,000	$ 0
Marketing and Commercialization	$120,000	$ 120,000
Total	$2,452,50000	$2,452,500

See detailed report sheets.

Nutrient removal

Three projects were funded under this program:

- Enhanced nitrogen removal using sand filters – successfully completed showing that a novel association of *Archea sp* are responsible for this process in the labs. A possible commercialization and transfer to industry is being explored.
- Phosphorus removal – using similar macroporous material has been developed for P removal using both rare earths and low cost transition metals. An invention disclosure has been lodged with interest from industry. The project is 85% complete. A license is expected to be issued before the end of 2015.

Nutrition Improvement

This work was to take place in the new aquaculture research lab that is still under construction. The experimental work has been delayed due this lack of space. A senior research scientist has been hired and has commenced new food preparation processes include sourcing of alternative food base materials such as yeast, soy and human food processed wastes. Another dedicated lab has been allocated and equipment have been purchased for pelletizing and for food analysis.

The project is about 50% complete.

IV. Changes

An aquaculture certificate course has commenced and with a very restricted class size will be offered with training in existing fisheries/aquaculture research labs.

On the basis that the workforce training will commence in the near future, discussions to establish a commercial aquaculture facility in Racine have been initiated. This will be an $8 to $14 million investment with initially 20 jobs. The new lab will be used to supply fingerlings to service the facility under a research contract.

Aquaponics - The proposed external matching funding for the aquaponics laboratory did not materialize. Funds are largely reallocated to the aquaculture lab with small amounts to other projects.

If you have any questions, please do not hesitate to contact me at ttalukdar@uwsa.edu.