

# Economic Development Incentive Grant 2013-14 Annual Report

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<b>Institution Name(s): UW-Stevens Point &amp; UW-Extension</b>	<b>Project Title: Aquaculture Business Incubator and Aquaponic Innovation Center: Economic Development for Emerging Agricultural Industries</b>
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<b>Grant Award Amount: \$2.4 million</b>	<b>Report Date: 7/1/2014</b>
<b>Grant Funding Spent (to date): \$677,500</b>	<b>Date project began: 12/1/2013</b>
	<b>Date project ends (projected): 6/30/15</b>

## I. Status Report

The Aquaculture Business Incubator (ABI) will utilize existing knowledge and resources found at UW-Extension, the UW-Stevens Point Northern Aquaculture Demonstration Facility (UWSP-NADF) and the Wisconsin Aquaculture Association, to provide educational opportunities and resources to improve near-term training, for immediate job creation and employment in the rapidly developing agricultural industry of aquaculture. Investing in an incubator program will allow us to offer a diverse array of educational options that include on-farm training, distance education, and experiential learning. While Wisconsin's aquaculture industry is rooted in tradition, modern technologically-based innovations in aquaculture need to be applied to existing fish farms to increase production and to help grow the strong foundation that exists. Technology transfer, workforce training, and streamlining the process for commercialization through responsible laws, rules and regulations would promote industry growth while preserving ecologically sustainable integrity.

The Aquaponic Innovation Center (AIC) will provide educational opportunities and resources to improve economic development and workforce training; it will serve as an economic incubator for learning; a catalyst for economic growth and development; commercialize discoveries and provide a location for new business innovation and product diversification. UW-Stevens Point has partnered with Nelson & Pade, Inc., a private company in Montello, WI that is the national leader in aquaponic system design, construction and training, and the International Aquaponics Society, to develop and offer college courses. Soon, a professional certificate program will begin that will educate the aquaponic workforce, relying heavily on entrepreneurship and business start-up activities. Expanding upon this existing program, we will continue to offer on-line educational programs and align talent development

with economic development through workforce innovation which will secure Wisconsin's future as a national leader in aquaponics.

## **II. Updated Goals/Performance Metrics and Assessment Plans**

### **Aquaculture Business Incubator –**

- 1. Develop continuing education courses**
- 2. Modify laws, rules & regulations**

To build upon the UW-System Incentive Grant Program, staff at UW-Stevens Point applied for and received a US-Department of Commerce/National Oceanic & Atmospheric Administration/Sea Grant federal grant titled: "Workforce Education and Training for Environmentally & Economically Sustainable Great Lakes Aquaculture" for \$291,751. Combined, the two programs have allowed us to develop nine short courses on business and technical topics identified by the WI aquaculture industry as key factors limiting growth of the industry. Four of the short courses are under development and are expected to be completed by fall 2014. The remaining five short courses will be completed and offered in summer 2015.

UW-Stevens Point expanded its continuing education course offerings during academic year 2013/14 by offering two semester-long aquaponics courses: Principles of Aquaponics and Introduction to Aquaponics; partnered with a WI-based private aquaponics business, Nelson & Pade, Inc. to offer college credit and continuing education units for 3-day Master Classes about starting aquaponic businesses; updated its Aquaculture minor to cover topics in fish disease, aquaponics, and aquatic microbiology; established the first-of-its-kind professional aquaponics certificate for academic consistency in the field of aquaponics.

UW-Extension offered and assisted with modifying laws, rules and regulations through:

- Two Regulation and Rules Listening Sessions held with Wisconsin aquaculture industry, 34 attendees; two week open comment period.
  - Report of Rules and Regulations Sessions sent to DATCP & DNR
- Wisconsin Walleye Initiative Regulatory Review & Recommendations Study sent to Wisconsin State Legislature November 15, 2013. The report listed 14 recent changes in place, six changes in progress, and seven proposed future changes concerning aquaculture rules and regulations <http://dnr.wi.gov/topic/fishing/documents/outreach/WWIRuleReport.pdf>.
- Conducting and reporting on The Private Fish Farm Capacity Study in conjunction with DNR, DATCP, DOA, WEDEC and WAA member fish farms as directed in the Wisconsin Walleye Initiative. June 30, 2014.
- Wisconsin Walleye Initiative Grant Program- Participated in the program development and awarding of Aquaculture Expansion grants to Hayward Bait and Bottle Shop, Coolwater Farms LLC, Gollon Bait and Fish Farm, Northside Enterprises, Central Wisconsin Fish Farm LLC, Taal Lake Hatchery, Lac du Flambeau Band of Lake Superior

Chippewa Indians, Sokagon Chippewa Community and St. Croix Chippewa Indians of Wisconsin.

- Lake Sturgeon Options for Private Aquaculture in Wisconsin co-authored by Ron Johnson, Jim Held (UW-Extension), and Ron Bruch, (WI-Department of Natural Resources). Recommended changing three Wisconsin statutes so private fish farmers can legally possess and raise lake sturgeon <http://www.wisconsinaquaculture.com/Docs/597.PDF>.
- Met on two occasions with Silver Moon Springs Trout Farm Elton, Wisconsin with DNR staff and Senator Tiffany regarding permits and compliance issues; DNR has until September 1, 2014 to issue needed permits.
- Met with Ron & Dave Williams farm in Waukesha County with DNR staff to explore possible dam permit compliance issues.

#### **Aquaponic Innovation Center –**

- 1. Investigate new business innovations**
- 2. Develop pathways to promote aquaponics**

The majority of efforts in year-1 for goal #2 have been directed at developing the infrastructure required to promote new business innovations and develop pathways to promote aquaponics. This has included:

- Identifying a suitable location, securing construction & development stages, and beginning construction of the UWSP-Aquaponic Innovation Center. UW-Stevens Point continued its collaborative partnership with Nelson & Pade, Inc, Montello, WI, a national leader in science-based, commercial aquaponics, by leasing space at their international headquarters where Nelson & Pade, Inc. will be constructing the UWSP-Aquaponic Innovation Center. This will provide unprecedented access to the latest industry innovations and further strengthen our combined efforts to provide workforce training and new business development.
- Development of an Aquaponic Professional Certificate program that will be available at UW-Stevens Point September 2014. The establishment of an industry certificate program was identified as an immediate need by industry representatives. UW-Stevens Point will be the first university in the U.S. to offer an academic-based aquaponic certificate program that can be completed by individuals enrolled and not enrolled at universities across the U.S.
- UW-Stevens Point expanded its academic course offerings in aquaponics including a semester-long online course titled: Principles of Aquaponics and a hybrid (online/in-person) course titled: Introduction to Aquaponics. Students that enrolled in the courses were enrolled at UWSP and universities across WI, the U.S. and internationally.
  - 2012: 27 students enrolled with 9 non-UWSP students; 124 credit hours generated.

- 2013: 51 students enrolled with 20 non-UWSP students; 123 credit hours generated.
- 2014: 55 students enrolled with 29 non-UWSP students; 81 credit hours generated.
- Three-day Aquaponic Master Classes were offered by the UW-Stevens Point/Nelson & Pade, Inc. partnership. During the 2013-14 reporting period, 188 attendees completed the classes and 25 of those purchased, constructed, or launched new aquaponic businesses.
- In 2013, the UW-Stevens Point Foundation assisted with and is the operational home to the International Aquaponics Society (IAS). The IAS held its inaugural conference in summer 2013 with over 150 attendees from around the world. The IAS is planning its second international conference for August 2015 and is developing a Professional Aquaponics Development Day for February 2015. The focus of the Professional Development Day will be aquaponics in the K-12 classroom and curriculum design in STEM fields.

Direct business assistance was provided as part of continuing efforts to develop pathways and promote commercial business in Wisconsin. This included:

- Meeting with Russ Davis and Kerri and Todd Weberg of Sayner, Wisconsin on several occasions to help them with site and business planning to open new trout farm operation
- Assisting Morning Sun Farms of Milltown, Wisconsin with micro-green business to establish aquaponics system
- Assisting HMR Organics, Osceola, Wisconsin on business planning for aquaponics system
- Helping the following WI farms remain in business by providing technical and or regulatory assistance: Gollon Bait and Fish Farm, Silver Moon Springs, LLC, Hayward Bait and Tackle, Star Prairie Trout Farm, Northside Enterprise, Central Wisconsin Fish Farm, and Ron Larson Bait and Walleye.

Broader public assistance was provided on specific topics to attract new aquaculture/aquaponic businesses and included:

#### Workshops/Meetings -

- Genetics and Water Code Workshop Mishicot, WI - 25 attendees
- 19<sup>th</sup> Annual Wisconsin Aquaculture Conference Mishicot, WI - 125 attendees
- Aquaponics Conference Prairie Community College, Brookings SD - 275 attendees
- Three Wisconsin Aquaculture Industry Advisory Council (WAIAC) meetings – 75 attendees
- Multicultural Awareness & Customer Service Workshop Summerset, WI - 30 attendees
- University of Minnesota Veterinary College Student Fishery Workshop Star Prairie, WI - 20 attendees

- ANSTF meetings in Washington DC as liaison to aquaculture industry
- Wisconsin Walleye Initiative Grant Program Award Meeting Madison, WI - 10 attendees
- Ohio-Michigan Aquaculture Conference / NCRAC Annual Workgroup Toledo, OH - 270 attendees
- Rural Landowners Conference Kenosha, WI 85 attendees
- SAE Grant Awards Meeting Madison, WI 14 attendees

#### Community and Educational Outreach -

- Boy Scout Jamboree Somerset Wisconsin 250 attendees
- Booth at Osceola Wellness Fair, Osceola, Wisconsin
- Northern Great Lakes Visitor Center Kids Fishing Day Ashland, WI - 450 attendees
- Meetings with Wildlife Forever, Inc Brooklyn Center, MN to engage the aquaculture industry with national Stop Aquatic Hitchhikers Campaign
- Hudson YMCA Summer Youth Kids Star Prairie, WI - 90 attendees
- 4-H Youth Agriculture Experience Madison, WI 15 attendees
- Aquaponics course final exam Montello, WI 50 attendees
- Aquaculture presentations and assistance at the following schools: Cornell HS, Auburn HS, Ashland HS, Winneconne HS, Milton HS, Waukesha North HS, Milwaukee Vincent HS, Stoughton HS, UW-Madison Meat and Animal Science 305

### III. Project/Program Budget and Expenditures

Source of Funds: Incentive grant funding

#### Total project budget:

Category	Description	Rate	FY2014	FY2015
<b><i>Personnel - Salary</i></b>				
Limited term employee	Aquaponic educator	12 mo		\$45,000
<b><i>Personnel – Fringe benefits</i></b>	“Actual fringe”	40%		\$18,000
<b><i>Non-personnel</i></b>				
Travel			\$3,000	\$5,000
Supplies & Expenses			\$29,687	\$35,000
<b><i>Indirect costs</i></b>	On-campus	34.5%	\$11,277	\$35,535
<b><i>Other</i></b>				
Subgrant to UW-Extension				\$135,000
Capital expenditures			\$360,000	
<b>Annual totals</b>			\$403,964	\$273,536
<b>Grand total</b>				\$677,500

**Year-to-date spending:**

<b>Category</b>	<b>Description</b>	<b>Rate</b>	<b>FY2014</b>
<b><i>Personnel - Salary</i></b>			
Limited term employee	Aquaponic educator		\$0
<b><i>Personnel – Fringe benefits</i></b>	“Actual fringe”		\$0
<b><i>Non-personnel</i></b>			
Travel			\$0
Supplies & Expenses			\$0
<b><i>Indirect costs</i></b>	On-campus		\$0
<b><i>Other</i></b>			
Subgrant to UW-Extension			\$135,000
Capital expenditures			\$181,000
<b>Grand total</b>			<b>\$403,964</b>

**IV. Changes**

N/A

**UW System Incentive Grant  
General Outcomes/Goals Reporting Matrix  
2013-14**

**Incentive Grant Program Name:** Aquaculture Business Incubator & Aquaponic Innovation Center: Economic Development for Emerging Agricultural Industries

**Funding Allocation:** \$677,500

#	Performance Outcomes Descriptions	Assessment Plan Description	Projected Goals 2013-14	Actual 2013-14 Outcomes	Projected Goals 2014-15
1	<b>Increase number of technical training workshops &amp; courses in aquaculture &amp; aquaponics</b>	Develop continuing education courses: participant survey in courses before, after & in six months after to assess knowledge	Develop and offer 4 workshops, short courses or college courses	Offered 2 college courses in aquaponics; 2 additional aquaculture courses will be offered in August 2014	Develop and offer 5 workshops, short courses or college courses
2	<b>Increase modifications to laws, rules &amp; regulations to support economic development of WI aquaculture industry</b>	Conduct industry survey of laws, rules & regulations to qualify industry perception of business environment	Develop and implement industry survey of laws, rules & regulations; draft plans to modify or introduce new legislation	Two rules & regulations listening sessions held; WI walleye initiative implemented; Private fish farm capacity study completed for DNR, DATCP, WEDEC & WAA; Co-authored Lake sturgeon options for private aquaculture in WI report	Draft modifications and new laws, rules & regulations and proceed through legislative process
3	<b>Increase access to resources for aquaponic production &amp; crop innovation</b>	Investigate new business innovations: document number of innovations tested and/or implemented	Establish Aquaponic Innovation Center; foster participation in intellectual innovations with new businesses	Completed lease and purchase of equipment to construct Aquaponic Innovation Center; completion of construction scheduled for late Sept 2014.	Publicize innovation ideas, publish results and promote business development based on innovations
4	<b>Increase pathways to promote aquaponics</b>	Develop pathways to promote aquaponics: document number of regulations modified; number of promotion techniques attempted; number of participants at training events	Develop & offer training events; develop & teach industry-specific promotion techniques; develop industry-regulation support	Over 211 training events for aquaculture/aquaponic businesses that addressed technology transfer, modified regulations and training. Resulted in 25 new businesses startups and 124 college credit hours earned in aquaculture & aquaponics.	Offer training events; publicize regulation changes; share industry promotion techniques

# UW System Incentive Grant Program

## Required Program Goals/Outcomes Reporting Matrix

### 2013-14

#### Economic Development Goals and Results

Economic development program" means a program or activity having the primary purpose of encouraging the establishment and growth of business in this state, including the creation and retention of jobs, and that satisfies all of the following:

1. The program receives funding from the state or federal government that is allocated through an appropriation under ch. 20
2. The program provides financial assistance, tax benefits, or direct services to specific industries, businesses, local governments, or organizations.

Performance Categories	Goals		Actual Outcomes 2013-14	Accomplished Goal? Yes or No	Notes
	Projected 2013-14	2014-15			
# of Jobs Created	>1	>1	25	Yes	Intellectual innovation, technology-transfer, and continuing education should help create jobs
# of Jobs Retained	>1	>1	8	Yes	Intellectual innovation, technology-transfer, and continuing education should help retain jobs
# of Businesses Assisted	6	6	30	Yes	Outreach and extension efforts of project will assist businesses

Additional Goals/Outcomes	Goals		Actual Outcomes 2013-14	Accomplished Goal? Yes or No	Notes
	Projected 2013-14	2014-15			
Modify industry laws, rules & regulations	2	2	2	Yes	Following industry survey to identify regulatory bottlenecks
Promote & offer technology-transfer	4	5	211	Yes	Provide methods for delivering modern production concepts to emerging agricultural industries



**UW System Incentive Grant Program  
Required Program Goals/Outcomes Reporting Matrix  
2013-14**

## Development of a Skilled and Educated Workforce

**Programs that have as their objective the development of an educated and skilled workforce, such as the following:**

- a. Increasing the number of bachelor's, master's, and doctoral degrees awarded in fields for which occupational demand is high or in fields that the board and the department of workforce development jointly determine to be high-demand fields.
- b. Increasing the number of opportunities available to students to gain work experience in their fields through internships or cooperative work experiences.
- c. Increasing or enhancing research and development.

	Goals		Actual Outcomes 2013-14	Accomplished Goal? Yes or No	Notes
	Projected 2013-14	2014-15			
# of Bachelor's degrees awarded in high-demand fields	0	0		NA	N/A
# of Master's degrees awarded in high-demand fields	0	0		NA	N/A
# of Doctoral degrees awarded in high-demand fields	0	0		NA	N/A
# of internships created (paid)	2	2	3	Yes	Offered through UWSP Northern Aquaculture Demonstration Facility
# of internships created (unpaid)	1	3	1	Yes	Once established, offered through Aquaponic Innovation Center
# of cooperative work experiences (paid)	1	1	1	Yes	Offered at private, commercial aquaculture & aquaponic businesses in WI
# of cooperative work experiences (unpaid)	1	1	1	Yes	Offered through Aquaponic Innovation Center & outreach program to private aquaponic businesses

### Increasing or Enhancing Research and Development Reporting

[illegible]

# UW System Incentive Grant Program

## Required Program Goals/Outcomes Reporting Matrix

### 2013-14

#### Improve the Affordability of Higher Education

Programs that Improve the Affordability of Higher Education for Resident Undergraduates, including:

- a. Reducing the time required to obtain a degree
- b. Increasing the opportunities available for high school pupils to earn credit toward a postsecondary degree; and
- c. Improving the transfer of credit between institutions of higher education.

#### Reducing the Time required to obtain a Degree

Goals	Anticipated Completion Dates	Actual Completion Dates	Accomplished Goal? Yes or No	Notes
N/A				

#### Increasing the Opportunities available for High School Pupils to earn Credit toward a Postsecondary Degree

Goals	Anticipated Completion Dates	Actual Completion Dates	Accomplished Goal? Yes or No	Notes
N/A				

#### Improving the transfer of Credit between Institutions of Higher Education

Goals	Anticipated Completion Dates	Actual Completion Dates	Accomplished Goal? Yes or No	Notes
Develop pathways to promote aquaponics	Continuous throughout 2013-2015	8/31/2015	No	Online & in-person educational programs & training events (transfer credits available)
Establish a professional certificate program in aquaponics	12/1/13 - 6/1/14	5/26/2014	Yes	Certificate earned at UW-Stevens Point but courses can be transferred from other institutions
Expand participation in aquaculture & aquaponic courses at UWSP	Continuous throughout 2013-2015	5/26/2014	Yes	Aquaculture minor & online undergraduate aquaponic courses (transfer credits available)