

WI AQUAPONICS MULTI-AGENCY SUPPORT GROUP

July 29, 2014 Conference Call

WISLINE Call Facilitator – WDNR Chris Lilek

Meeting Minutes

Participants: Chris Lilek-DNR, Valerie Blair – Wisconsin Institutes for Discovery (Madison), Rebecca Nelson – Nelson & Pade, Danny Hill – Milwaukee Growing Power, James Godzil - Sweet Water Foundation, and Mark Keane – Future “GrowCycle” (last 15 minutes of call).

The purpose of this call was to continue our discussion how Federal, State and County regulatory, funding & technical assistance staff can support aquaponic farming in Wisconsin.

Future purpose: We want to be able to offer local aquaponics contacts an easy to use method of getting Federal, State & County regulatory, funding and technical assistance in the future. To further this purpose we have scheduled on-going conference calls to update ourselves on the latest regulatory, funding and technical assistance available to local contacts and then get this information out to the local contacts and aquaponic associations as efficiently as possible. We want the aquaponics industry to succeed and grow in Wisconsin.

The next conference call is scheduled for **October 28, 2014 from 11am - Noon**

Conference call in number: (630) 424-2356, Passcode 6550444#

Valerie Blair - Wisconsin Institutes for Discovery

Valerie shared the DIY Science: Aquaponics: From Fish Tank to Table class that is offered through their organization. They have taught hundreds of kids about aquaponics. The kids also have hands on experience with their 500 gallon aquaponics tank that contains yellow perch and supports the growth of greens. The last class was held on June 13, 2014.

<http://discovery.wisc.edu/home/town-center/programs--events/field-trips/field-trip-programs/field-trip-programs.cmsx>

Rebecca Nelson - Nelson & Pade

Co-Owner of Nelson & Pade - Nelson and Pade, Inc. offers complete aquaponic systems and growing supplies for all applications including: hobby, home food production, education, commercial and research. Nelson and Pade has been doing aquaponics for 25 plus years. They have developed a complete science based technology for home, mission, research and commercial aquaponic systems.

She has seen a large impact in the aquaponics industry in the last five years, all around the world. This year they held their International Aquaponics Masters Class in Kentucky and had students attend from many different countries. In the past five years, they have had students from over 60 different countries take their classes.

Nelson & Pade received a patent for their Z-DEP zero discharge system in January 2014. With this added system, it is now possible to grow enough food for profit in all parts of the world. The accelerated nursery system combined with the patented ZDEP™ method of aquaponics has nearly 4-times the vegetable production over the University of the Virgin Islands raft system. Plus, nearly all water and waste from the system can be fully used, reducing or eliminating discharge. <http://aquaponics.com/page/aquaponic-systems>

Nelson and Pade received the 2014 Wisconsin Sustainability Business Council Award on May 8, 2014. <http://www.jsonline.com/business/pressrelease/national-press-releases/nelson-and-pade-aquaponics-awarded-sustainable-product-of-the-year-258472011.html>

Nelson and Pade are experiencing a major facility expansion this summer. They will soon have a 14,000 square foot facility that will show case all their systems. UW Stevens Point will be leasing 4800 square feet for their Aquaponics Innovative Center.

The UW Stevens Point Aquaponic Innovation Center will provide education and resources for economic and workforce development. New business innovation and ways to overcome obstacles for this rapidly growing food production industry will be explored. The center is expected to be completed in late September 2014. A variety of courses and workshops will be held at the Innovation Center, beginning in fall. Faculty, students and industry representatives will conduct research and demonstrations there as well. <http://www.stevenspointjournal.com/story/life/2014/07/11/university-wisconsin-stevens-point-aquaponics-innovation-center-montello/12481177/>

Rebecca noted that UW Stevens Point just finished their 3rd year of Aquaponics Certified Course. The course covers an introduction to and history of aquaponics, applications and benefits, system components, water quality dynamics, environmental control, plant crop choices and plant biology, fish selection and fish biology, integrated pest management and biosecurity, daily operation and record keeping, good agricultural practices, economics of aquaponics and marketing. <http://aquaponics.com/page/uwsp-introduction-to-aquaponics-course> The course is open to students at UW-Stevens Point as well as students from other colleges and universities through UW-Stevens Point Continuing Education.

Nelson and Pade has also started on-the-road visits to their commercial growers using their Grower Bus.



James Godzil – Sweet Water Foundation asked the group, Rebecca and UW Stevens Point if they could review and then respond to a New Zealand research report that was not favorable to aquaponics expansion in their country. <http://www.hambreyconsulting.co.uk/Documents/aquaponics%20final%20report.pdf>

Rebecca said that a good write up was provide in Delta Sky magazine <http://deltaskymag.delta.com/Sky-Extras/Favorites/Fish-Out-of-Water.aspx>

Danny Hill – Milwaukee Growing Power

Danny is the Aquaponics Specialist and Urban Farm Manager at Growing Power Inc.'s Milwaukee Headquarters.

Danny reported that their facility in Milwaukee has four, ~5,000 gallon systems, with ~3,500 yellow lake perch in each system and a 500 gallon market system.

They have had a solar hot water system since 2010. They made some modifications to the system this spring ,which should allow them to keep their systems warmer during the winter. This will speed up the

growth of the fish. Also, they have added additional grow beds to two of their systems, which is helping them feed the perch more feed per day.

UW Milwaukee staff weighs and measures their fish periodically.

The facility is also doing some general aquaponics system economic research with UW Milwaukee using perch. <http://fox6now.com/2013/10/22/milwaukee-could-become-a-world-leader-in-aquaponics/> They have four - ~1,000 gallon systems with ~800 lake perch in each system and also a classic RAS (recirculating aquaculture system) in the research greenhouse which can grow ~900 perch a year.

They hold workshops for people interested in learning about their facility on weekends from January to June each year. Workshops are offered on various subjects, one being a three day aquaponics workshop that includes a day with UWM-Freshwater Science staff and professors.

They also held a workshop in Raleigh, North Carolina in May 2014.

Danny told us about their successful veterans training program they have been offering and the internships each summer with 30 people receiving on-site work experience, lodging and a \$100 per week stipend. Interns do NOT need to be students to do the internship. People can apply for internships online at <http://www.growingpower.org/internships.htm>

They are doing a project with black soldier fly larva, which they hope will increase the economic viability of fish feed in the future.

The watercress, nasturtium, leafy greens, lemongrass, sage, basil, and mint that are grown on site are marketed to local restaurants and wholesale to Sysco. Product is also distributed through their market basket and CSA programs as well as sold through their store fronts and farmers markets

A discussion of floatation rafts versus growing media occurred with Nelson and Pade's experience with floating rafts and Milwaukee Growing Power with growing media identified for future discussion.

Chris Lilek – Wisconsin DNR Aquaculture Business Development Specialist

Chris told the call participants that she had been visiting some of the commercial aquaponics facilities in Wisconsin. Some of the information she has been asked for is: composting information and contacts for GAP & BMP mock audits.

The latest information can be seen at: <http://www.ams.usda.gov/AMSV1.0/gapghp>

Prof. Mark Keane –UW Milwaukee

Mark joined the call for the last 15 minutes and emailed Chris information on their future plans for GROWCYCLE. You can reach Mark Keane at keane@uwm.edu

GROWCYCLE
A SUSTAINABLE URBAN GREENHOUSE PROTOTYPE
MISSION- EDIBLE URBANISM

Grow Cycle proposes a collaborative effort by diverse constituents to connect at risk and challenged adults with community based urban agriculture food production employment strengthening family and extended community connections.

Grow Cycle is an urban garden that aims to produce vegetables (lettuce, basil, tomatoes) and fish (perch or tilapia) for distribution to targeted low-income neighborhoods. A greenhouse will produce annual and perennial flowers and herbs in addition to providing a small community farmer's market of local goods. The urban agriculture revenue producing and renewable energy features planned include: aquaculture, aquaponics, hydroponics, organic gardening, composting, vermiculture, and photovoltaic solar arrays and bio-fuel harvesting.

Grow Cycle will use refurbished vacant lots and a neglected structure, offer education, training, and resources to special needs young adults in agriculture, native plants, local food culture, nutrition and health. Local produce is sold and delivered to Milwaukee restaurants, grocery stores, farmer markets and schools. Community interaction and inclusion occurs in oxygen enriched health of a greenhouse environment creating an agrarian basis to community cultural interaction. Special needs individuals, their families, university professors, community members, neighborhood groups, private contributors, faith and school communities will leverage undervalued properties into urban agriculture assets.

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