

WI AQUAPONICS MULTI-AGENCY SUPPORT GROUP

April 28, 2015

WISLINE Call Facilitator – WDNR Chris Lilek
Meeting Minutes

Participants: Chris Lilek – DNR Sustainable Business Section, Jesse Blom – Sweet Water Foundation, Greg Lawless - Food System Development Program at UW Extension, Chris Somerville, the author of the UN FAO manual on small-scale aquaponics, and his co-author, Austin Stankus

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. The next conference call is scheduled **for July 21, 2014 from 10am – 11am**. Conference call in number: (630) 424-2356, Passcode 6550444#

Pre Call Reminder...

Erin D. Livesey - Dartmouth College

Feasibility of Commercial Aquaponics Survey

Erin is writing a thesis with the Environmental Studies Department with advising from the Tuck School of Business examining the feasibility of commercial aquaponic operations in the United States. Once the data is collected, the final paper will ideally lay out future challenges and potentials for aquaponic operations to meet national demand for sustainably grown fish and produce, and serve as an encouragement for future investment in the field. Those interested in taking Erin's survey can find the survey at: https://qtrial2015az1.az1.qualtrics.com/SE/?SID=SV_0BMh1924PoAmVNP
Questions about the survey can be send to: Erin.D.Livesey.15@dartmouth.edu

Sharing Results of UN FAO Aquaponics Report

Chris Somerville, the author of the UN FAO manual on Small-scale aquaponics food production manual.

Co-author, Austin Stankus - <http://www.globefish.org/small-scale-aquaponic-food-production-integrated-fish-and-plant-farming.html>

Chris & Austin gave us the highlights of the **Small-scale aquaponic food production manual** and then asked us to pass along several issues that are being debated in the world-wide aquaponics arena.

They would like our group comments on:

1. Nutrient Knock-Out at a pH above 7
 - a. Whether this takes place in aquaponic systems or not?
2. Whether Nitrate can function as a 'throttle'?
 - a. Continue to let nitrates increase and then drain/add water
 - b. Adjust plant to fish ratios to obtain nutrient balance
3. Dealing with High pH Water Options
 - a. Adding acid
 - b. Adding reverse osmosis
 - c. Allow plants to reduce pH gradually
4. Independent Bio filter Options
 - a. Small scale operations
 - b. Large scale operations
5. Decoupled Systems versus Balanced Systems Options
 - a. Parallel fish tank – hydroponic grow areas
 - b. Combined fish tank – hydroponic grow area
6. Adding Supplements to Plant Grow Area Options
 - a. Triplet phosphate
 - b. Hydroponic or organic supplements
7. Increasing Food Safety Options
 - a. Eliminate all media beds

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- b. Add mechanical filters to remove solids
 - c. Eliminate drip water
8. Pest Management Options
 - a. Quarantine areas
 - b. Integrated Pest Management
9. Growing Root Crop Options
 - a. Wicking bed inside media bed
 - b. Adding textiles
 - c. Adding Cocoa husks
10. Capacity Development Options
 - a. Adding additional small scale tank systems
 - b. Replacing small scale tank systems with larger tank systems

Manual Sections

Somerville, C., Cohen, M., Pantanella, E., Stankus, A. & Lovatelli, A. 2014.

Small-scale aquaponic food production. Integrated fish and plant farming.

FAO Fisheries and Aquaculture Technical Paper No. 589. Rome, FAO. 262 pp.

<http://www.fao.org/3/a-i4021e/index.html>

1. Introduction to aquaponics
2. Understanding aquaponics
3. Water quality in aquaponics
4. Design of aquaponic units
5. Bacteria in aquaponics
6. Plants in aquaponics
7. Fish in aquaponics
8. Management and troubleshooting
9. Additional topics on aquaponics

Further reading

Glossary

Appendixes

1. Vegetable production guidelines for 12 common aquaponic
2. Plant pests and disease control
3. Fish pests and disease control
4. Calculating the amount of ammonia and biofilter media for an aquaponic unit
5. Making homemade fish feed
6. Key considerations before setting up an aquaponic system
7. Cost-benefit analysis for small-scale aquaponic units
8. Step-by-step guide to constructing small-scale aquaponic systems
9. Aquaponics quick-reference handout

Call Participant Round Robin of News

Jesse Blom – Sweetwater Foundation shared a link to the Milwaukee Public School District's teaching lessons. The lessons are from all different disciplines and age groups.

<https://www.dropbox.com/s/sb4j6irotky57ti/PDF%20Booklet.pdf?dl=0>

Greg Lawless explained how the Urban Economic Development Association (www.uedawi.org) provides connections between the aquaponic growing systems and consumers in urban areas. One project they are supporting is Will Allen's proposed Vertical Farm in Milwaukee, Wisconsin.