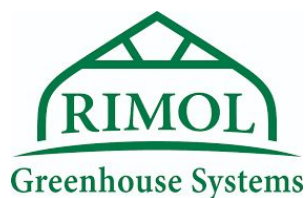


Integrating Recirculating Aquaculture with Hydroponic Systems: The First Annual Aquaponics Hands-On Learning Workshop

Where and When: June 3-5, 2019 at the UNH Kingman Farm Aquaponics Greenhouses

Workshop funding support provided by:



Contact for more information:

Todd Guerdat, PhD, Assistant Professor, Agricultural Engineering, Workshop Coordination
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Workshop Agenda

Day 1: Aquaculture and Aquaponics

Day 1: Morning Session

- 7:00-8:00 Registration
- 8:00-8:30 Welcome and Introductions
- 8:30-9:15 Critical Considerations and An Entrepreneurial View of Recirculating Aquaculture/Aquaponic Systems
Michael Timmons
- 9:15-9:45 Tank Hydraulics & Settleable Solids Removal Processes
Todd Guerdat
- 9:45-10:00 *Morning Coffee Break*
- 10:00-10:30 Suspended Solids Removal Process & Components
Todd Guerdat
- 10:30-11:00 Aeration and Oxygenation
Michael Timmons
- 11:00-12:00 Biological Filtration and Nitrification Processes and Components
Todd Guerdat, Michael Timmons
- 12:00-1:30 *Lunch and Tour of the UNH Kingman Farm Aquaponic Greenhouses*

Day 1: Afternoon Session

- 1:30-2:30 Fish Health Management & Biosecurity
Mike Pietrak
- 2:30-2:45 *Afternoon Coffee Break*
- 2:45-3:45 Recirculating Aquaculture System Design and Management Considerations
Michael Timmons
- 4:00-5:00 Hands-On Fish Sampling Activity
Todd Guerdat, Alex Sitek, Joe Tetreault, Ashu Rao, Sean Fogarty
- 5:00-5:30 Questions and Answer Session
- 5:30 *Adjourn Day 1*

Day 2: Hydroponics

Day 2: Morning Session

- 8:00-8:30 Building a Controlled Environment Agriculture Business
Neil Mattson
- 8:30-9:00 Small steps: Considering engineering, automation, and system design for small growers
Peter Konjoian
- 9:00-9:45 Greenhouse Design – Structures, Glazing, Heating/Cooling
Jeff Warschauer
- 9:45-10:30 Managing Plant Nutrition
Neil Mattson
- 10:30-10:45 *Morning Coffee Break*
- 10:45-11:30 Strawberry production in Controlled Environment Agricultural Systems
Anna DeVitto
- 11:30-12:00 “Natural” fertilizers (Soluble organic ferts, other options, etc.)
Neil Mattson, input from Todd if needed
- 12:00-1:30 *Lunch and hydroponic/aquaponic lettuce and strawberry tour*

Day 2: Afternoon Session

- 1:30-2:00 Monitoring and controlling your high tunnel / greenhouse
Jonathan Allred
- 2:00-2:30 Critical factors in greenhouse fruiting crop production
Neil Mattson / Johnathan Allred
- 2:30-2:45 *Afternoon Coffee Break*
- 2:45-3:30 Food safety
Sean Fogarty
- 3:30-4:00 Balancing crop needs with nutrient production using aquaponics
Peter Konjoian
- 4:00-5:00 Strawberry runner production and propagation – Hands-on training
Anna DeVitto, Johnathan Allred
- 5:00-5:30 Question and Answer Session

5:30

Adjourn Day 2

Day 3 Hands-On Farm Work Day at UNH Kingman Farm & Off-Site Farm Tours

7:30-8:00 Registration; Meet and debriefing

8:00-12:00 Water Quality Analysis, Lettuce Harvest, System Cleaning, Transplanting, Board Sanitization, Seed Sowing, Record Keeping
Sean Fogarty, Alex Sitek, Joe Tetreault, Ashu Rao

12:00-1:00 Bag Lunch Provided; Drive Yourself to Off-Site Farm Tours

1:00-2:30 **Off-Site Farm Tour #1: Victory Aquaponics (Londonderry, NH)**

3:00-4:30 **Off-Site Farm Tour #2: Location TBA at workshop**