Aquaponics System design parameters

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Introduction

Aquaponics is scalable. You can start off with a small farm system and scale up as resources and markets develop.

There is a marked difference in operating a system for profit as opposed to a home system, in terms of productivity and efficiency. When you are making a living, decisions are crucial. Murray will show you how to streamline your operation and calculate ratios and timings for optimum performance.

Objectives

People of all ages have taken the courses successfully. Some mid-career people see it as an opportunity to start a new business and some people just want to learn how to grow their own healthy fish and vegetables easily.

If you want to start a business using Aquaponics, There are many factors to consider which he will outline and provide you in the course. You will receive the tools to make informed decisions about your business.

will explain in depth the components and functions in his model for Commercial Aquaponics systems, which have been built in various configurations throughout the world. Graphics and animations allow you to see exactly how they work.

This course will teach you how to build a system for your situation which will reap you rewards.

Who Should Attend?

The Aquaponics Design Course caters for all skill levels. From an absolute beginner to someone who has been operating their own system for a while and are ready to scale up.

Course Outline

Day 1

1. Introduction
2. Aquaponics- the Basics
3. History of Aquaponics
4. Cycling the System
5. System Components
6. DWC
7. Media Beds
8. NFT
9. Hydroponics V Aquaponics
10. Decoupled Systems
11. Parameters
12. Water Testing
13. Why Does pH Trend Down?
14. Additives for Adjusting pH
15. Water Source

Day 2

1. Autosiphons
2. Calculating Flow Rates
3. Aeration and Filtration
4. When to Add a Filter
5. Dissolved Oxygen
6. Back Up Systems
7. Vertical Growing
8. How to Build GroPocket Towers
9. Plumbing Components
10. Reusing Plumbing Fittings
11. What is FloMedia ?
12. FloMedia Walk Through
13. FloMedia Water Flow Gravity
14. FloMedia Timber Bed Construction
15. Folding the Liner
16. FloMedia- Floating Rafts
17. FloMedia Polystyrene
18. FloMedia Maintenance
19. FloMedia Pest Control

Day 3

1. Acclimatising Seed
2. Papaya Seed Saving
3. FloMedia Seed Saving
4. FloMedia Conclusion
5. Raising the Grow Beds
6. Cleaning the Media Beds
7. Settlement Tanks
8. Radial Flow Filter
9. Building a Wicking Bed
10. Growing Seedlings
11. Building on a Slope Intro
12. Building on a Slope - Case Study
13. Building on a Slope Summary

Day 4

1. UVI System Explained
2. Commercial Filters
3. Commercial - Running A Hybrid
4. Commercial Aeration System
5. Commercial Aquaponics Solving Problems
6. Common Problems
7. Hoop Greenhouses
8. Passive Heating
9. Fish Health Checklist
10. Salting New Fish
11. Calming Fish with Cloves
12. What to Feed Your Fish – Alternatives

Day 5

1. Pumps -Water
2. Going Solar
3. Pumps-Solar
4. Pumps- Fail Points in 24V pumps
5. Solar The Battery Bank- 5:30mins
6. Solar Conclusion
7. Fixing Nutrient Deficiencies
8. Plant Nutrient Deficiency
9. Blossom End Rot
10. Plant Nutrients

11. Brix Testing Fruit
12. Introduction to Pest Management
13. Pest Management
14. Business Plan Tool - Simple
15. Business Plan - Detailed
16. Mind Mapping
17. Design Exercise Criteria

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- Each participant receives a binder containing a copy of the presentation
- slides and handouts
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, and case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:
- Technical Session   08.30-10.00 am
- Coffee Break   10.00-10.15 am
- Technical Session   10.15-12.15 noon
- Coffee Break   12.15-12.45 pm
- Technical Session   12.45-02.30 pm
- Course Ends   02.30 pm

Course Fees*

- **2,950USD**
  VAT is Excluded If Applicable