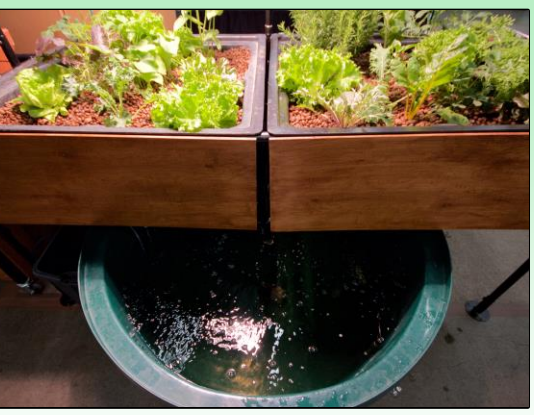
THE Aquaponic SOURCE™

Growing Fish and Plants Together

Products and Services Catalog

Order Online – **TheAquaponicSource.com** Sales & Support – **(855) 285-4252**

Learn • Build • Grow



Aquaponic Systems – Classes – Supplies – Consulting

About Us

We are farmers, educators, and engineers who have a passion for growing healthy food, conserving resources, and improving our planet for future generations. Our team has been dedicated to developing aquaponic systems and solutions for residential, school, community, government, non-profit, and international projects since 2009. We pride ourselves on providing our customers honest and accurate information based upon our experience, industry knowledge, and research in the field.

Owners, Tawnya & JD Sawyer

"Locally grown, sustainable food is the foundation to healthier eating, healthier lifestyles and healthier more vibrant communities"

JD Sawyer

What is Aquaponics?

Aquaponics is the marriage of aquaculture (raising fish) and hydroponics (growing plants in soil-less media). **By combining both systems, aquaponics capitalizes on the benefits and eliminates the drawbacks of each.** The fish waste provides a food source for growing plants, and the plants and nitrifying bacteria naturally filter the water for the fish.

Aquaponics is an integrated and balanced system using the by-product of one species to grow another, mimicking a natural ecosystem.

Aquaponics Fast Facts!

- **Water Wise:** Aquaponics uses **90% less water** than soil-based agriculture – water is continuously recirculated
- **No petro-chemicals:** Aquaponics can't use synthetic fertilizers or pesticides, that would be harmful to the fish
- **Highly Nutritious:** Same day harvesting, no-GMO's, great quality fish and plants
- **Scalable:** Fits into a variety of spaces, from countertop up to full-scale farms
- **Less Risk:** No soil-borne diseases like eColi, Salmonella, no fish contaminants
- **Increased Production:** Greater crop yields since plants receive nutrients and water
- **Very Low Maintenance:** Self-watering, no weeding, tilling or composting
- **Accessible:** Waist High Gardening!

Maximize Your Growing Potential!

Aquaponics in Schools

Aquaponics inspires and engages students with the core STEM (Science, Technology, Engineering and Math) concepts through aquaponic curriculums, the Aquaponic Gardening Book, and online courses content. These resources go great with our full line of aquaponic systems!

The Aquaponic Source has been providing aquaponic systems and educational resources to schools since 2010.

Why Should We Teach Aquaponics?

- Aquaponics is a vitally important way for us to grow food now and for future generations.
- By teaching students sustainable food production, we are creating awareness about where food comes from, making nutritious food choices and the benefits of eating healthy and locally.
- Food can be grown directly in our schools and communities – providing access to nutritious food, creating jobs, and eliminating the huge carbon footprint associated with food transportation miles.

"The aquaponic system is a huge hit here. The kids can't wait for science class. Great product, great service, Thank You!"

-William McGeehan, Adaire Elementary School

Food Miles – A Typical Meal

The Food	Common Place of Origin	WASD*
Tilapia	China, Ecuador, Indonesia	7,626 miles
Salad greens	US, Mexico, Canada	2,055 miles
Tomato	US, Mexico, Canada	1,369 miles
Herbs	US, Mexico, Turkey	3,456 miles
Strawberries	US, Mexico, Chile	1,944 miles

16,450 Food Miles

*Weighted Average Source Distance –A single distance figure that combines information on the distances from production to point of sale and the amount of food product transported. - Leopold Center's Food, Fuel and Freeways report, data for Chicago

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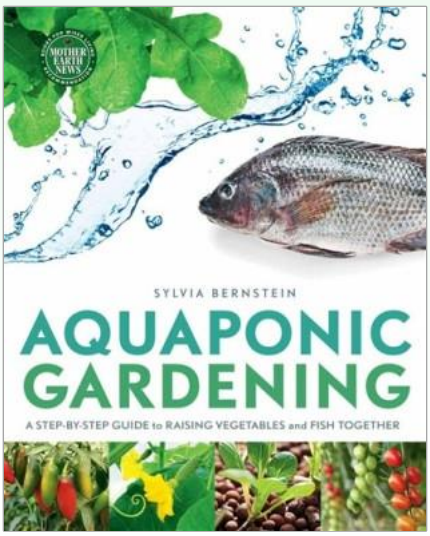
Aquaponics in Schools

Teaching Tools for Educators

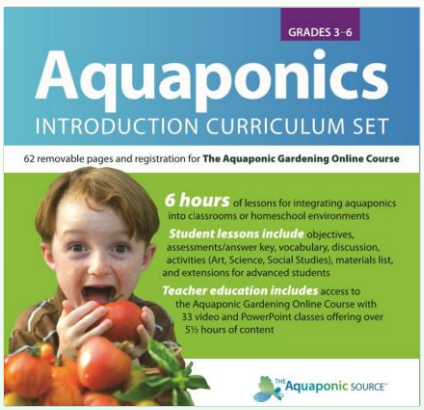
Aquaponics & Education

- Aquaponics is a valuable hands-on teaching tool for core STEM subjects
- **Biology** – Study living ecosystems by observing the interaction of fish, plants, and bacteria
- **Chemistry & Math** – Perform water quality tests and measure growth rates in fish and plants
- **Economics, Marketing, & Nutrition** – Business principles, crop sales, health and wellness

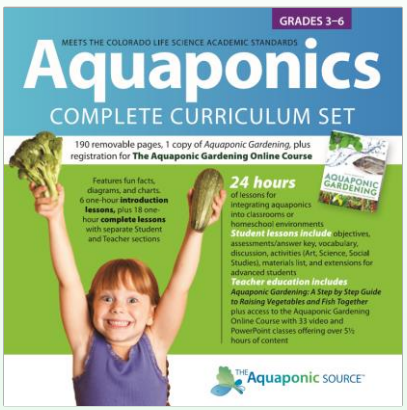


Grades 7 thru 12 Aquaponic Gardening Book
288 pages, 84 photos and diagrams, soft cover
$24.95

Aquaponic Gardening Book with Companion Online Course
5.5 Hours of online instruction - **$59.95**



Grades 3 thru 6 Introductory Curriculum
62 pages - 6 hours of lessons and online course
$99.95



Grades 3 thru 6 Full Curriculum Set
190 pages - 24 hours of lessons, plus online course and Aquaponic Gardening Book
$249.95

Aquaponics Classes

Taught at our farms in Denver, CO!

Basics & Build

- Basics & Build is designed for people new to aquaponics and considering building their own aquaponic system but don't know where to begin
- This class offers detailed instruction of the system components and activities necessary to build and maintain an aquaponic system
- Learn the tricks of the trade and how to grow diverse and abundant crops year round indoors or seasonally outdoors

Aquaponic Immersion

- This two day class will take you through the initial planning process, crop rotations, harvesting your fish, and much more
- Together, we will build our state of the art AquaBundance Modular System to demonstrate the process and learn each step
- We tour two aquaponic farms, discussing the design, construction, and management for greater understanding of aquaponic systems. We will discuss their benefits, costs and how they are serving the community

Online Course

- A comprehensive aquaponic gardening training based on our bestselling *Aquaponic Gardening* book
- The most comprehensive aquaponic gardening training you will find anywhere
- 5.5 hours of organized, fascinating learning content
- 33 streaming videos with PowerPoint "mashup" presentations
- 12 "diving deeper" articles
- 2 downloadable handy tracking charts

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Taught at our farms in Denver, CO!

Aquaponics Classes

Greenhouse Design

- A two day course teaching greenhouse design elements and aquaponic system planning and operations
- Learn how to cut down on energy costs while achieving maximum production from your system
- Tour several greenhouses to better understand the different systems, environmental controls and layouts

The Farming Course

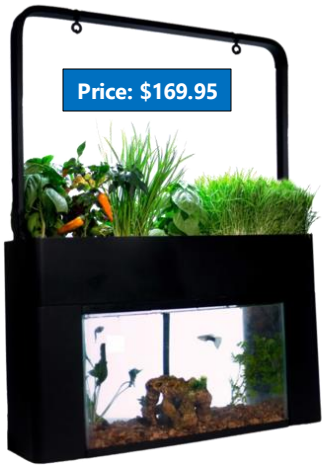
- The Aquaponic Farming and Business Course is built from years of experience designing, building, and running aquaponic farms
- The training is for individuals, families, or organizations considering aquaponic farming as a viable business opportunity
- A deep dive into advanced system design, operations, business, financials, farm management, marketing and sales, food safety, greenhouses, monitoring, controls and so much more...

Farming Course Materials

- Can't come to Denver to take our class? Now you can purchase the course materials
- A 250+ page binder with all of the course slides, planning worksheets, resources for your farm, log files, and a glossary of terms, full color laminated plant disease and pest identification guides
- A huge and constantly updated electronic resources library we use daily when working in our farms
- A financial and production planning electronic workbook for developing your business plans

Aquaponic Systems

Personal Sized Systems



Aquasprouts Garden Kit

- A perfect way to bring aquaponics into your home, school, or office. AquaSprouts teaches the science of an ecosystem, while providing food production
- Grow bed, light bar, and tank housing designed to fit a standard 10 gallon aquarium (tank sourced locally, grow light sold separately)
- Handy tip: 1" of fish per gallon of tank water

Springworks Microfarm

- The Springworks MicroFarm converts any standard 10 gallon aquarium into an indoor garden by harvesting the power of aquaponics.
- A highly productive countertop aquaponic system
- Comes complete with grow bed, media, and light. Just add the 10 gallon fish tank, plants, fish and your ready to start learning and growing

AquaUrban™

AQUAPONIC SYSTEMS FOR MODERN LIVING

- The AquaUrban is a compact system that is high quality, attractive, easy to assemble, and easy to use – all at an affordable price!
- Perfect for both outdoor and indoor use
- Equipped with a 60 gallon fish tank and media-filled grow bed with stand
- Light rack included for hanging a light or trellising vining plants
- Comes with everything needed to get growing out of the box
- Attractive terracotta color highlights greenery

Price: $1,295

AquaUrban Dimensions: 50"L x 28"W x 43"H (w/o light rack)

Aquaponic Systems

Midsized Systems

The Harmony System

- Fish tank can raise up to 20 adult fish at a time
- Two 3x3' growing beds with expanded clay media
- Powder coated black metal frame and light bar trellis
- Plumbing uses Qwiklok fittings. No glue required
- Custom grow bed paneling options available
- Easy to follow 3D instructions and assembly video

Growasis 4-Tier Nursery & Microgreen System

- This vertical hydroponic system for seedlings, microgreens or clones, packs 32 ft² of production into only 8 ft² of floor space.
- With automated watering and state of the art LED lights, you can be certain that your plants are getting the best start possible.
- Grow microgreens for nutritious smoothies, salad and sautés, or sell them for a great price to local chefs.

Aquaponic Systems

The AquaBundance™ Modular System

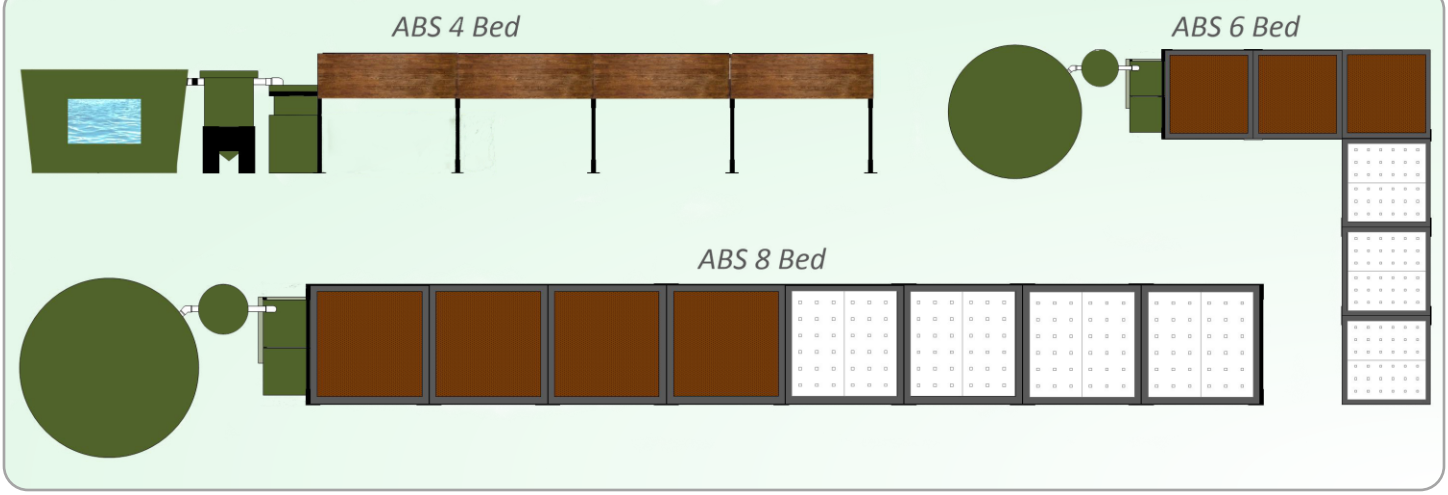
MODULAR AquaBundance AQUAPONIC SYSTEMS

The AquaBundance Modular Home system gives you the flexibility to fit any space, and grow with both Media and Deep Water Culture beds in the same system!

Key features of the AquaBundance Modular System:

- Modular design allows for 3 to 8 growing beds – either in a straight line or "L" shape
- System can utilize both media and deep water culture beds for increased crop variety
- Heavy duty powder coated black metal frame with optional light rack
- ADA Compliant, 30" waist-high beds, no weeding or bending over
- Spiral Flow Filtration System™ for better nutrient availability with less maintenance
- Low wattage pump with low energy consumption and optional backup oxygen system
- All plumbing fittings prebuilt with Qwiklok connectors – No cutting or gluing!
- Installation services available
- **Try our online system builder to configure your own system and see production estimates**

Maximum Customization
For Maximum Production



Aquaponic Systems

The AquaBundance™ Modular System

AquaBundance Options

See our website or contact us for AquaBundance Options

- **Custom wood paneling –** We can create custom paneling to cover and insulate grow bed frames on the AquaBundance and Harmony systems.
- **Light hanging rack/trellising bar –** Use the light bar to turn any indoor space into a productive garden (grow lights sold separately), or use bar to trellis vining crops
- **Grow light packages –** We carry a full range of grow light solutions to fit your needs and budget. From T5 fluorescents, to ceramics, and LEDs, we can get you growing anywhere
- **AquaBackup Oxygen System –** Essential for off-grid backup power and protecting your fish in a power outage. Please see the DIY section for more information about AquaBackup
- **Fish Tank Window Kit –** Install a window on your tank to get the best view of your fish
- **Other Accessories** – Heaters, chillers, monitoring, water filtration and auto-top off

Aquaponic Systems

Deep Water Culture Aquaponics

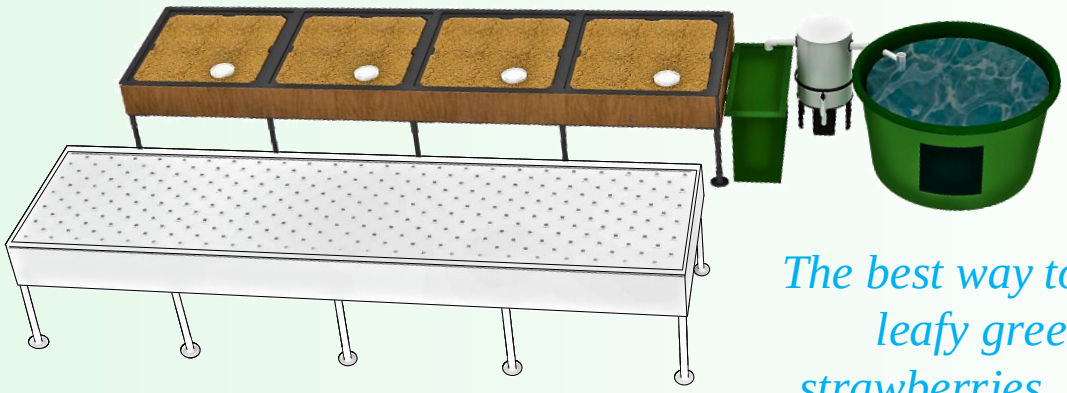


Illustration: 4 media bed AquaBundance System and 4' x 16' Growasis Elevated Deep Water Culture

Expand Your AquaBundance System

The best way to grow lettuce, leafy greens, herbs, strawberries, green onions, clones and so much more

- **Low Energy Consumption** – The large volume of water in a DWC trough provides greater stability for pH and water temperature acting as a thermal mass to passively heat and cool your growing environment.
- **Efficient Design** – Maximize plant density and floor space for greater crop production
- **Work Smarter** – Rafts can be picked up and moved to a convenient height for transplant and harvest
- **Proven Technology** – Deep water culture has been around for decdes and has been proven as an excellent growing method through extensive research and commercial applications.

Growasis
MODULAR RAFT SYSTEMS

Easy and efficient to assemble. No gluing, cutting or special tools needed

Buttercrunch Farms AquaBundance and Growasis Elevated DWC

Aquaponic Systems

Deep Water Culture Aquaponics

Three Growasis Configurations to Fit Your Needs

All of our Growais DWC™ systems come with heavy duty powder coated metal frame components, food grade raft boards, Dura-skrim liner, liner clips, and end walls for bulkhead attachments. Lengths begin at 8' and can be expanded in 4' increments.

Growasis Ground DWC

- Available in 2', 4' 6' 8' widths,
- 14" deep for optimal root growth
- DWC ground systems can be installed on any level surface

Growasis Elevated DWC

- Available in 2', 4' 6' 8' widths
- Growing system is 30" tall, allowing comfortable work height standing or sitting and is ADA compliant.
- Optional light rack available

Growasis Double Decker DWC

- Double your crop production per square foot.
- LED lights for lower deck, optional upper deck light rack
- Available in 4' widths only

Contact us for design and quote to configure a Growasis system to meet your needs

Farm Scale Aquaponics

The Flourish Aquaponic Farms™

Flourish Farm™ AQUAPONIC SYSTEMS

A Highly Productive, Efficient, and Diverse Aquaponic Farm Designed to Flourish!

Where to Farm

Aquaponic farming has become increasingly popular for family home and hobby, schools, retirement centers, housing developments, non-profits, business campuses, restaurants, hotels and anywhere food can be connected with community, here and around the world.

Designed by Farmers for Farmers

After years of aquaponic farming, we focus on maximizing plant production, creating effective work spaces, reducing energy consumption and providing each customer a high quality farm based on the latest technology and industry recognized system designs and components.

Food Production, Training or Community Space, ADA Compliance, Crop Diversity, Financial Performance

We design your farm to meet your goals!

Farm Scale Aquaponics

The Flourish Aquaponic Farm™ 23' x 40'

Farm Features

Two 300 gallon fish tanks
Aerobic Mineralization tank
AST Polygeyser auto-backwashing filter
Five Aquabundance media beds (45 sq ft)
Growasis 8' x 28' Modular Raft System
Growasis 4' x 24' Elevated Raft System
Growasis Vertical Nursery and Microgreen System

Flourish Farm 30 x 52' Production and Energy Estimates								
Annual heads of common leafy greens based on different average culture times in DWC[1]			DWC Info		Media Beds	Microgreens*	Fish**	Energy***
4 Weeks	5 Weeks	6 Weeks	Total sq ft	Total Planting Spaces[2]	Tomatoes[3] (est. lbs)	10" x 20" Flats	Live Weight (lbs)	Watts per hour
26,208	**20,966**	**17,472**	640	2,240	675	416	535	607

Actual production results will vary depending on available light, system management, water quality, temperature, plant and fish species, humidity and other factors that will influence plant and fish health and growth rates.

Farm Scale Aquaponics

The Flourish Aquaponic Farm™ - 30' x 52'

GroFresh Farms Aquaponics Lettuce

Farm Features

Three 300 gallon fish tanks

Aerobic Mineralization tank

AST Polygeyser auto-backwashing filter

Five Aquabundance media beds (45 sq ft)

Two Growasis 8 x 40' Raft Systems

One Growasis 2' x 20' Elevated Raft System

Two Growasis Vertical Nursery Systems

Flourish Farm 30 x 52' Production and Energy Estimates

Annual heads of common leafy greens based on different average culture times in DWC[1]			DWC Info		Media Beds	Microgreens*	Fish**	Energy***
4 Weeks	5 Weeks	6 Weeks	Total sq ft	Total Planting Spaces[2]	Tomatoes[3] (est. lbs)	10" x 20" Flats	Live Weight (lbs)	Watts per hour
26,208	**20,966**	**17,472**	640	2,240	675	416	535	607

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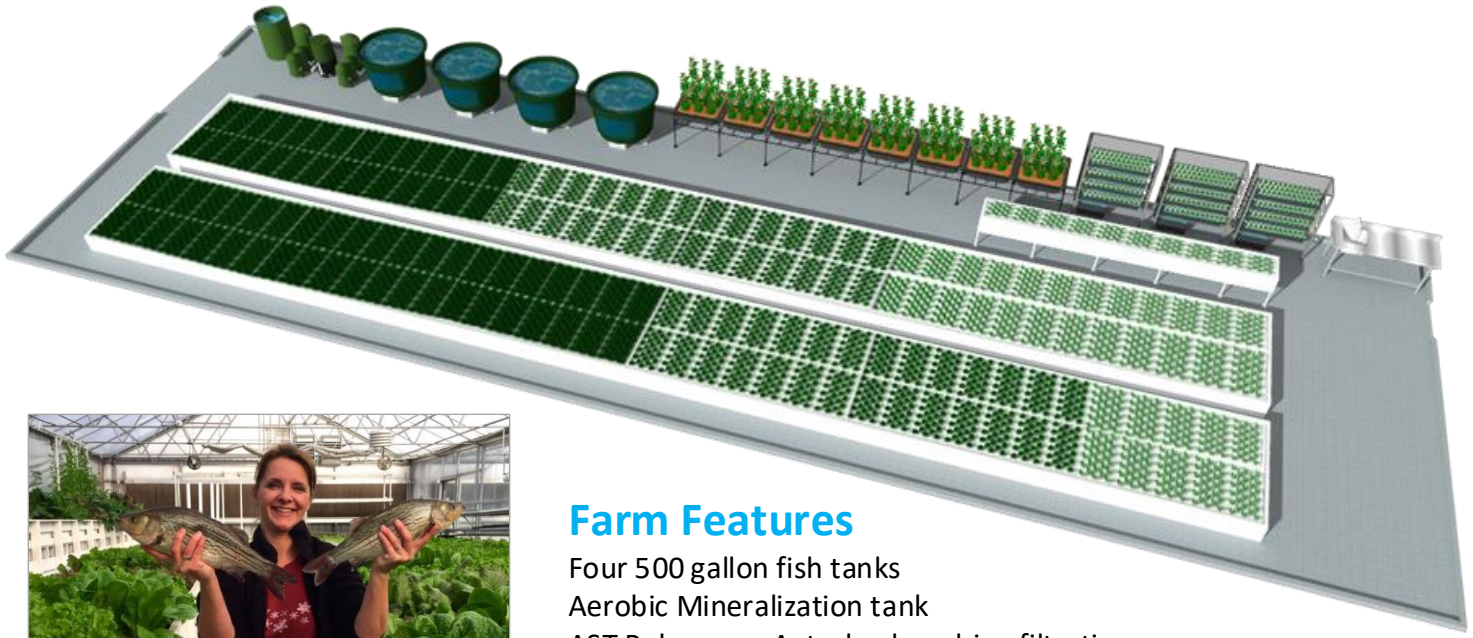
Farm Scale Aquaponics

The Flourish Aquaponic Farm™ 30'x96'



Farm Features

Four 500 gallon fish tanks
Aerobic Mineralization tank
AST Polygeyser Auto-backwashing filtration
Eight Aquabundance media beds (72 sq ft)
Two Growasis 8′ x 80′ Raft Systems
One Growasis 2′ x 20′ Elevated Raft System
Three Growasis Vertical Nursery and Microgreen Systems

Flourish Farm 30 x 96′ Production and Energy Estimates

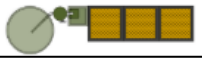
Annual heads of common leafy greens based on different average culture times in DWC[1]			DWC Info		Media Beds	Microgreens*	Fish**	Energy***
4 Weeks	5 Weeks	6 Weeks	Total sq ft	Total Planting Spaces[2]	Tomatoes[3] (est. lbs)	10″ x 20″ Flats	Live Weight (lbs)	Watts per hour
52,416	**41,933**	**34,944**	1320	4,480	1,080	624	867	930

Aquaponic System Comparison

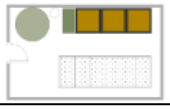
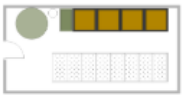
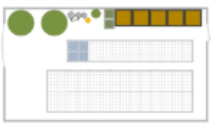
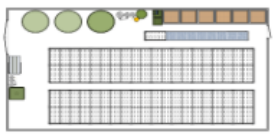
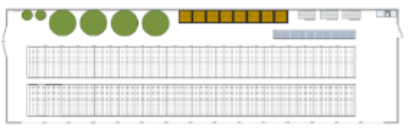
Small Home Systems

Name	Fish Tank (gallons)	Fish Stocking	Planting Area (sf)	Dimensions (LxWxH)	Produce Estimates	Price	
AquaSprouts	10	8 to 10 aquarium fish	1.5	20" x 11" x 15"	6 to 8 herbs and greens a month	$169	
SpringWorks	10	8 to 10 aquarium fish	1.2	20" x 11" x 13"	6 to 8 herbs and greens a month	$249	
AquaUrban	60	5 to 8 adults	9.5	50" x 28" x 43" (w/o light bar)	90 lbs of tomatoes or 210 heads of lettuce	$1,295	
Harmony	125	10 to 15 adults	18	83" x 60" x 39"	180 lbs of tomatoes or 420 lettuce heads	$1,795	

AquaBundance Modular DWC and Media growbeds can be mixed in any combinations with a minimum of 2 media beds. Add $150 for an L shaped configuration

Name	Fish Tank (gallons)	Fish Stocking	Planting Area (sf)	Dimensions (LxWxH)	Produce Estimates	Price	
3 bed	200	10 to 15	27	18' x 54" x 30" (w/o light bar)	270 lbs of tomatoes or 650 lettuce heads	$3,995	
4 bed	200	15 to 20	36	21.5' x 54" x 30" (w/o light bar)	360 lbs tomatoes or 860 lettuce heads	$4,695	
5 bed	200	20 to 25	45	25' x 54" x 30" (w/o light bar)	450 lbs of tomatoes or 1080 lettuce heads	$5,395	
6 bed	200	25 to 30	54	28.5' x 54" x 30" (w/o light bar)	540 lbs of tomatoes or 1300 lettuce heads	$5,995	
7 bed	200	30 to 35	63	32' x 54" x 30" (w/o light bar)	630 lbs of tomatoes or 1500 lettuce heads	$6,695	
8 bed	200	35 to 40	72	35.5' x 54" x 30" (w/o light bar)	720 lbs of tomatoes or 1725 lettuce heads	$7,395	

Aquaponic System Comparison

Flourish Small Family Farm Systems					Connect a Growasis Elevated Raft System to your AquaBundance Modular System (greenhouse not included)		
Name	Fish Tank (gallons)	Fish Stocking	Planting Area (sf)	Dimensions (LxWxH)	Produce Estimates	Price	
Flourish 12 x 20	200	25 to 30	27 sf media 48 sf DWC	12 x 20 sq ft greenhouse	270 lbs of tomatoes and 1600 lettuce heads	$5,995	
Flourish 12 x 24	300	30 to 35	36 sf media 64 sf DWC	12 x 24 sq ft greenhouse	360 lbs of tomatoes and 2200 lettuce heads	$6,995	
Flourish 12 x 28	300	35 to 40	45 sf media 80 sf DWC	12 x 28 sq ft greenhouse	450 lbs of tomatoes and 2800 lettuce heads	$7,995	
Flourish Farm Systems					Full production farm scale systems for maximum growing potential		
Name	Fish Tank (gallons)	Fish Stocking	Planting Area (sf)	Dimensions (LxWxH)	Produce Estimates	Price	
Flourish 23 x 40	2 x 300	200 lbs annually	54 sf media 288 sf DWC	23'x40' greenhouse	540 lbs of tomatoes, 12,000 heads and 200 microgreen flats annually	Contact us for Quote	
Flourish 30 x 52	3 x 300	535 lbs annually		30' x 52' greenhouse	675 lbs of tomatoes, 25,000 heads and 416 microgreens annually	Contact us for Quote	
Flourish 30 x 96	4 x 300	1000 lbs annually	120 sf media 1,152 sf DWC	30'x96' greenhouse	1300 lbs of tomatoes, 40,000 heads and 720 microgreen flats annually	Contact us for Quote	

Adult fish are considered approx 1.5lbs such as Tilapia, Catfish, Trout, Bluegill, Bass, Koi

Production estimates are highly variable and depend on temperature, light, water quality, rotation management and other factors affecting plant growth

Design, Build, and Support Services

Why Custom Design – Build Solutions?

While we have several pre-engineered solutions, many times your goals, space, and budget require something unique. Our approach is to make sure that you have a system that meets your needs. To do this, we have developed a unique farm design program to create an ecologically balanced aquaponic system at any scale. We ensure that your system is based on a wide range of research, industry best practices, sound design principles, and our aquaponic farming experience.

Our Process

❂ **Requirements Gathering** - We will listen to your goals and objectives and gather important information about your project

❂ **Concept Design** - We develop a conceptual plan for the system and work with you to ensure it aligns with your goals gathered in the previous phase

❂ **Design Development** - Once we agree on the concept we develop the design to finalize equipment locations, plumbing, water pumps, aeration, lighting, energy requirements, and more. This phase allows us to create a plan that we can finalize the project budget and build from.

❂ **Pre Construction Coordination** - Work in this phase involves coordination with owners, architects, and contractors to prepare project schedules, attend planning meetings, and begin the equipment procurement process. We will also create a system startup and production schedule so we can establish milestones and deliverables for seeding, transplanting, and first harvest.

Consulting Services

Installation - We offer the option of providing a project supervisor who can oversee your team or we can provide our own installation team to cover all aspects of the aquaponic system construction. Installation timelines and resources will be determined during the design development phase and pre-construction phases.

System Startup - Startup involves the initial fill of the system, testing flow rates, functionality, inspecting for leaks, and initiating the nitrification cycle. Properly cycling will prepare your system for the safe introduction of fish and plants.

Training - We provide onsite training for your farm team as well as classes for farm management and operation at our training center in Denver, CO

Support - Once you are up and running we offer data tracking, monitoring, and support solutions to help answer questions and to make sure your farm is functioning properly

Financial and Value Analysis Software

We've tied our farm design system into our downloadable spreadsheet which can generate financial pro forma scenarios critical for making an informed decision regarding your investment. This helps you to determine important factors such as projected net income, internal rate of return, produce and fish production, seasonal price variations, energy consumption, capital startup and operating costs.

Using the Financial Plan Software You Can:

- Estimate capital costs for the aquaponics system and facility
- Project plant and fish revenue based upon the production plan for selected fish and plant species
- Estimate operating costs, cash flow, breakeven and other aspects of financial feasibility
- Identify technical, financial, and market risks associated with the project
- Provide an estimated rate of return on investment
- Highlight opportunities that will improve financial viability

Aquaponic Farm Production & Financial Plan

Pro Forma Income Statement - 4 Year

Income	Year 1	Year 2	Year 3	Year 4
Produce Sales	57,467	85,686	88,256	90,904
Fish Sales	241	2,888	2,975	3,064
Misc - Other income	-	-	-	-
Total Sales	**57,707**	**88,574**	**91,231**	**93,968**
Fixed Costs				
City and County Entitlement	-			
Site Development	-			
Greenhouse - Other Structures	141,720			
Aquaponics System	48,000			
Total Fixed Costs	**189,720**	**-**	**-**	**-**
Variable Costs				
Aquaponic Parts and Supplies	1,087	1,087	1,087	1,087
Fish Feed and Supplies	1,538	1,538	1,538	1,538
Seeds, Plants, Media	4,887	4,887	4,887	4,887
IPM Supplies	1,175	1,175	1,175	1,175
Greenhouse Supplies (disposables)	389	389	389	389
Product Packaging	1,121	1,121	1,121	1,121
Lease				
Utilities	3,022	3,022	3,022	3,022
Employee Training				
Payroll	30,000	30,000	30,000	30,000
Insurance - Workers	1,536	1,536	1,536	1,536
Charitable Contributions		-	-	-
Bad Debts/Writes Offs		-	-	-
Advertising/Marketing		-	-	-
Professional Services		-	-	-
Bank Fees		-	-	-
Debt Service (use loan calculator)	9,679	9,679	9,679	9,679
Total Variable Costs	**54,434**	**54,434**	**54,434**	**54,434**
Net Income	(186,447)			
Net income not including capital outlay	3,273	34,140	36,797	39,534

Internal Rate of Return over 10 years Assumes average of returns yrs 2 - 4)	**10.97%**	Calculates the internal rate of return on an investment based on a series of periodic cash flows.

Net Present Value	**$252,159**	NPV considers the time value of money, translating future cash flows into today's dollars and provides a concrete number that managers can use to easily compare an initial outlay of cash against the present value of the return.
Discount Rate	5.00%	
Initial Investment	189,720	
Pos/Neg Result	62,439	

Filtration Systems

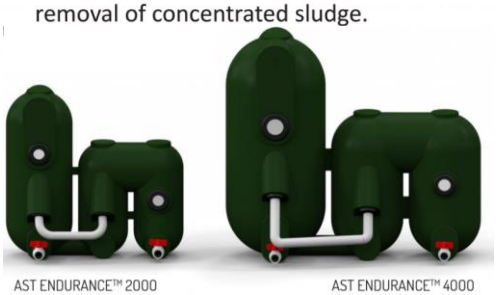
Endurance™ Series Filters from AST™

The new AST Endurance™ Series is designed for long lasting, hands-off operation. The auto-pneumatic backwashing paired with the auto sludge removal feature, enables this unit to operate for extended periods of time without intervention.

AST Endurance™ filters are ideal for tanks or ponds sizes of 500-4000 gallons. The low profile makes the filter suitable for either an airlift or pump configuration. The air driven backwash limits the water loss to the removal of concentrated sludge.

AST™ ENDURANCE™ SERIES

Model	Price	Crating Charge
ED2000	$999.00	$30.00
ED4000	$1349.00	$50.00

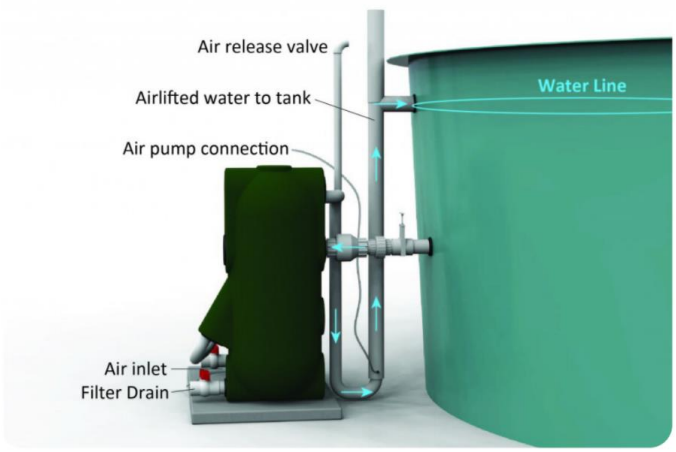


System Overview

Front View

1. Viewing ports
2. Air inlet
3. Trigger
4. Sludge outlet

Airlift Tank Setup

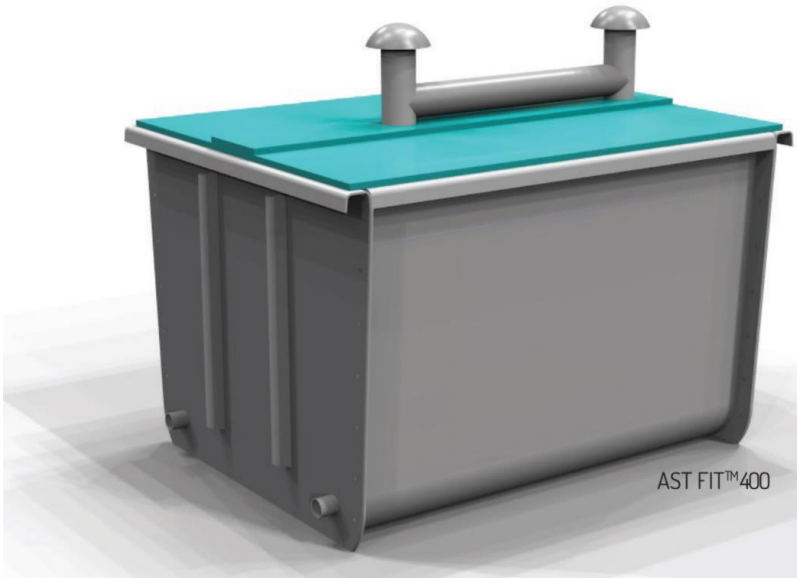


Key Facts	• Compact PolyGeyser® for small applications • Fully automated operation • No moving parts for greater reliability
Ease of Operation	• Suitable for airlift or pump configuration • Low maintenance • Optional auto-purging sludge concentrator
Filtration	• Mechanical and biological filtration in one unit • No media replacement necessary • Auto-pneumatic backwash

ENDURANCE	MODEL 2000		MODEL 4000	
	Fingerling	Growout	Fingerling	Growout
Bead Volume (ft3)	.75		1.75	
Flow Rate (gpm)	5-10		15-25	
Max Pressure (PSI)	5		5	
Fish Supported (lbs)	20	110	43	265
Feed Rate (lbs/day)	.6	1	1.3	2.63
RAS Volume (gallons)	200	200	390	525
Koi Pond (gallons)	2000		4000	

Filtration Systems

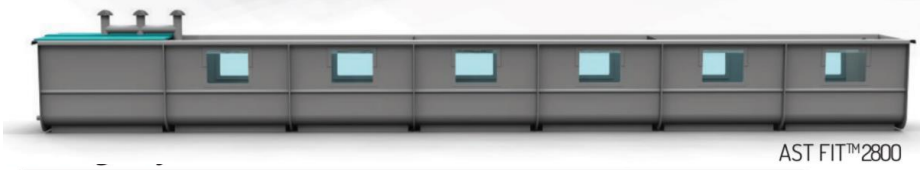
AST FIT™ (Filter in Tank) Systems



AST FIT™ (Filter-In-Tank) Systems are suitable for growout, hatchery, bait, aquaponics, and more. These units are easy to operate and maintain, with energy savings up to 60%, compared to typical water pump filtration systems. These systems operate using air for circulation and filter operation. These efficient airlifts provide cost savings and greater reliability.

The built-in PolyGeyser® filter automatically backwashes the media, requiring only periodic sludge draining. This filter provides both mechanical and biological filtration in a single unit with minimal water loss.

The AST FIT™ 400 is designed for modularity to keep up with your growing needs. These units can be made as tanks, filters, or a combination depending on your application. Link up as many as seven units for a system volume of 2800 gallons on one filtration unit.



Model	Length (ft)	Tank Volume (Gallons)	Bead Volume (ft^3)	Peak Feed Rate (lb/day)		Approximate Pounds of Fish Supported* (lbs)	
				Fingerlings	Growout	Fingerlings	Growout
FIT 400	5	400	2.5	1.3	2	43	200
FIT 800	10	800	2.5	2	4	63	370
FIT 1200	15	1200	5	4	6	130	600
FIT 1600	20	1600	5	5	8	177	780
FIT 2000	25	2000	9	7	10	223	1000
FIT 2400	30	2400	9	7	12	227	1200
FIT 2800	35	2800	9	7	13	227	1340

Table based on TAN levels below 1.5 and 0.5 for growout and fingerling production respectively
*Based upon a 1% and 3% daily feed rate for growout and fingerling production respectively

Contact us for a Quote

Complete System	• Minimal setup, stand alone aquatic life support • Operates on low pressure air supply • No water pumps necessary
Operation	• Auto-pneumatic backwash • Airlifted circulation provides degassing and aeration • Total unit volume of 400 gallons
Filtration	• No moving bed bioreactor needed • Integrated mechanical and biological filtration • Concentrated sludge reservoir

D.I.Y. Aquaponics

Grow Beds, Rafts and Liner

We offer a full range of parts and supplies for you to build your own aquaponic system. From grow beds, to plumbing kits, pumps, tubing, and fittings, we have it all!

AquaUrban Grow Bed

Prices:
Grow Bed Only – $259.95
Grow Bed with Bell Siphon OR Ebb & Flow Kit – $289.95

- Extra thick reinforced, 1/4" food safe, UV protected PE plastic grow bed
- 12" deep, 28" wide and 44" long
- Includes media guard
- Options include grow bed only, or add a bell siphon or ebb & flow plumbing kit

AquaBundance Grow Beds

Prices:
Easy Reach 50 Gallon – $149.95
Bountiful 75 Gallon – $195.95
200 Gallon Grow Bed – $295.95
300 Gallon Grow Bed – $395.95

- Food grade high density PE plastic with built-in UV inhibitors
- FDA/NSF Approved
- BPA-Free
- Available in 50, 75, 200, (pictured) and 300 gallon sizes

Dura-Skrim Liner

6', 12' and 18' widths available.
Lengths available in 10' increments – Pricing information on website

- DURA-SKRIM® R20WW consists of virgin outer layers of white high-strength polyethylene film laminated together with a black layer of molten polyethylene
- All resins used in the food contact layer are FDA 21 CFR 177.1520 (c) 3.2 compliant
- Dura-skrim has been approved as a material in organic farming

Deep Water Culture Raft Boards

Prices:
Single Boards – $21.95
Large Project? Call for discounted bulk pricing

- Specifically designed for use in both aquaponic and hydroponic deep water culture growing
- Sealed Surface Technology® resists water penetration, ensures durability and longevity, and gives growers a cost-effective system
- The rafts are 2'x4' in size and have 28 holes per board which results in a fully planted density of 3.5 plants per sq ft. These boards are excellent for all leafy greens and lettuce production

D.I.Y. Aquaponics

Fish Tanks and Filtration

AquaUrban 60 Gallon Fish Tank

- A compact, attractive and sturdy 60 gallon aquaponic fish tank for use either indoors and out
- Extra thick, food safe plastic with lid
- Available in Terracotta and Grey

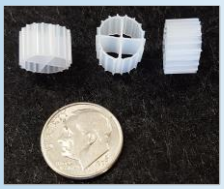
AquaBundance Fish Tanks

Prices:
125 Gallon – $389.95
200 Gallon – $449.95
300 Gallon – $529.95

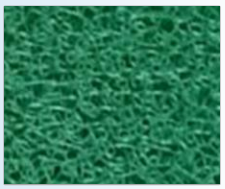
- Extra thick 1/4" food safe, UV protected PE plastic, comes in Forest Green
- 125 Gallon, 200 gallon (pictured), & 300 gallon tanks available.
- DIY tank window kits available
- All sizes fit through a standard door. 200 and 300 gallon tanks are 33" high

Brush Filters

Filter Media



Sweetwater SWX Biomedia



Large Green Solids Filtration Mat

- We carry a range of solids and biofiltration mediums to keep your water clean, clear and promote optimal bacteria growth
- See our website for pricing and more information

Source Water Filtration

- Create a food and fish safe enviornment by starting with the right source water
- Filtration helps remove deadly chlorine or chloramine from municipal water
- Remove sediment, heavy metals, fluoride, and other contaminants
- Find the right sized filtration system for your home, school or farm installation

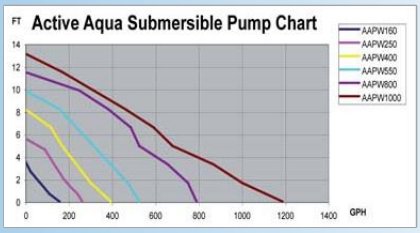
D.I.Y. Aquaponics

Water Pumps and Heaters

Water Pumps

- We carry a wide range of water pumps for any size system
- Submersible or inline, we have the right pump for your needs
- Replacement impellers are available for every pump we sell

Active Aqua Submersible Pumps



Prices:
160 GPH – $13.95
250 GPH – $24.95
400 GPH – $27.95
550 GPH – $46.95
800 GPH – $59.95
1000 GPH – $69.95

Mag-Drive Pumps

Prices:
Model 2 - 250 GPH – $54.95
Model 3 - 350 GPH – $59.95
Model 5 - 500 GPH – $67.95
Model 7 - 700 GPH – $74.95
Model 9.5 - 950 GPH – $99.95
Model 12 - 1200 GPH – $139.95
Model 18 - 1800 GPH – $169.95
Model 24 - 2400 GPH – $219.95
Pondmaster 1200 GPH Air/ Water Pump Combo – $209.95

Farm-Scale Water Pumps

Proline Hy-Drive 4000 GPH – $249.95

AquaHeat Heating System

- Highly efficient aquaponic system water heater
- On or off grid
- Natural gas & propane options available
- Choose from several sizes to fit your application.
- Each unit is custom built in the USA

Electric Fish Tank Heaters

Prices:
50W – $16.95
200 W – $26.95
350 W – $39.95
500 W – $199.95
1,000 W – $249.95

Rule of Thumb: 4 watts per gallon for every 9 F increase in temp

- Maintain consistent water temperature for your fish with a titanium stick heater and controller
- Available in various wattages, depending on the size of your system

D.I.Y. Aquaponics

Bell Siphons, Plumbing Kits and Fittings

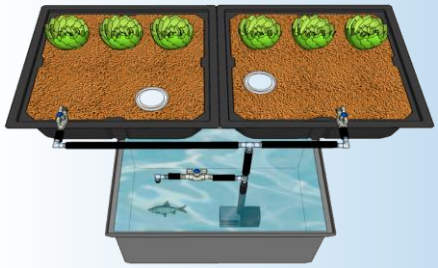
AquaParts Bell Siphon Kits

Prices:
8" Bell Siphon – $27.95
12" Bell Siphon – $35.95

- Great way to drain your grow bed in a flood & drain aquaponic system
- No timer required
- Comes with media guard and all necessary fittings
- 8" bed depth "Shorty" or 12" bed depth Bell Siphons available

AquaParts Siphon Plumbing Kits

AQUAPONICS PLUMBING KIT



Prices:
S1 Kit – $109.95
S2 Kit – $179.95
SS2 Kit – $249.95
SS3 Kit – $329.95

- Siphon-based grow bed drainage plumbing kit
- All the plumbing parts you need to build a thriving aquaponic system
- S1 kit for 1 bed, S2 for 2 bed systems
- SS2/SS3 for 2 or 3 beds with sump tank

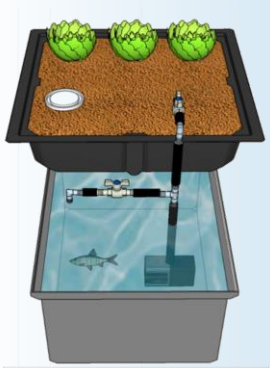
Bulkheads & Hard to Find Fittings

Bulkheads QwikLok Uniseals

- We carry a large variety of hard to find plumbing parts perfect for your DIY build!
- Bulkhead fittings, QwikLok connectors, Uniseals and more
- See the "Plumbing Fittings" page of our website for a complete parts list and pricing

AquaParts Timer Based Plumbing Kits

AQUAPONICS PLUMBING KIT



Prices:
T1 Kit – $89.95
T2 Kit – $149.95

- Timer-based grow bed drainage
- Comes with installation instructions
- T1 kit for 1 bed, T2 kit for 2 bed systems

D.I.Y. Aquaponics

Aeration and Air Stones

Air Pumps & Diffusers

Active Aqua Air Pumps

Prices:
2 Outlet – $14.95
4 Outlet – $27.95

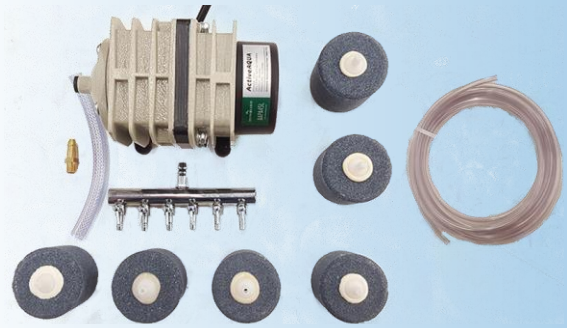
Air Stones

Prices:
Small – $1.95
Medium – $2.95
Large – $4.95

Active Aqua Commercial Air Pumps

Prices:
6 Outlet, 45Lpm – $44.95
8 Outlet, 70Lpm – $59.95
12 Outlet, 110Lpm – $99.95

AquaAeration Kits



- Take the guess work out of aeration
- Each aeration kit contains an air pump, air stones, and silicone air tubing

Prices:
AquaAeration Kit 2 Outlet – $16.95
AquaAeration Kit 4 Outlet – $36.95
AquaAeration Kit 6 Outlet – $69.95
AquaAeration Kit 8 Outlet – $89.95

Alita Linear Diaphragm Air Pumps

- Compact high capacity linear air pump with low current draws, low vibration and quiet performance.
- Automatic thermal protection
- Diaphragm failure detection and protection
- Fail-safe construction

Prices:
AL-6, 10Lpm – $109.95
AL-15, 17.5Lpm – $125.95
AL-25, 25Lpm – $149.95
AL-40, 48Lpm – $169.95
AL-60, 68Lpm – $229.95
AL-80, 85Lpm – $249.95
AL-100, 110Lpm – $395.95
AL-120, 125Lpm – $495.95
AL-150, 180Lpm – $625.95
AL-200, 210Lpm – $725.95

D.I.Y. Aquaponics

Backup Aeration and Monitoring

AquaBackup
JUST IN CASE

Keep your fish alive if the power goes out!

Prices:
AquaBackup w/ Oxygen Infuser 500 – $329.95
AquaBackup w/ Oxygen Infuser 1100 – $349.95

- When the backup battery control system senses a power failure, it automatically switches power to a battery* which you can use to power the DC oxygen infuser device or water pump
- When electricity is restored, BatteryOn automatically disables the battery and any connected devices will stop
- Two sizes, depending on amount of fish:

  The Oxygen Infuser 500 keeps up to **10 lbs** of fish alive

  The Oxygen Infuser 1100 keeps up to **50 lbs** of fish alive
- All you have to do is install a marine, deep-cycle battery, connect any battery-driven DC device like 12V DC Pump, and plug in the main power cord

***battery not included (sourced locally)**

Bluelab Monitors

- Monitor pH, Temperature, EC
- Hand-held mobile unit or
- Wall mount constant realtime readout

Prices:
Bluelab pH Pen – $109.95
Bluelab Guardian – $359.95
Bluelab Guardian with Wireless Data Monitoring and connect stick $500.00

Dissolved Oxygen Meter

- Designed specifically for aquaculture, aquaponics, ponds, and aquariums
- Galvanic DO probe
- Backlit LCD
- Automatic Temperature Compensation
- Manual salinity and altitude compensation
- Water-resistant
- Supplied with 30ml of electrolyte solution
- Includes batteries, screwdriver, and instructions

Prices:
DO meter 4m cord – $445.95
DO meter 10m cord – $505.95
DO meter 15m cord – $555.95

D.I.Y. Aquaponics

Lights and Lighting Accessories

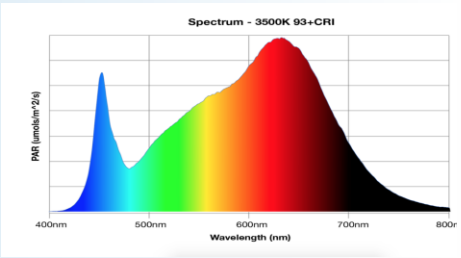
For all your indoor or supplement lighting needs, we have you covered!

Check out the website or call our design team

ARC 600 LED Light

- 3500K 93+ CRI LEDS
- Broad-spectrum white grow light
- Perfect for both vegetative and flowering plant production
- Features 6 COB LED pucks
- Large aluminum heat sink
- 4 active cooling fans
- 110 or 240v power options
- 4' x 4' crop coverage

Prices:
ARC 600 – $799.00
ARC 600 with 51° or 91° Optics Package – $858.99



Fluorescent Light Systems

- Designer or Commercial Styles
- 2ft and 4 ft lengths
- 2, 4, 6, 8, 12 tube fixtures
- Operates at 120v

See Website for Length, Tube Quantity and Pricing

T5 LED Replacement Bulb

Replaces any 4' T5 Fluorescent light
45% energy savings
50,000 hour bulb life.

Quantity	Price Per Bulb
1 - 4	$21.95
5 - 10	$19.97
11 - 20	$18.83
21+	$18.24

Light Rail Drive Kits

HID Lights

Light Meters

Timers

THE Aquaponic SOURCE™ Growing Fish and Plants Together

www.TheAquaponicSource.com

Aquaponics Products

Plant and Fish Products

AquaVertica

Vertical Growing System

Price: 4 ft – $59.95

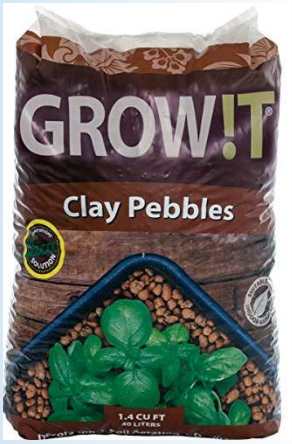
AquaPouch™

FABRIC BAGS FOR AQUAPONICS

Many Sizes to Choose From
Check the web for Price

Plant Products

- Clay media
- Plug trays
- Seedling mats
- GrowGrips
- Rockwool
- Garden supplies
- Microgreen trays
- Net pots
- Coco Coir
- Pest Management



Fish Management Products

- Water quality meters
- API Water Test Kits
- Fish Nets
- Tidy Tank
- D-Chlor Agent
- Microbial Algea Clean
- Nitrifying Bacteria
- Prime Water Conditioner
- Fish Disease Treatment
- Aquarium Salt

Aquaponics Products

Nutrients & Adjusters

AquaStart
GET STARTED IN AQUAPONICS

Prices:
Small (less than 100 gal) – $89.95
Medium (100-300 gal) – $99.95
Large (300-500 gal) – $119.95

- Includes everything needed to get your aquaponic system up and running
- Aquaponic Gardening Online Course, API Test Kit, AquaUp & AquaDown, Digital Thermometer, AquaCycle Kit, and Microbe Lift Nitrifying Bacteria
- Small, medium, and large sizes available

AquaUp
FOR RAISING pH

Prices:
1 lb – $9.95
2 lb – $17.95
5 lb – $24.95
10 lb – $39.95

- AquaUp pH Raising Kit feeds your plants calcium and potassium as it safely maintains pH at optimum levels
- Kit consists of equal amounts of Calcium Carbonate & Potassium Carbonate
- Sizes available as 1 lb, 2 lb, 5 lb, & 10 lb

AquaCycle
AQUAPONICS CYCLING KIT

Prices:
Small – $19.95
Medium – $29.95
Large – $39.95

- Includes nitrifying bacteria for ultra-fast cycling
- Details how the cycling process works, and how to get your system ready before adding fish
- Contents include Bottle of Microbe-Lift Nitrifying Bacteria, Powdered Soluble Ammonia, Powdered Soluble Seaweed, Data Tracking chart
- Small, medium, and large sizes available

AquaDown
FOR LOWERING pH

Prices:
8 oz – $9.95
32 oz – $13.95
1 Gallon – $27.95

- Use to lower pH of aquaponic systems to optimum levels of 6.8 - 7.0
- Specially formulated blend of 18% Phosphoric Acid - safe for use in aquaponic and hydroponic systems
- Comes in 8 oz, 32 oz or 1 gallon sizes

Aquaponics Products

Nutrients & Adjusters

AquaBuffer™

pH STABILIZER

Prices:
1 lb – $13.95
2 lb – $19.95
5 lb – $39.95

- Keep your pH stable to minimize stress on fish and plants
- Use AquaBuffer to maintain water hardness
- Contents include Potassium Bicarbonate and instructions for use in aquaponic systems
- Available in 1 lb, 2 lb, & 5 lb boxes

Aquaponic Elements

Prices:
Single Tea Bag – $4.95
10 Pack – $39.95

- Trace mineral amendment containing: Phosphoric Acid, Soluble Potash, Calcium, Magnesium, and Iron
- Specially designed and blended for media-based aquaponic gardens
- Great for fruiting crops!
- Each bag treats 100 gallons of water for 40-60 days
- Available as single tea bag or 10-pack

Aqualron™

DTPA CHELATED IRON 10%

Prices:
8 oz – $14.95
1 lb – $22.95
2 lb – $40.95
20 lb – $229.95

- Chelated iron product created specifically for aquaponics
- Used for the treatment & prevention of leaf yellowing (chlorosis)
- DPTA is the best form of chelated iron due to 100% effectiveness in pH range of 6.0-7.5
- Available in 8 oz, 1 lb, 2 lb, 20 lb sizes

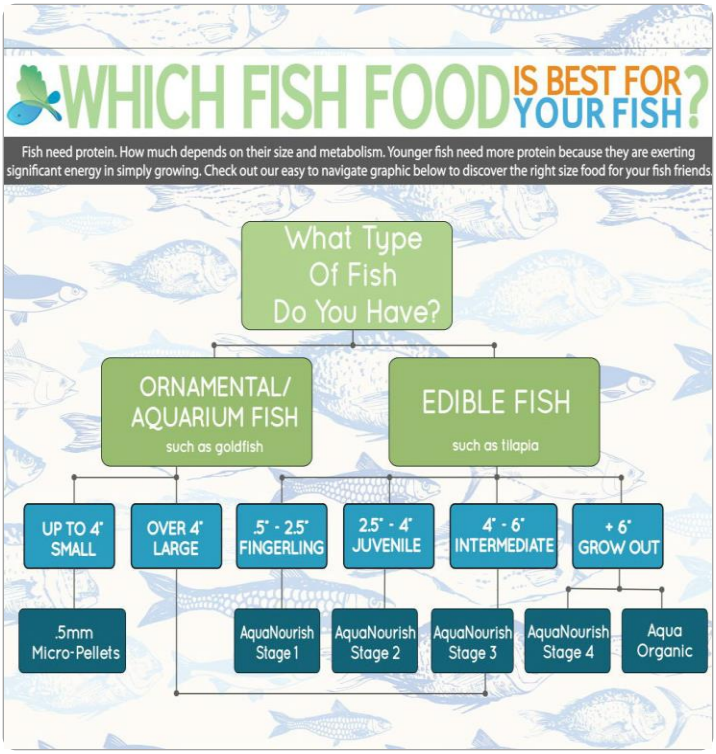
Aquaponics Products

Fish Food

AquaNourish™ OMNIVOROUS FISH FEED

Stage 1:	Stage 2:	Stage 3:	Stage 4:
5 lb – $16.95	**5 lb** – $16.95	**5 lb** – $9.95	**5 lb** – $8.95
10 lb – $29.95	**10 lb** – $27.95	**10 lb** – $19.95	**10 lb** – $17.95
20 lb – $49.95	**20 lb** – $49.95	**20 lb** – $36.95	**20 lb** – $32.95

- AquaNourish Fish Feed floats and is excellent for all omnivorous fish, such as tilapia, catfish, carp, koi, bluegill, and more!
- It has been uniquely formulated and sized to match the needs of your omnivorous fish at each stage of their growth.
- Available in 5 lb, 10 lb, 20 lb weights
- Combo packs of all stages available



AquaOrganic FISH FEED

Check Website for Price and Availability

5lb, 10lb and 30lb sizes

USDA ORGANIC

- Now your fish can be as organic and sustainable as the rest of your aquaponics system
- USDA certified organic, non-GMO, no fish meal, no soy
- Pellet size of 4-10mm, can easily be crushed for smaller fish
- Formulated for optimal fish health and plant growth
- Available in 2lb, 5lb, 10lb, 20lb, and 30lb

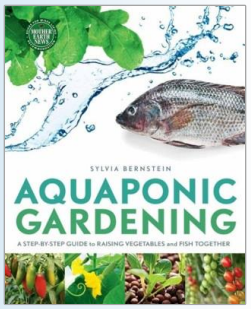
AquaOrganic or AquaNourish?	AquaOrganic	AquaNourish
Specially formulated by aquaculture experts for tilapia and other omnivorous pond fish?	yes	yes
Made by small, family-owned businesses in the USA?	yes	yes
Multiple pellet sizes for different stages of growth?	no	yes
Multiple formulations for different stages of growth?	no	yes
Does it float?	partially	yes
Does it contain....		
Fish Meal?	no	yes
GM Corn?	no	yes
Soy?	no	yes
Bovine Animal Parts?	no	no
Organic Ingredients?	yes	no
USDA Certified Organic?	yes	no

Books and DVDs

Aquaponics, Greenhouses, Aquaculture, Off-Grid

Aquaponic Gardening
A Step by Step Guide to Growing Fish and Vegetables Together

- Our bestselling book! **THE** book to learn aquaponics!
- *Aquaponic Gardening* is the definitive do-it-yourself manual, focused on giving you all the tools you need to create your own aquaponic system and enjoy healthy, safe, fresh, and delicious food all year round.
- 288 pages, 84 photos and diagrams, 8 page color insert, soft cover



Price – $29.95
Case of 20 Price – $459.95

The Year-Round Solar Greenhouse

- The greenhouse enthusiast's Bible!
- Comprehensive coverage of passive solar greenhouse design
- Over a dozen case studies provide real-life inspiration capped off with how-to guidance for building a durable, energy-efficient greenhouse
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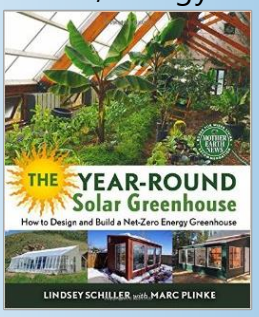

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