Personal Planning and Business Basics

Who Becomes an Aquaponic Farmer

- Gardeners and homesteaders
- Farmers
- Students, recent grads
- Career changers
- Side Hustle
- Retirees
- Teachers, Youth Leaders
- Community Outreach, Faith based folks

Aquaponics as a Business

- A hobby system and backyard aquaponics are very different than aquaponic farming
- Start small to determine if you are really a hobby grower or aquaponic business person before investing a lot of time and money
- Selling your food means you need to maintain professional industry standards for food safety
- A business requires interactions with the bank, insurance, customers, other businesses and the government
- Don’t believe everything on the internet!

Jobs in Aquaponics

- Aquaponic farmer and business owner
- Work at an aquaponic/hydroponic farm
- Community leader, mentor, intern coordinator
- School teacher, professor, educator, student
- Faith leader, missionary
- Food safety specialist, inspector
- Gardener, grower, nurseryman, landscaper, horticulturist
- Marketing, sales and distribution, farmers market
- Hobbyist and social media person

What Is Your WHY?

- What are your goals and objectives?
- Who are you planning to serve?
- What problems are you solving?
- What outcome are you trying to accomplish?
  - Financial profit, social wellbeing, environmental stewardship, personal fulfillment, educate others
- How will your business do these things?

Business Development Services

- USDA, EPA and Farm Service Agencies (FSA)
- Small Business Development Center (SBDC)
- Small Business Administration (SBA)
- Veterans Small Business Centers
- State, City, and Special District offices
- Universities, Colleges and Extension offices
- Banks and other financial institutions
- Other services available for beginning farmer, women, underserved populations and veterans

Personal Plan

- What is your vision, values and goals?
- What is driving you to start a business?
- What are your needs and wants?
- What are your challenges, how will you overcome them?
- What are your strengths and weaknesses?
- What do you fear? What causes you stress?
- How do you relax and sustain yourself?
- How will you support your lifestyle for 3-5 years?
- How do you plan to retire?

Successful Farmers Are…

- Money wise – *start small, grow responsibly*
- Innovative – *diversify revenues, continuously improve*
- Resourceful – *decrease costs, increases profits*
- Manage Time and People – *focus on priorities*
- Work Their Strengths – *do what you do best, and get other people to help you with the rest*
- Pay Attention to Details – *you are mother and father nature, business owner and everything else*

Adapted from Six Traits of Successful Farmers, Capital Press, Carol R Dumas

Aquaponics as a Business

- Construction project manager, zoning, building, General contractor
- Greenhouse, controlled environment and lighting specialist
- Business owner, operator, HR director, risk manager
- Finance and bookkeeping, buyer, cash manager
- Grant writer, responder, expert in the field
- Website, email, social media, phone, tech, etc
- Plant grower, pest manager, nutrient sleuth, seeder, harvester
- Fish whisperer, transporter, feeder, gut and fileter
- Water quality expert, bacteria farmer, ph adjuster
- Marketer and sales, promotions, invoicer, collector
- Educator, tour director, sharer of your special farm space, chef
- Maintenance, cleaning, food safety, inspection assistance
- Performer of lots and lots of random tasks

Family, Friends and Partners

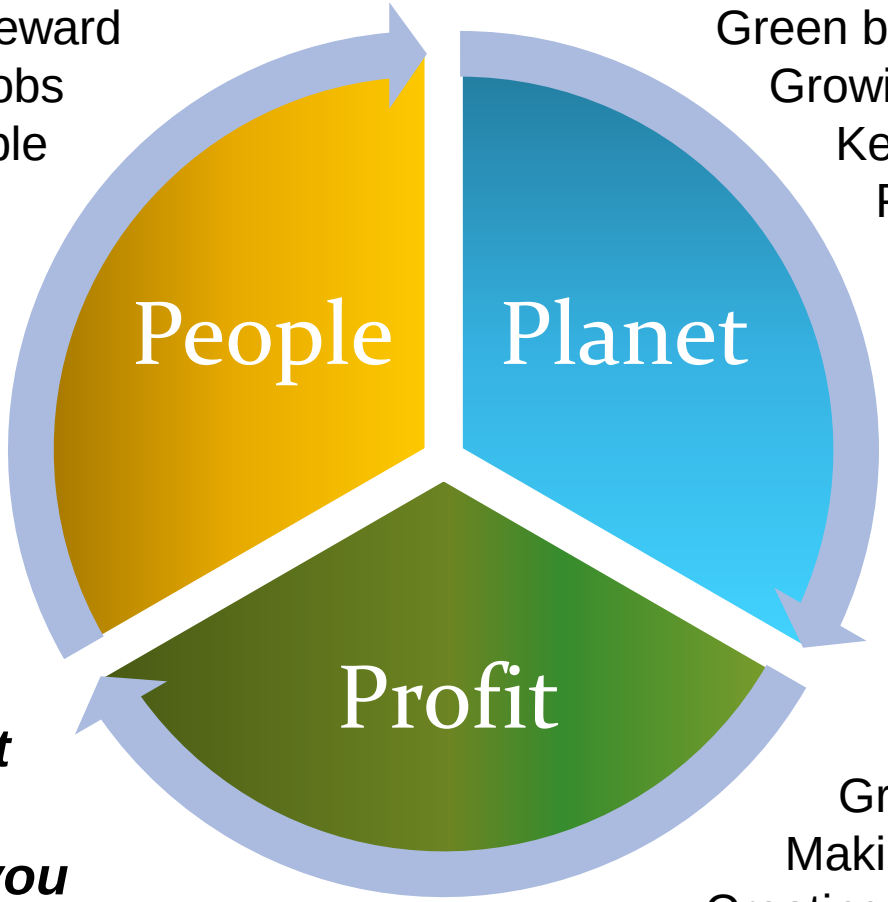
- Understand each other's personal plans
- Establish roles and responsibilities
- Build on each other's strengths
- Work to reduce weaknesses
- Remember people handle stress differently
- Traditionally, farming has been run by families
- Plan your farm with your partner(s)
- Consider the "exit plan" for each person

Legacy Planning

- What happens if you or your partner leave the business?
- What happens if someone is sick, injured or passes away?
- Leaving a legacy or inheritance
- What to do with your property
- Selling your system or your farm
- What does Retirement look like
- What are the financial aspects of future operation

Sustainable Business Triple Bottom Line

Personal Reward
Creating jobs
Serving people
Building a tribe
Educating others
Creating change



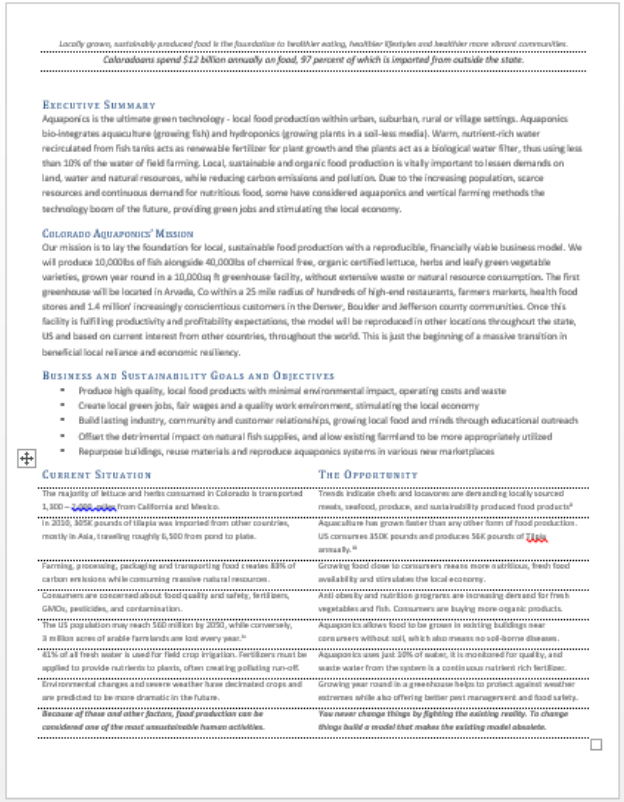
Green business
Growing food
Keeping it local
Produce no waste
Reduce consumption

"You can't save the environment and feed people healthy food if you can't stay in business."

Financing startup
Sustaining operations
Growing the business
Making a living wage
Creating a model for others

Business Planning Basics – Why Plan?

1. Forces you to think about the details
2. Can be used as an operational guide
3. Essential to get financing, grants, plan the project
4. Provides a GO/NO GO decision point



Locally grown, sustainably produced food is the foundation to healthier eating, healthier lifestyles and healthier more vibrant communities.

Coloradoans spend $12 billion annually on food, 97 percent of which is imported from outside the state.

Executive Summary

Aquaponics is the ultimate green technology - local food production within urban, suburban, rural or village settings. Aquaponics bio-integrates aquaculture (growing fish) and hydroponics (growing plants in a soil-less media). Warm, nutrient-rich water recirculated from fish tanks acts as renewable fertilizer for plant growth and the plants act as a biological water filter, thus using less than 10% of the water of field farming. Local, sustainable and organic food production is vitally important to lessen demands on land, water and natural resources, while reducing carbon emissions and pollution. Due to the increasing population, scarce resources and continuous demand for nutritious food, some have considered aquaponics and vertical farming methods the technology boom of the future, providing green jobs and stimulating the local economy.

Colorado Aquaponics' Mission

Our mission is to lay the foundation for local, sustainable food production with a reproducible, financially viable business model. We will produce 10,000lbs of fish alongside 40,000lbs of chemical free, organic certified lettuce, herbs and leafy green vegetable varieties, grown year round in a 10,000sq ft greenhouse facility, without extensive waste or natural resource consumption. The first greenhouse will be located in Arvada, Co within a 25 mile radius of hundreds of high-end restaurants, farmers markets, health food stores and 1.4 million increasingly conscientious customers in the Denver, Boulder and Jefferson county communities. Once this facility is fulfilling productivity and profitability expectations, the model will be reproduced in other locations throughout the state, US and based on current interest from other countries, throughout the world. This is just the beginning of a massive transition in beneficial local reliance and economic resiliency.

Business and Sustainability Goals and Objectives

- Produce high quality, local food products with minimal environmental impact, operating costs and waste
- Create local green jobs, fair wages and a quality work environment, stimulating the local economy
- Build lasting industry, community and customer relationships, growing local food and minds through educational outreach
- Offset the detrimental impact on natural fish supplies, and allow existing farmland to be more appropriately utilized
- Repurpose buildings, reuse materials and reproduce aquaponics systems in various new marketplaces

Current Situation	The Opportunity
The majority of lettuce and herbs consumed in Colorado is transported 1,800 – 2,400 miles from California and Mexico.	Trends indicate chefs and locavores are demanding locally sourced meats, seafood, produce, and sustainability produced food products[i]
In 2010, 380M pounds of tilapia was imported from other countries, mostly in Asia, traveling roughly 6,500 from pond to plate.	Aquaculture has grown faster than any other form of food production. US consumes 350K pounds and produces 56K pounds of Tilapia annually.[ii]
Farming, processing, packaging and transporting food creates 88% of carbon emissions while consuming massive natural resources.	Growing food close to consumers means more nutritious, fresh food availability and stimulates the local economy.
Consumers are concerned about food quality and safety, fertilizers, GMOs, pesticides, and contamination.	Anti obesity and nutrition programs are increasing demand for fresh vegetables and fish. Consumers are buying more organic products.
The US population may reach 360 million by 2050, while conversely, 3 million acres of arable farmlands are lost every year.[iii]	Aquaponics allows food to be grown in existing buildings near consumers without soil, which also means no soil-borne diseases.
41% of all fresh water is used for field crop irrigation. Fertilizers must be applied to provide nutrients to plants, often creating polluting run-off.	Aquaponics uses just 10% of water, it is monitored for quality, and waste water from the system is a continuous nutrient rich fertilizer.
Environmental changes and severe weather have decimated crops and are predicted to be more dramatic in the future.	Growing year round in a greenhouse helps to protect against weather extremes while also offering better pest management and food safety.
Because of these and other factors, food production can be considered one of the most unsustainable human activities.	*You never change things by fighting the existing reality. To change things build a model that makes the existing model obsolete.*

It's better to fail on paper

Components of a Business Plan

- Executive Summary
- Organization and Management - Company Description, Background, Key People
- Marketing Plan – product, price, people, promotion, placement, packaging, competition
- Operating/Production Plan – How to run the business
- Financial Plan – Startup and operating capital, P&L projections, cash flow
- Supporting Documentation

Business Types

Non Profit

- Organized to address specific need – social, education, health
- Exempt from some (not all) taxes
- Raises funds thru donors, grants, fundraising, events, dues
- Can generate revenues through sales of good and services
- Governed by a board
- Can be costly and time consuming to receive 501c3 status
- High transparency with accounting and activities
- Allows volunteers, interns and in kind service or product donations

For Profit

- Organized to sell products and services for a profit
- Pays necessary taxes
- Raises funds through personal means, banks, grants, stocks
- Managed by owners or shareholders, may have a board
- Quick to establish
- Private accounting and activities
- Can align closely with a non-profit if appropriate
- Interns allowed with exchange of value, volunteers discouraged

Legal Structure

Tax filings and implications, personal liability, asset ownership, investor and funding opportunities, business development

- Sole proprietorship
- Partnership
- Limited Liability Company (LLC)
- Incorporation S-Corp
- 501(c)3 – Non Profit, charitable organization
- Trademark name, Doing Business As
- Certified B Corp (Benefit Corporation)

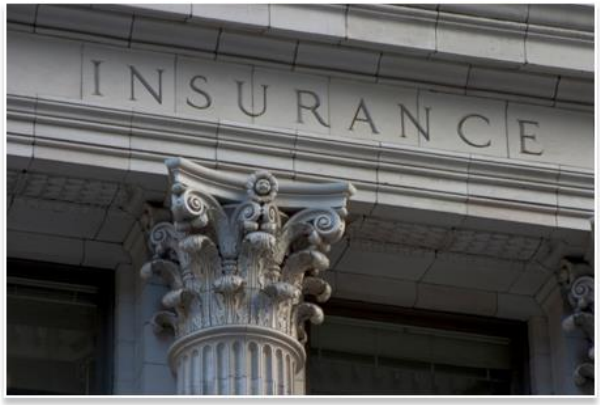
Get a professional to help determine what works best for you

Insurance

- Property – the land your farm is located, home owner's insurance may/may not cover greenhouse or business
- Structure(s) – buildings old and new, additions or modifications to buildings, update as needed
- Umbrella – can be used to cover other circumstances
- General liability - $2 million suggested
- Crop insurance – available from Risk Management Agency
- Product Liability – food borne illness, recall
- Farmers market insurance – tents, umbrellas
- Additionally insured – other people involved

Insurance, continued

- Auto – necessary if you have delivery vehicle
- Equipment – aquaponic components, tractor, cooler, etc.
- Worker's comp – not necessary for yourself or some family members, essential if you have any employees
- Personal health insurance – cover you for overall medical needs, may be either a business expense, or a personal expense
- Life insurance – often necessary if you are taking on a business loan
- Be truthful with your insurance agent



Business Startup and Operations

Business Startup Activities

	Who	*Start date*	*End date*	*Timeframe*	*Budget/Cost*
Personal Plan*					
Business Startup					
*Business planning**					
*Marketing plan**					
*Financial planning**					
*Research local, state regulatory compliance**					
Name your business					
File business entity					
Get federal tax ID					
Setup bank account					
Setup accounting					
*Secure funding**					
*Site selection**					
*Water analysis, quality, availability, tap size**					
*Feasibility**					
*System design**					

And many Businesses

Reasons Farms Have Failed

- Death or disability of owner
- Natural disasters
- Marital problems
- Speculation
- Inadequate information
- Insufficient monitoring
- Overdependence on collateral
- Improper loan structuring
- Lack of effective marketing
- Poor production management
- Poor money or time management
- Failure to control living expenses
- Emphasis on tax minimization
- Attempting to support too many people
- Managing the family in business
- Lack of management ability
- Incapable workforce

Adapted from Causes of Farm and Ranch Failure, Texas A&M University