



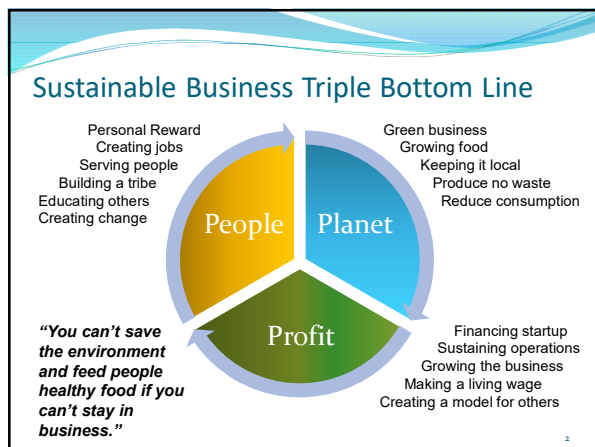
Business Basics



COLORADO
AQUAPONICS

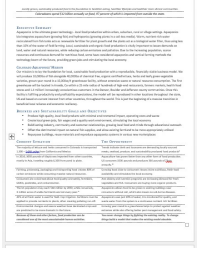


THE Aquaponic SOURCE™
Growing Fish and Plants Together



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
4. Provides a GO/NO GO decision point



It's better to fail on paper

3

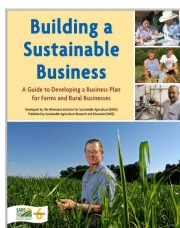
Components of a Business Plan

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

4

Business Planning Resources

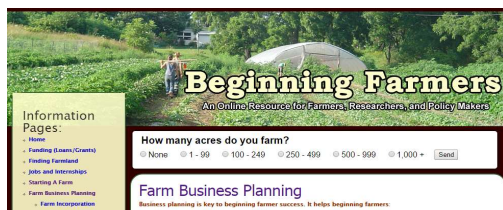
- Step by step guide and worksheets from the **Sustainable Agriculture Research and Education**
- Focused on farming
- Available in the Online Student Resources
- <http://www.sare.org/Learning-Center/Books/Building-a-Sustainable-Business>



5

www.beginningfarmers.org

- TONS of farming resources
- Nothing really specific to aquaponics



6

Business Development Services

- Small Business Development Center (SBDC)
- Small Business Administration (SBA)
- USDA - Farm Service Agencies (FSA)
- Veterans Small Business Centers
- State, City, and Special District offices
- Universities, Colleges and Extension offices
- Banks and other financial institutions

7

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, top size*					
Feasibility*					
System design*					

8

Chart of Accounts

Chart of Accounts

Checking Account	Bank	Personnel	Expenses
Savings Account	Bank	Contract Labor	Expenses
Payroll	Bank	Employee Training	Expenses
Petty Cash	Bank	Professional service for CA	Expenses
Accounts Receivable	(A/R)	Facilities	Expenses
Investment Assets	Current Assets	Lease Expense	Expenses
Prepaid Expenses	Current Assets	Workshop or Space Rental	Expenses
Intangible Assets	Fixed Assets	Licenses, Permits	Expenses
Farm Assets	Fixed Assets	Utilities	Expenses
Vehicles	Fixed Assets	Supplies	Expenses
Tool Equipment	Fixed Assets	Supplies Parts and Supplies	Expenses
Accumulated Depreciation	Fixed Assets	Fish purchases	Expenses
Accounts Payable	(A/P)	Building materials non AP	Expenses
Sales Tax Payable	Current Liabilities	Nutrients, Additives, non AP	Expenses
Owner's Equity	Equity	Seeds, Plants, Planting media	Expenses
Owner's Draw/Contributions	Equity	Pest Management	Expenses
Services (Non Taxable)	Income	Fish Food/Purchase	Expenses
Training, Workshops, Lectures	Income	Fish medications and supplies	Expenses
Consulting Services	Income	Greenhouse Supplies	Expenses
Construction Services	Income	Small Tools and Equipment	Expenses
Operations and Maintenance	Income	Product packaging	Expenses
Tours	Income	Educational Supplies	Expenses
Quota Travel	Income	Operating Expenses	Expenses
Assemblability Systems (Taxable)	Income	Gasoline, Fuel and Oil	Expenses
Parts and Equipment Sales	Income	Car and Truck Expenses	Expenses
Fish Stocker (Taxable)	Income	Miscellaneous Reimbursement	Expenses

9

Schedule F

SCHEDULE F
(Form 1040)
Individual or Sole Proprietor
Net Farm Income (Loss)

Profit or Loss From Farming
▶ Attach to Form 1040, Form 1040NR, Form 1041, Form 1045, or Form 1065-B.
▶ Information about Schedule F and its separate instructions is at www.irs.gov/soi/schedulef.

OMB No. 1545-0047
2019
14
Schedule F (Form 1040)

A. Principal crop or activity **B.** Enter code from Part IV **C.** Accounting method: ☐ Cash ☐ Accrual **D.** Employer ID number (EIN, see instructions) ☐ Yes ☐ No

E. Did you "materially participate" in the operation of the business during 2019? ☐ Yes ☐ No
F. Did you make any payments in 2019 that would require you to file Form 1041 (see instructions)? ☐ Yes ☐ No
G. "Yes" or "No" will you file the required Form 1041? ☐ Yes ☐ No

Part I Farm Income—Cash Method. Complete Parts I and II (Accrual method, complete Parts I and II, and Part I, line 8).

1a. Sales of livestock and other movable farm assets (see instructions) **1b.** ☐ **2.** ☐

3. Cost of other basis of livestock or other assets reported on line 1a **3a.** ☐ **3b.** ☐

4a. Sales of livestock, produce, grains, and other products you raised **4b.** ☐ **4c.** ☐

5a. Cooperative distributions (Form 1099-DIV) **5b.** ☐ **5c.** ☐

6a. Agricultural program payments (see instructions) **6b.** ☐ **6c.** ☐

7a. Commodity Credit Corporation (CCC) loans reported (see instructions) **7b.** ☐ **7c.** ☐

8. CCC loans forgiven **8a.** ☐ **8b.** ☐

9. Crop insurance proceeds and federal crop disaster payments (see instructions) **9a.** ☐ **9b.** ☐

10. Amount received in 2019 **10a.** ☐ **10b.** ☐

11. If election to defer to 2019 is attached, check box **11a.** ☐ **11b.** ☐

12. Custom hire (machine work) income **12a.** ☐ **12b.** ☐

13. Other income, including federal and state grants or federal tax credit or refund (see instructions) **13a.** ☐ **13b.** ☐

14. Gross income. Add amounts in the right column (lines 1c, 2, 3b, 4b, 5c, 6c, 7c, 8b, 9b, 10b, 11b, 12b, and 13b). If you use the accrual method, enter the amount from Part IV, line 30 (see instructions) **14a.** ☐ **14b.** ☐

Part II Farm Expenses—Cash and Accrual Method. Do not include personal or living expenses (see instructions).

15. Car and truck expenses (see instructions) **15a.** ☐ **15b.** ☐

16. Insurance, less what Form 4620 **16a.** ☐ **16b.** ☐

17. Charitable **17a.** ☐ **17b.** ☐

18. Cooperative expenses (see instructions) **18a.** ☐ **18b.** ☐

19. Custom hire (machine work) **19a.** ☐ **19b.** ☐

20. Depreciation and section 179 expense (see instructions) **20a.** ☐ **20b.** ☐

21. Employee benefit programs other than in line 21a **21a.** ☐ **21b.** ☐

22. Freight **22a.** ☐ **22b.** ☐

23. Fuel **23a.** ☐ **23b.** ☐

24. Heat or water (see instructions) **24a.** ☐ **24b.** ☐

25. Interest, including mortgage **25a.** ☐ **25b.** ☐

26. Other farm, animals, etc. **26a.** ☐ **26b.** ☐

27. Repairs and maintenance **27a.** ☐ **27b.** ☐

28. Seeds and plants **28a.** ☐ **28b.** ☐

29. Storage and warehousing **29a.** ☐ **29b.** ☐

30. Supplies **30a.** ☐ **30b.** ☐

31. Taxes **31a.** ☐ **31b.** ☐

32. Utilities **32a.** ☐ **32b.** ☐

33. Other **33a.** ☐ **33b.** ☐

34. Total. Add amounts in the right column (lines 15b through 33b). Do not include amounts on lines 15a, 16a, 17a, 18a, 19a, 20a, 21a, 22a, 23a, 24a, 25a, 26a, 27a, 28a, 29a, 30a, 31a, and 32a. **34a.** ☐ **34b.** ☐

35. Net farm income (loss). Subtract line 34b from line 14b. **35a.** ☐ **35b.** ☐

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

- Is your home owners or umbrella policy enough? Personal liability?
- General liability - \$2 million suggested
- Crop insurance – almost impossible to get (would cover weather or pest crop damage)
- Product Liability – food borne illness, recall
- Farmers market insurance – tents, umbrellas
- Additionally insured – other people involved

13

Insurance, con't.

- Be truthful with your insurance agent
- Don't assume because your customers like you that they won't sue
- Avoid using words like "all natural", "pesticide free", "chemical free", etc. in advertising (falls under general liability and can be collected on)
- Umbrella policies can help bridge the gap

(Neil Hamilton, director of the Agricultural Law Center at Drake University "Legal Guide to Direct Farm Marketing")



14

Final Thoughts From a Farm Service Agent

- *"At the end of the day, that lettuce, that fish, that tomato....needs to pay for itself."*
- *"Profit Preserves Passion!"*
- *"Mother nature doesn't care about your spreadsheets."*
- *"You don't make money by growing a crop, only by selling a crop."*

Brian Cook, Colorado Farm Service Agent

15

Personal Planning



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 banks, insurance, customers and the government
- Don't believe everything on the internet!

17

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, and 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?

18

What Is Your Mission?

- 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?

19

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)

20

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, Sept 4, 2014

21

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, Danny Klinefelter, Texas A&M University

22

Eight Forms Of Wealth (Capital)

8 Forms of Capital – Published in Permaculture Magazine #68
©Copyright 2011 Ethan Roland & Gregory Landua

23

Eight Forms of Wealth (Capital)

Eight Forms of Capital (Assets)

What do you:

- Have now?
Current state
- Need to get?
Future state

What is your
Operating Capital?

How do you measure SUCCESS?

What Do You	Have Now? Current State	Need To Get? Future State
Financial (cash, stocks, bonds, loans, retirement fund, trust)		
Material (land, buildings, equipment, vehicles, stuff, technology)		
Living (plants, fish, water, bacteria, soil, animals, environment)		
Intellectual (know/learn)		

24
