



**GROWING A NEW GENERATION
OF ILLINOIS FRUIT AND VEGETABLE FARMERS**

BUSINESS PLANNING III

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Illinois Migrant Council



Today's Objectives

1

- Review prior business planning recommendations

2

- Understand key steps in financial planning

3

- Avoiding and planning for what can go wrong

December

- Basics of fruit and vegetable production
- Business planning
 - Your goals and vision for you farm
 - Visions and plans are not the same as dreams
 - What do you bring to your vision?
 - Knowledge, attitudes, family support
 - Tangible assets ... capital, land, equipment
 - Do you have a marketing plan?
 - Farmers markets, on-farm market, CSA, direct to restaurants and groceries, wholesale, other?
 - Direct marketing does not cut out the “middle man” ... you become the middle man
 - Check MarketMaker and listings of farmers markets

December ... Have you considered?

- Record-keeping
- Insurance
- Costs of equipment and supplies
- Cash flow
- Income ratios ... Net / Gross usually does not exceed 35% even for small-scale vegetable production (and your first years often include extra expenses)

Two of several references

- Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses
 - <http://www.sare.org/Learning-Center/Books/Building-a-Sustainable-Business>
- The Organic Farmer's Business Handbook: A Complete Guide to Managing Finances, Crops, and Staff and Making a Profit
 - ISBN: 9781603581424

Estimated Equipment Needs for Various Sizes of Vegetable Farms.

Scale	Seed Starting	Power Source and Tillage	Direct Seeding	Production Equipment	Cultivation	Harvesting	Postharvest Handling	Delivery
1-3 acres	small hoop house, grow lights, planting trays	rototiller or walking tractor, custom work	Earthway seeder, Cyclone seeder	Back-pack sprayer, irrigation, tools	Wheel hoe, hand hoes, digging forks, spades	Field knives, hand boxes, buckets, carts	Bulk tank, canopy, packing containers	Pickup with topper or van
4-6 acres	1000 sq. ft. greenhouse, cold frames, field tunnels, planting trays	35-40 hp tractor, with creeper gear, power steering, high clearance	Planet Jr. plate seeder	1-row transplanter, irrigation, more tools	Cultivating tractor (IH Super A or IH 140)	Potato digger, bed lifter, wagon, more boxes, buckets	Roller track conveyor, hand carts, walk-in cooler	Cargo van
7-10 acres	Additional cold frames, planting trays	40-60 hp tractor, chisel plow, spader	Stanhay precession belt seeder with belts	2-row transplanter, sprayer,	Tool bar implements: beet knives, basket weeder	More field crates	Barrel washer, spinner, pallet jack	1 ton truck with refrigeration
20 + acres	2,000 sq. ft. greenhouse	80 hp tractor with loader bucket and forks, compost spreader	Nibex or Monosem seeder	Irrigation, bed shaper, mulch layer	Sweeps (Besserides), Budding finger weeders, flame weeder, potato hiller, 2nd cultivating tractor	Asa lift, harvest wagon	Wash line, larger cooler, packing shed and loading dock	Refrigerated truck

VEGETABLE PLANTING CHART

Vegetable	Amount to Plant		Planting Instructions				Time Required	
	Seeds or plants per 100-ft. row	Average amount suggested per person	Estimated yield per 100-ft. row ^a	Distance between plants	Distance between rows	Planting depth	Frost resistance ^c	Approx. number of days (or years) to harvest ^d
Artichoke, Jerusalem	40-50 tubers	5-10 ft.	150-200 lb.	24-30 in.	36-48 in.	2-3 in.	FT	130-150
Asparagus	50 roots	10-15 roots	80-100 lb.	18-24 in.	36-60 in.	6-8 in.	VH	2 years
Bean, Bush (lima)	1/2 lb.	10-15 ft.	30 lb.	3 in.	18-24 in.	1-1 1/2 in.	WL	50-60
Bean, Bush (snap)	1/2 lb.	10-15 ft.	50 lb.	3 in.	18-24 in.	1-1 1/2 in.	T	50-60
Bean, Pole	1/2 lb.	5-10 ft.	50 lb.	3-4 in.	30-36 in.	1-1 1/2 in.	T	60-70
Beet	1 oz.	5-10 ft.	75 lb.	2-3 in.	12-18 in.	1/2-1 in.	T	55-65
Broccoli	50 plants	5-10 plants	80-100 lb.	18-24 in.	30-36 in.	b	FT	70-80
Brussels sprouts	50 plants	3-5 plants	80-100 lb.	18-24 in.	30-36 in.	b	FT	70-80
Cabbage	75-100 plants	3-5 plants	150-200 lb.	12-18 in.	18-30 in.	b	FT	70-80
Carrot	1/4 oz.	5-10 ft.	100-150 lb.	1-2 in.	12-18 in.	1/4 in.	FT	65-75
Cauliflower	50-75 plants	3-5 plants	80 lb.	18-24 in.	24-36 in.	b	FT	60-65
Celeriac	200 plants	5-10 ft.	100-150 lb.	6 in.	18-24 in.	b	FT	100-120
Celery	150-200 plants	4-6 plants	200 lb.	6-8 in.	24-36 in.	b	FT	100-110
Chard	2 oz.	5-10 ft.	100 lb.	4-6 in.	18-24 in.	1/2 in.	FT	50-60
Chinese cabbage	1/2 oz.	5-10 ft.	200-300 lb.	12-15 in.	24 in.	1/4 in.	FT	80-90
Collards	1/2 oz.	5-10 ft.	80-100 lb.	12-15 in.	18-24 in.	1/4 in.	VH	70-80
Corn, Sweet	4 oz.	15-25 ft.	100-150 lb.	9-12 in. (single) 36 in. (hills)	24-48 in.	1/2-1 in.	T	70-90
Cucumber	1 oz.	2-3 hills	100-150 lb.	12 in. (single) 36 in. (hills)	48-72 in.	1/2 in.	WL	60-70

<http://njaes.rutgers.edu/pubs/urbanfringe/pdfs/urbanfringe-v07n01.pdf>



Monthly Briefing from Rutgers New Jersey Agricultural Experiment Station

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Yield Expectations for Mixed Stand, Small-Scale Agriculture

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Horticultural row crop yield expectations from commercial fields are well confirmed by multiple studies. Agricultural professionals use these target yields to assist them in predicting cost and return budgets, number of seeds or plants needed, fertilizer and other inputs, packaging supplies, and estimating revenues.

Yield expectations are an equally important planning tool for mixed stands of vegetables and small fruit crops grown in community gardens and small-scale agriculture enterprises. Yet, few yield studies are available for these operations.

Realistic yield expectations:

- Matter the moment participants sell crops, i.e., advance from gardening lifestyle activities to commercial market gardening or small-scale agriculture enterprises.
- Enable individuals unfamiliar with farm productivity to estimate food garden output based on parcel size when preparing grants and community garden project proposals.
- Enable quick estimates of “food security” production required for calculating daily

January through July ...

- Variety selection, FSA and NRCS programs, Crop rotations, transplant production
- Succession planting, high tunnels and season extension, pruning small fruits and tree fruits
- Soils and soil testing, organic and conventional fertilizers, soil quality
- Food safety, GAPs, irrigation systems, equipment for small farms
- Pesticides, OMRI pesticides, organic certification, IPM
- Weed and disease management
- Insect and vertebrate pest management, pollination and pollinators, hydroponics

June Business Planning II

- SWOT analysis
- Enterprise Analysis
- Market Analysis
- Management Analysis

SWOT Analysis

- Strengths
- Weaknesses
- Opportunities
- Threats

Strengths (internal)

Weaknesses (internal)

Opportunities (external)

Threats (external)

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Enterprise Analysis

- Crop and enterprise budget tools
 - <http://www.uky.edu/Ag/NewCrops/vegbudgets13.html>
 - <http://www.extension.iastate.edu/agdm/decisionaidscd.html>
 - http://www.agmrc.org/business_development/business_workbench/business_worksheets_and_calculators/enterprise-budgeting-tools/
 - <http://www.veggiecompass.com/>

Market analysis

- What and where to sell
 - Uniqueness, service, quality
 - Not just your favorites
 - What the market wants
 - Barriers, advantages, and disadvantages of different market channels

Management Analysis

- Planning
- Production
- Operations
- Post-harvest handling
- Repair
- Record-keeping
- Sales
- Marketing
- Graphic design
- Logistics
- Employees
- Accounting
- Taxes
- Legal
- Regulatory and licenses
- Veterinary

- **SWOT analysis** – determine market position and competitive advantage
- **Enterprise analysis** – fully account for costs to determine breakeven price
- **Market analysis** – choose best market to connect your product with your customers
- **Management analysis** – make sure you can access all the skills needed to succeed

August ... Financial statements and measures

- <http://ifsam.cffm.umn.edu/>
- Financial Statements:
 - Balance Sheet
 - Income Statement
 - Statement of Owner's Equity
 - Statement of Cash Flow
- Financial Ratios and Measures:
 - Sweet 16 + 5

Take away message

- **This is something you either need to learn to do or hire someone to do it for you.**
- Consider – *What do you want from your financial information and what are you willing to do to get it?*
 - How much money and time are you willing to spend?
 - How detailed are you wanting the enterprise analysis and farm profit and loss statements to be?
 - How much time are you or your bookkeeper willing to put into learning the system you purchase to make it do what you want it to do?
 - Do you want to do payroll from the system, have it handle W-2, 943, and W-3?
 - How much time are you willing to spend on data entry to get the information out of the system, how often do you want to do your record keeping?

Take away message continued

- Records are your best friend or your worst enemy depending on how you set them up and how you use them.
- There are software packages and templates you can use so you don't have to learn it ALL

Evaluating Farm Accounting Software

<http://www.extension.iastate.edu/agdm/wholefarm/html/c6-32.html>

Balance Sheet

- A balance sheet reports on a business's assets, liabilities, and owner contributions of capital at a **particular point in time**.
- **The assets** shown on a balance sheet are those items that are owned by the business, which have value and for which money was paid.
- **The liabilities** shown on a balance sheet are those amounts that a business owes to other people, businesses, and government agencies.
- **The owner's contributions of capital** are the amounts that owners, partners, or shareholders have paid into the business in the form of investment or have reinvested in the business by leaving profits inside the company.

Income Statement

- Measures your financial performance **over time**. Also known as the "profit and loss statement" or "statement of revenue and expense."
- What is **sold** in the period *Minus* What it **cost** to make *Minus* Selling and general **expenses** for the period *Equals* **Income** for the period **Sales – Costs & Expenses = Income**
- The income statement is divided into two parts: the operating and non-operating sections.
- Keep interest payments separate so you can see income from **production** activities vs. financing activities.

Owner's Equity

- **Owner's equity** is *capital contributions, distributions, and retained earnings* less the *liabilities* of the business; or in other words **NET WORTH**.
- The **statement of owner's equity** reconciles the beginning and ending owner's equity through determining the changes in retained earning, the change in contributed capital, and the change in distributed capital.

Cash Flow Statement

- A *cash flow statement* is a listing of cash flows that occurred during the **past accounting period**.
- **Cash Flow is not Profitability**
- The statement of cash flows is a financial statement that shows the cash inflows, cash outflows, and net change in cash from the operating, investing and financing activities of a farm in a manner that reconciles the beginning and ending cash balances.
- The statement of cash flow is divided into three sections:
 - cash from operations (includes cash receipts from the sale of farm products and cash expenses from operating activities)
 - cash from investing (includes cash receipts from the sale of securities or capital assets)
 - cash from financing (includes cash receipts from any increase in short- or long-term borrowing or paid-in capital from outside sources)
- **Remember, the cash flow statement shows flows of cash, not income and expenses.**
- http://www.agmrc.org/business_development/business_workbench/business_worksheets_and_calculators/cash-flow-budgeting-tools/

Balance Sheet & Cash Flow

- Download Agricultural Balance Sheet and Cash Flow Statement Templates from <http://il-fa.com/programs/agriculture>
- The Illinois Finance Authority (IFA) provides access to low-cost, non-conventional financing along with expert, hands-on support to help businesses, farms, local governments, hospitals and non-profits get capital needed for growth. We invite developers, financiers, and community partners to explore our programs and talk with IFA about supporting economic development and job growth in Illinois.



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Ratios

- Financial Ratios can assist in determining the health of a business. There is a minimum of 21 different ratios that can be looked at by many financial institutions.
- Multiple ratios must be used along with other information to determine the total and overall health of a farming operation and business.
- See breakdown here
http://msue.anr.msu.edu/news/financial_ratios_part_5_of_21_equity_to_asset_ratio



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Financial Statement Summary

- If a company has something, **someone had better own it.**
- A balance sheet **lists assets, liabilities and owner's equity** at a point in time; everything must add up.
- **Changes must be made in pairs:** if assets, liabilities or owner's equity changes, something else must change as well.



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Avoiding and planning for what can go wrong

- Land ownership and location
 - Availability, price, zoning, neighboring operations, soil types, topography
- Personnel
 - Available employees, employment law, training, illness and injury, retention, interpersonal relationships
- Production
 - Drought, flooding, hail, pest management (insects, diseases, weeds, vertebrates), equipment maintenance, produce quality
- Marketing
 - Access, food safety, certifications, weather, demand, competition

Funders cite these common mistakes:

- Financials do not reflect statements made elsewhere in the plan (e.g. “we will succeed through exceptional customer service” but low-paid employees, no incentive and no training costs).
- No discussion of sales growth (simply following a linear growth pattern without explanation).
- Too much detail is included in the body of the plan (dozens of pages of spreadsheets are a turnoff for most readers - if supporting spreadsheets are important, include them in an appendix).
- Unrealistic return on investment for the industry (without any explanation or justification).
- Inadequate level of detail about assumptions and research.
- No allowance for a “warm-up” or lag period for revenues at the beginning of the business.
- No benchmarking of industry standards (see <http://www.census.gov/csd/bes/>).
- No allowance for contingency (SBA recommends 3 months’ worth of operating expenditures).
- Statements are amateurish - never checked out by business accountant .

From: http://dyson.cornell.edu/outreach/extensionpdf/2007/Cornell_AEM_eb0708.pdf



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Financial Tools Resources

- <https://attra.ncat.org/attra-pub/viewhtml.php?id=276#software>
- <http://www.beginningfarmers.org/farm-business-planning/>
- http://www.martindalecenter.com/Calculators1_2_A.html

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