

Building Economic Viability into your Farm



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Business Planning

- Need to work in the business – planning, producing, selling crops
- Also need to work on the business: economic analysis, cash flow planning, operations planning, risk management, etc.
- Set aside time weekly, monthly, and yearly to work on the business
- Develop a decision-making protocol, especially for expenses



Long term planning

- Plan for the arc of your business – plan for change over time
- Build a brand that will last
- Plan for viability: the farm will not be viable if the farmer is not viable
 - Plan for your (the owner's) salary – what do you need to cover your costs of living?
 - Not enough to just be a laborer and take what is left over at the end of the year.
 - You need both profit and salary



Profit

- Profit is the business's salary – over & above direct costs and overheads (including owner salary!)
- Plan for profit – assess crop economics
- Uses of profit
 - In 5 years, need to replace equipment, plan to use your profit to finance it
 - Contingency/rainy day (or drought) fund
 - risk management strategy
 - Vacation
 - Long-term equity building



Recordkeeping

- Build recordkeeping into everything you do - so the information is available when you need to make decisions
- But, only keep records that you use – reevaluate after a year

Crop Metric working beta MN data [Read-Only] - Excel

FILE HOME PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Crop Planning for Padron Peppers

Step 3: Labor Needs

The following worksheet will help you to assess the labor costs of production - everything from prepping the soil, to packing the crop. **In the worksheet below, you will enter information into the yellow cells, and only the yellow cells.** If you aren't going to use some of the yellow cells, simply enter "0". Everything below is factored on a **PER BED BASIS** over the **entire life of the bed for this particular crop.** If you plant successions of the same crop in a bed, be sure to account for all of the labor over the entire season for this particular crop. If you have employees complete any of these tasks, be sure to also include the time it takes you, the owner, to manage their work.

Greenhouse: Do you grow your own transplants? If you do, estimate how many hours you spend getting those transplants ready, on a per bed basis. 1

Machine: How long do you spend, per bed, doing machine stuff - tilling, spreading fertilizer, mowing, ripping, cultivating, etc?

Planting: How many hours does it take you to plant one bed of this crop?

Irrigation: How long does it take to put out irrigation, do the irrigating, and check the irrigation lines from time to time? Again, on a per bed basis.

Other Production Labor: Is there another production labor aspect we didn't cover? Maybe you use agribon - how long does that take to put out per bed?

Harvest: How long does it take to harvest one bed of this crop? If you are growing a bunched item, like kale, account for all of the harvests over the life span of the bed.

Crop Washing: How long does it take to wash one bed's total harvest? Again - take into account all of the harvests over the life of the bed.

Other Processing: Do you have to snap carrot tops? Put carrots into a bunch? Do some type of sorting? Trim the bottoms of bunched greens? Put that time here.

Packing the Crop: How long does it take to pack it all up into boxes and get it stored away in the cooler, barn, or other storage area?

Total # of Beds For this Crop	6.08		
Employee Hourly Wage	\$12.50	Total Employee Cost \$253.13	Unit Cost of Production
Owner Hourly Wage	\$20.00	Total Owner Cost \$93.67	\$2.41

Remember: Bed Length is 100 ft
Remember: Estimated Crop Yield Per Bed Is

How many transplants per bed is this? 135.00
How many flats / trays is this? 0

Greenhouse - Labor Cost	Time Spent Per Bed		Unit	Total Cost per bed
	Employee	Owner		
Time Spent Mixing Potting Mix	0.00	0.00	mins	
Time Spent Packing Flats / Trays	0.00	0.00	mins	
Time Spent Seeding Flats / Trays	0.00	0.00	mins	
Time Spent Watering (overall)	0.00	0.00	mins	
Other Care For These Transplants	0.00	0.00	mins	
Greenhouse - total time	0.00	0.00	hr	\$0.00

Machine - Labor Cost	Time Spent Per Bed		Unit	Total Cost per bed
	Employee	Owner		
Mowing	0.00	2.00	mins	

Describe Your Farm Labor Needs Other Direct Costs Crop 1 Assessment Crop 2 Crop 3 Crop 4 Crop 5 Crop 6

READY

Recordkeeping

- Simple record keeping in crop planning: amount of kale planted, picked, how many people picked, how long it took to pick and pack, how much sold, cost of materials
- Assess the profitability of the crop from that information
- Forecast sales from previous year's records & market research – markets change!
- In crop planning, add planting safety factor (e.g. 20%) to be sure you meet target sales

Economic Analysis

- Begin with the end in mind
- Know the details for accurate picture. If you don't know details, projections are probably overly optimistic.
- Analyzing expense & sales records tells you:
 - Gross sales needed to make the salary and profit targets.
 - e.g. To make median household income here (\$34,000), probably need \$120-150,000 gross sales
 - Profitability of each individual crop. If it's not profitable, why are you growing it?
 - Price points, which are critical for wholesale as your margin will be small.



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Economic Analysis

- Analysis requires numbers for:
 - Direct costs for each crop: Costs that change as the amount of production changes: fertilizer and other inputs, water, labor directly attributable to crop production (variable costs)
 - Overheads: costs that occur at roughly the same level regardless of how much is produced.



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Economic Analysis: Overheads

Three types of overheads:

- Land costs (rent, property taxes, etc.)
- Labor-related overheads: salaries for management and marketing, taxes, vehicle costs, insurance, depreciation, repairs, and fuel costs of machinery and vehicles.
- But: hired crop labor (weeding, harvesting, etc.) is a direct cost as it increases with acreage or the number of crops.
- Administrative overheads include utilities, office supplies, business computer, phone.



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Crop analysis example				
Crop 1: potatoes			Crop 2: melons	
Direct Crop Expense	\$8,831.44		Direct Crop Expense	\$562.28
Total Crop Income	\$16,380.00		Crop Income	\$6,600.00
Crop Profit	\$7,548.56		Crop Profit	\$6,037.72
Profit Margin	46%		Profit Margin	91%
Direct Cost per Unit	\$0.63		Direct Cost per Unit	\$0.34
Unit of Production	lbs		Unit of Production	ea
Allocated Overhead + Profit	\$19,299.52		Allocated Overhead + Profit	\$1,228.77
Total Cost Per Unit	\$2.01		Total Cost Per Unit	\$1.09
Profit per Bed Foot	\$0.97		Profit per Bed Foot	\$10.98
Direct Cost per Bed Foot	\$1.14		Direct Cost per Bed Foot	\$1.02
Looking at Labor for potatoes			Looking at Labor for: melons	
Total Employee hours	0.0		Total Employee hours	0.0
Total Owner hours	298.9		Total Owner hours	15.1
Return per Person hour	\$25.25		Return Per Person Hour	\$399.63
Total Crop Labor Expense	\$5,978.11		Total Crop Labor Expense	\$302.17
Labor as % of Crop Expense	68%		Labor as % of Total Expenses	54%
Looking at Sales Price for potatoes			Looking at Sales Price for: melons	
Average Sales Price	\$1.17		Average Sales Price	\$4.00

Budgeting & Cash Management

- Develop an annual budget each winter using monthly expenses from the previous season.
- Enter expenses & sales weekly so up-to-date
- Track expenses and sales against your budget – accountant can do that
- Monthly finance meeting to look at where you are, compare to previous year. (Maybe not in busy season, but as often as possible).
- Making changes such as bringing costs down depends on analyzing where you are.

Cash flow Planning

- Yearly gap when have no sales, need to manage cash
- Seasonal start-up costs –
 - save for by planning cash flow
 - Or consider operating loans, but need to be able to service the debt in a timely manner
- Do not chase cash trying to stay ahead
 - i.e. attend too many \$250 farmers' markets or
 - sell below cost just to have operating cash
 - this means knowing your numbers to set prices and understand costs of marketing

Capital purchases/Expenses

- Prioritize capital purchases: Plan to buy only what will make you money (not what is bright and shiny or a great deal!).
- Calculate how much time or money you will gain from the purchase, then make the decision.



Capital purchases/Expenses

- Weigh whether to invest in what is new(er) instead of used, which may have to be fixed sooner.
- Consider the impact if it breaks in peak season.
- What will the downtime cost you? esp. if your product is perishable.



Capital Purchases and Expenses

- Look at the true cost of the purchase: a tractor alone does nothing for you, you need the implements; and you need to include the costs of fuel, maintenance, and depreciation.
- Trim the fat everywhere. Buy in bulk (coop with other growers) which saves time & money.



Start with the end in mind...

You'll get there if you

- Celebrate and learn from your successes!
- Learn to like recordkeeping and economic analysis. Your records will illuminate the best parts of your business.



Thanks to my colleagues and partners in this work:

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Thank you!