

Starting Your Sustainable Small Farm in Idaho

Crop Production Workshop



University of Idaho
Extension



RURALroots
healthy farms healthy food healthy communities

Welcome to the an exploration of Sustainable Crop Production!

Today we will introduce you to:

- ▶ Enterprise Budgets
- ▶ Planning for Planting
- ▶ Healthy Soils
- ▶ Ecology of a Small Farm



Today's Presenters & Facilitators:



Marci + Greg



Jessica



Ariel



Diane



Jen



Checking In...

- ▶ Homework readings and assignments on the student webpage
- ▶ Supplemental readings and activities are there too!
- ▶ Cultivating Success Facebook page for joining, sharing and posting
- ▶ Cultivating Success Certificate available



Where are we on previous homework?

► Readings:

- *Farming Alternatives*: Read chapters 1,2 and 3
- *Small-Scale Livestock Farming*: Read pages 18-19
- *The Market Gardener*: Read Chapter 1
- Keys to Successfully Choosing Enterprises That Suit Your Small Farm

► Assignments

- Download this [Whole Farm Plan Template](#)
- Complete *Farming Alternatives* marketing worksheets 3-1 through 3-6
- Optional: Evaluate your personal and family qualities and other resources in more detail using *Farming Alternatives* worksheets 2-1, 2-2, 2-3, 2-5, 2-6



Current Homework

(listed in your student syllabus and online)

Read:

- *Farming Alternatives*: Chapter 4
- *The Market Gardener*: Chapters 2-4 and 13.
- *Small Scale Livestock Farming*: Read Chapters 1 and 4.

Worksheets:

- Start to work on worksheets 4-1 through 4-10 for a crop and /or livestock enterprise.

Whole Farm Plan:

- Summarize worksheets completed so far into the Whole Farm plan template.



Cultivating Success Certificate

- First draft of your Whole Farm Plan by March 29th
- Attendance at all class sessions (intro webinar & 3 classes)
- Online quiz completion



Starting Your Sustainable
Small Farm in Idaho

Introduction to Enterprise Budgets



Presented by Greg Freistadt, Deep Roots Farm, Moscow, Idaho

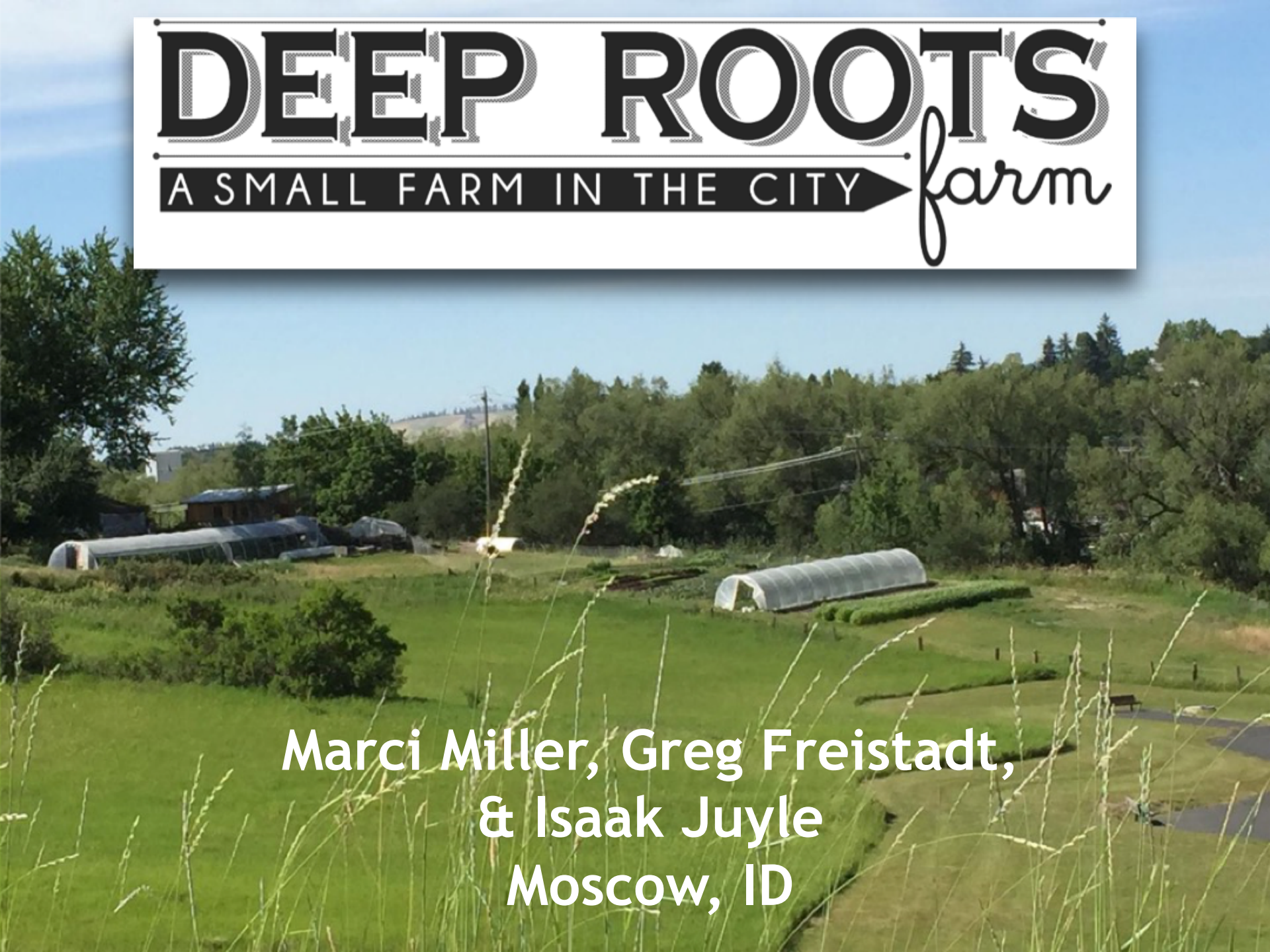
University of Idaho
Extension



RURALroots
healthy farms healthy food healthy communities

DEEP ROOTS

A SMALL FARM IN THE CITY *farm*



Marci Miller, Greg Freistadt,
& Isaak Juyle
Moscow, ID

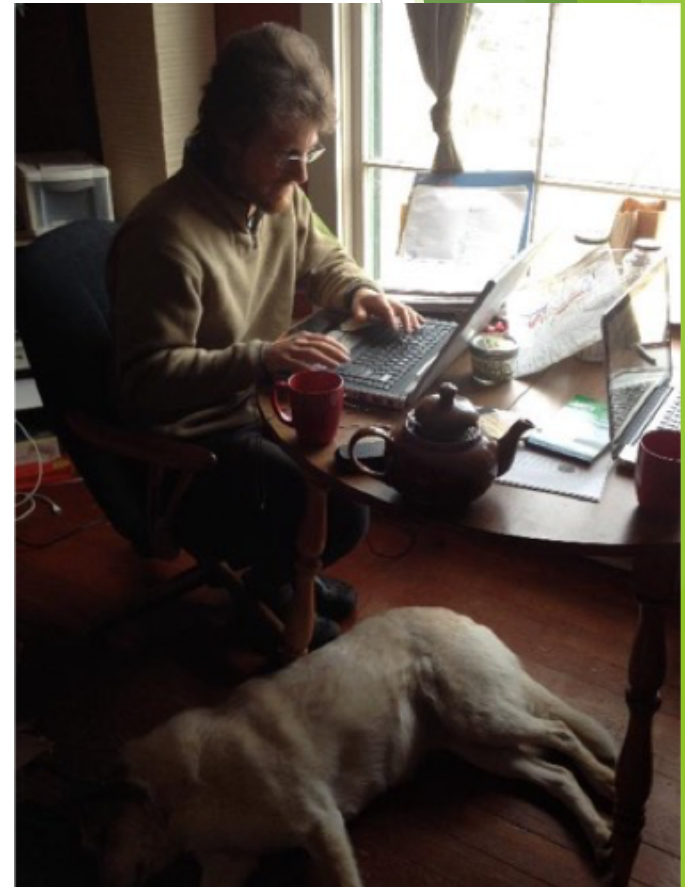
**So many
options!**

**How do you
choose which
crops or
livestock to
grow?**



Multiple ways of choosing

- ▶ What you like to eat
- ▶ What you know and like to grow
- ▶ What people will buy
- ▶ What grows well in your climate
- ▶ How much time you have
- ▶ What pencils out or is profitable. . . .



Profit = Income - Expenses

How many enterprises make up a farms annual income?

Are these carrots all one enterprise?

To increase profit we need to:

- Work efficiently and keep records
- Outline costs, labor and income
- Standardize space and production for comparisons
- Find true cost of each product, including all farm overhead and your time



Overhead Expenses 2016

Mortgage annual payment	3530.56	farm % of total bill. Does not include house and house site portion.							
Depreciation	1000.00	to account for replacement costs, excluding machinery in Worksheet 4							
Property taxes	777.00	farm %							
Insurance	367.00	on farm injury \$115/yr, \$126/6mo ford, no health, workers' comp.							
Office	300.00	supplies, postage, subscriptions \$3/mo NYFA							
Website, Internet	324.24	\$8/mo=\$96 plus fees and maintenance, internet \$19.02/mo=\$228.24							
Travel/conferences/daily gas	1800.00	F2FX \$400, daily gas =\$1400							
Professional services	520.00	CPA, organic certification, snowplowing							
Electric	421.80	farm 37%=\$35.15/mo=\$421.80, includes GH but not separate							
Water	807.00	\$657 for 2015 225 water, 75 for Ish but entered 150 for future (\$25/mo for 6 mo)							
Landfill	20.00								
Telephone	552.00	farm % = \$26/mo for marci + I \$120/yr + G \$120/yr							
Advertising	130.00	\$30 signage, \$100 box and jar labels							
Shop, wash supplies, misc. repairs	200.00	tractor, implement, irrigation repairs already accounted for in Worksheet 4							
Labor: management	1600.00	average 5 hrs/week, 200 hrs/year; annual labor for overseeing farm operation	\$8/hr						
Labor: office	2080.00	average 5 hrs/week, 260 hrs/year; annual labor for office duties							
Labor: maintenance	416.00	average 1 hr/week, 52 hrs/year; annual labor for nonassigned maintenance work							
Total overhead costs:	14845.60	Allocation: GH seedlings \$2397, GH tomatoes \$2397, 5A (100 beds) \$14,385 = \$144 per bed							
Overhead for GH seedlings:	2000.00								
Overhead per HH:									
MH	1000.00	\$333/HH bed							
UH	1000.00	\$333/HH bed							
LH	1000.00	\$333/HH bed							
ISH 4 beds	1000.00	\$333/HH bed							
Balance for field beds:	8845.60								
50' Field Beds in Production:	192.00	2015							
Overhead per 50' bed:	46.07	Per two 350' beds, for 5A (100 beds) planted to row crops. Enter on line 69 on Crop Enterprise Budget.							



Overhead Expenses 2018

Mortgage annual payment	3387.06	farm % of total bill. Does not include house and house site portion.
Depreciation	1000.00	to account for replacement costs, excluding machinery in Worksheet 4
Property taxes	343.62	farm %
Insurance	367.00	on farm injury \$115/yr, \$126/6mo ford, \$126/6mo toyota, no health, workers' comp.
Office	300.00	supplies, postage, subscriptions \$3/mo NYFA
Website, Internet	324.24	\$8/mo=\$96 plus fees and maintenance, internet \$19.02/mo=\$228.24
Travel/conferences/daily gas	1000.00	F2FX \$400, daily gas =\$600
Professional services	850.00	450 CPA, 200 cng cert, 200 my snowplowing
Electric	421.80	farm 37%=35.15/mo=421.80, includes GH but not separte
Water	657.00	\$657 for 2015 225 water, NOT INCLUDED for 2017 ISH 150 for future (\$25/mo for 6 mo)
Landfill	20.00	
Telephone	120.00	farm % = G \$120/yr NOT INCLUDED for 2017 ISH \$120/yr + \$26/mo for marci
Advertising	30.00	\$30 signage, \$100 box and jar labels
Shop, wash supplies, misc. repairs	200.00	tractor, implement, already accounted for in Worksheet 4
Labor: management	512.00	average 2 hrs/week, 64hrs/year; annual labor for overseeing farm operation w: \$8/hr
Labor: office	832.00	average 2 hrs/week, 104 hrs/year; annual labor for office duties 2016 was 260 hrs/yr
Labor: maintenance	416.00	average 1 hr/week, 52 hrs/year; annual labor for nonassigned maintenance work
Total overhead costs:	10780.72	Allocation: GH seedlings \$2397, GH tomatoes \$2397, 5A (100 beds) \$14,385 = \$144 per bed
Overhead for GH seedlings:	2000.00	
Overhead per HH:		
MH (4.6 beds)	1150.00	\$250/HH bed
UH (4 beds)	1000.00	\$250/HH bed
LH (3 beds)	750.00	\$250/HH bed
ISH (12 beds)	0.00	\$250/HH bed
Balance for field beds:	5880.72	
50' Field Beds in Production:	50.00	
Overhead per 50' bed:	117.61	Per two 350' beds, for 5A (100 beds) planted to row crops. Enter on line 69 on Crop Enterprise Budget.



Record Keeping

All farms are different.

What is profitable on one may not be on another.

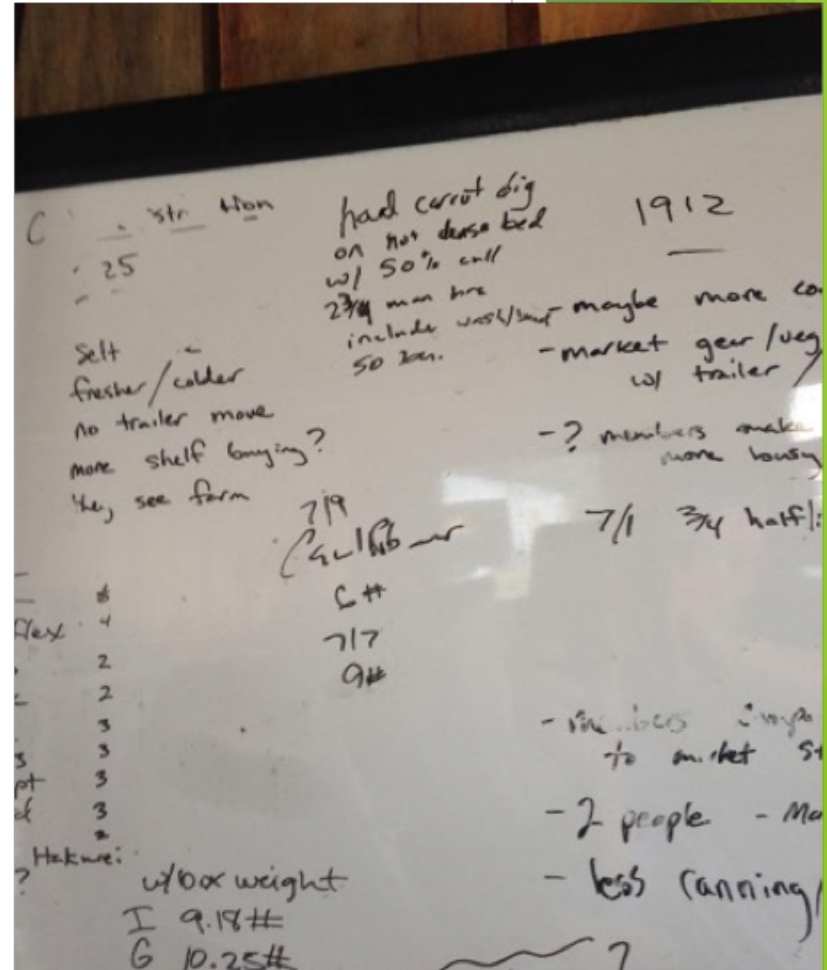
Records are specific to your farm.

Keep records of:

- Yield per standard unit of space

- All time spent maintaining individual enterprises and all work needed to operate farm

- Volumes sold at markets



What enterprise budgets do for you?

Compare sources of income on your farm.



Value-Added Products

Basil Pesto
Spicy Cilantro Pesto
Salsa
Pickled Jalapenos



Understand your operating costs



Inform decisions on what and how much to produce



Mid-July CSA
Share



Cucumber Taste Trial





**Place a value
on what your
space and
time is worth**

It might be better to
take a nap on that
cilantro rather than
cut it.

Not guaranteed to help you
cull napping laborers

Pinpoint your cost per unit



Cost per Unit and Net Profit for Winter Squash

<u>Total Costs:</u>			
Crop & Overhead Total:	131.36		
Sales:	# of units	Price per unit	Total \$
Retail:	150.00	1.50	225.00
Wholesale:		1.25	0.00
		1.00	0.00
Total units	150.00		
<u>Total Sales:</u>			225.00
Net Profit:			
Total sales – total costs =		93.64	
Net Profit/Acre: 208 (50's)		19477.12	
Cost/Unit:		0.88	
<u>Net Profit/Unit:</u>		0.62	

- Know your price point
- Don't dump produce at below cost prices
- Value your time



**Identify ways
to potentially
improve
production**



**Budgets are the reason we
reduced the amount of
Brassica crops on our small
acreage farm**



Year 1 Head Lettuce Budget

Simple but not true cost -

no overhead included

Head Lettuce		
50' Bed	Hrs	Small Heads Hrs
tillage/prep	1	1
seeding	0	0
plug flats	0.25	0.5
watering	0.5	0.5
transplanting	0.75	1.5
irrigation	1	1
weeding	1.5	2
2nd weed	1	2.5
3rd weed	0.25	0.5
harvest	0.3	0.5
wash	0.5	1
total hrs	7.05	11
wage \$8/hr	\$56	\$88
150 seeds	\$1	\$2
compost	\$3	\$3
yield (heads)	150	300
Gross Retail \$3 per large \$2 per small	\$450	\$600
Net	\$389	\$507
Growth 1=worst, 5=great	5	
Customer Demand	4	
Amount of Work	3	

Detailed Head Lettuce Budget

Includes farm overhead and marketing costs

?

?

?

?

?

Head Lettuce	50'x3' Bed				
\$8/ hr	\$	\$	\$		
Prepare Soil:	Labor cost	Machinery cost	Product cost		
Rototill 2 hrs monthly(8months) 5 hrs	2.00	0.69			
Bedform	2.00				
Fertilizer	1.00		1.00		
Manure, compost 25 gallons per bed	2.00		1.25		6 tons/ acre 10 gallons/bed
Mulch					
Seed/Transplant:					
Seeding in field 1 hr wkly = \$6/hr					
Cost of transplants			18.00		\$0.10 each need 180 for 9" 3 row about \$0.04 each for majority year (no heat, o
Transplanting labor	4.00				
Cultivation:					
Reemay on/off \$10 total					useful for 2 crops
Hoeling	4.00				
Hand weeding/thin 1	8.00				
Hand weeding 2	2.00				
Hand weeding 3					
Straw mulch					
Irrigating	2.00				
Side-dressing					
Flame weeding					
Pre-harvest Subtotal:	27.00	0.69	20.25		
Harvest:	Total yield for 50' bed =			170	Heads
	Total hours to harvest 50' bed			0.5	
Field to pack house	4.00				
Pack house to cooler	16.00				
Bags, boxes, labels			0.00		
Delivery (.5 hr, 1 mile)	4.50	0.55			
Post Harvest:					
Mow crop					
Remove mulch					
Rototill	2.00	0.69			
Sow cover crop: spinner					
Post-harvest Subtotal:	53.50	1.93	20.25		
Marketing Costs:					
Labor: sales calls for season (for this crop only)	2.00				
Commissions			0.28		
Farmers' market expense	1.81	0.11			
Total Crop Costs:	57.31	2.04	20.53		Complete Crop Costs
				79.88	
Overhead Costs:	46.07	includes all business overhead, 4 HH's, gas			
Total Costs:					
Crop & Overhead Total:	125.95				
Sales:	# of units	Price per unit	Total \$		
Retail:		2.00	0.00		
Wholesale:		2.09	0.00		
Wholesale Unwashed:	170.00	3.00	510.00		
Total units	170.00				
Total Sales:			510.00		
Net Profit:		Bulk Lbs			
Total sales - total costs =		384.05			
Net Profit/Acre: 208 (50's)		79882.40			
Cost/Unit:		0.74			
Net Profit/Unit:		2.26			

Detailed Mini Head Lettuce Budget

How does
profitability
compare to full
size head
lettuce?

?

Mini Head Lettuce	50'x3' Bed				
\$8/ hr	\$	\$	\$		
Prepare Soil:	Labor cost	Machinery cost	Product cost		
Rototill 2 hrs monthly(8months) 5 hrs sp	2.00	0.69			
Bedform	2.00				
Fertilizer	2.00		2.00		
Manure, compost 25 gallons per bed (\$	2.00		3.13		
Mulch					
Seed/Transplant:					
Seeding in field 1 hr wkly = \$6/hr					
Cost of transplants			27.00	\$0.09 each need 300	
Transplanting labor	6.00				
Cultivation:					
Reemay on/off \$10 total			5.00	useful for 2 crops	
Hoeing	4.00				
Hand weeding/thin 1	12.00				
Hand weeding 2	4.00				
Hand weeding 3					
Straw mulch					
Irrigating	4.00				
Side-dressing					
Flame weeding					
Pre-harvest Subtotal:	38.00	0.69	37.13		
Harvest:	Total yield for 50' bed =			Lbs	300
	Total hours to harvest 50' bed				2.5
Field to pack house	12.00				
Pack house to cooler	16.00		1.00	power, wash water	
Bags, boxes, labels			0.00		
Delivery (.5 hr, 1 mile)	4.50	0.55			
Post Harvest:					
Mow crop					
Remove mulch					
Rototill	1.00	4.80			
Sow cover crop: spinner					
Post-harvest Subtotal:	71.50	6.04	37.13		
Marketing Costs:	all market costs distributed across 44 crops grown seasonally				
Labor: sales calls for	80 wages (2 people), 12.5 market fee, 5 market gear				
season (for this crop only)	16.00				
Commissions					
Farmers' market expense	1.81	0.11	0.28		
Total Crop Costs:	89.31	6.15	37.41	Complete Crop Costs	132.87
Overhead Costs:	46.07	includes all business overhead, 4 HH's, gas			
Total Costs:					
Crop & Overhead Total:	178.94				
Sales:	# of units	Price per unit	Total \$		
Retail:	300.00	2.00	600.00		
Wholesale:		1.75	0.00		
Wholesale Unwashed:		1.50	0.00		
Total units	300.00				
Total Sales:			600.00		
Net Profit:	Bulk Lbs				
Total sales - total costs =		421.07			
Net Profit/Acre: 208 (50's)		87581.52			
Cost/Unit:		0.60			
Net Profit/Unit:		1.40			



BACKYARD CHICKENS



THE GATEWAY DRUG TO FARMING

» eatlocalgrown.com »





Irrigation leaks are easier to spot, but much less costly than unprofitable enterprises



Questions for Greg?

