

# High Tunnel Budgets

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# Building a Budget

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In theory, there is no  
difference between theory  
and practice

**BUT IN PRACTICE THERE IS**



# High Tunnel Budgets

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# Budget Numbers

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- *Where do you get the numbers?*
  - Tax records
  - NC state budgets
  - Sales receipts
  - Shoe box



# Construction Cost





# Enterprise Budgets

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- Capital cost – costs that will last more than one year
    - *Ex: building, irrigation, machinery, site preparation*
    - *Need to estimate the useful life of each item, not necessary tax life.*
- Depreciation***



# Construction Cost

96' by 30'

Companies	1	2	3
High Tunnel	7,972	6,060	8,860
Other items			
Irrigation			
Plastic Cover			
Labor			
Site Preparation			
Backup heater			
Water Service			
Weed Matt			
Delivery			



# Construction Cost

Construction Cost	Materials	Labor
Site Preparation	60	48
Greenhouse layout	10	48
Frame	5,000	576
Lumber Hardware	800	384
Endwall finish	250	144
Irrigation	100	32
Backup heater	225	
Water Service	50	12
Weed Matt	200	
Harvest container	200	





# Construction Cost

Construction Cost	Materials	Useful Life	Annual cost
Site Preparation	60	15	4
Greenhouse layout	10	15	.66
Frame	5,000	15	333
Lumber Hardware	800	15	53
Endwall finish	250	10	25
Irrigation	100	10	10
Backup heater	225	5	45
Water Service	50	15	3
Weed Matt	200	5	40
Harvest container	200	5	40
Labor	1,244	15	83
Total			637



# Enterprise Budgets

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- *How is profit defined?*
  - Typically return to unpaid labor, management and capital
  - Can be other things on budgets



# Total Revenue

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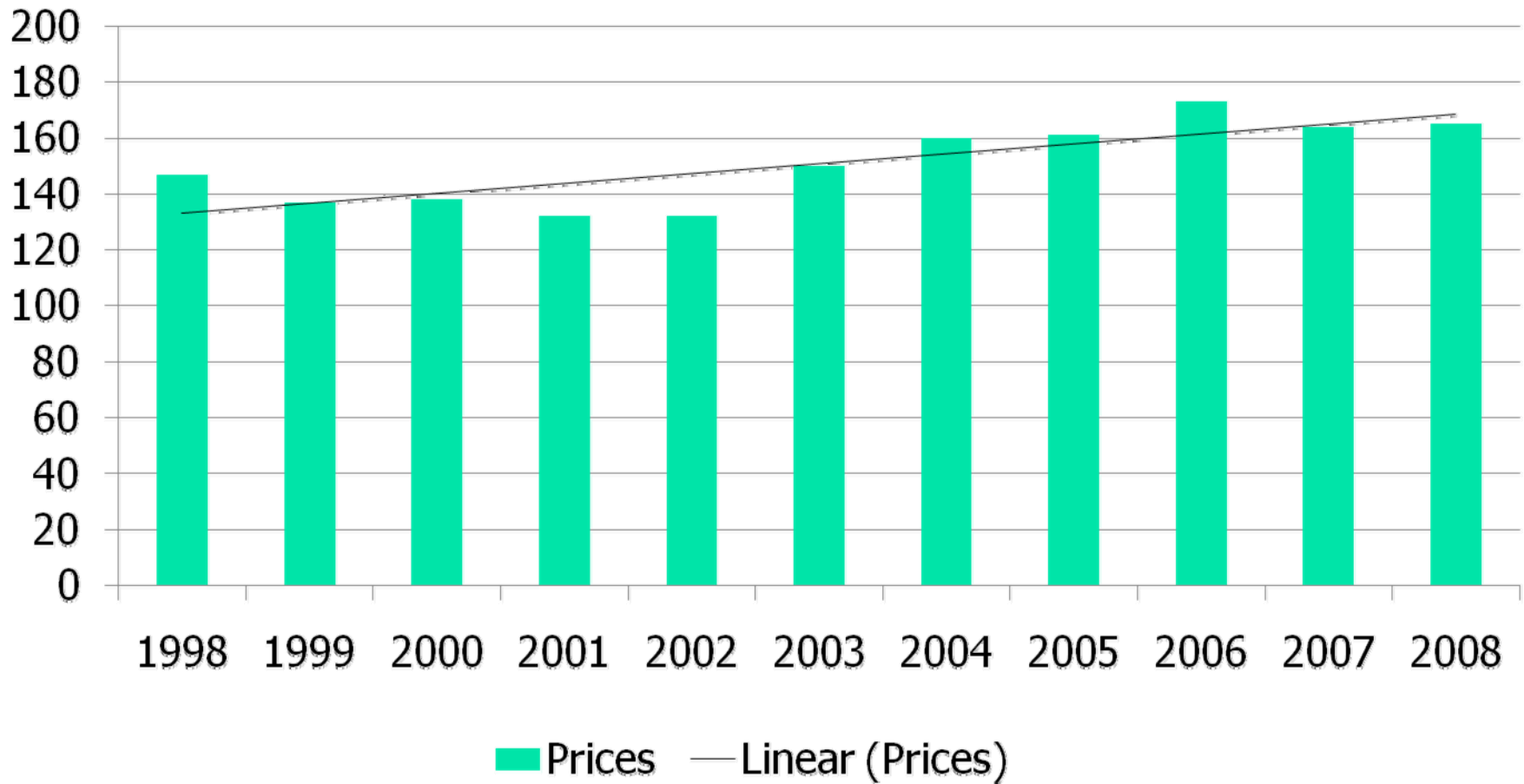
**Most budgets  
include a  
revenue section**

What yields

What price



# Retail Tomato Prices





# Total Revenue

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	LBS/Plant	Price
Tomato	12	\$2.00

480 plants per high tunnel  
\$11,520







# Enterprise Budgets

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- Variable costs- vary with the yield
  - *Ex: Plants, fertilizer, fuel, repairs*
- Fixed costs- costs you incur, whatever the level of production
  - *Ex: depreciation, taxes, insurance, interest and land*
- **Labor - Own vs. Hired**



# Variable Cost

Plants	700
Fertilizer	175
Irrigation supplies	10
Stakes, string, clips	200
Heater fuel	75
Bees for pollination	100
Poly Cover (prorated 4 yrs)	200
Mis supplies	150
<b>Sub total</b>	<b>1,610</b>



# Labor Cost

Bed prep and fertilization	144
Transplanting, lay drip tape, weed matt	144
Site mowing and weeding	144
Pruning and trellising	576
Harvesting grading and packing	480
Clean up	120
Maintenance	96
Environmental management	360
<b>Sub total</b>	<b>2,064</b>



# Total Cost

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	Total	Per LB
Annualized Construction Cost	637	.11
Fixed cost (interest, taxes, land)	1,085	.188
Variable Cost	1,610	.279
Labor	2,064	.358
<b>Total Cost</b>	<b>5,396</b>	<b>.935</b>



# Returns At Various Prices

	\$2.00/LB	\$1.50/LB	\$1.25/LB
Gross Returns	\$11,520	\$8,640	\$7,200
Variable Cost	\$3,674	\$3,674	\$3,674
<b>Returns over Variable Cost</b>	<b>\$7,846</b>	<b>\$4,966</b>	<b>\$3,526</b>
Fixed Cost	\$1,085	\$1,085	\$1,085
<b>Returns over Total Cost</b>	<b>\$6,761</b>	<b>\$3,881</b>	<b>\$2,441</b>





# High Tunnel Tomato Returns

	\$0.75	\$1.00	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25
8	-\$3,476	-\$2,836	-\$2,196	-\$1,556	-\$916	-\$276	\$364
10	-\$2,996	-\$2,196	-\$1,396	-\$596	\$204	\$1,004	\$1,804
12	-\$2,516	-\$1,556	-\$596	\$364	\$1,324	\$2,284	\$3,244
14	-\$2,036	-\$916	\$204	\$1,324	\$2,444	\$3,564	\$4,684
16	-\$1,556	-\$276	\$1,004	\$2,284	\$3,564	\$4,844	\$6,124
18	-\$1,076	\$364	\$1,804	\$3,244	\$4,684	\$6,124	\$7,564
20	-\$596	\$1,004	\$2,604	\$4,204	\$5,804	\$7,404	\$9,004.



# Breakeven Analysis

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- Variable cost and labor \$3,674
  - \$3,674/yields of 5,760 LBS
  - Per acre price needed to cover variable costs = \$0.63
  - Total costs:  
 $\$3,674 + \$1,722 = \$5,396$ /High Tunnel
  - **Price needed to cover total costs = \$.94/LBS**



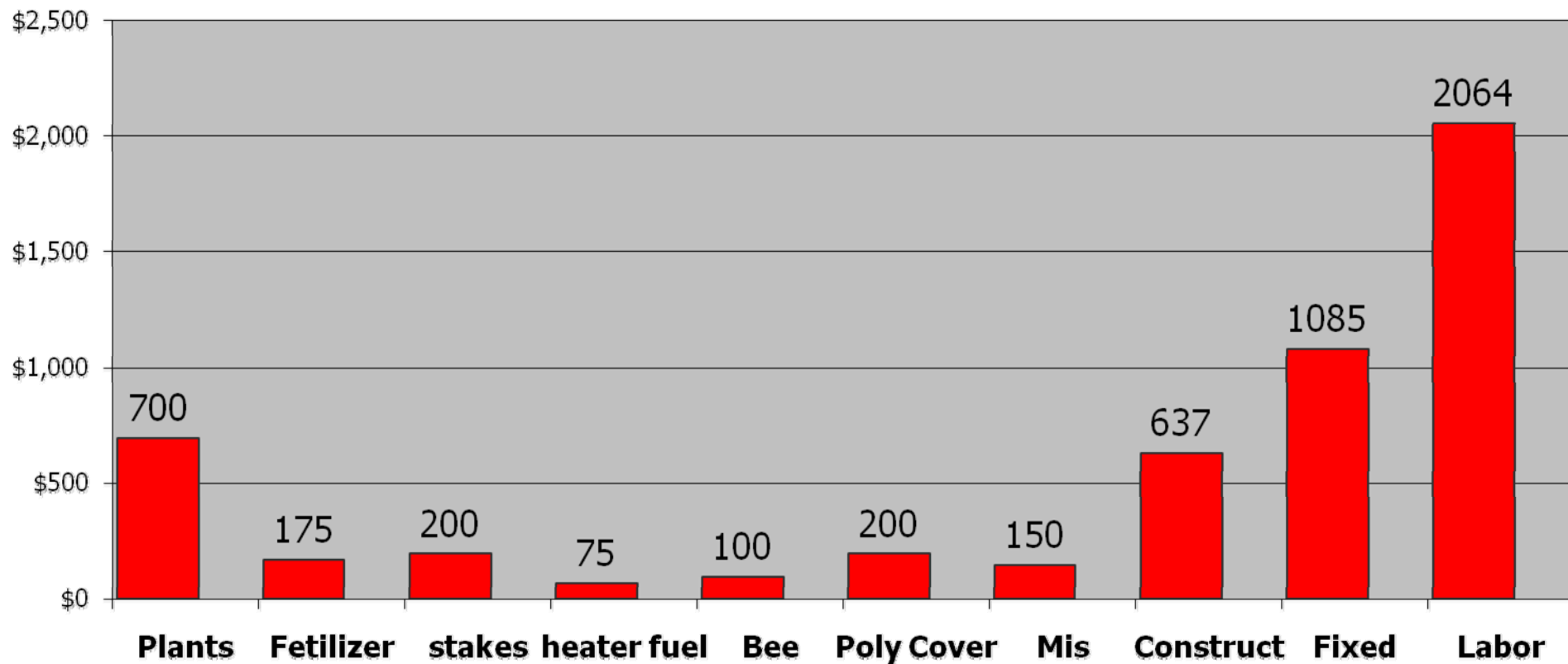
# Breakeven Analysis

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- What if yields were 10 pounds per plant
  - Breakeven price would be \$1.12
- Yields of 14 pounds per plant
  - Breakeven price would be \$0.80



# High Tunnel Tomato Budget





# Enterprise Analysis

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- **University budgets are only estimates**
- **Should only be used as guide**
- **Huge variation in cost of production between farms**
- **Are budgets economic or financial**
- **Controlling fixed costs very important**
- **Use tax records, sales receipts to establish enterprise records**



