Planning for Profit Local Greenhouse Vegetables

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My Definitions

• **What is Profit?** Return to Risk. Money left after ALL fixed and variable costs paid.
• **What is Sustainable?**
  – Supports a Family above Poverty level
  – Labor is valued above Minimum Wage
• **What is local?** Relationship Value developed between the grower and consumer.

Greenhouse

Any Protected Culture of Plant Photosynthesis

- Water
- Nutrients
- Entry of Insects
- Light Energy
- Oxygen
- CO₂
- Temperature
- Relative Humidity

Climatic Variables

Why do you Buy Local Produce

1. It makes me feel good to support local producers
2. I feel local produce is higher quality/fresher
3. To save money; It’s economical
4. I feel its healthier – there are fewer pesticides / chemicals on local produce
5. The flavor – locally grown produce tastes better
6. I don’t have to drive as far to get it. I help the environment by buying local
7. Don’t buy locally grown produce

Vegetables and Melons

<table>
<thead>
<tr>
<th>Vegetables &amp; Melons</th>
<th>Per capita Consumption</th>
<th>Vegetables &amp; Melons</th>
<th>Per capita Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potatoes, All</td>
<td>135.0</td>
<td>Broccoli, All</td>
<td>8.0</td>
</tr>
<tr>
<td>Tomatoes, All</td>
<td>89.5</td>
<td>Snap beans, All</td>
<td>7.4</td>
</tr>
<tr>
<td>Sweet Corn, All</td>
<td>26.6</td>
<td>Bell Peppers, All</td>
<td>6.9</td>
</tr>
<tr>
<td>Lettuce, Head</td>
<td>22.4</td>
<td>Dry Beans, All</td>
<td>6.3</td>
</tr>
<tr>
<td>Onions, All</td>
<td>21.5</td>
<td>Celery, All</td>
<td>6.2</td>
</tr>
<tr>
<td>Watermelon</td>
<td>13.6</td>
<td>Chile peppers, all</td>
<td>5.7</td>
</tr>
<tr>
<td>Carrots, all</td>
<td>11.9</td>
<td>Squash, All</td>
<td>4.5</td>
</tr>
<tr>
<td>Cucumbers, All</td>
<td>11.1</td>
<td>Sweet Potatoes, all</td>
<td>4.4</td>
</tr>
<tr>
<td>Lettuce, Romaine/leaf</td>
<td>10.9</td>
<td>Mushrooms, all</td>
<td>4.1</td>
</tr>
<tr>
<td>Cabbage, All</td>
<td>9.2</td>
<td>Others</td>
<td>29.4</td>
</tr>
<tr>
<td><strong>Total (Lbs)</strong></td>
<td><strong>445.1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Fruit and Vegetable Backgrounder / VGS-313-01

Enterprise Budgets

- Help plan
  - Your production & resource needs
  - Estimate your operating loan needs
  - Determine profitability for each enterprise
  - Estimate your “breakevens”
  - Analyze sensitivity to change
    - Key factors – labor, fuel, fertility, etc.
  - Think through the process on paper BEFORE committing money

Examples of Enterprise Budgets

- Virginia Cooperative Extension
  - Crops, Livestock, Major Vegetable Crops
- Ohio State University
- Cornell
- Rutgers
- North Carolina
- Kentucky
- Florida

Probing Questions

1. Do you grow a vegetable garden and keep it weed free?
2. Do you grow enough fruit and vegetables to can and freeze or would you rather buy produce in the off-season?
3. Do you keep records on personal income, monthly bills and expenses or detailed production records?
4. Do you have additional family members to work on the farm?
5. Do you have adequate savings or off-farm income to cover cash expenses while growing fruits and vegetables?
6. Can you afford a net income loss for the first 3 to 5 years?
7. Have you developed a 5 or 10 year long-range plan with goals that are written down?
8. Do you consider farming a lifestyle or a business?
Parts of an Enterprise Budget

- **Revenues**
  - Gross Value of Sales (Quantity x Price)

- **Variable Costs (VC)**
  - Cost the manager can control
  - Vary directly with quantity produced
  - Seed, fertilizer, utilities, labor, etc.
  - Pre-harvest & harvest expenses

- **Fixed Costs (FC)**
  - Costs that you need to manage around
  - Depreciation, interest, property taxes, insurance, owner draw, administrative costs (Overhead)
  - Salaries / Owner Draw

**Variable Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Hours</th>
<th>Cost/Unit</th>
<th>Total</th>
<th>Cost/Per Acre</th>
<th>Cost/Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Hug. (not included)</td>
<td>1M</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilizing Media (2 lb/Plant)</td>
<td>22</td>
<td>$4.20</td>
<td>$92.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tray Replacement</td>
<td>50</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-0-16 (Bagged)</td>
<td>100</td>
<td>$0.30</td>
<td>$30.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilizer Blend</td>
<td>0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicides</td>
<td>1.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdicides</td>
<td>1.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fungicides</td>
<td>1.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| UP Costs                      | 3600  | $1.85     | $6,600.00
| Electricity                   | 1000  | $0.11     | $110.00|
| Tractor Equipment Fuel & Oil  | 8.21  | $0.16     | $13.46|
| Equipment Repairs            | 1.00  | $5.74     | $5.74 |
| Repairs & Maintenance         | 2.5   | $1,202.88 | $1,202.88|

**Total Variable Costs:** $20,094.33

**Fixed Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Hours</th>
<th>Cost/Unit</th>
<th>Total</th>
<th>Cost/Per Acre</th>
<th>Cost/Farm</th>
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</thead>
<tbody>
<tr>
<td>Seed</td>
<td>35</td>
<td>$14.50</td>
<td>$508.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs &amp; Maintenance</td>
<td>1.00</td>
<td>$1,202.88</td>
<td>$1,202.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tractor Fuel &amp; Oil</td>
<td>8.21</td>
<td>$0.16</td>
<td>$13.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Repairs</td>
<td>1.00</td>
<td>$5.74</td>
<td>$5.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs &amp; Maintenance</td>
<td>2.5</td>
<td>$1,202.88</td>
<td>$1,202.88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Production Interest           | 3 MONTH | $5,147.93 | 6.5% $334.67

**Total Fixed Costs:** $18,356.01

**Total Variable & Fixed Costs:** $38,450.34

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*PLEASE NOTE: This budget is for planning purposes only.*

*Fertilizer requirements will vary with application method, and/or residual nutrient levels in the soil.*
Costs Vary From Grower to Grower Because of:

- Size of operation
- Location
- Managerial practices
- Time of year
- Market channel
- Volume of production

Costs Vary From Grower to Grower Because:

- Other options for greenhouse space
- Size of permanent workforce
- Availability of part-time labor
- Type of heating system
- Farm / Greenhouse layout
- How quickly you pay suppliers
Everyone’s Costs are Different!

Calculate Your Costs for Your Farm!

Financial Management is Critical to Success in:

- Budgeting
- Managing Cash Flow
- Controlling Credit
- Pricing
- Obtaining Capital
- Profitability
- Planning

Rationale for Business Plan

- Time and money are scarce resources

- Research needed to determine economic viability
- Many small businesses fail
- Capital Intensive
- May change your mind

Business Plan

Key Elements

- Business Description
- Market Description & Analysis
- Operations Plan
- Financial Information and Analysis
- Appendix (Supporting Information)
### Business Description
- Business location
- Owners
- Legal form of business
- History and/or start date
- Recent sales and profit figures
- Classification of business
- Business advisors

### Operations Plan
- Logistics
- Suppliers
- Operating regulations
- Human resources
- Risks, problems, and future plans

### Market Description & Analysis
- Product or service
- Target market
- Market research and strategy
- Competitive analysis
- Pricing Strategy
- Promotional strategy
- Distribution
- Location synopsis

### Financial Information & Analysis
- Financial statements (last 3 years)
- Interim financial statements (YTD)
- List of all notes and leases payable
- Personal financial statements
- Pro forma statements (projections)
- Break-even analysis
Enterprise Budget Development and Analysis

- Market Price Analysis
- Required Capital Investment
- Assumptions and Enterprise Budget
- Indirect Costs
- Labor Costs
- Sensitivity Analysis
- Financial Analysis

Monitor & Review

- Financial Ratios
- Select the Enterprise Mix or “Best Fit” Option
- Assess Risks and Strategies
- Review efficiencies in using new environmental technologies and innovations
- Repeat

Financial Statement Development

- Accrual Income Statement
- Cash Flow Statement
- Net Worth Statement
- Balance Sheet Statement

Costs:

- Are grower specific.
- Vary with production and marketing decisions.
- Vary with
  - Market conditions
  - Labor supply
  - Age & condition of greenhouse
  - Managerial skill.
- Should be calculated for your farm!
Business Analysis Benefits

- Increased Profitability
- Reduced Risk of Failure
- Greater Market Opportunities
- Better Cost Control
- Easier access to capital financing
- Greater employee productivity
- Improved Greenhouse Efficiency
- Enhanced Business Image

Greenway Farms Business Plan

- Executive Summary
- Mission and Goals
- Background Information
- Farm Strategy
- S.W.O.T. Analysis
- Marketing Strategy and Plan
- Enterprise Analysis and Plan
- Financial Plan
- Implementation Strategy
- Human Resource Plan
- Resource Inventory
- Supporting Schedules

Financial Analysis

- Profitability
- Cash Flow Analysis
- Sensitivity Analysis
- Return on Assets
- Return on Equity
What the Lender Considers

- 5 C’s of Credit
  - Conditions
  - Character
  - Capital
  - Capacity
  - Collateral

Character

- Identification of legal structure
- Evaluation of honesty & integrity
- Assessment of management ability
  - Production
  - Marketing
  - Financial
- Assessment of credit history

Conditions

- Amount and purpose of loan
- Terms/structure of loan
- Environment/Industry considerations
- Operational assessment
- Other lending relationships

Capital

- Liquidity
  - Working capital
  - Current ratio
- Solvency
  - Equity ratio
  - Debt-to-asset ratio
- Trend
- Comparison to peers
### Capacity
- Profitable
- Cash flow
- Reliability of source(s) of repayment
  - Primary
  - Secondary
- Capital replacement needs
- Family living expenses
- Comparison to peers

### Pricing Strategies
- **Cost Pricing**
- Penetration Pricing
- Skimming the Market
- What the market will bear
- Discount Pricing
- Loss Leader
- Psychological Pricing
- Prestige Pricing
- Competitive Pricing

**Dixie Dalton**

### Collateral
- Loan-to-value relationship
- Liquidity
- Degree of specialization
- Stability of value
- Durability
- Environmental concerns