**OrgFarm**

**Sample Only**

This document was submitted by students in a previous class. Their requirements were different from yours. We offer it only as a sample of what a project was for that class. Copying this document, in whole or in part, and submitting the result as your own work, would be a violation of the honor code.

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ISMT E-130

**Section 1. Overview**

As consumers shy away from genetically engineered food, organic farming is gaining popularity in the United States, with some estimates calling for 20% growth over the next three years. In this growing (no pun intended) market, Anne Spillman and her brother Bill saw an opportunity. Their parents, Angela and Tom, were lifelong organic farmers but wanted to retire to Florida. Anne, a successful businesswoman in Boston and Bill, a MIT educated chemist, thought they could turn their parents' small farm into a much larger operation, especially with Bill’s newest chemical creation, a new natural fertilizer. Anne and Bill suspected that this new technology could lead to better tasting crops and higher production per acre.

After closing on their parent’s farm, and seeing them off for the long ride to Florida, Anne and Bill sat down to plan the next three years of farm ownership. Anne recognized immediately that she and Bill would need a dynamic business model that will help them understand the potential of the farm and how specific factors would affect sales, margins and cash flow. Anne knew that the model would have to account for the effectiveness of the fertilizer, equipment needs, labor requirements, and other potential technological changes, including packaging changes and the potential construction of a new greenhouse.

Our group intends to develop a decision support tool to that will assist Anne and Bill in their efforts to understand how planned and unplanned factors will affect their business. The name of the project will be **OrgFarm**. We have developed the following budget and milestone timeline to assist us in our effort.

**Section 2. Budget**

|  |  |
| --- | --- |
| Task | Hours |
| Planning | 14 |
| Model Construction | 20 |
| Model Validation | 6 |
| Deliverables | 32 |
| Total | 72 |

**Section 3. Team**

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**Section 4. Scenarios, Inputs & Parameters**

* **Scenarios-** Our intention is to model two growth scenarios. Anne and Bill are confident that their management combined with the new fertilizer will lead to increased sales. They want to be prepared for either a controlled growth pattern or a hyper growth result.
  + **Controlled Growth-** The fertilizer and a new packaging leads to better crops, an improved yield and an expanded distribution. Sales increase, but at a moderate level.
  + **Hyper Growth-** Sales take off thanks to the fertilizer, packaging and the construction of new greenhouse.
* **Periods**
  + 12 Quarters
* **Inputs**
  + Open market price for the product
  + Labor hours
  + Demand
* **Parameters**
  + Number of months in production
  + Cost of fertilizer per acre
  + Spoilage
  + Man Hours
  + Land Usage
* **Outputs**
  + Production
  + Gross Profit

**Section 5. Milestones**

| Milestone | Date | Action Items |
| --- | --- | --- |
| Concept Presentation and Feedback | 10/23/02 | Present idea and submit project proposal |
| Model Outline | 11/6/02 | Discuss and define parameters, outcomes, and time period. Begin to “sketch” the model. Agree upon necessary baseline assumptions. |
| Midpoint Status | 11/20/02 | Prepare and present Midpoint Status Report |
| Model Construction | 12/4/02 | Create the model. Work collaboratively to ensure all team members play a role in this task. |
| Model Testing and Interface enhancement | 12/11/02 | Confirm the functionality of the model and sharpen interface features (formatting, ease of use and reference guide) |
| Final Project Presentation | 1/22/02 | Final Presentation  Deliverables to include:  Final Report  User Guide  Reference Guide  Model (w/ 2 simulations) |
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