

SURVIVING DIFFICULT TIMES IN THE GREEN INDUSTRY
Managing Risk And Uncertainty In A Maturing Marketplace

First Things First: **The Management – Risk Interface**

- **What Managers Do**
 - Allocate resources to achieve goals in risky environment
 - Effective if business progresses towards & achieves goals
- **The Risky Environment**
 - Exposure to chance of injury or loss (\$)
 - Linked w/ uncertainty & resource value
- **Major management decisions...**
 - What and how much to produce
 - How to obtain & allocate resources
 - Desired size of operation
 - How to market the product



Part 1. Risks Confronting Nursery Producers

- **Production Risk**
- **Market or Price Risk**
- **Human Resource Risk**

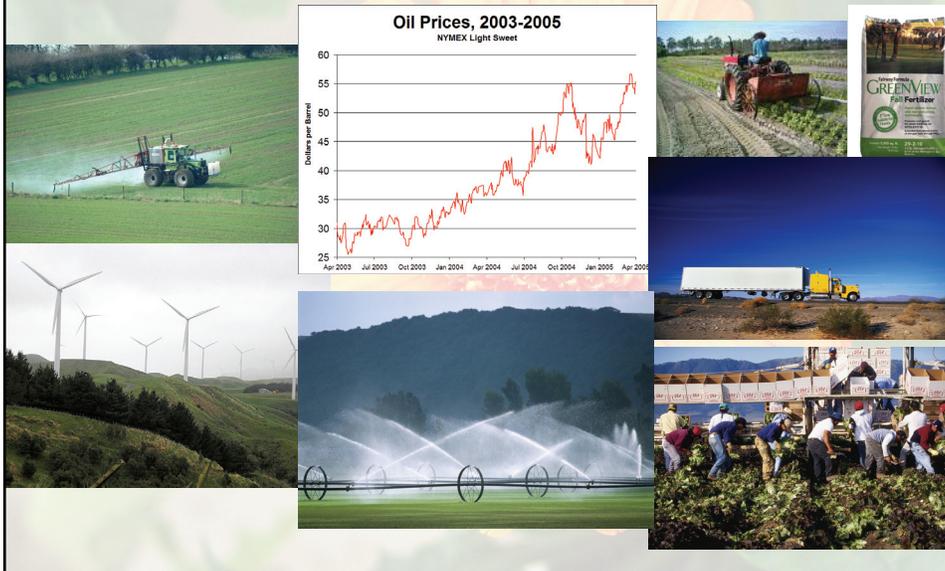


Production Risk

- Sources of production risk
 - Weather, pests, diseases
 - Technology, genetics, theft
 - Inputs (quality, price, misuse)
- Information essential for strategies
 - No information – high exposure
 - Perfect information – low exposure
- Grower response to risk varies
 - Individual's perception of risk & risk attitude
 - Personal or business circumstances



Rising Input Costs!



Market or Price Risk

Where does risk come from?

- Supply & demand conditions
- Regulations & quarantines
- Competitors
- Big box stores



Marketing can be antidote

- Effectiveness of marketing plan
- Knowledge of products & markets
- Quality of product
- People involved in marketing effort



Employees & Risk

People difficult to manage...

- Even best employees source of risk
- So too is the manager... !



Risk grows if employees poorly managed

- Managed too loosely
 - Greater incidence of moral risk
- Managed too tightly
 - Stifle productivity & creativity



Labor risk and nursery industry

- Availability and retention
- Rising labor costs



Five Steps to Control Labor Costs

- **Improve existing methods**
 - *Lean Six Sigma*
- **Measure standards accurately**
 - Defining tasks, performance, incentives
- **Allocate labor efficiently**
 - Labor Management System (LMS) software
- **Monitor performance**
 - LMS tracks tasks in real time
- **Motivate employees**
 - Initiate incentive programs

Kerry Herndon – *Two For One !*



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Kerry Herndon – *Quality & Value!*



Part 2. Evaluating and Understanding Risk

Important Risk Concepts

- **Vulnerability**
- **Time Horizon**

Figure 1. Risk And Absolute Return

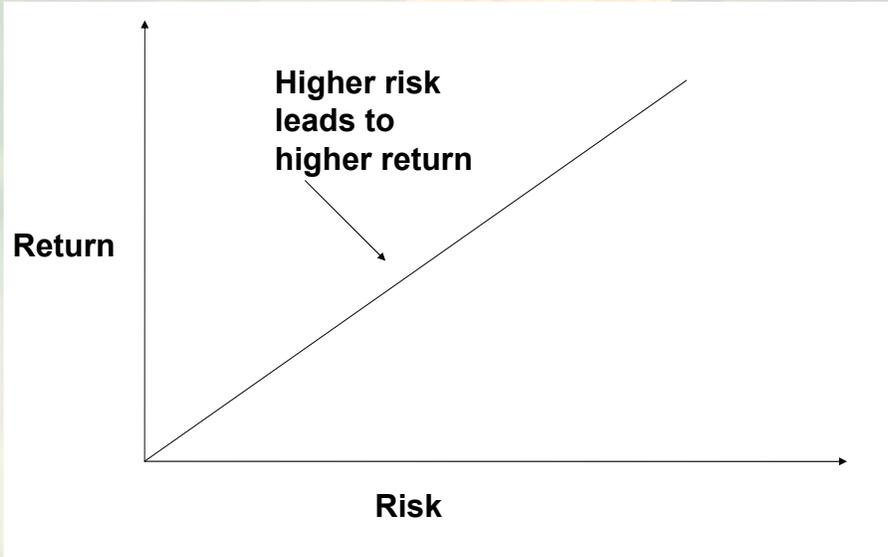
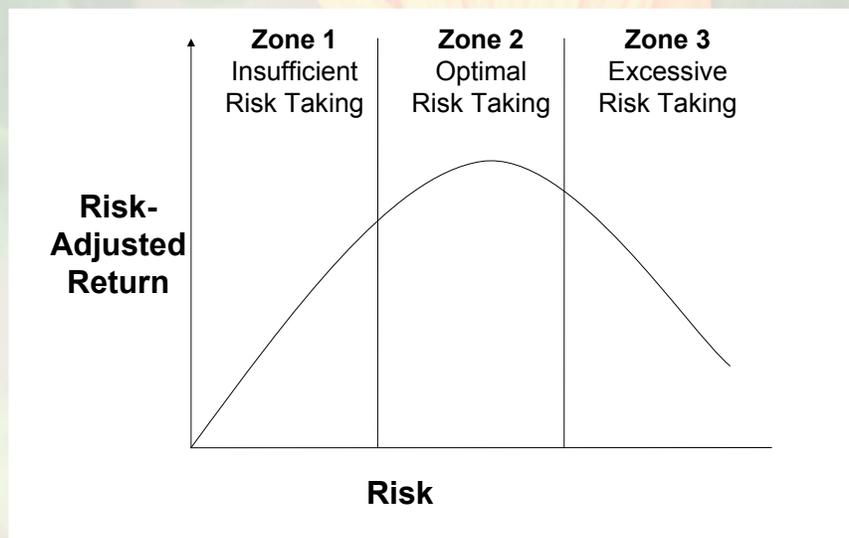


Figure 2. Risk And Relative Return



How **Vulnerable** Are You?

- How Much Can I Afford To Lose?
- Maximum damage if event occurs?
- Risk increases with vulnerability



Vulnerability (continued)

Internal nursery risks

- Poor management decisions
 - Size/diversity of customer base
 - Vulnerability & transaction value
- Quality of employees
 - Skill levels; reliability, teamwork



External risks

- Defaults rise during recession
 - Quantify chance of adverse outcome
 - Monitor & evaluate customer base
 - Avoid risky customers

Time Horizon

How Long Will I Be Exposed?

- Risk grows with time
 - 1-year vs 10-year loan
 - 1-year vs 5 year production period
 - Loss of market, high input prices
- Production Risk
 - Time to *prepare or recover* from an event
 - Hurricane response time



Part 3. Risk Reducing Strategies

Step 1: Conduct a risk **assessment**

Step 2. Identify **options** to treat risk

Step 3. **Evaluate** and select options

Step 4. **Implement** strategies

Step 5. **Monitor** and **evaluate**



Step 1: Develop a *Risk Assessment Matrix*

- List all risks to nursery
- Rank by importance & probability
- Focus on most likely & most damaging
- Discuss and address remaining risks



Probability/Impact Matrix

Probability \ Impact	Low (1)	Medium (2)	High (3)
Low (1)	Low Likelihood, Low Impact (1x1 = 1)	Medium Likelihood, Low Impact (2x1 = 2)	High Likelihood, Low Impact (3x1 = 3)
Medium (2)	Low Likelihood, Medium Impact (1x2 = 2)	Medium Likelihood, Medium Impact (2x2 = 4)	High Likelihood, Medium Impact (3x2 = 6)
High (3)	Low Likelihood, High Impact (1x3 = 3)	Medium Likelihood, High Impact (2x3 = 6)	High Likelihood, High Impact (3x3 = 9)

Step 2. Identify options to treat risk

- Some risks may be avoided
- Some risks can be insured
- Other risks can be managed by reducing probability of occurrence
- Other risks may be ignored



Step 3. Evaluate and select options

- If risks avoided, what is opportunity cost?
- If risks insured, is premium worth it?
- If risks managed, is reduced likelihood acceptable?
- Compare cost of implementing vs cost of doing nothing



Step 4-5. Implement, Monitor & Evaluate

- Strategies involve choices with imperfect information
- Some strategies may turn out unsatisfactory
- Conditions and circumstances change over time
- So does decision maker's knowledge
- Monitoring critical to:
 - maintain effectiveness
 - avoid unnecessary costs



Diversification!



The New York Times

Thursday, July 10, 2008

“Cutting Out the Middlemen, Shoppers Buy Slices of Farms”

“In an **environmentally conscious** tweak of getting food to the table, growing numbers of people are skipping out on grocery stores and even farmers markets and instead **going right to the source** by buying shares of farms.”

Diversification !

“Here in Illinois, Erehwon sold out of shares last year and had to turn people away.”

“I think people are becoming more **local-minded**, and this fits right into that”. “People are seeing ways to come together and work together to make this successful.”

Nichole D. Nazelrod

“People are coming to us. We do very little marketing except for explaining what we do. It’s amazing.”

Tim Fuller



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Concluding Points

- **Every business faces some risk**
- **Without risk, no profitable return**
- **Risk attitudes vary – know your risk tolerance**
- **Identify risk sources, likelihood of occurrence, and potential impacts**
- **Develop strategies to mitigate risk impacts**
- **Is risk appropriate for expected return?**