

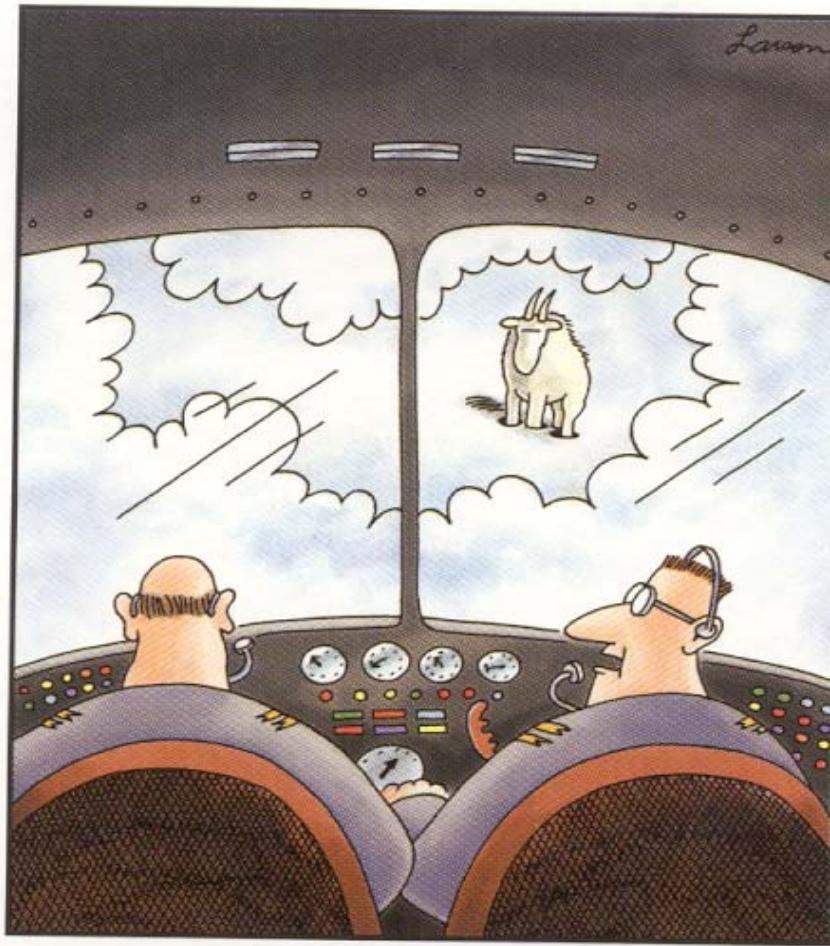
The Food and Agribusiness Industries: *Changes and Challenges*

Michael Boehlje
Center for Food and Agricultural Business
Purdue University



The Agenda

- Forces Shaping the Food and Agribusiness Industry
 - Farming In The Future
 - Strategies for Success
- 



"Say ... what's a mountain goat doing way up here in a cloud bank?"

Fundamental Forces Shaping Agriculture

- **Growing and Diversified Global Demand**
- **Expanded Global Production**
- **Consumer Expectations**
- **New Science/Technology**
- **Government Policy**

Growing and Diversified Global Demand

➤ Nutrition

- Domestic
- Exports – animal proteins

➤ Energy/industrial products

- Ethanol and biodiesel

➤ Pharmaceutical products

Expanded Global Production

- Who Will Supply Demand Growth
 - Current Producers – 80%
 - New Lands – 20%

Consumer and Food Industry Expectations

- Beyond price
 - Convenience
 - Taste
 - Variety
 - Nutritious
 - High quality
 - Low calorie
- Retailer power
 - 4 retailers – 60% market share
- “Wal-Marting” of Agriculture

New Science/Technology

- Biotechnology/nutritional
 - Information Technology
 - Process Control Technology
- Biological Manufacturing

U.S. Government Policy

➤ Trade Policy

- U.S. Farm programs and WTO on a collision course

➤ Farm Programs

- Need to debate and implement new farm bill in 2007
- Drivers
 - Budget deficit
 - Trade conflict
 - Cost price squeeze
 - Global competitiveness
 - Politics

➤ General Economic Policy

- Interest rates
- Housing
- Regulation
- Government spending/deficit

Tomorrow's Farming

- Different types/sizes
- New products/services/markets
- New technology
- New business arrangements
- New performance assessment
- Better managers

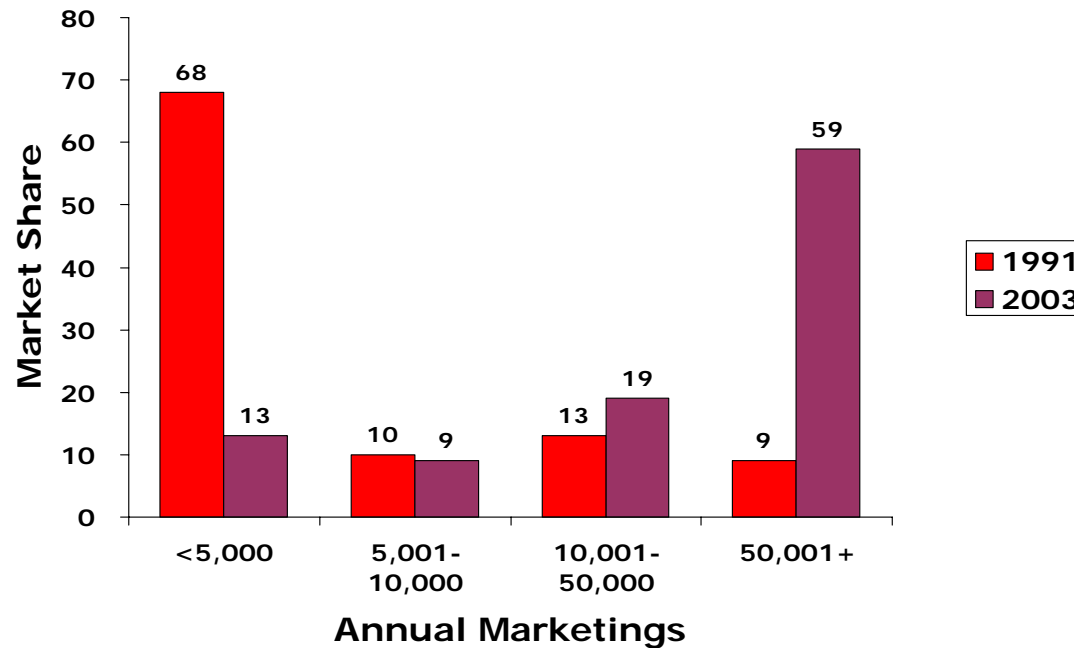
Different Types/Sizes

- Investors/Landowners
- Small Scale Producers/Rural Residents
- Traditional Farmers
- Industrialized Commercial Producers
- Integrated Production/Value-added operators
- Recreational/Natural Resource
- Dual Career Farmers

Drivers of Growth

- Demographics and Age of Operators
 - Resource control
 - Intergenerational opportunities
- New Business Models
 - Multi-site production/replication
 - Machinery leasing/sharing
- M&A Growth Strategies
- Market Access (buyer and Supplier)
- Technology and Timeliness
 - Auto steer
 - Larger equipment
 - Electronic monitoring/measuring
 - Process control technology
 - Work flow scheduling

Change in Market Share by Pork Producer Size for 1991 and 2003

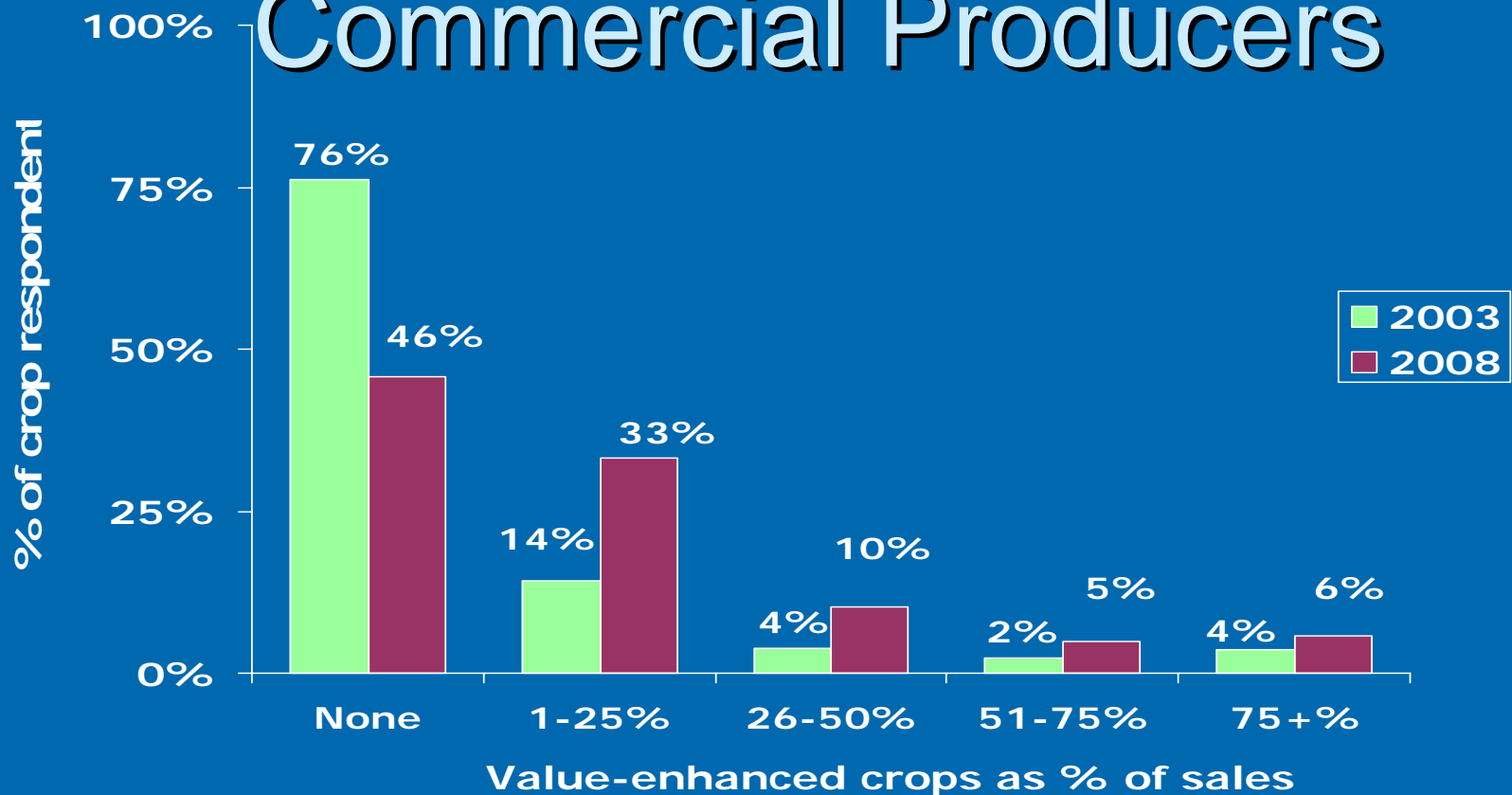


Source: 2004 Pork Industry Structure Study

New Products/Services/Markets

- Bio-energy/industrial
- Organic/natural
- Identity preserved/traceability
- Storage/JIT delivery
- Custom work
- Value added

Gross Farm Sales from Value-Enhanced Crops for Commercial Producers



New Technology

- Simplify/automate processes
 - Roundup Ready
 - Robotic or GPS guided machinery
 - Electronic measuring/servo adjustment systems in machinery and buildings
- Implications
 - Labor productivity
 - Production skills
 - Managerial skills/span of control

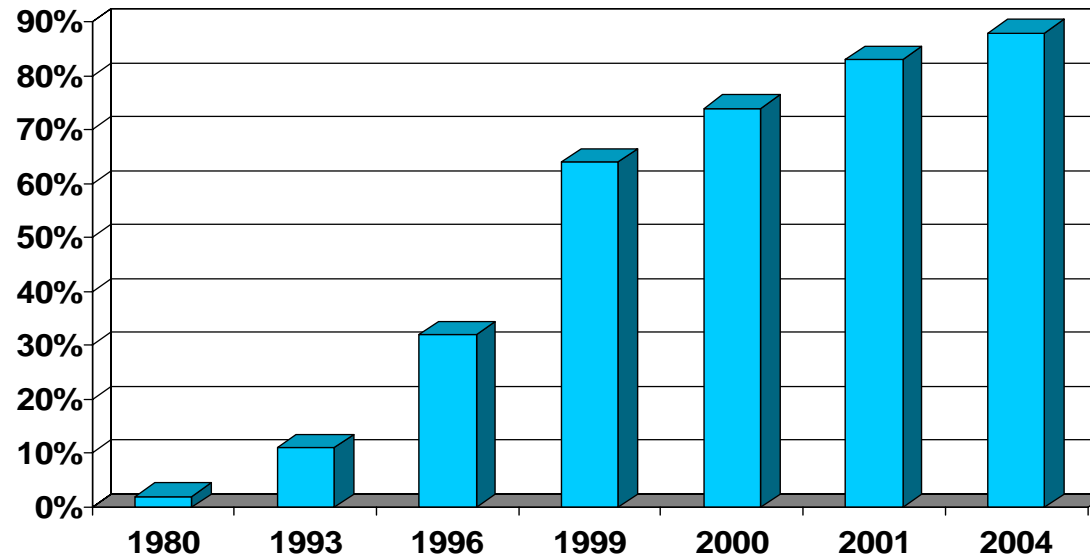
New Performance Measures

- Better, Faster, Cheaper
- Environmentally friendly, Animal friendly, Community involvement

New Business Arrangements/Models

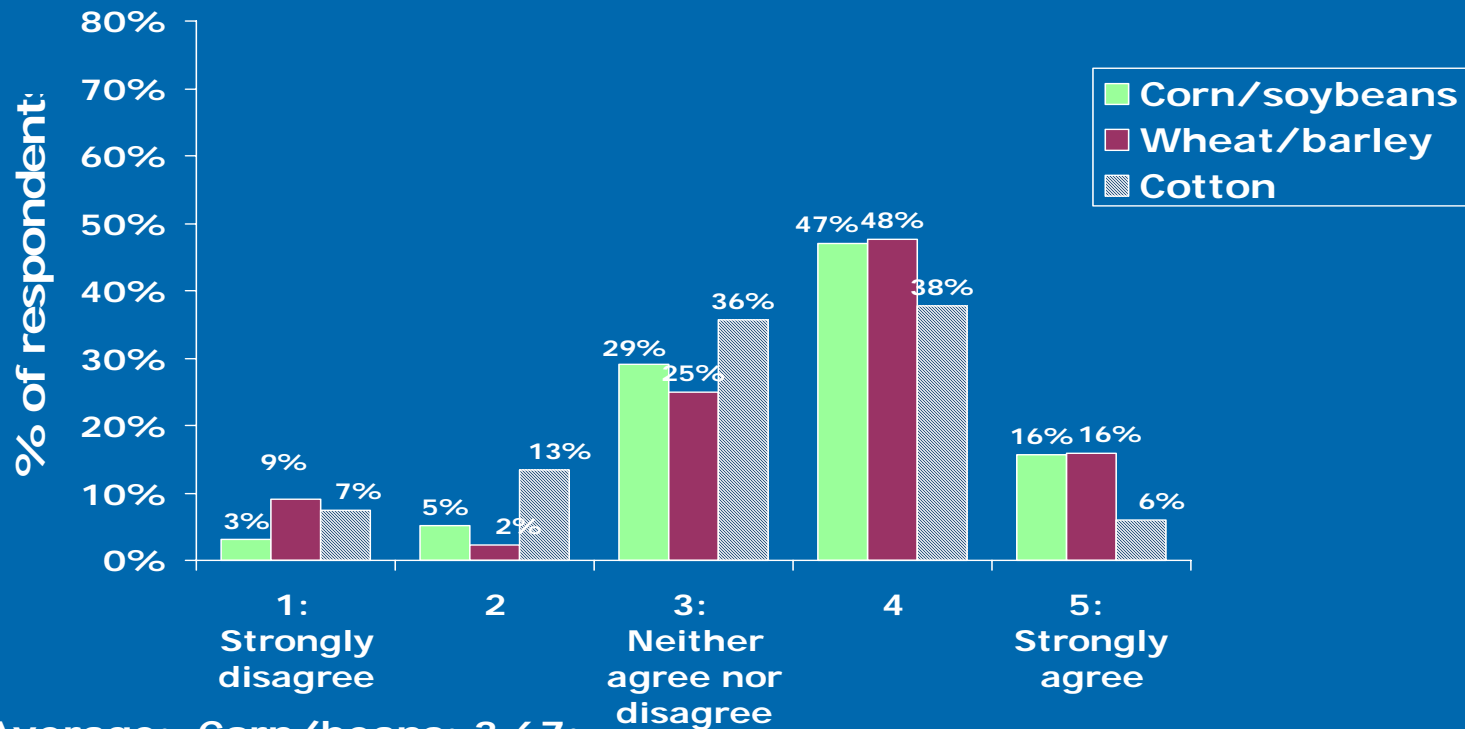
- Contract production
- Qualified supplier
- Franchise grower
- Food supply chains

Percent of Hog Production Under Contract or Vertical Integration



Sources: Matinez, Drabenstot, Grimes.

In the future, more agricultural products will be produced to specification under contracts with buyers by Primary Operation



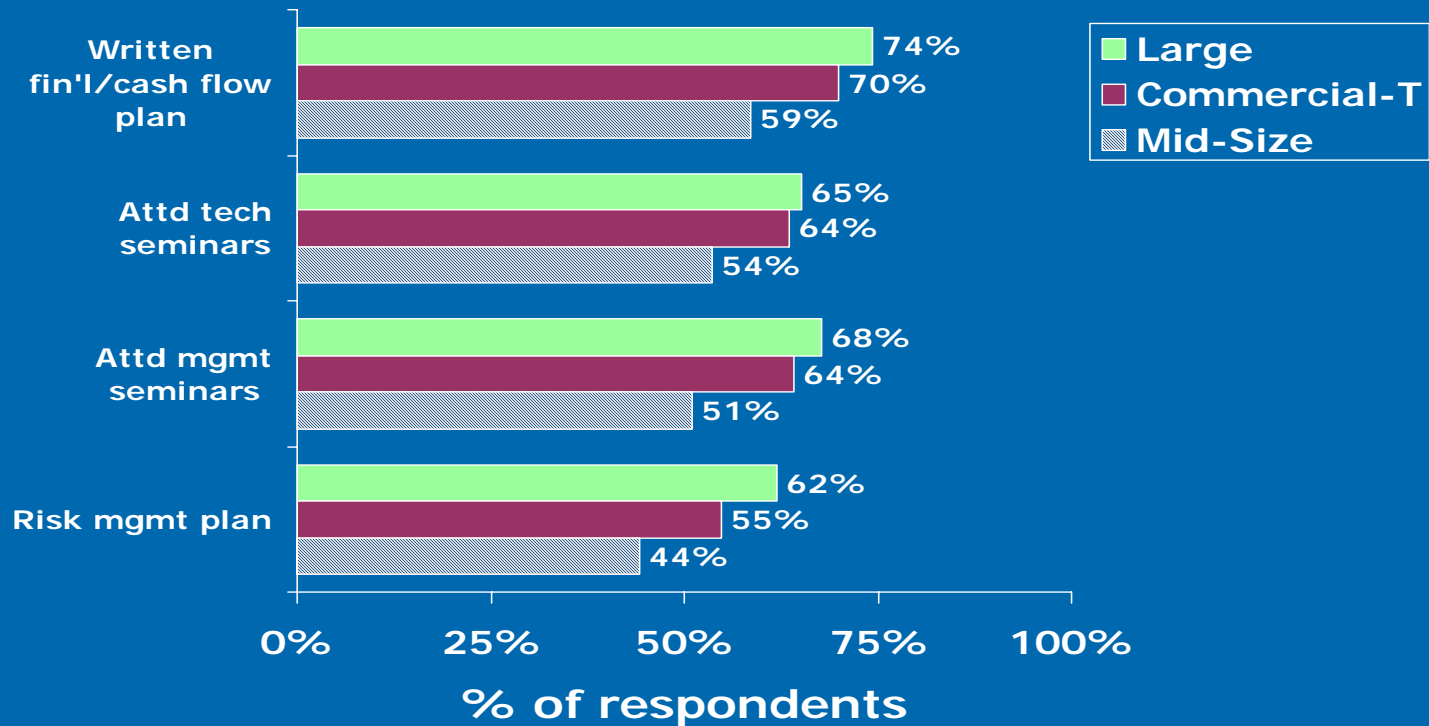
Average: Corn/beans: 3.67;
Wheat: 3.55; Cotton: 3.22

Significantly different at $p < .05$

Better Managers

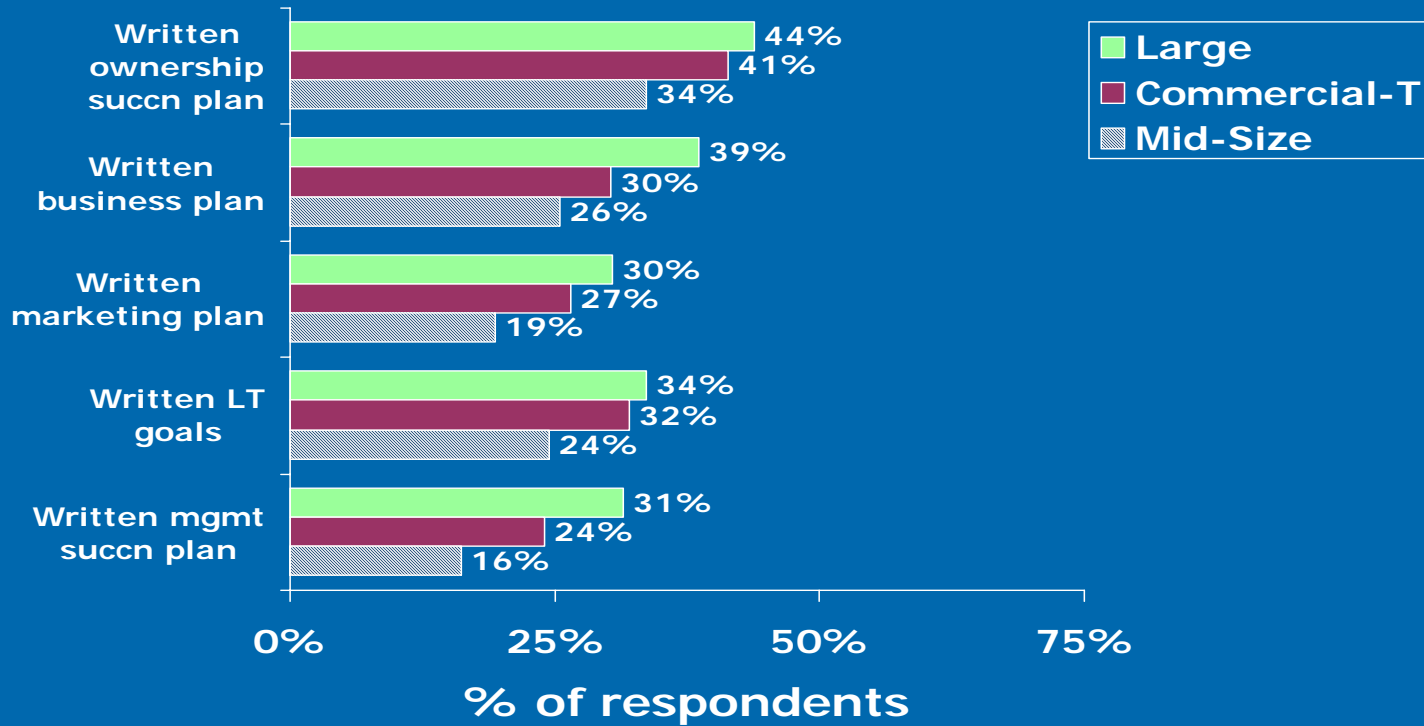
- Hire skilled employees
- Develop business plans
- Use consultants/work-flow planners
- Develop standard operating procedures
- PDAs and real-time monitoring
- Precision farming information workers
- Manage risk
- Think like a CEO

Management Techniques Used by Size (Part I)



All significantly different at $p < .05$

Management Techniques Used by Size (Part II)




All significantly different at $p < .05$

The New Agriculture

- **What we will do** – biological manufacturing of specific attribute raw materials for nutritional, pharmaceutical and industrial products end-uses
- **How we will do it** – integrated value chains that enable genetics to plate traceability
- **How we will compete**
 - Quality (better)
 - Speed to market (faster)
 - Cost (cheaper)

Eight Strategies to Make Money in a Competitive Market

Michael Boehlje
Center for Food and Agricultural
Business
Purdue University



Position to Create Value

- Understand your customer and his/her benefits
- Differentiate on service (quality, storage, JIT delivery)
- Value-enhanced products(?)

Positioning Options

- Example of Possible Positions in an Agricultural Production Firm
 - Low-cost, bulk commodity producer
 - Customer-oriented specialty products producer
 - Full-service, consumer-focused custom farming operation
 - Efficient, partnership-focused contract animal feeder
 - Technology-focused, cutting-edge animal breeder

Increase Asset Utilization (asset turnover)

- Lease rather than buy
- Joint venture/share machinery
- Outsource/custom farm
- 24 hour/day operations (use autosteer)

Increase Margins

- Cost control
- Buy right
- Best management practices/technology
- Timeliness
- Market rather than price

Grow Volume/Sales

- Increase productivity
- More volume with less investment
- Joint venture for size/volume to get market access

Manage Money/Capital

- Leasing vs buying
- Use debt (cheaper than equity)

Use Time Efficiently

- Focus on management
- Hire skilled employees
- Use scheduling/work-flow planners

Get Smart

- Use consultants
- Network with successful farm and non-farm business managers
- Develop management skills

The Strategic Management Process



Manage Operating Risk

- Contracts
- Crop insurance
- Forward price
- Less operating risk → more debt → higher ROE

Final Comment

- Think like a CEO
 - People
 - Money
 - Relationships
 - Strategy