21st Century Food System

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21st Century Food System

- Structural Change and Conflict
- Reasons for Change
- Strategic Implications

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Structural Change

- Mergers and acquisitions among the large
- Consolidation among the small
- Tightly vertical coordination
- Open market volatility
## Structural Change

### Creation & Stagnation of Life Sciences Industry
- Pharmaceutical + Seed + Ag-chem
- Monsanto/DuPont re-created themselves.
- Negative consumer response.
- Pharmaceutical firms now want out.
  - Monsanto goes to Pharmacia
  - DuPont reemphasizes core business
  - Novartis + AstraZeneca = Syngenta
- The Starlink disaster

### Acquisitions
- Philip Morris bought Nabisco
- ConAgra bought International Home Foods
- Unilever bought Bestfoods, SlimFast, B & J
- General Mills bought Pillsbury
- Pepsico buys Quaker Oats
- Cargill buys Agribrands
- Tyson buys IBP
- Suiza buying Deans
- LOL buying Purina Mills
- ADM taking over Farmland grain facilities

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## Short-Run (?) Concerns

### Weak global demand
- Asia tanked; then on the rise; now threatened by US slow down.

### Strong global supply

### Traditional food product troubles
- Kellogg & Campbell’s traditional products
- BSE and Foot & Mouth
- Food safety paradox
Strategic Conflicts
- ConAgra vs Sara Lee vs Retailers
- Wal-Mart vs Restaurants
- GMOs vs Traditionals vs Organics
- Food vs Non-Food
- Commodities vs Value-added
- Old Economy vs New e-business

Why? Biotechnology
- We can do it!
- The potential products are endless.
  - Agronomic traits
  - Food attributes
  - Health and nutrition
  - Industrial chemicals and polymers
  - Biofuels
- But do consumers want it???

Global Bio-tech Responses
- Europe refuses GMOs, at times even violently.
- Japan adopts strict labeling and control.
- US response
  - Certain food manufacturers encourage non-GMO
  - Terminator genes terminated
  - Golden rice “given away”
- The System not ready to segregate.
Biotechnology’s Future?

- “Nuclear Power” Scenario
  - GMOs banned; traditional methods thrive
- “Only Smoke” Scenario
  - GMO controversy dies
- “Three Labels” Scenario
  - GMOs, traditional, & organic co-exist
- “Non-Food” Scenario
  - Bio-tech shifts to drug & industrial uses

Why? Information Technology

- The power of the WWW
  - Everyone has a computer and access to the internet.
  - Reach/sell to millions in an instant
- Dot com’s give a wild ride to investors.
- Ag inputs go on-line.
- Will “click and mortar” be the future or will the information conduit be the key to value?

The “Failure” of Technology (?)

- The bio-tech and information revolutions have not developed as anticipated.
- Can technology fix everything?
- Can technology bring product heaven?
- Why are consumers so wary?
- Is it really only an issue of a longer lead time?
Why? Consumer Demand
- Mature Markets
- Trends Focused on Convenience, Quality, Variety, Health, & Social Consciousness
- Market Fragmentation
- Value Consciousness

Why? Food Industry Strategy
- Innovation in Products and Delivery
- Growing Retailer Market Power
  - Consolidation and entry (WalMart!)
  - Private label and consumer information
- Challenged Processor Market Power
- System Coordination
  - ECR
  - Transora.com

Why? Ag Privatization
- Need to capture returns from biotech research—identity preserved seed
- Decline in ag support and public research dollars
  - University of California-Berkeley, a new model
- Chain competition rather than firm competition
Why? Globalization
- Substantial Demand Potential in Rising Income Markets
  - Population Growth
  - Transformation of Diet
  - Preferences Increasingly Like Ours
- Substantial Supply Potential
- Substantial Uncertainties
  - New trade round?
  - Stability of purchasing power?

Opportunities and Challenges in One Glance

CERTAINTIES
- Intense competition
- Seed-to-table control
- Adoption of the latest technology
- Focus on efficiency
- Incentives for trade
- Commodities a wild ride
- Value-added possibilities
- Business will be done differently
Strategic Implications

- Producer Options
- Key Uncertainties
- Food System “Futures”

PRODUCER OPTIONS

- Commodity Strategies
  - Mega-Producer Entrepreneur
  - Contract Production Technician
- Value-Added Strategies
  - Boutique-Producer Entrepreneur
  - Cooperator Producer

VALUE-ADDED SUCCESS STORIES

- Individual Producers
  - Country Dairy, New Era, MI
  - Stahlbush Island Farms, Corvalis, OR
- Cooperative Producers
  - American Crystal Sugar
  - Dakota Growers Pasta
  - United Spring Wheat Processors
Key Uncertainties

- Who will hold power and how?
- Food safety assurance?
- Do consumers want low budget impact or diversity of attributes from food?
- World effective demand and openness?
- Role of the various technologies?
- Role of government?

FS1: Playground of Giants

- A few monolithic supply chains (captained by retailers) dominate a world in which brands assure attributes, technology is constrained, consumers want low budget impact, and global demand & openness are limited.
- Key: BE BIG OR BE HIRED HELP.

FS2: Speedway to Niches

- Individual consumers (with diverse attribute demands) access instant response from virtual webs of micro-firms who assure attributes through e-certification within a global context of open expansive markets.
- Key: BE FAST OR BE GONE.
FS3: Arena of Extremes

- A bi-modal system of very big or very fast chains/webs/firms evolves. Commodities flow from the big while products flow from the fast. Consumers pick and choose in world of uneven global growth & openness.
- Key: NEVER BE IN THE MIDDLE.

Where Are You?

- Are you big enough for the playground of giants?
  - Yes, keep growing; No, exit now.
- Are you fast enough for the speedway to niches?
  - Yes, up speed; No, find speed/niches.
- Are you in the middle?
  - Yes, make choices; No, evolve as needed.

Where are You?

- Are you providing commodity products and services?
  - If yes, are you the low cost provider?
- Are you producing differentiated (value-added) products and services?
  - If yes, are you the most unique provider?
- Are you stuck in the middle?
  - If yes, which way will you move?