University of Connecticut
Teaching Workshop

“*The Dynamic Needs of Industry*”

Pat Verduin
Dynamics Facing Industry – Top 5

Consolidation of the Supply Chain
Globalization of the Supply Chain
Wall Street Demands
Increased Constituent Scrutiny
Consumer Knowledge-base and Demands

Changing Workforce Requirements
Who is “The Industry”???

**Direct Industries**
- Farming & Growers
- Raw Ingredient Processors
- Functional Ingredient Manufacturers
- Consumer Packaged Food Manufacturers
- Distributors
- Retailers (traditional/non-traditional)
- Industrial Establishments

**Adjacent Industries**
- Chemical Suppliers
- Utility Suppliers
- Packaging Suppliers
- Equipment Manufacturers
- Transportation Industry
- Analytical/Testing
- Environmental Industry
- Information Management

**Key Constituents**
- Government Agencies/Political Media
- Employees/Unions
- Stockholders/Boards/Wall Street
- Advocacy Groups
- Academics/Foundations
- Medical Community

**Consumers**
Acquisition-based growth used to increase efficiency of operations, improve margins, expand to new markets & improve market share

- Does it work??
- Niche companies seem to be outperforming

Efficient Competitors and Powerful Customers/Vendors

- Balance of Power has shifted due to Corporate Farming, Mega-Manufacturers, Chain Restaurants and “Wal-Marts”

Managing multiple brands, business models, supply chain requirements and technologies is cumbersome

- Bureaucratic, slow-moving processes combined with risk avoidance
- Products, brands, technologies get “lost” vs. nurtured

Workforce: Broad technical capabilities, articulate and business savvy
Globalization

- Understanding the “new” market and/or regional capabilities
  - Consumers/Customer/Vendor Cultures
  - Setting realistic expectations around capabilities
  - Emerging market involvement

- Deep Technical Understanding of Ingredients, Products and Formulations
  - Building the right specification for delivery
  - Product safety and environmental concerns

- Understanding Trade Requirements, Local Customary Practices and Political Risks
  - Product Safety Risks and Laws, Documentation and Timing
  - Contingency Planning

Workforce: Deep technical capabilities, international communication, legal/regulatory
Wall Street Demands

- **Profitable Growth – Quarterly Horizon**
  - Long-term investment in technology or innovation is required but difficult
  - Price variability and increased cost of goods
  - Cost reduction demands throughout the supply chain

- **Increased Involvement from External Shareholders**
  - Metrics: Capital expenditure, # of Employees, Margins, Trade spending, New Product Introductions, Market Share, Efficiencies…
  - Advocacy Groups with Agendas

- **Increased Scrutiny of Board and Senior Management**
  - High turn-over rate, shorter horizon for results
  - Liability concerns

**Workforce: Business Savvy, action oriented, speed, trainable, communication skills**
Many more “voices” involved in assessing corporate responsibility
- Health & Wellness, Product Safety, Animal Welfare
- Sustainability - Environmental Protection & Social Responsibility
- Customer/Vendor Requirements increasing
- Public debate is usurping science as the basis for policy and regulations

Information access makes issues/opportunities immediately available
- Speed of reaction will influence outcome
- Constituent agendas influencing media coverage leading to consumer confusion

Government oversight is increasing
- Financial, Trade Requirements, Food Safety, Information Availability

Litigious Environment
- Consumers, Workers, Investors & Customers

Workforce: Regulatory/legal knowledge, consumer/trend awareness, communication
Knowledgeable Consumers with Demands

- **Changing demographics and lifestyles**
  - Demand for solutions to meet need gaps
  - Trends to mainstream – “hit the wave”
  - Niche product markets with mainstream availability

- **High cost of building brands, innovation and product introductions**
  - Technology and/or processing is a “red-flag” with consumers
  - Product differentiation is difficult to create and harder protect
  - Customers demand “news” more than consumers

- **Social Responsibility and Product Integrity becoming more influential**
  - Marketing advantage?
  - Mistakes are costly – even if they are not your own

Workforce: Creativity, market research, statistics, technology application, passion

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Workforce Requirements

- Workforce: Broad technical capabilities, articulate and passionate
- Workforce: Deep technical capabilities, international communication, legal/regulatory
- Workforce: Business Savvy, action oriented, speed, trainable, communication skills
- Workforce: Regulatory/legal knowledge, consumer/trend awareness, communication
- Workforce: Creativity, market research, statistics, technology application, passion

Technically skilled problem solvers who have passion for learning about their products and consumers and can communicate to and influence key constituents and business partners.
# Talent Blending

## Generalists

<table>
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<td>Hands-on project experience</td>
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Talent Blending

**Generalists**

**Technical Skills**
- Exposure to research & sound in basics
- Hands-on project experience
- Critical Thinking skills

**Activity Level**
- Multi-tasking/Action/Speed
- Convert Technology to Application
- Comfort with Creativity & Risk

**Personality**
- Passion for the Product
- Inquisitive - Consumers/Customers
- Decision maker
- Partner & Influence Business Team

**Experience**
- Market Driven Issues and Opportunities
- Business Metrics and Dynamics
- Market Trends & Issues

**Subject Matter Experts**

**Technical Skills**
- Deep technical knowledge
- Significant hands-on experience
- Proven Problem Solving

**Activity Level**
- Multi-tasking/Action/Speed
- Deliver technologies

**Personality**
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**Experience**
- Global technology advancements
- Competitive assessment
- Market Trends & Issues

*Recently finding more “talent” in Eng/Basic Program*

*Industry often “hiring-out” these skills*

*Leadership Positions ($$$) tend to be drawn from this pool*

*Many academic Ph.D’s tend to lack soft skills & business sense. Hard to “teach”. Failure Rate?*
Industry/Academic Paradigm

Under-Grad’s & Master’s ➔ Universities gearing their best and brightest ➔ Ph.D’s & Post Docs

Under-Grad’s & Master’s ➔ Industry looking for more technically capable problem solvers ➔ Ph.D’s & Post Docs

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Balancing potential for industry success while still teaching deep technical capabilities
- Hands-on project management & problem solving skills
- Speed & Multi-tasking
- Team & Communication skills

Creating a blend of Hi-Po “generalists” to lead scientific organizations with Hi-Po “SMEs” to lead academic and technical research programs
- Keep Hi-Po students exposed and interested in alternative career paths

Exposure throughout education process and career
- Creative programs to produce flexibility and expose opportunities prior to and throughout career

Alternate perspectives & experiences
- Technologies, Industries, Business Expertise, International

Consumer/Customer Experiences
- Inter-school programs linked to industries

Solutions will require the broader “industry” to work collaboratively
Industry – Opportunities to Influence

- Active support for integrated academic program development
- Internship commitment
- Commitment to Diversity
- Technical ladder to reward accomplishments
- Cross discipline opportunities between academia, government and industry

Thank you!!!