

FARMING IN THE 21ST CENTURY

by

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Preface

The U.S. agricultural industry is in the midst of major structural change — changes in product characteristics, in worldwide production and consumption, in technology, in size of operation, in geographic location. And the pace of change seems to be increasing. Production is changing from an industry dominated by family-based, small-scale, relatively independent firms to one of larger firms that are more tightly aligned across the production and distribution chain. And the input supply and product processing sectors are becoming more consolidated, more concentrated, more integrated.

Agriculture in the 21st century is likely to be characterized by: 1) adoption of manufacturing processes in production as well as processing, 2) a systems or food supply chain approach to production and distribution, 3) negotiated coordination replacing market coordination of the system, 4) a more important role for information, knowledge and other soft assets (in contrast to hard assets of machinery, equipment, facilities) in reducing cost and increasing responsiveness, and 5) increasing consolidation at all levels raising issues of market power and control.

These profound changes in the agricultural industry present new challenges and new opportunities that require new ideas and concepts to analyze and implement. They require new learning and thinking. Some of those new ideas and concepts are presented here, not as empirically verified truths, but as “thoughts” to stimulate different and better thinking. They have been developed based on observations, analysis and discussions with numerous managers and colleagues in agribusinesses in North America and Europe. This series focuses on Farming in the 21st Century; companion series are also available on Financing and Supplying Inputs to the 21st Century Producer (Staff Paper 99-11), and Value Chains in the Food Production and Distribution Industries (Staff Paper 99-10).

Our purpose in sharing these “thoughts” is to invite discussion, dialogue, disagreement — in general to encourage others to develop better “thoughts”.

Keywords: qualified supplier, biological manufacturing, strategic risk, process control, economies of size, franchise grower

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The “New” Agriculture*

During the last two decades, dramatic changes have occurred in the agricultural sector: changes in technology, in the economic climate, in institutional structure, and ways of doing business. This “new” agriculture requires a significant change and new concepts to successfully manage the farm and agribusiness firm, and to formulate agricultural policy. My purpose here is to briefly describe some of the changes and the concepts that will be useful in this new agricultural environment.

I try to capture, in just a few words, the essence of these changes from the old to the new agriculture, and how they influence the way we think about farm and agribusiness management and agricultural policy. Some of these changes have occurred only in recent times; others are continuations of trends started years or even decades ago. In some cases the new concept doesn't replace the old concept, but is an addition or extension of the concept. Readers may disagree with the magnitude and/or significance of these changes; they are presented not as empirical fact but as informed observations.

*Adapted from Boehlje, Michael. “The “New” Agriculture”, *Choices*, pp. 34-35, Fourth Quarter, 1995.

Management of farm and agribusiness firms

Changes in the characteristics of production agriculture and the economic climate for farm and agribusiness firms, combined with new concepts of management and strategic thinking, have changed the management of successful farms and agribusinesses. These changes include the following.

Old Concept	New Concept
Commodities	Specific attribute/differentiated raw materials
Staple products	Fashion/niche products/projects
Assets drive the business	Customer drives the business
Hard assets (land, machinery, buildings) are the prime source of strategic competitive advantage	Soft assets (people, organization, plans) are the prime source of strategic competitive advantage
Blending of commodity product from multiple sources	Separation of identity-preserved raw materials
Geographically concentrated production sites	Geographically dispersed/separated production sites
Owning Assets	Control of assets
Money/finance/assets are the prime source of power and control	Information is the prime source of power and control
Labor is a cost and equipment an investment	Labor is an investment and equipment a cost
Sell product and give away service	Sell service and give away product
Expanding and getting into the business (entry)	Contracting and getting out of the business (exiting)
Impersonal/open markets	Personal/negotiated/closed markets
Adversarial relationship with suppliers and purchasers	Partner with suppliers and purchasers
Impersonal sourcing and selling	Relationship sourcing and selling
Outsourcing (buying) from multiple sources	Single site sourcing
Insourcing (produce your own) inputs	Outsourcing (buy from someone else) inputs
Price premiums for specific attributes and volume purchases	Cost reductions for specific attributes and guaranteed markets
Market (price) risk	Relationship risk
Independence	Inter-dependence/systems
Stability	Change/chaos/flexibility
Agriculture is an art form	Agriculture is primarily science based
Technical skills critical to success	Human/personal/communication skills critical to success
Technological change and innovation	Institutional (ways of doing business) change and innovation
Core competencies	New/different/unique skills and capabilities
Tradition/remembering	New ideas/forgetting
Public/open information and research and development	Private/proprietary/closed information and research and development
Resource users and exploiters	Resource protectors
Produce goods and dispose of bads/by-products	Produce goods and bads; utilize/recycle bads/by-products

Agricultural Policy

In the agricultural policy debate/discussion, many of the changes are more in perception than in reality. But in the policy arena, perception is often as important (maybe more important) as reality. Changes often important to agricultural policy discussions include the following.

Old Concept	New Concept
Agriculture is farming	Agriculture is the food production and distribution system
Family farming and a small business	Industrialized/corporate agriculture
Unstable supply (primarily domestic)	More stable supply (world-wide production)
Unstable domestic demand	Unstable foreign demand
U.S. is prime world supplier (only store in town)	Many suppliers world-wide
Domestic markets are prime markets	Foreign and industrial markets are critical markets
Raising commodities	Manufacturing food products
Consumers fear high food costs and food shortages	Food costs are decreasing part of the consumers budget and world-wide sourcing reduces the prospects of shortage
Consumers believe their food is safe	Consumers question the safety of their food
Significant political influence	Limited political influence
Adequate budget funds for agriculture	Budget deficits and reduced funding for agriculture
Farmers are economically disadvantaged	Farmers have comparable income to others
Farm income measures economic well-being	Farm <u>household</u> income measures economic well-being
Farm program payments are an entitlement	Program payments are conditional and should meet "needs" tests
Operating farmers own most of the farm land	41% of the farmland owned by non-operators
The public trust/believe in farmers as stewards of resources	The public questions farmers as stewards of resources
Conservation of resources to maintain/increase productivity	Environmentally sound use of resources to reduce pollution
Efficiency	Ecology
Private property rights are sacred	Society is reserving more property rights for the public and reducing private property rights
Farming is a healthy/safe lifestyle	Farming is a hazardous occupation
Farmers have higher moral standards, a strong work ethic and generally higher values	Farmers are no different in terms of values, work ethic or moral standards than the rest of society
Economic well-being of rural communities depends upon farming	Economic well-being of rural communities depends more on non-farm activity
Rural areas have a higher quality of life compared to urban areas	Rural areas have a lower or at best the same quality of life as urban areas

So What!

The agricultural sector is changing rapidly and significantly, both in reality and in perception. These changes will have a profound impact on the successful strategy in managing a farm or agribusiness firm and the future shape of agricultural policy. We have attempted to capture the essence of these changes to stimulate discussion and dialogue (or even disagreement) about implications for management and policy. Let the discussions begin!