FARMING IN THE 21ST CENTURY

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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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Competing in the New Agriculture

Farming has always been a competitive industry, but important changes are occurring in the competitive environment that farmers will face in the future. How will the new agriculture impact the way farmers compete, and what will be required for producers to have a sustainable competitive advantage?

The agriculture of the past has been primarily a commodity business, and consequently the key to long-term success in farming has been to be a low-cost producer. Although in the short-run prices may be sufficiently above cost to generate handsome, above normal profits as evidenced by $5 corn and $60 hogs only a few years ago, over time a number of producers expand their operations sufficiently that supplies increase and prices decline, thus reducing profit margins. As producers increase their efficiency through better management and adoption of technology, cost declines and margins increase, but over time adoption of the cost saving technologies by more producers again results in increased production and margin pressures. So in the long-run the only way to compete successfully in the farming business dominated by commodity production is to be a low-cost producer.

Some producers are low cost because they do not consider all costs in their decision making. Some producers have been willing to use their equity capital and even their labor in agricultural production and not require market compensation for those contributed resources. Given the significance of capital and labor in the production of most agricultural products, if these resources are assumed to be free or costed at low compensation rates, costs of production are substantially reduced. Consequently, those farmers that are willing to give their time and money away or require low rates of return on their money and low wages for their labor will continue to produce even though prices may not cover cost computed at market rates of return. This puts additional margin pressure on those producers who want market rates of compensation for their resources. Commodity industries where a large proportion of the producers are willing to use their resources to produce, even though they are not fully compensated to do so, will continually suffer from very low or negative margins until those producers exit the industry.

But the basis and dimensions of competition in agriculture are changing. As agriculture is transformed from a commodity to a differentiated product business, competition becomes multi-dimensional -- it is not just being cost competitive that will lead to financial success. Differentiated products typically have a broader spectrum of quality features than commodities, and those quality dimensions or features often improve over time. In most non-food products consumers purchase, quality standards have continuously improved over time, and thus consumers are expecting food products to exhibit similar continuous quality improvement. Furthermore, product differentiation is not a permanent phenomenon. Differentiating attributes become commoditized over time so the successful farmer must constantly evaluate new opportunities for differentiation and be an early adopter or first mover in these new differentiated products before the premiums or margins are pressured by increased numbers of producers who enter the market. Consequently, in differentiated product markets producers not only compete with respect to cost, they also compete with respect to quality attributes of their products and with respect to the speed or response time to introduce new products as consumer demand and market conditions change. And speed of entering new value added or differentiated product markets may be critical not only to obtain the best premiums, but also because those who attempt to enter the market later might find that it is adequately supplied. Contracts and other business arrangements to produce the differentiated product may have already been negotiated and consequently new production and producers are not needed.

This new agriculture profoundly changes the competitive environment in farming. In the commodity agriculture of the past, farmers had to compete only in terms of cost. If you were a low-cost producer and did not expand beyond the sustainable growth rate of the business, you could expect to be a successful producer -- to survive and maybe even thrive in the long - run. In the new agriculture that includes differentiated products and more tightly aligned marketing/distribution systems with producers being raw material suppliers for manufacturers and food processors, competition includes quality features and responsiveness or time to market as well as cost. In the agriculture of the future farmers will need to be <u>better</u>, <u>faster</u>, and <u>cheaper</u> to have a sustainable competitive advantage.