Market Analysis of Alternative Crop Production in Iowa

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ABSTRACT

Large retail outlets convert market fluctuations for fresh fruits and vegetables into consistent shipments by distributing them over a large customer base as close to end use as possible; increasingly large stores link increasingly large volumes to increasingly large farms. In this regard, reliable access to fresh fruits and vegetables has become heavily dependent on the physical movement of freight from increasingly centralized and distant locations.

At the same time, reliance on long-distance, over-the-road truck activity is becoming problematic in terms of fuel use, traffic congestion, air quality, roadway deterioration, driver shortages, security issues, and other concerns. Domesticating and reducing demand for transportation energy is becoming a key political topic; agri-tourism, direct marketing, and local identity labeling are gaining cultural popularity among consumers who are becoming intrigued with rural development and sustainability. Under appropriate conditions, localized sourcing could represent an alternative to a growing reliance on transportation fuel.

On the supply side, new crop varieties and controlled environment techniques are expanding the ability of producers to grow some crops year-round in non-traditional locations. Concepts linking automated equipment to electronic scanning and control technologies are emerging to offset the cost and yield advantages produced by a surplus of migrant laborers in central production areas. Forecasting, organizational, and inventory tracking technologies are advancing at an accelerated pace to virtually link a diverse array of upstream suppliers to downstream demand.

The “Iowa Fresh Fruit and Vegetable Planning Spreadsheet” was developed to illustrate how demand aligns with supply at the county level in Iowa and to identify objectives for minimizing transportation and handling requirements, reducing revenue outflow from the state, and positioning Iowa closer to becoming self-sustaining in fresh fruit and vegetable production. The intent is to provide a tool for producers, distributors, and policy makers to identify volume and infrastructure goals for products that can currently be grown in the state, as well as to position longer term targets for improving local yields with research into non-traditional horticultural methods. The spreadsheet is intended to provide general direction in the context of strategic decision making; results are not intended to be precise.

Note: This research was still in progress at the time of publication; contact the author above for more information.

Key words: alternative crop production—decentralized production—freight transportation