Supermarket Challenges and Opportunities for Fresh Fruit and Vegetable Producers and Shippers: Lessons from the US Experience

Paper presented at the Conference on Supermarkets and Agricultural Development in China – Opportunities and Challenges
May 24, 2004
Shanghai, China

By

Dr. Roberta L. Cook
Department of Agricultural and Resource Economics
University of California, Davis

Overview

Structural change continues to transform the global fresh fruit and vegetable (fresh produce) marketing system. Years ago in the United States (US), the typical fresh produce marketing transaction was characterized by many shippers selling to many buyers in terminal wholesale markets—the classic case of a perfectly competitive market with many independent transactions at the observable spot market price. There was great fragmentation on both the selling and buying sides with large numbers of local and regional retail grocery chains rather than national chains with large store numbers and buying volumes per chain. Given the relatively small buying volumes per firm, the seasonality and perishability of fresh fruits and vegetables, and the need for frequent deliveries and physical inspections to verify quality, wholesale markets made sense.

Over the years retailers grew with large retailers becoming self-distributing, performing wholesaling activities such as purchasing goods directly from suppliers, and arranging for shipment to distribution warehouses. More recently, competitive pressure caused by a maturing food industry and new entrants, such as value-oriented retailers (e.g., Wal-Mart Supercenters and Dollar Stores) and upscale specialty stores (e.g., Trader Joe's, Whole Foods), stimulated consolidation in conventional grocery retailing channels. In a more consolidated market place with fewer, larger buyers, a high share of fresh produce is now sold directly by shippers[1] to retailers, bypassing intermediaries and terminal wholesale markets. In today's shipper/retailer transaction, price may be just one component of a more complicated sales arrangement that might also specify payment of off-invoice fees such as promotional fees, rebates, or other discounts; volume commitments or automatic inventory replenishment provisions; quality and packaging characteristics; and food safety assurances such as the provision of third-party food safety certification.

[1] Shippers may market only their own production, only that of other growers, or a combination of both. Most US shippers are based in production regions and are vertically (forward) integrated grower-shippers, marketing what they produce as well as the output of affiliated growers. The use of affiliated growers allows even small growers to participate in the global marketing system, tapped in via their shippers acting as marketing agents.

Although wholesale markets have been declining in relative importance over several decades, the spot market remained the norm in the fresh produce industry due to potentially large weekly price fluctuations for any given item based on weather and other shocks. Short-term market clearing prices can vary greatly with perishable commodities where storage potential is generally limited, and availability in alternative production regions may be either substantially above or below normal in any given week. Relatively inelastic demand may quickly drive prices below total costs for markets to clear (down to the variable cost level) or drive prices 10 times above the norm. However, despite the challenges to both buyer and seller posed by these conditions, more buyers are moving to seasonal or annual contracts.[2] By making pricing arrangements in advance price is no longer the key element in the daily exchange that has typically taken place between fresh produce buyers and sellers. Both can focus more on understanding their customers, adding value, and marketing. This trend has been led by new entrants to the grocery retailing industry, such as the value-oriented mass merchandiser, Wal-Mart, with its Supercenter format (a grocery store combined with a large, general merchandise discount store).

Whereas in the past retail sales accounted for the bulk of food and fresh produce sales, foodservice (hotels, restaurants and institutions) channels now account for approximately half the final value of both fresh produce sold, and the consumer food dollar in the US. Although the foodservice industry is still quite fragmented compared to the food retailing industry, it is embarked on the same consolidation trend and these larger foodservice firms are also increasingly purchasing directly from shippers based in production regions. This poses further challenges to wholesale markets since as retailers shifted procurement from wholesale markets to shippers, wholesalers focused much more on foodservice accounts. Year-round availability of consistent, high quality, large volume supplies of fresh produce is now a necessity for both foodservice and retail buyers and more shippers are willing to source in diverse regions (domestic and international) to supply them. Many large foodservice buyers are also requesting forward contracts from shippers. The incentives for foodservice firms to contract are even greater than for retailers since the predictability of ingredient costs is a critical factor for them.

Streamlining of marketing channels poses both challenges and opportunities for horticultural producers. On the one hand, the quality of the fresh produce department is one of the key differentiation tools used by retailers to garner greater market share in increasingly competitive retail food markets. Retailers have greatly expanded their fresh produce offerings and the size of produce departments, enabling producers to sell more. Intense competition in retail food markets means that today's buyers are receptive to

[2] Contracts are individually negotiated and vary greatly based on seasonal, spatial, and other factors affecting expected weekly pricing and risk for any given commodity. For example, fixed seasonal prices might be used for some items, whereas for others with more stable supplies even annual fixed price contracts may be appropriate. For very risky commodities seasonal price bands or other variations with formulas for adjusting price have been observed. The risk preferences of each party inform the negotiations as well.

product innovation, "partnering" (improved vertical coordination) with key suppliers offering them specialized services, and many are willing to reward quality. On the other hand, suppliers must generally grow in size, and become more technology-intensive and service-oriented in order to meet the increasing needs and demands of specific, large retail (and foodservice) accounts.

In short, the recent trend in the fruit and vegetable industry has been away from a commodity (undifferentiated) marketing approach where suppliers offered the same product to buyers on an untailored, spot market basis. Today, buyers increasingly seek to concentrate their purchases with a smaller number of larger, preferred suppliers that can partner with them on a systematic year-round basis, understand their specific needs, and contribute to mutual growth. This means that suppliers must diversify their own sources of supply and act more as sourcing agents for retailers and other buyers, increasing both potential risks and rewards.

The stakes are high for shippers as they attempt to transform themselves from seasonal, commodity, producer-driven entities into more market-oriented suppliers. In the U.S. alone the estimated final value of fresh produce sold via retail and foodservice channels surpassed $81 billion in 2002. Europe-wide fresh produce sales through supermarket channels (excluding green grocers and foodservice) were estimated to exceed $73 billion in 2002, and total final sales to exceed $100 billion.

In the developing economies of Asia, Latin America and elsewhere supermarket chains are rapidly capturing a growing share of the consumer food dollar and competing effectively with traditional fresh produce marketing channels. Over the next decade the dynamic evolution of supermarkets (and lagging but emerging foodservice channels) should induce more direct linkages between suppliers and customers, later eroding the dominant role of traditional wholesalers and wet markets, following the trend occurring in the latter half of the 20th century in the U.S. and Europe. International trade in fruit and vegetable products will also be handled by fewer, larger firms. Horticultural producers everywhere must develop linkages with larger marketing entities upstream in the marketing system.

Consolidation Leads to Changing Relationships between Suppliers and Buyers

Many factors underlie recent changes in the shipper/retailer relationship including changes in consumer demand, technological innovation, and the consolidation of the retail industry itself. A recent wave of food retail consolidation has seen the sales shares of the largest 4, 8, and 20 US retailers' rise sharply. The top 20 retailers are widely divergent in store numbers, with the number of grocery stores per chain ranging from around 60 to over 2,400. In 2002, the 4 largest food retailers' share of grocery store sales was estimated by the Economic Research Service of the US Department of Agriculture at 31 percent, up from 17 percent in 1987; the 8 largest retailers' share was 41 percent, up from 26 percent; and the 20 largest retailers' share was 57 percent, up from 37 percent. Interestingly, according to M+M PlanetRetail, the top 20 food retail concentration ratio in the US is similar to the estimated Europe-wide ratio, although some individual European countries have top 5 ratios substantially higher than the US and EU top 20 retailer ratios, probably explained by their smaller market sizes. Structural change in key importing markets like the US and the EU affects not only domestic suppliers but those beyond their borders.

Structural change is inducing consolidation at the supplier level (both wholesaler and shipper) as firms attempt to come closer to matching the scale of the fewer, larger buyers. Larger firms are also more able to provide the services requested by consolidating retailers since many of these require investments which increase fixed costs, and hence, must be spread over large volumes to be profitable. In addition, consolidating suppliers may seek to develop some countervailing power in their relationships with retailers. However, even in just one country, like the US, there is considerable variation in the consolidation trends at the shipper level among different commodity sectors. In general, consolidation has been slower than many predicted, probably due in part to the family-owned, independent nature of many grower-shippers.

As innovative shippers position to better serve the larger buyers they are finding it more attractive to consolidate at the marketing than the production level. For example, numerous grower-shippers that formerly operated independently have joined forces with competitors to market jointly, even though they may still maintain separate growing, packing and cooling operations. Land ownership and lease arrangements are in this way undisturbed. In some cases grower-shippers are forming strategic alliances and joint ventures with firms in distant parts of the globe to structure year-round supply chains.

In the meantime, many recently merged retailers are anxious for this process to unfold, complaining that some of the produce buying synergies expected from their larger size didn't materialize due to shipper fragmentation. In other words, economies of size in the fresh produce procurement function were overestimated by retailers given the supply side structure of the industry – quite different from the more consolidated food manufacturing industry. This has caused retailers to seek additional ways to reduce fresh produce procurement costs, such as driving non-value-adding costs out of the supply chain.

The importance of this endeavor is increasingly apparent to conventional retailers given the leadership of Wal-Mart with its Supercenter format, and the new competitive benchmark it has set in supply chain management. Conventional retailers have come to realize that the larger size they achieved by merging to combat the Wal-Mart threat has been insufficient to match Wal-Mart's procurement efficiency. Attachment to legacy technologies and buying systems, sometimes incompatible between merged retailers, has hindered conventional retailers in their quest for improved competitiveness in today's saturated, over-stored food retail landscape, where channel blurring (more types of stores entering the food business) will continue to pose challenges to profitability.

Wal-Mart emphasizes greater coordination with suppliers and one of its turn-key supply chain management practices, new to the world of fresh produce, is automatic inventory replenishment. Under this co-vendor managed procurement system, shippers have access to real-time (via satellite) store level sales data and are responsible for continually replenishing their products to each distribution center served, on a just-in-time basis, throughout the season or year for which the contract arrangement is in place. The performance of suppliers is graded and to be retained they must meet numerous standards, including a very low stock-out rate. Suppliers provide services specific to Wal-Mart, such as packing in returnable plastic containers (RPCs) and category management, utilizing the electronically exchanged sales data shared by Wal-Mart.

This vertically streamlined system better coordinates supply and demand and enables both parties to lower costs. Wal-Mart can offer lower prices to consumers, often without reducing prices paid to shippers. Many shippers report that Wal-Mart is one of their most profitable accounts and that one of the most important things about becoming a Wal-Mart supplier is the lessons learned on driving out non-value-adding costs, which they can then leverage to other key accounts. In the US retail industry, Wal-Mart's willingness to share information with its suppliers is clearly recognized as distinct from the traditional relationship with suppliers employed by the majority of conventional retail chains.

Most conventional retailers have not adopted automatic inventory replenishment, in part due to their lack of investment in the type of technology systems Wal-Mart developed years ago for real-time electronic information exchange. Nevertheless, as larger suppliers become available conventional retailers are gradually reducing the number of suppliers per product and beginning to contract with two or three preferred vendors capable of offering consistent, year-round volumes, quality, and increasingly importantly, food safety programs and traceback capabilities. Indeed, more fresh produce buyers, of all types, are seeking suppliers that can act as food safety gatekeepers and maintain food safety control mechanisms with all of their growers, as opposed to buying on the spot market where assurances may be much weaker.

Given the wide product offerings of retailers, and the seasonality of production of many crops, retailers have increasingly sought to reduce costs not only by dealing with suppliers that can provide products year-round or over extended seasons, but also broader product lines. This trend pressures US shippers to coordinate with growers and shippers in diverse regions and countries. Providing a broader product line on a year-round basis can be risky and costly, given the high capital requirements involved in the production and distribution of many fresh produce items and the different characteristics of individual commodity markets. Again, large firms may more easily find funds to support these activities, favoring continued consolidation and greater vertical and horizontal coordination at the shipper level.

Furthermore, as the food distribution system consolidates retailers are seeking more marketing and promotional support from their suppliers, tailored to their specific needs. This movement towards account-based marketing is causing innovative suppliers to actively engage in category management. Successful category management programs provide concrete recommendations on best retail merchandising practices. With more accurate tracking of sales and profit margins, shippers and retailers can work together to improve category profitability by designing effective shelf positioning, product mix, and pricing and promotion strategies. Some suppliers are even taking their research to the consumer level, developing knowledge of consumer buying habits for their respective products, by demographic and psychographic segment. Investing in the human resources and technology necessary to analyze category information, however, may be difficult for smaller shippers to finance – further reinforcing the incentives to shippers to consolidate marketing functions with former competitors.

While these programs are designed to maximize retailer profits they may in turn increase shippers' sales and profits. This can result from stimulating demand for their products at the consumer level, creating greater retailer loyalty, and, in general, by helping shippers to differentiate themselves in an intensely competitive marketplace, moving away from the traditional commodity orientation to sales. Increasingly, the food system is evolving toward technology-intensive, demand-based information management practices to stimulate sales and profits for retailers. Successful suppliers are likely to be the ones that actively participate in the transition. For example, as conventional and upscale specialty retailers differentiate themselves from value retailers, identifying high quality and exotic fresh produce offerings as their competitive edge, growers and shippers seeking to add value, including by selling unique, ethnic, organic, or other specialty produce, may find them to be willing partners.

Implications for Producers

As shippers become more marketing-oriented they seek growers willing to implement the innovations necessary to be part of this more tightly controlled yet geographically dispersed supply chain. Typically, grower contracts with shippers are not fixed-price contracts nor does the shipper buy the produce, rather the shipper acts as a marketing agent. The grower receives the residual of the market price obtained by the shipper for his goods, less marketing, packing, picking and other fees charged by the shipper for services performed. The recent movement to more forward contracting between shippers and buyers, including in some cases fixed price contracts, raises numerous issues.

Growers typically expect to receive high spot market prices in short markets to compensate for other periods of low prices. Shippers that have forward-contracted with buyers at a lower average seasonal price may be unable to return the temporary high prices (to their growers) which other growers may receive when marketing through shippers selling mainly on the spot market. This can affect the ability of shippers to maintain their base of affiliated growers. It is an especially difficult issue for shipper relationships with early and late season growers accustomed to receive much higher prices than the seasonal average. In other words, those growers systematically receive higher prices rather than just during periods of short supply like growers producing during the bulk of a season's volume. Early and late season growers may also need to be compensated for higher costs of production caused by the difficulties of growing in their locations and time periods. Furthermore, as shippers diversify sources of supply, including through imports, seasonal supply variations are lessened and early and late season growers may permanently face lower average prices due to the higher competition resulting from the actions of their own marketer (shipper).

To retain grower loyalty, shippers must successfully communicate the long-term benefits of being part of the more tightly controlled, modernizing supply chain. In the end, growers benefit by marketing through a shipper that is in touch with demand and can accurately reflect both short- and longer-term market signals. With on-going trade liberalization imports are bound to be a growing factor, since wholesalers and specialized importers will import during the off and overlap seasons even if the shipper does not. Therefore, early and late season growers should understand that they will likely need to adjust to lower average prices going forward, regardless of the actions of their shipper. On the upside, market-driven shippers increasingly work with growers to consider specific varieties, and production, food safety and packaging practices, in line with the needs of individual accounts. Hence, even smaller producers can successfully access distant markets and tap consumer trends if they are part of supply chain networks and willing to rely less on the spot markets that have so traditionally dominated the fresh produce marketing system.

While countries may be at very different stages of development in the evolution of these trends, the same general trends are already being observed throughout the world. Clearly, the supporting institutions and firm types will vary by country, with various options available. For example, while the privately held shipper model dominates in the US, publicly held global shippers such as Dole, Del Monte and Chiquita are also important players. Many countries rely heavily on grower-owned marketing cooperatives as opposed to individual forward-integrated grower-shippers. Backward-integrated wholesalers are an option, as well as distributors that coordinate sourcing, logistics, transportation and category management services, but are not integrated with production. In the US, CH Robinson is an example of the latter, working with diverse growers nationally and internationally to achieve improved vertical coordination between its customers and growers. To the extent that vertically-integrated shippers and cooperatives, constrained by grower considerations, are unwilling to perform these services, distributors, unconstrained by borders, will take on a larger role.

In the short run, in developing countries, wholesale markets will continue to improve their physical facilities and materials handling capabilities, and wholesalers will upgrade their services and product standardization to better serve customers. Competitive pressures from supermarket chains will cause small independent retailers, wet markets, and green grocers to grow and modernize, and they will seek more professional wholesalers and better sanitation and cold storage facilities in wholesale markets. Simultaneously, rapidly expanding grocery retail chains will build their own distribution centers as they attempt to gain control of their supply chains and rely less on wholesale markets. Both wholesalers and retail chains will seek improved relationships with growers or their marketing agents and be more willing to reward emerging entities which assemble larger supplies of consistent quality products with greater shelf-life, achieved through the introduction of modern postharvest handling techniques and cold chain management. International trade will continue to expand as developing countries embark on the trend observed in the US and Europe of year-round consumer demand for a greater array of fresh fruits and vegetables. Emerging producer marketing entities in developing countries are likely to become off-season importers, just like US grower-shippers.