United States Produce Markets in Transition—Today and Tomorrow

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Retail produce managers were surveyed about anticipated changes in the supermarket produce department and in shipper-retailer relationships in one, two, and five years. With contracts becoming more common in produce procurement, whether or not retailers and shippers can identify mutual benefits—and thus opportunities for successful long-term cooperative relationships—is explored. The study's "View to the Future" section asks retail management to predict major trends in produce procurement: the growth of fresh-cut/branded products, produce-section growth in terms of total store sales, the increase in produce SKU's (Stock Keeping Units), how extensive contracting will become in produce, and the continuing decline in the number of suppliers and the further consolidation in the produce-supply sector.

Produce marketing in the United States traditionally has been characterized as having many shippers who sell undifferentiated products through a mix of marketing channels: specialized produce wholesaling, retail-chain buying and distributing, food-service wholesaling, and direct marketing to consumers via farmers' markets and roadside stands. Today, the $71-billion-dollar fresh-produce industry is undergoing a radical revamping of participants and trade practices, with the pace of mergers at retail, wholesale, and in the shipper/packer sector quickening (Kaufman 2000). At the same time, the old commodity-marketing approach in produce is giving way to an upsurge in the number of value-added branded products. Relationships between seller and buyer are also changing, with more contracts and fewer and more stable supply chain arrangements (Calvin and Cook 2000).

This paper examines the forces changing the structure of the United States produce industry, including shipper-retailer relationships. A review of recent literature is followed by presentation of a survey of retail produce management. This survey asked retail-store buyers for their perspectives on changes in the supermarket produce department and in shipper-retailer relationships in the near future, in two years, and five years out. This "View of the Future" updates a similar survey conducted by the author in 1993 (Schaffner 1994).

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Major Factors Shaping the Produce Industry

Over the past decade, United States consumption of fresh fruits and vegetables increased more than 11 percent. Americans consumed 132.5 pounds of fresh fruit per capita in 1999, up from 122.9 pounds in 1989, and fresh vegetable consumption experienced an even larger increase, from 172.2 pounds in 1989 to 192.1 pounds in 1999 (USDA 2001a). Underpinning the trend of increasing consumption have been improved quality and greater variety in the produce section. In 2000 the typical chain supermarket carried 335 produce items, almost double that of a decade earlier (Turcsik and Heller 2000). Also, world trade has enhanced the variety of offerings: clementines (mandarin oranges) from Spain during the Christmas holiday season, pears from Argentina in March and April, new crop apples from New Zealand in May, and mangoes from Mexico several months of the year.

Retailers are looking for suppliers who can provide broader product lines year-round or on an extended-season basis. This in turn requires the shipper, through acquisition or alliances, to develop the capabilities needed to be a preferred supplier for a retailer or food-service buyer.

Another major development has been the increase in fresh-cut products demanded by consumers who spend less and less time preparing home meals. Bagged salads lead fresh-cut growth; new packaging films that manage transpiration/respiration rates and extend shelf life make the products more attractive to both consumers and the industry. In 1999 sales in the fresh-cut lettuce category exceeded $1.3 billion, up from $197 million in 1993

(Glaser, Lucier, and Thompson 2001).

The total number of fresh-cut bagged salad products exceeds 450 items. However, as the produce section becomes more branded, smaller firms may not be able to compete effectively. For example, while 1999 scanner data shows that 54 firms sold bagged salads, the two largest firms accounted for 75 percent of fresh-cut sales. The remaining national and regional firms saw their collective market share drop from 27 percent in 1993 to 14 percent in 1999. At the same time, the share of private-label brands during this period increased from 5 percent to 10 percent. The capital resources necessary both to compete in manufacturing facilities—where capital investments often exceed $20 million—and to obtain shelf space through slotting fees and other marketing investments means that only a few suppliers will survive in the value-added sectors (Glaser, Lucier, and Thompson 2001).

At the same time that the above changes have been occurring, the grocery retail-market structure has become more concentrated, with accelerated merger activity in the last half of the 1990s. As examples, in 1997 Kroger merged with Fred Meyer, resulting in a supermarket operation with over 2,300 stores and 1999 sales of $45 billion, and in 1998 Albertsons acquired American stores (operator of Lucky, Jewel, and Acme markets), with sales of almost $29 billion. The top four supermarket chains (Kroger, Albertsons, Safeway Stores, and Ahold, Inc.) currently have combined sales of $120 billion, or 28 percent of the total U.S. retail grocery market. One of the often-cited reasons for this consolidation is that retailers are looking for increased efficiencies and lower costs in procurement, marketing, and distribution (Kaufman 2000). This search for greater efficiencies directly impacts suppliers, including produce suppliers. Retailers now require greater sophistication in supply-chain management practices, as well as marketing support from shippers/marketers of branded products in the produce section.

Survey Methodology and Respondent Demographics

The survey population was a non-random sample selected from the "Large Buying Organization" buyers listed in Red Book Credit Service's retail-operations section (Red Book 2001). The selected parties buy for both self-distributing chains and other wholesale operations such as Super Value and Associated Grocers. Although chosen on a nonrandom basis, the population selected is geographically diverse and represents various types of buying organizations.

The survey was faxed during the first week of April 2001 to 60 buying operations. Recipients were given five days from the fax date to respond to the survey before a follow-up phone call was made to non-respondents. Follow-up calls revealed that several of the contact people listed in the Red Book were no longer working for the company, or obsolete fax numbers had resulted in the survey being undeliverable. Efforts at obtaining additional respondents continued until May 1, 2001; fifteen completed surveys were received, a response rate of 25 percent.

While the response rate achieved was below expectations, it is important to note that in total the respondents purchase for more than 11,000 stores. The purchasing operations ranged in size from 14 to 4,800 stores. It is estimated that 75 percent of these stores would be classified by the industry as supermarkets. Geographically, all the regions of the U.S. were represented. With many respondents buying for more than one region, the fifteen respondents purchased for 29 regions; the Eastern United States was most heavily represented with 38 percent, then Central at 27 percent, Pacific at 21 percent, and Mountain with 14 percent.

Fresh-Cut Lettuce Trends and Profitability

While per-capita consumption of all types of lettuce (commodity plus fresh-cut) remained relatively constant from 1990-2000 (USDA 2001a), the consumption of fresh-cut more than doubled. During most of the 1990s fresh-cut lettuce products experienced double-digit growth, with a couple of 30-40-percent-growth years in the early part of the decade. According to limited data available from Information Resources Inc., retail purchases grew from 0.9 pounds in 1994 to 2.0 pounds in 1999 (Calvin and Cook 2001).

The growth in fresh-cut reflects the general trend of consumers choosing greater convenience, but retailers are not finding fresh-cut products to be more profitable than commodity lettuce—head, romaine, and leaf. Product profitability here is defined as Direct Product Profit (DPP), that is, gross margin minus direct costs, including shrinkage due to damage/spoilage. In 1993 chain-store produce buyers were evenly divided as to which was more profitable—fresh-cut or commodity. One buyer commented: "Currently struggling with fresh-cut, code dates, plus providing a good environment (34 degrees) at store level" (Schaffner 1994).

In our 2001 survey, not much has changed: when asked if fresh-cut was more profitable, 53 percent of buyers answered in the affirmative, leaving 47 percent on the negative side. In their comments, buyers reflect the continuing motivation for moving toward more value-added fresh-cut products: "Reduction in store labor is forcing companies to source more value-added products than ever before." But at the same time, the 1993 lament of problems in maintaining the cold chain is repeated in 2001: "Case temperatures and equipment needs are not keeping pace with the value-added categories."

Contracts

The use of contracts, as opposed to buying daily quantities needed at cash/spot price, has become more common in recent years. Short-term contracts are estimated to account for 11 percent of grape, orange, grapefruit, and tomato sales in 1999, and long-term (annual or multi-year) contracts accounted for about 7 percent of these same commodities. In 1999 lettuce-sales mechanisms were about the same as in other commodities, except that all contracts were long-term, and fresh-cut salad shippers indicated that annual or multi-year contracts were typical in marketing to the retail grocery industry (Calvin and Cook 2001).

Contracting can be thought of as a means for retailers to develop strategic alliances with suppliers. This cooperation between suppliers and buyers has the greatest chance for success if both parties can identify mutual benefits. Additionally, to have a cooperative relationship run smoothly once it is established, the following factors are needed:

- Both parties have about the same amount to lose if the relationship collapses.
- The relationship has the capacity to continually provide new benefits.
- The relationship is reciprocal; that is, each party is able to respond immediately to either positive or negative behavior by the other.
- Both parties refrain from the use of coercive power, which reduces cooperation.
- The parties are flexible in making mutually determined adjustments to the relationship.
- The parties enjoy mutual trust. Trust has been defined as "a bridge between past experience and the anticipated future." Trust develops when parties in a relationship are confident, based on experience, that they can predict the behavior of the other party (Schaffner, Schroder, and Earle 1998).

Table 1. Importance of Various Factors in Shippers' and Retail Buyers' Decisions to Use Contracts, On a Scale of 1 to 5.

Contract-use decision factors	(Cal Poly) Retailer	(USDA) Shipper
Assured market or supply	4.9	4.3
Price stability	4.6	3.8
More attractive prices than open market (Superior Price, USDA Study)	4.2	3.0
Reduction in cost of procurement/sales and marketing	4.1	2.2
Greater assurance of food safety/traceability	4.0	—
Reduction in costs of distribution	3.8	2.0
Maintenance of future relationship with other party	3.6	4.3
Financial incentive offered by shipper/retailer	3.5	3.0
Pressure from shipper	2.5	—
Pressure from growers	—	2.0

What are the motives for both sellers and buyers of produce? Are these motives in congruence, and do they in some way lead to improved supply-chain management? In Table 1, factors in buying decisions are ranked by retailers (Cal Poly study) and by shippers (USDA 2001b), on a scale of one to five, with five indicating most importance. The ranking is for all produce products; in some instances an item was not asked of both groups, either because it was inappropriate or because the item was somewhat repetitive.

While the results of both the USDA and Cal Poly surveys are based on a limited number of observations and must be interpreted with caution, there appear to be areas of congruence between buyers and shippers, but also divergence on some items. Both parties seem primarily concerned with price stability and assurance of supplies. While retailers also rank reductions in cost of procurement and distribution relatively highly, shippers do not. Perhaps this is because they do not see any benefits accruing to them on the cost side.

Retailers also see contracting as a mechanism to achieve greater food safety/traceability (this question was not asked of shippers). However, it is interesting to note that when asked in an earlier question to rank the influence of various factors on the produce buying decision, they placed third-party food-safety certification near the bottom of the list of factors, after price, quality, brand label, and merchandising incentives. While food safety is certainly a major concern of retail buyers (also evidenced by comments received), retail buyers evidently do not see third-party certification programs as a necessary component of shipper food-safety assurance programs.

While various elements of supply-chain management, such as electronic data interchange, automatic inventory replenishment, and evaluation of promotional programs—whether in-store, advertising, or special packaging—could be part of contractual alliances, at present the produce supply chain is doing little in these areas. However, with larger buyers, especially mass-merchandisers such as Wal-Mart, leading the industry toward these practices, industry customs will change. Wal-Mart officials state that they use some sort of contract to procure almost 80 percent of their produce supplies (Patterson and Richards 2000).

A View to the Future

In the "View to the Future" portion of the 2001 questionnaire (see Table 2 below), retail produce buyers were asked about future produce-marketing trends. Some of the "future developments"

Table 2. View to the Future, Produce-Buyer Responses, 2001.

View	By 2003 %	By 2006 %	After 2006 %	Never %
Over 50% of all lettuce sales will be fresh-cut/branded.	53	27	20	0
Over 50% of produce purchasing will be on contracts.	33	7	20	40
The number of produce vendors/ suppliers you do business with will decline by one-half.	14	20	33	33
Branded produce (nationally branded/ private label) will increase to 40% of product sales.	7	27	47	20
Produce will be 10.5% or more of total store sales.	33	33	20	14
SKUs in the produce department will increase to over 400.	53	20	27	0

evaluated were also included in the 1993 survey; however, different dimensions were used in 2001. For example, in a 1993 question the percentage of all lettuce sales predicted to be fresh-cut was 25 percent; in 2001 the fresh-cut percentage of all lettuce sales was moved up to 50 percent.

As was the case in 1993, in 2001 more than 80 percent of these produce professionals see fresh-cut bagged lettuce products growing in popularity. In 1993 retail buyers expected fresh-cut to grow to over 25 percent of all lettuce sales within five years; in the 2001 survey 80 percent of the buyers see fresh-cut accounting for over one-half of lettuce sales by 2006. In fact, one respondent reported that fresh-cut currently exceeded 50 percent of all lettuce sales. As discussed earlier, despite retailer ambivalence regarding fresh-cut profitability, the combination of consumer demand and efforts by retailers to reduce store labor costs should result in the category's continued upward growth trend, but at lower rates of growth than experienced in the 1990s.

Regarding contracting, retail buyers generally fall into two camps: those who are currently (or will in the next two years be) heavily involved in contracting, and those—some 60 percent—who do not see the majority of produce being purchased via contracts until after 2006, if ever. One view (Calvin and Cook 2001) regarding the increased use of contracts is summed up in the following statement: "Use of contracts will likely continue, especially as larger buyers begin to adopt supply chain management practices that focus more on year-end rather than weekly results, as well as focusing more on net rather than gross returns."

The responding produce buyers did not endorse the idea that retailers will be reducing their number of suppliers by one-half from current levels. Perhaps this is true because retail buyers already concentrate their purchases, dealing with just a few suppliers. The USDA Produce Marketing Study cited by Calvin and Cook found that across all produce categories studied, 91 percent of buyers' purchases came from their four largest suppliers. Variation across the different produce categories was moderate, from 97 percent of fresh-cut bagged lettuce supplied by two or three firms, to grapes on the other end of the spectrum, at 85 percent.

Responding to the 2001 Cal Poly survey, retail buyers reported concerns about the direction in which supplier relations are heading. One chain that utilizes a B2B purchasing system gave the assessment, "There are growing concerns about the XYZ purchasing system [name deleted for privacy reasons]. Vendor/supplier contact with retailers is not as personal and expectations with respect to quality are not assured. Also, if the industry continues on its present course, many small, quality-oriented grower shippers will be left out due to reluctance or inability to adapt to changes." Another buyer stated, "I feel that no matter how the produce industry shakes out, that quality will be the number one reason why I would select a grower or shipper to work with. Contracts and branded produce are and will be very important, but quality has to be number one. Consistent quality."

Respondents agreed that the move toward branded products will not happen quickly or take over the market, with 67% not expecting it to exceed 40% before 2006, if ever. This view prevails despite the trend over the last decade to greater brand presence in produce. In 1993 only 7 percent of sales were nationally branded, but this grew to over 19 percent by 1997. During the same period, private-labeled produce market share also increased, from almost nothing to more than 6 percent (Kaufman et al. 2000).

The last two items on the "View of the Future" section of the survey will be discussed together. It is obvious that retailer management sees continual growth in the produce departments, both in assortment and as a percentage of total store sales. Provided the benchmark information that between 1987 and 1997 produce grew from 8.8% to 9.5% of store sales (Litwak, as quoted in Kaufman et al. 2000), two-thirds of the respondents see produce growing to 10.5% or more of store sales by 2006. Perhaps they are expressing "irrational exuberance" or giving their view of changing consumer lifestyles, concerns, and attitudes. As one retailer stated, "More and more people are concerned with what they put into their bodies and want organic products and soy alternatives. This trend will continue to grow in the coming years and more people will get away from red meats. The industry will continue to find better ways to grow and package for the future."

Similarly, a vast majority—73 percent—saw no problem with the average number of SKUs (Stock Keeping Units) in produce increasing to 400 by the year 2006, despite the almost doubling of the produce-section assortment from 173 to 335 from 1987 to 2000 (Turcsik and Heller 2000). This increase in product assortment is most likely viewed as a continuation of consumer trends toward added convenience, healthy diets, and consumption of gourmet and ethnic items. Also, grocery retailers see an emphasis on produce as their number-one merchandising tactic. This strategy presumably includes assortment breadth as well as quality (Progressive Grocer 2000).

Conclusions

- Although fresh-cut lettuce is not particularly more profitable than commodity lettuce at the retail level, its market share will continue to grow due to consumer demand for convenience and increasing store labor costs.
- If contracting is to become a more common device in coordinating the produce supply chain, provisions that are less unequal in the eyes of shippers need to be offered. Also, adjustments must be possible, so that contractual relationships between shippers and retailers continually provide new benefits.
- As forecast in 1993, increasing brandedness in produce has been a major force in shaping an industry with fewer suppliers; today, two or three marketers account for more than three-fourths of all fresh-cut sales.
- Growth in the produce departments will continue, both in product assortment and as a percent of total store sales. The major driving forces behind this growth will be increasing ethnic diversity, increasing product assortment furthered by international trade, and the trends toward increased fresh fruit and vegetable consumption.
- While the number of suppliers that a retailer uses may not decline a great deal in the next five years, there will be mergers and consolidation in the supply sector as shippers position themselves to be year-round supply sources with broader assortments in their product category.

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