

# Volatility and Fresh Fruits and Vegetables

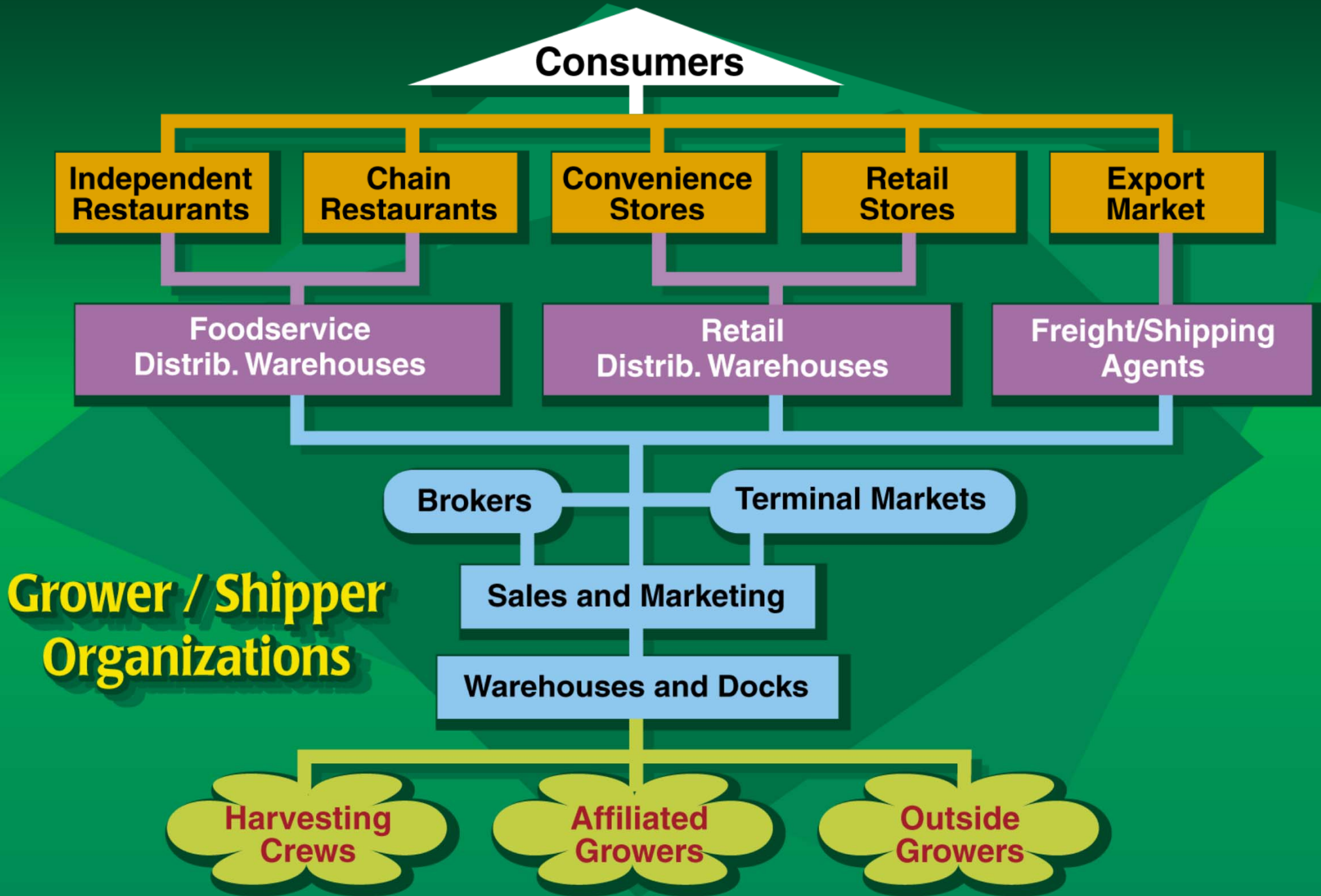
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# Top Grocery Trends

- Restraint remains the new normal for consumers.
- Value is a top priority for shoppers - channel blurring, coupons, etc.
- Value is a top priority for retailers/commercial buyers - cost-price squeeze, downward pressure on margins, SKU rationalization.
- Both contributing to store brand/private label growth.
- Grocery consolidation, and smaller store formats growing.
- Better information management - thru technology.
- Store clustering to achieve optimal assortments.

# Fresh Produce Marketing

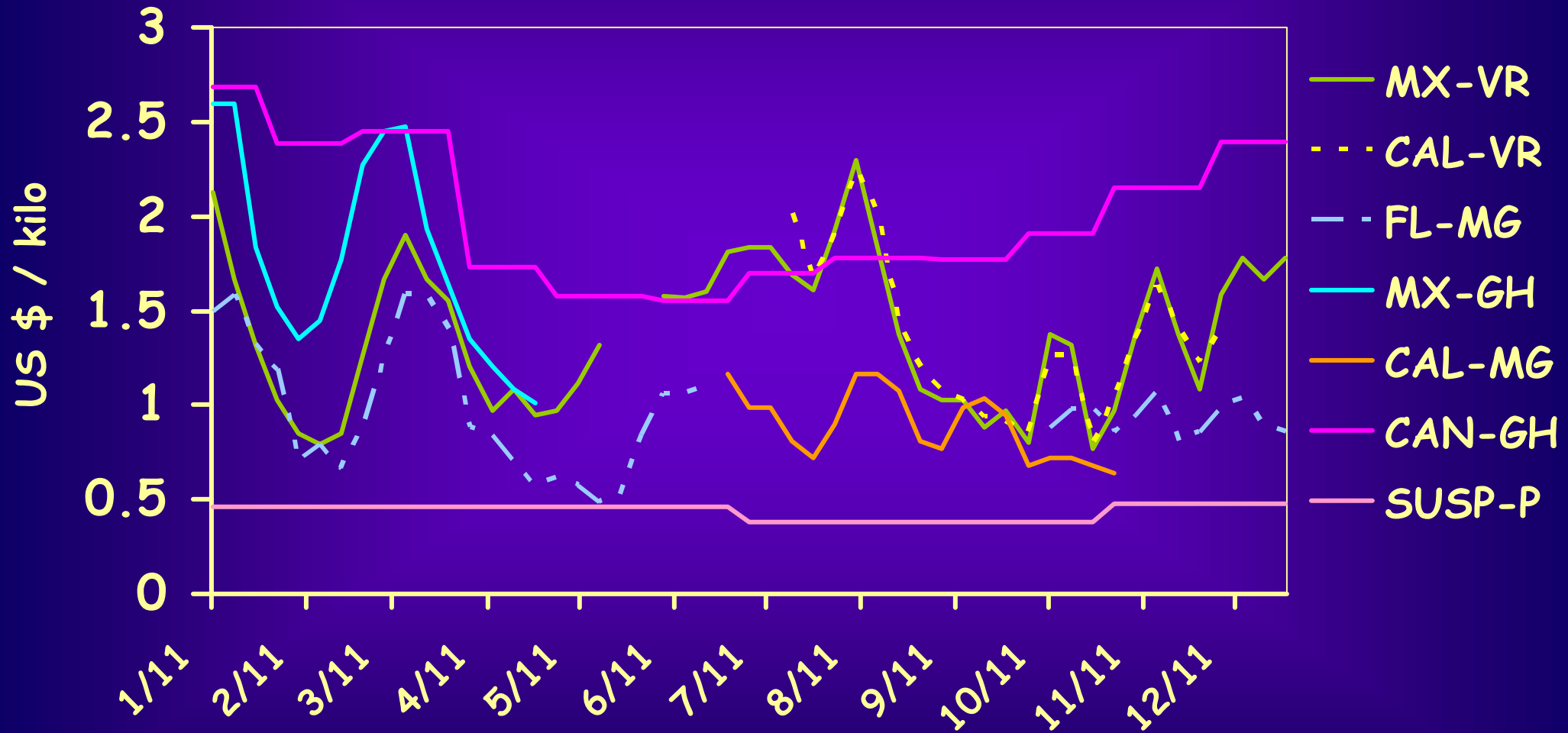
- Most growers rely on shippers to market their products, most of which are family-owned forward-integrated grower-shippers, most of which market not only their own production but that of other growers.
- Growers and shippers are price takers, they typically are not large enough to set prices.
- Growers receive the residual of the market price less marketing charges, pick, pack and harvest, palletization, in some cases cooling, and other handling charges and mandated-marketing or other institutional fees (e.g., CLGA, commission or marketing order charges).
- The shipper has incentives to continue shipping if at least covering variable costs, and in order to meet commitments with buyers; sometimes there is no return to the grower (production costs are not recouped).



# Key Characteristics of the Fresh Produce Industry

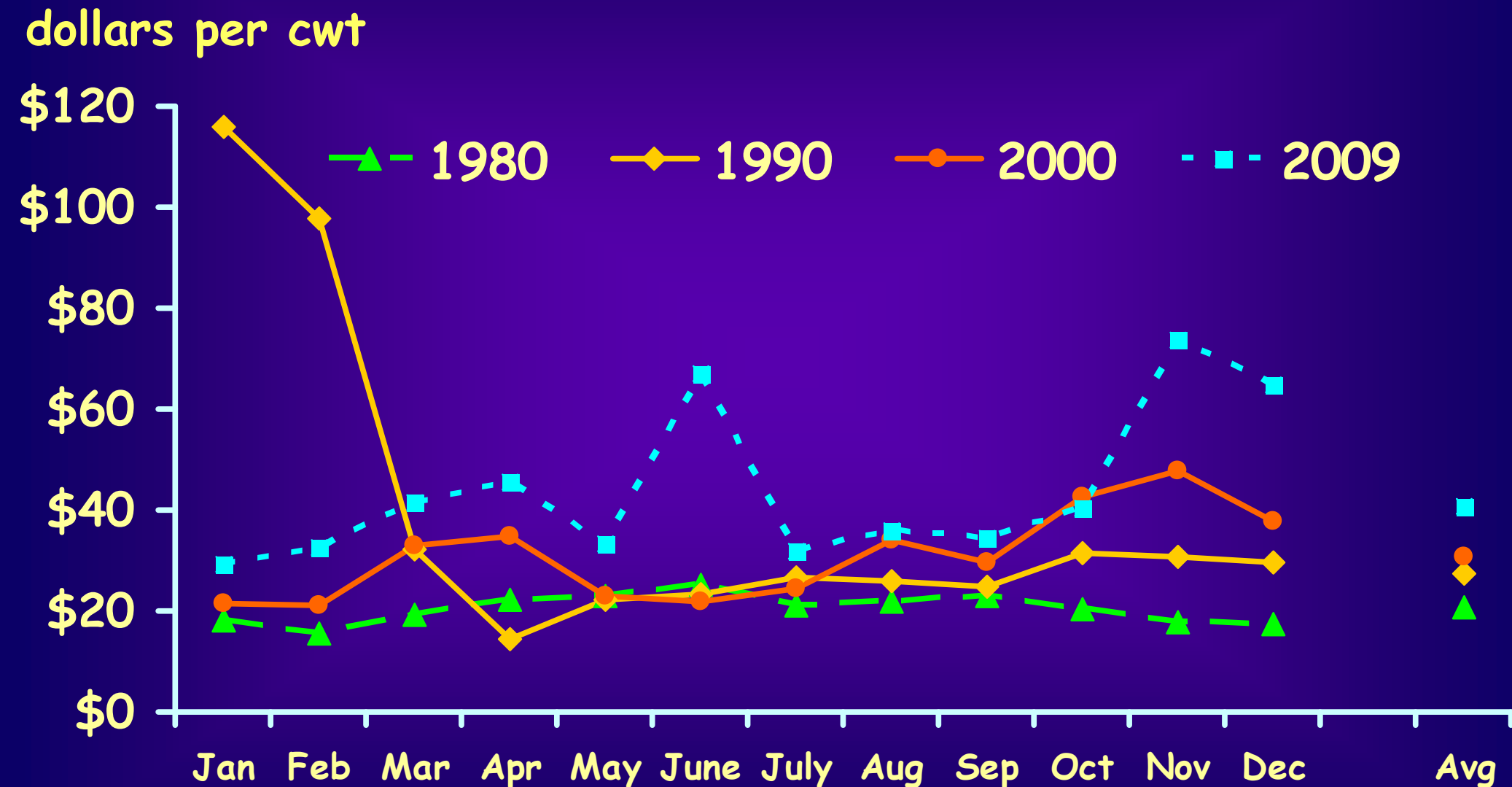
- Perishability, limited storability for most crops, harvested and shipped daily, production regions shift seasonally.
- Constantly subject to weather shocks affecting supply and demand.
- Price volatility made firms very reliant on the spot market with few risk management tools beyond geographic and product diversification.
- Walmart was the first to introduce fresh produce shippers to forward contracts, with contracts growing in importance industry-wide despite the challenges posed by volatility.
- Contracting use and provisions vary a lot by crop and retailer. Foodservice has been a leader due to the need for menu pricing stability.

**Weekly Fresh Tomato Prices in the US Market: Florida Mature Greens; California Mature Greens; California Vine-ripes; Mexican Vine-ripes; Mexican Greenhouse Tomatoes; Canadian Greenhouse Tomatoes; and Suspension Price. January 11, 2003 - December 27, 2003**



Sources: AMS/USDA; US Customs

# U.S. Fresh Tomatoes: Monthly and Season-average FOB Shipping Point Prices



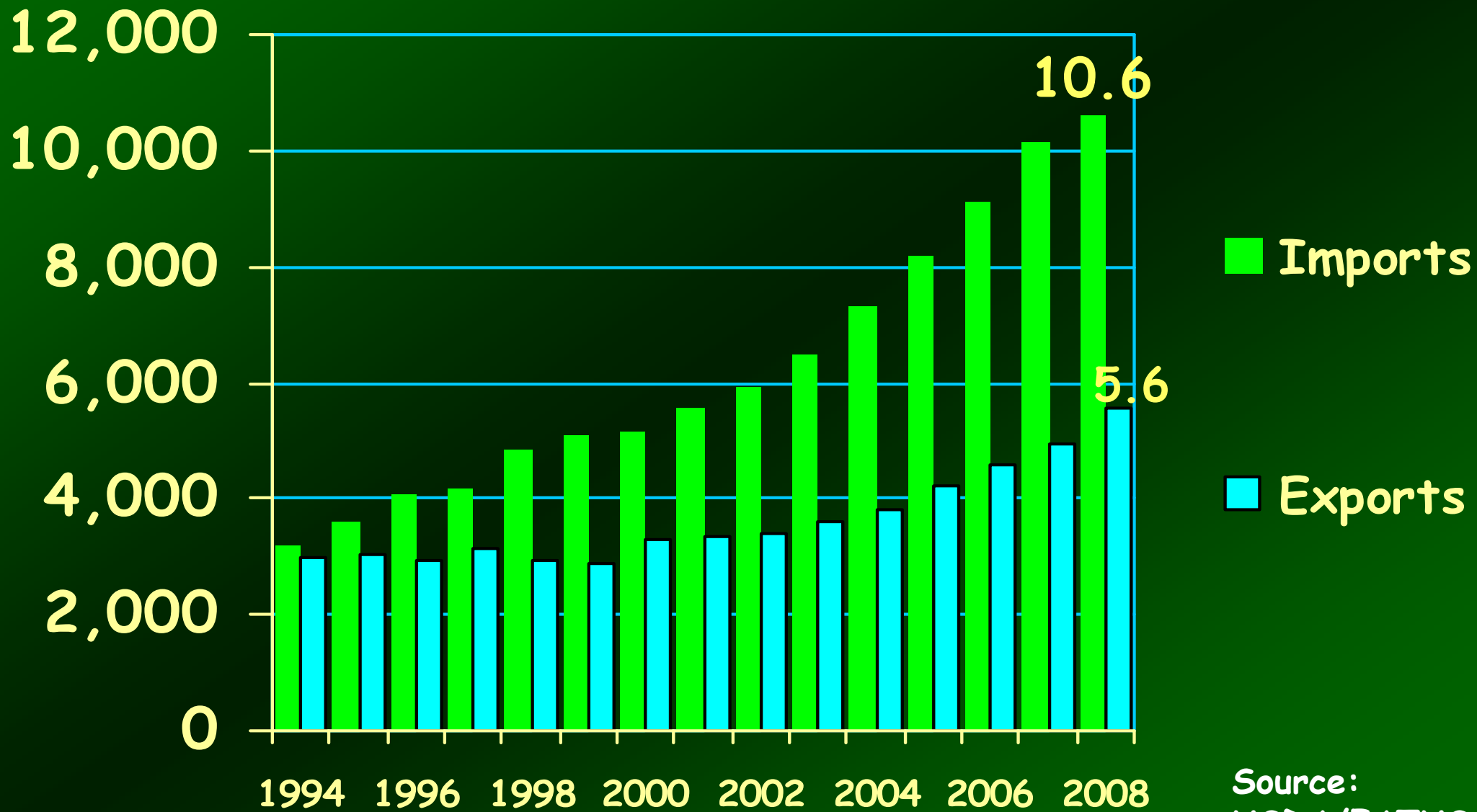
Source: Vegetables and Melons Situation and Outlook Yearbook, May 2010, USDA/ERS.

## Year-round Supply

- Over the last 25 years most shippers became year-round suppliers in order to meet buyer needs for more consistent supply from fewer firms - lower transaction costs for the buyer - and a risk management tool for the shipper.
- Shippers have relationships with growers in specific regions that meet seasonal production requirements, thereby smoothing weekly production volumes. Finding new areas with microclimates is a key differentiation tactic for shippers as it may increase the consistency of supply and quality they offer buyers.
- However, weather may create production overlaps or gaps during seasonal shoulders, hence price volatility is still reality.



# US Fresh Produce Trade,\* \$Million, 1994-2008



\*Fruit imports may include frozen.

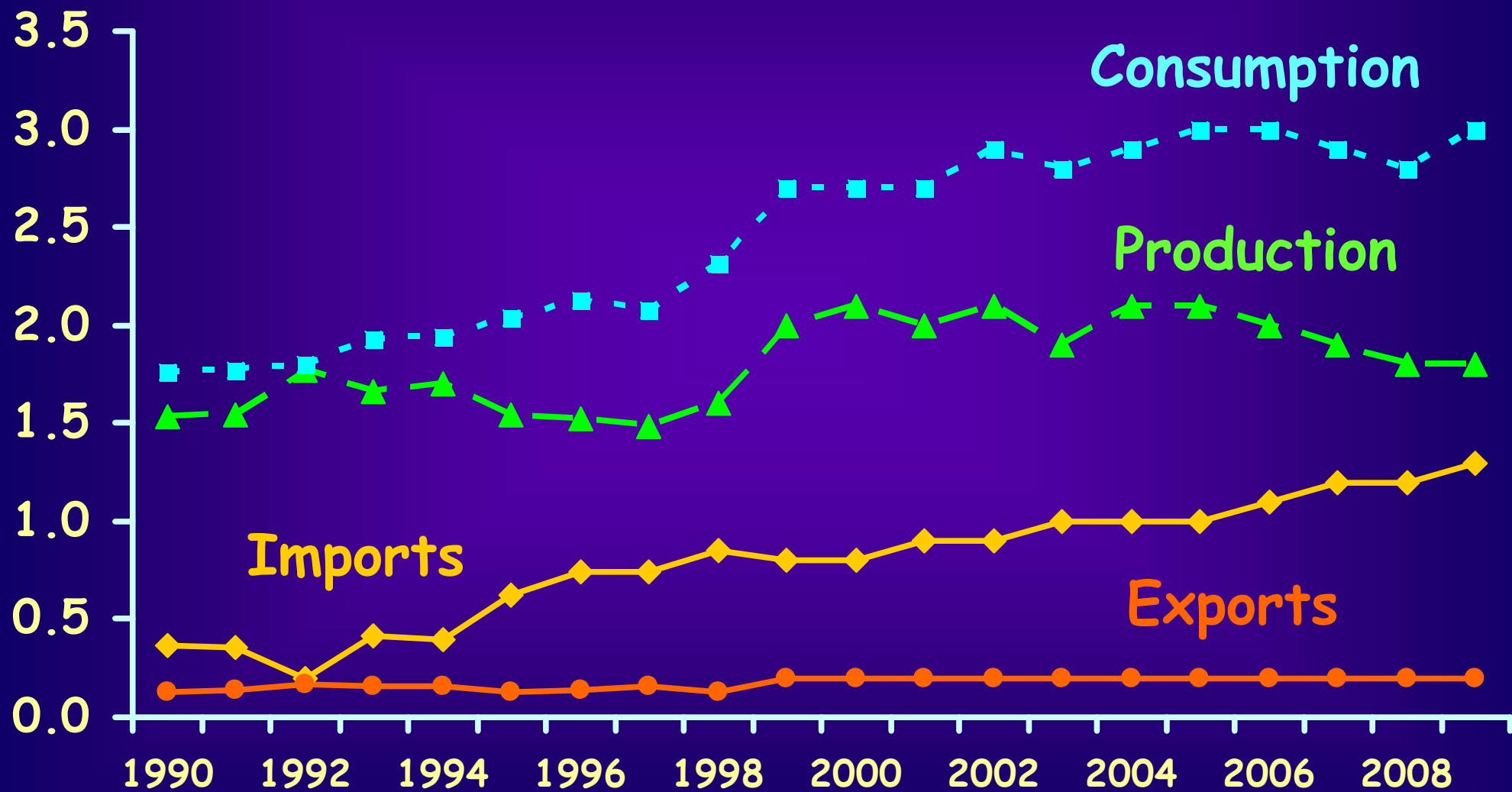
Source:  
USDA/FATUS

# Product Diversification

- Product diversification as a risk management tool has proved challenging due to technical production, postharvest and other constraints. It exists to the greatest extent in the leafy green subsector due to product similarities.
- Adding value to products via packaging even without reaching the fresh-cut level is a newer and growing product diversification trend.
- Another product diversification strategy is new varieties of the same product with special flavor, color, size or other attributes, some of which are proprietary.

# U.S. Fresh Tomatoes: Production, Consumption, Imports, and Exports, 1990-2009<sup>p</sup>

million tons



Source: Vegetables and Melons Situation and Outlook Yearbook, May 2010, USDA/ERS.

# Key Characteristics of the Fresh Produce Industry

- Intra- and inter-seasonal quality/quantity variation, unbranded, bulk, undifferentiated commodity orientation meant that shippers didn't achieve dedicated shelf-space yr.-round.
- Perverse reality of fresh produce is that prices tend to be highest when quality is worst - impeding branding and creating consumer loyalty.
- Fresh-cut sector has led change: branded marketers competing for shelf-space, sell off list prices, pay slotting fees and promote, similar to consumer packaged goods (CPG's.) {Caveat: private label growing rapidly for fresh-cut.}

# Key Characteristics of the Fresh Produce Industry

- Even today most fresh produce still is sold in bulk so it is not scanned (no UPC barcode). However, products sold in clamshells are increasing, leading to more scanned items without them being fresh-cut, e.g., the berry category.
- Over the last 20 yrs. PLU codes came to the rescue - sort of at first! - but data quality continues to improve and is changing supplier and retailer interaction.
- With better data there has been more pressure on shippers to assist in category development and other services - differentiation tools - and to be year-round partners in managing seasonality (can help manage supply and demand volatility).

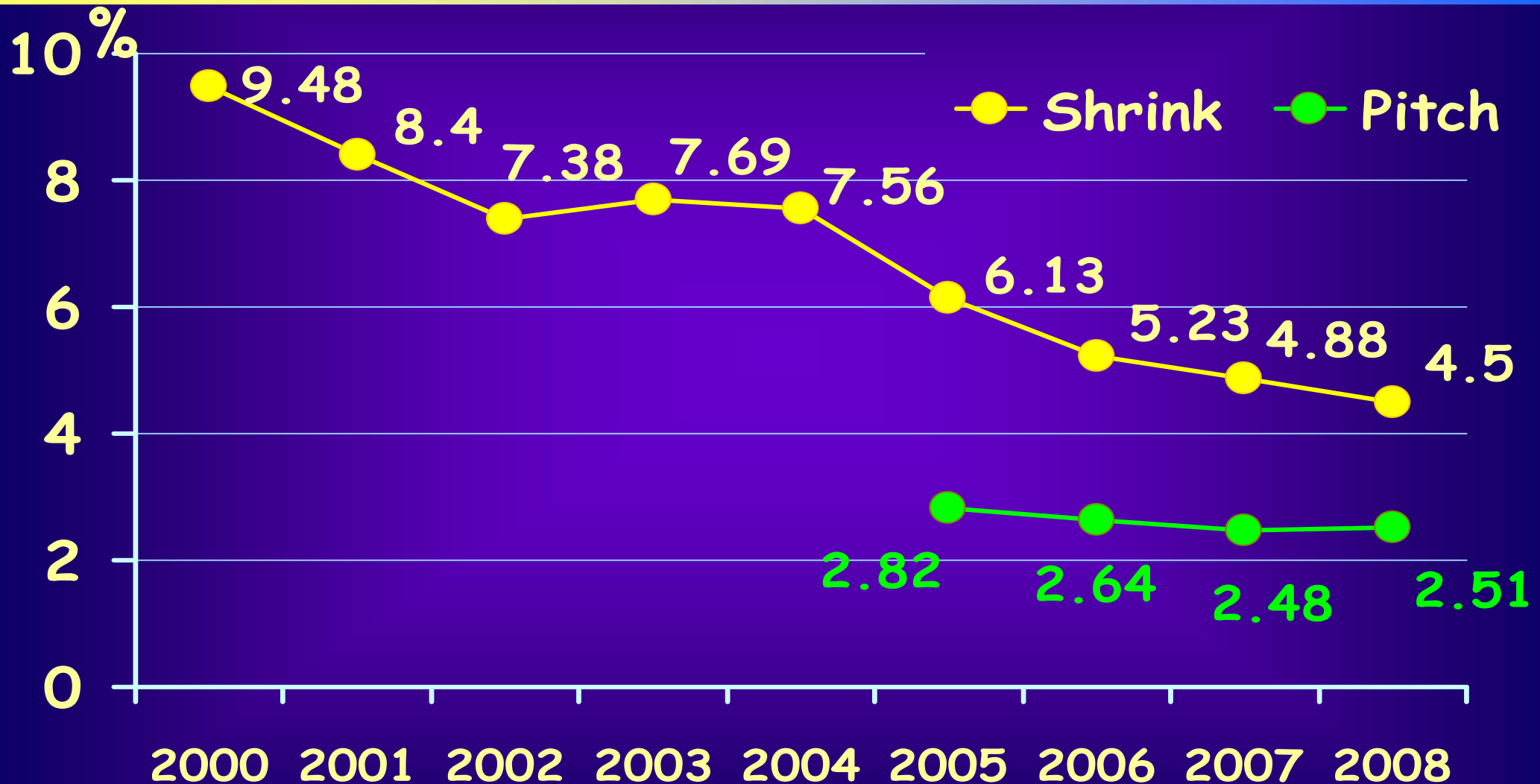
## Consolidation of the Fresh Produce Value Chain

- Higher retail concentration levels have led to shipper consolidation so today shippers are larger and better equipped to offer services (incl. food safety, traceability, data-based sales and marketing support, consumer insights).
- Today's fewer, larger buyers have enabled shippers to reduce their customer lists and to focus more on understanding the needs of key accounts - becoming account-driven.
- Scale is increasingly important - investment capabilities and competitive wherewithal.

# Information Technology

- Scale can help achieve buying and selling advantages but can only be managed successfully with focused management, real-time data management systems and operational excellence.
- Information technology, business intelligence will play a vital role at all levels of the value chain going forward.
- Firms embracing this may gain competitive advantages.
- This includes a better understanding of consumers and the tactics that increase consumption without sacrificing return for the commercial buyer or seller, e.g., promotional efficiency.
- Retailers are under intense pressure to remain competitive amidst channel blurring.
- SKU rationalization and store clustering are keys to better coordination of supply and demand, lower shrink and greater value chain efficiency.

# Retailer "X" Fresh Produce Department Shrink and Pitch History, Percent, 2000-2008



Source: Company documents.



# Key Characteristics of the Fresh Produce Industry

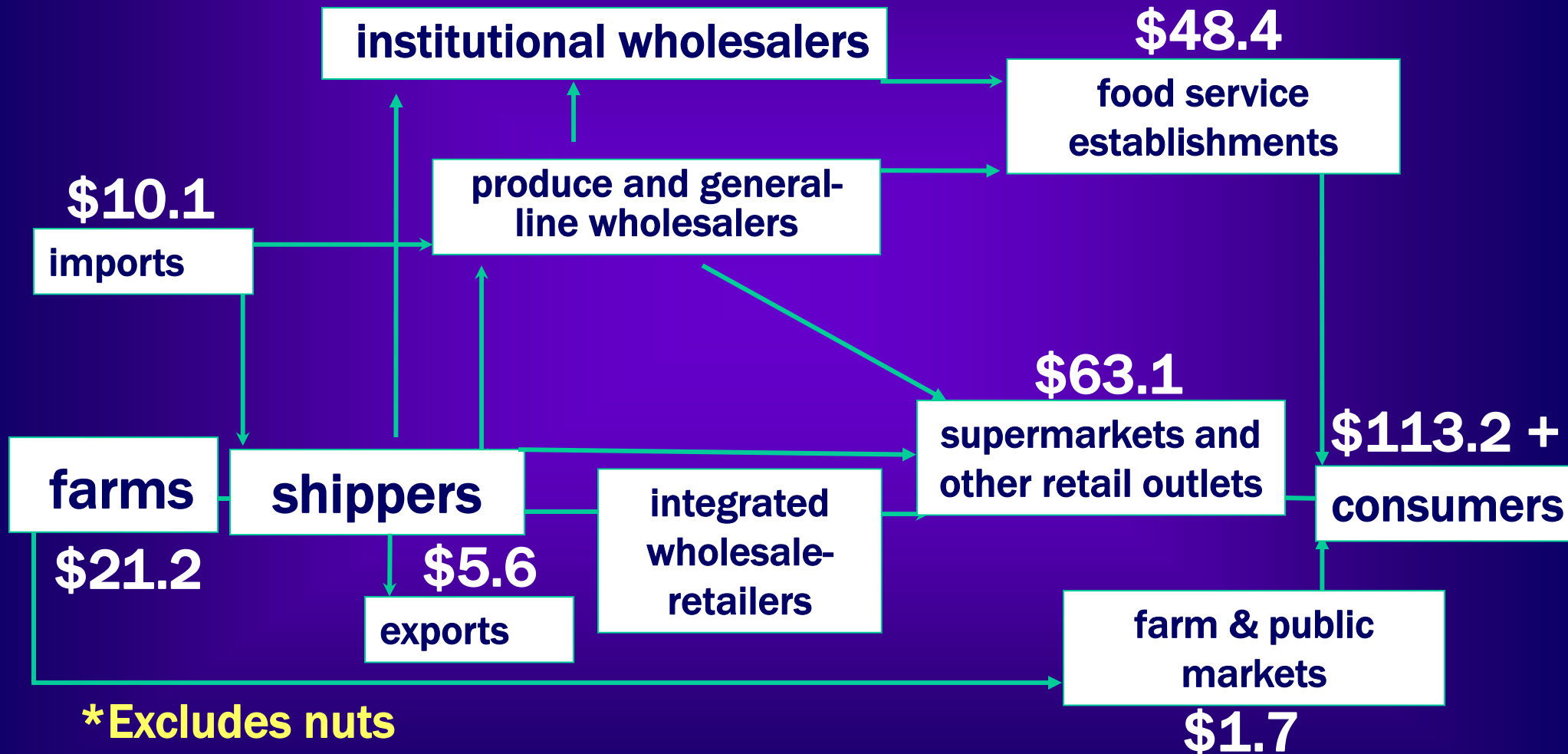
- Despite rapid change, firms are still largely operating in commodity markets - so shippers are trying to differentiate themselves via products and services while still largely being price takers - this is challenging - can you show a positive ROI in the short run when investing in differentiation?
- Fresh produce lags the food industry in the use of business intelligence to improve performance, including at the retail level.
- Fresh produce will always face special challenges due to perishability, daily harvesting and shipping constantly influenced by the weather.
- Regardless of the special challenges of produce, fresh produce is increasingly being asked to conform to the standards of the CPG industry.

# Supply Chain Imperatives

- Mutual dependency between buyers and sellers - get away from adversarial relationships
- Streamlining the supply chain, improving vertical coordination, involves identifying mutually beneficial strategies, e.g., promotions, packaging, logistics
- Identifying which activities add more value than cost
- Eliminating non-value-adding activities
- Decreasing internal operational inefficiencies - due to lack of ERP's and underutilization of BI they are often hidden or not considered important enough to attract attention in more favorable markets - but with margin squeeze they count
- Getting close to customers and consumers

# Fresh Produce Value Chain

# U.S. Fresh Fruit and Vegetable\* Value Chain, 2008 *Estimated Billions of Dollars*



Source: Estimated by Dr. Roberta Cook, UC Davis, based on numerous public sources, incl. USDA, DOC, Progressive Grocer, and PMA. Preliminary estimate. Not for publication.

**Leading US Fresh Market Vegetable States in 2009:**  
 Geographic concentration of production (due to climate) limits local sourcing potential, yet it is growing in the summer/fall

Area Harvested		Production		Value	
State	% of Total	State	% of Total	State	% of Total
CA	44	CA	49	CA	52
FL	11	FL	9	FL	13
AZ	7	AZ	7	AZ	7
GA	6	GA	5	GA	5
NY	4	NY	4	NY	3

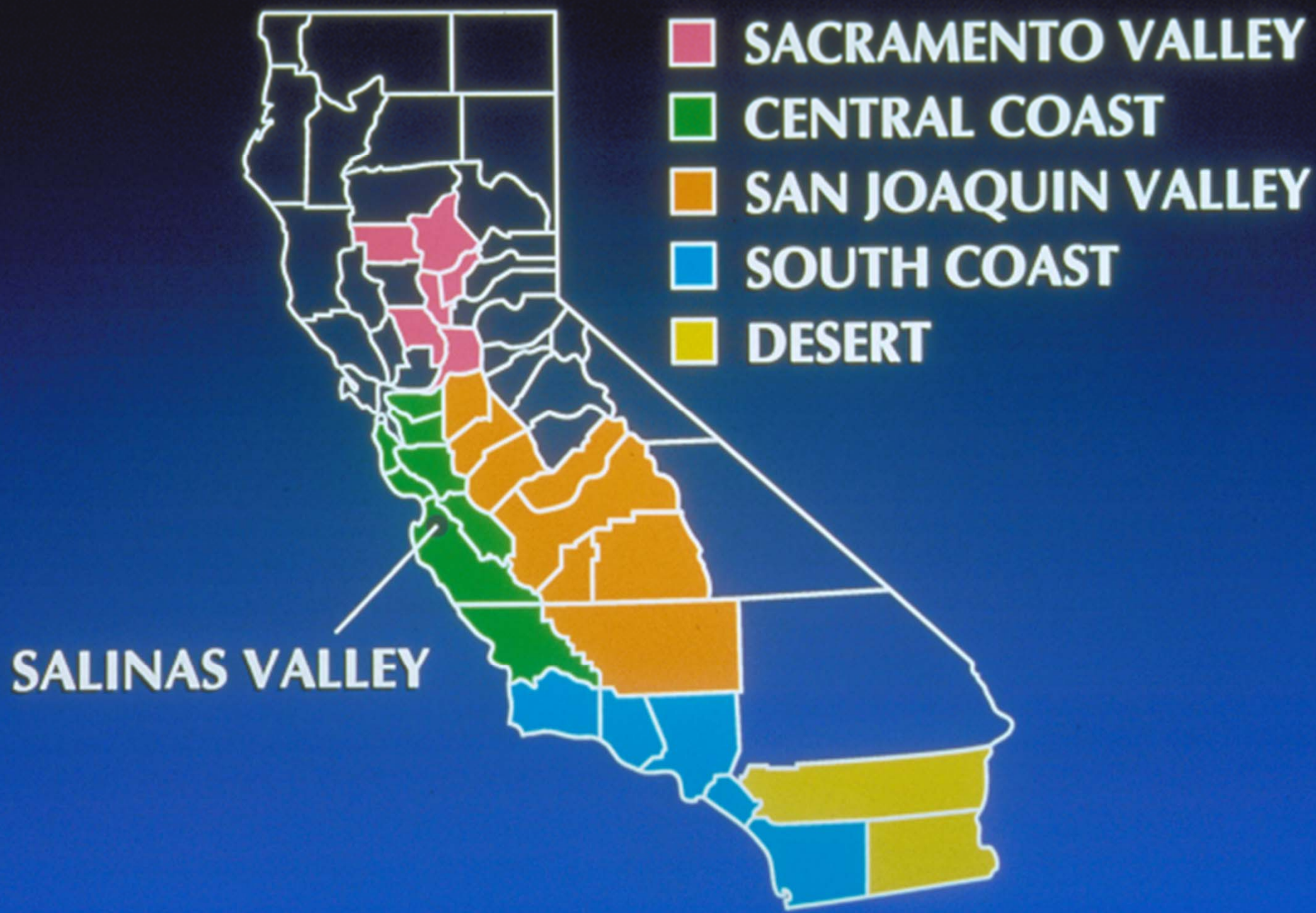
Source: NASS/USDA, Vegetables 2009 Summary, January 2010

## Market Shares of Leading USA Fresh Fruit Producing States and Value of Fresh Fruit Production,\* 2009

State	Value (\$1,000)	Percent U.S. Total
California	4,330,397	53%
Washington	1,703,876	21%
Florida	616,454	8%
Oregon	156,191	2%
Michigan	179,578	2%
New York	170,486	2%
6 State Subtotal	7,156,982	88%
Rest of States	1,012,665	12%
All U.S. fresh fruit	8,169,647	100%

\*Excludes tree nuts.

Source: USDA/ERS, Gary Lucier.

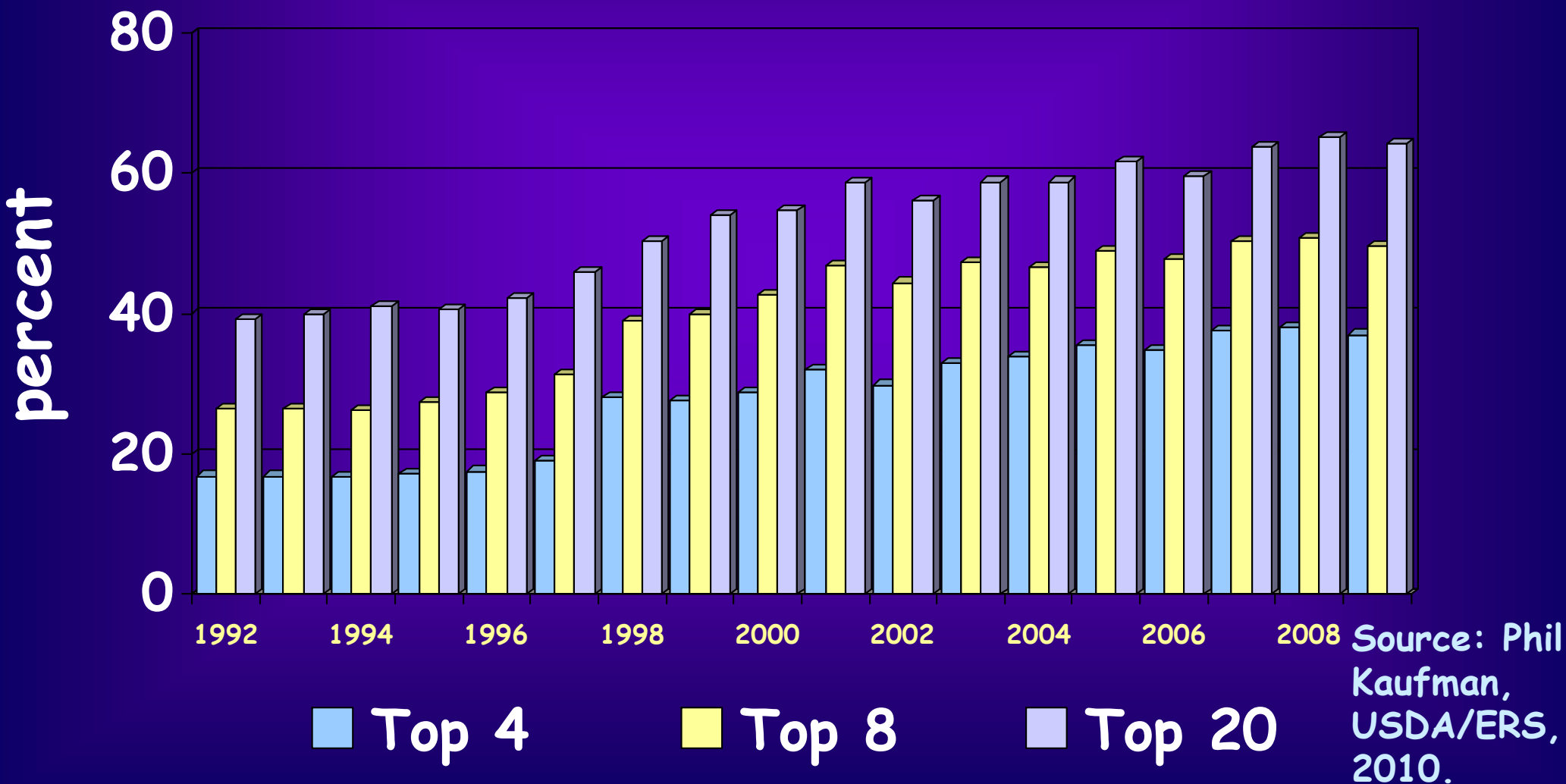


# Food Marketing Structure and Trends

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# Market Shares of Top 4, 8 and 20 U.S. Grocery Chains, Share of U.S. Grocery Sales Excluding Club Stores, 1992-2009



## Estimated Number of U.S. Wholesale and Retail Firms, and Grower-Shippers, 2008\*

Item	
Retail Chains (10 or more stores)	156
<i>Retail Chains with 100 or more stores</i>	58
Total US Grower-Shippers	3,452
<i>Grower-shippers in California</i>	1,102
<i>Grower-shippers in Florida</i>	404

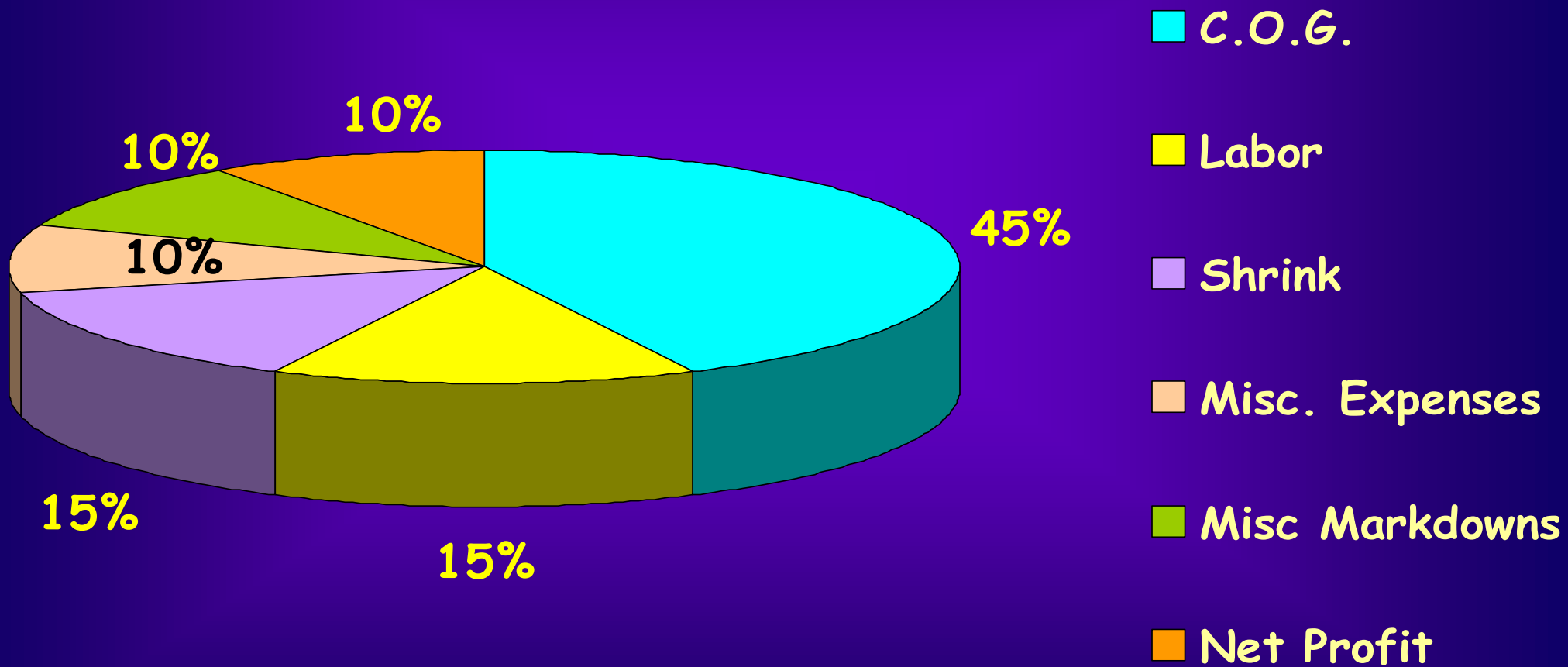
\*May be over counting of grower-shippers due to firms listed in multiple categories.

Source: Bluebook online queries by Cook, March 18, 2009.

# Retail Pricing Strategies

- Every Day Low Pricing (EDLP) or High-Low pricing are the two most common strategies.
- EDLP is generally used by new model retailers - supercenters, club stores - and generally margins are lower than for conventional supermarket chains. Costco margins never exceed 14%.
- EDLP operators emphasize contract vs. spot market buying but conventional retailers are also increasingly operating more on a partnership basis with key preferred suppliers with program focus.
- Successful grower-shippers are increasingly account-driven so they can respond to either EDLP or High-Low pricing retailers accordingly.

# Where does \$1.00 in retail fresh produce sales go?



Source: Bruce Peterson, President, Peterson Insights, 2009

# Retail Produce Department Pricing

- It takes a 7% change in a retail price for a consumer to “sense” there has been movement.
- It takes a 10% change in retail pricing for a consumer to “think” about a behavior change.
- It takes a 15% change in retail pricing for a consumer to “act” and change behavior.
- So if the f.o.b. price declines buyers will generally take it in margin and it won't negatively impact quantity sold.
- Buyers are generally not held accountable for net margins/profit as the expense side is typically viewed as beyond their control.

Source: Bruce Peterson

# Estimated Ranges of Losses in the U.S. Fresh Produce Distribution System

<u>Distribution Activity</u>	<u>Percent Losses</u>
Transportation	2.80 - 5.00
Wholesaling	2.50 - 5.03
Retailing	2.74 - 6.58
System losses	9.04 - 16.61

Percentage losses are based on dollar values of losses in each phase of distribution as a % of the wholesale value of products entering the distribution system.

Source: Pierson, Thomas R., Allen, John R. and McLaughlin, Edward W., "Produce Losses in the U.S. Food Distribution System," *MSU Agricultural Economics Report*, 1983.

# Becoming Marketing-Driven

- Becoming customer-centric.
- Putting the interests of your customers first.
- Understanding that you will get there faster if you work together.
- Next level is to become consumer-centric.
- Consumer-centrism will increasingly be achieved via supplier-customer partnerships.
- Suppliers and customers must choose strategic partners - align with those who will succeed in the marketplace

# Conclusions

- Suppliers and buyers (retail or foodservice) who partner together to identify mutually beneficial actions may gain a competitive advantage in their respective markets
- Successful partnerships are likely to be based on achieving logistical or operational efficiencies and/or consumer insights that get **THE RIGHT PRODUCT TO THE RIGHT CONSUMER AT THE RIGHT TIME**
- Vertical coordination can better match supply and demand (meaning a profitable market-clearing price for efficient growers)
- Getting a handle on “meaningful” consumer segments that can be effectively targeted is challenging but today smaller segments may be reached more cost-effectively with “new media” - *how to achieve this is a challenge*



# Conclusions

- Improved strategies may lead to greater market transparency, vertical coordination, and efficiency
- Firms should focus on understanding consumers in order to develop strategies that stimulate demand in a way that distributes benefits to both suppliers and buyers, e.g., at the most basic level, win-win promos, category development holds great potential
- Effective positioning requires understanding the fundamentals of the rapidly evolving food and fresh produce distribution system!

# Supplemental Information

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## Total US Grocery Sales,\* Store Numbers, and Market Share by Channel, 2009, and Projected Share, 2014

	2009 Sales \$Million	2009 No. of Stores	2009 % of Sales	2014 % of Sales
Traditional	\$467,730	40,205	47.5	44.1
Nontraditional	\$364,342	52,332	37.0	40.1
Total C-Stores**	\$151,875	150,704	15.4	15.8
<b>GRAND TOTAL</b>	<b>\$983,947</b>	<b>243,241</b>	<b>100.0</b>	<b>100.0</b>

\*Grocery sales only (food and nonfood); excludes electronics, prescription drugs, toys, jewelry, sporting goods, gas, clothing, footwear, knickknacks, and hardlines. \*\* Sales exclude gas.

Source: The Future of Food Retailing, Willard Bishop, June 2010

US Grocery Sales, Store Numbers and Market Share of Total Grocery Sales,  
by Store Format, 2009, and Projected Share, 2014

**Traditional Grocery Channel**

	2009 Sales \$Million	2009 No. of Stores	2009 % of Sales	2014 % of Sales
<b>Total Traditional</b>	<b>\$467,730</b>	<b>40,205</b>	<b>47.5</b>	<b>44.1</b>
Conven. Supermkt	\$405,920	26,693	41.2	37.4
Fresh Format	\$8,138	856	0.8	.8
Ltd Assortment	\$23,683	3,360	2.4	3.1
Super Warehouse	\$18,427	592	1.9	1.8
Other (small groc.)	\$11,562	8,704	1.2	1.1

Source: The Future of Food Retailing, Willard Bishop, June 2010

US Grocery Sales,\* Store Numbers and Market Share of Total Grocery Sales,  
by Store Format, 2009, and Projected Share, 2014

**Nontraditional Grocery Channel**

	2009 Sales \$Million	2009 No. of Stores	2009 % of Sales	2014 % of Sales
<b>Total Nontrad'l</b>	<b>\$364,342</b>	<b>52,332</b>	<b>37.0</b>	<b>40.1</b>
Supercenter	\$164,104	3,366	16.7	21.1
Wholesale Club	\$79,133	1,304	8.0	8.2
Dollar Store	\$19,750	22,224	2.0	1.9
Drug	\$53,930	21,572	5.5	5.7
Mass	\$42,381	3,683	4.3	2.7
Military	\$5,045	183	0.5	0.5

\*Grocery sales only (includes food and non-food); excludes electronics, prescription drugs, toys, jewelry, sporting goods, gas, clothing, footwear, knickknacks, and hardlines.

Source: The Future of Food Retailing, Willard Bishop, June 2010

**Top Grocery Retailers, Estimated *Grocery-Equivalent* Sales Only  
(not total firm sales) in U.S. Market, 2009**

<b>Est. Sales Company</b>	<b>Est. Food in billion \$</b>	<b>Sales in billion \$</b>
<b>Wal-Mart</b>	<b>320.8</b>	<b>170.7</b>
<b>Kroger</b>	<b>80.5</b>	<b>69.9</b>
<b>Costco</b>	<b>61.6</b>	<b>40.3</b>
<b>Safeway</b>	<b>40.6</b>	<b>37.2</b>
<b>SuperValu</b>	<b>39.4</b>	<b>35.7</b>
<b>Target</b>	<b>66.7</b>	<b>24.7*</b>
<b>Publix</b>	<b>25.5</b>	<b>23.1</b>
<b>Ahold</b>	<b>23.3</b>	<b>21.2</b>

Source: [www.planetretail.net](http://www.planetretail.net) April 2010, Food Banner Sales only. \*Incl. \$13.8 B of SuperTarget

Top Grocery Retailers, Estimated *Grocery-Equivalent* Sales Only (not total firm sales), in U.S. Market, 2009, cont.

Est. Sales Company	Est. Food in billion \$	Sales in billion \$
Delhaize Group	19.8	15.8
Aldi	13.4	12.5
HE Butt	14.7	13.0
Meijer	16.3	11.4
Giant Eagle	8.7	8.0
Whole Foods Market	8.2	7.8
Tengelmann	9.7	7.3

Source: [www.planetretail.net](http://www.planetretail.net) April, 2009, Food Banner Sales only.

# More on the Fresh Produce Value Chain

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# Fruit, Vegetable and Nut Farm Structure

Number of fruit, berry and nut farms with sales over \$50,000/yr.\* - 28,824

- 4,711 farms selling >\$1million account for 4% of total fruit/berry/nut farms and contribute 67% of total value

Number of vegetable and melon farms with sales over \$50,000/yr.\* - 13,824

- 4,908 farms selling >\$1million account for 7% of total veg/melon farms and contribute 84% of total value

\*Total of 112,690 fruit, berry, nut farms and 69,100 total vegetable and melon farms, of all sizes. Source: 2007 Census of Ag

## Ca. Share of: the Number of U.S. Vegetable Farms, and Sales, by Key Size Category, 2007

Item	CA	% US
Farms with sales > \$50 K - #	1,914	2.8%
Total Sales (\$millions) of farms with sales >\$50K	\$ 5,410	36.8%
Farms with Sales of \$1 Million or more - #	1,109	1.6%
Total Sales (\$millions) of farms with sales of \$1 Million or more	\$ 5,212	35.5%

Source: 2007 Census of Agriculture

Ca. Share of: the Number of U.S. Fruit and Nut Farms,  
and Sales, by Key Size Category, 2007

Item	CA	% US
Farms with Sales >\$50 K - #	15,131	13.4%
Total Sales (\$millions) of farms with sales >\$50K	\$ 10,714	57.5%
Farms with Sales of \$1 million or more - #	2,647	2.3%
Total Sales (\$millions) of farms with sales of \$1 million or more	\$ 7,880	42.3%

Source: 2007 Census of Agriculture