Fresh Produce Industry Trends: Context for Key Ripening Fruits

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Agenda

- Factors affecting demand for fresh produce, including demographics
- The economic downturn and its impact on fresh produce sales and food marketing channels
- Per capita consumption trends
- Case studies of two ripening products: tomatoes and avocados

Factors affecting demand for fresh produce

- Commodity price, consumer income, prices of substitutes and complements, population growth rates, ethnicity, culture
- Quality: appearance, flavor, color, shape and size; more breeder emphasis on flavor
- Info on produce selection, ripening, recipes
- Convenience in prep, usage and consumption; packaging role
- Shelf-life, postharvest technology
- Consistent availability, year-round supply

Factors affecting demand for fresh produce

- New marketing channels handling produce: convenience store potential, drug stores, dollar stores, e-commerce
- Promotion and advertising, brand and generic
- Story told on how and where product grown
- Govt education and other support
- Food safety
- Foodservice fresh produce menu introductions; challenges (cost, consistent availability, quality)

McDonald's Introduces Oatmeal with RTE Fresh Blueberries: blueberry banana nut oatmeal (May 2012)

Plant Varieties and Flavor

Plant Varieties and Flavor

WITCH FINGERS: SO DELICIOUS IT'S SCARY

Take a good, long look at these long and freaky-looking grapes. We admit that their shape is weird, but wait till you put these "fingers" in your mouth. Witch Fingers® are wickedly sweet and fun to eat. Kids just go bonkers for them. They make for a "scary good" after-school snack. But grownups are intrigued by them, too. Serve them at a party and check out the looks on people's faces. They make a great conversation starter, and once people try them, they can't stop eating or talking about them.

These are definitely not like any other grapes.

Plant Varieties and Flavor

Flavor. It's our nature. Grapery est | 1996 Produce of U.S.A.

- Home
- Why Grapery
- Grapes
- Innovation
- Farming
- News
- Retail | Trade
- FAQ
- Contact

CHECK IT OUT! See who's talking about our grapes!

WE'VE RAISED TABLE GRAPES WITH WORLD CLASS FLAVOR

Welcome. Grapery® grows and develops the most flavorful, all-natural, highest quality table grapes in the world—flavor no other brand can match.

Day after day we walk the fields, paying close attention to our grapevines every step of the way. We're more than meticulous. During harvest, our team picks only those grapes that are absolutely, positively ripe and ready to be carefully packed and shipped to your grocery store so you can share the juiciest, best tasting grapes in the world with your family and friends.

We invite you to learn more about our extraordinary products and discover where we are headed in the future.

Pink Lady Apples – Clear Positioning to Women and Marketing Buzz Backed by Quality Standards

Heart logo, feminine ads, target women 25-40

Managed Varieties – Breeding for Flavor

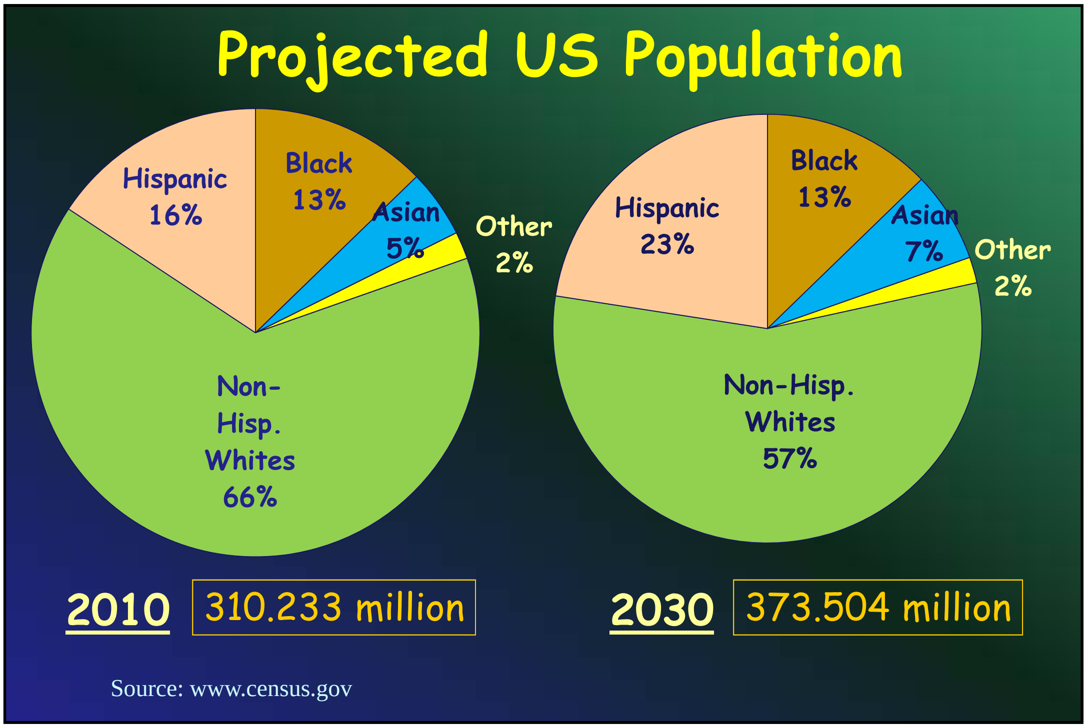
- Managed varieties have royalty fees (often 5% of FOB/box price) when using the trademark brand.
- Apples lead the way, Jazz, SweeTango, Kanzi.
- There are over 30 managed apple varieties.
- It's all about controlling the rate of growth in acreage and production in order to avoid price erosion for growers.
- Quality standards with an emphasis on the consumer eating experience,
- Investing in promotion and market development to generate consumer trial, repeat purchases and willingness to pay.

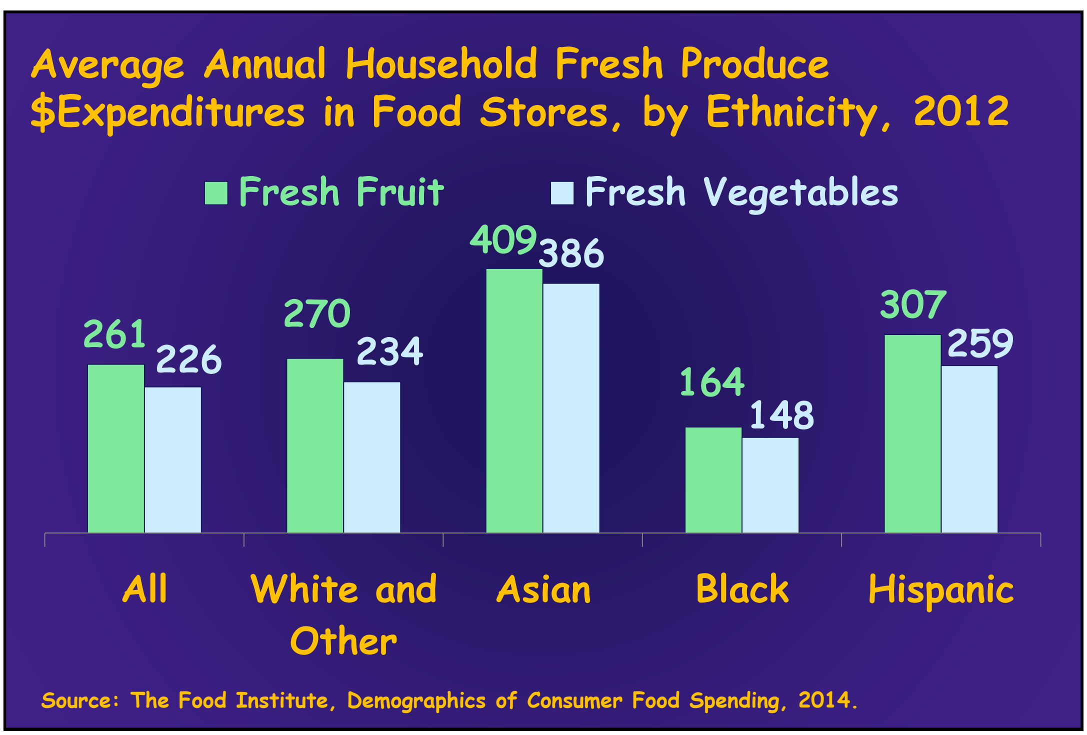
Demographic Trends

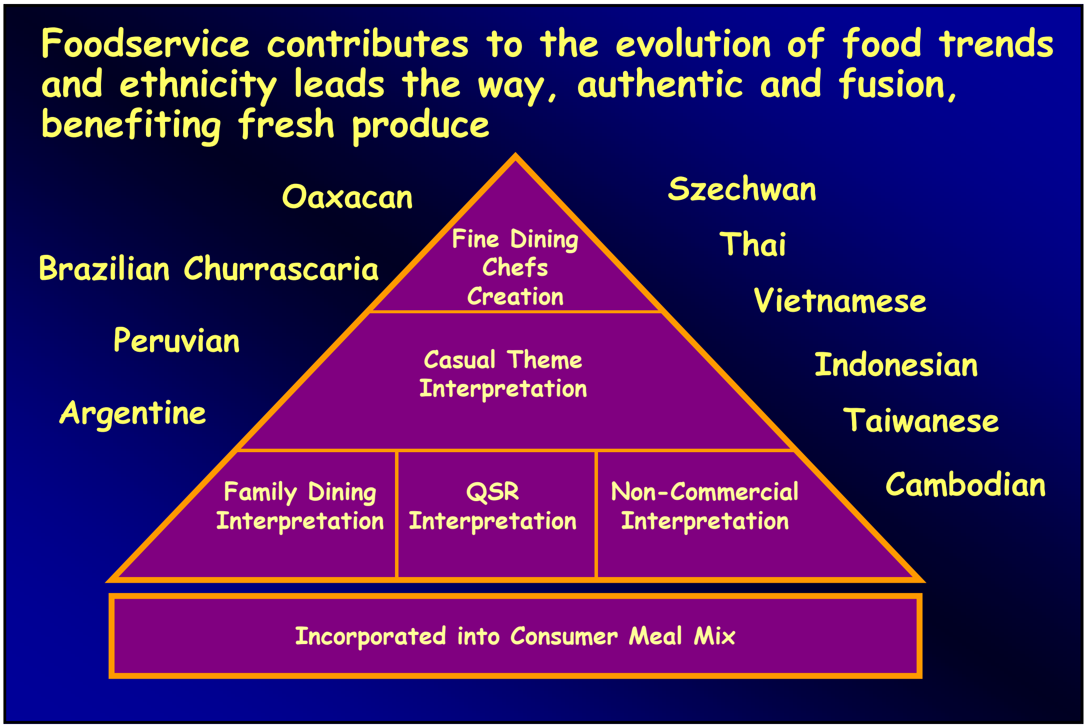
Changing Structure of the Modern Family

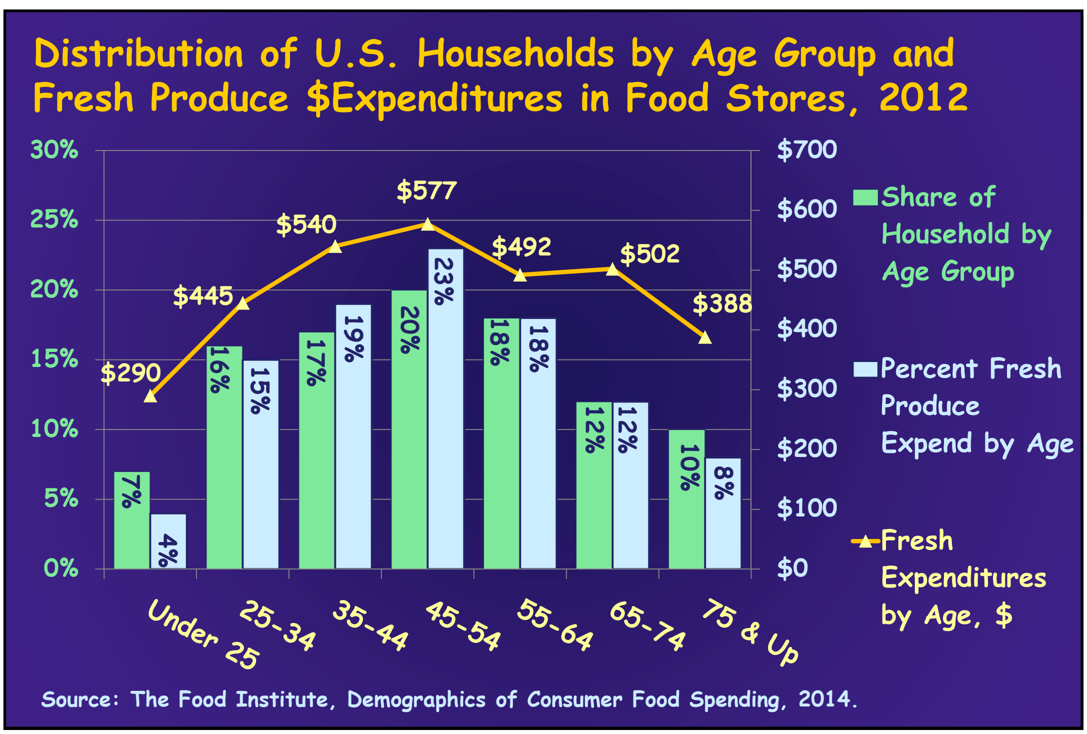
	1970	2012
Married-couple households are on the decline	81%	66%
Married-couple households with children are on the decline	40%	20%
Households and families are becoming smaller	3.1 persons	2.6 persons

Source: Census Bureau, America's Families and Living Arrangements: 2012, 2013. CDC National Center for Health Statistics, Changing Patterns of Nonmarital Childbearing in the U.S. 2009.


Projected US Population
Hispanic 16%
Black 13%
Asian 5%
Other 2%
Non-Hisp. Whites 66%
Hispanic 23%
Black 13%
Asian 7%
Other 2%
Non-Hisp. Whites 57%
2010
310.233 million
2030
373.504 million
Source: www.census.gov


Average Annual Household Fresh Produce $Expenditures in Food Stores, by Ethnicity, 2012
Fresh Fruit
Fresh Vegetables
261
226
270
234
409
386
164
148
307
259
All
White and Other
Asian
Black
Hispanic
Source: The Food Institute, Demographics of Consumer Food Spending, 2014.


Foodservice contributes to the evolution of food trends and ethnicity leads the way, authentic and fusion, benefiting fresh produce
Oaxacan
Brazilian Churrascaria
Peruvian
Argentine
Szechwan
Thai
Vietnamese
Indonesian
Taiwanese
Cambodian
Fine Dining Chefs Creation
Casual Theme Interpretation
Family Dining Interpretation
QSR Interpretation
Non-Commercial Interpretation
Incorporated into Consumer Meal Mix


Distribution of U.S. Households by Age Group and Fresh Produce $Expenditures in Food Stores, 2012
30%
25%
20%
15%
10%
5%
0%
$700
$600
$500
$400
$300
$200
$100
$0
$290
$445
$540
$577
$492
$502
$388
7%
4%
16%
15%
17%
19%
20%
23%
18%
18%
12%
12%
10%
8%
Under 25
25-34
35-44
45-54
55-64
65-74
75 & Up
Share of Household by Age Group
Percent Fresh Produce Expend by Age
Fresh Expenditures by Age, $
Source: The Food Institute, Demographics of Consumer Food Spending, 2014.

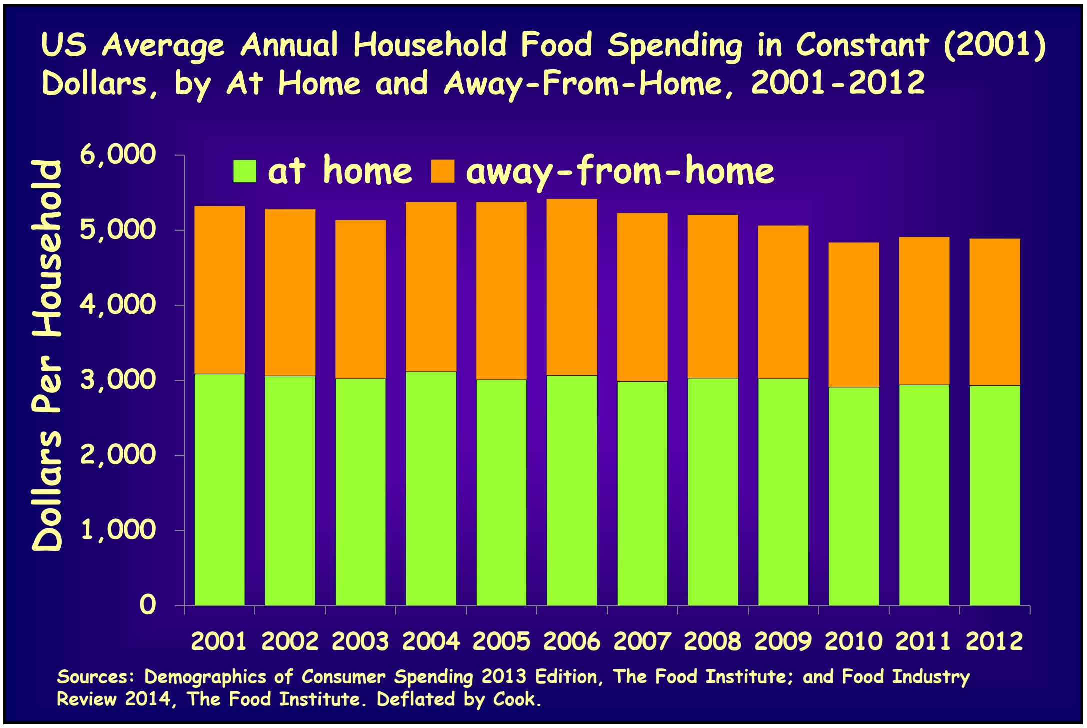
Five Growing Categories in Millennial Spending

* Spending plan over the next 12 months

Category	Percent Spending More*	Percent Spending Less*
Fresh fruits and vegetables	37	8
Organic food	25	9
Natural products	23	10
Environ. friendly home cleaning items	20	10
Fresh meat	19	10

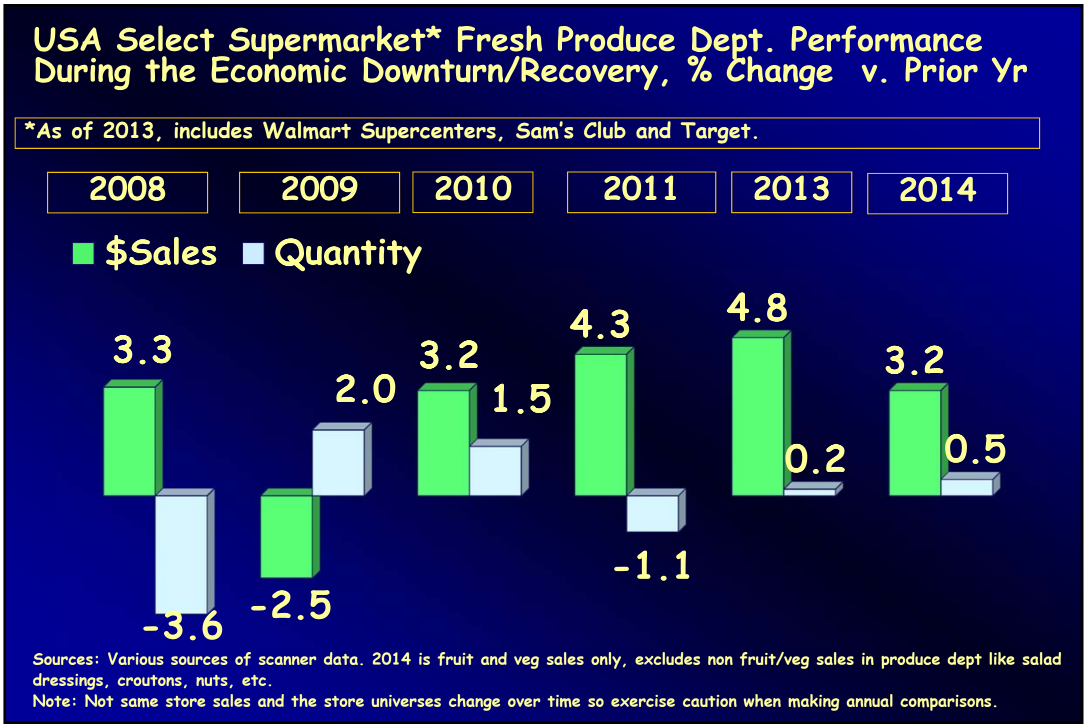
Source: Food Institute Report, September 15, 2014

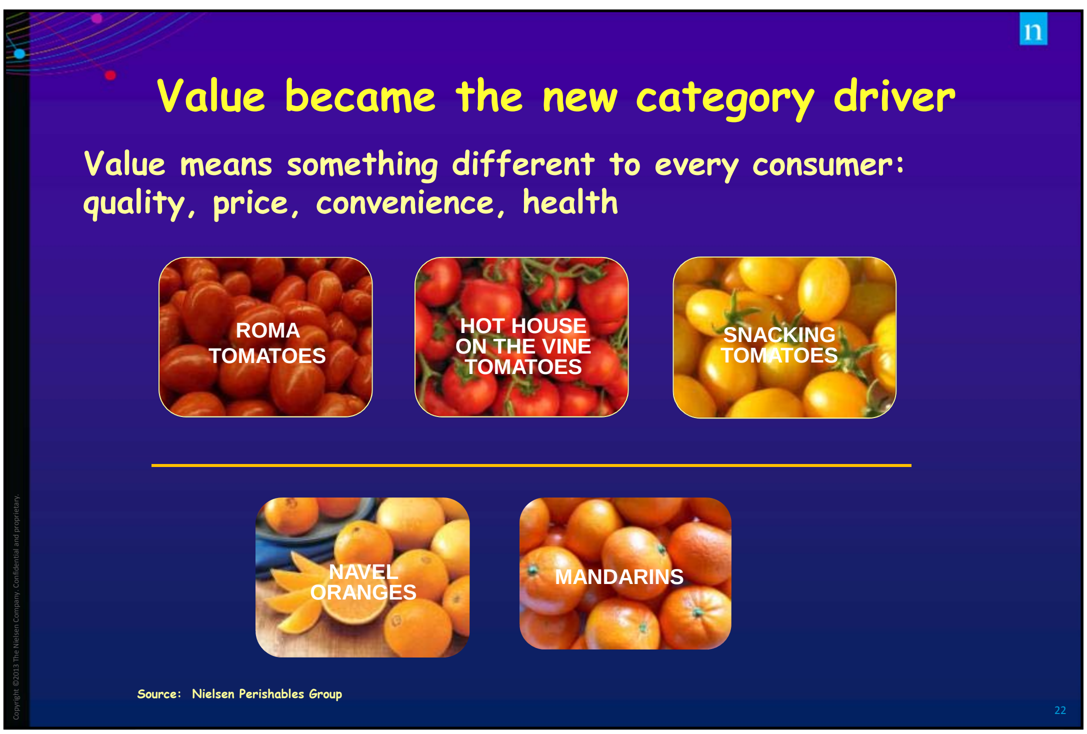
The Economic Downturn and its Effect on Food and Fresh Produce Retailing

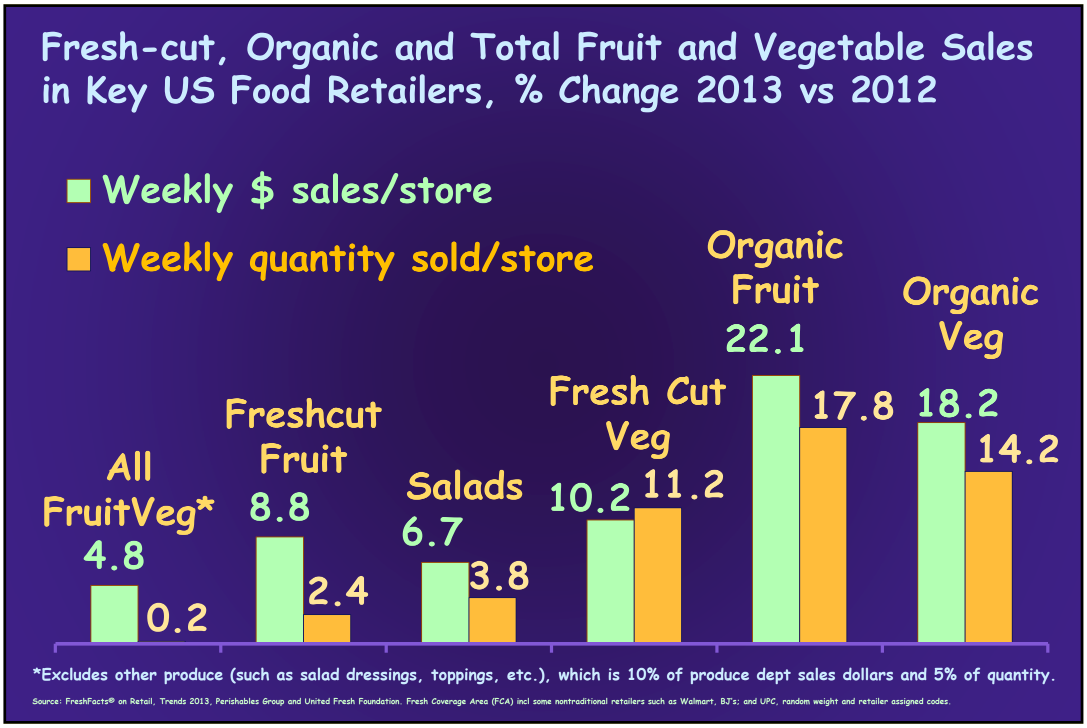


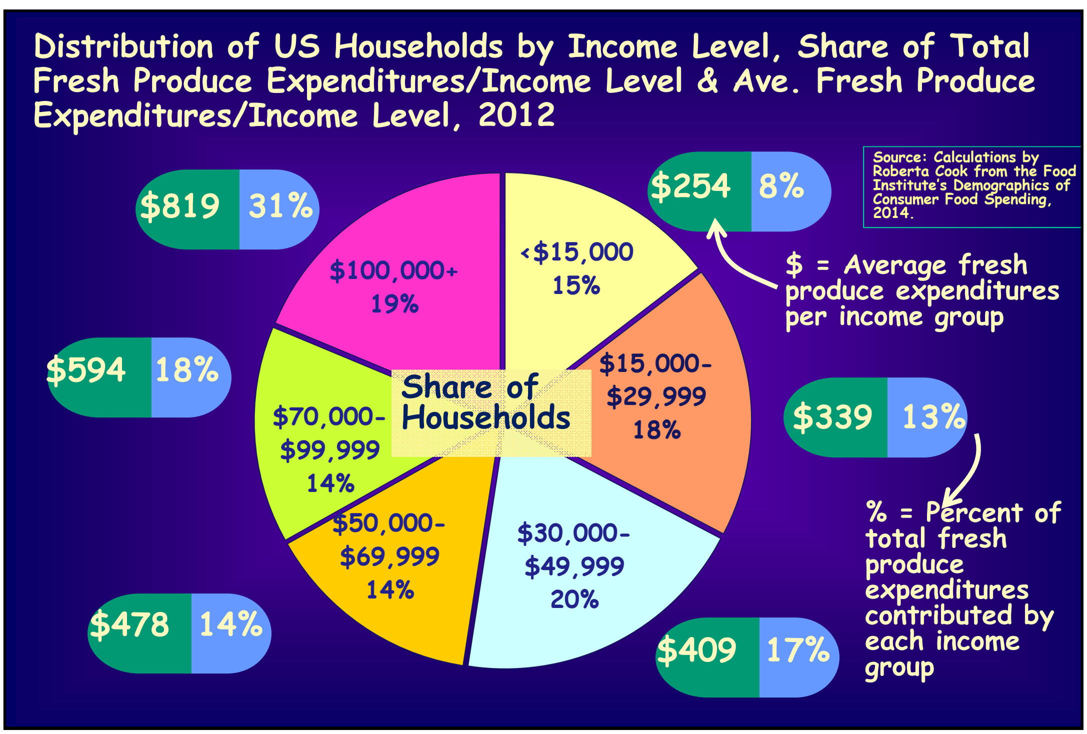
The Economic Downturn and Consumer Food Behavior

- 2009, the quantity of food sold in food stores down.
- "I buy only what I need." Waste a concern.
- Perception that produce costs more and may be wasted. Better shelf-life might help.
- 47.6 million people on food stamps (SNAP) in FY2012-13 (vs 17.3 in 2000) for cost of $79.8M.
- Consumption rates of fresh produce increase markedly with income level so more robust economic growth will help demand for fresh produce.
- Higher income and socially conscious foodies are driving demand; their preferences lean to organic, "natural," convenience (fresh-cut), flavor, local.


USA Select Supermarket* Fresh Produce Dept. Performance During the Economic Downturn/Recovery, % Change v. Prior Yr
*As of 2013, includes Walmart Supercenters, Sam's Club and Target.
2008
2009
2010
2011
2013
2014
$Sales
Quantity
3.3
-3.6
-2.5
2.0
3.2
1.5
4.3
-1.1
4.8
0.2
3.2
0.5
Sources: Various sources of scanner data. 2014 is fruit and veg sales only, excludes non fruit/veg sales in produce dept like salad dressings, croutons, nuts, etc.
Note: Not same store sales and the store universes change over time so exercise caution when making annual comparisons.


Value became the new category driver
Value means something different to every consumer: quality, price, convenience, health
ROMA TOMATOES
HOT HOUSE ON THE VINE TOMATOES
SNACKING TOMATOES
NAVEL ORANGES
MANDARINS
Source: Nielsen Perishables Group
22


Fresh-cut, Organic and Total Fruit and Vegetable Sales in Key US Food Retailers, % Change 2013 vs 2012
Weekly $ sales/store
Weekly quantity sold/store
All FruitVeg*
4.8
0.2
Freshcut Fruit
8.8
2.4
Salads
6.7
3.8
Fresh Cut Veg
10.2
11.2
Organic Fruit
22.1
17.8
Organic Veg
18.2
14.2
*Excludes other produce (such as salad dressings, toppings, etc.), which is 10% of produce dept sales dollars and 5% of quantity.
Source: FreshFacts® on Retail, Trends 2013, Perishables Group and United Fresh Foundation. Fresh Coverage Area (FCA) incl some nontraditional retailers such as Walmart, BJ's; and UPC, random weight and retailer assigned codes.


Distribution of US Households by Income Level, Share of Total Fresh Produce Expenditures/Income Level & Ave. Fresh Produce Expenditures/Income Level, 2012
Source: Calculations by Roberta Cook from the Food Institute's Demographics of Consumer Food Spending, 2014.
$254 8%
<$15,000 15%
$ = Average fresh produce expenditures per income group
$15,000-$29,999 18%
$339 13%
% = Percent of total fresh produce expenditures contributed by each income group
$30,000-$49,999 20%
$409 17%
$50,000-$69,999 14%
$478 14%
$70,000-$99,999 14%
$594 18%
$100,000+ 19%
$819 31%
Share of Households

Average Retail Basket Size Per US Household, 2014

With Produce		With Any Item
$56	vs.	$35

However, 57% of trips to the grocery store do *not* include produce.

Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

Organic Fruit and Vegetable Sales and Pricing in Key US Food Retailers, 2014 vs. 2013

Organic Product	Weekly $ Sales per Store	Percent Change vs. 2013	Weekly Vol. per Store	Percent Change vs. 2013	Avg Retail Price	Percent Change vs. 2013
Veg	$2,110	17.2	757	17.2	$2.79	0
Fruit	$1,103	17.3	532	12.5	$2.07	4.2

Organic fresh produce account for <10% of produce dept. sales.

30% of households purchase organic fruits in supermarkets on 2 trips/yr.

51% of households purchase organic veggies in supermarkets on 4 trips/yr.

Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

Fresh Department Average Sales: Percent Change 2014 vs. 2013

3.1%

Dollar increase in household spending since last year in fresh

Average household spending was flat (-0.2%) in center store (nonfresh departments) compared with last year

Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

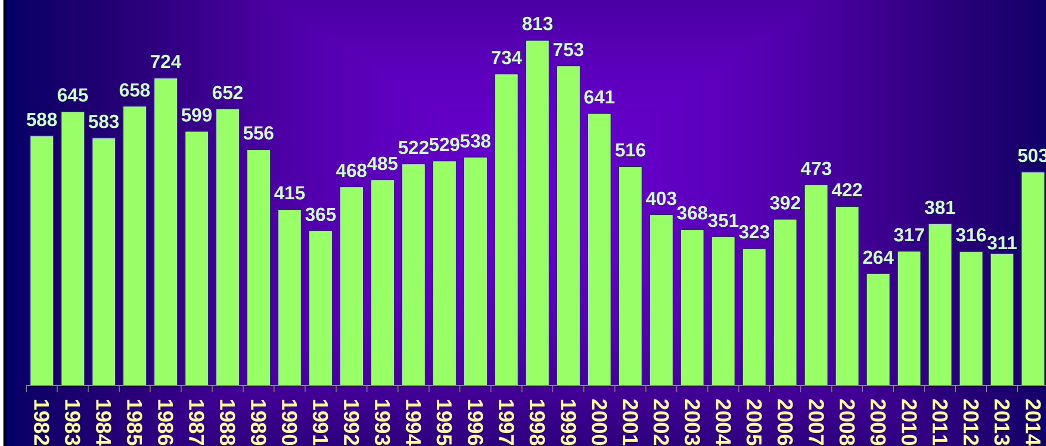
The good news

- Economy improving
- High fresh produce consumers are often "foodies" and interested in where and how products are grown and participate in social media. High knowledge and loyalty–if deliver flavor, unusual varieties, convenience.
- Opportunity for consumer engagement on premium varieties greater than ever with mobile technology.
- Foodservice industry under great pressure to add more non-animal protein to menus, offer more center plate produce options, increase the diversity of produce items; movement to stealth health.

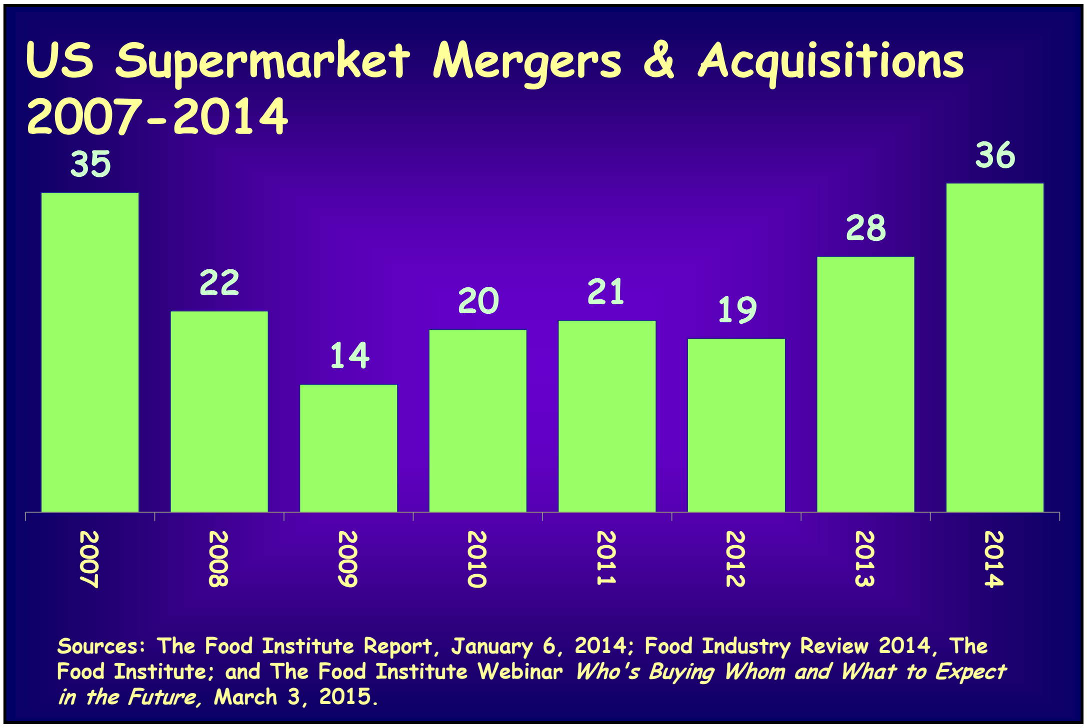
The economic downturn accelerates pace of change in the food marketing system

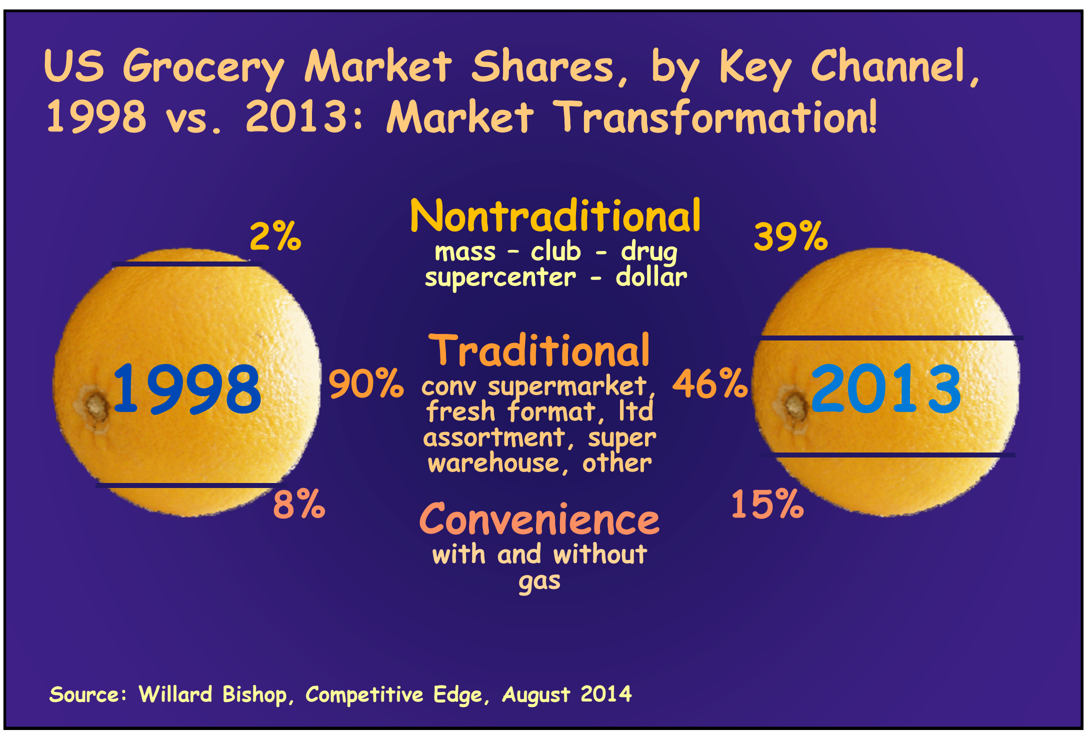
- More than originating new trends, it intensified pre-existing forces, such as channel blurring.
- Margin pressure at all levels of the food system!
- Many produce suppliers facing lower profits.
- Growing food safety, traceability, sustainability, and social responsibility expectations all increase costs.
- Need for major investments in info tech systems.
- Foodservice took a huge hit.
- More than ever it is necessary for firms to differentiate, get out of commodity trap or not be caught in the deadly "middle."
- Mergers are up (retailers, foodservice, shippers).

US Food Industry Mergers & Acquisitions 1981-2014: Fewer, Larger Buyers!

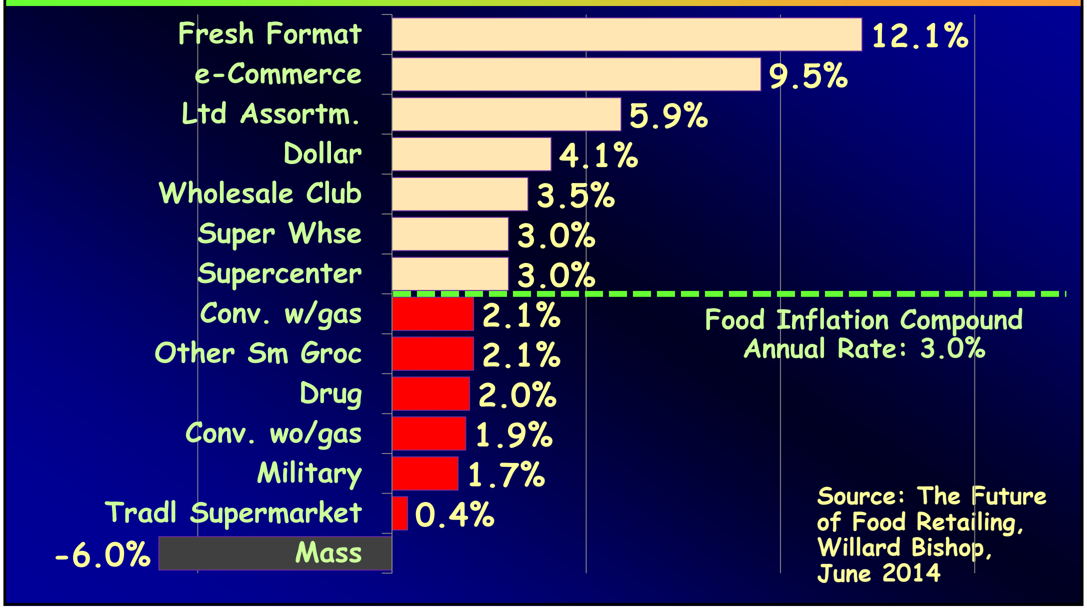


Sources: various Food Industry Reviews, including the 2014 Edition, The Food Institute; and The Food Institute Webinar *Who's Buying Whom and What to Expect in the Future,* March 3, 2015.


US Supermarket Mergers & Acquisitions 2007-2014
35
22
14
20
21
19
28
36
2007
2008
2009
2010
2011
2012
2013
2014
Sources: The Food Institute Report, January 6, 2014; Food Industry Review 2014, The Food Institute; and The Food Institute Webinar *Who's Buying Whom and What to Expect in the Future*, March 3, 2015.


US Grocery Market Shares, by Key Channel, 1998 vs. 2013: Market Transformation!
2%
1998
90%
8%
Nontraditional
mass – club – drug
supercenter – dollar
Traditional
conv supermarket, fresh format, ltd assortment, super warehouse, other
Convenience
with and without gas
39%
46%
2013
15%
Source: Willard Bishop, Competitive Edge, August 2014

Forecast of Compound Annual Sales Growth Rate vs. Inflation 2013-2018



"Big Data"

- Datasets whose size is beyond the ability of typical database software programs to analyze, store, and manage
- Volume, variety and velocity
- Making sense of the information inherent in these massive amounts of diverse data to make better decisions, analytics

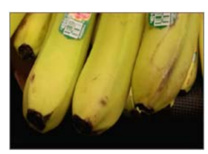
Fresh Produce Realities (Random-weight limits analytics)

- With PLU codes (vs UPC) there is no identification of the individual supplier.
- Most retailers not yet comparing the shelf-life and quality of suppliers' products to measure performance (sales and shrink). Without this it is harder to convince retailers to pay more for investments in quality. Incentives not aligned!
- The global industry needs PTI not just for potential food safety incidents but for product identification and metrics.
- Retailer focus on gross vs net profit is a problem.

UTILIZING TECHNOLOGY TO SUPPORT THE SUPPLY CHAIN

TRACEABILITY

COOLER & DC INSIGHTS



RETAIL INSIGHTS

CONNECT

SHOPPER INSIGHTS

HarvestMark
a YottaMark solution

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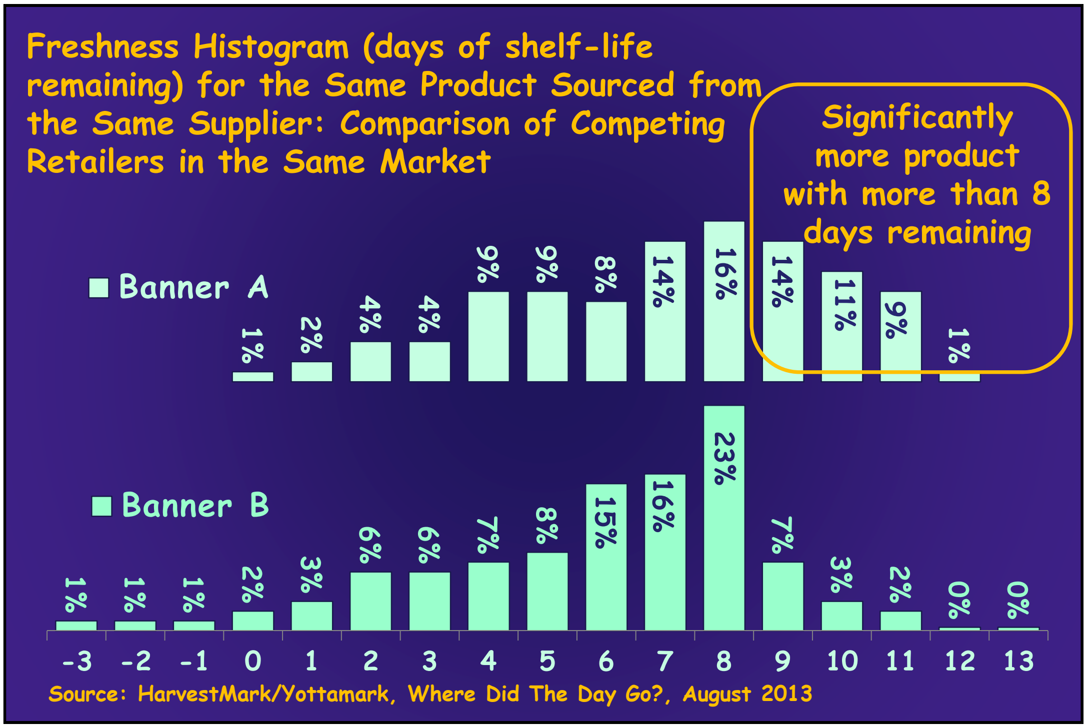
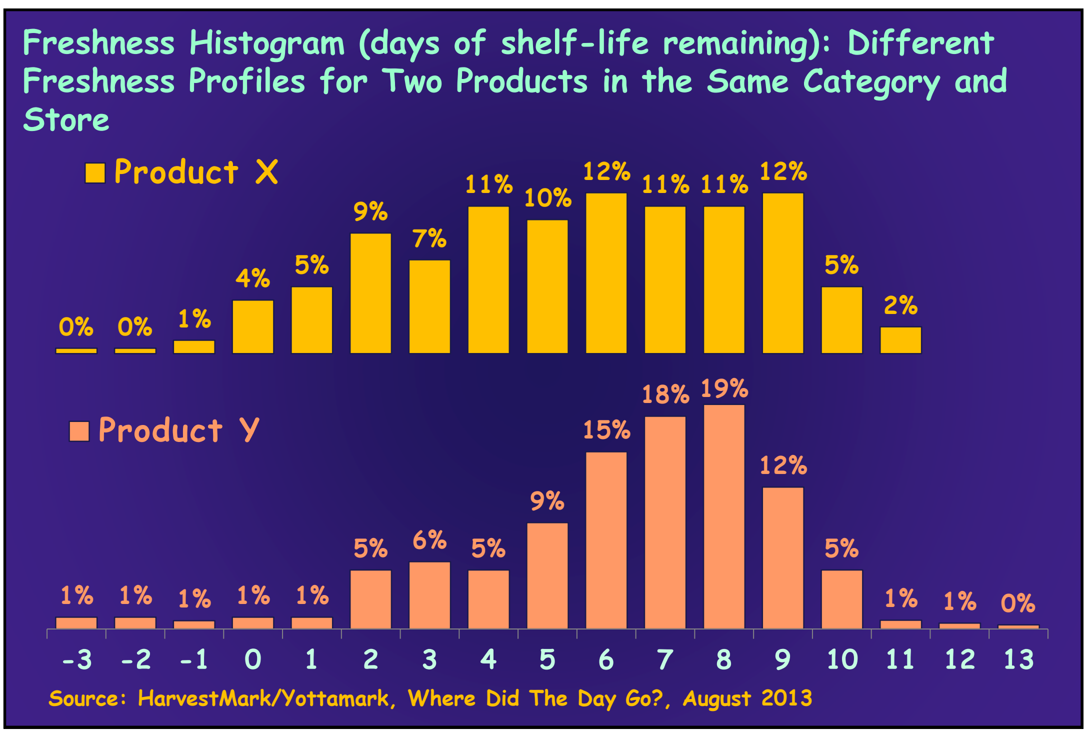

Freshness Histogram (days of shelf-life remaining) for the Same Product Sourced from the Same Supplier: Comparison of Competing Retailers in the Same Market
Significantly more product with more than 8 days remaining
Banner A
1% 2% 4% 4% 9% 9% 8% 14% 16% 14% 11% 9% 1%
Banner B
1% 1% 1% 2% 3% 6% 6% 7% 8% 15% 16% 23% 7% 3% 2% 0% 0%
-3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13
Source: HarvestMark/Yottamark, Where Did The Day Go?, August 2013


Freshness Histogram (days of shelf-life remaining): Different Freshness Profiles for Two Products in the Same Category and Store
Product X
0% 0% 1% 4% 5% 9% 7% 11% 10% 12% 11% 11% 12% 5% 2%
Product Y
1% 1% 1% 1% 1% 5% 6% 5% 9% 15% 18% 19% 12% 5% 1% 1% 0%
-3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13
Source: HarvestMark/Yottamark, Where Did The Day Go?, August 2013

The Produce Industry Challenge

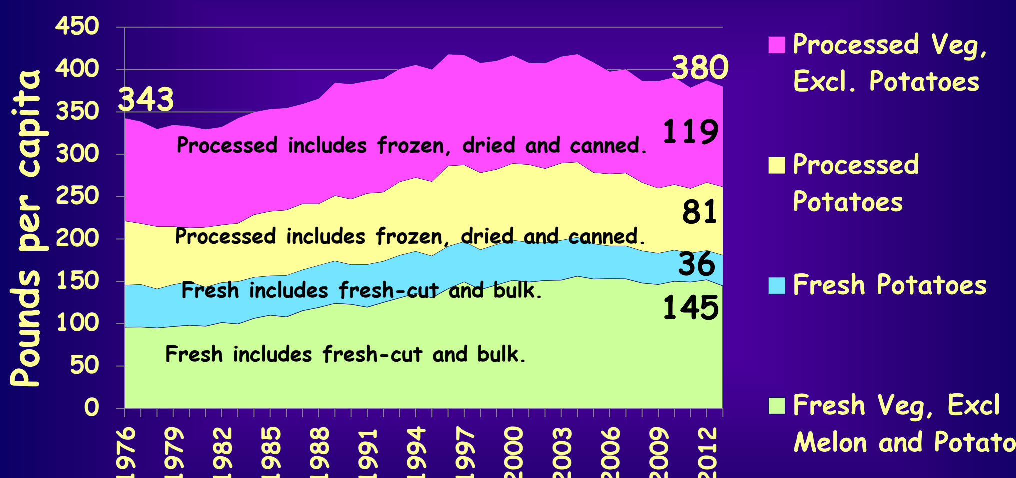
- Getting the right product to the right consumer at the right place and price, with reasonable remaining days of shelf-life.
- Requires collaboration between suppliers and retailers, including loyalty card data and promotional efficiency.
- Shippers increasingly involved in category development but most not assisting with individual store shelf-set recommendations, unlike CPG firms, great opportunity.
- We can increase efficiency and reduce shrink through better coordination of supply and demand. This will make produce more affordable to more consumers, expand demand.

Per Capita Consumption

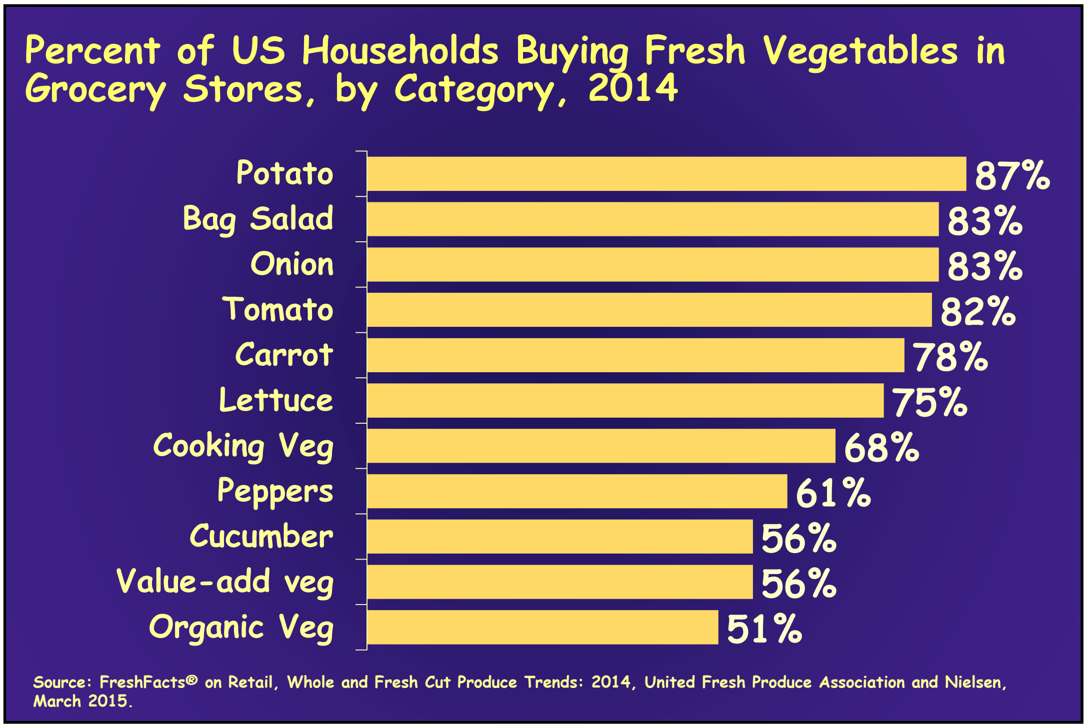
Per Capita Consumption of Fruits and Vegetables, All Product Forms

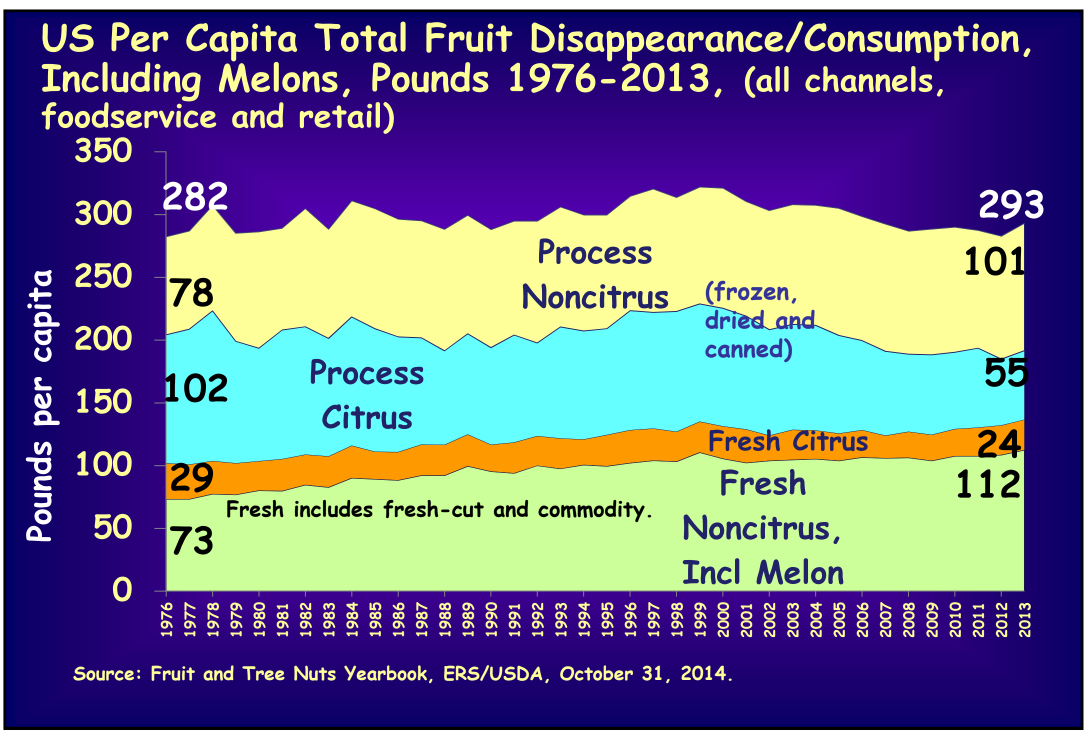
- Changes in total consumption mask significant changes in:
  - product form
  - product mix
  - diversity within product segments

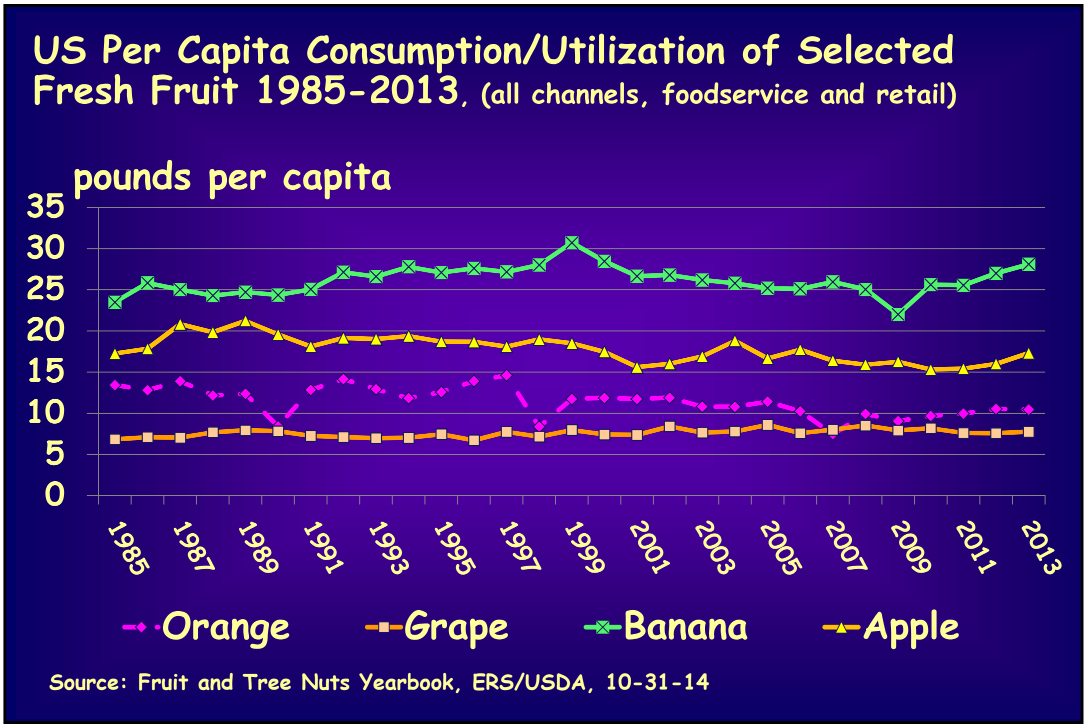
U.S. Per Capita Vegetable Utilization/Consumption, Excluding Melons, 1976-2013,P (all channels, foodservice and retail, includes freshcut), pounds

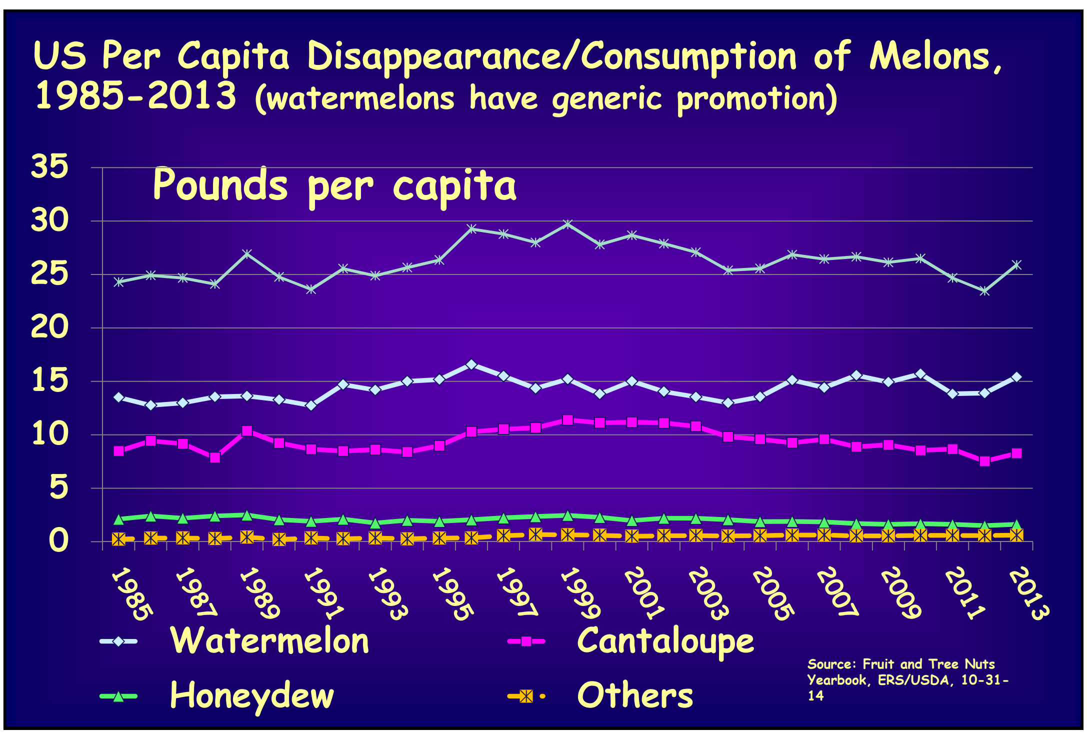


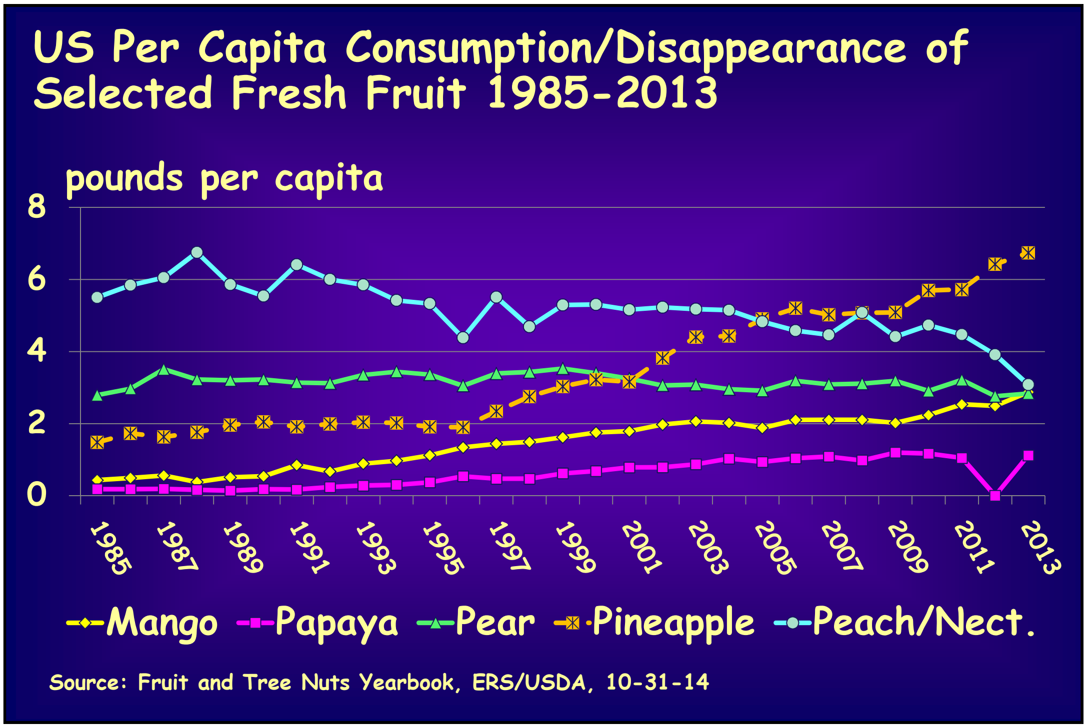
Source: USDA/ERS, Vegetables and Melons Situation and Outlook Yearbook, May 30, 2014; compiled by Dr. Roberta Cook, UC Davis, fresh and processed sweet potato share of total sweet potatoes is estimated; processed vegetables includes lentils and dry peas, and excludes dry beans.

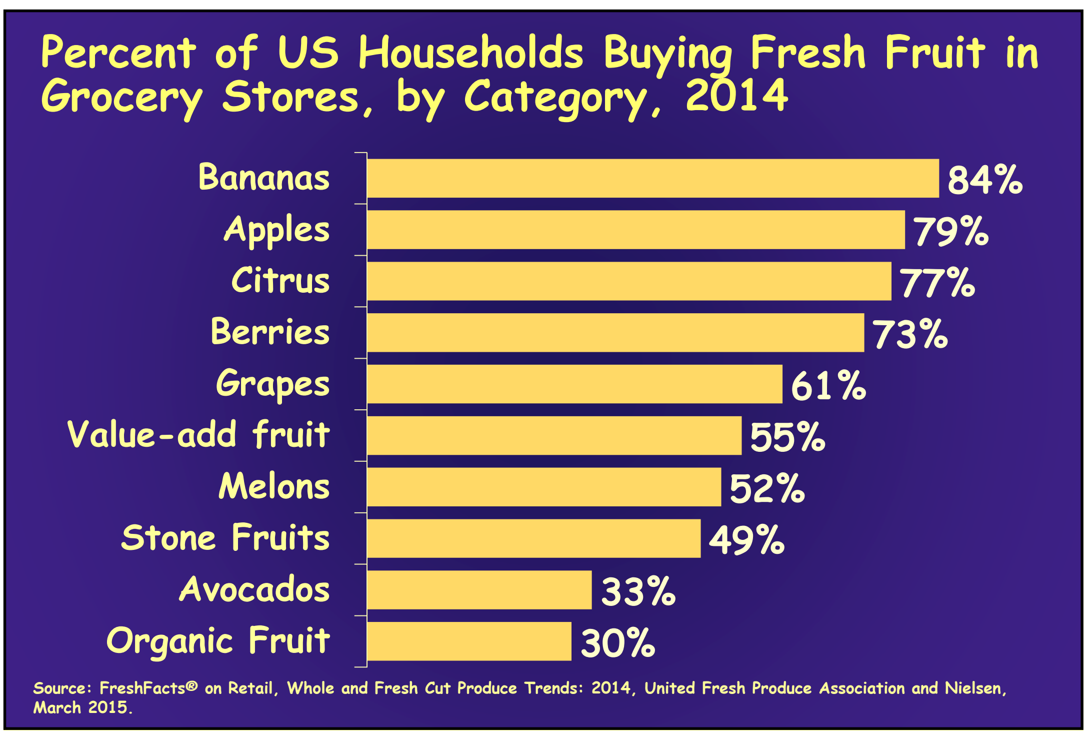

Percent of US Households Buying Fresh Vegetables in Grocery Stores, by Category, 2014
Potato
87%
Bag Salad
83%
Onion
83%
Tomato
82%
Carrot
78%
Lettuce
75%
Cooking Veg
68%
Peppers
61%
Cucumber
56%
Value-add veg
56%
Organic Veg
51%
Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.


US Per Capita Total Fruit Disappearance/Consumption, Including Melons, Pounds 1976-2013, (all channels, foodservice and retail)
Pounds per capita
350
300
250
200
150
100
50
0
282
293
78
101
Process Noncitrus
(frozen, dried and canned)
102
Process Citrus
55
29
Fresh Citrus
24
73
Fresh Noncitrus, Incl Melon
112
Fresh includes fresh-cut and commodity.
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Source: Fruit and Tree Nuts Yearbook, ERS/USDA, October 31, 2014.


US Per Capita Consumption/Utilization of Selected Fresh Fruit 1985-2013, (all channels, foodservice and retail)
pounds per capita
35
30
25
20
15
10
5
0
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
Orange
Grape
Banana
Apple
Source: Fruit and Tree Nuts Yearbook, ERS/USDA, 10-31-14


US Per Capita Disappearance/Consumption of Melons, 1985-2013 (watermelons have generic promotion)
Pounds per capita
35
30
25
20
15
10
5
0
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
Watermelon
Cantaloupe
Honeydew
Others
Source: Fruit and Tree Nuts Yearbook, ERS/USDA, 10-31-14


US Per Capita Consumption/Disappearance of Selected Fresh Fruit 1985-2013
pounds per capita
8
6
4
2
0
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
Mango
Papaya
Pear
Pineapple
Peach/Nect.
Source: Fruit and Tree Nuts Yearbook, ERS/USDA, 10-31-14


Percent of US Households Buying Fresh Fruit in Grocery Stores, by Category, 2014
Bananas 84%
Apples 79%
Citrus 77%
Berries 73%
Grapes 61%
Value-add fruit 55%
Melons 52%
Stone Fruits 49%
Avocados 33%
Organic Fruit 30%
Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

Top 10 Fruit Sales and Pricing in Key US Food Retailers, 2014 vs. 2013

Product	Weekly $ Sales per Store	Percent Change vs. 2013	Weekly Vol. per Store	Percent Change vs. 2013	Avg Retail Price	Percent Change vs. 2013
Berries	$4,019	4.7	1,342	3.0	$2.99	1.7
Apples	$3,070	-0.1	1,953	2.0	$1.57	-2.0
Citrus	$2,797	4.8	2,212	-2.6	$1.26	7.6
Grapes	$2,774	3.1	1,228	-3.6	$2.26	6.9
Bananas	$2,721	-1.2	4,762	-0.9	$0.57	-0.3
Melons	$1,216	3.7	2,187	7.8	$0.56	-3.9
Avocados	$1,197	11.8	1,071	2.7	$1.12	8.9
Stone Fruits	$987	2.4	515	-9.7	$1.91	13.3
Cherries	$623	-3.4	198	9.1	$3.15	-11.5
Specialty Fruits	$528	-2.7	491	-9.6	$1.08	7.7

Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

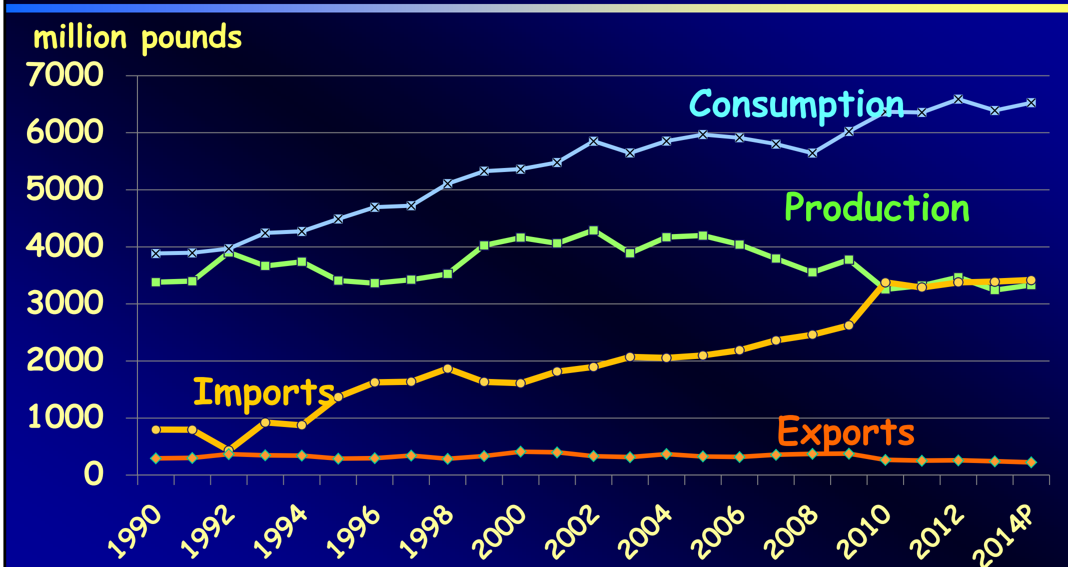
Value-added Fruit Category Sales and Pricing in Key US Food Retailers, 2014 vs 2013

	% Change vs. 2013		
	Weekly $ Sales / Store	Weekly Vol. per Store	Average Retail Price
Value-Added Fruit	9.2	3.7	5.3
Fresh-cut Fruit	12.0	9.7	2.1
Overwrap	2.5	-2.6	5.2
Jars & Cups	-10.9	-13.4	2.9

Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

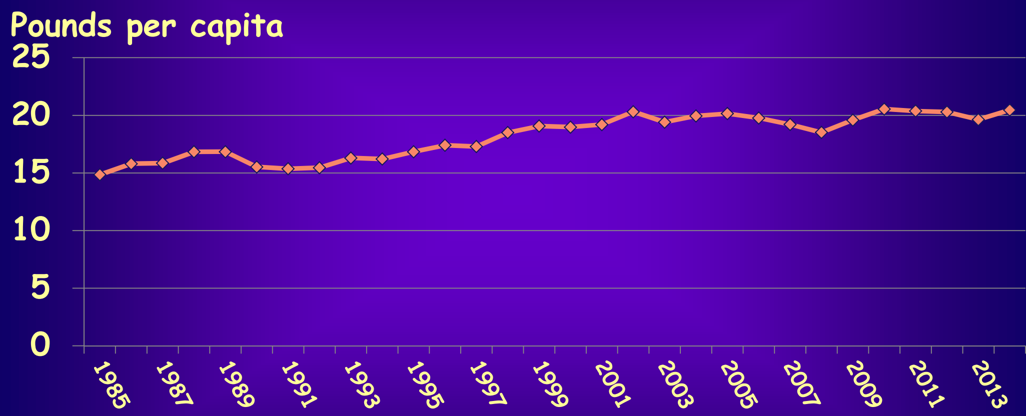
Fresh Tomato Market Supply and Consumption

Estimated US Fresh Tomato Production, Consumption, Imports, and Exports, 1990-2014p (includes hothouse)



Sources: USDA/ERS, Vegetables and Pulses Yearbook Data May 30, 2014; 2012-14 updated and estimated by Cook using US trade data and 2012-14 production from the USDA/NASS Vegetables 2014 Summary plus an estimate of US hothouse production.

Estimated US Per Capita Utilization/Consumption of Fresh Tomatoes, 1985-2014P (all types and channels)



P=Preliminary

Sources: USDA/ERS, Vegetables and Pulses Yearbook Data May 30, 2014, estimated by Cook using 2014 US trade data and production from the USDA/NASS Vegetables 2014 Summary, January 2015.

Fresh Tomato Types Proliferate as Firms Pursue Product Differentiation in a Mature Market

Field-grown only

Mature green round tomatoes (harvested at stage 2 of 6)

Vine-ripe round tomatoes (harvested at later stages)

Tomatillos (green husked tomatoes)

Protected culture only

Beefsteak/round tomatoes with calyx

Tomatoes-on-the-vine (TOV)

Campari (small snacking tomato on the vine)

Both field-grown and protected culture

Grape tomatoes (snacking)

Romas

Cherry (snacking)

Heirloom

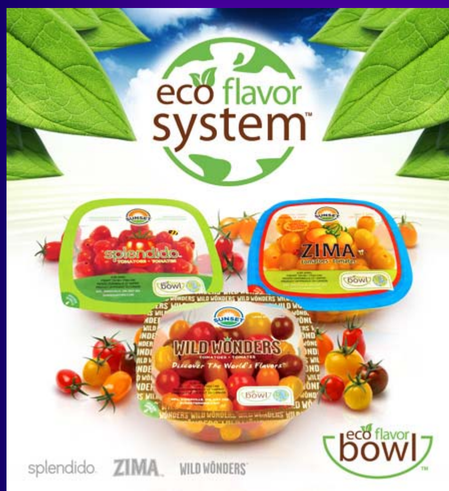
Other specialty (some of which are snacking)

Growth in greenhouse production and attempts to locate closer to market destinations: jury is still out

A protected culture operation in Sinaloa, Mexico: A "warm climate" greenhouse

Specialty and Greenhouse Tomatoes

Y.E.L.O. Youth, Energy, Life, Om…™



Specialty and Greenhouse Tomatoes

US Fresh Tomato Trends

- Over half of the quantity of tomatoes sold in the USA are estimated to be sold in foodservice channels. Foodservice relies on round, field-grown mature green tomatoes, preferred for their firmness and slicing characteristics.
- Foodservice sales took a big hit during the economic downturn, reducing sales of mature greens. Foodservice sales are now rebounding; this in turn should increase sales of mature greens.
- Hothouse tomatoes are just now starting to make some inroads in foodservice channels (not fast food).
- Remember – retail scanner data excludes foodservice tomatoes! So, scanner data only reflect trends in about half of the total tomato market. There is no data on fresh tomato sales in foodservice channels.

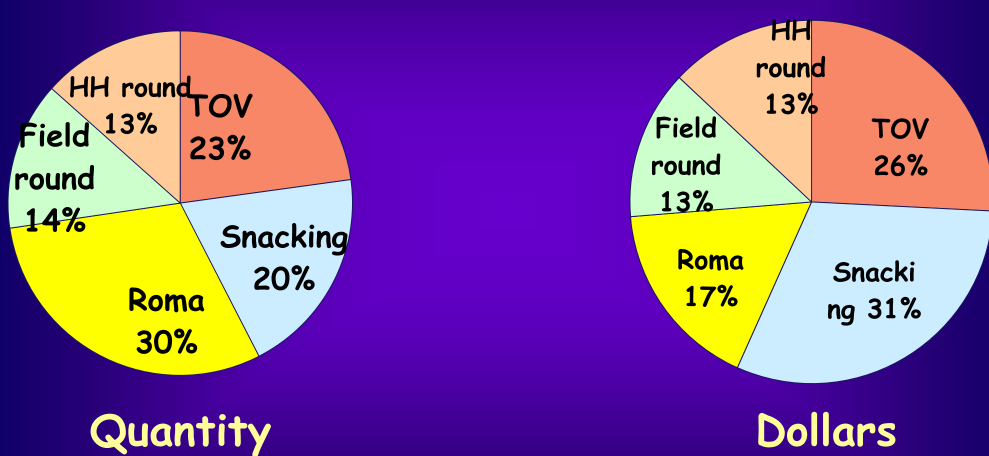
US Retail Fresh Tomato Trends and Caveats in Interpreting Scanner Data

- Retail scanner data sets are not directly comparable, year to year (stores may enter and exist the sample universe).
- As noted earlier, scanner data doesn't indicate whether certain tomato types are grown in PC or not, so HH vs field tomato shares are not definite; and firms purchasing scanner data may ask Nielsen or IRI for different product hierarchies creating different views of the tomato category.
- Nielsen and IRI report two general HH subcategories: TOVs and beefsteak/rounds – so we know these are definitely HH.
- Many romas exported from Mexico are HH (although maybe not reported as such), and while snacking tomatoes, such as grapes, can be either field-grown or HH increasingly they are HH.

US Retail Fresh Tomato Trends and Caveats in Interpreting Scanner Data

- Given these limitations we can determine the minimum share of retail tomatoes sold which are HH, but not the maximum. Based on the following Perishables Group Nielsen data, combined HH round and TOVs represent 36% and 39% of total tomato category quantity and dollar sales, respectively.
- After accounting for estimated sales of roma and snacking tomatoes grown in HHs (but not identified as HH), the HH shares should be over half of total tomato category quantity and dollar sales.

US Fresh Tomato Category Sales in Key Retailers: Shares in Quantity and Dollars, by Key Tomato Type, 2014

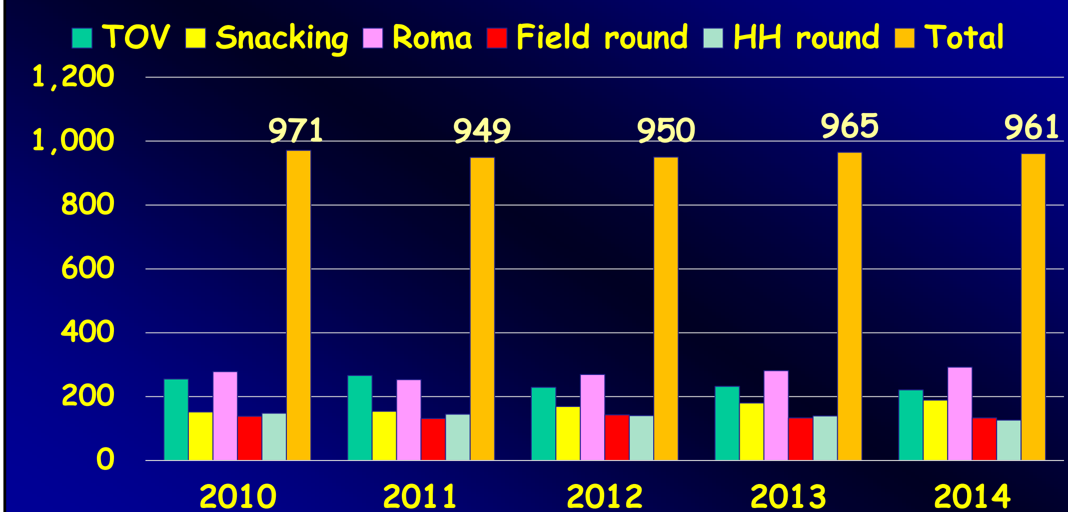


Source: Nielsen Perishables Group FreshFacts®, Historical 2010-2014. Fresh Coverage Area (FCA) incl key retailers from food, mass/supercenter and club chains, or more than 18,000 stores. It includes UPC, random weight and retailer assigned codes.

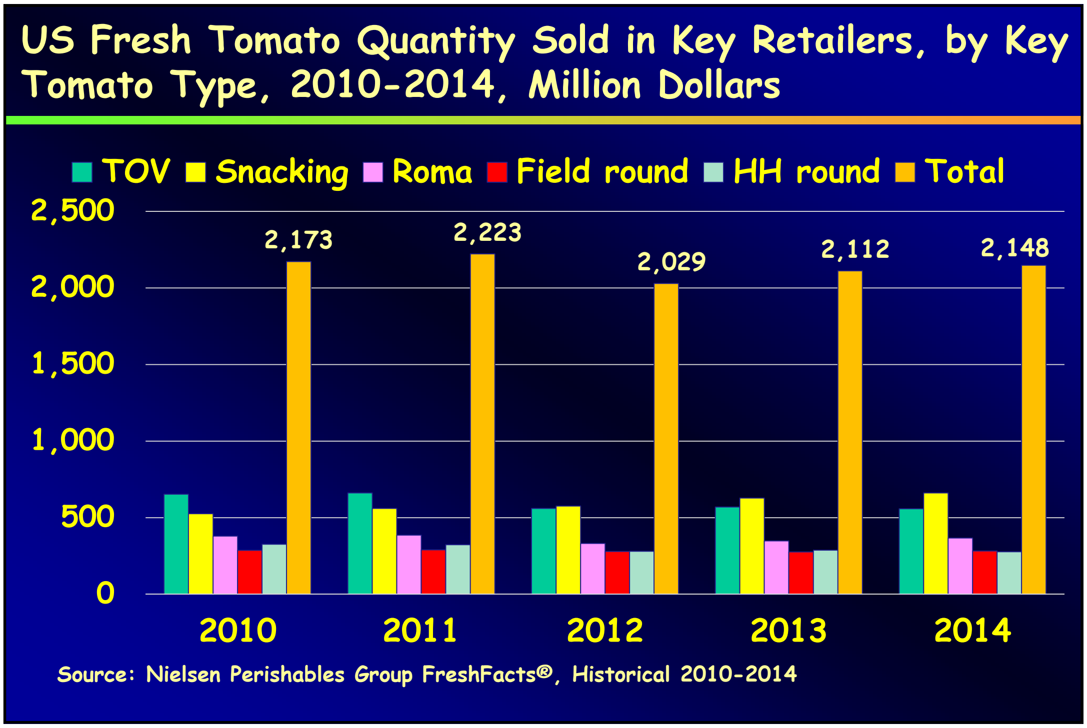
US Retail Fresh Tomato Trends and Caveats in Interpreting Scanner Data

- The tomato category was <u>stagnant</u> between 2010-14 but with a major change in product mix. The growing subcategory is the small, convenient snacking tomato, which cannibalizes other tomatoes, both HH and field, rather than stimulating growth in total tomato sales and volume.
- In quantity sold, TOVs peaked in 2011 and HH rounds in 2010.
- In 2014, the category was up 1.7% in dollars and down .4% in quantity sold, with both snacking and romas gaining. Tomatoes accounted for 5% of total produce department sales.

US Fresh Tomato Quantity Sold in Key Retailers, by Key Tomato Type, 2010-2014, Million Pounds



Source: Nielsen Perishables Group FreshFacts®, Historical 2010-2014



Big Picture

- Note that field-grown round tomatoes can be either mature greens or vine-ripes. Hence, the mature green shares of the tomato category are even lower than the field round shares of 14% of quantity and 13% of dollar sales shown in the prior slide.
- 2013 IRI scanner data reported that only 1/3 of the round field tomato quantity sold were mature greens (remainder vine-ripes). This highlights the dramatic loss in retail market share for mature greens over the last 2 decades in the wake of hothouse expansion.

Big Picture

- The mature green tomato industry, having lost most of its retail market, is now facing potential future competition in some segments of the domain it has owned, foodservice (fast casual and full-service rather than large fast food chains).
- Snacking tomatoes have growth potential in all segments of foodservice. This benefits HH more than field-grown.
- Facing a saturated retail market, HH producers have an incentive to get the right varieties of round tomatoes for foodservice. Breeders may or may not deliver in the near- to mid-term and cost relative to field-grown is a major barrier. But already there are examples of regional chains which emphasize “local” and premium ingredients, and seek supply and price stability, that are experimenting with HH.

The Avocado Story in the US Market

The Avocado Story in the US Market

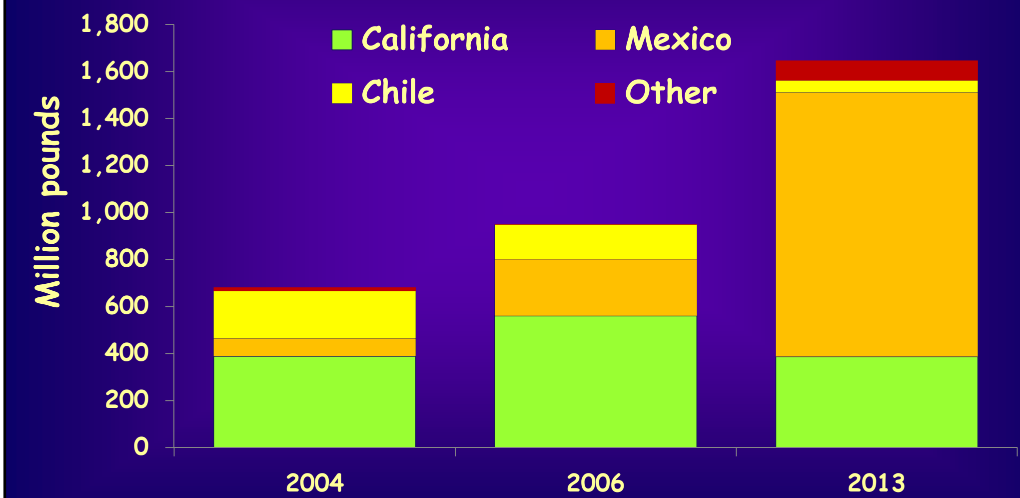
- Market access for Mexico – gradual process.
- Important to include all shippers into a market as contributors to generic promotion or free riders will make the program unsustainable.
- CA created a national marketing order for promotion of all Hass avocadoes, administered by the Hass Avocado Board (HAB), assessments began in 2003.
- Demographic changes helped demand.
- Generic promotion pays off!
- Major changes in relative competitiveness and market shares, and quickly!

The Avocado Story in the US Market

- Avocados accounted for 3% of supermarket fresh produce sales in 2014 vs 6% contributed by grapes.[1]
- 33% of consumers purchased avocados on on average of 5 trips/yr.[1]
- Hass represent 88% of avocado sales and drive the category.[1]
- Creative promotional programs by all of the Hass avocado grower groups have stimulated consumption in both retail and foodservice channels.
- New uses/usage occasions are part of the strategy.

[1]Source: FreshFacts® on Retail, Whole and Fresh Cut Produce Trends: 2014, United Fresh Produce Association and Nielsen, March 2015.

Hass avocado sources of supply in the US market, million pounds, excludes Florida



Source: Hass Avocado Board, online data queries.

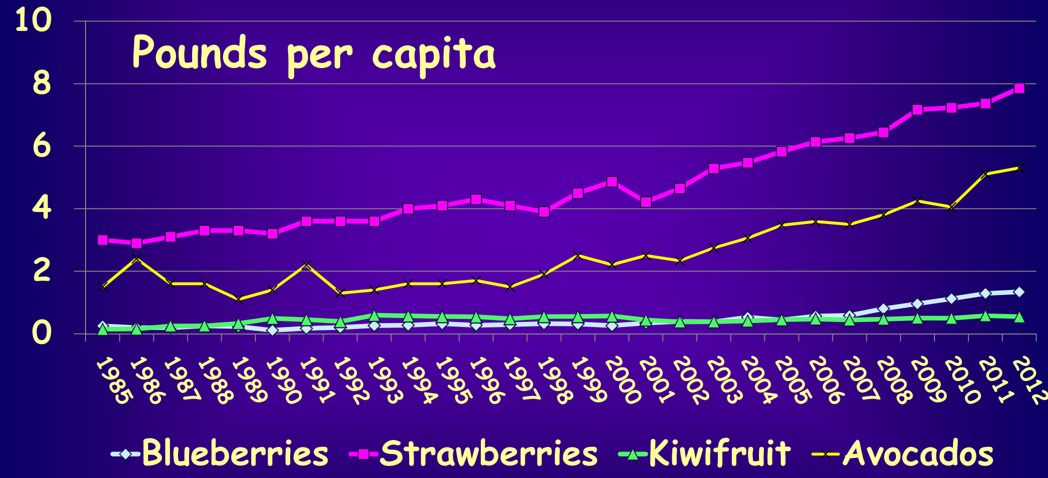
US Avocado Promotional Expenditures by Organization 2008-2012

Year	CAC	CAIA	MHAIA	PAC	HAB	Total
	thousand dollars					
2003-2007	50,980	16,705	14,347	0	9,268	91,300
2008-2012	46,444	17,301	63,647	952	21,430	149,774
Total 2003-2012	97,425	34,006	77,993	952	30,698	241,073

Rounding affects totals.

Source: ARE Update Sep/Oct 2013 17(1):5-8

U.S. Per Capita Consumption of Selected Fresh Fruit 1985-2013 (all have positive health messages, and all but kiwis have generic promotion*)



Source: Fruit and Tree Nuts Yearbook, ERS/USDA, October 31, 2014

*Kiwis slashed generic promotion in the late 90's and were unable to sustain growth and capitalize on a positive health message.

Conclusions: Need for Shopper-Centrism

- Competitive pressure on retailers means on-going margin pressure for growers/suppliers as well.
- Firms at all levels of the fresh produce supply chain must take management practices to a higher level and become more shopper-centric.
- Better information technology and business intelligence is necessary to reach today's standards for efficiency.
- Understanding shopper segments as they relate to preferences for a product/retail format is vital to better coordination of supply and demand and reduction in produce waste.
- Improved vertical coordination (by sharing data between supplier and buyer) can lower prices and increase consumer demand.

Conclusions: Need for Shopper-Centrism

- Improved ripening practices may increase consumer satisfaction and profits for suppliers and buyers.
- Flavor is where it's at!
- Creative marketing and merchandising that communicates a product's benefits to consumers.
- Reaching consumers in multi-channels and utilizing mobile technology can stimulate purchases.