

THE POWER OF PRODUCE 2016



AN IN-DEPTH LOOK AT **PRODUCE**
THROUGH THE SHOPPERS' EYES



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The Power of Produce

An In-Depth Look at Produce Through the Shoppers' Eyes

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The Power of Produce

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Study Highlights

As the number one driver of store choice, fresh produce is big, growing and lucrative. The *Power of Produce* identifies the biggest trends in consumer purchasing and consumption of fresh fruit and vegetables throughout the path to purchase. Shopper feedback is overlaid with actual sales data, provided by IRI and The Nielsen Perishables Group.

Purchase Planning

Although produce is a shopping list item for many, item-level decisions are equally split between pre-trip and in-store. Regardless of when shoppers decide on items to purchase, 72 percent check produce promotions. Seven in 10 shoppers research promotions at their primary produce store only and 50 percent compare across two or more stores. While usage is down significantly from prior years, the paper circular dominates the list of research vehicles, driven by continued high popularity among the older generations. Digital and in-store research are rising due to the influence of Millennials — emphasizing the importance of promotional execution at the store level. Produce certainly has opportunity to generate impulse sales. Shoppers point to eye-catching displays, followed by recipe/serving ideas, nutrition callouts and sampling as being the most effective merchandising techniques to drive unplanned purchases.

The Purchasing Decision

While price and promotions influence the purchase planning pre-trip, ultimately, shoppers seek the ideal combination of the best produce for the best price by weighing appearance slightly more heavily than price. Sourcing and product attributes influence the purchase as well. The popularity of locally-grown continues to soar, with 61 percent of shoppers expressing high interest. However, shoppers' definition of local is tightening and increasingly shifting towards a mile radius (39 percent) and state

lines (28 percent), although opinions differ substantially by area of the country and access to fresh produce. Support for the local community and farmers is the number one reason for buying locally-sourced items, overtaking perceived freshness that came in second. Shopper interest in emerging global trends, including ugly produce, fixed weight packaging and each pricing is moderate at best, but draw higher interest in certain pockets of the population.

Channel Choice

Recent year declines in trips for traditional channels and the growing popularity of alternative channels emphasize the importance of leveraging produce in driving traffic and basket size for total store success. Supermarkets continue to be the market leader for fresh produce through the combination of high shopper conversion and secondary shopper pick up. Specialty organic stores also make a strong appearance, as the third largest channel shopped for fresh produce in general and the second most shopped for organic produce. Younger generations, in particular, are drawn to alternative channels — an important red flag for traditional channels in years to come. A steady 24 percent of shoppers switch outlets when purchasing fresh produce versus the bulk of groceries. At 15 percent, supermarket shoppers are least likely to switch but if they do farmers' markets and produce stands top the list, followed by organic specialty stores. More than one-third of supercenter shoppers switch, predominantly to supermarkets. Farmers' market and produce markets pick up many occasional produce baskets as well. Online produce purchases are limited to date and shoppers cite concern over lack of freshness, poor quality and wanting purchase control. However, purchase interest grows significantly if the online purchase is

supported by and picked from shoppers' trusted brick-and-mortar produce department.

Produce Consumption

With household penetration of close to 100 percent, fresh produce is a mature category. Driving growth requires innovative strategies addressing population and consumption trends aimed at moving shoppers into new categories, new consumption occasions and to higher consumption frequencies. Fresh produce is in demand with most shoppers readily admitting they fall short of the recommended number of daily servings and 75 percent trying to eat more fruits and vegetables. Shoppers strongly believe in the benefits of fresh produce, perceiving it as more nutritious than frozen and canned. One negative perception to overcome in growing sales is that of cost, with shoppers believing fresh is the more expensive option. For fruit, snacking remains the largest meal occasion with aggressive growth in convenience options for both snacking and juicing. For vegetables, dinner leads all occasions with convenience making big inroads here as well. For instance, value-added items are driving shopping, cooking and consumption ease.

Value-Added Produce

The quest for convenience drove a 10 percent gain in dollars and 5 percent growth in volume of value-added fresh produce. Although the survey found a jump in household penetration to 67 percent, the majority of users purchase this option for certain items only (53 percent). Buyers continue to skew to the more affluent households as well as families with children. Overall, 21 percent of users expect to spend more versus 54 percent of those who purchase value-added produce "whenever possible" — signaling that category trial is an important step to adoption and from there, frequent usage. The biggest obstacles to growth continue to be shopper preference to cut/prepare produce themselves along with cost.

Organic Produce

Organic is one of the main drivers of new dollars and volume, with dollars advancing 15 percent over 2015. However, at 8 percent of total produce sales, it is still a niche segment, with higher interest among higher-income households and shoppers with children. Household penetration reached 60 percent on the heels of a decreasing price differential between conventional and organic produce and 500 new items were added to the category in 2015. "Free-from" substances shoppers wish to avoid and perceived future health benefits are the two main drivers of purchasing organic. Environmental reasons and perceived improved nutrition are cited by about one in three shoppers. As stores of all sizes and channels are adding organic produce to their assortment, the organic purchase is quite scattered. Supermarkets are named the primary organic produce channel by a little over half of all organic shoppers, followed by the specialty channel and farmers' markets.

Improving the Produce Department

Shopper satisfaction with the produce department averaged 4.0 on a five-point scale, where five is very satisfied. Channels scoring particularly well include club stores and organic specialty stores. Shoppers identified areas of improvement within their primary store and centered on improved variety above all else. Prices, in particular everyday prices, were a second area of improvement, according to shoppers, followed by several operational suggestions. This includes better quality/freshness, improved in-stock conditions, better cleanliness and having clearly marked prices. A fourth area includes many suggestions for improved shopper outreach and customer service, including more sampling, a greater variety of recipes, available and knowledgeable produce associates, and more cooking demonstrations.

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Introduction

The U.S. Fresh Produce Market

Fresh produce is big, growing and lucrative. Additionally, produce is one of the most importance drivers of store choice and basket size for food retailers.

Produce Is Big

With household penetration of nearly 100 percent and \$61 billion in annual sales, fresh produce represents 32 percent of total fresh sales, only exceeded by fresh meat/poultry, and 11 percent of total store sales, according to The Nielsen Perishables Group. Dollar sales are fairly evenly split between fruit and vegetables.

IRI	Total produce*	Fruit	Vegetables
2015 \$ sales	\$60.6 billion	\$29.8 billion	\$29.4 billion
2015 volume sales	40.6 billion	22.1 billion	18.0 billion

*Fruit, vegetables, juice, salad bar and peripheral sales. Source: IRI, MULO, 2015

Produce Is Growing

Fresh produce is in demand reflected by both dollar and volume gains over 2015. While conventional held its own, strong growth is generated by organic produce, value-added and branded items. The Nielsen Perishables Group found that five-year dollar growth for private-brand produce was +9 percent and national brands achieved 12 percent growth. Growth in brands is tied to value-added items, such as packaged salad and produce beverages, as well as categories such as berries and citrus.

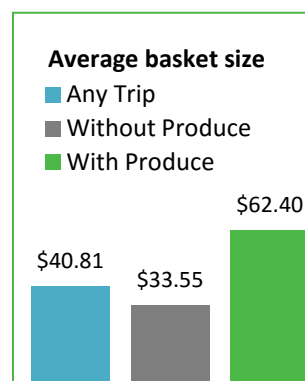
IRI	Fruit	Vegetables
2014-15 \$ growth	+3%	+4%
2014-15 Volume growth	+4%	+1%
2014-15 Conventional \$ growth	+3%	+3%
2014-15 Conventional volume growth	+4%	+0.5%
2014-15 Organic \$ growth	+10%	+14%
2014-15 Organic volume growth	+14%	+15%
2014-15 Value-added \$ growth	+11%	+10%
2014-15 Value-added volume growth	+6%	+5%

Source: IRI, MULO, 2015

Produce Is Lucrative

Fresh produce is a store and basket driver. Shoppers spend significantly more money when produce is included in the transaction. However, during 58 percent of trips shoppers forego fresh produce purchases.

Source: The Nielsen Perishables Group, 52 weeks ending 12/27/2015



Fresh produce (IRI)

\$61B

2015 \$

99.8%

HH penetration

+4%

2015 \$ growth

+3%

2015 lbs growth

\$62

Average basket
w/produce

8%

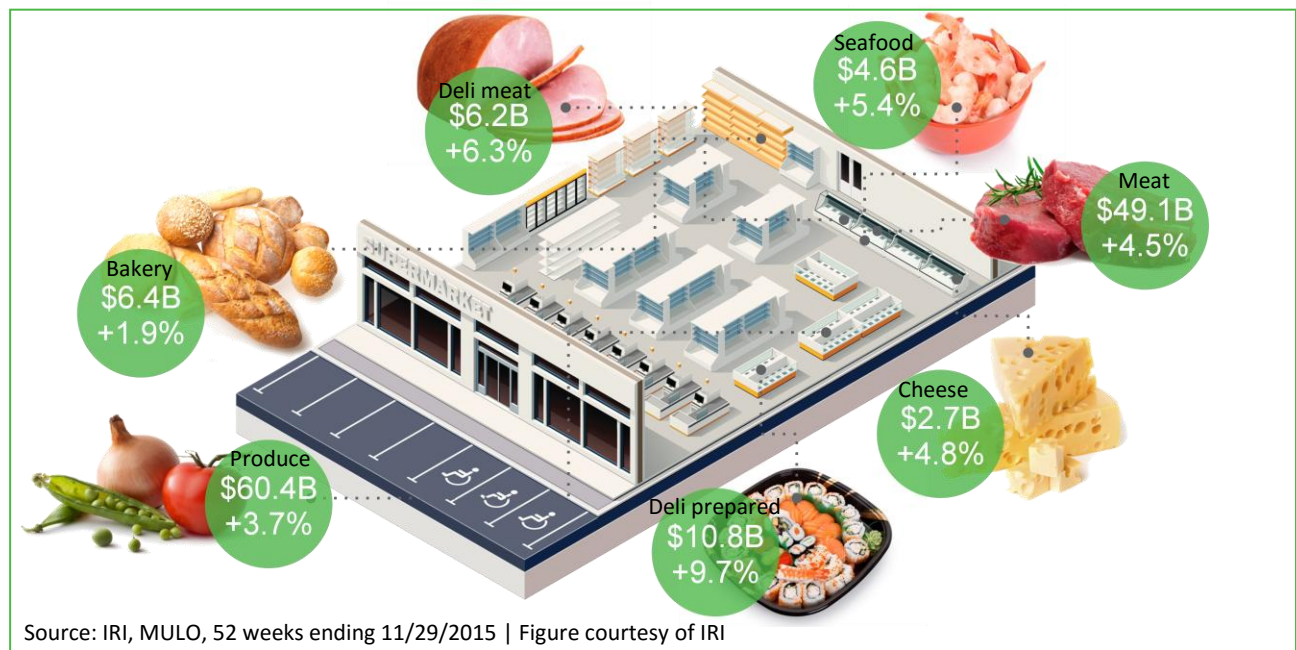
Organic contribution to
total produce

17%

Value-added
contribution to total
produce

All Perimeter Departments Are Growing

Perimeter growth continues to outpace total store and center-store sales. All fresh departments booked dollar sales gains and while total grocery trips declined, household trips including fresh items grew.



Understanding the Produce Consumer

Understanding consumer perceptions, attitudes and behaviors regarding fresh fruits and vegetables is crucial to optimizing sales and profits. *The Power of Produce 2016* is a one-of-a kind study exploring:

- ▶ Purchasing patterns, including traditional and alternative store formats shopped.
- ▶ Consumption of fresh fruit and vegetables in various meal occasions, including snacking and juicing.
- ▶ Pre-trip preparation and in-store decisions relative to produce.
- ▶ The influence of various marketing and sales techniques, as well as a look at impulse sales.
- ▶ Interest in organic, local, USA and non-GMO.
- ▶ The use of value-added produce.
- ▶ Perceptions and ratings of the produce department.
- ▶ Recommended improvements.

Where possible, fruit and vegetables were combined into produce throughout the survey. If purchase or consumption patterns were suspected to be different, two separate questions were asked to present each of the segments as accurately as possible.



At the start of each chapter, major insights are highlighted in a callout box. Throughout the text, the shopping cart symbol, shown to the left, underscores important conclusions for retailers and/or producers.

Additional data breaks or background information are available in most areas of the report. Please contact Anne-Marie Roerink of 210 Analytics, LLC for more information or additional data at aroerink@210analytics.com.

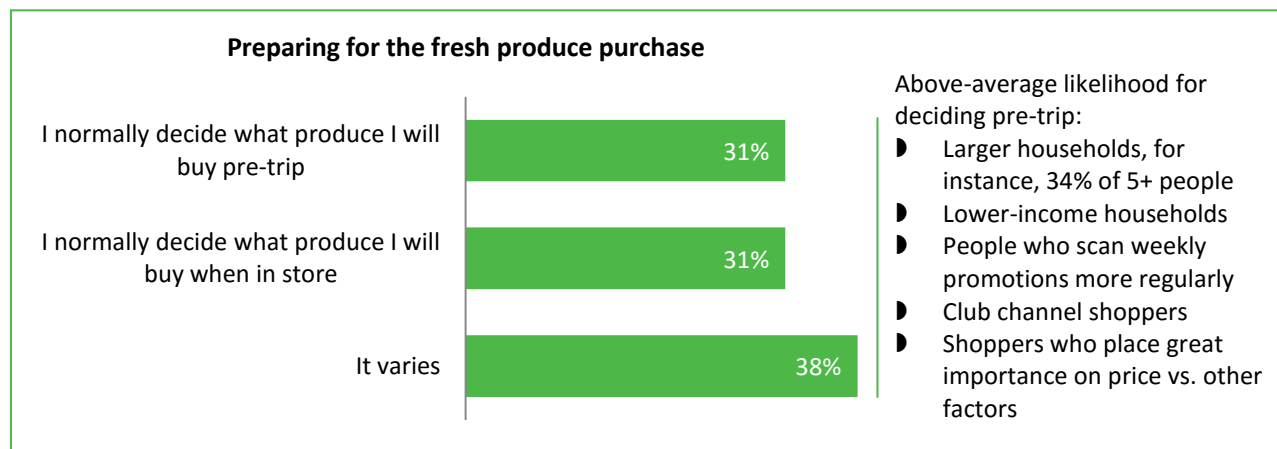
Produce Purchasing Preparation

Chapter insights:

- While the creation of grocery lists pre-trip is a common activity, not everyone plans their exact purchases. Just shy of one-third of shoppers decide on items to purchase at home; another 31 percent typically decide in-store and the remaining 38 percent do a little of both. As such, produce is a true mix of planned and impulse, with opportunities associated with both.
- Regardless of when shoppers decide on which items to purchase, 72 percent will consult one or more forms of advertising to check produce promotions. Two-thirds regularly check sales promotions at their primary store and 50 percent check across two or more stores.
- The paper circular remains the top research vehicle, with higher usage among older generations. Millennials are equally likely to look at produce sales promotions, but make greater use of digital, mobile and in-store vehicles rather than the traditional paper circular.
- With a great deal of the ultimate purchasing decision pushed off to in-store, shoppers point to eye-catching displays as the number one way to drive a purchase, including an unplanned purchase. Other merchandising tactics driving impulse include recipe/serving ideas, nutrition callouts and sampling.

Produce Planning: A Bit of Pre-Trip and a Bit of In-Store

Unlike fresh meat, where nearly half of shoppers will have decided what items they will purchase by the time they grocery shop, 31 percent of shoppers plan item-level produce purchases pre-trip. An equal 31 percent say they typically decide in store and the largest share, 38 percent, say they sometimes plan specific items and sometimes delay the decision to the store visit.



These findings have a number of important consequences:

- With one-third deciding in-store all the time and another 38 percent some of the time, in-store conditions have to be optimal for easy shopping, including good variety, in-stock, promotional signage and store conditions.
- Shoppers who decide on items pre-trip are an excellent opportunity to solidify as much of the produce dollar as possible by building and nurturing store loyalty. These shoppers tend to be more price-sensitive, so targeted promotions may be one way to connect with these consumers.

Seven in Ten Shoppers Check Produce Promotions

Regardless of whether shoppers decide on what items they will buy pre-trip or in the store, promotional offerings remain important. More than seven in 10 shoppers use one or more promotional vehicles, ranging from the printed circular to emails and in-store signage, to check produce promotions.

72%

Pre-Trip Research Remains High

Among shoppers who check promotions (N=916), more than two-thirds check their primary stores' produce deals pre-trip at least "sometimes." And half of shoppers review produce promotions across two or more stores with at least some regularity before heading to the store.

68%

Pre-trip, check produce promotions at primary produce store:

- 23% Every time
- 19% Frequently
- 26% Sometimes
- 24% Hardly ever
- 8% Never

50%

Pre-trip, check produce promotions across stores:

- 11% Every time
- 13% Frequently
- 26% Sometimes
- 27% Hardly ever
- 23% Never

While produce promotions continue to draw the attention across large segments of the population, certain shopper groups are more likely to be dedicated promotion hunters. For some, that means they nearly always study up on their primary stores' specials, whereas for others, promotional hunting entails checking sales prices across stores. For instance, while shoppers ages 70+ are more likely to check promotions at their primary store, they are less likely to check across stores. In other words, they are more price-sensitive but also more store loyal. In contrast, channel switchers (those who buy produce at a different store than the majority of their groceries) are very likely to compare produce promotions at two or more stores.

Check produce promotions at the primary produce store "every time I shop for fruit/vegetables" or "frequently" (42%)

- Warehouse club shoppers (52%)
- At home planners of produce items to buy (51%)
- Women (50%)
- Older shoppers (70+) (48%)
- Lower-income households (47%)
- Households of 3+ (46%)

Check produce promotions across stores "every time I shop for fruit/vegetables" or frequently (24%)

- Channel switchers (44%)
- Households of 3+ (33%)
- Shoppers in New England (32%)
- Supercenter shoppers (30%)
- Club shoppers (29%)
- At home planners of produce items to buy (29%)
- Lower-income households (29%)



Promotions continue to be an important tool in connecting with many shoppers pre-trip. As a key differentiator and driver of traffic for grocery stores, having the right promotions — items, prices and total meal solutions — will help solidify sales among current customers, while attracting others from secondary channels. Only in the specialty/organic channel do extremely few shoppers care about promotional offers, whether by their primary or other stores.

Paper Circular Remains Top Vehicle But Usage Declines in Favor of In-store and Digital

Shoppers use an average of two to three different vehicles to check produce promotions. While the paper circular remains the most used vehicle, its usage dropped compared with last year, whereas digital vehicles, including the electronic circular, emails and the website all saw small upticks in usage. New this year, 39 percent of shoppers say they tend to rely on in-store promotional signage.

Despite the upticks in digital consumption, usage of traditional media far outpaces that of digital vehicles. However, this may change rapidly as more retailers are developing and improving apps, websites and electronic circular functionality. Additionally, all signs point to growing integration of mobile and online research, planning and ordering into grocery shopping habits — underscored by significantly greater adoption of digital vehicles among Millennials.

Q: Which of the below do you use to check promotions for fresh fruits/vegetables? Check all that apply.

	2015	2016	Millennials	Boomers
Paper circular at home	73%	68%	50%	82%
In-store promotional signage	n/a	39%	48%	39%
Paper circular at the store	42%	39%	42%	37%
Electronic circular on web/email	28%	30%	29%	32%
Email specials	17%	19%	23%	9%
Website specials	13%	16%	23%	9%
Store app	12%	15%	20%	10%
Social media specials	7%	8%	14%	2%
Smartphone to compare prices	n/a	5%	14%	1%
Text specials	2%	3%	8%	2%

The usage frequencies for in-store promotional signage and the paper circular in-store underscore that sales promotions have both pre-trip and in-store components. In-store execution of sales promotions, from in-stock to signage, is crucially important.

Millennials certainly are price conscious, but they research in different ways. They are two to seven times more likely to use some of the digital or mobile communication vehicles than Boomers when researching produce prices.



The Millennials' propensity for using digital, mobile and in-store advertising vehicles combined with their growing impact on grocery shopping and spending overall make for a powerful argument to aggressively shift resources to emerging vehicles. At the same time, continued high usage of traditional vehicles among older shoppers flags caution for abandoning resources for paper circulars too quickly. While it is highly likely that the nation's advertising usage will continue to change rapidly, continued use of traditional vehicles among the Silent Generation, Boomers and even some of Generation X, argues for an omni-channel advertising strategy in the foreseeable future. Tactics could include an increased focus on driving/incentivizing the more traditional shoppers to digital platforms in anticipation of switching over in future years.

Connecting with shoppers pre-trip regardless of research vehicle used can help build the basket and build the occasion. The latter may include recipe ideas, as well as ideation for juicing, snacking or other ways to use produce for other than the traditional meal occasions. Reminding shoppers of items they have purchased in the past or introducing shoppers to new items pre-trip or in-store may help grow the produce and grocery baskets, as is seen next.

Eye-Catching Displays Best Way to Prompt Impulse Purchases

Despite being a trip driver and a well-researched category, produce does generate its fair share of impulse sales too, as seen in last year's report that found that 57 percent of shoppers "almost always" or "frequently" purchase additional, unplanned produce items when in the store. The 2016 study followed up on this finding to better understand the prompts that drive impulse produce sales.

Shoppers first and foremost point to eye-catching displays, followed by recipe/serving ideas, nutrition callouts and sampling. Where merchandising excellence captures the attention of all ages, the effectiveness of prompts such as recipes, nutrition callouts and general product information varies across the generations.

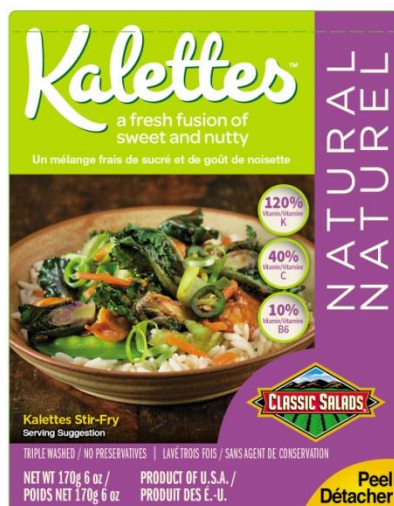
Q: Outside of price/promotion, what type of information encourages you to purchase an unplanned produce item?

	All	Millennials	Gen. X	Boomers	Matures
Eye catching displays	46%	48%	45%	47%	46%
Recipe/serving ideas	34%	42%	39%	31%	28%
Nutrition callouts	33%	38%	40%	27%	30%
Sampling	33%	38%	34%	31%	32%
Product information (origin, history, etc)	19%	22%	22%	17%	12%
Grower/brand	8%	11%	8%	6%	6%

Shoppers most likely to be influenced by on-pack or in-store prompts are Millennials — with particularly high interest in recipe or serving ideas and nutrition callouts. Others likely to be more influenced by impulse decision factors are shoppers with kids and higher-income households.



Being both a planned category and having opportunity to drive impulse sales is quite unique. Through eye-catching displays, good organization, quality, freshness, in-stock and cross merchandising, produce will not only be a great driver of traffic and sales, but also a great way to grow the basket. This package label, provided by Yerecic Label, is a great example of how to tie together nutrition callouts, recipe ideas, product information, grower/brand information and more.



The Produce Purchasing Decision

Chapter insights:


- ▶ The produce purchasing decision tree is led by product appearance in combination with price — reflecting shoppers' desire for value rather than price alone.
- ▶ Purchasing decisions differ hugely by demographic, especially generation — underscoring that tailoring promotions and merchandising to the store audience is of crucial importance to the business success of the department. Millennials emphasize price, knowledge and preparation time, whereas Boomers place greater importance on item condition.
- ▶ More than six in 10 shoppers would like to see their primary produce department stock more items that are locally-sourced. Likewise, a majority of Americans would like to see more items grown in the U.S. On the other hand, the market is split in their interest for non-GMO and organic produce: while one-third of shoppers are highly interested in these items, another 30 percent have no interest or are not aware of what exactly these claims entail.
- ▶ As interest for locally-sourced produce is rising right alongside assortment, shoppers are becoming stricter in their views of what constitutes local. A mile radius is emerging as the most common definition for produce, closely followed by state lines. Support for city/town and country as the definition for local declined significantly. The reasons for buying local continue to center on support for the local farm community and economy alongside better perceived freshness.
- ▶ The study explored purchase interest for three emerging sales trends. Interest in less-than-optimal looking produce, often referred to as “ugly” produce is low across the population when referencing its role in the reduction of food waste. Interest in more fixed weight items that are wrapped or bagged was even lower, drawing disagreement among 54 percent of produce shoppers, heavily correlated to shoppers' desire to select their own produce. Lastly, shopper interest for each pricing (per unit) over price per pound was met with moderate agreement.

Product Condition Beats Price in Decision Tree


Where pre-trip research may be centered on price and promotions, the ultimate produce purchasing decision is more heavily influenced by the product condition — particularly in fruit, with the number one and two slots taken by product appearance and ripeness/spoilage time.

Factors influencing purchase decision

Fresh fruit

- 
1. Product appearance
 2. Ripeness/spoilage time
 3. Price
 4. Habit/preference
 5. Seasonality
 6. Nutritional content
 7. Attributes (organic, local, brand, etc)

Fresh vegetables

- 
1. Product appearance
 2. Price
 3. Habit/preference
 4. Spoilage time
 5. Seasonality
 6. Preparation time required
 7. Nutritional content
 8. Attributes (organic, local, brand, etc)



In a way, the top three for fruit and top two for vegetables represents the exact definition of value: a good-looking product at a good price. This underscores the important connection between aggressive and relevant promotions with excellence of in-store execution to run a successful produce department. Price is especially de-emphasized as a factor in the purchasing decision tree among high-income households, Boomers, organic shoppers and shoppers of club and specialty stores. Price grows in importance among supercenter shoppers and lower-income households.

Items towards the bottom of the list are nutritional content and product attributes, such as brand, organic, local or other. To the core organic shopper, this factor was often ranked in the top three, but given the lower household penetration across the population, the overall rank was much lower. Likewise, some fruit and vegetables have managed to build very strong brands that overtake the importance of price as well. It is important to keep in mind this is a ranking scale, signaling relative importance to other factors rather than absolute importance.

Lastly, with habit/preference the number four (fruit) and three (vegetables) factors on each of the lists, the industry will have to be creative and purposeful in its execution of cross-merchandising and effectively using recipes and information to help educate shoppers and drive sales.

Q: When selecting fresh fruit, how would you rank the following factors?	Avg. rank score*	% rated as number 1	% rated in the top 3	Millennials (avg. rank)	Boomers (avg. rank)
Product appearance	5.18	30%	69%	4.85	5.32
Ripeness/spoilage time	4.89	17%	64%	4.75	5.12
Price	4.61	20%	58%	4.86	4.49
Habit/preference	3.83	14%	35%	4.17	3.62
Seasonality	3.58	7%	30%	3.45	3.64
Nutritional content	3.24	7%	26%	3.18	3.35
Attributes (organic, local, brand, etc)	2.66	6%	19%	2.73	2.45

* Average score across seven item; the higher the average, the greater the importance on the purchasing decision

Q: When selecting fresh vegetables, how would you rank the following factors?	Avg. rank score*	% rated as number 1	% rated in the top 3	Millennials (avg. rank)	Boomers (avg. rank)
Product appearance	5.02	28%	63%	4.83	5.36
Price	4.87	22%	62%	4.91	4.32
Habit/preference	4.33	17%	33%	4.75	3.92
Spoilage time	3.89	14%	28%	3.72	4.02
Seasonality	3.48	8%	22%	3.38	3.75
Preparation time required	3.40	8%	19%	4.01	2.98
Nutritional content	3.31	6%	21%	3.15	3.38
Attributes (organic, local, brand, etc)	2.89	6%	15%	2.94	2.38

Purchasing Decision Tree Varies Widely by Demographic

- A look at the two largest generation cohorts shows Millennials tend to emphasize price as their top-ranked item for both fruit and vegetables. For vegetables, they also place much greater value on the preparation time required, making them a prime candidate for value-added produce. On the other

hand, Boomers place an even greater emphasis on the product condition, while de-emphasizing price, habit and preparation time.

- Household income follows predictable patterns with higher-income households more likely to rank nutrition, product attributes and appearance high on the list, while price often ranks in the bottom third.
- Supercenter produce shoppers place less value on appearance and nutrition compared with shoppers who purchase produce in the supermarket channel, but more heavily emphasize price.

Trip Planning and Decision Tree Point to Importance of Operational Execution

The need for optimal department conditions, including cleanliness, in-stock, clear signage and good organization, becomes very evident when regarding shoppers' habits planning and purchasing habits:

- 31 percent of shoppers say they typically decide on what produce to buy when in-store. In addition, 38 percent say they sometimes decide in-store, sometimes at home.
- 57 percent of shoppers "almost always" or "frequently" purchase additional, unplanned produce items when in the store, with eye-catching displays being the most effective driver of impulse.
- Thirdly, product condition is at the top of the decision tree, ahead of price.



As such, operational execution is a necessity for a thriving produce department, with operational excellence being the foundation for a differentiated offering that can drive traffic, sales and loyalty.

Interest in Local Continues to Grow

The 2016 study found that "grown locally" now leads "grown in the USA" in shopper interest. Whereas interest for country lost a little ground between 2015 and 2016, high interest for more local items rose to 61 percent of shoppers in 2016.

Q: How interested are you in your primary store for produce adding more...	Very Interested 2015	Very Interested 2016	Somewhat interested	Not Interested/not sure what it is
Locally-sourced produce	58%	61%	31%	8%
Produce grown in the USA	59%	56%	34%	10%
Non-GMO produce	40%	39%	34%	27%
Organic produce	39%	34%	36%	30%

The population continues to be split on organic produce. While some of the core shoppers are very highly interested in a greater assortment and gladly willing to pay the price differential, roughly equal shares cite only moderate or no interest in an expanded selection.

Purchase intent for non-GMO and organic is much softer, with only four or three in 10 shoppers saying they are "very interested" in their store adding more items. FMI has been working alongside the Grocery Manufacturers Association (GMA) and a broad coalition of now 800 other agriculture, food and business-related groups to get a federal legislative solution to the GMO labeling debate that provides one national standard that preempts all other differing state approaches. In the last two years, some 25 states have introduced GMO labeling legislation, many with their own set of requirements. Without a national system, many companies may have to begin with expensive reformulation to get away from the use of ingredients produced with genetic engineering.

Interesting demographic differences exist in particular when by generation and gender.

% "Very interested"	All 2016	Millennials	Gen X	Boomers	Matures	Women	Men
Locally-sourced produce	61%	56%	56%	62%	55%	67%	52%
Produce grown in the USA	56%	45%	45%	59%	51%	61%	49%
Non-GMO produce	39%	43%	42%	34%	24%	42%	27%
Organic produce	34%	38%	39%	28%	15%	37%	29%

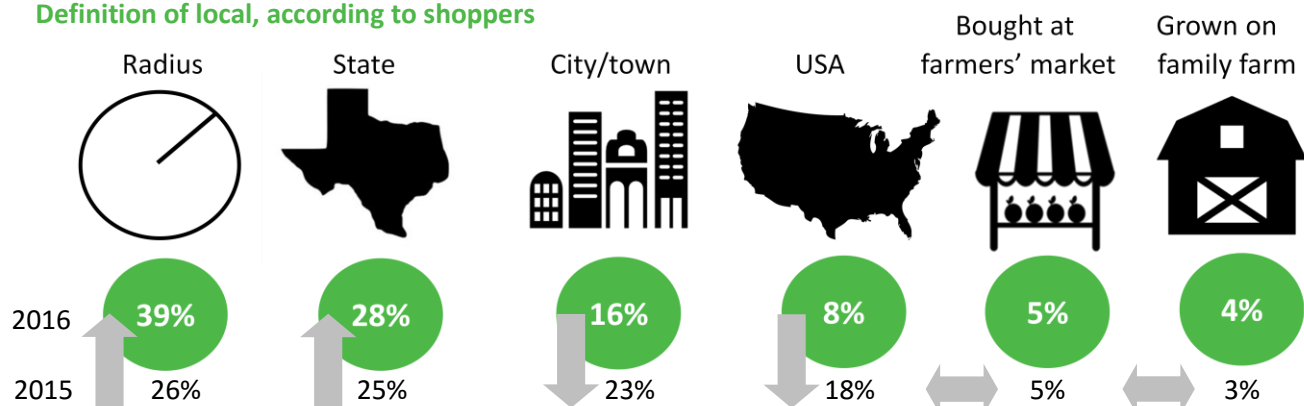
Shoppers Refine Their Definition of Local Produce

The shopper definition of locally-sourced produce is rapidly shifting in favor of a mile radius and state lines. Their narrowing definition is no doubt heavily influenced by:

- Well-defined locally-sourced programs by retailers across the country — often utilizing one definition for all categories and often focused on a radius or state.
- The influence of the ever-growing number of farmers' markets that are all about community sourcing.
- Restaurants that are featuring locally-sourced produce, often based on a mile radius — a top three restaurant trend in the past three years, according to the National Restaurant Association.
- Meal assembly kits and online farmers' markets that send locally-sourced items directly to the home.

Where the 2015 study found four platforms with double digit support, the 2016 study shows two definitions for local produce emerge as clear winners: radius and state lines.

Definition of local, according to shoppers



Shopper views of local differ widely by area of the country. For instance, in the Pacific region, that includes produce powerhouse California, nearly half of shoppers believe local means a limited mile radius. In contrast, New England with many smaller states is much more likely to point to state lines.

Q: In your opinion, what best defines "locally-sourced" fruit or vegetables?	All	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
In certain mile radius	39%	29%	48%	42%	37%	40%	32%	36%	31%	48%
In my state	28%	38%	19%	29%	23%	27%	32%	26%	32%	25%
In my town/city	16%	11%	19%	15%	23%	17%	19%	15%	27%	13%
In the United States	8%	8%	7%	8%	7%	6%	14%	9%	4%	6%
Bought directly from farm/ farmers' market	5%	11%	2%	5%	5%	7%	3%	9%	5%	4%
Grown on family farm	4%	3%	5%	2%	5%	3%	0%	5%	1%	4%

Shoppers more likely to point to a mile radius are:

- ▶ One-person households (47 percent)
- ▶ Generation X (42 percent) and seniors ages 70+ (54 percent)
- ▶ High household income (45 percent)

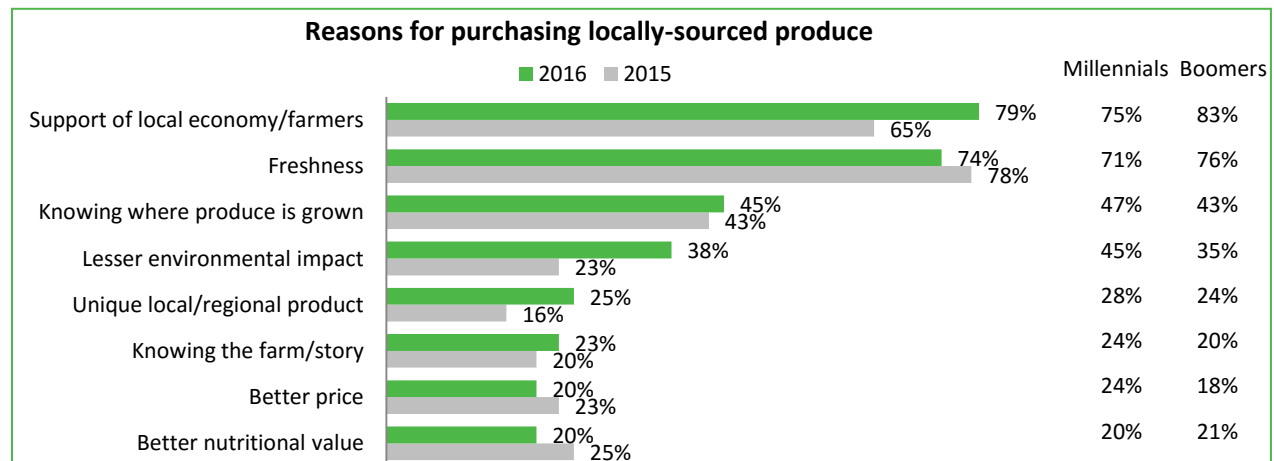
More Millennials believe that local produce should be sourced from their city/town, at 19 percent.



Both local and country continue to be strong platforms drawing wide shopper interest, even if the reasons for buying locally-sourced produce differ by generation and other demographics. Local items can provide a great point of differentiation, but a well-outlined program and store definition appear to be in order. Shoppers themselves increasingly look to a certain mile radius or state lines, often dependent on the area of the country.

Local Support Overtakes Freshness as Top Reason for Buying Local Produce

More than three-quarters of shoppers cite their support for the local economy and farmers as a reason for buying locally-sourced produce — edging out “freshness” as the number one factor. Still, consumers see a close link to local and fresh with 74 percent citing freshness as a reason for buying local produce. Driven by the Millennials, consumer belief that locally-sourced produce has a lesser environmental impact grew from 23 percent in 2015 to 38 percent in 2016. Shoppers take two angles here, as represented by the following comments: “More farms means less housing and traffic congestion.” And, “less fuel and pollution to truck the produce.” However, fewer consumers believe there are nutrition or price benefits to buying local.



Other reasons cited for buying local included:

- ▶ Trust:
 - I trust claims made much more when I know the farmer. Like non-GMO. I know he means it.
 - Standards may be very different in other countries and I trust my local farmer.
- ▶ Taste:
 - Better taste.
 - Riper and better tasting than produce that comes from another country.



Understanding the reasons behind buying locally-sourced items helps develop the most effective marketing messaging for on pack and in-store promotional signage. A good example, referencing several of points that resonate with shoppers most, can be seen below.

This example calls out provenance, the farm/story of the product, and quality, taste and value.



Retailer example

Providing each grower a specific label with their story on backside of the label used on clear clamshell boxes.

Provided by:
Yerecic Label



Directly addressing the growing power and presence of farm-direct (see Channel chapter), retailers have a strong opportunity to delivery their own farmer-to-consumer experience, both from a sales benefit and sales loss standpoint. While long-term supply commitments must be overcome, joint benefit can be derived from co-marketing between the retailer and grower, as well as deeper integration of the businesses. Building a local program is important and likely a multi-stage endeavor, as illustrated by IRI below.

	In-Store Marketing	Assortment	Supply Integration	Co-Marketing with Farmers
Stage 4	Highly specific locations (e.g., mileage from store), pictures of farmers, program information	Consistent in-stock positions on items	Long-term relationships	Web presence, retail signage at farm and around property
Stage 3	Specific mention of farms providing product; signage with pictures and locations	Consistent broad assortment in season	Tight integrated planning with supply/volume commitments	Web presence
Stage 2	Closer grower/producer locations to store; improved signage rotating with crop changes	More steady supply during season	Limited harvest planning; supply/volume commitments	None
Stage 1	Little signage Non-specific geographies (region/state)	Limited products Peaks and out of stocks	Basic procurement	None



For the manufacturer, implications include the potential need to evolve business models to capture long-term changes in consumer demand for local sourcing. Local supply options will increasingly supplement traditional supply changes and getting involved will be important as to prevent sales erosion.

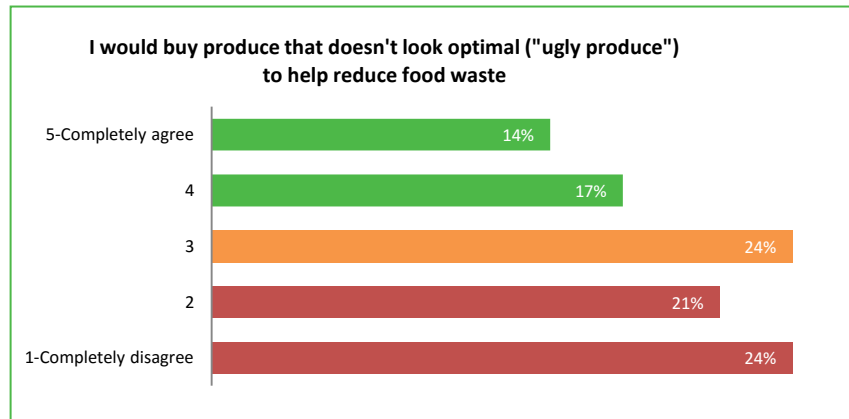
Shoppers' View on Emerging Merchandising Tactics in Produce

The study looked into three areas that have been trending in produce:

- ▶ Less-than-optimal looking produce, often referred to as 'ugly' fruit and vegetables.
- ▶ Fixed weight versus random weight produce.
- ▶ Each versus per pound pricing.

"Ugly" Produce

While unthinkable until a few years ago, a handful of retailers have had real success with selling less-than-optimal looking produce, often referred to as "ugly" produce. While shoppers may benefit from price breaks, the overriding benefit is a reduction of food waste. To understand shopper interest at large, the survey probed into agreement with the statement: "I would buy produce that doesn't look optimal, "ugly produce," to help reduce food waste. The survey did not make reference to potential price breaks. Cited agreement is low, with 45 percent outright disagreeing and another 24 percent neither agreeing, nor disagreeing.



However, certain pockets of the population show higher interest, including Millennials and shoppers who routinely buy organic produce or shop for produce at organic specialty stores.

I would buy produce that doesn't look optimal ("ugly produce") to help reduce food waste	All	Millennials	Boomers	Organic shopper	Does not buy organic	Produce Club shopper	Produce Supercenter	Produce Organic	Lower income	Medium income	Higher income
1-Completely disagree	24%	20%	24%	20%	32%	29%	27%	15%	20%	19%	29%
2	21%	22%	25%	20%	22%	18%	30%	26%	19%	23%	28%
3	24%	20%	26%	25%	23%	12%	16%	23%	25%	29%	22%
4	17%	21%	14%	19%	14%	21%	14%	20%	19%	17%	14%
5-Completely agree	14%	17%	11%	16%	9%	21%	13%	16%	17%	12%	7%

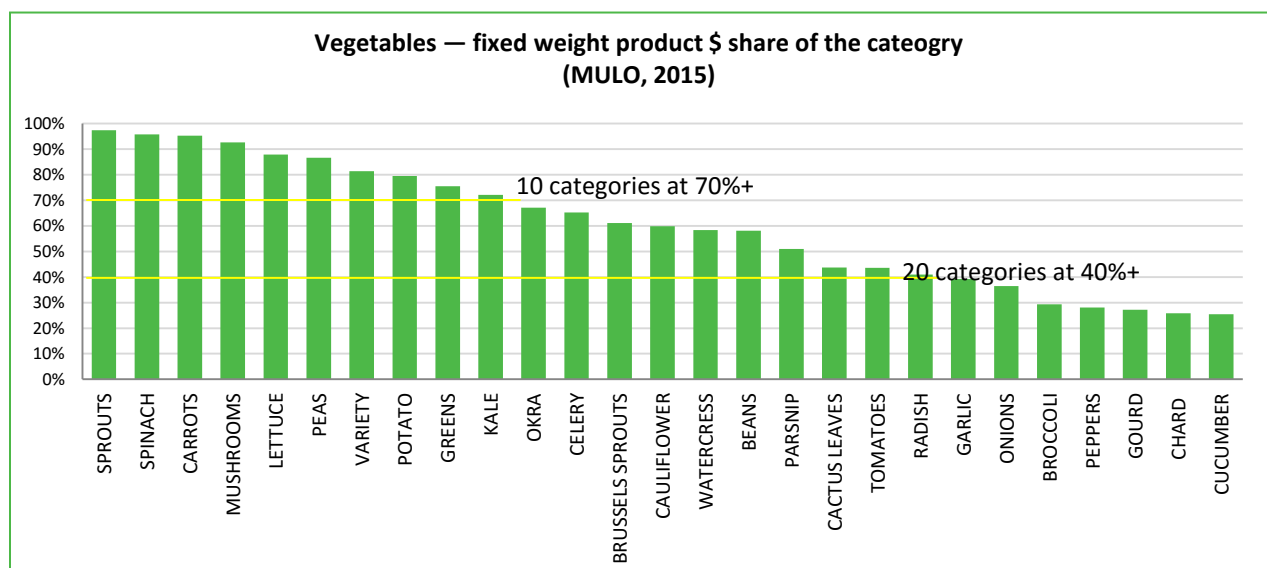


Across the world, food retailers are setting aggressive goals to reduce food waste and increase food bank donations. Preventable waste is becoming more visible in store operations and continued integration between the food industry and food banks is likely. The

food industry is amplifying consumer engagement and communication regarding preventable food waste. Another step may involve an increased focus on right sizing portions and packaging — particularly with significant demographic changes under way.

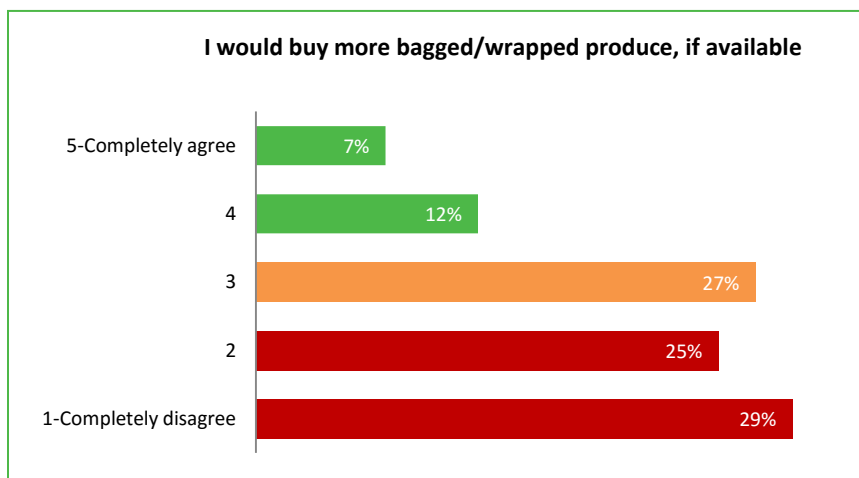
Fixed-Weight Produce

Aside from bagged salads and tofu, fixed weight products reached critical mass in many categories, with share of total produce sales exceeding 70 percent for 10 categories and 40 percent for 20 categories. Fixed weight is an important subtrend of the overall convenience movement.



The survey probed into future purchase interest, using the examples of bagged apples, microwave-ready green beans and bagged spinach. However, regardless of some categories having reached critical mass in fixed-weight offerings, the majority of Americans reject the idea of purchasing more fixed weight produce items, with 54 percent citing disagreement. Results show a high correlation to shoppers who claim they will

not buy online because they prefer to select produce items themselves. It is important to keep in mind that fixed weight produce still represents a small portion of total fruit/vegetable sales and shoppers often have difficulty associating with an unfamiliar concept.

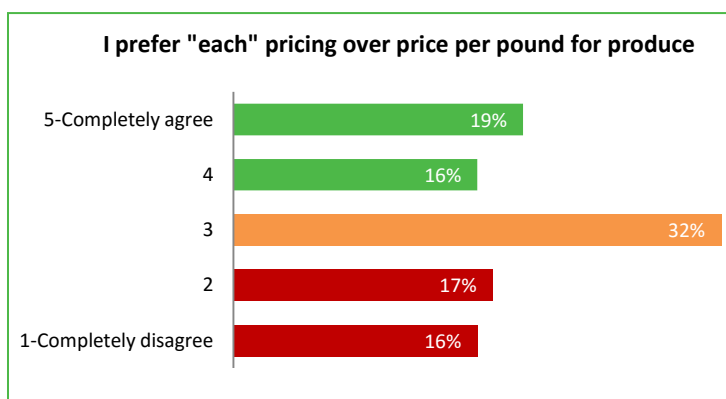


While the overall sentiment may lean toward random weight, certain demographics were more likely to agree with buying more fixed weight items. First and foremost, these are club shoppers, at 30 percent versus 19 percent overall. Others include Millennials and supermarket shoppers.

I would buy more fixed weight (bagged/ wrapped) produce, if available	Generation			Buys organic prod.		Primary produce channel			
	All	Millennials	Boomers	Buys organic produce	Does not buy organic produce	Club	supermarket	Supercenter	Specialty/ Organic
1-Completely disagree	29%	24%	30%	32%	26%	29%	24%	21%	31%
2	25%	25%	25%	24%	26%	15%	20%	32%	27%
3	27%	26%	31%	26%	29%	26%	27%	23%	28%
4	12%	15%	9%	11%	12%	24%	17%	16%	6%
5-Completely agree	7%	10%	5%	7%	7%	6%	13%	8%	7%

Each vs. Price-per-Pound Pricing

A third trend explored by the study is that of “each” pricing versus price per pound. Examples provided to explain the two concepts were \$0.99 green peppers versus \$1.99 per pound. Per unit or each pricing has increased hand-in-hand with growth in fixed-weight/bagged produce. Shoppers are split on this concept with 35 percent agreeing they prefer each pricing where possible and 33 percent disagreeing.



Significant demographic differences exist.

Of the various channels, supercenter produce shoppers associate with the concept of “each” pricing the most and specialty store shoppers the least. Also, lower-income shoppers are more likely to agree with preferring per unit pricing, where possible.

I prefer "each" pricing over price per pound for produce	Generations			Buy organic		Primary produce channel				Income		
	All	Millennials	Boomers	Buy organic produce	Does not buy organic	Produce Club shopper	Produce supermarket	Produce Supercenter	Produce Organic	Lower income	Medium income	Higher income
1-Completely disagree	16%	16%	15%	17%	15%	17%	18%	10%	14%	16%	15%	19%
2	17%	16%	16%	18%	14%	12%	16%	14%	22%	13%	16%	21%
3	32%	31%	34%	31%	33%	38%	31%	37%	35%	30%	36%	32%
4	16%	17%	16%	15%	18%	24%	16%	16%	13%	17%	19%	12%
5-Completely agree	19%	20%	19%	19%	20%	9%	19%	23%	16%	25%	14%	16%



Whether these three areas will turn into sales trends across a wide spectrum of stores remains to be seen as they are in the early stages of growth. Oftentimes, consumer agreement is highly related to experience and habit, and they may reject concepts they are not familiar with, but actually use them if presented. As seen in Europe, ugly produce and fixed weight produce has potential for substantial growth and pursuing these initiatives based on store audience may set a foundation for new business success and differentiation.

Varying Methods of Sale in the 50 States

The National Institute of Standards and Technology (NIST) and the National Conference on Weights and Measures (NCWM) have developed several Handbooks that fall within the purview of retailers. NIST *Handbook 130*¹ contains, among other issues, the “Uniform Packaging and Labeling Regulation.”² The purpose of this regulation is to provide accurate information on packages (including packages of fresh fruit or vegetables labeled by count) as to the identity and quantity of contents so that purchasers may make price and quantity comparisons. *Handbook 130* also addresses unit pricing.

While some states automatically adopt the current “Uniform Packaging and Labeling Regulation” into law (19) or a previous version of it (26), other states have their own state-specific law (4) or no law (1).

Nineteen states have unit pricing laws or regulations in force. Five states automatically adopt “The Uniform Unit Pricing Regulation” found in *Handbook 130*. Three states adopt an earlier version of *Handbook 130* and eleven states have their own state law in force. In addition, there are some localities that may have mandatory laws in place, when the state does not. For example, while Washington State does not require unit pricing, Seattle does.

Seven states and some localities still require some level of item pricing. They are Arizona, California, Connecticut, Massachusetts, New Hampshire, New Mexico and New York. In New York, even though the state sunset its statewide item pricing law in 1991, several counties still have mandatory item pricing laws.

Recently, FMI participated with NIST in a Unit Pricing Best Practices Workgroup to assist in creating: *Unit Pricing Guide —A Best Practice Approach to Unit Pricing*³ Most grocers offer unit pricing, whether or not required by state law, because it assists consumers in price comparison. This voluntary guide was based on the results of a two-year collaboration among NIST, industry and consumer groups, and can serve as an example for those retailers who do not currently offer unit pricing and are looking to do so.

¹ See: <http://www.nist.gov/pml/wmd/pubs/hb130.cfm>

² See Uniform Packaging and Labeling Regulation page 55.

³ See: <http://www.nist.gov/pml/wmd/pubs/upload/SP1181-Unit-Pricing-Guide.pdf>

The Produce Channel Choice

Chapter Insights:

- ▶ Respondents averaged \$103 in weekly grocery spending and 1.8 weekly trips. Trip trends emphasize the growing importance of fresh to drive traffic and spending for total store success.
- ▶ Produce remains a supermarket stronghold with 85 percent shopper conversion and high secondary shopper pick up. Specialty organic stores are the third-most shopped channel for produce and the second-most shopped for organic produce, specifically.
- ▶ Overall, 24 percent of shoppers purchase produce in a different channel than groceries in general. Among supermarket shoppers who switch, farmers' markets, farm-direct or produce stands are the number one outlet. Among supercenter shoppers, most switch to the supermarket channel.
- ▶ Farmers' markets/produce stands are the greatest source of the occasional (non-primary) purchase, at 53 percent of produce shoppers.
- ▶ Online produce shopping continues to be minimal, but many signs point to accelerated growth, particularly when the online shopping platform is supported by the shopper's trusted primary produce provider. The major concerns to overcome include perceived lack of freshness, poor quality and wanting control over selecting the produce.

Trips and Spending Point to Important Role for Produce in Total Store Success

Survey respondents take an average of 1.8 trips per week, which may include more than one visit to the same store, the same banner or two completely different channels. Average weekly spending on groceries among survey respondents is \$103, though spending is highly dependent on income, household size, region and other factors. Survey data is right in line with IRI shopper panel data that shows consumers took an average of 85 annual grocery shopping trips in 2015, or 1.63 trips per week. This constitutes a -1.4 percent change from the year prior. And while household trips for produce are up over 2015, less than half (41 percent) of baskets include produce. In other words, the overall drop in trips is not offset by the increase in fresh trips.

Another red flag is the much lower number of shopping trips among Millennials, at an average of 64 annually, or 1.23 per week. While many are still moving into their prime spending years, their above-average like for shopping alternative channels and eating out are reasons for concern. IRI found that while 13 percent of the population eat three to four meals per week away from home, 20 percent of Millennials do so.

\$103

Average weekly spending
on grocery-type items

Spending is highly related to income, household size, region, but also pre-trip research measures and channel choices.

1.8

Average number of grocery trips/week

Higher-than-average trips are seen among people in urban and suburban areas, people who place a greater value on fresh, organic shoppers and larger households.



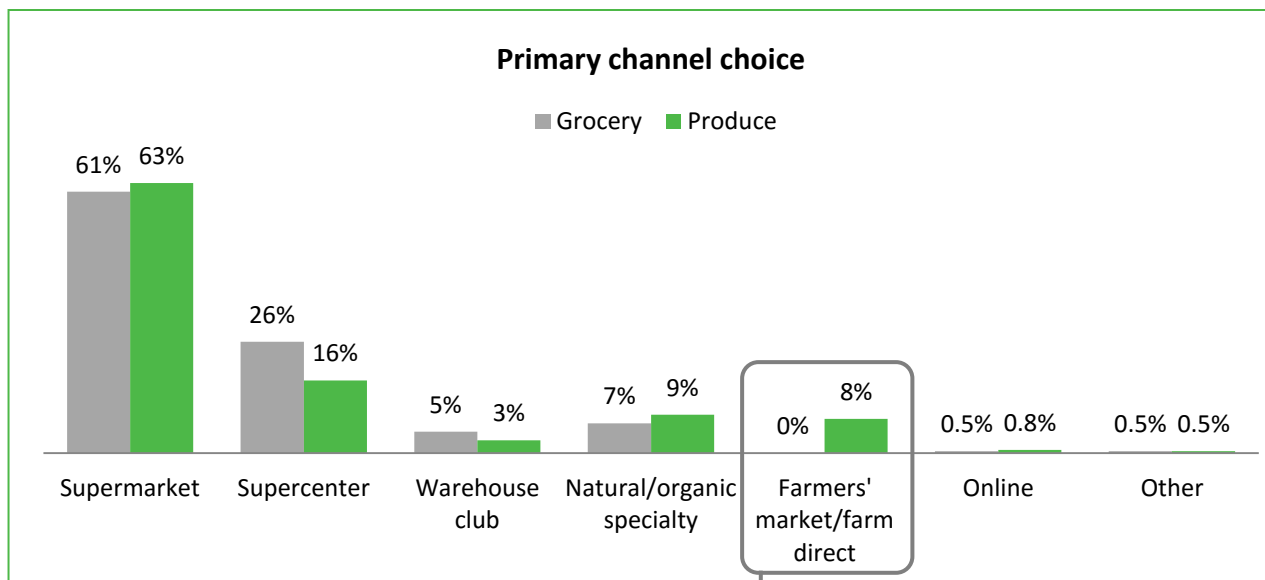
Produce, along with meat and deli-prepared, has always been a key player in differentiation and driving traffic. According to the Nielsen Perishables Group, shoppers spend 51 percent more money in the store when produce is in the basket, at an average of \$41 versus \$62.

However, as shoppers have an ever-increasing number of options for sourcing groceries, produce's role in primary shopper conversion and attraction of secondary shoppers will be increasingly important.

Additionally, FMI's *U.S. Grocery Shopper Trends* series found that the share spent at the primary store continues to decline, and stands at 74 percent in 2015 — down from a high of 78 percent in 2008. These trends require a proactive approach by the traditional channels to drive trips and shopper loyalty for future success.

Produce Is a Supermarket Stronghold

Respondents self-selected the channel in which they purchase the majority of their groceries, as well as the channel in which they tend to purchase fresh produce. Supermarkets continue to be market leaders for produce through high shopper conversion and being a fresh produce destination to patrons of other channels. The chances of shoppers purchasing produce at supermarkets increases along with age and income, although shoppers with household incomes of greater than \$100,000 also have a higher propensity to shop at club stores and specialty outlets. Regionalism also plays a role, based on the sheer distribution of specialty stores, club stores and supercenters in various parts of the country. For instance, Midwesterners have a higher propensity for supercenters and consumers living in the Northeast are more likely to shop at supermarkets. The "other" category is made up of delivery services and other forms of retail, including dollar stores.



While farmers' markets or farm-direct sales don't play a role as the primary destination for groceries, they are the primary destination among 8 percent of shoppers to purchase fresh produce.

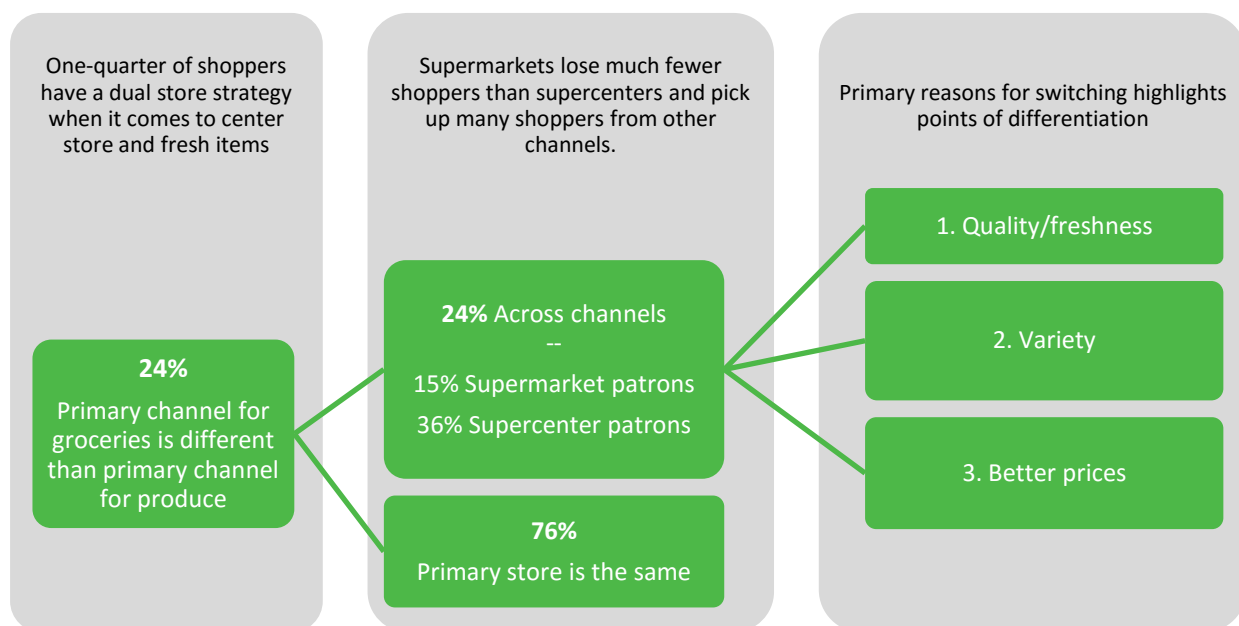
Channel choice for produce is heavily impacted by demographic factors, particularly income and age.

Primary produce channel	Supermarket	Supercenter	Club	Specialty	Farmers' market
All	63%	16%	3%	9%	8%
Younger Millennials	54%	29%	2%	11%	11%
Older Millennials	61%	19%	3%	15%	4%
Generation X	62%	16%	5%	14%	6%
Younger Boomers	72%	12%	5%	6%	8%
Older Boomers	68%	12%	3%	8%	8%
Matures	78%	5%	3%	6%	8%
Lower income	59%	22%	2%	6%	8%
Low-medium income	63%	16%	3%	9%	6%
Medium-high income	70%	14%	3%	9%	5%
Higher income	59%	14%	5%	14%	6%

Fresh Produce Prompts Channel Switching for One-Quarter of Shoppers

Essentially unchanged from 25 percent last year, 24 percent of shoppers leave their primary channel to buy fresh produce elsewhere. Not all channels lose primary shoppers equally. In fact, conversion is very high for supermarkets, which retain 85 percent of their shoppers. While much higher than supercenters' 64 percent, supermarket conversion is down a few points from 88 percent last year. Supercenter conversion is virtually unchanged from 37 percent in 2015.

24% Switch



Supermarkets are produce powerhouses for two reasons: 1) high retention among primary shoppers and 2) attracting high shares of the switchers — shoppers who buy groceries in one channel, and produce in another.

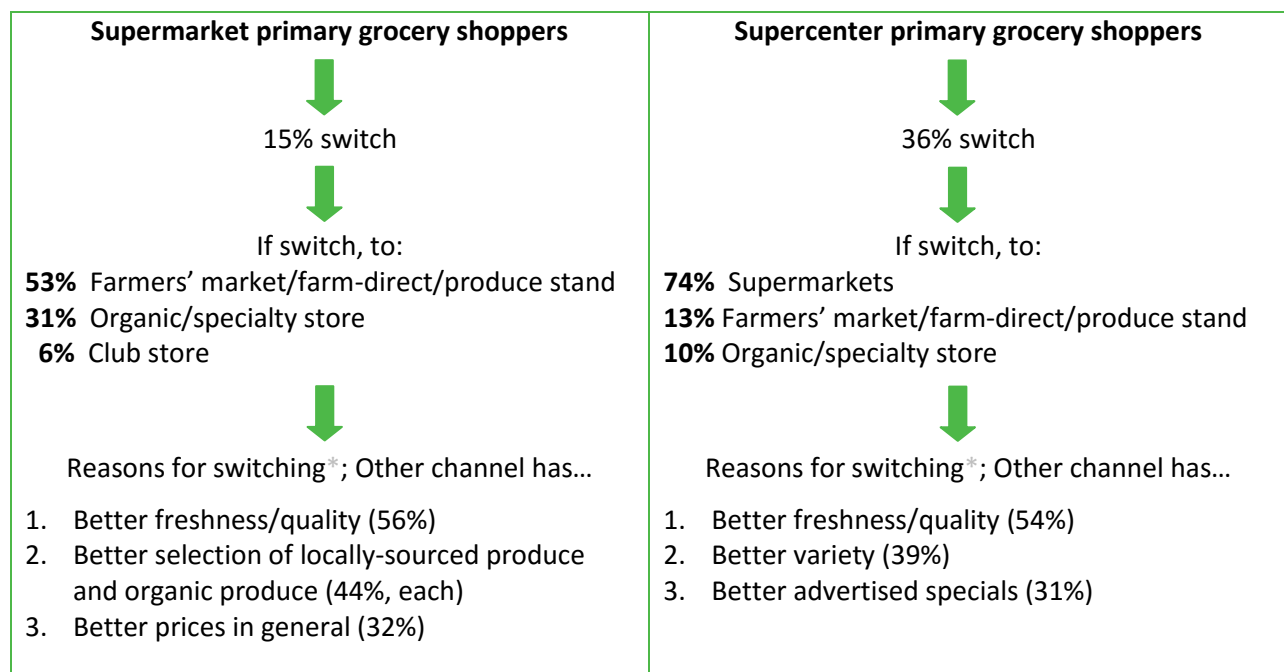
Among switchers, 38 percent switch to a supermarket. However, compared with 2015, this is down three percentage points, whereas the percentage switching to farmers' markets, farmer-direct or produce stands increased from 26 percent to 31 percent. One respondent said, "Living in rural Iowa I'm always close to local farmers' markets for fresh veggies. It's always my first stop. Whatever they don't have, I'll get in the store."

Among 24% who switch, where to?

38%	Supermarkets
31%	Farmers' markets/farm direct/produce stands
18%	Specialty/organic stores
3%	Supercenters
4%	Club stores
2%	Online

Up from 26 percent in 2015, nearly one-third of switchers typically purchase produce outside the brick-and-mortar channels. IRI found that local networks have the potential to impact revenue substantially, with produce volume growing at a rate twice as fast for farmers' markets compared to the total market — of course based on a much smaller volume to start.

Shoppers switch for different reasons and, therefore, to different channels. Primary supermarket shoppers are the most likely to switch to farmers' markets/farm-direct or produce stands and cite better perceived freshness as their primary reason for switching.



**Power of Produce 2015*



Produce is an important point of differentiation for the supermarket channel. With four in 10 supercenter patrons frequenting other formats, there is opportunity all around.

Supermarkets, the main beneficiary of supercenter attrition, have enormous opportunity to grow the shopping basket beyond produce, to include both meat and center store items among these supercenter patrons. Supercenters have a lot of room to strengthen their produce offerings and increase shopper retention among their own shoppers. Lastly, the warehouse club format picks up customers looking to purchase quality produce with volume discount prices from both the supermarket and

supercenter channels. They may be able to increase their sales by offering more product and package size variety.

Farmers' Markets and Produce Stands Pick up Many Occasional Purchases

Aside from the primary store, shoppers may periodically purchase fresh produce in other channels depending on the occasion. While much of the produce purchase takes place through the supermarket channel, even they encounter competition from alternative channels. No less than 57 percent of the population may stop in at farmers' markets or produce stands occasionally to purchase some fruit or vegetables, up from 50 percent last year. Specialty/organic stores, too, saw an uptick on occasional shoppers, from 14 percent to 20 percent.



While supermarkets' superiority in produce remains unchallenged, there are several alternative formats nibbling away at the produce dollar. These include channels such as farmers' markets, farm-direct, online and even dollar stores. These may not be huge baskets, or even regular purchases, but there are consequences nonetheless. Little by little the produce purchase is becoming more scattered and supermarkets will have to work harder to maintain their reputation/draw, baskets and conversion rates. A subsequent effect of the rising presence of these alternative formats in produce is the potential to lose out on any additional (non-produce) items — making the possible impact much greater than just a few produce items.

Aside from main location, other outlets shopped for produce at least on occasion		Millennials	Boomers	Lower income	Higher income
Farmers' market/produce stand	53%	53%	47%	43%	56%
Specialty/organic store	20%	25%	16%	19%	29%
Included in ready-to-prepare meal delivery service	3%	5%	1%	3%	8%

While a mere 3 percent of shoppers say they currently order ready-to-prepare meals from vendors such as Blue Apron, Hello Fresh and Plated, these certainly have the ability to impact dinner mealtime. Particularly when considering that 5 percent of Millennials say they occasionally order from ready-to-prepare services and 8 percent of the highest income group. Driven by cooking ease and access to tips and guidance, shoppers are attracted to serving up new flavors and foods, simplicity and dietary control. IRI estimates the impact of the ready-to-prepare meals to be as follows.

- Blue Apron's estimated 2015 revenues were \$600 million, serving 5 million meals per month.
- Hello Fresh estimated revenue in 2015 was \$240 million, featuring 4 million meals per month.
- Plated's revenues were \$100 million, with 300,000 meals per month.



Ready-to-prepare meal services have the potential to impact store traffic and sales in perimeter departments as they grow bigger. They compete directly with both the meal components in fresh and fresh-prepared offerings.

New Supply Networks

By: IRI

Increased consumer demand for local, fresh and high-quality produce, product transparency and consideration to the environmental impact has driven an industry response in the creation/growth of new supply networks. As such, the market is seeing more farmer-direct to the consumer; retailer direct sales; and vertical farming. All three of these new supply chains shift to more local production models, feature a deeper integration of the grower and retailer, and evolutionary sophistication for direct delivery to the consumer.

- **Farmer-direct** includes growing and distribution approaches in which farmers and consumers are directly linked, and includes farmers' markets, community-supported agriculture and alternative models. Strong selling point are authentic local sourcing, whether a radius, region or state, as well as answering demand for transparency. Farmers' markets, as tracked by the USDA, have increased from less than 2,000 in 1994 to nearly 9,000 in 2015, with many increasing open hours as well as staying open throughout the year. Shoppers are intrigued with farmers' markets with more than 80,000 online mentions per month, many addressing vegetables (36 percent) and fruit (26 percent). Farmers' markets sophistication is growing rapidly, using integrated websites to unite farms, markets and events and SNAP acceptance.

Community-supported agriculture (CSAs): Another rising trend throughout the country is that of farm operations supported by shareholders within the community who share both the benefits and risk of food production — much like retail cooperatives. Whereas the country counted about 1,000 community-supported farms in 1999, that number increased six-fold by 2014 with more than 6,200 registered CSAs.

Regardless of the format, farm-direct has a strong potential to increasingly influence traditional retail outlets by their ability to directly address localization, transparency and lifestyle needs.

- **Retailer-direct** are retailer-owned or managed food production operations for resale in-store, including rooftop gardens, in-store farming of herbs and other vegetables, and actual farm operations. While their scope and scale are limited in volume and to selective categories, it provides a growth platform that complements other initiatives, such as locally-sourced, organic, sustainable and transparency. The positioning of retailer-direct produce sales is often centered on healthy attributes and conservation. Retailer-direct will likely remain a niche and a marketing benefit versus having a large impact on future sales trends.
- **Vertical and local greenhouse farming** are typically urban and produce food in vertically stacked layers or on vertical surfaces typically in high ceiling buildings (e.g., older warehouses). Local greenhouses are larger structures near cities that produce food in ideal growing climates, with a focus on sustainability, and high volume/high value products. Cost structures have yet to be proven and scalable, but heavy experimentation and high levels of innovation may drive growth in future years.

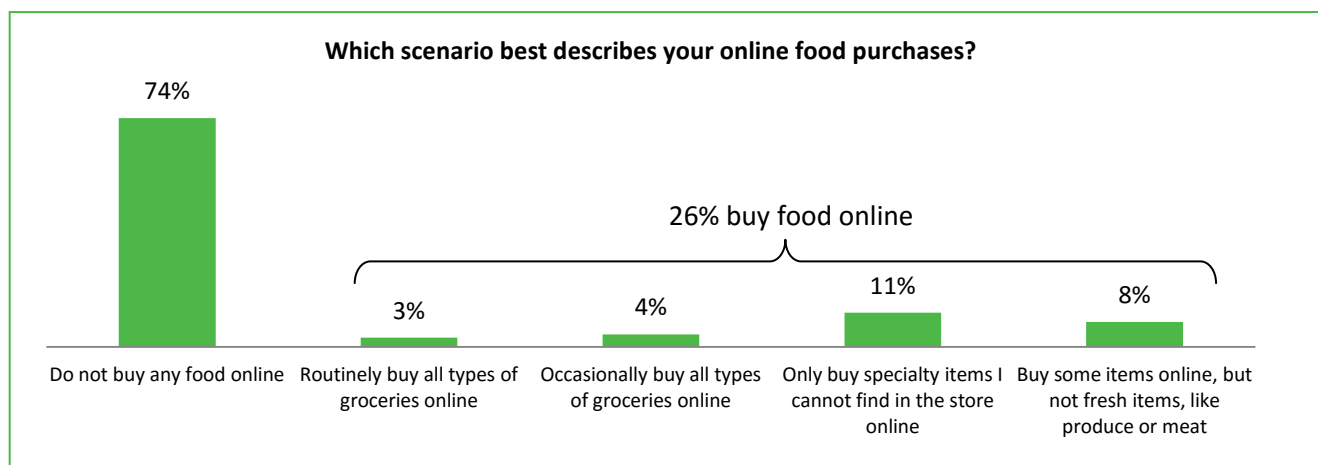
Produce and the Online Grocery Purchase

Less than one percent of shoppers consider online shopping their primary means of buying food and other grocery-type items (0.5 percent). As such, in most areas of the country, online grocery shopping

continues to mostly be a way to supplement in-store purchases as a secondary outlet, or, serve as an outlet for the occasional purchase based on a specific occasion or item need. However, strong online players can quickly disrupt the marketplace. Online shopping relies on three methods to provide the customer with a seamless shopping experience, including click & collect, home delivery, and mail delivery. While only a fraction of total food and beverage sales today (2 percent), IRI consulting analysis expects omni-channel sales to grow to 10 percent of sales by 2022, with a dominance of click & collect and home delivery.

Contrary to popular belief, IRI found that perimeter departments have a strong presence in click & collect and home-delivery baskets, with 80 percent of them containing produce — far ahead of bakery, meat/seafood and deli. The basket size for omnichannel is much bigger than the traditional basket, at \$160 for click & collect and \$180 for delivery.

While three-quarters of shoppers simply do not purchase food items online, the remaining quarter is split between routine online purchases, occasional purchases, dry grocery only and specialty items.



Online grocery shopping skews toward:

- ▶ Millennials and Generation X.
- ▶ Medium-high income households of between \$75,000 and \$100,000.
- ▶ Women, particularly for the routine stock up purchase. Men are equally likely to order specialty items online.
- ▶ Shoppers living in the Northeast and West are most likely to routinely or occasionally shop online, whereas all regions equally purchase specialty items they cannot find in the store online.
- ▶ Shoppers with a slightly lower trip frequency of 1.2 versus the survey average of 1.8.

Online Ordering Drives Concern over Freshness, Quality and Lack of Control

All shoppers, regardless of whether they currently order food online, were asked to cite which concerns, if any, they may have with online ordering. The top three concerns are lack of freshness, poor quality and simply wanting the control of selecting fresh produce versus having someone else pick items for them. One respondent said, “Handing over the control of picking my fruits and vegetables? I don’t think so.” Among people who already routinely buy items online, freshness, quality and control concerns remain, but are much less pronounced. To the contrary, shoppers not currently buying food online tend to have even greater doubts about buying perishables using the web, as illustrated by: “Buy fresh fruit

and vegetables online? Get serious...” Or, “Why would I do that when there is local, organic, fresh produce available in my store?” On the other hand, shoppers reported positive experiences as well: “I shop online from a local organic produce company and their produce selection and quality is far better than any local store I physically shop at.”

The strength of the local movement can be seen in people’s hesitation to buy online as well. Many of the open-ended comments referred to shoppers’ preference to buy locally-sourced produce. One example is, “our supermarket makes an effort to have produce that is from local farms. I like giving my business to local farmers, even in the winter when the farmers’ markets aren’t open.”

What would be your main concern(s) with ordering fresh fruit and vegetables online? Check all that apply.	All	Do NOT purchase food online (74%)	Routinely purchase food online	Buy food online, but not fresh	Younger Millennials (18-24)	Boomers
Lack of freshness	69%	69%	49%	77%	67%	67%
Poor quality (bruised, too ripe, etc)	62%	62%	42%	74%	63%	57%
Just want to select fresh produce myself	59%	60%	27%	70%	47%	66%
Proper transit	44%	43%	33%	59%	40%	43%
Difficult to browse for produce (navigate)	21%	22%	12%	22%	14%	34%
Lack of service/help	14%	15%	6%	14%	17%	14%
Wrong amount	13%	12%	15%	14%	13%	14%
Wrong brand	7%	8%	15%	7%	6%	8%
No concerns	6%	5%	18%	6%	6%	4%

Other concerns include:

- Added cost of delivery charges.
- More expensive than in the store.
- Being home when delivery happens.
- Hygiene of everyone involved.
- Too much packaging.
- I shop on an “as needed” basis for each meal. It would be impractical.
- No guarantee in the quality of the foods we would receive and how would you return it? Go to the store? That defeats the purpose.
- Having items being stolen upon delivery.
- No checks and balances to ensure safety, whether in handling, delivery or sourcing.
- Online may not take EBT or food stamps like the stores do.



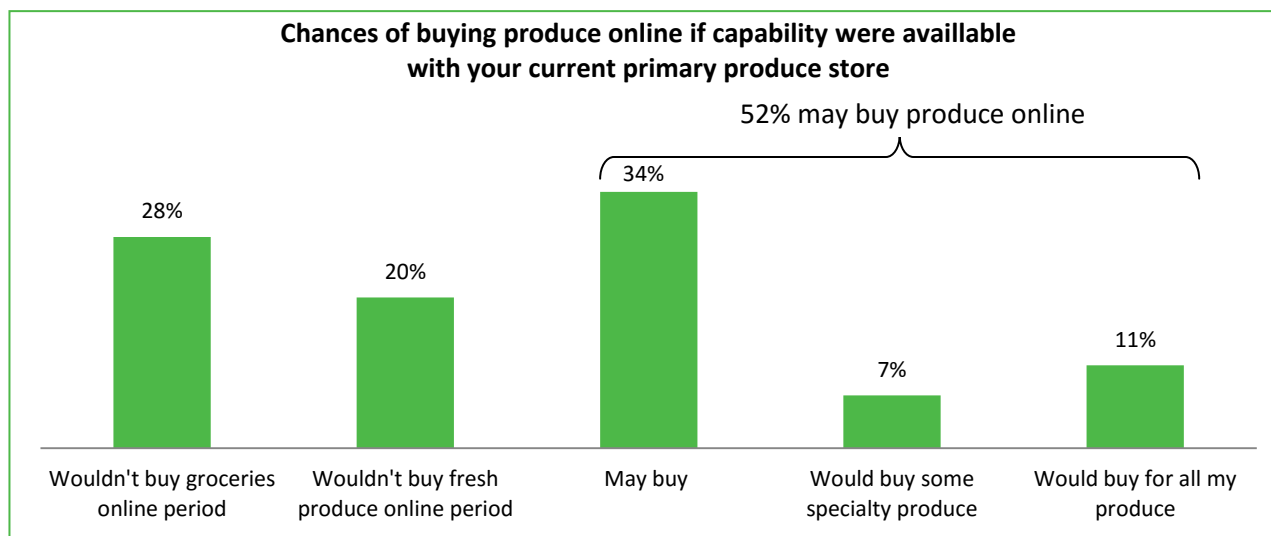
When considering online sales of fresh produce, these concerns are important points to address in marketing outreach. The different intensity in the concerns among current online purchasers and those who have never bought food online underscores that familiarity and experience help diminish concerns regarding buying perishables online.

Online Capabilities by Primary Produce Store Boosts Online Confidence

Next, shoppers were presented with a scenario in which their current primary store for produce offered online ordering with either home delivery or in-store pick up. While 74 percent of shoppers do not currently purchase food online, a much lower 48 percent would not buy online in this scenario. It seems



that experience and familiarity can quickly cut through the concerns people have with online ordering — signifying that the trusted relationship between the primary produce store and the shopper helps overcome at least some of the major concerns cited above when no specific online source was included in the question.



Q: If your main produce store were to offer online shopping with home delivery or in-store pick up at the same prices, would you consider purchasing fresh fruit/vegetables online?

Chances of buying produce online if through current primary produce department	All	Do NOT purchase food online (74%)	Routinely purchase food online	Buy food online, but not fresh	Older Millennials (25-35)	Boomers
Wouldn't buy groceries online period	28%	34%	0%	2%	22%	32%
Wouldn't buy fresh produce online period	20%	20%	12%	23%	17%	21%
May buy	34%	32%	43%	46%	37%	32%
Would buy some specialty produce	7%	6%	9%	11%	8%	8%
Would buy for all my produce	11%	8%	36%	17%	16%	7%



The notion of leveraging the existing and trusting relationship between the primary produce department and online ordering is certainly reinforced by those shoppers who buy some food items online, but not perishables. In our scenario, 46 percent said they “may” buy produce online with their primary produce store, 11 percent said they would buy specialty items that may not be readily available in the store and 17 percent said they would buy all their produce online.

These results are very much in line with findings of *The Supermarket Guide to Online Grocery Competition 2016*. According to Brick Meets Click, supermarkets’ greatest competitors are not pure

online grocery stores, but "basket bandits" like Amazon, Blue Apron, ThriveMarket.com and others, that capture some but not all of a supermarket's business, creating an ongoing stream of sales leakage. This report found that consumers have been spreading their online grocery shopping across more sites, and the increased availability of options is dramatically accelerating this trend.

According to the report, "basket bandits," which also include the online stores of mass and club retailers capture 84 percent of online grocery trips and take in 59 percent of all online grocery spending. By contrast, multichannel supermarkets — those with physical stores and an online presence — capture around 10 percent of online grocery trips, while pure online grocery competitors (with the potential of capturing all grocery categories) — account for around 6 percent of online trips.

The study found that multichannel supermarkets are winning nearly a third of the total dollars spent online, and doing especially well once their offers are well-established in a market. The share of spending numbers show the impact of the bigger basket sizes sold by multichannel supermarkets (with 32 percent dollar share) and direct competitors (9 percent dollar share). The study underscores that digital grocery is certainly impacting consumer behavior and share of wallet, but also suggests that brick and mortar grocers can still maintain the upper hand when capable of embracing a sound, multi-channel strategy.

Online Produce Sales by Brick-and-Mortar Retailers

Another layer of information comes from MyWebGrocer that provided insight into growth rates in online produce sales on platforms offered by brick-and-mortar food retailers. As found by the *Power of Produce*, shoppers willingness to purchase fresh is right in line with the rest of the grocery list with growth rates matching, if not exceeding, those of the total store and dry grocery.



For these retailers, produce represents 9.4 percent of their total eCommerce sales and 85 percent of basket contain fresh produce — much in line with the share found by IRI. Some of the categories outperforming overall online produce sales are shown to the right.

MWG growth rates	Growth vs. Yago	% of orders with x in cart
Citrus fruits	+126%	15%
Peppers and chilies	+124%	18%
Lettuce	+43%	14%
Broccoli and cauliflower	+39%	7%
Beans	+36%	4%
Melons	+33%	8%
Squash and zucchini	+24%	8%

However, growth rates do not always correspond with the frequency of purchase. The most common produce items in online baskets fulfilled by brick-and-mortar retailers are shown to the right.

MyWebGrocer basket data	% of orders with x in cart
Bananas	43%
Onions and garlic; cucumbers and celery	22%, each
Tomatoes	21%
Apples	19%
Peppers and chilies	18%
Grapes	16%
Tropical fruits; citrus fruits	15%, each
Organic vegetables	14%

Produce Consumption and Preparation

Chapter Insights:

- ▶ Fresh produce is a mature category, and driving growth requires innovative strategies leveraging population and consumption trends. At 99 percent, little can be done to improve household penetration, but significant opportunities lie in moving shoppers to higher consumption frequencies.
- ▶ Less than one-third of shoppers cite agreement with eating the recommended number of daily servings for fresh fruits and vegetables. Three-quarters agree that they try to eat more fresh produce, as is backed up by sales gains in fruit (+3.3 percent) and vegetables (+3.6 percent).
- ▶ Shoppers clearly see the health benefits of produce, but distinguish between the nutritional benefits of fresh, canned and frozen, with fresh being the clear winner in the eyes of the shopper. This health halo can be a strong platform for sales growth, as evidenced in the past year.
- ▶ One negative perception to overcome is that of cost. A majority of shoppers remain convinced that fresh is more expensive than canned or frozen.
- ▶ Dinner remains the biggest opportunity for vegetables, while snacking leads fruit consumption. Growth areas remain snacking, particularly for vegetables, and juicing, especially for fruit, underscored by double-digit sales growth rates for items addressing these trends.
- ▶ For home-cooked dinners, vegetable consumption remains constant, but growth can be seen in solutions addressing convenience — in response to the changing makeup of society.

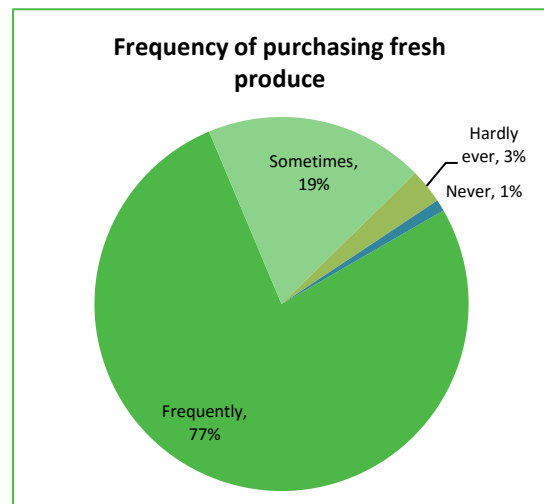
Finding Pockets of Growth in a Mature Category

Produce consumption is universal. The study found that:

- ▶ 98 percent of shoppers purchase fresh fruits.
- ▶ 99 percent purchase fresh vegetables.



So how do you continue to grow a mature category with a household penetration of 99 percent? One approach is finding ways to move shoppers from lower to higher purchase frequencies. This could be done by converting people from canned and frozen produce purchases to fresh. Or, by exploring new consumption occasions, such as produce snacking, juicing and smoothies. Additionally, value-added items can be a powerful tool to combat loss to restaurants. Across fruits and vegetables, 3 percent say they hardly ever purchase fresh and 19 percent do so only sometimes.



Additionally, demographic analysis shows many pockets with opportunity for increased consumption. For instance, purchase frequencies among supercenter produce shoppers are far below average, as are those of Millennials, men, lower-income households, one-person households, etc. The latter is a great example of an area that can be addressed specifically, particularly in areas with high concentrations of one-person households (see sidebar).

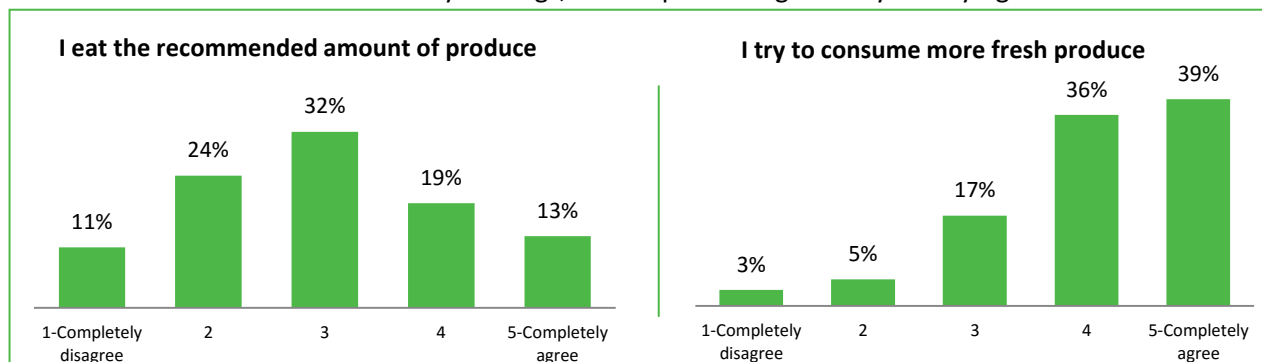
Fresh produce purchase	Frequently	Sometimes	Hardly ever
All	77%	19%	3%
Women	82%	16%	2%
Men	72%	23%	5%
Millennials	71%	26%	4%
Generation X	80%	18%	3%
Boomers	85%	13%	3%
Matures	80%	17%	3%
Lower household income	71%	24%	5%
Low-medium	80%	18%	2%
Medium-high	88%	10%	2%
High household income	89%	5%	6%
1 person household	70%	23%	2%
2	79%	19%	3%
3	82%	15%	2%
4	81%	18%	1%
5+	80%	18%	1%
Supermarket produce shoppers	78%	18%	3%
Supercenter	66%	28%	6%
Warehouse club	85%	15%	0%
Specialty organic	88%	12%	0%

The United States' population has undergone some major shifts and counts a record number of single- and two-person households. It is important to reflect these kinds of changes in produce merchandising and marketing. Consider just some of these trends:

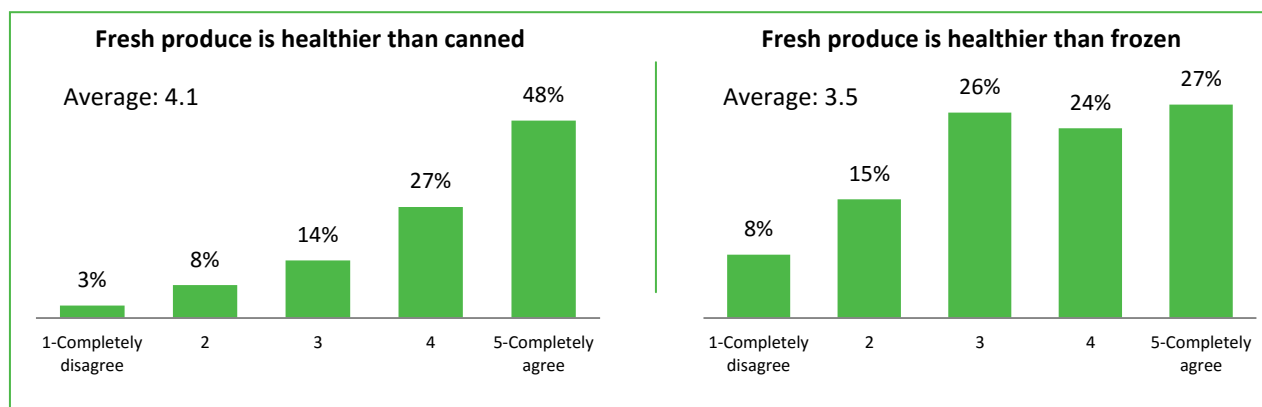
- ▶ A record 28 percent of households in the U.S. are made up of just one person, with urban areas having the highest percentage of people living alone. (Source: Population survey 2014)
- ▶ According to the Census, singles make up more than four in 10 households in cities across the country including Seattle, San Francisco, Denver, Minneapolis, Cleveland, Atlanta and Washington DC. In Manhattan, nearly 50 percent of households consist of a single occupant.
- ▶ Research by OpenTable based on bookings showed that reservations for parties of one have grown nationally by 62 percent, making them the fastest growing table party size.

Fresh Produce's Positioning Versus Canned and Frozen

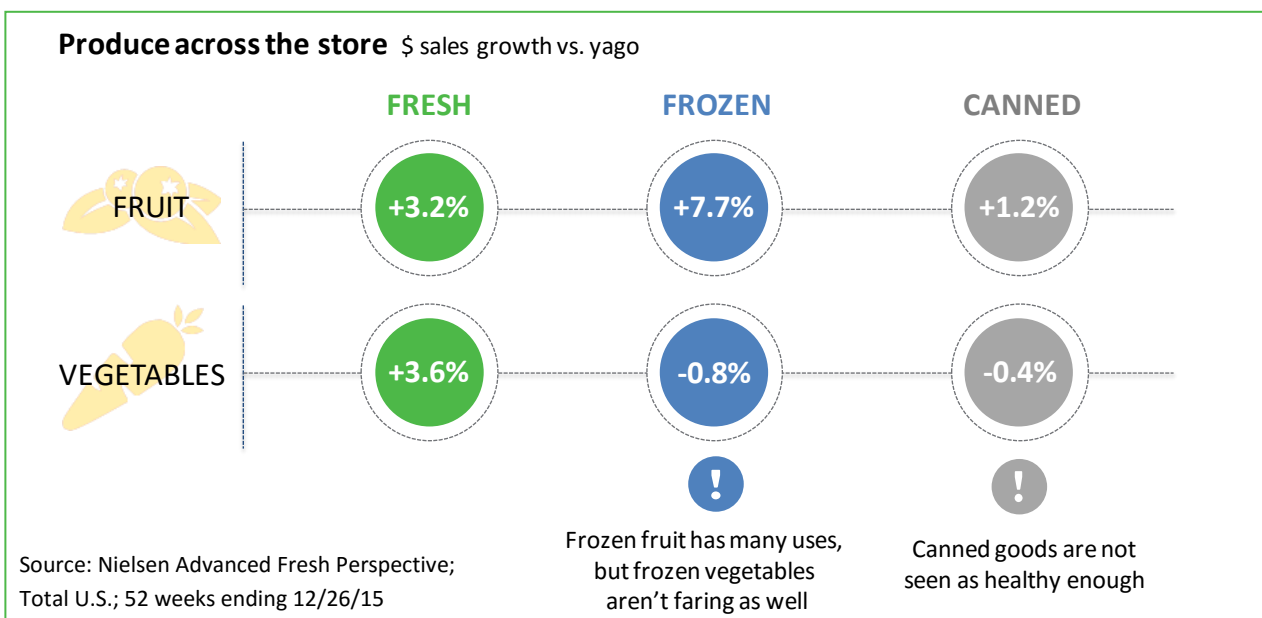
Fresh produce is in demand, with dollar and volume gains for both fresh fruits and vegetables. Fresh fruits and vegetables are everywhere, from center of plate and ingredients in other items, such as chocolate and yogurt, to checkout lanes and vending machines. Many shoppers recognize they fall short of the recommended number of daily servings, and 75 percent agree they are trying to consume more.



Shoppers clearly see the health benefits of produce, but distinguish between the nutritional benefits of canned, frozen and fresh. Shoppers perceive fresh as healthier than canned and frozen, with frozen faring better than canned.

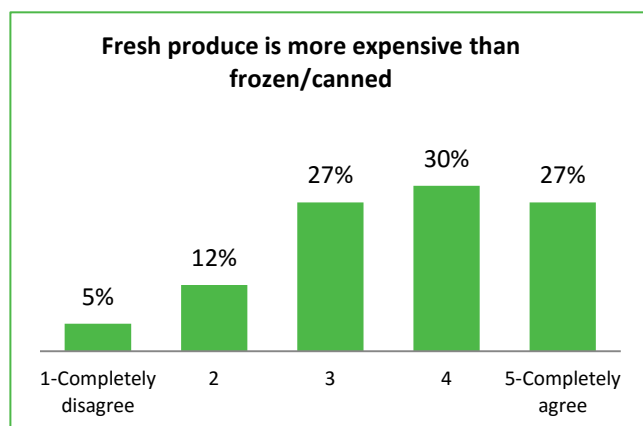


Perceptions of health certainly appear to affect sales of produce across the store in the midst of the health and wellness macro-trend.



Fresh produce has a real opportunity to move the needle on purchase frequency by leveraging its health halo among heavy users of canned and frozen produce.

One negative perception that remains, however, is that fresh is seen as more expensive than frozen/canned. Whether true or not, it is a long-standing perception and one that was cited by 30 percent of infrequent buyers as a reason for not purchasing fresh produce as often.



Dinner Remains Biggest Opportunity for Vegetables; Snack for Fruits

Without looking at a minimum eating frequency, fruit and vegetables are consumed over a number of meal occasions throughout the day. For fruit, the snack and breakfast occasions are the most common times Americans eat fresh fruit. For vegetables, the biggest consumption occasions are dinner and lunch.

During what meal occasions do you eat fresh fruit/vegetables in your household? (% yes)					
	Breakfast	Lunch	Dinner	Snack	Juicing/smoothies
Fruit	56%	48%	34%	68%	26%
Vegetables	13%	53%	83%	35%	13%

Up from 29 percent in 2015, more than one-third of shoppers say they snack on vegetables, and more than two-thirds eat fruits for snacks. Snack size vegetables grew at twice the rate of random weight vegetables when regarding year-over-year dollar sales growth. Prepared entrees and cut fruit each grew 10 percent over 2015. As such, these options contribute their fair share to the category's growth, while potentially creating new consumption occasions.

In addition to selling fresh produce to make smoothies or juice at home, in-store freshly-squeezed juice, infused water and smoothies were up 22 percent over 2015 and 105 percent over the past three years. Source: IRI, MULO, 52 weeks ending 12/27/2015.

Snacking and juicing/smoothies are some of the fastest growing areas with particular interest among women, younger shoppers and families with children.

Higher propensity for...		
	Snacking	Juicing/smoothies
Fruit	<ul style="list-style-type: none"> Families with children (83%) Women (84%) Millennials and Gen X (82%, each) 	<ul style="list-style-type: none"> Millennials (39%) Women (34%) Families with children (34%) Generation X (32%)
Vegetables	<ul style="list-style-type: none"> Millennials (47%) Families with children (46%) Generation X (45%) Women (44%) 	<ul style="list-style-type: none"> Families with children (24%) Generation X (20%) Women (18%) Millennials (18%)

No Change in Vegetables for Dinner, but Convenience Drives Growth

The evening meal is the largest usage occasion for fresh vegetables. In line with the flat volume gains (+0.3%) as measured by the Nielsen Perishables Group, the *Power of Produce* found little change in the number of home-cooked meals featuring a portion of fresh vegetables.

However, if and when shoppers cook, the majority contain one or more fresh vegetables. One-quarter of shoppers features a home-cooked dinner with fresh vegetables once or twice a week, while 62 percent do so three or more times per week.

Fresh Vegetables (Nielsen)

+3.6%

2014-15 \$ growth

+0.3%

2014-15 lbs growth

In an average week, how often are fresh vegetables part of a home-cooked dinner?	All
< Once a week	4%
1	13%
2	22%
3	19%
4	17%
5	9%
6	13%

Consumption frequencies differ widely across the population. Generally, households serving fresh vegetables for dinner more frequently include:

- Affluent households
- Households with children
- Shopper ages 26-36 and 37 to 52 (coinciding with child-rearing ages for most households)
- Shoppers buying organic
- Hispanic and Asian shoppers

While the total volume for vegetables may be flat, there are segments with robust growth. Many are tied to product attributes including organic, local and brands, as seen throughout the report, but convenience too is a central theme for shoppers today. The convenience trend is driven by many forces, including the growing number of dual-working households, people working longer, shoppers' on-the-go lifestyle and a record number of single shoppers, to name a few. These consumer dynamics and household trends have had a profound impact on meal preparation and shopping behaviors, with an ever-rising role for convenience in produce and beyond. Some examples are:

- Value-added vegetables: +10 percent
- Snack-size vegetables: +8 percent
- Prepared entrees: +10 percent
- Microwave-ready vegetables: +5 percent

Source: IRI, MULO, 52 weeks ending 12/27/2015.

Cooking styles are also evolving to increasingly reflect flavor, product and ingredient trends, but they have also become more exciting and quicker. Think about many easier-to-cook trends that are driving growth, such as fixed weight vegetables that are microwave-ready and ready-to-serve salad kits.

IRI found that an increasing number of shoppers are taking to hybrid homemade and convenience solutions when preparing meals:

- 79 percent use individual ingredients to cook from scratch.
- 36 percent use ready-to-heat foods that are semi-prepared. This share increases to 50 percent of the younger Millennials (18-24).
- 17 percent buy fully-prepared meals from their local store. This share stands at 20 percent of 18-24 and 35-49 year olds.



The quest for convenience is a macro-trend seen across all departments. This includes strategies and tactics that reduce time and effort for consumers, evidenced by foods that are easier to eat, easier to cook and/or have customizable portions. Another element of convenience foods may be the shopping itself, based on store placement, layout enhancements in the store, dedicated parking spaces, etc. The winning recipe appears to be seeing convenience as a holistic strategy across departments, to keep finding new opportunities to reduce time/effort.

Value-Added Produce

Chapter Insights:

- ▶ The quest for convenience is a macro-trend seen across all departments — driving the recent success of value-added produce that saw 10 percent dollar growth and 5 percent volume gains.
- ▶ Two-thirds of shoppers say they have bought a value-added produce item, but users — particularly heavy users, continue to skew toward affluent households and families with children.
- ▶ Future purchase expectations show increased spending among 21 percent of current buyers and a status-quo among 70 percent. The majority of shoppers only purchase a select few items as value-added and unprepared items for their other fresh produce purchases.
- ▶ Barriers to grow continue to center on control and cost, with suspected inferior quality/freshness and food safety concerns cited as secondary reasons.

Value-Added Produce Continues Growth in 2015

Value-added fruit and vegetables, which includes all produce with some level of preparation, including balled, chopped, chunked, cored, cubed, cut, diced, halved, pitted, shredded, microwave-ready, etc, is growing at a pace far ahead of the total market, at 10.1 percent versus 3.9 percent for total produce and 2.5 percent for unprepared produce. (Source: IRI, MULO, 2015)



Value-added fruit grew faster than vegetables, but vegetables make up about two-thirds of the value-added segment. While both dollars and volume grew, there is a significant gap — signaling some caution surrounding pricing to keep shoppers in the category.

Value added — 2015 (IRI)	Produce	Fruit	Vegetables
Dollar sales	\$10.7B	\$2.8B	\$7.2B
Volume sales	4.0B	0.9B	3.0B
\$ growth	10.1%	10.9%	10.0%
Volume growth	5.4%	5.9%	5.1%

Some of the larger sub-segments are:

Value added — 2015 (IRI)	Size	Growth
Cut fruit	\$1.3B	16.6%
Vegetable hearts	\$848M	0.6%
Cut vegetables	\$906M	13.4%

Some other, fastest-growing segments that are still sizeable include:

- ▶ Freshly-squeezed juice (+22 percent)
- ▶ Microwave ready (+15 percent)
- ▶ Ready-to-cook vegetables (+12 percent)
- ▶ Snack pack vegetables (+8 percent)

Value-added produce (IRI)

\$11B

VA produce 2015 \$

+10%

2015 \$ growth

+5%

2015 lbs growth

17%

VA share of total \$

\$1B

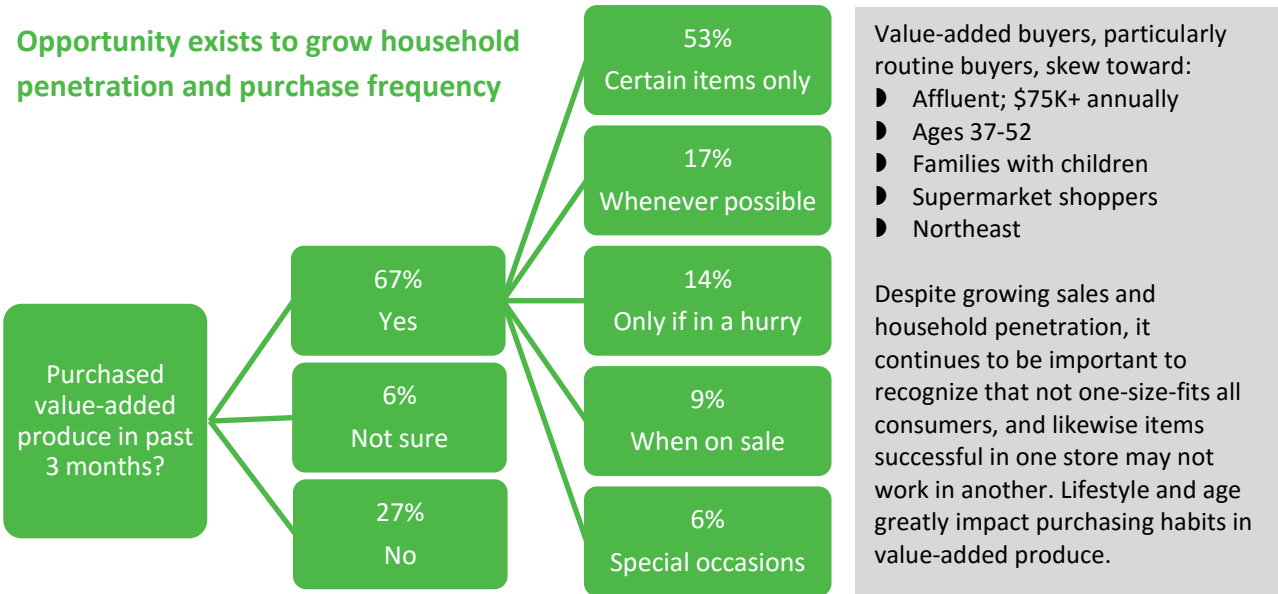
New \$ in 2015

In 2016 *Power of Produce*, shoppers provided input into their habits regarding value-added vegetable/fruit items — described as produce that provides convenience and time savings by being pre-cut, pre-washed, microwave-ready, ready-to-serve, etc. Images of in-store examples of value-added fruit and vegetables were shown to aid consumer understanding of the segment before answering questions in this section.

Household Penetration and Buying Frequency for Value-Added Rising

About two-thirds of survey respondents have bought some kind of value-added produce item in the past three months. For some (17 percent), this is their routine, go-to solution for fresh produce, but the majority of value-added buyers purchase select items only. As explained by a respondent, “I only buy the items that are worth the extra money versus the time-saving. I can cut up an onion myself, but I do buy the salad mixes that would otherwise require me to buy five-six different items.” Fourteen percent use value-added to get a quick meal on the table when in a time crunch. One respondent added, “I sometimes buy those microwave-ready green beans. It’s about twice as expensive but they’re ready in minutes and sometimes I just don’t have the time.”

Opportunity exists to grow household penetration and purchase frequency



Future purchase predictions for the upcoming year show a status quo for 70 percent of current buyers and 21 percent expecting to purchase more. However, among those who say they purchase value-added produce “whenever possible” fully 54 percent expect to further increase purchases — underscoring that growth is driven by a smaller, but loyal core to the segment.

Expected purchases value-added	Among buyers
More	21%
About the same	70%
Less	9%

21%

Of buyers expect to spend more

54%

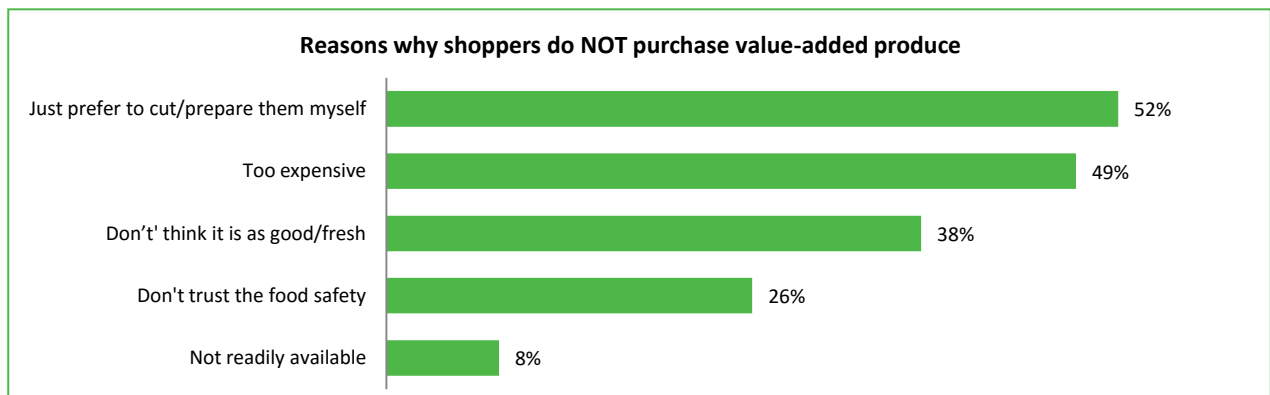
Of heavy users expect to spend more



While current heavy users are an attractive target market for additional value-added produce sales, the market also provides an opportunity to solve the convenience puzzle for those with lower incomes, work second and third shifts and seek specialty variety, such as organic or ethnic items. Both retailers and manufacturers are changing offers rapidly and broadening assortment will undoubtedly unlock future growth.

Control and Cost Biggest Obstacles for Value-Added Produce

Barriers to grow are relatively unchanged compared with last year and include shoppers' desire to cut/prepare fresh produce themselves versus having others handle the product; the convenience versus cost debate; food safety concerns; and distrust of quality and freshness of the product.



With control and cost being the two biggest obstacles to category engagement, retail tactics specifically addressing these concerns may help drive further growth. For instance, sales promotions, whether item-specific or meal BOGOs, may allow current non-buyers to experience the convenience, and subsequently, de-emphasize cost in the future. Likewise, explanations on sourcing or process may help overcome control or food safety issues — all the while driving messaging of health, freshness and convenience.

Other cited reasons for not purchasing value-added produce include:

- ▶ Limits shelf-life
 - After it's been cut, it means I have to use it within two days.
 - Fresh produce lasts much longer.
- ▶ Taste
 - I don't always like the taste of them.
 - Often it includes ingredients that I don't care for.
- ▶ Environment/sustainability
 - A lot of wasteful packaging.
 - Value-added to me just means "additional waste packaging."
 - It's environmentally irresponsible. Just buy loose produce and prepare it yourself. It only takes a few minutes.
- ▶ Joy of preparation/cooking
 - I know how to cook produce and enjoy the preparation.
- ▶ Product attributes
 - The products are often of unknown or undesirable provenance (i.e. not local).
 - Not organic.

Organic Produce

Chapter Insights:

- ▶ Organic is one of the key growth drivers for produce, both in dollars and volume.
- ▶ While still a small segment of the entire produce category, at 8.3 percent, sales gains are driven by increased household penetration, continued expectations of increased purchases among current buyers, growing availability across channels, and a stable, if not decreasing, price differential between conventional and organic produce.
- ▶ The top driver for purchasing organic produce is that shoppers equate it with “free from” substances shoppers wish to avoid, along with a perceived positive longer-term health effects. Environmental reasons rose 10 percentage points since the last study.
- ▶ While supermarkets are the number one outlet for organic produce, at 52 percent, total sales are scattered across a plethora of channels as ubiquity increases. Specialty organic stores are a big draw in produce and farmers' markets are also growing rapidly in number and market share.

Organic Produce Sales Trends

Organic has been a strong driver of growth for the produce department in terms of new dollars, units and volume, according to IRI and the Nielsen Perishables Group. IRI found that dollar sales advanced 13 percent in 2015, with volume growth of +15 percent. While dollar growth may be high due to its small base (representing 8.3 percent of total produce sales, up from 5.1 percent in 2010), this robust increase in volume sales shows that organic produce growth is both real and significant.

2015 (IRI)	Organic fruit	Organic vegetables
\$ growth	+10%	+14%
Volume growth	+14%	+15%
Change in retail price	-5.5%	+0.7%

Dollar sales gains were measured for all top-selling organic products, ranging from packaged salads (+10.3 percent) and berries (+9.1 percent) to organic bananas, that were up 34.4 percent over 2015. Source: Nielsen, 2015.

Category Engagement Reaches 60 Percent

The aggressive dollar gains were generated despite an average price differential of 50 percent or higher between organic produce and conventional, according to the Nielsen Perishables Group. However, they found price increases for organic vegetables advanced a mere 0.7 percent and organic fruit actually became less expensive in 2015, reflecting price decreases of 5.5 percent. As seen in the *2015 Power of Produce*, the price differential remains the largest barrier to entry for non-organic buyers and

Organic produce (IRI)

\$4B

Organic produce

+13%

2015 \$ growth

8%

Organic share of total \$

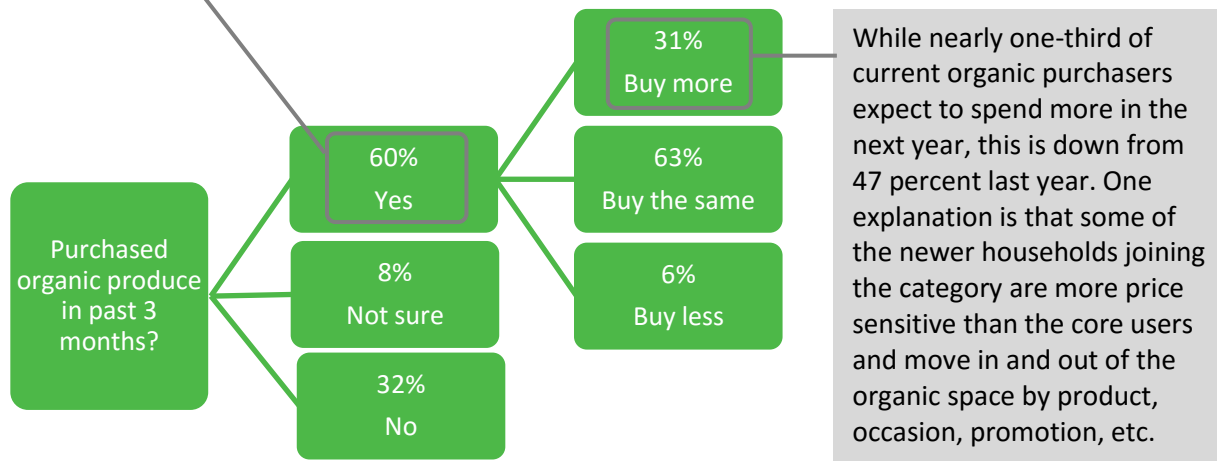
+500

New organic produce items (Nielsen)

Organic has made deep inroads into produce sales and household penetration compared with some of the other categories around the store. Household penetration (bought in the last 3 months) for organic produce reached an all-time high in 2016:

- 46% in 2011
- 54% in 2014
- 60% in 2016

the mild price inflation may be one of the drivers for the growing household penetration.



Despite the higher household penetration overall, there continues to be a core segment that is significantly more likely to purchase organic. These include:

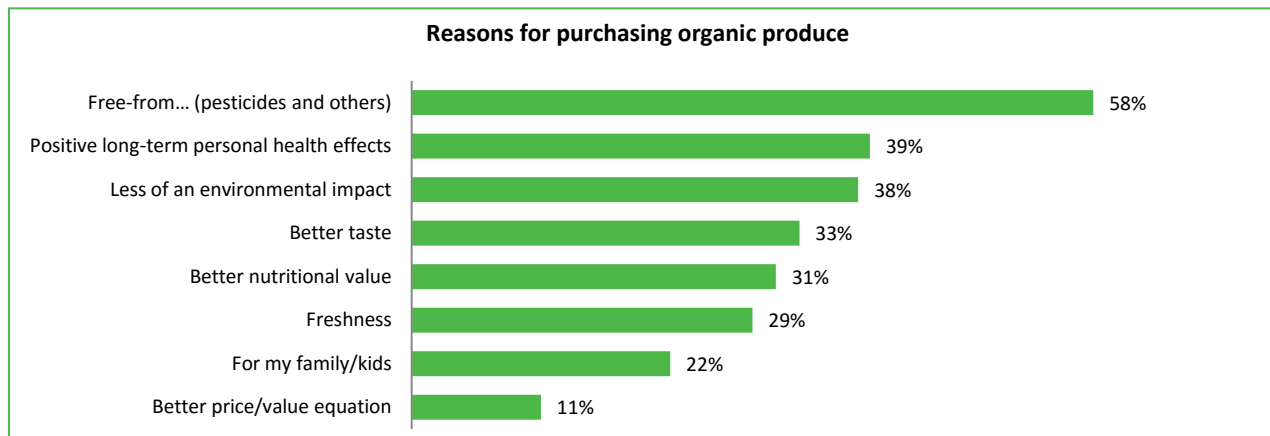
- Patrons of specialty/organic stores (94 percent); 69 percent of those purchasing produce at farmers' markets, farm-direct or produce stands; and club shoppers (62 percent) compared with a much lower 50 percent of supercenter shoppers.
- The propensity for buying organic produce grows along with household size. The propensity does drop back down among large families of five or more people. For instance, 54 percent of single households have purchased organic produce in the past three months versus 68 percent of three-person households and 58 percent of families of five or more people.
- Generation X (66 percent) and Millennials (64 percent) versus just 45 percent of Matures.
- High-income households (67 percent) versus 55 percent among the lowest income group, making up to \$35,000 per year.

“Free-From” and Longer-Term Effect Top Purchase Drivers for Organic

To keep existing customers and woo new ones, it is important to understand the purchase drivers behind organic produce and how they are changing. When organic first started to gain in popularity more than a decade ago, many shoppers believed it had better nutritional value hand in hand with positive longer-term health effects (source: FMI/Rodale Prevention Magazine *Shopping for Health*). In today's market, shoppers are increasingly focused on “free-from” — whether center store items, fresh in general or produce specifically.

As it was last year, “free-from substances they wish to avoid” is the number one reason for buying organic produce, at 58 percent, up from 53 percent last year. While organic does not guarantee that herbicides and pesticides have not been used, shoppers frequently equate organic with a short cut to

free-from. Some shoppers added examples of things they wish to avoid, which include GMOs, chemicals and pesticides. Strong secondary drivers are perceived positive long-term health effects, less of an environmental impact and better taste. Millennials are significantly more likely to believe that organic produce provides significantly more taste, freshness and is better for the environment.



Other reasons, with verbatim examples listed below each, include:

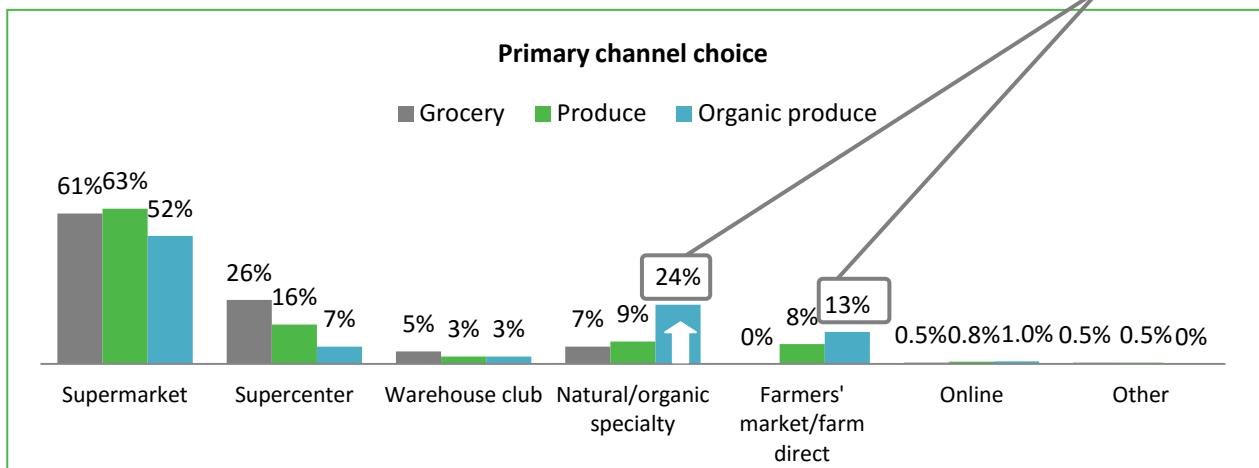
- ▶ **Sales promotions diminishing the price differential with conventional.**
 “Occasionally they are on sale and priced the same or less than conventional products.”
 “When discounted and a better price.”
- ▶ **Responsible farming.**
 “Often they are less industrial food.”
 “Promote sustainable farming practices.”
- ▶ **When the only item available.**
 “I don’t make a special point to purchase it but if it’s cheaper, or if the only variety of the product I want is organic, then I’ll buy it.”
 “If the store is out of an item, I will buy it.”
 “For some products, the only type available.”
- ▶ **Requested by others in the household.**
 “My wife prefers it.”

Others remain unconvinced of the benefits of organic, whether environmental, taste or health, seen in the *Power of Produce 2015*, where 36 percent of non-buyers cite they do not see added benefits. One respondent this year said, “I only buy it when it’s the only option available. Most of the reasons you have listed are common misconceptions.”

Organic Purchase Scattered Across Channels

While supermarkets are the clear winner in total fresh with a 63 percent share in produce, the organic purchase is scattered across multiple channels. At 52 percent, supermarkets do take the majority share but several others including the specialty stores, farmers' markets and even supercenters take significant shares of the business.

Both supermarkets and supercenters lose primary grocery shoppers to other channels for the organic produce purchase. Beneficiaries are specialty stores and increasingly alternative channels.



Supermarkets Lose Shopper to Specialty Channels

While the supermarket channel enjoys high shopper conversion for produce in general (85 percent), retention for the organic segment is much lower, at 68 percent — meaning 32 percent of supermarket patrons purchase *organic* produce outside their primary channel with farmers' markets and specialty stores being the primary beneficiaries.

Where do supermarket produce shoppers purchase organic produce?	
Supermarket	68%
Farmers' market/farm direct	15%
Specialty/organic	14%
Club	2%
Supercenter	0.6%
Online	0.6%
Other	0.2%

Up from 11 percent last year, 15 percent of supermarket shoppers purchase organic produce at farmers markets.

Another growing outlet is that of specialty organic stores, at 14 percent, up from 11 percent last year.



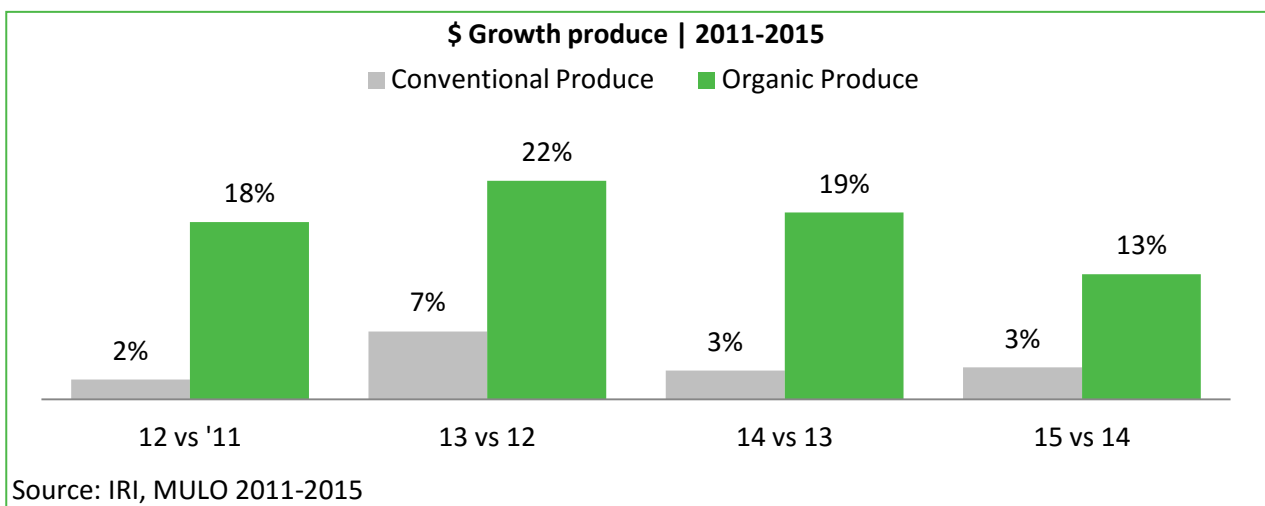
With organic having been the primary driver of new dollars, units and pounds in the traditional channels in the past couple of years, the battle for the organic shopper will likely heat up in future years. Supermarkets increased their share from 49 percent last year to 52 percent this year, but still lose many organic shoppers to the specialty and alternative channels. These channels' potential to disrupt an important point of differentiation should be a red flag for supermarkets, supercenters and clubs hoping to compete and differentiate themselves in the growing organic space.

Future Outlook for Organic Produce

Continued sales growth for organic produce is highly likely and can be a significant driver of growth for retailers that embrace it and have a customer base that demands it.

1. A combined 94 percent of shoppers expect they will buy the same (63 percent) or more (31 percent) organic produce in the next year.
2. The share of shoppers having purchased organic produce increased from one-third in 2009, according to *Shopping for Health 2009*, and stands at 60 percent today.
3. Organic produce is becoming more widely available in number and across channels. The Nielsen Perishables Group recorded an incremental 500 organic produce items over 2015. Additionally, farmers markets and natural/organic food stores are rapidly increasing in number across the country (see Channel chapter). Oftentimes, availability, exposure and education prompt increased use.
4. Price differentials are stable or shrinking. Sales of organic produce show strong growth, both over the past year and in the longer term.

On the other hand, shoppers who dabble in the organic category based on sales promotions or particular items may drive a greater price sensitivity in future years. Additionally, growth rates may start to slow because the category has reached a sizeable \$4 billion — making very high growth percentages less likely mathematically.



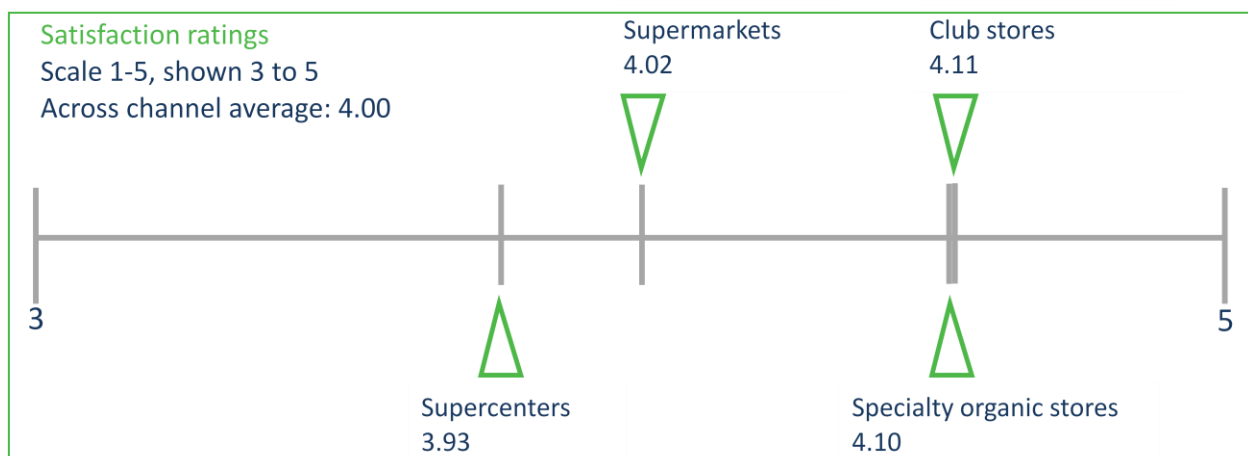
Improving the Produce Department

Chapter Insights

- Produce department satisfaction averaged 4.0 on a five-point scale, where five is very satisfied. While some channels underperform (supercenters), others run extremely strong produce programs that are recognized with higher-than-average scores (specialty/organic stores and clubs).
- Shopper satisfaction is extremely important in driving spending and loyalty, and shoppers point to better variety of items and better everyday prices as the two main areas of improvement. Other frequently suggested areas are quality/freshness, in-stock performance, promotions, special attributes, such as local, organic, ethnic or non-GMO, sampling and cleanliness.
- Millennials see greater room for improvement in promotions, specialty items, sampling and recipes — underscoring their nature as more spontaneous buyers looking for ideas on what to prepare.

Variety, Price and Quality Can Drive Better Satisfaction, Say Shoppers

In addition to learning about habits, interests and preferences, the survey probed into how the industry is measuring up, on a five-point scale, where five equals very satisfied. Club and specialty organic store shoppers handed out the highest average, at 4.1 and supercenters came in lowest, at 3.9.



Having satisfied shoppers is important to the top line. The *Supermarket Experience Study 2015* by the Retail Feedback Group found that highly satisfied shoppers tend to shop more frequently, spend more, are more likely to recommend the store to others and are more loyal to the store — all great reasons to maximize performance on freshness, quality, variety and in-stock performance. Likewise, the Nielsen Perishables Group in their recent *Fresh Guiding Principals* found that fresh does indeed drive success at retail:

- 50 percent of total food sales are fresh at top-performing retailers, and total food sales at these retailers are increasing (+10 percent)
- Produce-specific findings show that top fresh retailers emphasize specialty and cooking and focus less on traditional fruits and vegetables.

Respondents provided insight into areas of improvement through the eyes of the shopper. The list of improvements is led by a need for a better variety of items, followed by better everyday prices, better quality/freshness and improved in-stock availability of the items.

While shoppers will always expect and demand lower prices, other high-scoring areas may be ways to strengthen satisfaction and loyalty. In particular out-of-stocks is a common issue that affects spending but also satisfaction. Specific comments for each of the areas follow below.



Better variety of produce items

With 62 percent agreement, shoppers feel grocery stores across channels have room for improvement in the variety of produce items they carry. An additional quarter of shoppers would like to see a better variety of specialty items, be it organic, local, ethnic, non-GMO or a particular brand. Shoppers who have a greater interest in these attributes are much more likely to point out room for improvement, including Millennials and organic shoppers, to name a few. While a mere 8 percent believe stores can do better at value-added products, this share rises to 29 percent among those who purchase value-added “whenever possible.”

Some verbatim comments include:

- It's good that there's an organic section, but I would be much happier if there were an even larger variety of organic produce offered. (Same for locally-grown.)
- Greater variety of ethnic products. It's fine, but often they don't have certain things: cilantro, habanero peppers, etc.
- I always prefer a larger produce section, with local choices and more unique variety.
- More variety would be good. They usually have small quantities of unique items, but usually it's like apples, oranges, bananas, berries, and that's about it.

Better prices and promotions

At 41 percent, better “everyday prices” is the second highest area for improvement. Additionally, about one-quarter of shoppers believe promotional pricing could be better. Age plays an interesting role, where older shoppers ask for better everyday pricing and Millennials believe promotions could be better. Shoppers who tend to be more price-sensitive, including supercenter shoppers and lower-income households, were much more likely to encourage improvement in both areas.



In a way, the industry will never be able to win on price. Regardless of the price points driven by the market supply and demand, shoppers will always seek lower prices. But those retailers who are able to make price a secondary consideration behind other attributes such as quality, freshness, organic, local, service, etc. are in a much better position to drive produce department satisfaction, spending and loyalty.

Some input includes:

- ▶ Adding more organic produce, but not at the crazy expensive prices.
- ▶ Drop the prices, argh!
- ▶ I want them to lower the price for local products. I believe the products are cheaper out of state!
- ▶ Better sales on in-season produce would be nice.
- ▶ I wish there was more local produce (that was marked), that items were priced "each" rather than per lb., that there was a greater organic selection but not way steeper prices, that there was a section where all the organic/local produce was so you don't have to hunt around for the organic, pesticide-free produce.

Improved Produce Department Operations

Between two and three in 10 shoppers see room for improvement in various operational areas, starting with better quality/freshness and better in stock. The latter in particular drew a lot of open-ended comments, pointing to the frustration associated with out-of-stocks. Good quality/freshness is particularly important as it is the number one item on the purchasing decision tree for both fruit and vegetables. Other items include improved cleanliness and having all prices clearly marked. Last year's *Power of Produce* found cleanliness to be the highest-rated attribute of the produce department, so the low share here is hardly surprising. If indicated as an area for improvement, shoppers say they like to see trash cans, clean floors, removal of overripe produce, absence of fruit flies, and nicely stocked inventory. Other elements are clear signage and good organization. Most operational areas scored higher on the Boomers' radar as being areas for improvement, with the exception of out-of-stocks.

Comments made were:

- ▶ Maybe I just pick the wrong times, but they have a difficult time keeping some items in stock, which is frustrating.
- ▶ Get more variety and keep things in stock. I hate going and they are out of what I want.
- ▶ Better availability of promotional produce (always runs out). More/fresher choices for berries and organic apples.
- ▶ Make sure produce is in stock and anything that goes bad is removed from the shelf.
- ▶ Better display of the produce by keeping racks tidy and routine checks of spoiled items.
- ▶ Making it a cleaner space, the floors can look very dirty and although that doesn't physically affect the freshness or taste of the food, it makes me perceive the store as being dirty.
- ▶ More information about seasonality of produce. What is in/out of season? "Coming soon to be in season." I would waste less if I knew something was not in season and might not taste as good before I bought it. Also recommended shelf life would help plan my buying better.

Improved Shopper Outreach and Customer Service

More sampling, a greater variety of recipes, available and knowledgeable produce associates, and more cooking demonstrations drew agreement between 8 percent and 23 percent of shoppers. While certainly much less than improvement indicated for variety and prices, these may be areas for differentiation: if done well, they can become important platforms for stores to set themselves apart from the competition. Interestingly, Millennials, with their well-documented lack of cooking knowledge, have a much greater desire for more recipes, sampling and cooking demonstrations. These can be excellent areas to connect with the youngest group and foster a growing integration of fresh produce into the diet and meal lineup.

Comments provided include:

- Train the staff to recognize ALL of the produce which is carried by the store. I recently had 3 staff people who did not recognize rhubarb when I bought it.
- I hate bagging and then weighing it myself to put a price sticker on it. It's a pain. Should be done at the cashier. They will do it, but it seems like an inconvenience to them.
- Have more knowledgeable staff instead of people filling shelves.
- More information and recipes with fruits and vegetables. And have all the vegetables featured in the circular a) available and b) on sale.
- Give suggestions have to include some of the more unique items into a recipe.
- Have cooking displays like Costco where chef's prepare gourmet style veggie dishes so that people will not only want to buy more produce from the store, but will also get a free recipe when they come in to shop.



Shopper suggestions on areas of improvement are highly personal and subjective, in particular when it comes to quality, freshness and variety. Education on the industry's performance, for instance, "from the farm to the store in two days," along with frequent product rotation and re-stocking will help provide consumers with the confidence that the produce is fresh as well as safe.

A few more insights:

- Supercenter patrons who buy produce in the *supermarket* channel rated the produce department there with an above-average 4.3. In other words, they make the conscious decision to shop for produce outside of their primary grocery channel and are highly satisfied doing so. This will make it hard for supercenters to increase shopper retention.
- This study finds that few, if any, retailers can compete on price alone. While price is mentioned as a frequent area of improvement, it is not an important driver of satisfaction. Instead, shoppers seek value — expressed in freshness and quality for the right price.
- Even though produce departments do not typically have a customer service station (like the full-service counter in meat), having helpful and knowledgeable staff is a definite bonus. Often mentioned by shoppers as a recommended area for improvement, visible personnel actively helping customers may be a good way to differentiate, solve out-of-stock frustrations, be a helping hand and will go a long way in driving satisfaction.
- Out-of-stocks is one of the greatest detractors of satisfaction in general and in the produce department, specifically.

Methodology

The data for *The Power of Produce 2016* were collected through an online consumer panel. The survey was conducted in the first and second week of April 2015, among a national sample of 1,327 U.S. consumers. Sample adjustments were made to ensure the sample accurately mirrored the population. The margin of error associated with the survey is 2.7 percent at the 95 percent confidence level. Percentages may not always add to 100 percent due to rounding. Respondents must have met the following requirements to participate in the survey:

- ▶ A minimum of 18 years of age.
- ▶ Primary or equally shared responsibility for food shopping.
- ▶ Purchase fresh fruit and/or vegetables at least sometimes.

The report was prepared by Anne-Marie Roerink of 210 Analytics, LLC. For additional data, insights or explanations, email aroerink@210analytics.com or call 210.485.4552.

Sample Selection

The surveys were conducted through an online consumer database, comprised of several million respondents who have agreed to participate in survey research. Interviews took place using a self-administered, online questionnaire via web-assisted interviewing software. To maintain the reliability and integrity in the sample, each invitation contained a password that was uniquely assigned to a panel member.

All survey results are subject to sampling error — the difference between obtained results and those that would have been obtained by studying the entire population. The percentage difference varies with the size of the sample and with the percentage of respondents giving a particular answer.

Geographic regions

- **Northeast** — Composed of New England (CT, ME, MA, NH, RI and VT) and the Middle Atlantic (NJ, NY and PA).
- **Midwest** — Includes East North Central (IL, IN, MI, OH and WI) and West North Central (IO, KS, MN, MI, NE, ND and SD)
- **South** — Consists of South Atlantic (DE, DC, FL, GA, MD, NC, SC, VA and WV); East South Central (AL, KY, MS and TN); and West South Central (AR, LA, OK and TX)
- **West** — Composed of Mountain (AZ, CO, ID, MT, NV, NM, UT and WY) and Pacific (AK, CA, HI, OR and WA).

The study uses the following generational definitions:

- Young Millennials (Generation Y): Ages 18-24
 - Older Millennials: Ages 25-34
 - Generation X: Ages 35-50
 - Young Boomers: Ages 51-60
 - Older Boomers: Ages 61-69
 - Matures: Ages 70+
- Millennials: 18-34
- Boomers: 51-69