



# MANGO ATTITUDE & USAGE STUDY

July, 2013

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# BACKGROUND & METHODOLOGY



# Background

The National Mango Board (NMB) would like to update learning from previous Attitudes & Usage studies, while also investigating other areas such as food safety and quality issues experienced (if any) with mangos. As such, the overall goal is to measure consumer attitudes and usage practices as they relate to mangos, and importantly, determine the extent to which shifts have taken place over time.

Specifically, consumer awareness, behavior, knowledge and understanding of mangos was measured in order to evaluate how they fit into today's lifestyle, as well as determining consumer usage practices, understanding mango likes and dislikes, consumption/purchase patterns, whether or not food safety plays a role in the purchase decision and if consumers experienced any quality issues with mangos.

In addition, health awareness and health perceptions toward mangos were carefully examined, while also determining how consumers select a ripe mango and whether or not slicing is still a concern.

Finally, the NMB would like to gather an in-depth understanding of the consumer dynamics operating domestically to help fine-tune/improve their marketing campaigns.

# Methodology

A total of 1,003 interviews were conducted online among a nationally representative sample of consumers in the United States – 70% female, 30% male between the ages of 21-69 who make all the decisions or share in the decision making process regarding fresh fruit purchasing for their household.

The online interviews were conducted the last week of May and the first week of June in 2013.

Findings from this study will be compared to 2011 and 2007 data (where applicable) and used to track consumer behavior and trends for the NMB in the United States.

In addition, current purchasers (purchased mangos in the past 6 months), past purchasers (purchased mangos but not in the past 6 months) and non-purchasers (never purchased mangos) are segmented and tracked in order to properly compare user/non user groups.

Significance testing was performed at the 95% confidence level and differences are noted where applicable.

○ = significantly higher compared to other year(s)  
Green/Red = a significant difference within 2013

Moreover, a driver's analysis was conducted in order to determine which attributes are driving mango purchases from a statistically derived perspective.

Finally, 40 probe chats were conducted in order to diagnostically assess nutrition, mango perceptions, usage and slicing perceptions.

# MANAGEMENT OVERVIEW



# Management Overview

Notably, while category purchasing has remained fairly flat over the past couple of years as just under half of the sample currently buy mangos (2013 – 45% vs. 2011 – 46%) penetration has increased significantly since 2007 (35%). In addition, mango purchase frequency has also climbed (compared to 2011) among current purchasers, about three-quarters (73%) are buying them at least once every 2 or 3 weeks in spring/summer (compared to 62% in 2011) and 54% in the fall/winter (compared 43% in 2011).

Moreover, purchasing of sliced mangos increased (directionally) in 2013 – 40% vs. 2011 – 33%, while whole mangos remained static (96% in both 2013 and 2011). As seen in previous research, mango purchasing remains much higher in spring/summer (97%) compared to winter/fall (65%), with Hispanics being more frequent buyers. However, future purchase intent is very strong for “ripe and ready” mangos during the fall and winter months among current buyers. More than 8 in 10 are in the top-2 box (definitely/probably would purchase mangos if they were “ripe and ready” – 81%), while nearly half of the past purchasers also expressed interest (definitely/probably would purchase mangos if they were ripe and ready – 48%).

Importantly, our norm for purchase intent is 50-60% top-2 box (with current purchasers exceeding the goal and past buyers approaching it) it is a strong sign that “ripe and ready” mango buying during this time-frame has the potential to grow significantly.

Moreover, interest in organic mangos continues to gain traction among current/past purchasers, as well as non-purchasers and has nearly doubled compared to 2007 (2013 – 30% vs. 2011 – 24% vs. 2007 – 16%) with most of the gains coming from men (2013 – 33% vs. 2011 – 19%) and shoppers 21-29 years of age (2013 – 41% vs. 2011 – 30%). In addition, sustainably grown mangos also has promise, more than half of the current mango buyers expressed interest (51%), while past buyers and non-buyers are less interested (30% and 20%, respectively). On the other hand, mangos treated by food irradiation elicits a much lower consumer response as only 38% of the current mango buyers expressed interest, while only 22% and 18% of the past and non-buyers would purchase it.

# Management Overview

Importantly, the key purchase drivers in the mango category revolve around “availability” and the “desire for more information”. In fact, other than “price” (i.e. less expensive mangos would motivate higher sales) consumers shared that mangos “being available where they usually shop for groceries” would encourage them to buy more mangos, while “better quality” mangos was also high on the list. At the same time, the shoppers also indicated that they would be inclined to purchase more mangos if they were better informed in terms of “understanding the different varieties of mangos”, “knowing how to cut and slice a mango” and “knowing how to select a good mango”.

Overall, the research indicates that if these key areas were addressed: “providing more information/education about mangos” and “keeping mangos in front of the consumers at POS”, mango sales would increase. The need for “education” is most apparent by the consumers own admission that they don’t “know how to choose a mango”. Moreover, the inability to select a “good” mango is, in our opinion, directly correlated to the feeling on the part of consumers that (mango) quality is an issue. In effect, being able to choose a good mango, goes hand in hand with quality perceptions. Accordingly, we would recommend that the NMB develop alternate strategies/communications designed to provide consumers with the knowledge required to choose a mango and then test them in order to determine which one is most effective and impacts sales the most. The most effective can then be used at POS and in PR literature which will serve a dual purpose: 1) keep mangos in front of the consumer to counter “out-of-sight, out-of-mind” and 2) provide knowledge/information to the consumer so that they can be more assured of the quality of the mango they’re buying.

All in all, a marketing plan that places emphasis on “education” and “presence in the stores”, it is our opinion, that mango sales will increase going forward.

# PURCHASERS – AT A GLANCE



# Current Purchasers

2013

Total Sample  
N=1003

Current Purchasers  
45%

Past 6 months

Whole 96%

Sliced 33%

Buys during spring/  
summer 97%

Buys during fall/  
winter 65%

Current purchase vs. last year

- More than a year ago – 41%
- About the same – 44%

Purchase Intent

Next 6 months

Whole  
Top-2 Box  
87%

Sliced  
Top-2 Box  
57%

Organic  
Top-2 Box  
47%

Irradiation  
Top-2 Box  
38%

Sustainably  
Grown  
Top-2 Box  
51%

# Current Purchasers

## Consumption

### How/Where Consumed Last 10 Mangos:

- Home (81%)
- Restaurant (8%)
- By itself (65%)
- With other fruit (23%)
- As an ingredient (12%)
- Frequency of eating out (59.4 times per year)
- Frequency of eating at home (186 times per year)

### Ways Mangos Are Eaten:

- By itself (83%)
- With other fruit (60%)
- Smoothie (56%)

### How/When Mangos Are Served:

- Snack (74%)
- Everyday occasions (54%)
- For breakfast (48%)

### Who Consumes Mangos:

- Self (93%)
- Other adult male (44%)
- Other adult female (36%)

### Who Prepares Mangos:

- Female (85%)
- Male (42%)

## Handling

### How To Tell If It's Ripe:

- Soft to the touch (55%)
- Smells ripe (43%)
- Red in color (28%)
- By the texture of the skin (22%)

### How Mangos Are Stored To Ripen:

- Keep it whole out on counter (61%)
- Keep it in a paper bag (28%)
- Store whole in refrigerator (21%)

### How Mangos Are Stored When Fully Ripe:

- Store whole in refrigerator (40%)
- Cut and store in refrigerator (37%)
- Keep it whole out on counter (27%)

## Attitude and Satisfaction

### Mangos Are... (Top-2 Box)

- Tropical (90%)
- Healthy/nutritious (89%)
- Tastes great (88%)
- Have a special mystique (52%)
- Special treat (64%)

### Mango Flavor

- Like mango flavor (97%)

### Situations That Would Encourage More Purchase... (Top-2 Box)

- Better quality (77%)
- Less expensive mangoes (73%)
- Greater availability of mango where I shop (70%)
- Sampling and tasting sliced mango (64%)
- Learning how to select a good mango (62%)
- Understanding different varieties of mangos (60%)

### Mango Quality Perceptions:

- Excellent/very good (54%)
- Ever disappointed (52%)

### What Triggers Disappointment:

- Not ripe enough (47%)
- Lacks taste/texture (44%)
- Too ripe (44%)
- Not sweet (37%)
- Poor texture (34%)
- Not juicy (32%)

# Current Purchasers

## Demographic Profile

- Male (30%)
- Female (70%)
- Caucasian (64%)
- Hispanic (20%)
- African American (13%)
- Employed (46%)
- Some college or higher (85%)
- South region residents (34%)
- West residents (25%)
- Northeast residents (21%)
- Midwest residents (19%)
- Average age (42 years old)
- Average income (\$60,630)

## Shopping Behavior

### Shopping Experience (Top-2 Box)

- Available all year round where I usually buy my fruit (40%)
- Mangos are usually on my shopping list (39%)
- Buy mangos on impulse (37%)
- Frequently can't find mangos that are ripe and ready to eat (35%)

# Past Purchasers

2013

Total Sample  
N=1003

Past Purchasers  
15%

Purchase Intent

Next 6 months

Whole  
Top-2 Box  
34%

Sliced  
Top-2 Box  
30%

Organic  
Top-2 Box  
23%

Irradiation  
Top-2 Box  
22%

Sustainably  
Grown  
Top-2 Box  
30%

# Past Purchasers

## Consumption

### How/Where Consumed Last 10 Mangos:

- Home (71%)
- Restaurant (14%)
- By itself (63%)
- With other fruit (21%)
- As an ingredient (16%)
- Frequency of eating out (44 times per year)
- Frequency of eating at home (195 times per year)

### Ways Mangos Are Eaten:

- By itself (72%)
- Smoothie (51%)
- With other fruit (46%)

### How/When Mangos Are Served:

- Snack (64%)
- For dessert (34%)
- Everyday occasions (41%)

### Who Consumes Mangos:

- Self (84%)
- Other adult male (32%)
- Other adult female (25%)

### Who Prepares Mangos:

- Female (77%)
- Male (32%)

## Handling

### How To Tell If It's Ripe:

- Soft to the touch (41%)
- Smells ripe (36%)
- Firm to the touch (17%)
- Red in color (17%)

### How Mangos Are Stored To Ripen:

- Keep it whole out on counter (54%)
- Keep it in a paper bag (25%)
- Store whole in refrigerator (22%)

### How Mangos Are Stored When Fully Ripe:

- Store whole in refrigerator (49%)
- Cut and store in refrigerator (27%)
- Keep it whole out on counter (21%)

## Attitude and Satisfaction

### Mangos Are... (Top-2 Box)

- Tropical (87%)
- Healthy/nutritious (75%)
- Tastes great (68%)
- Special treat (52%)

### Mango Flavor

- Like mango flavor (90%)

### Situations That Would Encourage More Purchase... (Top-2 Box)

- Less expensive mangoes (60%)
- Better quality (58%)
- Learning how to select a good mango (58%)
- Sampling and tasting sliced mango (52%)
- Greater availability of mango where I shop (46%)

### Mango Quality Perceptions:

- Excellent/very good (27%)
- Ever disappointed (47%)

### What Triggers disappointment:

- Lacks taste/flavor (47%)
- Not ripe enough (38%)
- Poor texture (30%)
- Not sweet (29%)

# Past Purchasers

## Demographic Profile

- Male (23%)
- Female (77%)
- Caucasian (66%)
- Hispanic (17%)
- African American (15%)
- Employed (40%)
- Some college or higher (83%)
- South region residents (36%)
- West residents (29%)
- Midwest residents (23%)
- Northeast residents (12%)
- Average age (46 years old)
- Average income (\$55,360)

## Shopping Behavior

### Shopping Experience (Top-2 Box)

- Buy mangos on impulse (51%)
- Frequently can't find mangos that are ripe and ready to eat (32%)
- Frequently the mangos that are available are not of good quality (23%)
- Frequently I can't find mangos when I'm looking for them (23%)

# Non-Purchasers

2013

Total Sample  
N=1003

Non-Purchasers  
40%



Purchase Intent

Next 6 months



Whole  
Top-2 Box  
11%



Sliced  
Top-2 Box  
21%

Organic  
Top-2 Box  
14%

Irradiation  
Top-2 Box  
18%

Sustainably  
Grown  
Top-2 Box  
20%

# Non-Purchasers

## Attitudes and Satisfaction

### Mangos Are... (Top-2 Box)

- Tropical (74%)
- Healthy/nutritious (58%)
- Expensive (38%)
- Tastes great (34%)

### Mango Flavor

- Like the mango flavor (61%)

### Situations That Would Encourage More Purchase... (Top-2 Box)

- Less expensive mangos (46%)
- Sampling and tasting sliced mango (49%)
- Learning how to select a good mango (49%)
- Learning how to cut and slice a mango (43%)
- Better understanding of different varieties of mangos (42%)
- Better quality (38%)

## Consumption

### Ways Mangos Are Eaten:

- With other fruit (26%)
- Smoothie (24%)
- By itself (18%)
- In a salsa or chutney (18%)
  
- Frequency of eating out (53.8 times per year)
- Frequency of eating at home (178.8 times per year)

## Demographic Profile

- Male (33%)
- Female (67%)
- Caucasian (81%)
- African American (10%)
- Hispanic (7%)
- Employed (46%)
- Some college or higher (77%)
- South region residents (35%)
- Midwest residents (25%)
- West residents (21%)
- Northeast residents (19%)
- Average age (46 years old)
- Average income (\$49,240)

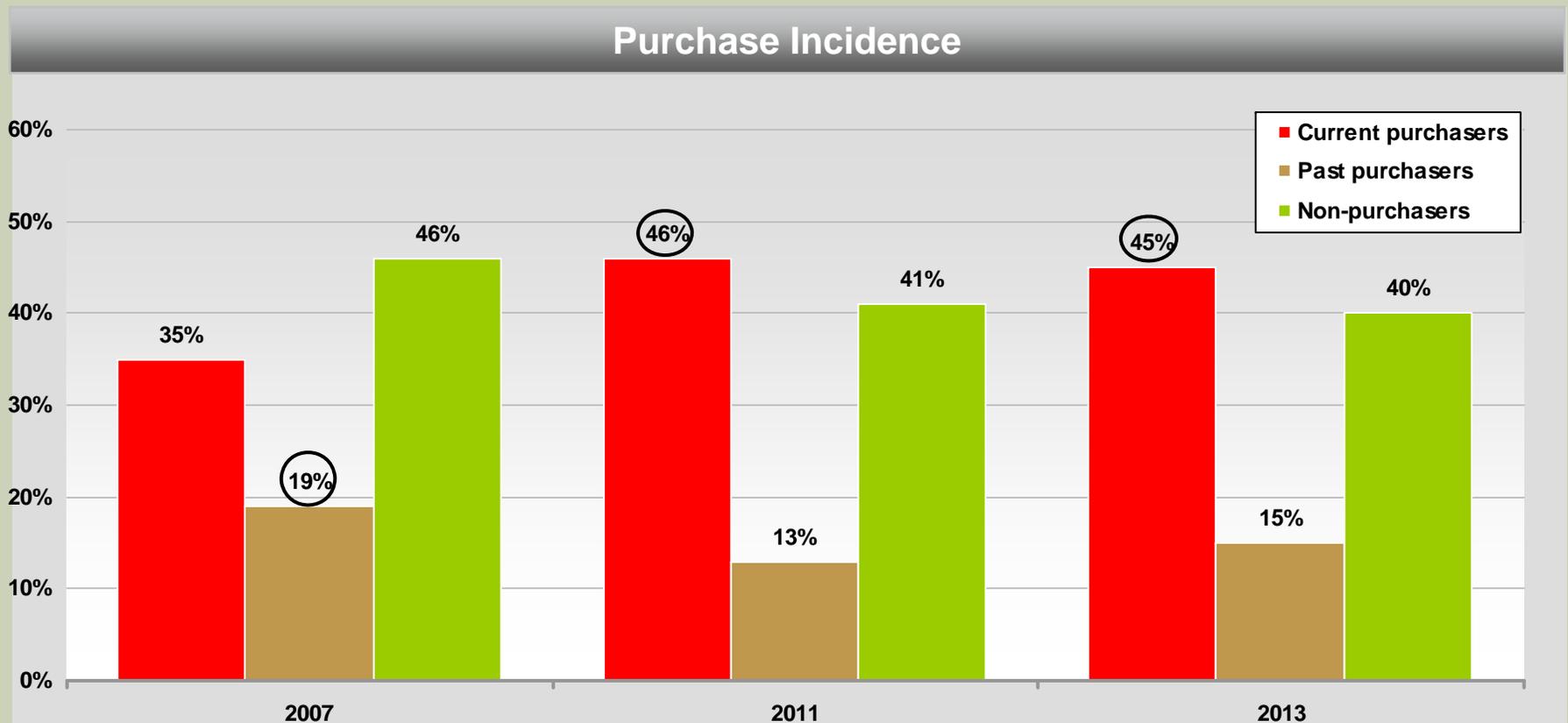
# CATEGORY INCIDENCE



# Purchase Incidence

Overall, mango purchase incidence hasn't changed much over the past couple of years, 4 in 10 of the shoppers bought them in the past 6 months (either whole or sliced), while 15% have reportedly purchased mangos in the past (and don't currently buy them) and 40% who never bought them.

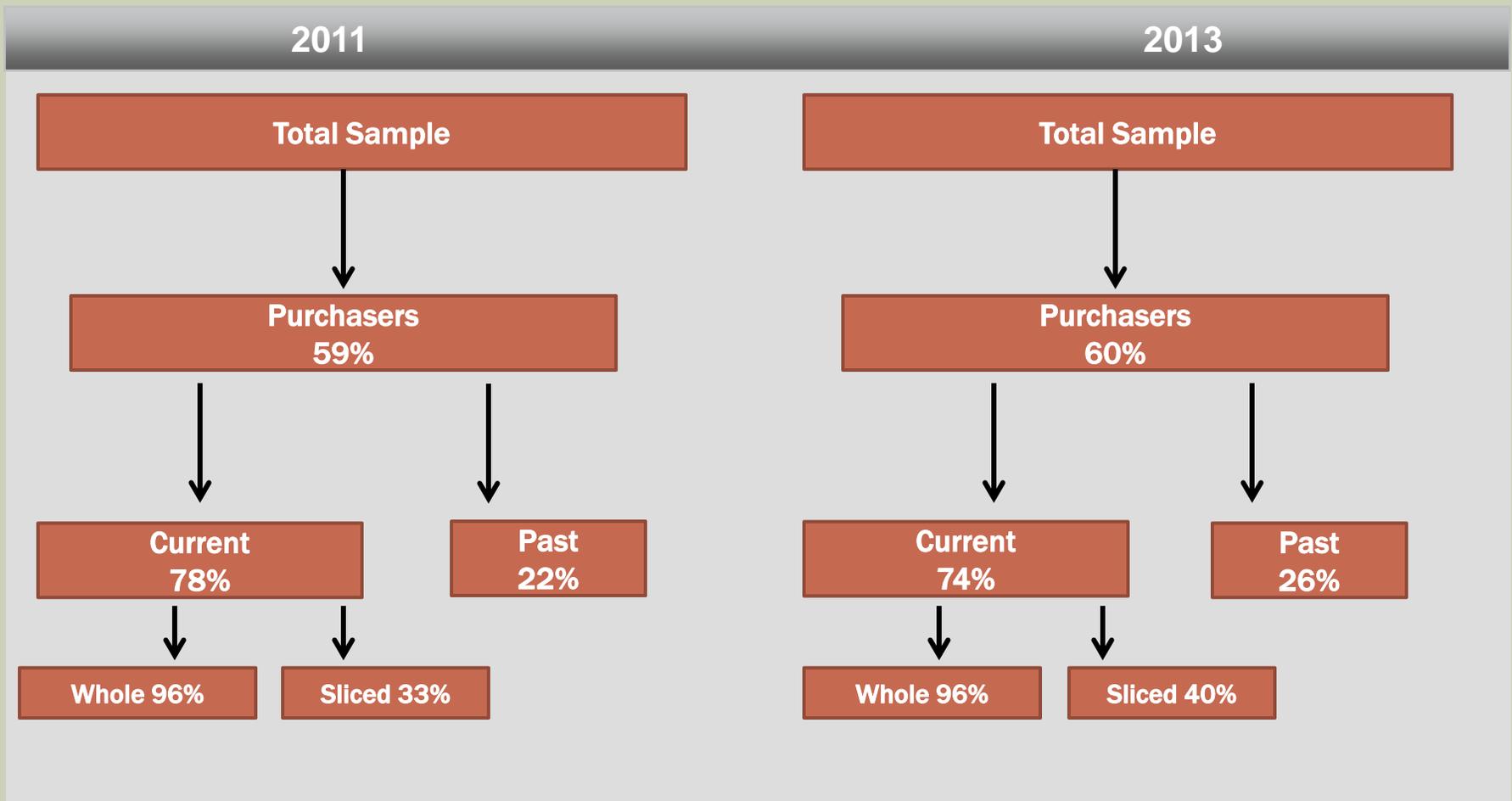
- Current mango purchasers in 2013 and 2011 are significantly higher than 2007.



1. Have you ever purchased fresh mango for yourself or your family?
2. Have you purchased fresh mango for yourself or your family during the past 6 months?
3. Have you purchased fresh mango during the past 6 months that were sold pre-sliced and packaged?

# Purchase Incidence

Similarly, while purchasers of mangos in 2013 were also more or less in line with 2011, (current and past buyers) buying sliced mangos increased (from 33% to 40%), while whole mangos remained static (96%).



1. Have you ever purchased fresh mango for yourself or your family?
2. Have you purchased fresh mango for yourself or your family during the past 6 months?
3. Have you purchased fresh mango during the past 6 months that were sold pre-sliced and packaged?

# PURCHASE BEHAVIOR

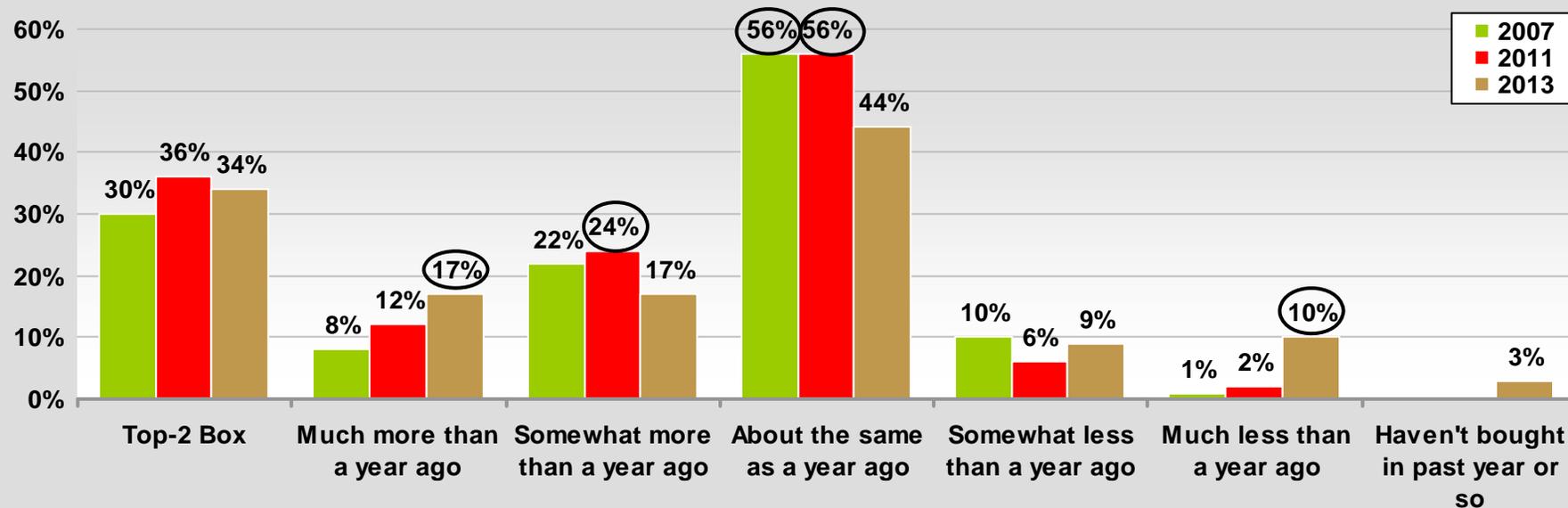


# Mango Purchasing Compared to a Year Ago

Similar to past years, more than one-third of the current and past purchasers reportedly bought more mangos compared to a year ago (much/somewhat more), while significantly fewer shared buying “about the same” amount, with about 1 in 10 mentioning “somewhat less” and “much less” – higher vs. 2011.

- Notably, younger respondents (21-44 years of age) are significantly more likely to be purchasing more mangos (now vs. a year ago) compared to their older counterparts (45+ years of age).

## Mango Purchasing Compared to a Year Ago



Mango Purchasing Compared to a Year Ago	Age 21-29 %	Age 30-44 %	Age 45-54 %	Age 55-69 %
Top-2 Box	41	38	25	31

19. Are you purchasing mangos...?

# Mango Purchasing – By Season

Virtually all of the current purchasers buy mangos during the “spring and summer”, while “winter and fall” was lower.

- Interestingly, shoppers 30-54 years of age bought more mangos in the “winter and fall” of 2013 compared to 2011.
- In addition, Hispanics are significantly more likely to purchase mangos in the “winter and fall” compared to African Americans.

	Total %		Male %		Female %		Age 21-29 %		Age 30-44 %		Age 45-54 %		Age 55-69 %	
	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013
Spring & Summer	93	97	97	98	93	96	89	96	95	99	93	97	97	95
Winter & Fall	59	65	64	71	57	63	59	65	59	69	48	59	67	65

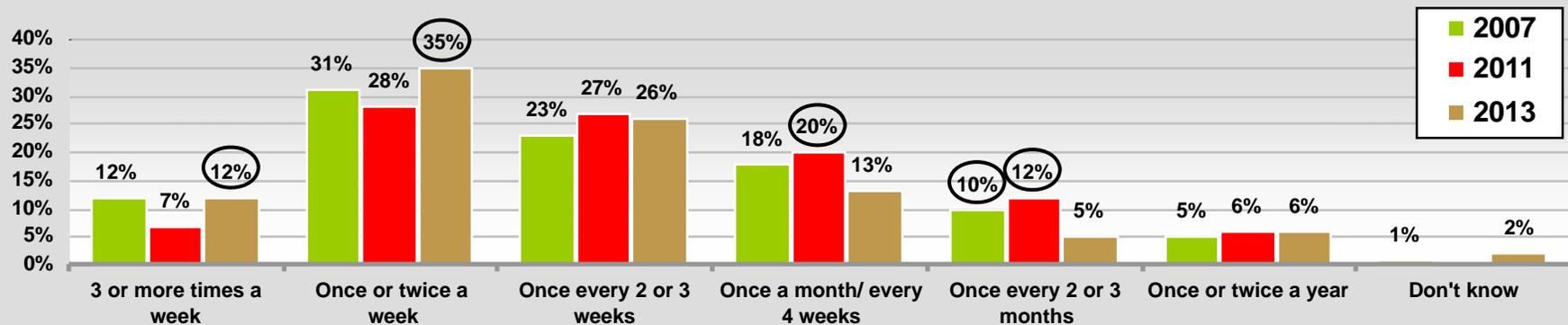
	Caucasian %	African American %	Hispanic %
Winter & Fall	65	57	74

21. Do you purchase mangos during the spring and summer months, from March through August?  
 23. Do you purchase mangos during the fall and winter months, from September through February?

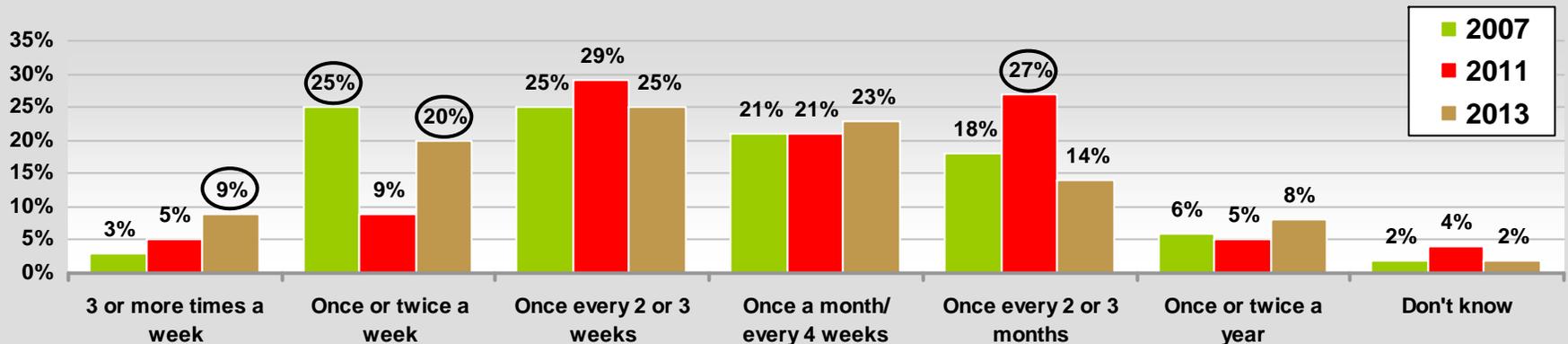
# Frequency of Mango Purchasing – By Season

Mango purchase frequency increased significantly this year compared to 2011 – with 73% buying them at least once every 2 or 3 weeks in the spring/summer (compared to 62% in 2011) and 54% in the fall/winter (compared to 43% in 2011).

## Spring/Summer Mango Purchase Frequency



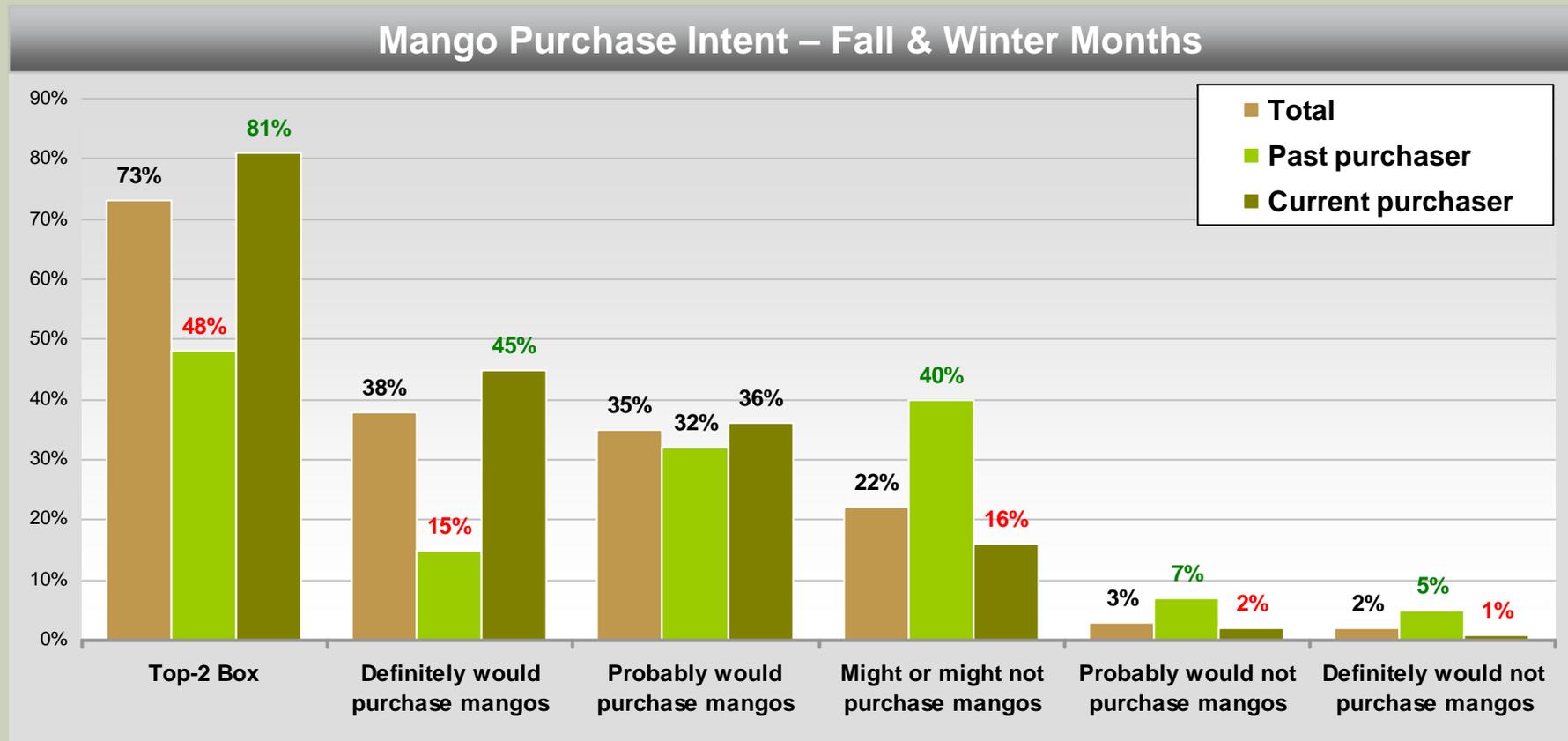
## Fall/Winter Mango Purchase Frequency



22. About how often are mangos served at your home during the spring and summer months?  
 24a. About how often are mangos served at your home during the fall and winter months?

# Ripe and Ready Purchase Intent – Fall/Winter

Encouragingly, purchase interest is strong during the “fall and winter months” for a ripe and ready product, as more than four-fifths of the current purchasers would buy them (if they were ripe and ready for purchase) and sold at an acceptable price, while almost half of the past purchasers would buy them as well, with 4 in 10 of them “on the fence” (might or might not buy).



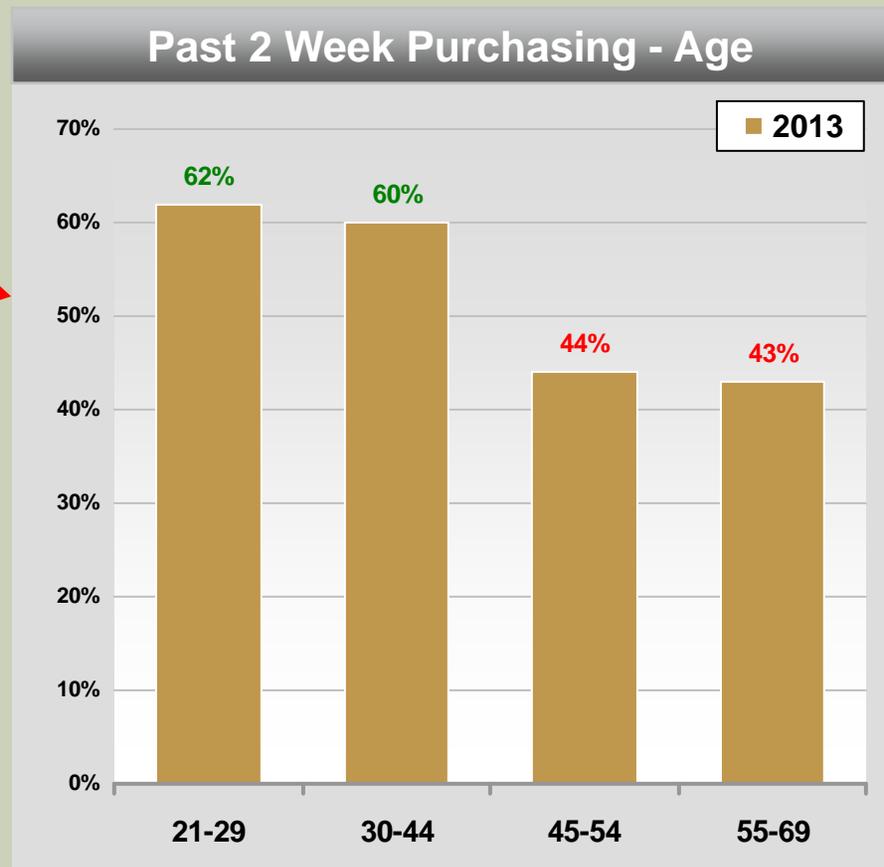
24b. And, if mangos were available that are ripe and ready for purchase during the fall and winter months at a store where you normally shop at an acceptable price, would you say you would...?

# Mango Purchasing – Past 2 Weeks

More than half of the current purchasers bought mangos in the past two weeks – especially younger respondents (21-44 years of age) and Hispanics.

- In addition, consumers purchased about 5 mangos in the past two weeks on average.

	Past 2 Week Purchasing Current	# Mangos Purchased in 2 weeks (MEAN)
Yes	53%	4.94
No	47%	NA



	Caucasian %	African American %	Hispanic %
Purchased fresh mango in the last 2 weeks	49	55	70

4. Have you purchased fresh mango during the past 2 weeks?  
 5. How many fresh mangos have you purchased in the past 2 weeks?

# Future Purchase Intent

Future purchase intent for mangos continues to be strong, as over 9 in 10 plan on buying them in the future, especially current purchasers and those between the ages of 30-54.

- However, significantly fewer past purchasers plan on buying mangos in the future compared to two years ago (2011 – 92% vs. 2013 – 77%).

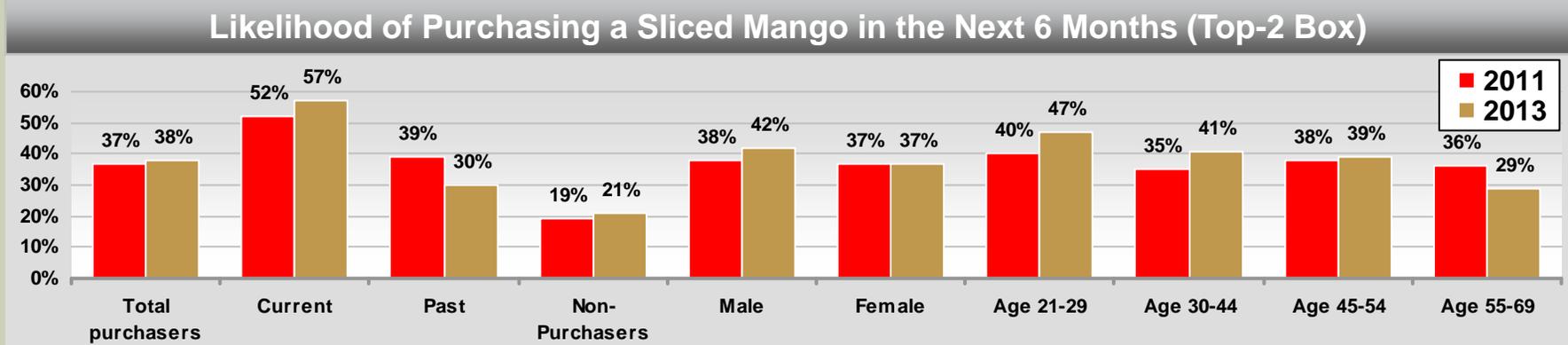
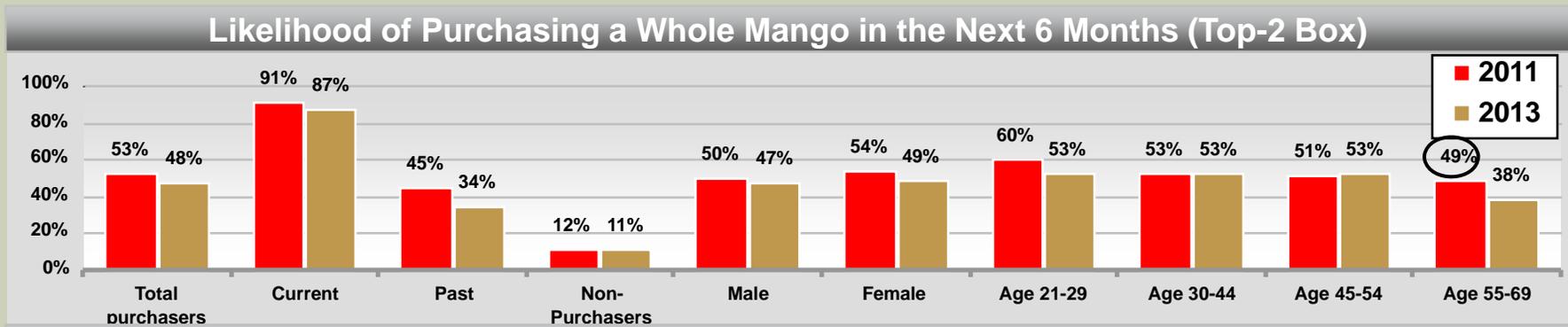
	Total %		Current %		Past %	
	2011	2013	2011	2013	2011	2013
Yes, I plan on purchasing mangos in the future	96	92	97	98	92	77

	Male %		Female %		Age 21-29 %		Age 30-44 %		Age 45-54 %		Age 55-69 %	
	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013
Yes, I plan on purchasing mangos in the future	96	93	96	92	98	92	94	96	96	97	98	85

9. You've indicated that you have previously purchased mangos; do you plan to purchase mangos in the future?

# Likelihood of Purchasing a Mango in the Next 6 Months (Whole or Sliced)

About half of the respondents plan on purchasing a whole mango in the next 6 months, while about 4 in 10 anticipate buying a sliced mango, especially current purchasers, 21-29 year olds, Hispanics and African Americans.



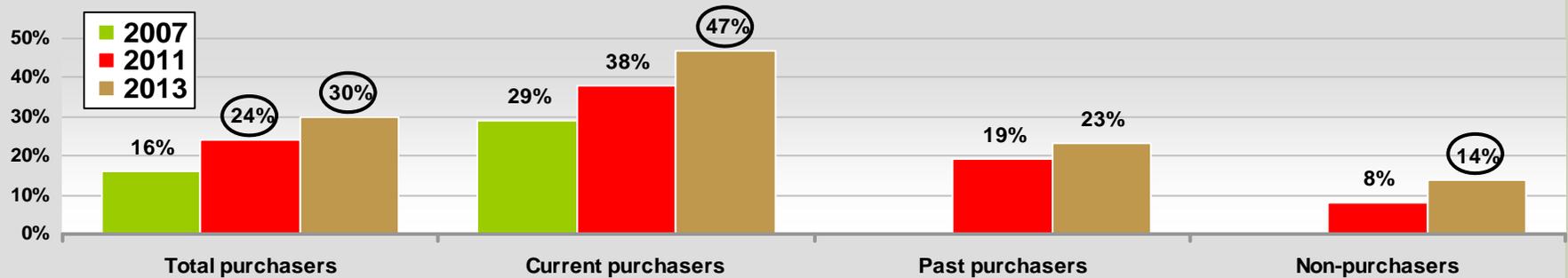
Top-2 Box	Caucasian %	African American %	Hispanic %
Likelihood to purchase whole mango in next 6 months	42	54	70
Likelihood to purchase sliced ripe mango in the next 6 months	34	47	50

6. How likely are you to purchase a whole fresh mango during the next 6 months? Would you say you ...?  
 8. If they were available at your local grocery store, how likely would you be to purchase pre-sliced and pre-packaged ripe mangos during the next 6 months?

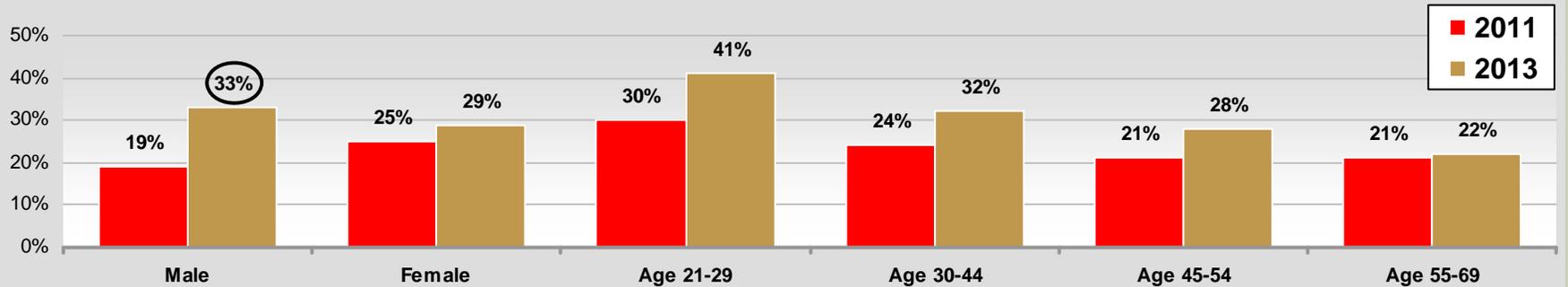
# Interest in Purchasing Organic Mangos

Interest in purchasing organic mangos continues to grow as 3 in 10 of the respondents that are current purchasers showed particularly (significantly more) interest in organic and again younger shoppers (21-29 years old), Hispanics and African Americans.

## Interest in Purchasing Organic Mangos (Top-2 Box)



## Interest in Purchasing Organic Mangos (Top-2 Box)



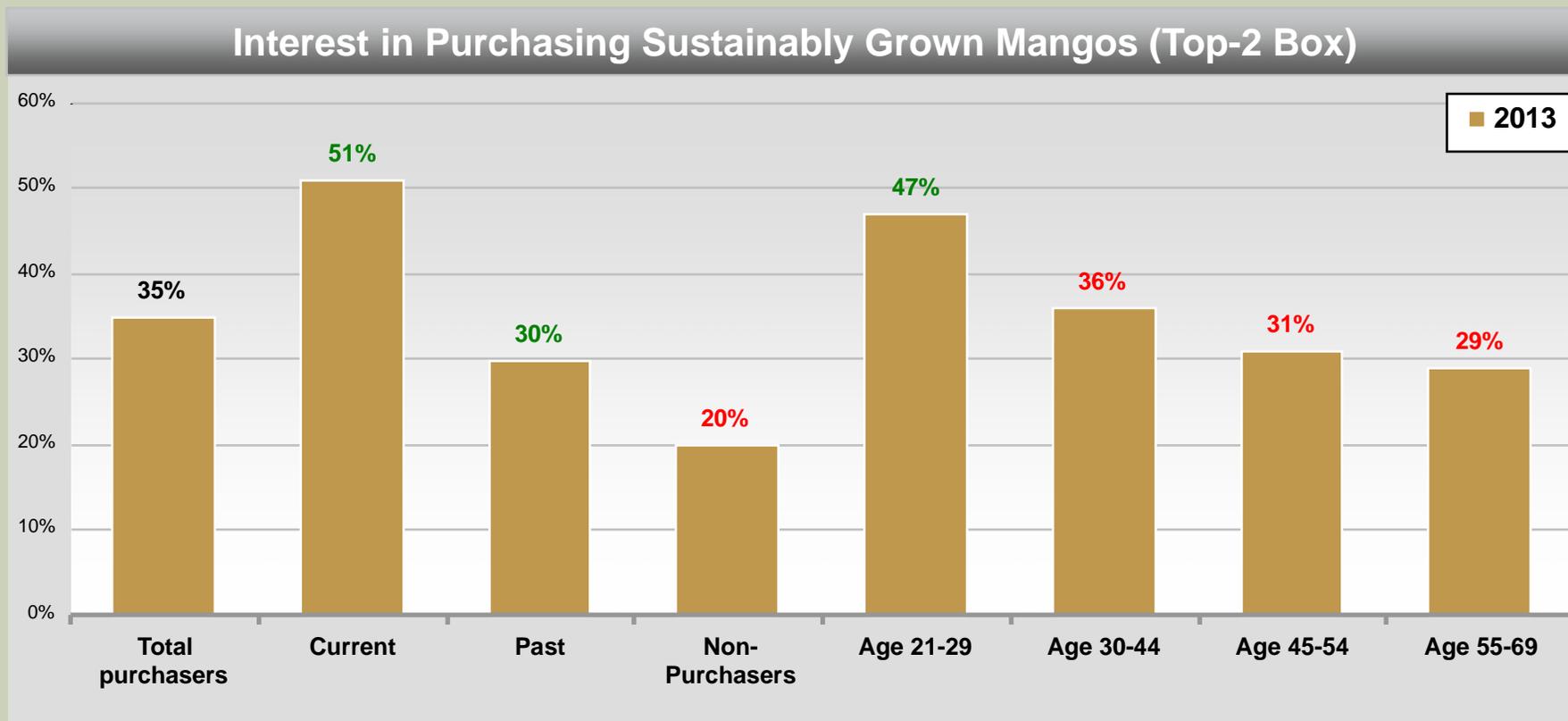
	Caucasian %	African American %	Hispanic %
Interest in purchasing organic mangos	26	33	45

33b. How interested are you in purchasing organic mangos?

# Interest in Purchasing Sustainably Grown Mangos

Purchase interest for sustainably grown mangos is stronger when compared to organic, as more than one-third of the respondents shared this.

- Purchasers (current and past), younger respondents (21-29 years old), Hispanics and African Americans are also significantly more likely to purchase sustainably grown mangos compared to their respective counterparts.

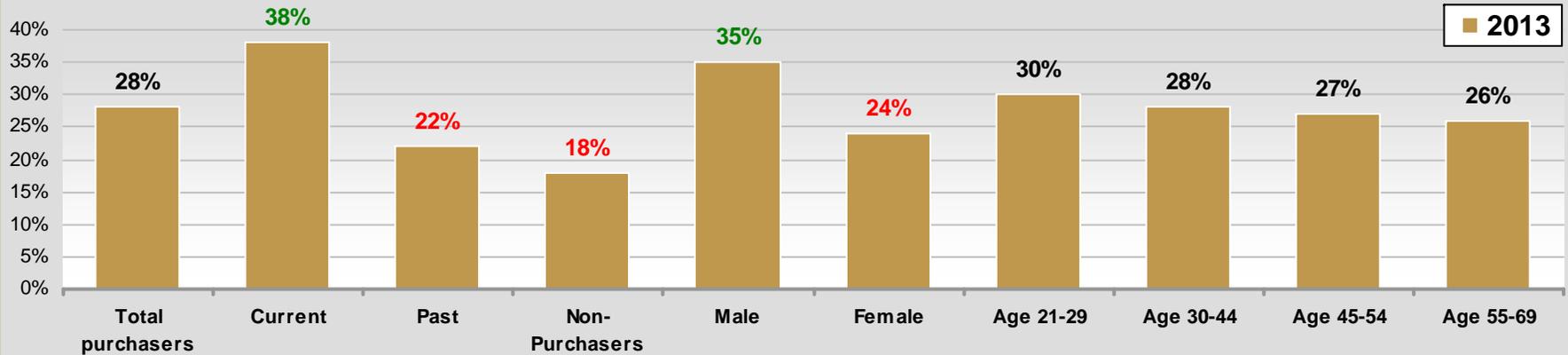


33c. How interested are you in purchasing mangos that are sustainably grown?

# Mango Purchasing with Food Irradiation

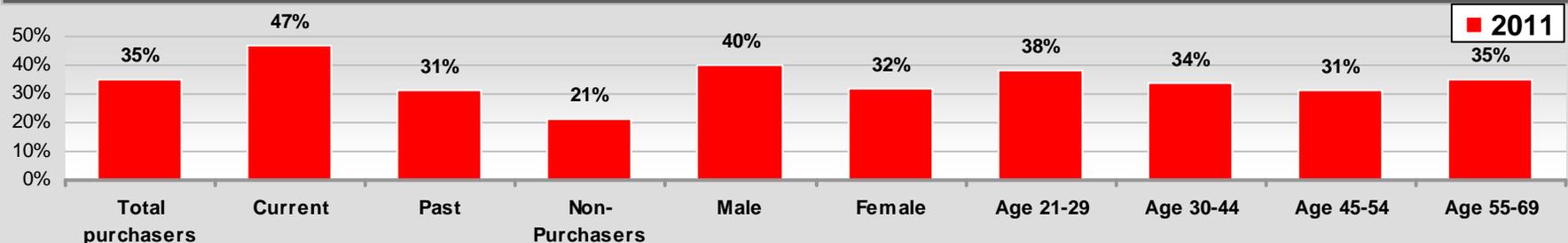
About 3 in 10 of the respondents would purchase mangos that have been treated with irradiation, with current purchasers, men and Hispanics most apt to feel this way.

## Mango Purchasing with Food Irradiation (Top-2 Box)



2013	Caucasian %	African American %	Hispanic %
Likelihood to purchase mangos that have been treated for food irradiation	28	20	34

## Mango Purchasing with Food Irradiation (Top-2 Box)\*

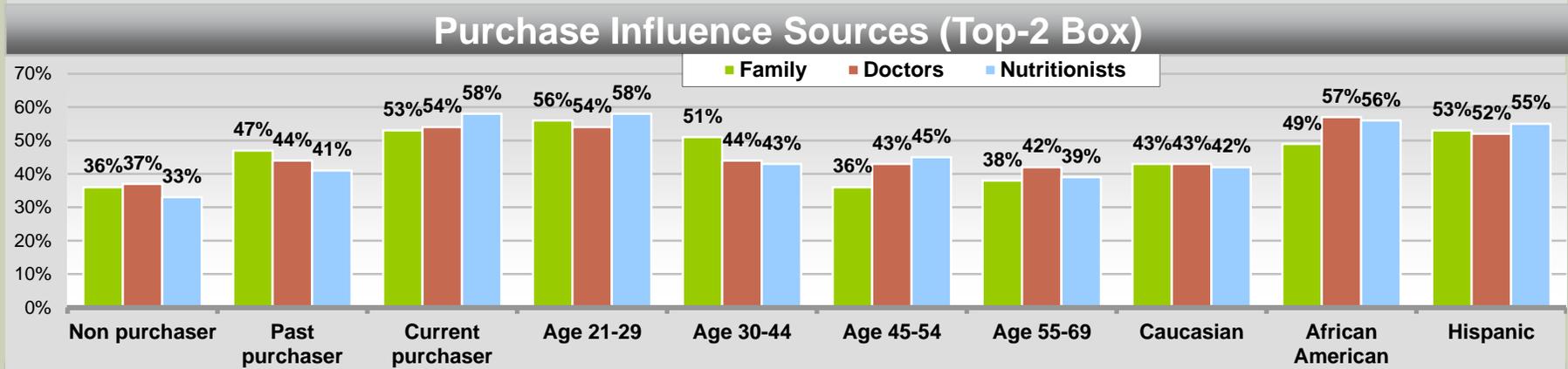
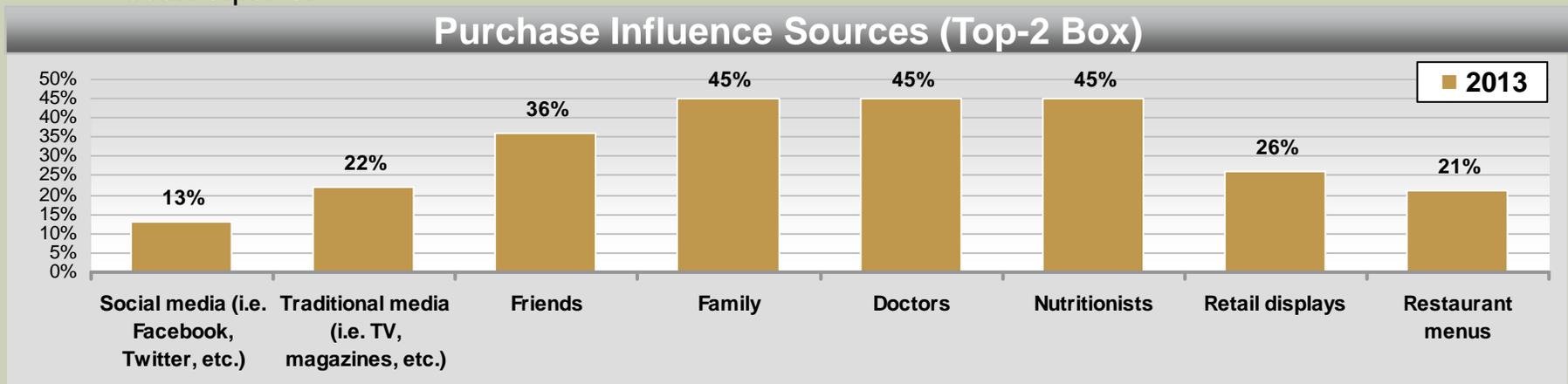


34d. Irradiation can be used to prevent pests on fruit being imported to the United States that could potentially affect domestic crops. Irradiation is endorsed by the World Health Organization. How likely would you be to buy mangos that have been treated by food irradiation?

# Purchase Influence

“Family”, “doctors” and “nutritionists” are the most influential sources when purchasing mangos, significantly more so compared to “social media”.

- Notably, “family”, “doctors” and “nutritionists” influence current purchasers, younger respondents (21-29 years old), Hispanics and African Americans even more compared to their respective counterparts.



35. How influential could the following sources be, when making a decision to purchase mangos?

# Mango Purchase Enticements

In line with earlier data, in addition to being able to buy mangos “cheaper”, consumers continue to share that having more information would encourage them to buy more mangos, i.e. “learning how to select a good one”, “understanding the varieties better”, “learning how to cut and slice a mango” and “getting more mango information where they usually shop for groceries.”

- Hand in hand with being more knowledgeable about choosing a good mango, “better quality” was also a factor that would drive sales higher.

	2011 %	2013 %
Less expensive mangos	55	60
Better quality mangos	53	58
Sampling or tasting sliced mangos where you usually shop	54	56
Learning how to select a good mango	54	56
Greater availability of mangos where you usually shop for groceries	45	52
Better understanding of the different varieties of mangos	44	50
Learning how to cut and slice a mango	41	47
Having easy to follow recipes	38	44
Availability of mangos that are sustainably grown	NA	44
Having a mango splitter, similar to an apple corer which makes cutting easier	38	42
More mango information where you usually shop for groceries	36	42
Larger displays of mangos where you usually shop for groceries	37	41
Try a mango dish in a restaurant	NA	41
A cooking demonstration where you usually shop for groceries	29	35
Eating mango at a friend's house	33	34
Availability of mangos that are organic certified	NA	34
Instruction and inspiration on cooking shows	32	33
Preparing a mango at a cooking class	22	26

# Mango Purchase Enticements – Drivers Analysis

Notably, derived purchase enticements for mangos (whole and sliced) focus on “greater availability”, “better quality” and “a larger display of mangos (at retail)”, followed by “availability of sustainably grown mangos”.

	Whole	Sliced
Greater availability of mangos where you usually shop	0.5667	0.5373
Better quality mangos	0.5587	0.513
Less expensive mangos	0.4969	0.4661
Larger displays of mangos where you usually shop for groceries	0.4836	0.518
Availability of mangos that are sustainably grown	0.4768	0.483
Availability of mangos that are organic certified	0.4385	0.4581
Having a mango splitter, similar to an apple curer which makes cutting easier	0.424	0.4919
Better understanding of the different varieties of mangos	0.4138	0.4677
Sampling or tasting sliced mangos where you usually shop for groceries	0.3767	0.487
Learning how to select a good mango	0.3657	0.4558
More mango information where you usually shop for groceries	0.3633	0.4748
Try a mango dish in a restaurant	0.3464	0.4628
Having easy to follow recipes	0.3435	0.4597
A cooking demonstration where you usually shop for groceries	0.341	0.4499
Instruction and inspiration on cooking shows	0.3338	0.4474
Eating mangos at a friend's house	0.3227	0.4023
Learning how to cut and slice a mango	0.3148	0.461
Preparing a mango at a cooking class	0.2882	0.3632

33a. How likely is it that each of the situations listed below would make you want to purchase more mangos in the near future?

# Mango Purchase Enticements – By Subgroup

Similarly, “better quality” and “being less expensive” are the top two purchase drivers among current purchasers, while being “less expensive” is also the top motivator among past purchasers, followed closely by “better quality” and “learning how to select a good quality mango”.

- Importantly, non-purchasers can be enticed by “sampling” and “learning how to select a good mango”, followed by “lowering the price” all higher compared to 2011 findings.

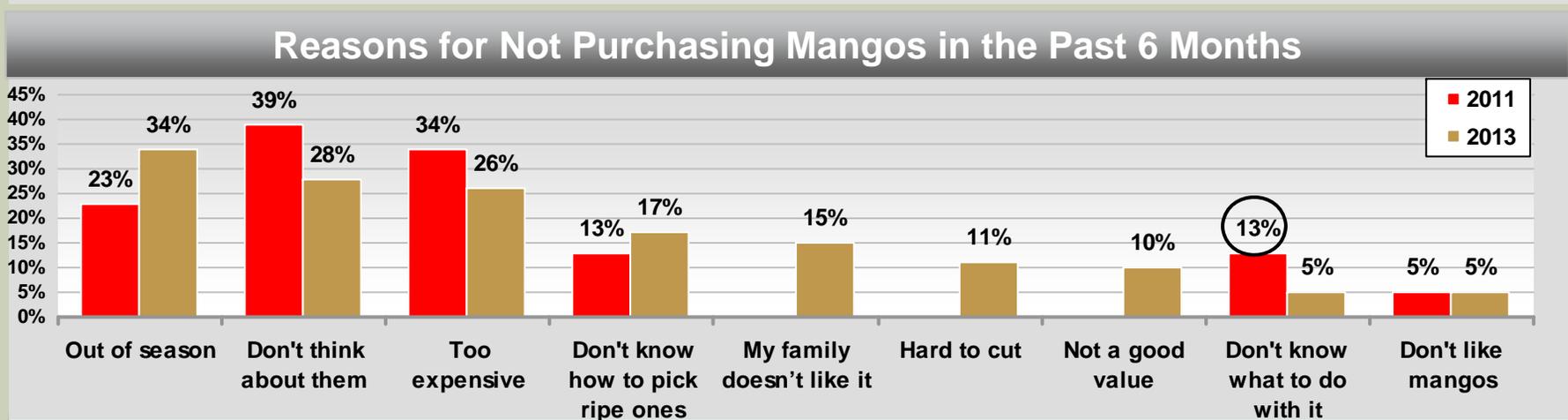
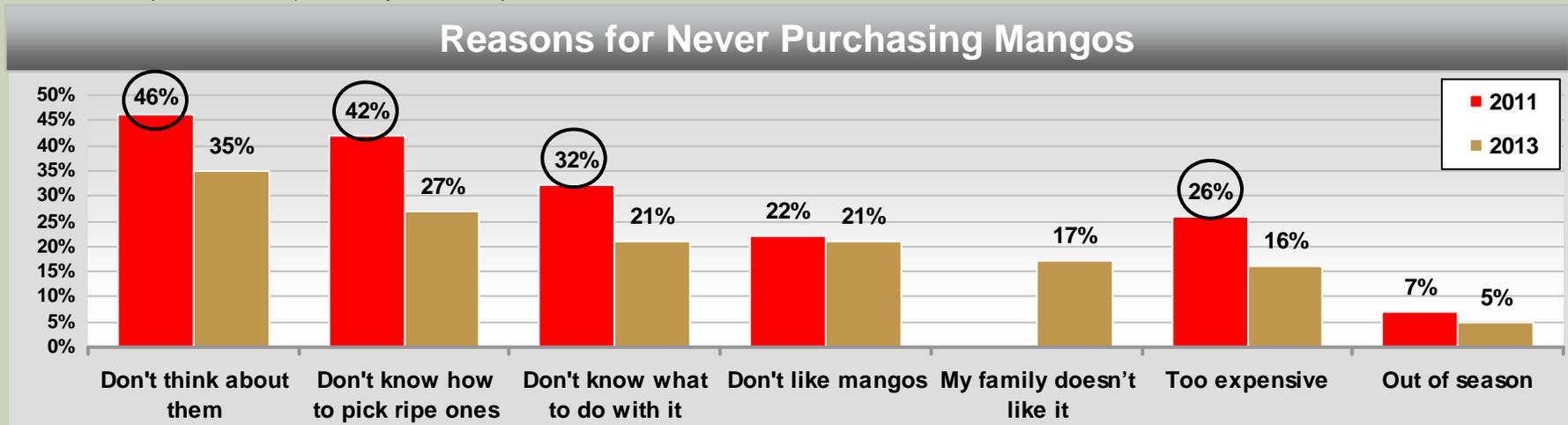
	Current Purchasers		Past Purchasers		Non Purchasers	
	2011 %	2013 %	2011 %	2013 %	2011 %	2013 %
Better quality mangos	74	77	64	58	26	38
Less expensive mangos	72	73	58	60	35	46
Greater availability of mangos where you usually shop for groceries	63	70	52	46	22	35
Sampling or tasting sliced mangos where you usually shop	68	64	45	52	40	49
Learning how to select a good mango	66	62	50	58	41	49
Better understanding of the different varieties of mangos	58	60	36	45	32	42
Availability of mangos that are sustainably grown	Na	57	Na	43	Na	29
Having a mango splitter, similar to an apple corer which makes cutting easier	53	56	36	41	21	28
Larger displays of mangos where you usually shop for groceries	51	55	42	36	21	28
Learning how to cut and slice a mango	49	52	34	41	34	43
Having easy to follow recipes	51	52	30	38	26	37
More mango information where you usually shop for groceries	45	49	34	38	26	36
Try a mango dish in a restaurant	Na	49	Na	38	Na	33
Availability of mangos that are organic certified	Na	47	Na	32	Na	21
A cooking demonstration where you usually shop for groceries	38	43	22	32	21	28
Eating mango at a friend's house	40	41	27	30	27	29
Instruction and inspiration on cooking shows	43	39	28	31	20	27
Preparing a mango at a cooking class	34	32	17	26	10	18

33a. How likely is it that each of the situations listed below would make you want to purchase more mangos in the near future?

# Reasons for Non-Purchase

Notably, the key reasons for not (ever) buying mangos revolved around being “out of sight/out of mind” and “lack of education”.

- However, positively, significantly fewer shoppers this year, compared to 2011, indicated that they “don’t think about them”, “don’t know how to pick a ripe one”, “don’t know what to do with it” and think they are “too expensive”.
- Other reasons for rejection include: “don’t like mangos”, “my family doesn’t like them” and “out of season”.
- In addition, at least 2 in 10 of the past purchasers haven’t bought mangos in the past 6 months because “they are out of season” (higher compared to 2011) and they’re “too expensive”, while “I don’t think about them” was also shared.



10. You indicated that you have never purchased a fresh mango. What are the reasons why you have never purchased a fresh mango?

18a. You indicated that you have not purchased a fresh mango in the past 6 months. What are the reasons why you have not purchased a fresh mango in the past 6 months?

# Mango Purchase Deterrents

## (Reasons for Not Buying in the Next 6 Months)

Similar to previous findings, the primary reasons for not purchasing mangos in the next 6 months is because they are not “top of mind” and “don’t know how to select/pick ripe ones”, about 3 in 10 of the consumers shared this. In addition, about one-fifth also “don’t like mangos”, “don’t know what to do with them”, feel they’re “too expensive” and have a “family/family member who doesn’t like them”.

	2013 %
Do not think about them	32
Do not know how to select/pick ripe ones	29
Do not like mangos	20
Too expensive	18
Do not know what to do with it	18
My family doesn't like it	17
They are hard to cut	11
Out of season/not available fresh	10
Spoils too quickly	8
Not a good value	6
Poor taste	6
Poor quality	4
It's too high in carbs/sugar	4
Poor texture	3
Poor external appearance	2

7. Which of the following reasons describe why you are unlikely to purchase a whole fresh mango during the next 6 months?

# Mango Purchase Deterrents

## (Reasons for No Longer Buying Mangos)

“Not liking mangos”, “not thinking about them”, being “hard to cut” and having a “family who doesn’t like them” were the major reasons why at least one-fifth of the past purchasers don’t plan on buying mangos in the future.

- On the other hand, being “too expensive” and “out of season/not available fresh” are the top two reasons current and past purchasers who plan on purchasing mangos in the future are currently buying less than they did a year ago, while 24% “just don’t think about them”.

Reasons No Longer Buying Mangos	2013 %	Reasons Purchasing Less Than a Year Ago	2013 %
		Too expensive	31
Do not like mangos	29	Out of season/not available fresh	29
Do not think about them	23	Do not think about them	24
They are hard to cut	23	Not a good value	13
My family doesn't like it	23	Do not know how to select/pick ripe ones	11
Too expensive	14	Spoils too quickly	10
It's too high in carbs/sugar	14	They are hard to cut	9
Do not know how to select/pick ripe ones	14	My family doesn't like it	9
Out of season/not available fresh	9	Poor quality	8
Not a good value	9	It's too high in carbs/sugar	5
Poor taste	9	Poor external appearance	4
Do not know what to do with it	6	Poor texture	3
Spoils too quickly	3	Poor taste	2
Poor texture	3	Do not know what to do with it	2
Poor quality	3	It's not good for my heart	1
Poor external appearance	0	Do not like mangos	1

18b. You indicated that you have previously purchased a fresh mango, but no longer plan to purchase mangos. Why are you no longer planning to purchase mangos in the future?

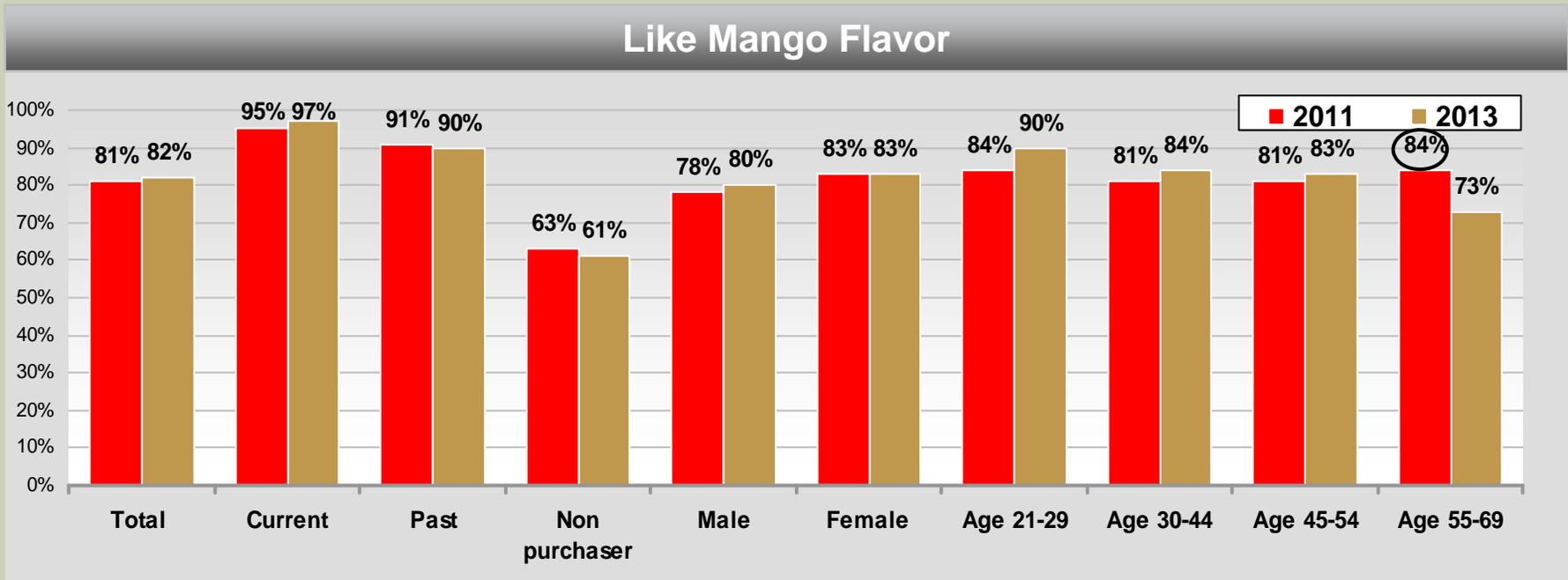
20. Why are you purchasing mangos less often than a year ago?

# ATTITUDES TOWARD MANGOS



# Like Mango Flavor

Positively, and consistent with 2011, more than four-fifths of the respondents “like” the flavor of a mango, especially current and past purchasers, with a skew toward those between the ages of 21-29, Hispanics and African Americans.



	Caucasian %	African American %	Hispanic %
Like the mango flavor	78	89	93

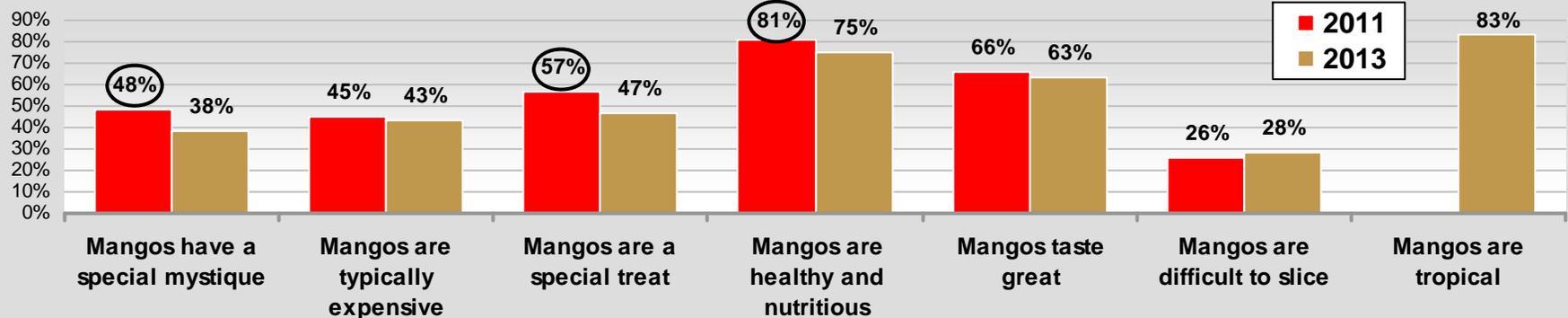
17. Whether or not you have eaten mangos, do you like the mango flavor?

# Attribute Agreement

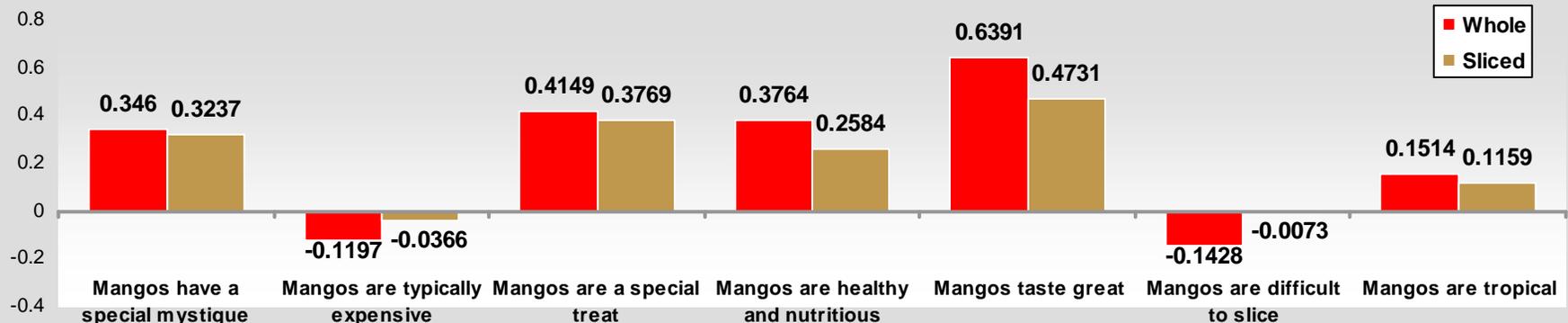
At least three-quarters of the respondents agreed that mangos are “tropical” and “heathy and nutritious”, while on the other hand, about 3 in 10 feel that they are “difficult to slice”.

- Notably, “tasting great” is the primary purchase driver for mangos (whole and sliced), followed by being “a special treat”, “healthy and nutritious” and “having a special mystique”.

## Agreement with Mango Attributes (Top-2 Box)



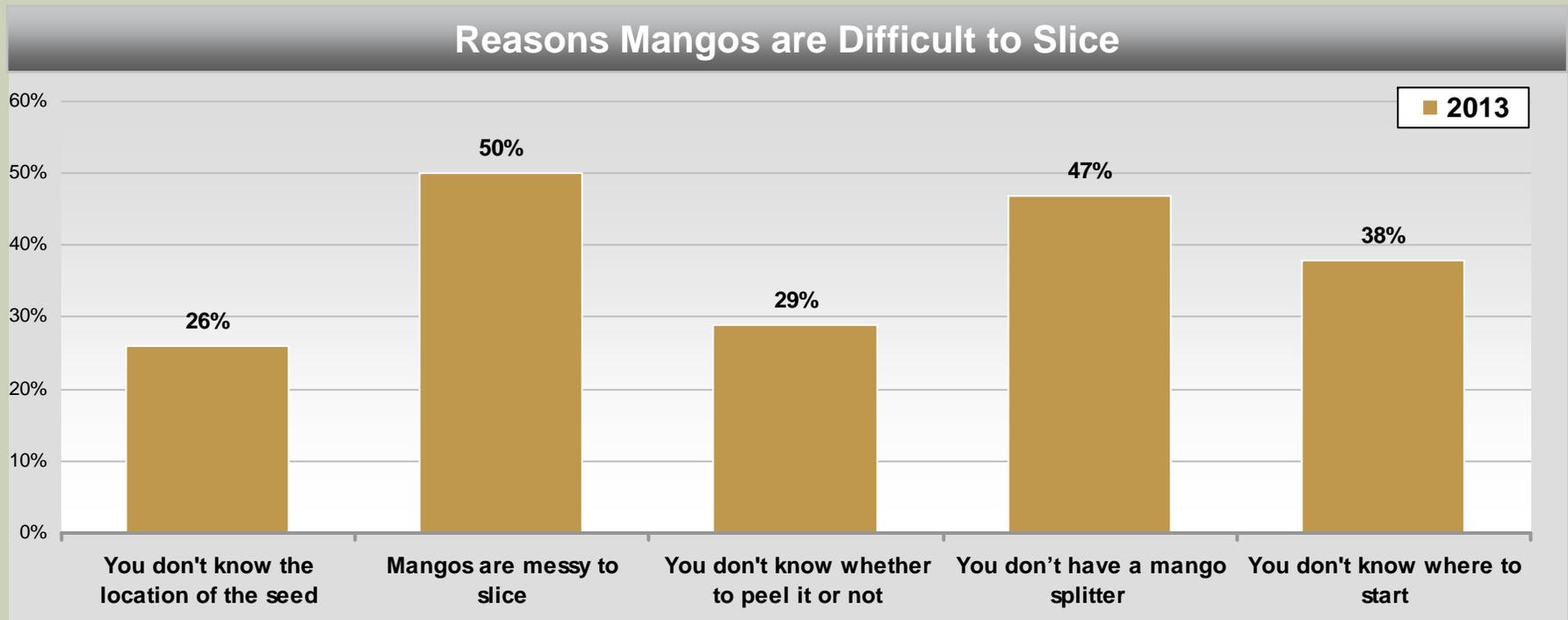
## Drivers Analysis



29. Below are several phrases that might be used to describe your attitudes toward fresh mangos. Using a scale of 1 to 5, where a 5 is “Strongly agree”, and a 1 is “Strongly disagree”, please indicate how much you agree with each statement when thinking about fresh mangos. You may choose any number between 5 and 1.

# Reasons Mangos are Difficult to Slice

Among those who feel that mangos are difficult to slice, half reported that they are “messy (to slice)” and that they “don’t have a mango splitter”, while about 4 in 10 mentioned that they “don’t know where to start” (when slicing a mango).



30. Why do you find mangos difficult to slice? Do you find them difficult to slice because...?

# Mango Attribute Agreement Ratings

While lower than in 2011, a significant group (41%), still feel that “mangos are bought on impulse” rather than a “planned purchase”, with one-third indicating that “mangos are on their shopping list” (strongest among current purchasers) - - higher than 2011.

- In addition, one-third reported that mangos “are available all year round” (especially current purchasers), while an equal number mentioned that they “can’t find mangos that are ripe and ready to eat”.

	Total %		Current %		Past %	
	2011	2013	2011	2013	2011	2013
I usually buy mangos on impulse and don't plan on buying them	52	41	50	37	58	51
Frequently I can't find mangos that are ripe and ready to eat	37	34	38	35	34	32
Mango are available all year round where I usually buy fruit	30	33	31	40	27	12
When I buy mangos, they are usually on my shopping list	28	33	31	39	17	15
Frequently the mangos that are available are not of good quality	26	25	23	26	38	23
Frequently I can't find mangos when I'm looking for them	19	23	18	23	20	23
Frequently the mangos that are available are too ripe	17	18	19	20	11	13
Frequently I can't find the variety of mangos I am looking for	21	16	22	18	19	13

28. Below are several phrases that might be used to describe your experience when shopping for fresh mangos. Using a scale of 1 to 5, where a 5 is “Strongly agree” and a 1 is “Strongly disagree”, please indicate how much you agree with each statement when shopping for fresh mangos. You may choose any number between 5 and 1.

# HEALTH BENEFITS



# Mangos – Health Benefits

Notably, while about two-fifths of the respondents reportedly know about the health benefits provided by mangos (especially current purchasers and Hispanics), the majority were unaware. However, importantly, they would be more likely to purchase mangos in the future if they knew they were “healthy and nutritious”, which is even more attractive to both current and past purchasers as well as Hispanics and African Americans.

Aware of Health Benefits	2013 %	Non Purchaser %	Past Purchaser %	Current Purchaser %
Yes	38	18	36	56
No	62	82	64	44

Aware of Health Benefits	Caucasian %	African American %	Hispanic %
Yes	36	30	50
No	64	70	50

Purchase Intent – Healthy & Nutritious	2013 %	Non Purchaser %	Past Purchaser %	Current Purchaser %	Caucasian %	African American %	Hispanic %
Yes	61	39	53	84	58	67	74
No	24	34	32	11	25	22	15
Don't know	15	26	15	5	17	11	10

31a. Are you aware of any health benefits that mangos provide?

31b. Does/Would knowing that mangos are healthy and nutritious make you more likely to purchase them in the future?

# Mangos – Health Benefits

Of those who know that mangos are healthy, over 7 in 10 are aware that they are high in Vitamin C”, while at least half shared that mangos “are a good source of fiber”, “low in fat” and “low in calories”.

- Notably, from a statistical standpoint, being “low in fat”, “high in Vitamin C”, “high in Vitamin A” and “low in calories” are the primary purchase drivers for whole mangos, while at much lower levels, being “an excellent source of folate” is a primary driver of sliced mangos.

Health Benefits	2013 %
Mangos are high in Vitamin C	71
Mangos are a good source of fiber	65
Mangos are low in fat	63
Mangos are low in calories	50
Mangos are high in Vitamin A	47
Mangos are a good source of Vitamin B-6	41
Mangos have more than 20 vitamins and minerals	36
Mangos are an excellent source of folate	33
Mangos are a good source of copper	18
Don't know	6

Driver's Analysis	Whole	Sliced
Mangos are low in fat	0.2878	0.1394
Mangos are high in Vitamin C	0.2855	0.1478
Mangos are high in Vitamin A	0.2718	0.1691
Mangos are low in calories	0.271	0.1261
Mangos are a good source of fiber	0.2516	0.1142
Mangos have more than 20 vitamins and minerals	0.2245	0.1106
Mangos are a good source of Vitamin B-6	0.2223	0.1497
Mangos are an excellent source of folate	0.2169	0.1765
Mangos are a good source of copper	0.1767	0.16
Don't know	NA	NA

31c. What health benefits are you aware of that mangos provide?

# Mangos – Health Benefits

Positively, virtually all of the health benefits exposed to the consumers were considered to be important when purchasing mangos, especially being “high in Vitamin C”, “having more than 20 vitamins and minerals” and “being a good source of fiber”, while being a “good source of copper” is least important.

- When derived importance is calculated, “vitamins”, specifically “A”, “C” and “B6” are the attributes that consumers consider to be most important when purchasing mangos (whole and sliced).

Importance of Health Benefits (Top-2 Box)	2013 %	Driver’s Analysis	Whole	Sliced
Mangos are high in Vitamin C	73	Mangos are high in Vitamin A	0.4025	0.3967
Mangos have more than 20 vitamins and minerals	70	Mangos are high in Vitamin C	0.3906	0.3884
Mangos are a good source of fiber	70	Mangos are a good source of Vitamin B-6	0.3848	0.3718
Mangos are low in fat	69	Mangos are a good source of fiber	0.3824	0.3629
Mangos are high in Vitamin A	68	Mangos have more than 20 vitamins and minerals	0.3662	0.338
Mangos are low in calories	68	Mangos are low in fat	0.3289	0.3499
Mangos are a good source of Vitamin B-6	67	Mangos are a good source of copper	0.3188	0.2825
Mangos are an excellent source of folate	58	Mangos are low in calories	0.3082	0.3301
Mangos are a good source of copper	42	Mangos are an excellent source of folate	.03645	0.3383

31d. And, using a 5 point scale, where a 5 means “extremely important” and a 1 means “not important at all”, how important are the following health benefits to you when purchasing mangos?

# Mangos – Health Benefits

In addition, vitamin C (which plays an important role in immune function), vitamin A (which is critical for vision), fiber (which aids digestion) and vitamin B6 (which helps maintain nerve function) would positively impact consumers decision to buy mangos, as 7 in 10 of the respondents shared this.

- Notably, when the driver’s analysis was calculated, all of the statements are considered to be influential when purchasing mangos (whole and sliced), with the exception of “consuming adequate folate before and during pregnancy may help reduce a woman’s risk of having a child with a brain or spinal cord defect. One cup of mango is an excellent source of folate.”

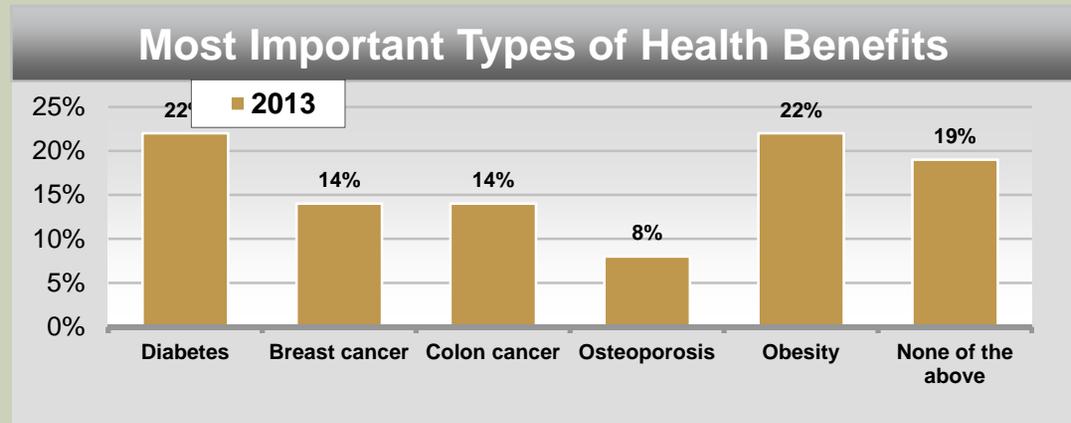
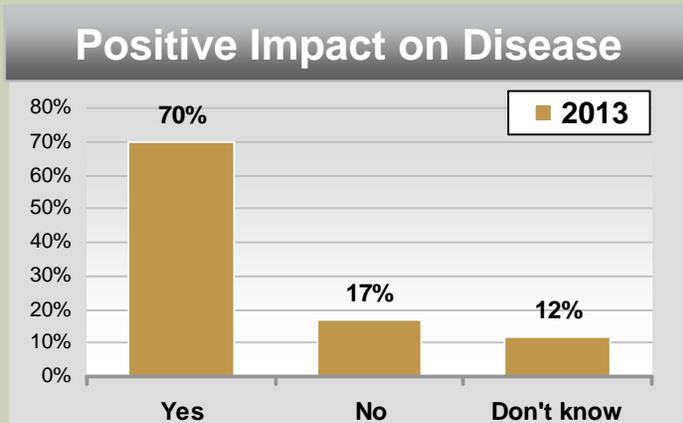
Health Benefit Purchase Influence – (Top-2 Box)	2013 %	Driver’s Analysis	Whole	Sliced
Vitamin C plays an important role in immune function. One cup of mango is an excellent source of (the antioxidant) Vitamin C	73	Vitamin C plays an important role in immune function. One cup of mango is an excellent source of (the antioxidant) Vitamin C	0.4513	0.4182
Vitamin A is critical for vision. One cup of mango is an excellent source of (the antioxidant) Vitamin A	72	Vitamin B6 helps maintain normal nerve function. One cup of mango is a good source of Vitamin B6	0.4493	0.4293
Fiber aids digestion. One cup of mango is a good source of fiber	72	Fiber aids digestion. One cup of mango is a good source of fiber	0.4433	0.4205
Vitamin B6 helps maintain normal nerve function. One cup of mango is a good source of Vitamin B6	70	Vitamin A is critical for vision. One cup of mango is an excellent source of (the antioxidant) Vitamin A	0.4401	0.4127
Copper helps form red blood cells. One cup of mango is a good source of copper	61	Copper helps form red blood cells. One cup of mango is a good source of copper	0.4294	0.4124
Consuming adequate folate before and during pregnancy may help reduce a woman’s risk of having a child with a brain or spinal cord defect. One cup of mango is an excellent source of folate	51	Consuming adequate folate before and during pregnancy may help reduce a woman’s risk of having a child with a brain or spinal cord defect. One cup of mango is an excellent source of folate	0.3635	0.3981

31e. Using a 5 point scale, where a 5 means that it would be “extremely influential” and a 1 means it would “not be influential at all”, how would you rate the following health claims in terms of making you want to buy mangos? You can use any number in between 5 and 1.

# Mangos – Health Benefits

Moreover, 7 in 10 of the respondents would purchase more mangos if they knew they had a positive impact on diabetes, cancer and obesity, with diabetes and obesity being most important.

- In addition, “friends/family”, the “internet”, “magazines/newspapers” and “nutrition labeling” are the primary sources where consumers learned about mango health benefits.



Health Benefit Awareness Source	2013 %	Health Benefit Awareness Source	2013 %
Friends/family	26	Your doctor or healthcare provider	9
Internet (not via social networking)	25	School/classes	9
Magazines and newspapers	23	On the actual mango sticker	8
Nutrition labeling	19	Weight Watchers	8
Television	15	On the mango bin	6
Supermarket/grocery store	15	Radio	1
Books	13	Don't know	20
Internet (via social networking)	11		

Q31f. Which one of the following health benefits would be most impactful when making a decision to purchase mangos? Would it be having a positive impact on...?  
 Q31h. And, do you remember where you learned or read about mango health benefits?

# Mangos – Health Benefits

Purchasers (current and past), younger respondents (21-44 years old), Hispanics and African Americans would be even more apt to purchase mangos in the future if they knew they had a positive impact on diabetes, cancer and obesity.

- Notably, younger respondents (21-44 years old) would also purchase more mangos if they had a positive impact on obesity and breast cancer, while older consumers (55-69 years old), Hispanics and African Americans would buy more if they helped with diabetes.

Positive Impact on Disease	Non Purchaser %	Past Purchaser %	Current Purchaser %	Age 21-29 %	Age 30-44 %	Age 45-54 %	Age 55-69 %	Caucasian %	African American %	Hispanic %
Yes	56	69	84	73	74	72	65	67	80	78

Most Important Types of Health Benefits	Male %	Female %	Age 21-29 %	Age 30-44 %	Age 45-54 %	Age 55-69 %	Caucasian %	African American %	Hispanic %
Obesity	19	24	26	26	22	17	23	21	17
Diabetes	26	20	17	22	22	25	18	37	28
Breast cancer	4	19	24	16	13	7	14	16	15
Colon cancer	25	9	8	13	15	19	15	7	13

31f. Would knowing that mangos have a positive impact on diabetes, cancer and obesity make you want to purchase more of them in the future?  
 31g. Which one of the following health benefits would be most impactful when making a decision to purchase mangos? Would it be having a positive impact on...?

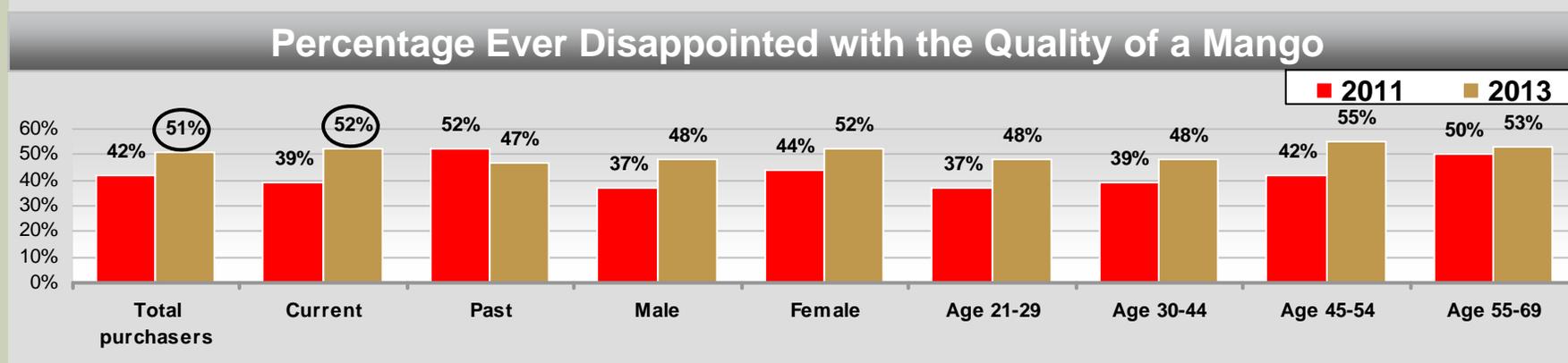
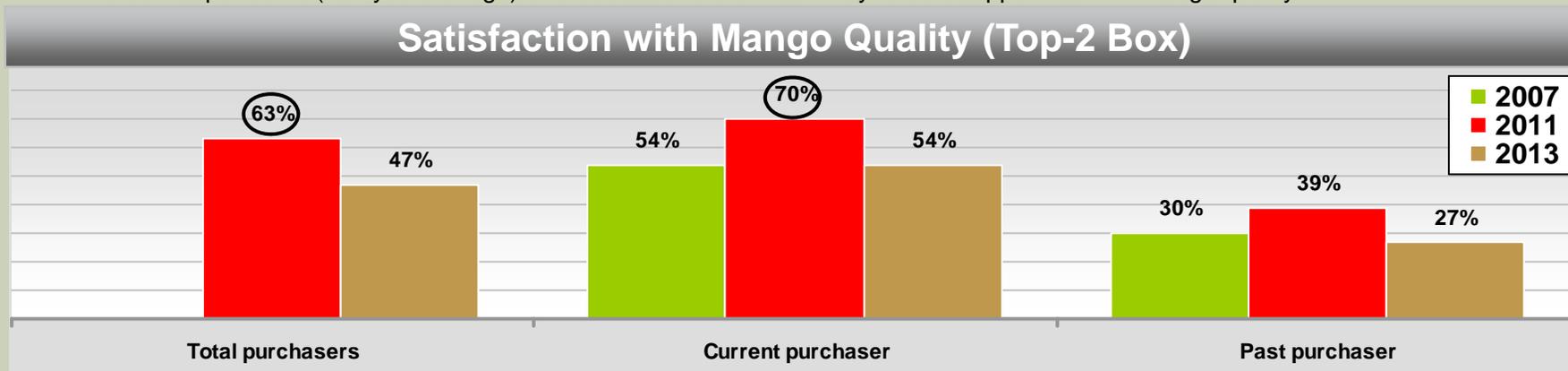
# QUALITY & SAFETY



# Mangos – Quality

Notably, satisfaction with the quality of mangos was significantly lower in 2013 compared to 2011, as just under half of the respondents were in the top-2 box (47% vs. 63%) – true among both current buyers, as well as past purchasers. As such, a greater number of respondents have (ever) been disappointed with the quality of mangos available when shopping for fruit compared to 2011.

- Older respondents (45+ years of age) and Caucasians are most likely to be disappointed with mango quality.



	Caucasian %	African American %	Hispanic %
Satisfaction with mango quality	43	51	56
Percentage disappointed with the quality of a mango	54	39	51

32a. How satisfied have you been with the overall quality of mangos sold where you usually buy your fruit? Would you say the quality is typically...?  
 32b. Have you ever been disappointed with the overall quality of mangos sold where you usually buy you fruit?

# Reasons for Disappointment with Mango Quality

“Not ripe enough” and “lacks flavor/taste” were the primary reasons for disappointment with mango quality, followed by about 3 in 10 who mentioned “too ripe”, “not sweet” (driven by African Americans), “poor texture” and “not juicy”.

- Past purchasers were higher than current buyers (as well as 2011 data) in terms of having complaints about “not being ripe enough”, which again points to the need for better education (i.e., how to pick a mango) or pushing the sliced alternative (which is ready for immediate consumption).

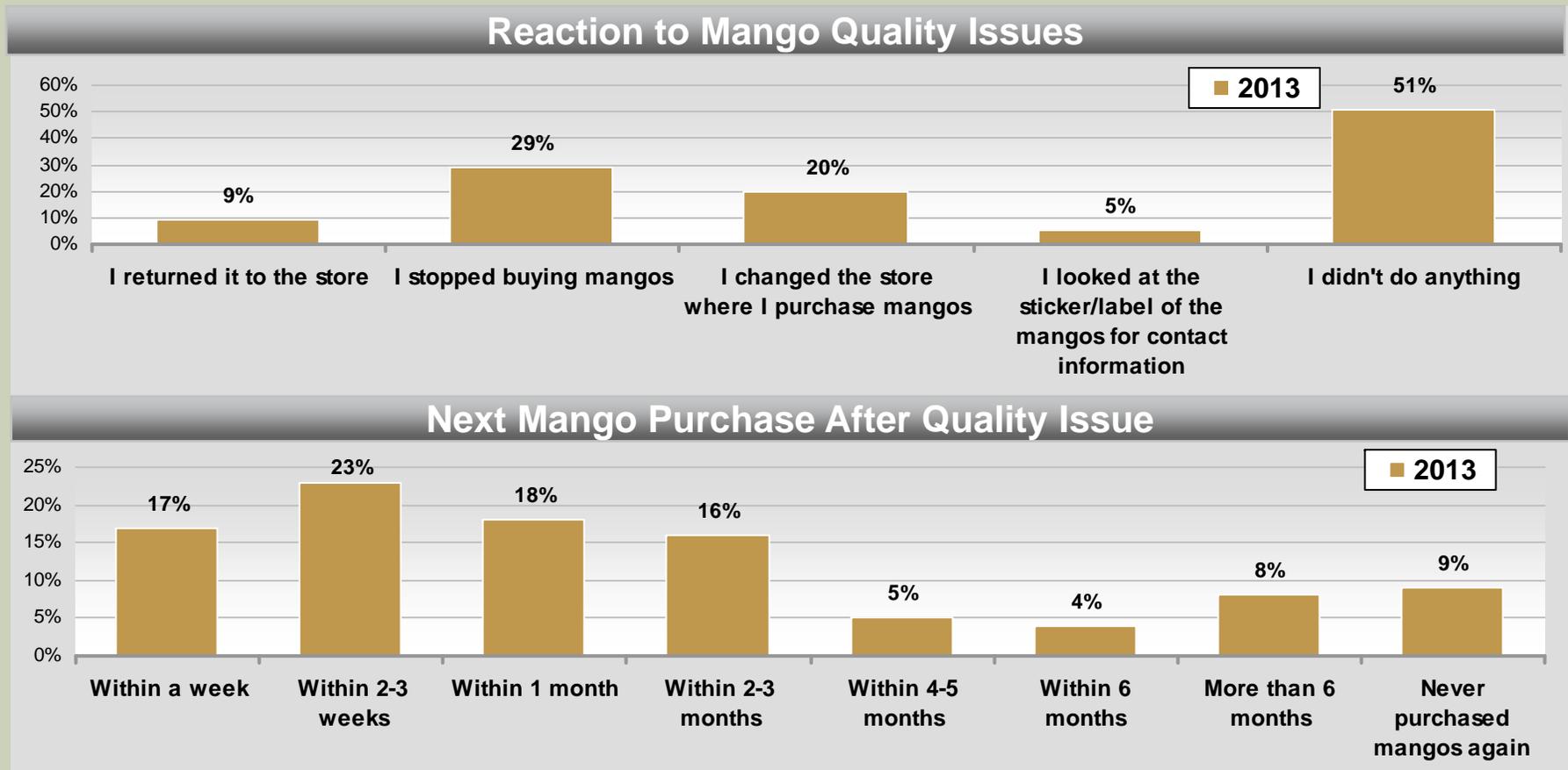
	Total %		Current %		Past %		Male %		Female %		Age 21-29 %		Age 30-44 %		Age 45-54 %		Age 55-69 %			
	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013	2011	2013		
Not ripe enough	52	45	49	47	58	38	56	48	51	43	38	40	59	44	50	44	52	49		
Lacks flavor/taste	40	45	38	44	42	47	41	46	39	44	33	48	33	36	50	43	43	51		
Too ripe	26	35	27	37	21	27	37	37	23	34	43	44	26	31	23	29	19	34		
Not sweet	41	35	45	37	30	29	37	23	42	39	43	43	44	30	55	28	31	39		
Poor texture	28	33	26	34	33	30	33	40	27	31	29	35	33	34	18	32	29	31		
Not juicy	20	29	20	32	21	22	15	28	22	30	29	37	15	29	36	28	12	24		
									Caucasian %				African American %				Hispanic %			
Not sweet									33				53				36			

32c. What specifically has disappointed you about the overall quality of mangos sold where you usually buy your fruit?

# Reaction to Mango Quality Issues

While about half of the respondents who had an issue with the quality of a mango “didn’t do anything” about it, importantly, nearly 3 in 10 “stopped buying them”, with 20% “changing the store where they normally make a purchase”.

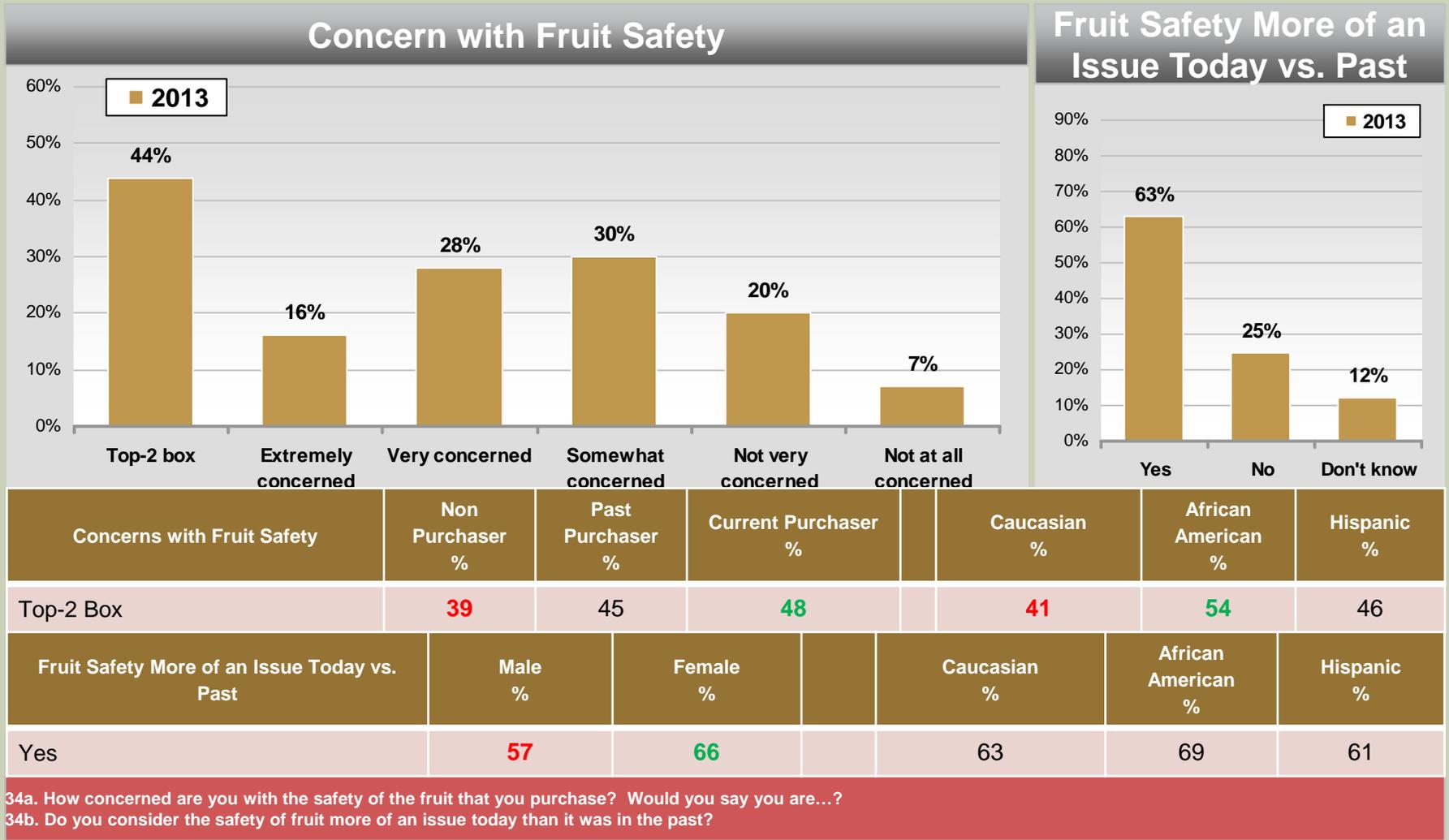
- Interestingly, in spite of quality concerns, more than half of the shoppers purchased mangos again within a month of experiencing a problem.



32d. What did you do when you had a problem with the quality of a mango?  
 32e. And, when was your next purchase of mangos after having a disappointing experience?

# Concern with Fruit Safety

Concern with fruit safety is evident, as nearly half of the respondents are concerned with the safety of the produce they purchase (especially current purchasers and African Americans), in fact, more than three-fifths consider the safety of the fruit they buy more of a concern today than in the past, particularly women and African Americans.



34a. How concerned are you with the safety of the fruit that you purchase? Would you say you are...?  
 34b. Do you consider the safety of fruit more of an issue today than it was in the past?

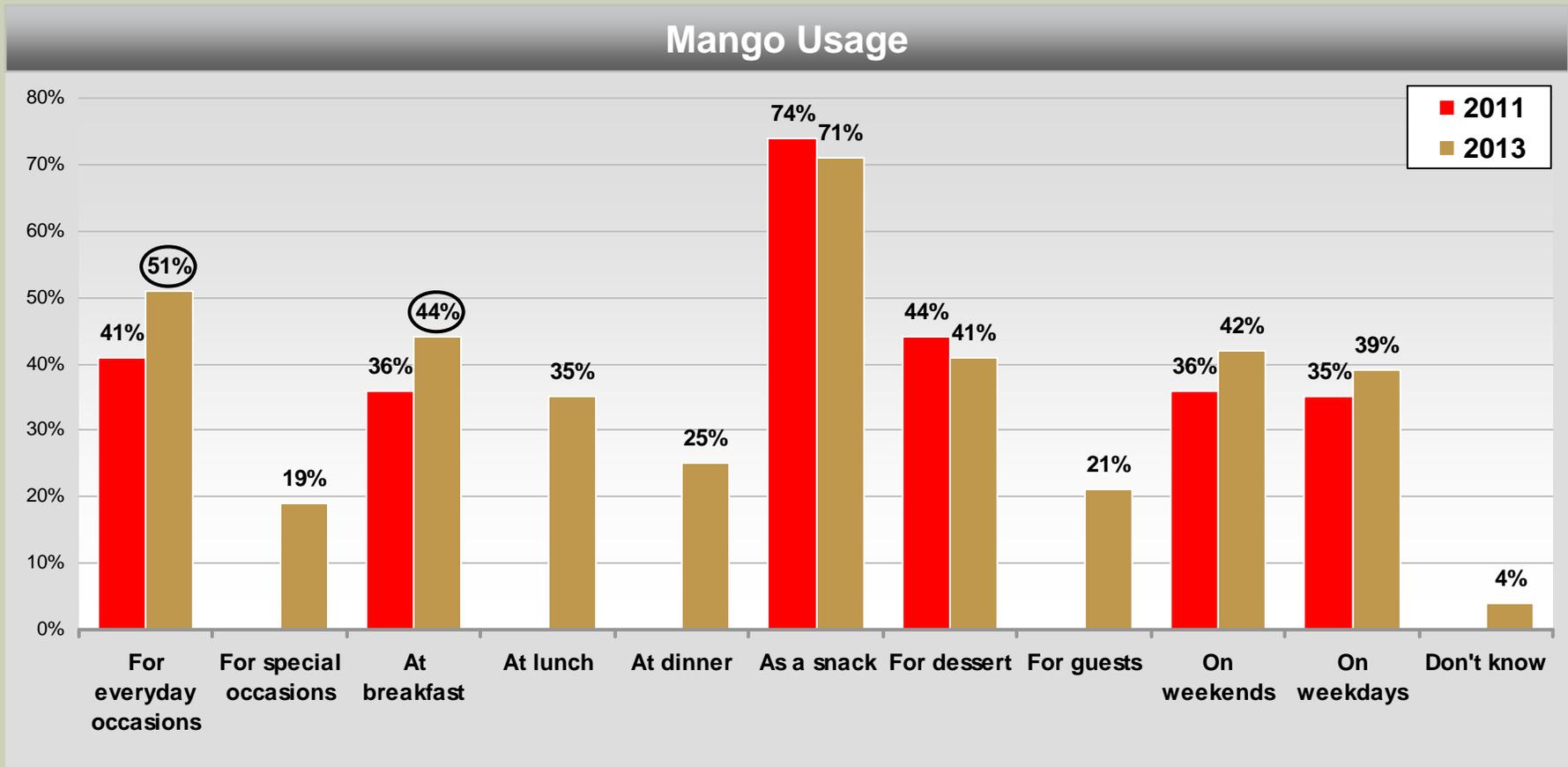


# CONSUMPTION BEHAVIOR



# Mango Usage

Similar to 2011 findings, “snacking” is the primary usage occasion for mangos, followed by consuming them “for everyday occasions”, “at breakfast”, “on weekends” and “on weekdays” – which all increased compared to 2011.

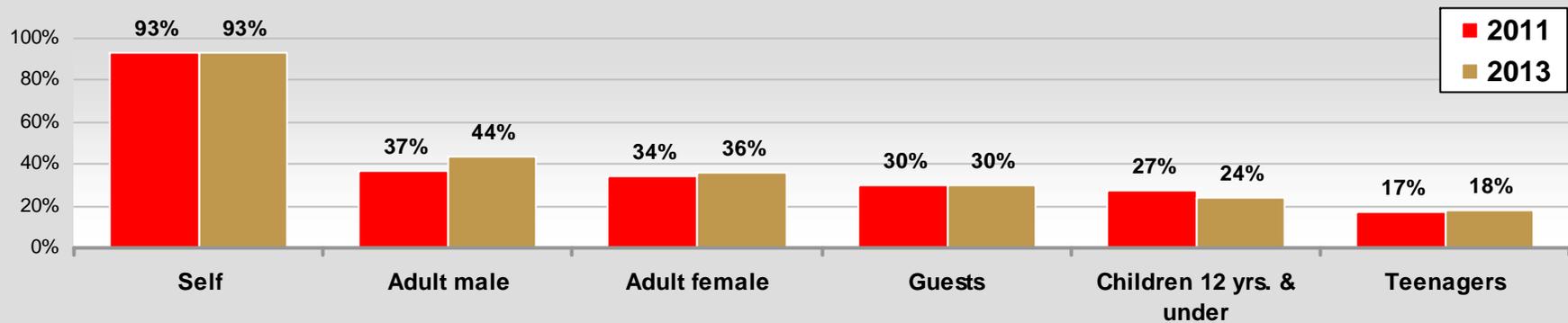


25. If you were to buy fresh mangos for members of your household, how would they be used or served?

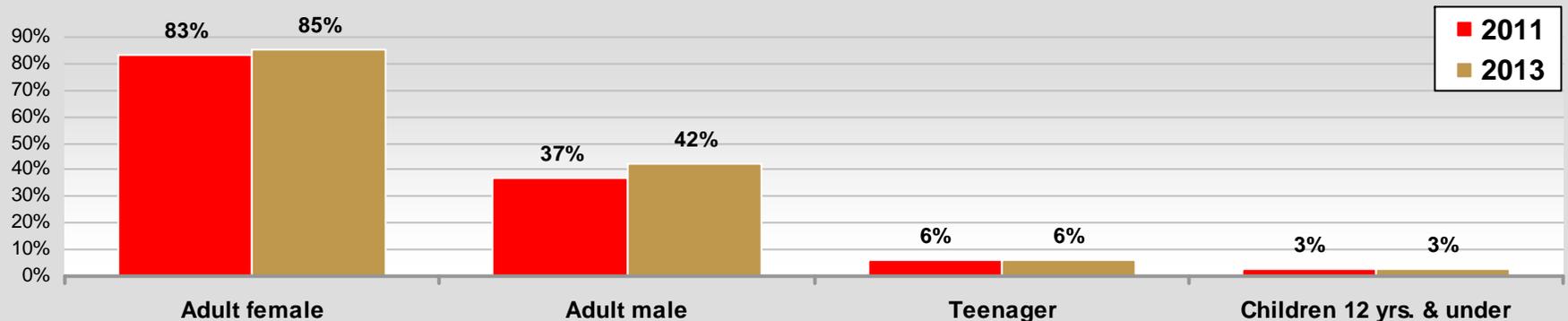
# Household Mango Consumption/Preparation

While the person who makes/shares the decisions about purchasing fresh fruits for their household is also primarily the one who also consumes and prepares mangos, adult male involvement climbed this year compared to 2011 (i.e. higher consumption and preparation/slicing).

## Household Mango Consumption



## Household Mango Preparation



26. And, who in your household would eat mangos?

27. Who in your household prepares or slices mangos?

# Where & How Mangos are Eaten

Mangos are primarily eaten “at home” and “by themselves” (either as a snack, breakfast or dessert) as opposed to “with other fruit” or “as an ingredient”.

	MEAN		MEAN
Home	7.84	By itself	6.44
Restaurant	.94	Mixed with other fruit	2.23
Friend's place	.58	As an ingredient	1.34
Somewhere else	.65	-	-

	2013 %
By itself as a snack, breakfast or dessert	55
With other fruit or in a fruit salad	44
In a smoothie	43
In a salsa or chutney	28
Mangos as a side dish	20
As an ingredient with chicken, beef, fish or pork	16
Never eaten a mango	13
Some other dish	5
Don't know	3

14. Thinking about the last 10 times you ate mango, whether as a food or drink ingredient, by itself, or mixed with other fruit, how many times were mangos served at each of the following?

15. Still thinking about the last 10 times you ate mango, whether as a food or drink ingredient, by itself or mixed with other fruit, how many times were mangos eaten the following ways?

16. Which of the following describes the ways you have eaten a mango?

# RIPENING & STORAGE



# Ripeness Determinations

More than half of the respondents reported that being “soft to the touch” is the primary way they determine if a mango is ripe, followed by 4 in 10 who “smell it”, with about one-quarter who mentioned “by the texture of the skin” and “if it is red in color”.

	Total %		Current %		Past %	
	2011	2013	2011	2013	2011	2013
If it is soft to the touch	Na	51	Na	55	Na	41
If it smells ripe	47	41	46	43	50	36
If it is red in color	31	25	34	28	19	17
By the texture of the skin	25	24	23	27	30	15
If it is orange in color	19	22	21	25	13	13
If it is firm to the touch	Na	21	Na	22	Na	17
If it is yellow in color	15	19	16	23	13	8
If it is green in color	Na	8	Na	10	Na	2
If it is sticky	Na	3	Na	4	Na	2

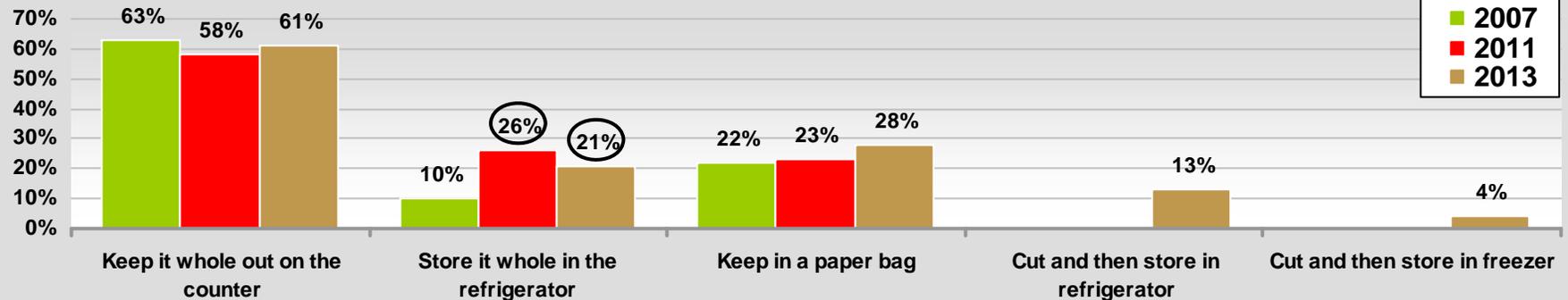
11. Please describe how you personally determine if a mango is ripe. Please be specific as possible.

# Mango Storage

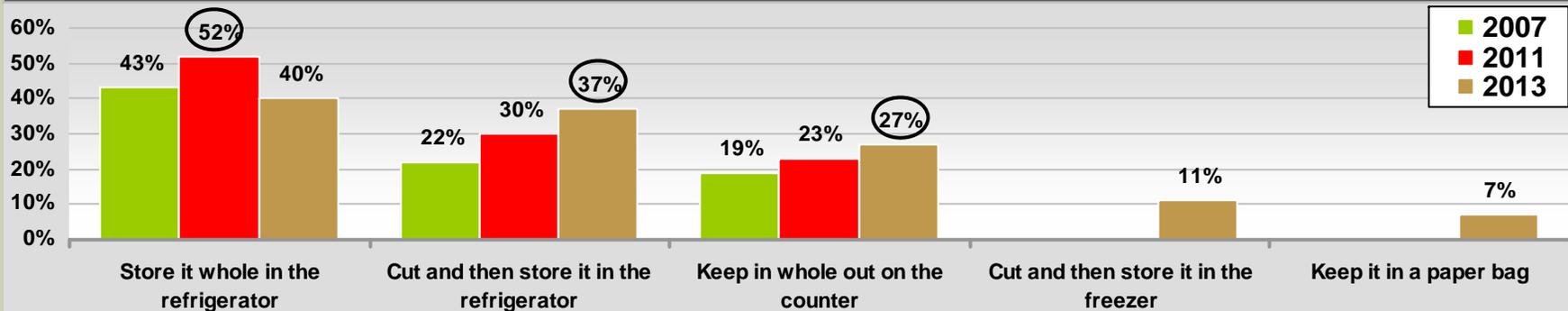
Similar to 2011 findings, more than three-fifths of the respondents “keep the mango whole out on the counter”, while at least 2 in 10 “keep it in a paper bag” or “store it whole in the refrigerator”.

- On the other hand, once a mango is ripe, two-fifths of the respondents “store it whole in the refrigerator” (lower than 2011 findings) or “cut it and then store it in the refrigerator” (higher than 2011 findings), while more than one-quarter “keep it whole out on the counter” (also higher than 2011 findings).

### Mango Storage – To Ripen a Mango



### Mango Storage – Of a Fully Ripe Mango



12. Which of the following describes how you typically would store a mango to ripen it?  
 13. Which of the following describes how you typically would store a fully ripe mango?

# *PROBE* DIAGNOSTIC ANALYSIS



# GENERAL NUTRITION DISCUSSION

When looking for nutritional foods, consumers feel that having lots of vitamins and minerals, while also being low in fat/calories/salt are important.

- *“I try to avoid high calories and overly processed foods”*
- *“I attempt to avoid food products high in fat and sugar content”*
- *“Sodium is not good for you and try to cut back on it”*
- *“Most important is high in vitamins and minerals and low in calories and fat”*
- *“It’s important to me to have good taste, good value, low in calories and have vitamins and minerals and other nutritional values”*
- *“I look for the amount of sodium and other minerals in the food, as well as vitamins and carbohydrates in the foods”*
- *“I pay attention to vitamins, sugars, fats and calories”*

Foods that are credited by shoppers for being nutritional are fruits and vegetables, with processed foods eliciting a negative reaction.

- *“I like more natural things, like fruits and vegetables”*
- *“Instead of more processed boxed dinner kits, I prefer low sodium and nutritional products”*
- *“I read labels to see what’s in the foods I put in my body”*
- *“I look for vitamins in fruit and veggies like vitamin a, b or c”*

# GENERAL NUTRITION DISCUSSION

While nutrition is important to the consumer, taste is not to be overlooked, with many shoppers indicating that their family has to like it (i.e. like the way it tastes) for them to buy it.

- *“Good taste, good value, low in calories and having vitamins and minerals are important”*
- *“My family has to like the taste or I won’t buy it”*
- *“Nutrition is important, but if they don’t think it tastes good, it’s a waste”*
- *“I look for foods that are healthy for me and that taste good”*

Food safety is more of an issue to many of the shoppers than in the past.

- *“Because there are more pesticides used for growing the mass amount of foods in this generation”*
- *“Food safety concerns me because of contamination, disease, salmonella and insecticide poisoning”*
- *“Less food inspections and more chemicals are used”*
- *“Some chemicals are good and some are not”*
- *“Food handling is another issue to make sure there is no contamination both of fecal material and pesticides”*
- *“I worry what food has been sprayed with and what chemicals are on them before I get them”*

# GENERAL NUTRITION DISCUSSION

Being organic also has positive attributes associated with it, as many consumers believe that organically grown fruit is healthier.

- *“No pesticides used and unfortunately it is always more expensive”*
- *“Organic means less chemicals to ingest, which in turn cause cancer, bowel problems”*
- *“I have started becoming much more aware of the benefits of organic fruits and am eating a lot more fruits than I ever have”*
- *“I like organics, if affordable”*
- *“I try to avoid processed foods whenever possible and eat organic choices when they are available at my local grocery store”*
- *“I buy fresh food and try to buy organic when I can”*

# MANGO PERCEPTIONS

Mangos are bought more infrequently than fruits that are perceived to be staples – such as apples and oranges and one reason for this is their appearance – as many of the shoppers primarily buy them only when they look ripe.

- *“Mangos are a ‘see them in the store’ purchase, if they look ripe I buy one or two”*
- *“I gently squeeze them and look for one that isn’t hard but firm”*
- *“They have to be out on a big display before I usually purchase them”*

The color and firmness of mangos is how consumers judge the ripeness of the fruit and it plays an important part in the purchase decision.

- *“I try to purchase one that’s colorful, usually more of a red color”*
- *“One that is firm yet soft to the touch is how I select mangos. But I’ve never been told how to choose one so I could be choosing them wrong”*
- *“I look them over and look for a nice red skin color”*
- *“The actual picking of the fruits and veggies is the same. Color, ripe or not, smell sometimes. The mango is a colorful fruit, most of the time color is the key to buying a mango or not”*
- *“I look them over and look for a nice red skin color”*

# MANGO PERCEPTIONS

A good number of shoppers have their own technique for choosing the best mango.

- *“I look for mangos that are slightly soft but only on the outer part”*
- *“If I see bruises or brown spots I don’t buy it”*
- *“The color is best for me when it’s a mixture of red, green and yellow/orange”*
- *“I check for slightly soft ones”*
- *“I look for a nice color, a shiny unwrinkled skin, then I give it a little squeeze. If it seems just a little soft, it’s in the cart”*
- *“It was a learning process for me – to get the right ripeness, but it was worth it! I usually have pretty good luck”*
- *“I look for bruising, discoloration and the right color”*

# MANGO PERCEPTIONS

However, choosing a mango can be a challenge for some of the consumers who aren't quite sure what to look for.

- *"I have to ask my grocer friend which are the freshest ones"*
- *"I know little about them"*
- *"It is usually less expensive to prepare a whole fruit yourself rather than having the store do it for you"*
- *"If I knew how to choose one I'd buy more"*
- *"I could be doing it the wrong way"*
- *"I don't really know how to choose a mango"*
- *"I really just don't know a lot about them"*
- *"I've never really been told how to purchase a mango, so I could be choosing them wrong"*

# REACTION TO SLICED MANGOS

Shoppers who find mangos hard to cut and/or difficult to slice are most pre-disposed toward the pre-sliced alternative – they shared that they are more convenient.

- *“Solutions to cutting mangos easier are a cutting board, a good knife set or pre-sliced mangos”*
- *“I’d like to see pre-sliced mangos cut fresh daily – we bought them once and it had an alcohol smell, like they were fermented. Maybe it wasn’t fresh”*
- *“I buy them because of convenience and cost. With a family variety works and everything is already sliced and it can stretch your dollar”*
- *“Mangos can be hard skinned and hard to cut”*
- *“Cutting them can be messy”*
- *“You have to look hard for a good mango”*
- *“To cut out the work of slicing a whole fruit – I’d buy them sliced”*

# REACTION TO SLICED MANGOS

In addition, pre-sliced mangos are also perceived to (already) be fresher – ripe and ready to eat when you get it home.

- *“It’s easy to prepare and ready to eat”*
- *“Don’t need to wait, it’s table ready”*
- *“Nothing can compare to fresh fruit freshly sliced”*
- *“I like the convenience of it”*

Pre-sliced mangos were also credited for being easy to carry with you/when travelling.

- *“Easy way to carry to work or when going on a trip”*
- *“Convenient way to use them”*
- *“Takes the trouble of inconvenience out of mangos”*
- *“They are a quick travel food and I know we have travel upcoming so I suspect we’ll grab some pre-packaged ripe mangos in the near future”*
- *“Easy to mix with other fruits. To use in my office for lunch”*

# MANGO USAGE PERCEPTIONS

Mangos are not generally a top-of-mind purchase and often times are bought on impulse (if they look good in the store) and when family members ask for it.

- *“When I see them I remember how good they taste”*
- *“I don’t always think about them, but my kids do remind me at times”*
- *“Usually not on my radar – buy them when I see them”*
- *“They are not on my list, if I remember them I might buy them”*

Cost can also be a reason for not consuming mangos daily, especially pre-sliced.

- *“They tend to be more expensive than other fruit”*
- *“Other fruits are generally less expensive and will go farther”*
- *“It’s usually more economical to peel my own fruit”*
- *“I’d buy more if they were cheaper”*
- *“Price is a factor”*
- *“If the product seems expensive to me then I will not buy it and if it looks too soft and mushy I won’t buy it”*
- *“They might be too expensive. I would have to see”*
- *“I am a single mother, so I definitely rely on prices while shopping”. I buy fruits and veggies but I look for what I will get more of for a better deal”*

# BACKGROUND INFORMATION



# Frequency

Over two-fifths of the respondents eat out at least “once or twice a week”, while more than 8 in 10 cook at home “3 or more times a week.”

Frequency of Eating Out	2013 %	Frequency of Cooking at Home	2013 %
3 or more times a week	11	3 or more times a week	84
Once or twice a week	33	Once or twice a week	10
Once every 2 or 3 weeks	21	Once every 2 or 3 weeks	2
Once a month/every 4 weeks	14	Once a month/every 4 weeks	1
Once every 2 or 3 months	12	Once every 2 or 3 months	0
Once or twice a year	4	Once or twice a year	0
Less often than once a year	2	Less often than once a year	0
Never	2	Never	1
Don't know	0	Don't know	0
MEAN (times per year)	54.78	MEAN (times per year)	184.54

36a. How frequently do you eat out?  
36b. How frequently do you cook at home?

# Demographic Information

RACE	2013 %
Caucasian (Non-Hispanic)	71
African-American	12
Hispanic/Latino	14

INCOME	2013 %
Less than \$20,000	17
\$20,000 – less than \$30,000	13
\$30,000 – less than \$40,000	12
\$40,000 – less than \$50,000	10
\$50,000 – less than \$60,000	10
\$60,000 – less than \$70,000	7
\$70,000 – less than \$85,000	10
\$85,000 – less than \$100,000	6
\$100,000 – less than \$125,000	5
\$125,000 – less than \$150,000	2
\$150,000 or more	4
MEAN	\$55,310

GENDER	2013 %
Male	30
Female	70

AGE	2013 %
21-24	13
25-29	11
30-34	7
35-44	18
45-54	20
55-59	15
60-69	16
70 and older	0
MEAN	44.02

EDUCATION	2013 %
Some high school or less	2
High school graduate	16
Some college/AA/Trade/Tech.	43
College graduate	28
Post graduate degree (masters or doctorate)	10

CHILDRENS INFLUENCE ON MANGO PURCHASE	2013 %
Greatly influence purchases	38
Somewhat influence purchases	36
Do not influence purchases	26

NUMBER OF PEOPLE LIVING IN HOUSEHOLD	2013 %
1	21
2-3	57
4 or more	22

REGIONS	2013 %
Northeast	19
Midwest	22
South	35
West	24

NUMBER OF CHILDREN (UNDER 18) IN HOUSEHOLD	2013 %
None	60
1	21
2-3	18
4 or more	2