

INTERNATIONAL  
**FRESH  
PRODUCE**  
ASSOCIATION<sup>SM</sup>



# Consumer Sentiment: Sustainability



Fielded By: Ipsos



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# Consumer Sentiments Study

## OBJECTIVE & METHODOLOGY

### Objective

- Given the power that consumers have in driving retailer demands to the produce industry in terms of Sustainability, it is important that industry efforts and communications are aligned with consumer desires. This report will provide an understanding of consumers' attitudes towards sustainability and preferences for purchasing sustainably packaged produce in the top 5 consumer markets (U.S., U.K., Germany, China, and Brazil)

### Geography

- United States, United Kingdom, Germany, China, and Brazil

### Criteria

- Must be primary/secondary shopper in the household (conducts at least half of the grocery shopping)
- Respondents aged 18 and above

### Research Methodology

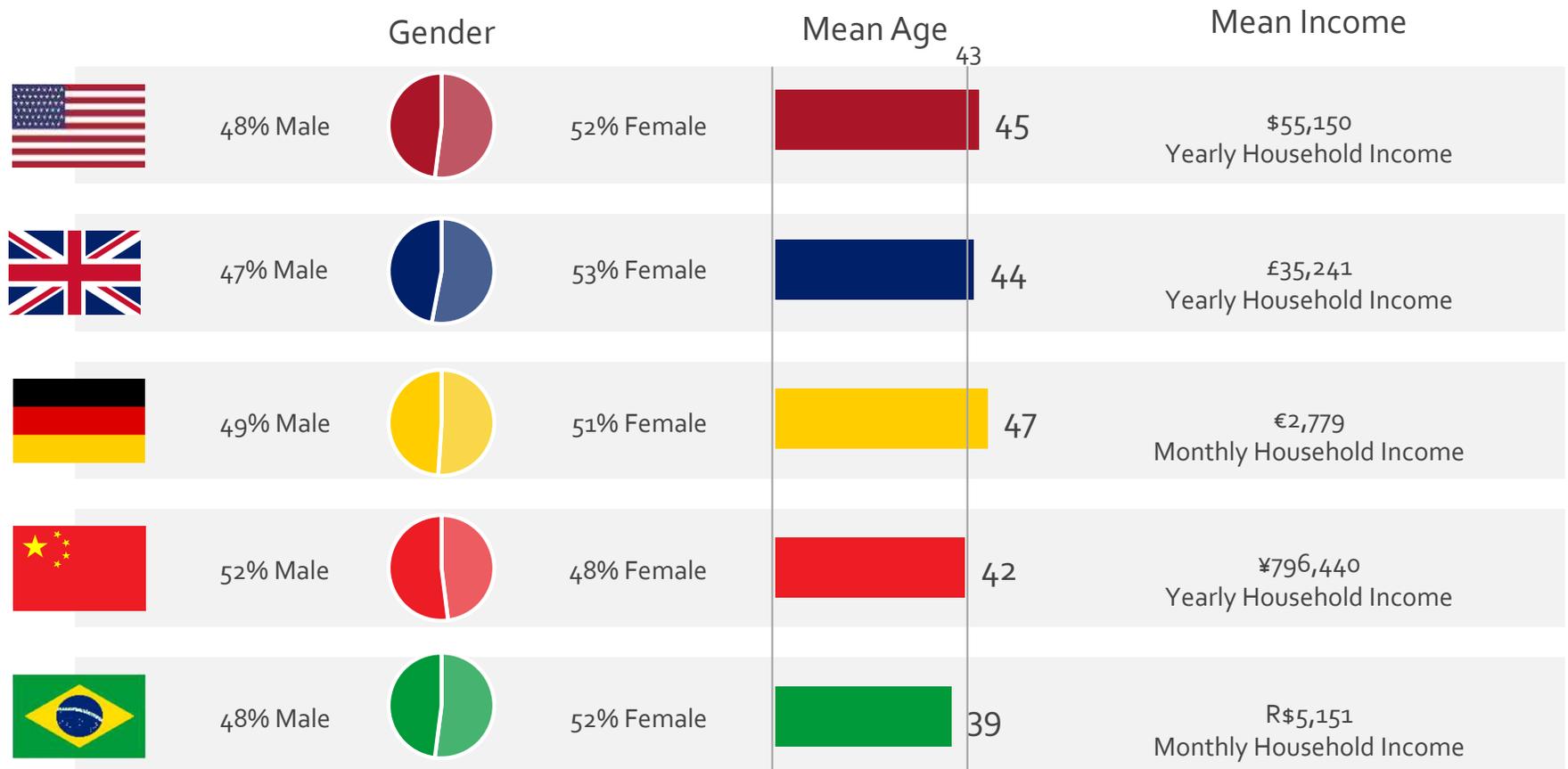
- Self-completion via online interviews
- Sample size = 500 per country

### Fieldwork Period

- October 18-25, 2021



# Demographics of Those Saying Sustainability is Important\*



\*Base: Consider Sustainability Extremely/Very Important (US: n=349, UK: n=331, DE: n=358, CN: n=432, BR: n=474)

# Executive Summary

Globally, consumer understanding of sustainability and its importance in their lives continues to grow. Given the power that consumers have in driving demand and transforming industries, International Fresh Produce Association launched this critical research to explore consumers' attitudes towards sustainability as it relates to their produce purchases in 5 of the world's top consumer markets (U.S., U.K., Germany, China, and Brazil). Understanding consumer sentiment in these countries helps ensure that the produce industry's efforts and communications are aligned with their consumers' attitudes and expectations.

The results revealed key findings, including

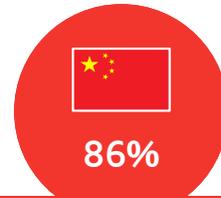
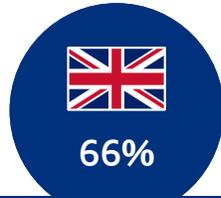
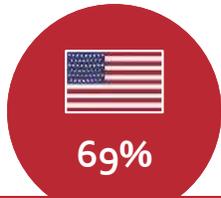
1. Although sustainability is an important issue in all countries explored in this study, it is not always a top consideration when buying produce because shoppers in most countries often prioritize personal benefits such as quality/freshness and price over environmental benefits.
2. Across the 5 countries explored in the study, shoppers consider Recyclable Packaging highly meaningful as a sustainability issue and one that stimulates concern, yet they are less likely to consider Social Compliance and Community Involvement as sustainability issues.
3. Across all 5 countries explored in this study, Air Pollution and Waste Production rank in shoppers' top three concerns with produce packaging.
4. Shoppers in 4 out of the 5 countries say that fully recyclable plastic is the most appealing material for produce packaging. Biodegradable plastic is also an appealing option in most countries, while paper-based material is a top preference in only 2 countries.

At its core, sustainability allows an entity to continue to do business today without destroying the inputs or environment for the future. As alternative produce packaging options become more accessible and produce companies enhance their sustainability efforts, this research can help them align their messaging with their consumers' expectations.



# Country Comparison

Sustainability is Very/Extremely Important



Sustainability is Extremely Important	32%	32%	26%	33%	65%
Top 3 Industries Associated with Sustainability:	<ol style="list-style-type: none"> <li>1. Fresh Produce: 51%</li> <li>2. Dairy: 38%</li> <li>3. Meat: 38%</li> </ol>	<ol style="list-style-type: none"> <li>1. Fresh Produce: 59%</li> <li>2. Dairy: 45%</li> <li>3. Meat: 42%</li> </ol>	<ol style="list-style-type: none"> <li>1. Fresh Produce: 73%</li> <li>2. Meat: 51%</li> <li>3. Dairy: 46%</li> </ol>	<ol style="list-style-type: none"> <li>1. Dairy: 60%</li> <li>2. Fresh Produce: 57%</li> <li>3. Meat: 45%</li> </ol>	<ol style="list-style-type: none"> <li>1. Fresh Produce: 68%</li> <li>2. Dairy: 45%</li> <li>3. Meat: 44%</li> </ol>
Top 3 Issues Considered under Sustainability:	<ol style="list-style-type: none"> <li>1. Water Conservation: 60%</li> <li>2. Energy Efficiency: 52%</li> <li>3. Recyclable Packaging: 51%</li> </ol>	<ol style="list-style-type: none"> <li>1. Energy Efficiency: 67%</li> <li>2. Recyclable Packaging: 65%</li> <li>3. Zero Waste: 64%</li> </ol>	<ol style="list-style-type: none"> <li>1. Recyclable Packaging: 75%</li> <li>2. Water Conservation: 66%</li> <li>3. Energy Efficiency: 64%</li> </ol>	<ol style="list-style-type: none"> <li>1. Recyclable Packaging: 58%</li> <li>2. Organic Products: 58%</li> <li>3. Regenerative Agric.: 55%</li> </ol>	<ol style="list-style-type: none"> <li>1. Water Conservation: 84%</li> <li>2. Recyclable Packaging: 82%</li> <li>3. Zero Waste: 75%</li> </ol>
Top 3 Considerations when Buying Packaged Fresh Produce:	<ol style="list-style-type: none"> <li>1. Quality and Freshness: 51%</li> <li>2. Value for Price: 46%</li> <li>3. Safe to Eat: 44%</li> </ol>	<ol style="list-style-type: none"> <li>1. Quality and Freshness: 46%</li> <li>2. Value for Price: 42%</li> <li>3. Safe to Eat: 40%</li> </ol>	<ol style="list-style-type: none"> <li>1. Quality and Freshness: 52%</li> <li>2. Sustainable Package: 48%</li> <li>3. Damage/Dirt Protec.: 42%</li> </ol>	<ol style="list-style-type: none"> <li>1. Quality and Freshness: 56%</li> <li>2. Safe to Eat: 53%</li> <li>3. Label Helpful Info.: 41%</li> </ol>	<ol style="list-style-type: none"> <li>1. Sustainable Package: 46%</li> <li>2. Quality and Freshness: 46%</li> <li>3. Safe to Eat: 38%</li> </ol>



# Country Comparison



	US	UK	Germany	China	Brazil
Top Produce Packaging Concerns:	<ol style="list-style-type: none"> <li>1. Air Pollution: 85%</li> <li>2. Waste Production: 85%</li> <li>3. Deforestation: 80%</li> </ol> Climate Change: 80%	<ol style="list-style-type: none"> <li>1. Air Pollution: 91%</li> <li>2. Deforestation: 90%</li> <li>3. Waste Production: 89%</li> </ol> Marine Litter: 89%	<ol style="list-style-type: none"> <li>1. Marine Litter: 93%</li> <li>2. Waste Production: 92%</li> <li>3. Air Pollution: 89%</li> </ol>	<ol style="list-style-type: none"> <li>1. Deforestation: 93%</li> <li>2. Marine Litter: 92%</li> <li>3. Air Pollution: 91%</li> </ol> Waste Production: 92% Resource Depletion: 92%	<ol style="list-style-type: none"> <li>1. Air Pollution: 97%</li> <li>2. Deforestation: 96%</li> <li>3. Waste Production: 95%</li> </ol> Marine Litter: 96% Resource Depletion: 95%
Plastic Produce Packaging Disposal:	<ol style="list-style-type: none"> <li>1. Home Recycling Bin: 54%</li> <li>2. Home Regular Trash: 37%</li> <li>3. Communal Recycling: 22%</li> </ol>	<ol style="list-style-type: none"> <li>1. Home Recycling Bin: 77%</li> <li>2. Home Regular Trash: 19%</li> <li>3. Communal Recycling: 16%</li> </ol>	<ol style="list-style-type: none"> <li>1. Home Recycling Bin: 78%</li> <li>2. Communal Recycling: 19%</li> <li>3. Home Regular Trash: 13%</li> </ol>	<ol style="list-style-type: none"> <li>1. Communal Recycling: 72%</li> <li>2. Home Recycling Bin: 63%</li> <li>3. Home Regular Trash: 42%</li> </ol>	<ol style="list-style-type: none"> <li>1. Home Recycling Bin: 58%</li> <li>2. Communal Recycling: 35%</li> <li>3. Home Regular Trash: 25%</li> </ol>
Most Appealing Produce Packaging:	<ol style="list-style-type: none"> <li>1. Fully Recyclable: 60%</li> <li>2. Biodegradable Plastic: 56%</li> <li>3. Recycled Plastic: 50%</li> </ol>	<ol style="list-style-type: none"> <li>1. Fully Recyclable: 61%</li> <li>2. Paper-based: 57%</li> <li>3. Compostable Raw: 54%</li> </ol>	<ol style="list-style-type: none"> <li>1. Paper-based: 69%</li> <li>2. Biodegradable Plastic: 58%</li> <li>3. Fully Recyclable: 55%</li> </ol>	<ol style="list-style-type: none"> <li>1. Fully Recyclable: 63%</li> <li>2. Recycled Plastic: 62%</li> <li>3. Biodegradable Plastic: 56%</li> </ol>	<ol style="list-style-type: none"> <li>1. Fully Recyclable: 64%</li> <li>2. Biodegradable Plastic: 61%</li> <li>3. Recycled Plastic: 57%</li> </ol>



# Country Comparison - Purchasing Considerations

Top 3 Considerations when Purchasing Items	 US	 UK	 Germany	 China	 Brazil
 Fresh Fruits	1. Quality: 72% 2. Price: 65% 3. Nutritional Value: 51%	1. Quality: 65% 2. Price: 58% 3. Nutritional Value: 40%	1. Quality: 77% 2. Price: 55% 3. Environ. Impact: 44%	1. Nutritional Value: 46% 2. Environ. Impact: 45% 3. Price: 35% Recyclable Packaging: 35%	1. Quality: 69% 2. Price: 50% 3. Nutritional Value: 45%
 Fresh Vegetables	1. Quality: 73% 2. Price: 64% 3. Nutritional Value: 52%	1. Quality: 68% 2. Price: 59% 3. Nutritional Value: 41%	1. Quality: 75% 2. Price: 55% 3. Environ. Impact: 43%	1. Nutritional Value: 56% 2. Environ. Impact: 48% 3. Brand: 32%	1. Quality: 64% 2. Price: 47% 3. Environ. Impact: 46%
 Meat / Animal Protein	1. Quality: 72% 2. Price: 69% 3. Nutritional Value: 44%	1. Quality: 66% 2. Price: 60% 3. Environ. Impact: 37%	1. Quality: 72% 2. Price: 56% 3. Environ. Impact: 47%	1. Nutritional Value: 52% 2. Environ. Impact: 47% 3. Price: 38%	1. Quality: 68% 2. Price: 56% 3. Environ. Impact: 41%
 Dairy Products	1. Quality: 70% 2. Price: 66% 3. Nutritional Value: 51%	1. Quality: 64% 2. Price: 59% 3. Recyclable Packaging: 34%	1. Quality: 68% 2. Price: 54% 3. Environ. Impact: 38% Recyclable Packaging: 38%	1. Nutritional Value: 50% 2. Recyclable Packaging: 44% 3. Environ. Impact: 36% Price: 36%	1. Quality: 58% 2. Price: 46% 3. Nutritional Value: 38%
 Frozen Food	1. Price: 65% 2. Quality: 64% 3. Nutritional Value: 42%	1. Quality: 62% 2. Price: 59% 3. Nutritional Value: 33%	1. Quality: 63% 2. Price: 54% 3. Environ. Impact: 36% Recyclable Packaging: 36%	1. Recyclable Packaging: 48% 2. Nutritional Value: 47% 3. Price: 39%	1. Quality: 62% 2. Price: 48% 3. Nutritional Value: 36%



# DETAILED FINDINGS UNITED STATES



# Executive Summary – United States

Most U.S. shoppers say that sustainability is important, with 32% saying it is extremely important. They consider water conservation, energy efficiency, recyclable packaging and zero waste the top issues under the sustainability umbrella, but environmental/ sustainability issues are not among their top considerations when purchasing fresh produce. Attributes that map to personal benefits outweigh those that map to environmental benefits with quality, price, and nutritional value emerging as shoppers' top purchase considerations while environmental impact shows up as a distant fourth.

Not surprisingly, our U.S. shoppers say they are concerned with the impact of produce packaging on the environment, citing air pollution as their top concern followed by climate change and waste production. But similar to their responses in other parts of the survey, when asked about attributes driving the purchases of *packaged* produce, sustainability is not a significant consideration given in comparison to the top-rated attributes of quality/freshness, safety, and value.

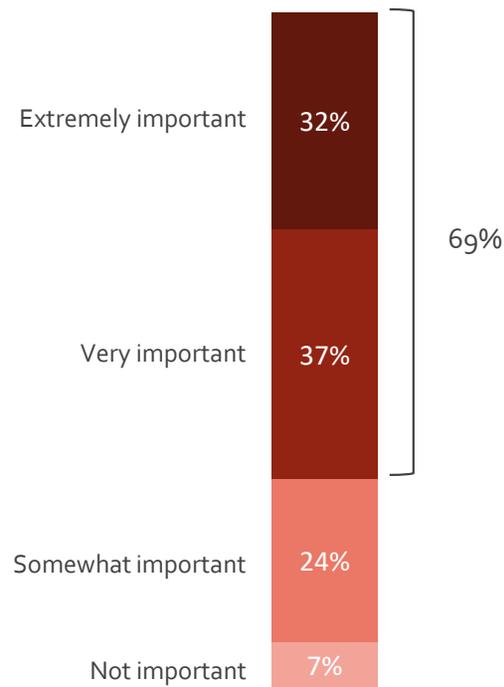
Most U.S. shoppers say they recycle their produce packaging while just over a third saying they dispose of it in their regular home trash. As companies are developing alternative produce packaging solutions that satisfy both consumers expectations around sustainability and buyer requirements, the U.S. consumers surveyed say the most appealing packaging materials for fresh produce are fully recyclable plastic as well as biodegradable plastic containers.



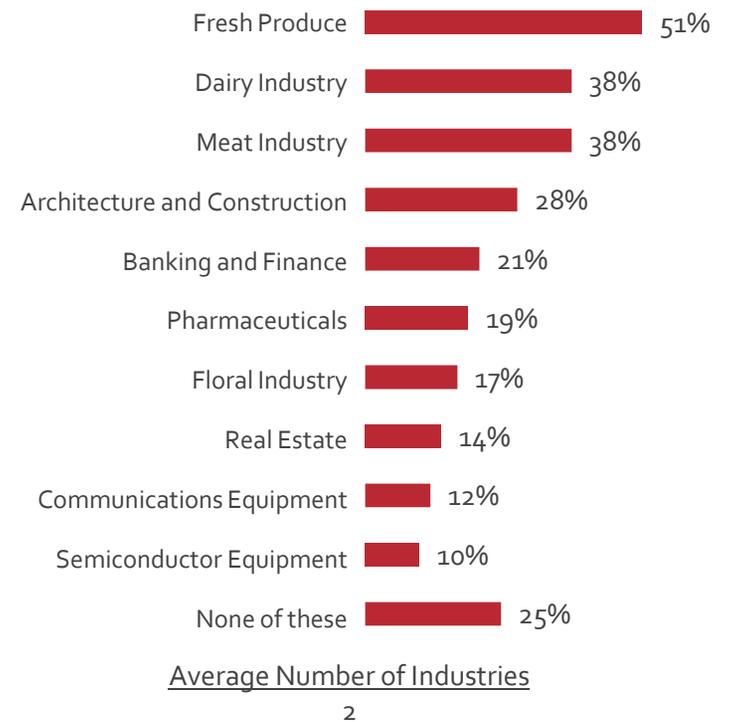
# Sustainability/Industry Overview

In the U.S., sustainability is quite important to shoppers. Food industries are most associated with sustainability with Fresh Produce leading the way.

Importance of Sustainability



Industries Associated with Sustainability



Q1: Overall, how important is sustainability to you?  
 Q2: What industries do you associate with sustainability? Select all that apply.  
 Base: Total Respondents (n=505)



# Issues Considered Under The Sustainability Umbrella

The top sustainability issues are related to utilities (lead by water conservation) and consumer product concerns. The more “social” related responsibilities fall to the bottom of what’s considered to be sustainable issues.



Average Number of Issues

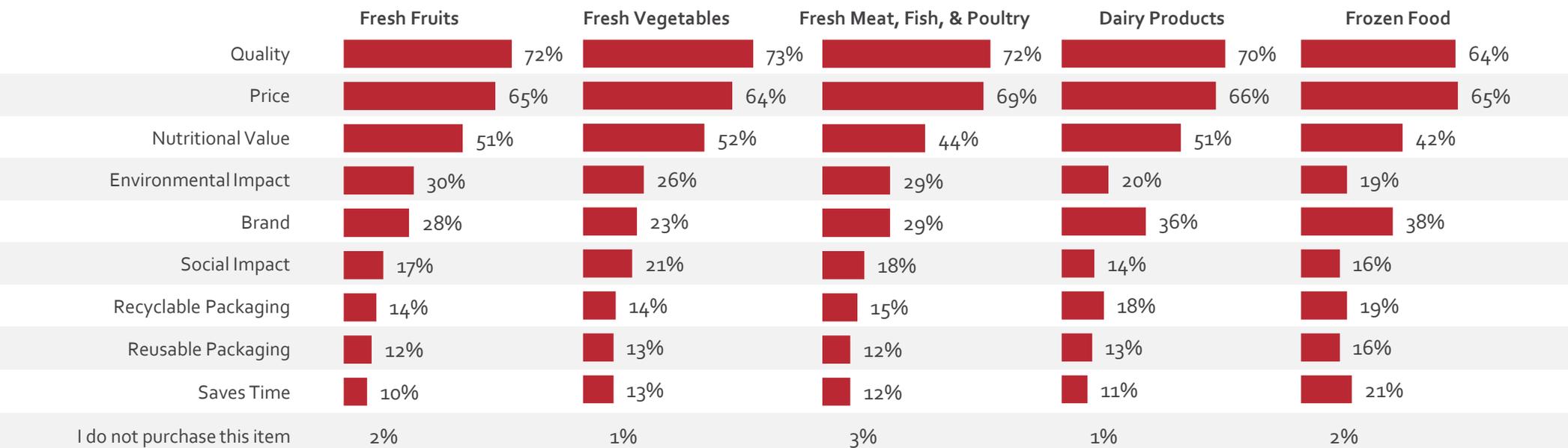
4



# Considerations While Grocery Shopping

Although sustainability is considered important and has strong association with the fresh produce, meat, and dairy industries, environmental/sustainability issues are not among the top considerations when purchasing any of those grocery categories. Quality, followed by price and nutritional value are most important in all cases.

Considerations Ranked 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> when Purchasing Grocery Items



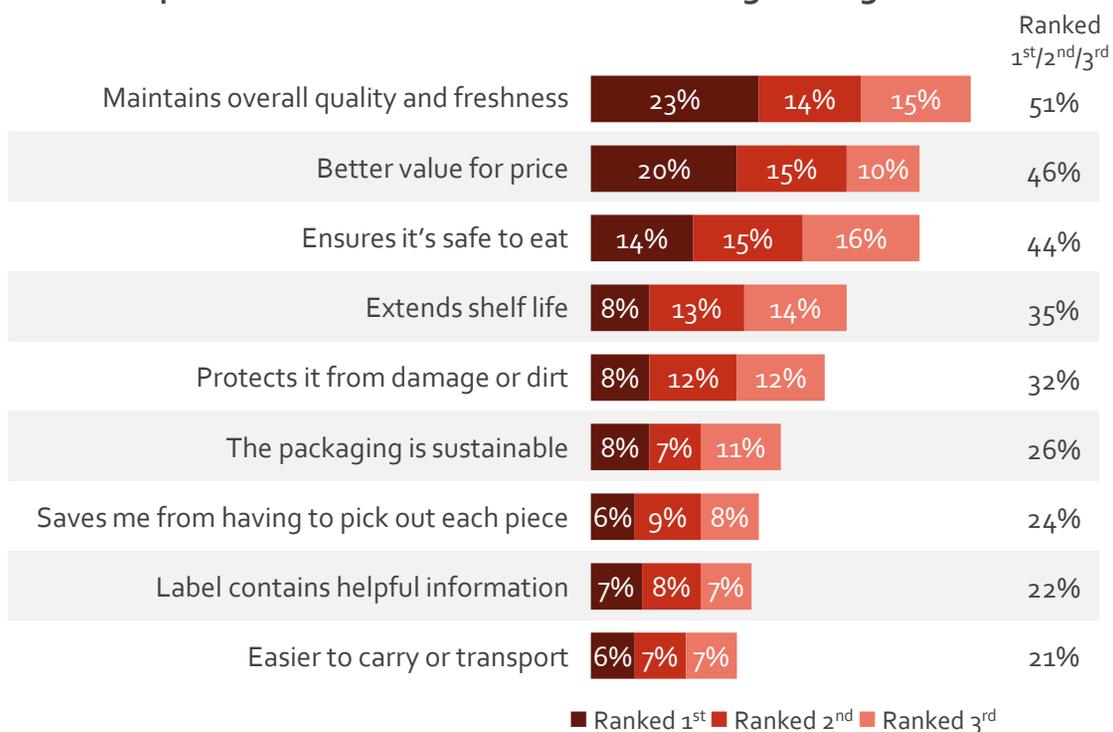
Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
 Base: Total Respondents (n=505)  
 See slide 50 for detailed view



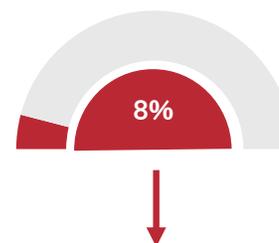
# Buying Packaged Fresh Produce

Maintaining overall quality and freshness is most important when purchasing packaged fresh produce; value and safety follow. Package sustainability is much less important. Those few who do not purchase packaged fresh produce prefer to select the produce themselves; concern about the environment is cited less frequently.

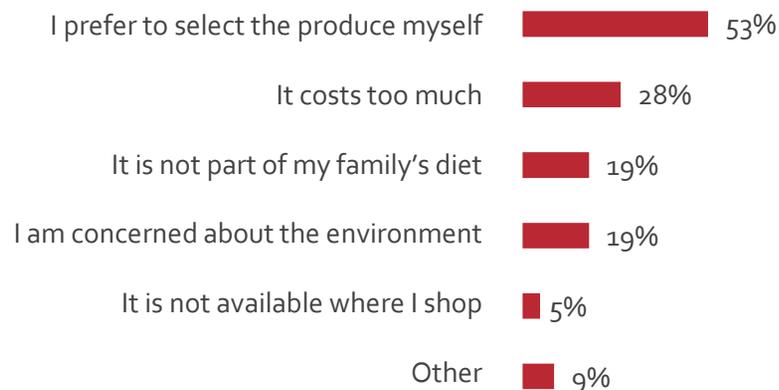
## Importance of Attributes When Purchasing Packaged Fresh Produce



## Do not Purchase Packaged Fresh Produce



## Reasons for not Purchasing Packaged Fresh Produce



Q5: With 1 being most important and 9 being least important, rank the importance of the following attributes when purchasing packaged fresh produce.

Base: Purchase packaged fresh produce (n=466)

Q6: Why don't you purchase packaged fresh produce? Select all that apply.

Base: Do not purchase packaged fresh produce (n=43)



# Produce Packaging Concerns

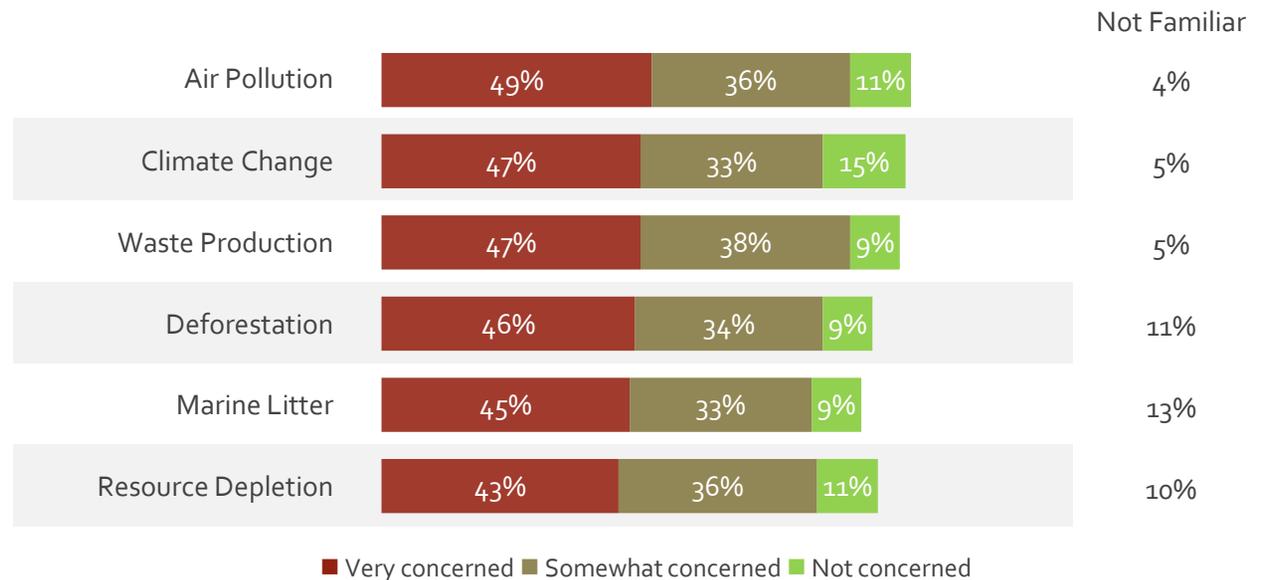
Consumers in the US are similarly concerned with the various environmental impacts of produce packaging.

*In fact, prior Ipsos research indicates for about half of consumers, sustainability plays a role in driving product/brand purchases.*

I feel better when I buy sustainable brands or products	57%
I have purchased brands/products specifically because of their sustainability practices	44%

Source: Ipsos survey conducted between Sep. 29-30, 2020 among 1,115 adults in the U.S.

Concern with Environmental Impacts of Produce Packaging



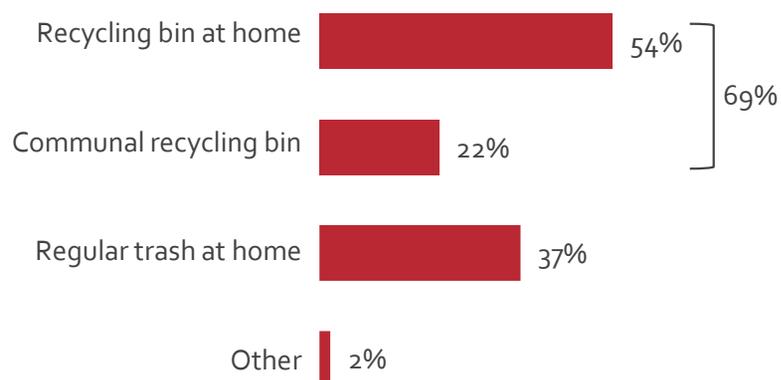
Q7: Using the scale below, please indicate how concerned you are with the following environmental impacts of produce packaging.  
Base: Total Respondents (n=505).



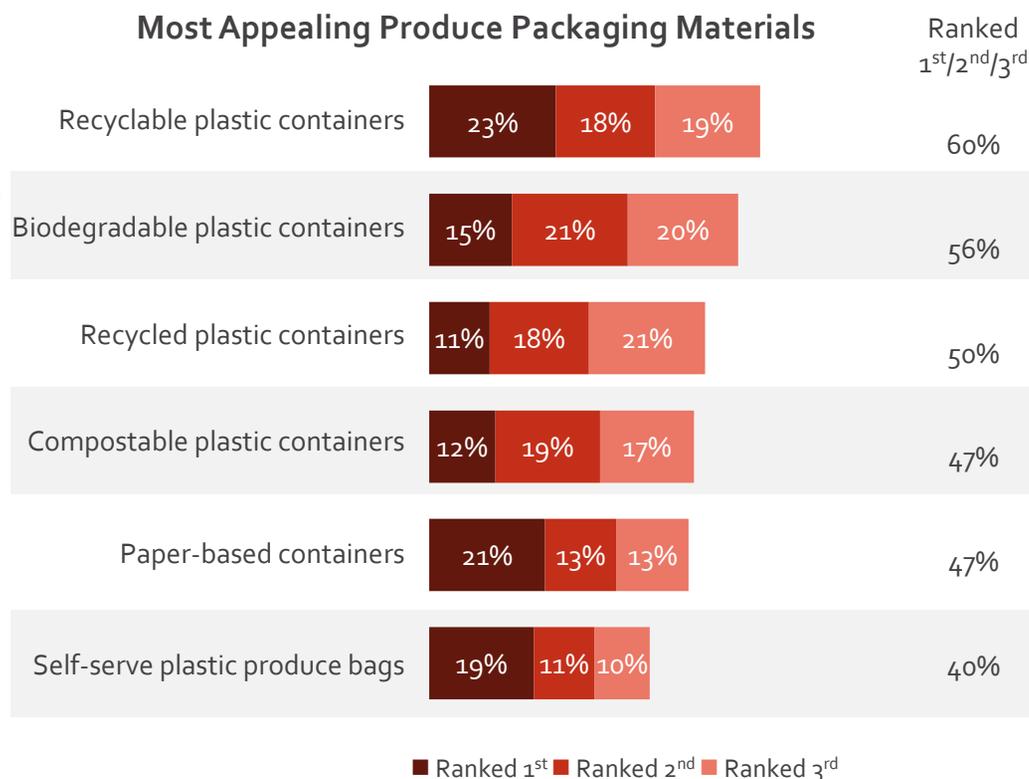
# Produce Packaging Disposal and Materials

Most consumers in the U.S. do recycle their produce packaging, but there is still a fair segment who dispose of it in their regular trash. The most appealing package types for fresh produce are recyclable and biodegradable plastic containers.

## Method of Disposing of Produce Packaging



## Most Appealing Produce Packaging Materials



**87%** I'd like more food packaging to be made from recycled materials.

**89%** I'd like more food packaging to be made of recyclable materials.

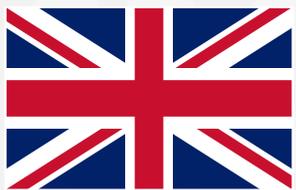
(Source: Ipsos survey conducted between Oct. 10 and 12, 2018 among 2,010 adults in the U.S.)



Q8: How do you dispose of the plastic produce packaging when you are done with it? Select all that apply.  
 Q9: With 1 being the most appealing and 6 being the least appealing, please rank the following types of packaging for fresh produce.  
 Base: Total Respondents (n=505)



# DETAILED FINDINGS UNITED KINGDOM



# Executive Summary – United Kingdom

Two thirds of the U.K. shoppers interviewed say that sustainability is important to them with one third of that group saying it is extremely important. They consider energy efficiency, recyclable packaging, zero waste and water conservation the top issues under the sustainability umbrella. But sustainability and environmental issues are not in the top three considerations when purchasing various grocery items, including fresh fruits and vegetables. Attributes that map to personal benefits outweigh those that map to environmental benefits with shoppers saying that quality, price, and nutritional value are their top three considerations while environmental impact and recyclable packaging round out their top five considerations.

For the most part, our U.K. respondents are very concerned about the environmental impact of produce packaging with climate change and marine litter being their top concerns. So, it makes sense that package sustainability is the most important attribute (on a ranked 1<sup>st</sup> basis) when purchasing packaged fresh produce while other attributes such as maintaining overall quality/freshness, value and safety are also very important.

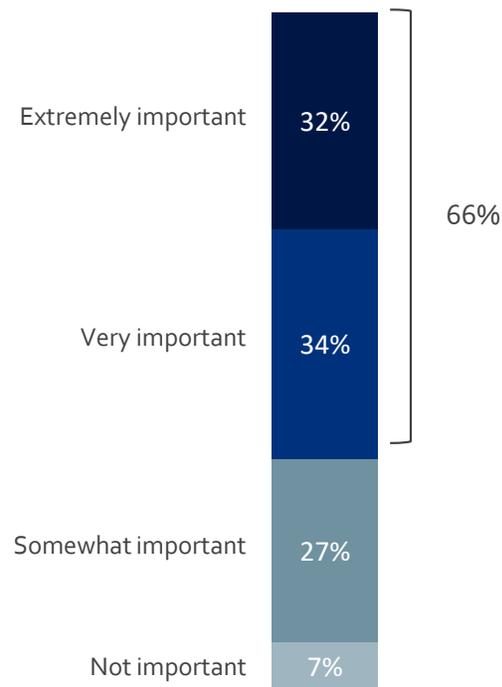
Over 75% of U.K. consumers say they dispose of produce packaging in their recycling bin at home while 19% dispose of the packaging in their regular trash bins. As consumers look to companies to offer them sustainable solutions that maintains overall quality/freshness, value and safety, they say the most appealing packaging materials for fresh produce is recyclable plastic and paper-based containers.



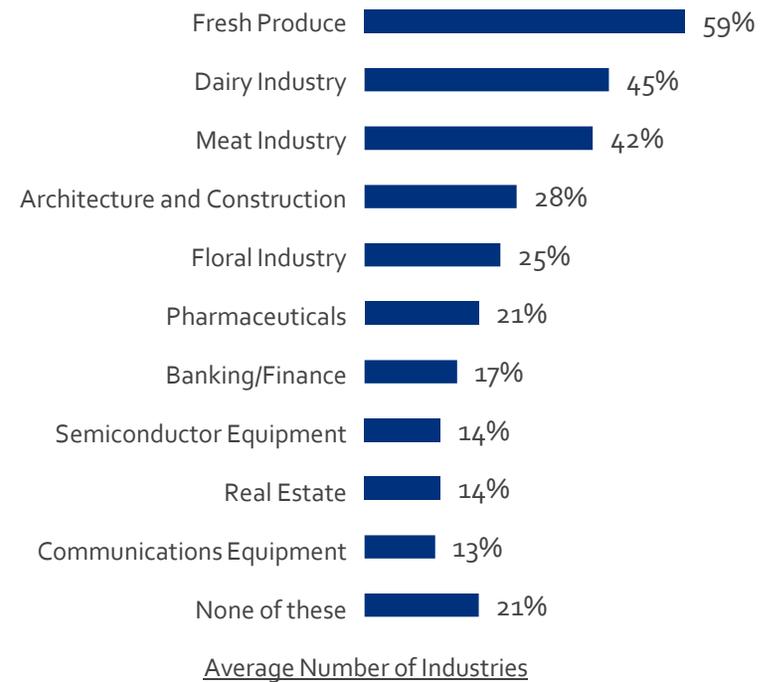
# Sustainability/Industry Overview

Sustainability is important in the UK as well. Again, fresh produce is the industry most associated with sustainability, followed by other food industries.

## Importance of Sustainability



## Industries Associated with Sustainability



Average Number of Industries

3

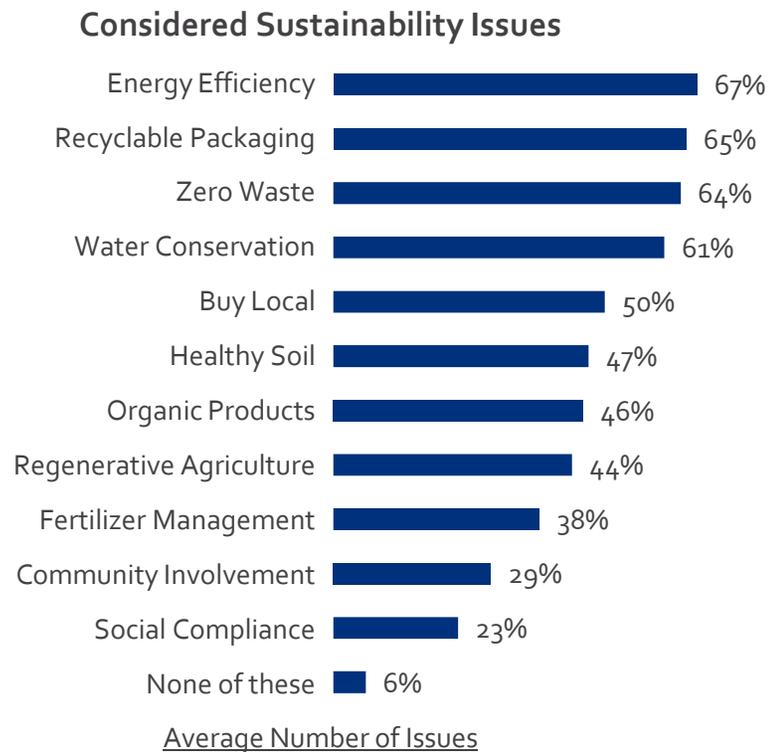


Q1: Overall, how important is sustainability to you?  
 Q2: What industries do you associate with sustainability? Select all that apply.  
 Base: Total Respondents (n=503)



# Issues Considered Under the Sustainability Umbrella

Like the US, utility and consumer product related items are most often considered sustainability issues. UK consumers are less likely to associate social issues with sustainability.



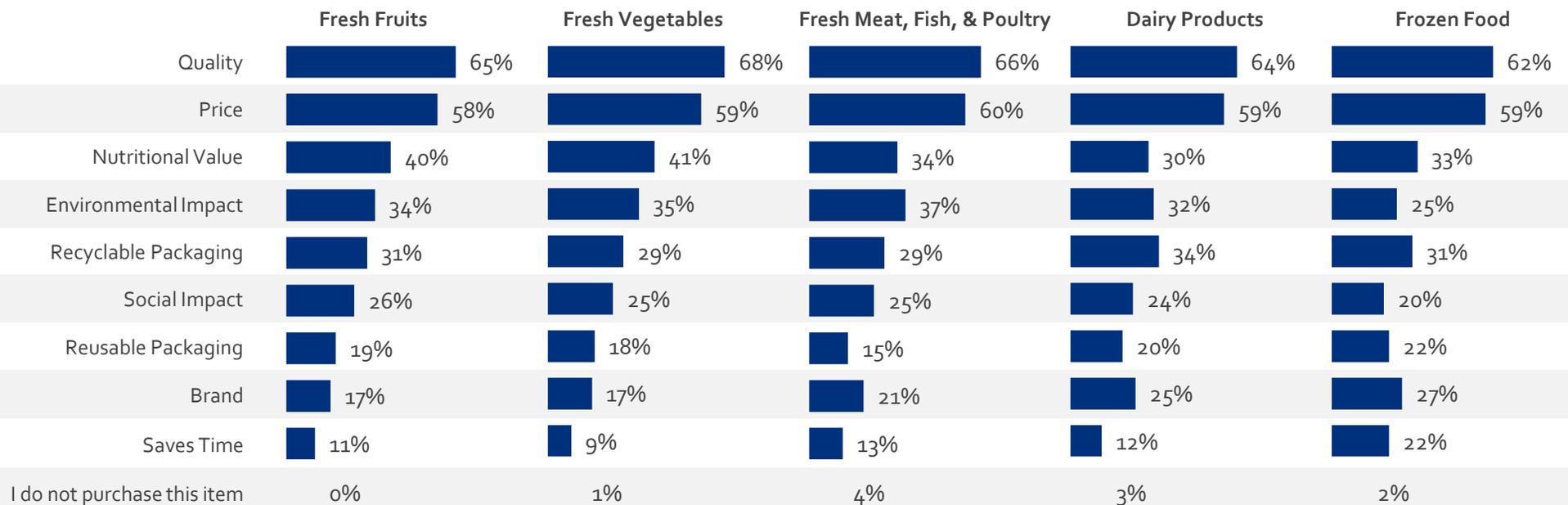
5



# Considerations While Grocery Shopping

Quality followed by price are the key considerations in UK, when purchasing various grocery items. Again, environmental/sustainability issues are less important.

Considerations Ranked 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> when Purchasing Grocery Items



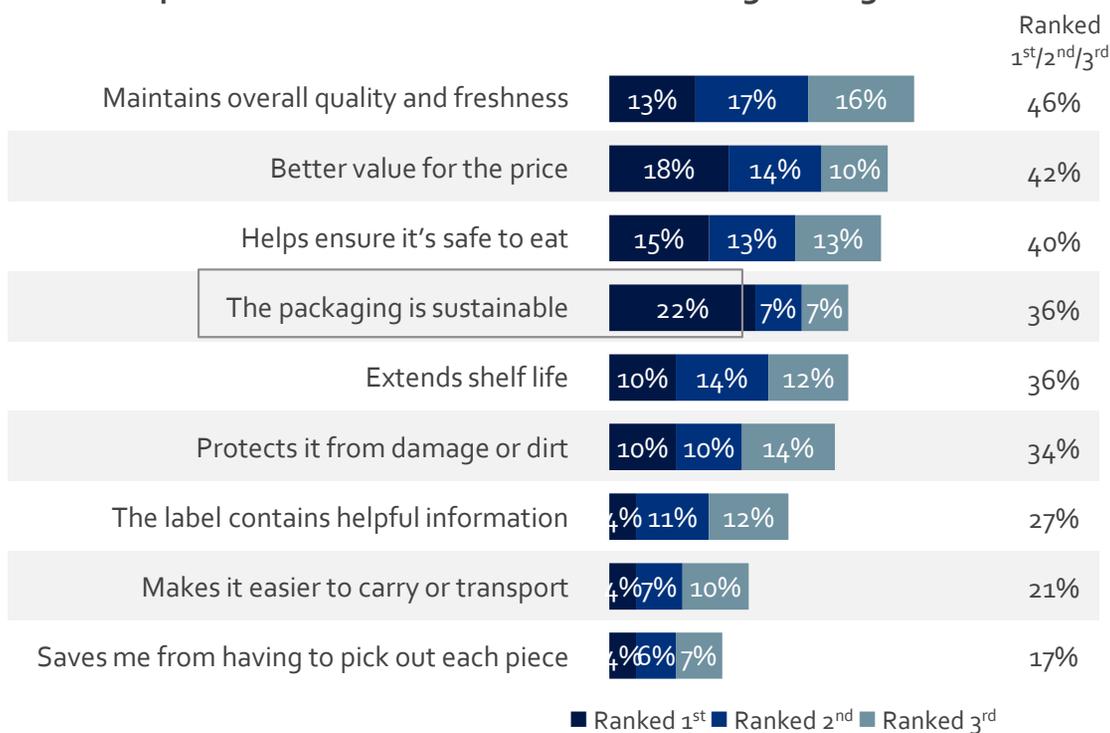
Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
 Base: Total Respondents (n=503)  
 See slide 51 for detailed view



# Buying Packaged Fresh Produce

Sustainable package is the most important (on a ranked 1<sup>st</sup> basis) when purchasing packaged fresh produce. Maintaining overall quality/freshness, value and safety are also important. Among a few, there is a preference to select the produce themselves. There is also concern about the environment.

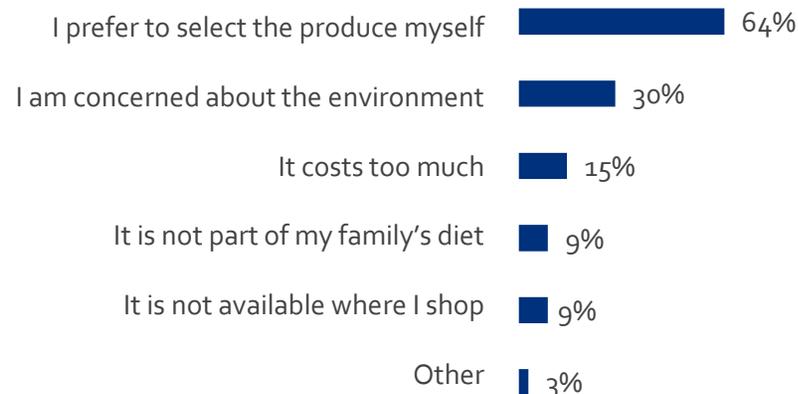
## Importance of Attributes When Purchasing Packaged Fresh Produce



## Do not Purchase Packaged Fresh Produce



## Reasons for not Purchasing Packaged Fresh Produce



Q5: With 1 being most important and 9 being least important, rank the importance of the following attributes when purchasing packaged fresh produce.

Base: Purchase packaged fresh produce (n=471)

Q6: Why don't you purchase packaged fresh produce? Select all that apply.

Base: Do not purchase packaged fresh produce (n=33)



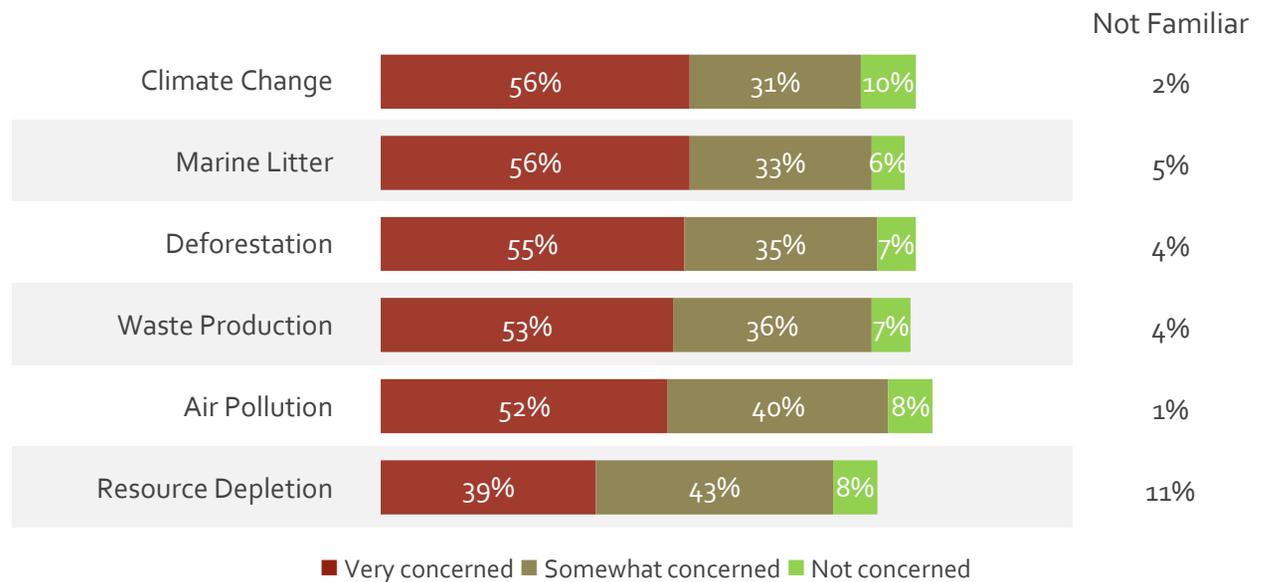
# Produce Packaging Concerns

For the most part, consumers in the UK are concerned about all aspects of environmental impact of produce packaging – less so resource depletion.

Concern over how foods are packaged has almost doubled from 16% in 2012 to 28% in 2018

Source: INCPEN & WRAP: UK survey 2019 on citizens' attitudes & behaviors relating to food waste, packaging and plastic packaging

Concern with Environmental Impacts of Produce Packaging



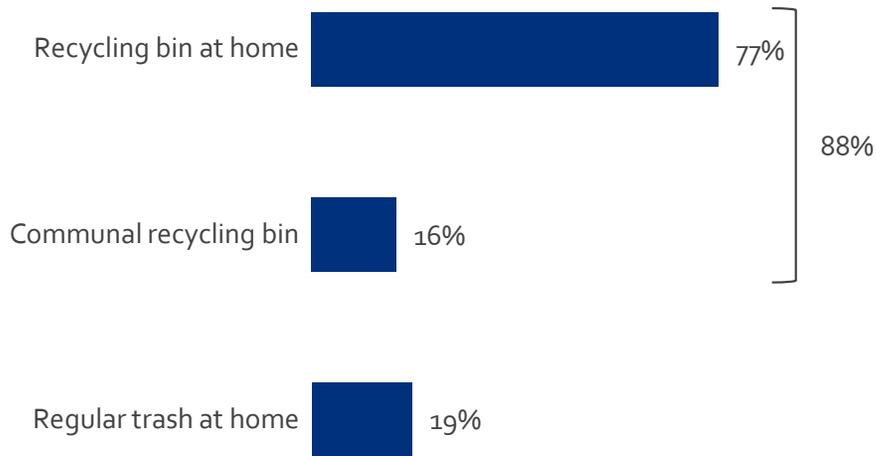
Q7: Using the scale below, please indicate how concerned you are with the following environmental impacts of produce packaging.  
Base: Total Respondents (n=503)



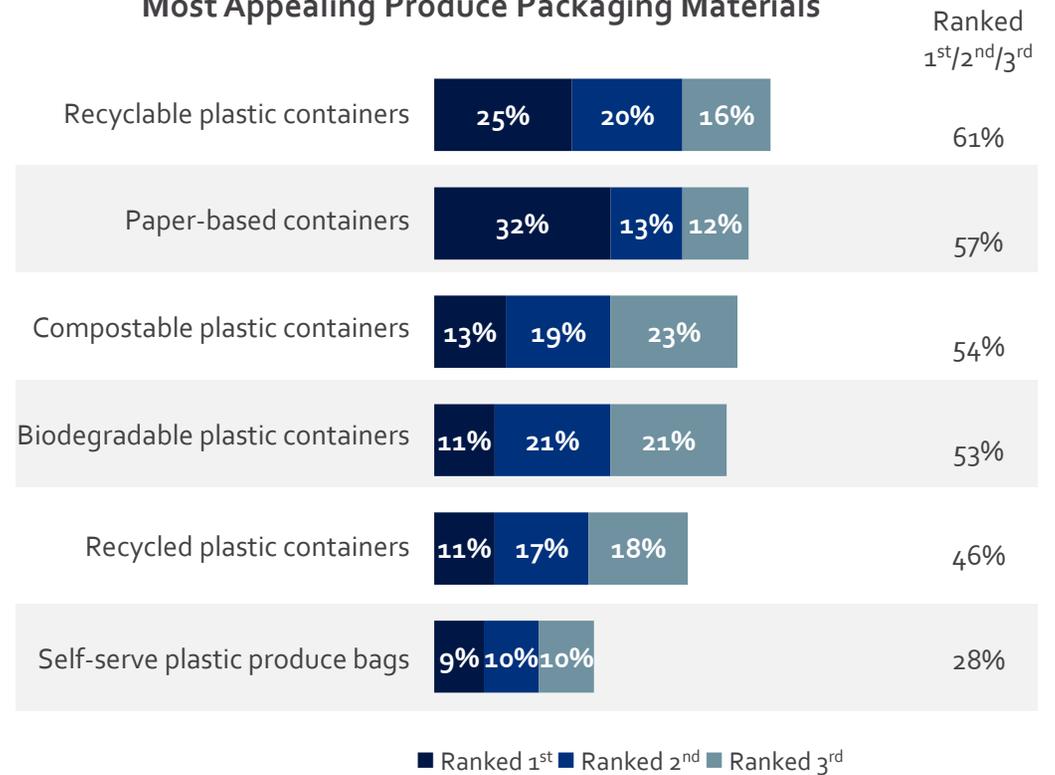
# Produce Packaging Disposal and Materials

Recycling is more prevalent in the UK than the US. The majority recycle their produce packaging (predominantly at home). The most appealing package types for fresh produce in the UK are recyclable plastic and paper-based containers.

Method of Disposing of Produce Packaging



Most Appealing Produce Packaging Materials



Q8: How do you dispose of the plastic produce packaging when you are done with it? Select all that apply.  
 Q9: With 1 being the most appealing and 6 being the least appealing, please rank the following types of packaging for fresh produce.  
 Base: Total Respondents (n=503)



# DETAILED FINDINGS GERMANY



# Executive Summary - Germany

Sustainability is important to German consumers with 71% saying it is either very important or extremely important. They consider recyclable packaging, water conservation, and energy efficiency as the top three issues within the sustainability umbrella while buying local ranks fourth. Because of how important sustainability is to them, it is not surprising that our respondents in Germany also say that environmental impact is one of the top three considerations when grocery shopping, coming in behind quality and price.

Consistent with their sentiments about the importance of sustainability especially in terms of recyclable packaging and water conservation, 72% of the shoppers surveyed in Germany say that the impact of produce packaging on marine litter is their greatest environmental concern. So, it makes sense that package sustainability is the most important attribute (on a ranked 1st basis) when purchasing packaged fresh produce, while other attributes such as maintaining overall quality/freshness and protection from damage or dirt are also very important.

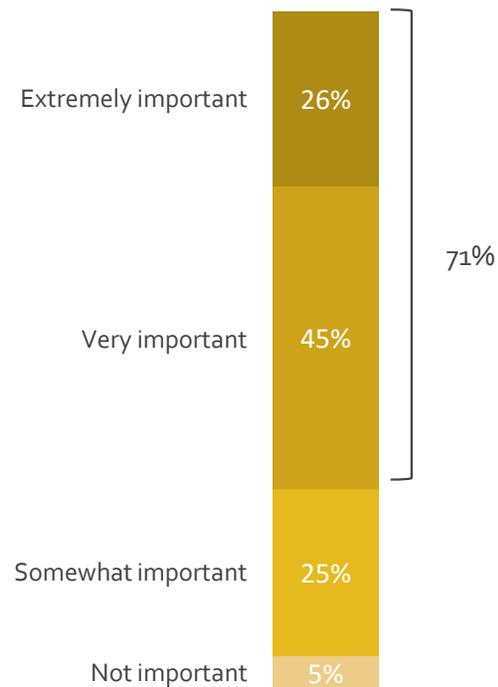
Seventy-eight percent of German consumers say they dispose of produce packaging in their recycling bin at home while 13% dispose of the packaging in their regular trash bins. As they look to companies to offer sustainable solutions that maintain overall quality/freshness and provide protection from damage or dirt, these consumers say the most appealing packaging material for fresh produce is paper based with biodegradable plastic and recyclable plastic rounding out the top three most appealing materials.



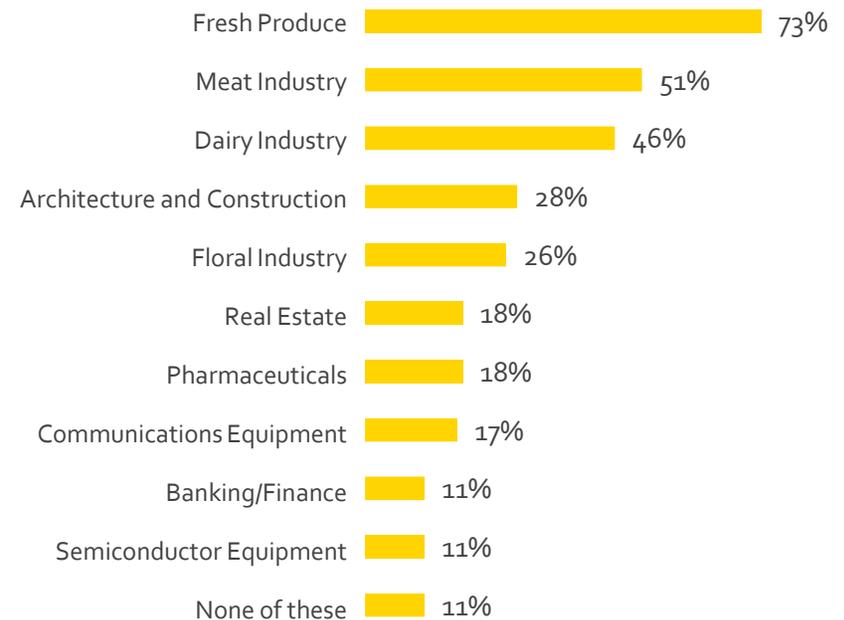
# Sustainability/Industry Overview

Sustainability is important in Germany as well. Again, fresh produce is the industry most strongly associated with sustainability followed by other food industries.

## Importance of Sustainability



## Industries Associated with Sustainability



## Average Number of Industries

3

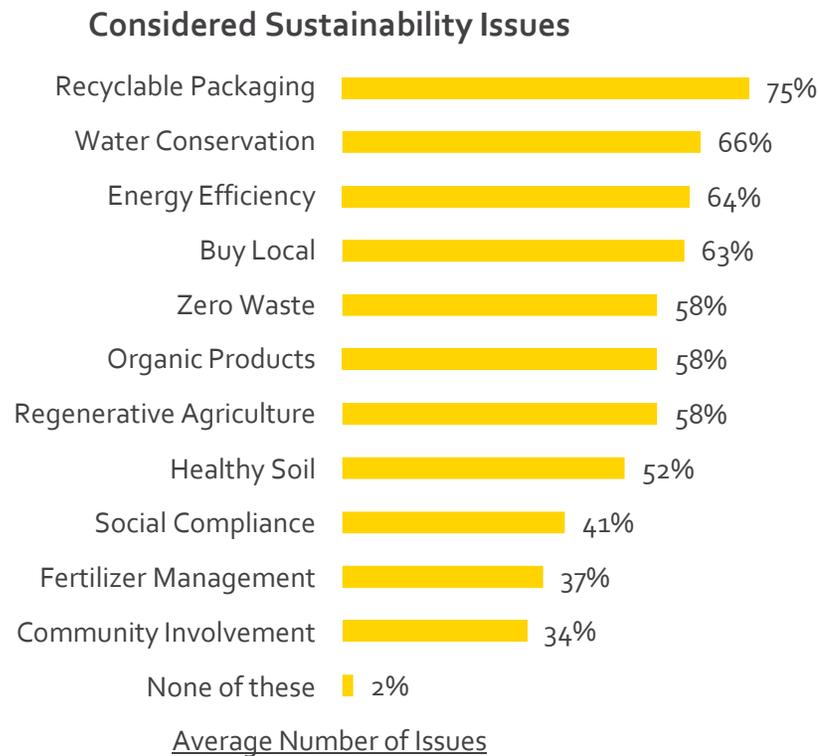


Q1: Overall, how important is sustainability to you?  
 Q2: What industries do you associate with sustainability? Select all that apply.  
 Base: Total Respondents (n=506)



# Issues Considered Under the Sustainability Umbrella

Recyclable packaging is most often considered to be a sustainable issue in Germany. Utilities, such as water conservation and energy efficiency, form the second tier along with buying local. Unlike other countries, in Germany, there seems to be more “awareness” in the sustainability arena (agriculture issues and zero waste are forming a second tier).



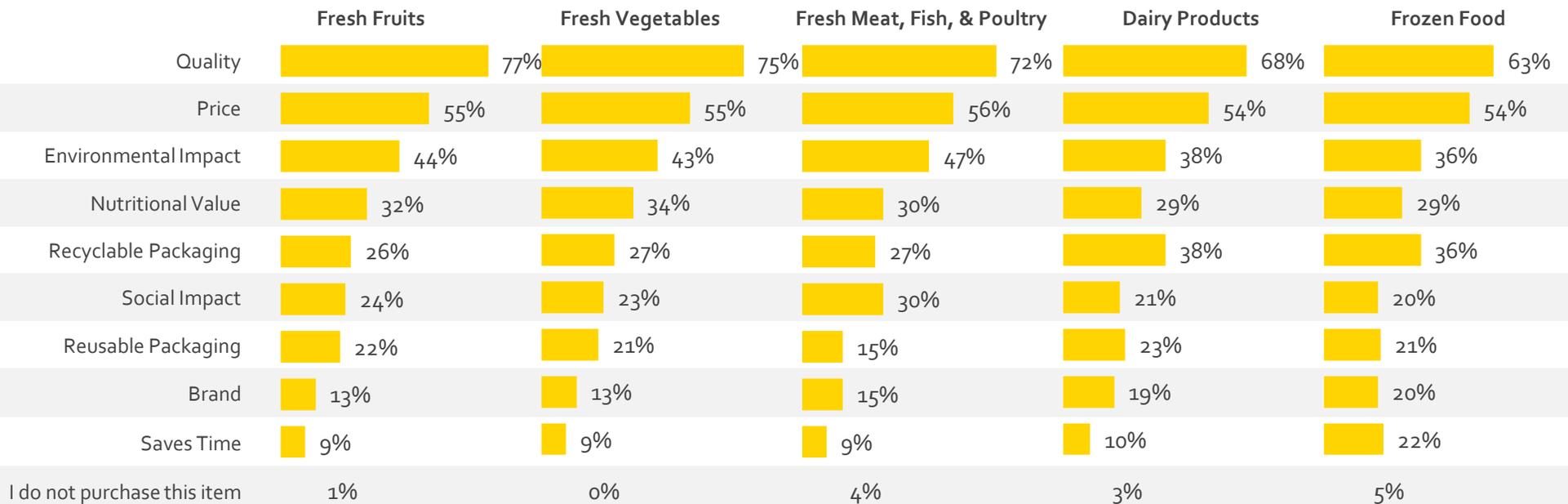
6



# Considerations While Grocery Shopping

Quality is by far, the key consideration in Germany when purchasing the various grocery items. Price is next most important followed by environmental impact (which is more important than nutritional value in Germany).

Considerations Ranked 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> when Purchasing Grocery Items



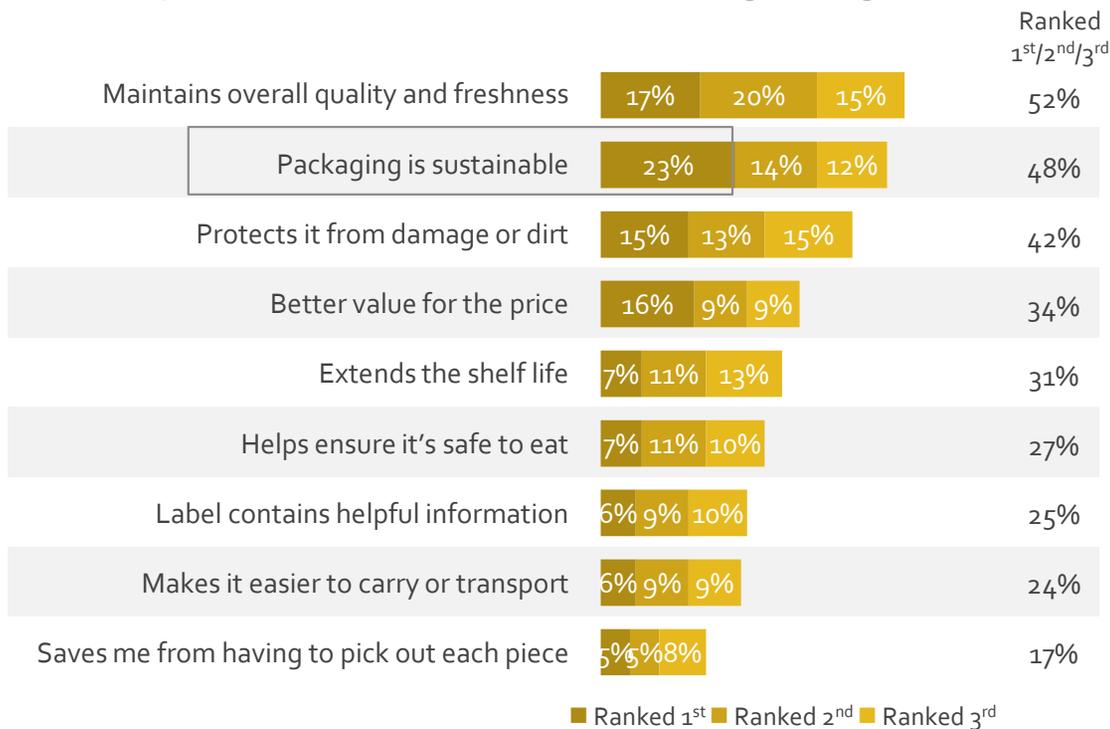
Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
 Base: Total Respondents (n=506)  
 See slide 52 for detailed view



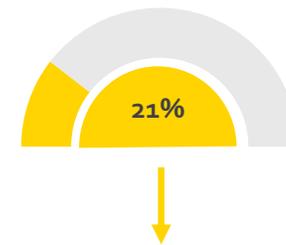
# Buying Packaged Fresh Produce

Sustainable packaging is more important in Germany than other markets when buying packaged fresh produce, and it is ranked 1st in terms of importance. Selecting produce on their own and concern about environmental impact is main barriers to not purchasing packaged fresh produce.

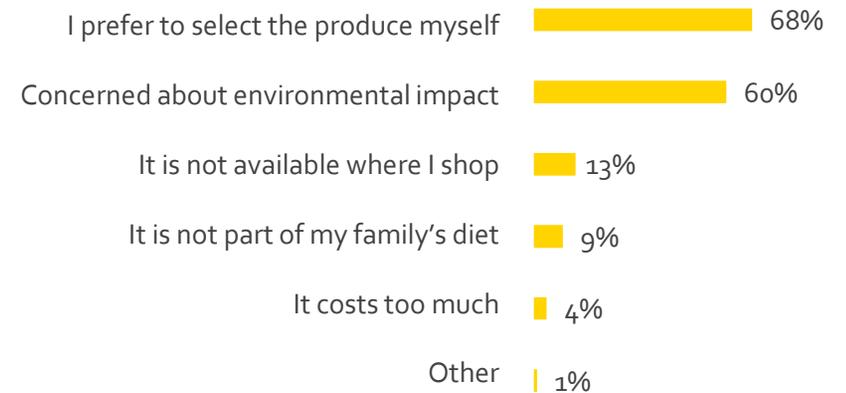
## Importance of Attributes When Purchasing Packaged Fresh Produce



## Do not Purchase Packaged Fresh Produce



### Reasons for not Purchasing Packaged Fresh Produce



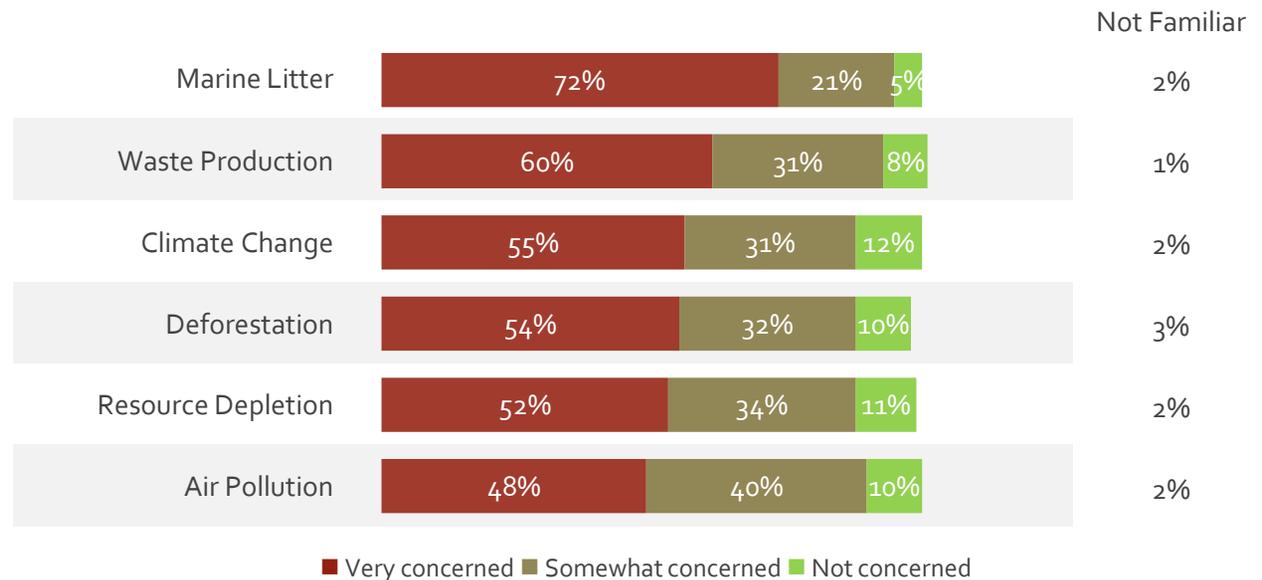
Q5: With 1 being most important and 9 being least important, rank the importance of the following attributes when purchasing packaged fresh produce.  
 Base: Purchase packaged fresh produce (n=400)  
 Q6: Why don't you purchase packaged fresh produce? Select all that apply.  
 Base: Do not purchase packaged fresh produce (n=106)



# Produce Packaging Concerns

Related to the top environmental issues (recyclable packaging & water conservation), marine litter is the greatest environmental concern in Germany impacting produce packaging. Waste production is of next most concern.

Concern with Environmental Impacts of Produce Packaging



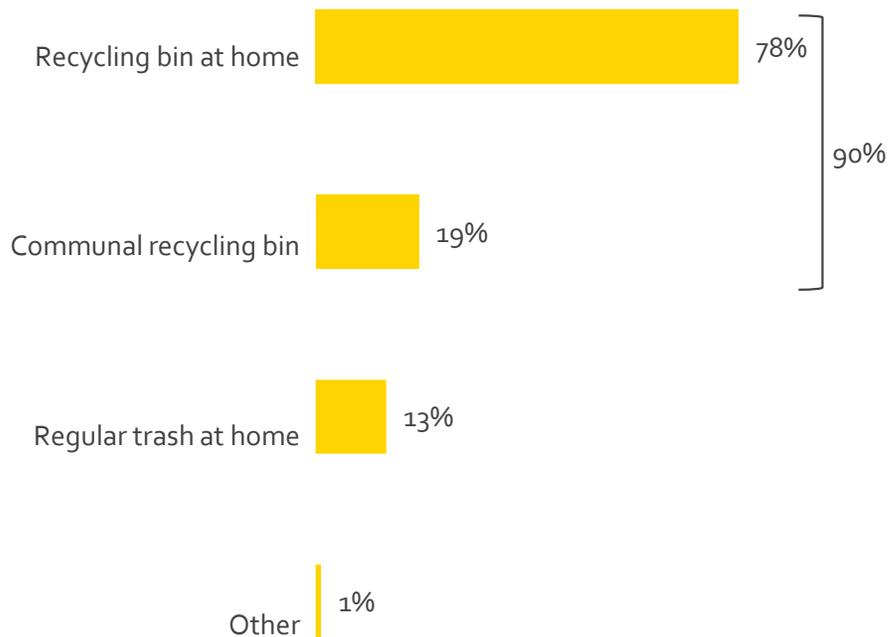
Q7: Using the scale below, please indicate how concerned you are with the following environmental impacts of produce packaging.  
Base: Total Respondents (n=506)



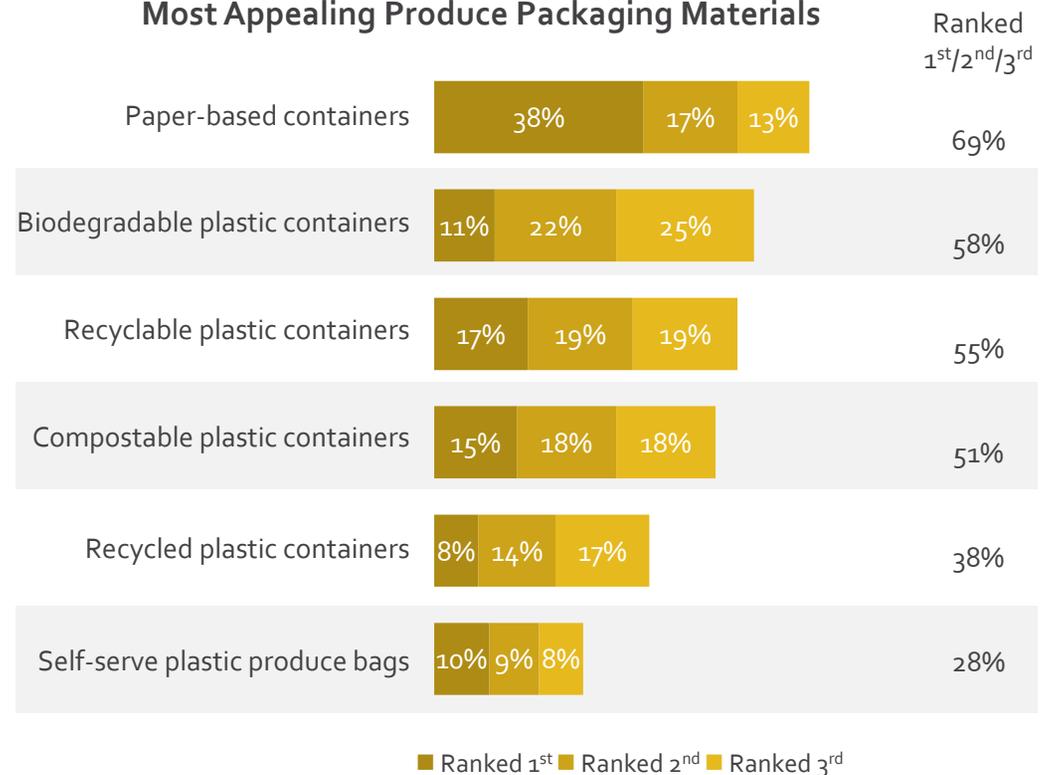
# Produce Packaging Disposal and Materials

Very few in Germany dispose of produce package in the regular trash, most recycle. Paper-based containers are the most appealing package type for fresh produce in Germany.

Method of Disposing of Produce Packaging



Most Appealing Produce Packaging Materials



Q8: How do you dispose of the plastic produce packaging when you are done with it? Select all that apply.  
 Q9: With 1 being the most appealing and 6 being the least appealing, please rank the following types of packaging for fresh produce.  
 Base: Total Respondents (n=506)



# DETAILED FINDINGS CHINA



# Executive Summary - China

Sustainability is important to Chinese shoppers with 86% saying it is either very or extremely important. They consider recyclable packaging along with organic products as the top issues under the sustainability umbrella and both environmental impact and recyclable packaging are important considerations when shopping for various grocery items, including fresh fruits and vegetables. For these shoppers, attributes that map to personal benefits balance those that map to environmental benefits, with respondents saying that nutritional value and price are the other top considerations when shopping for fresh fruits and vegetables.

But while our shoppers surveyed in China say that environmental impact and recyclable packaging are important considerations when grocery shopping, attributes that map to personal benefits appear to outweigh those that map to environmental benefits when it comes to buying packaged fresh fruits and vegetables. Respondents say that maintaining quality/freshness as well as ensuring safety and providing labels with helpful information are the top three most important attributes when purchasing packaged fresh fruit and vegetables while package sustainability is fourth. Their top environmental concerns related to the impact of produce packaging are resource depletion, deforestation and waste production.

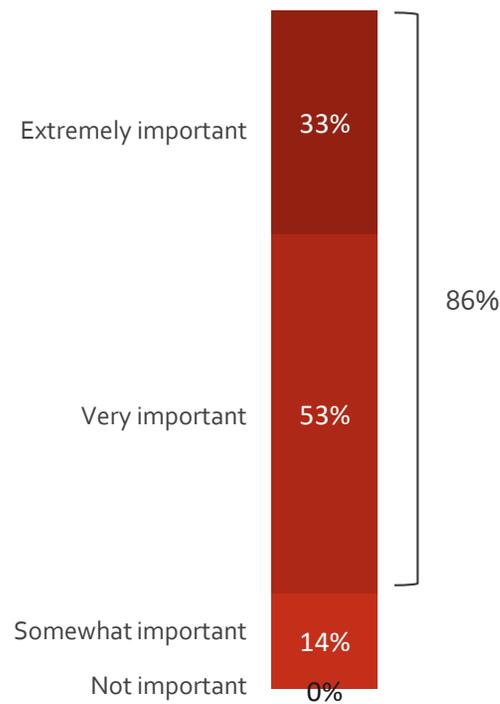
Communal recycling is much more popular in China than other countries explored in this study, with 72% of respondents saying they use this method to dispose of produce packaging while many shoppers dispose of produce packaging in the home recycling bin and a sizeable segment dispose of it in their regular trash bins. As companies are developing alternative packaging solutions, our respondents in China say that recyclable plastic containers and recycled plastic containers are the two most appealing materials.



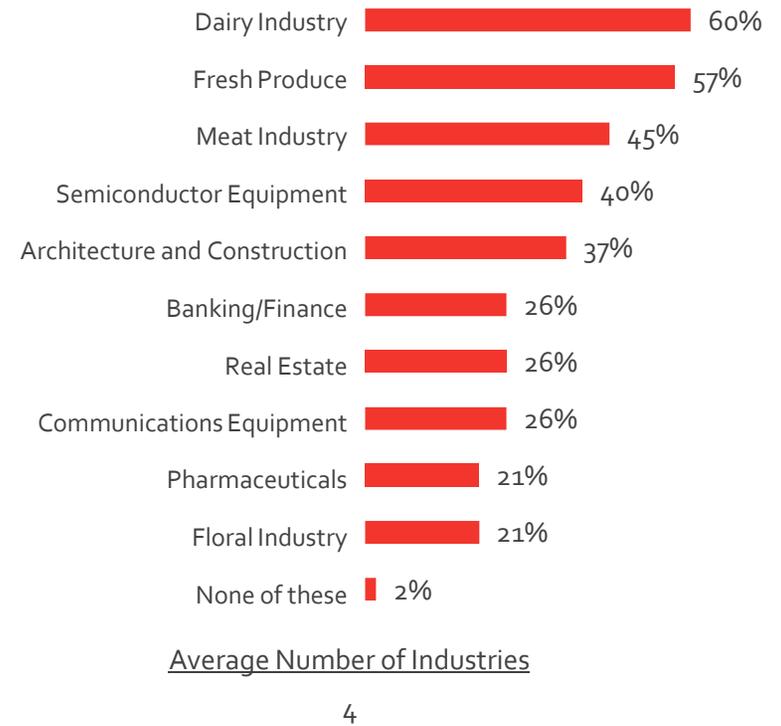
# Sustainability/Industry Overview

Sustainability is somewhat more important in China than other markets. Food industries, like other countries, are most associated with sustainability; fresh produce is second.

Importance of Sustainability



Industries Associated with Sustainability

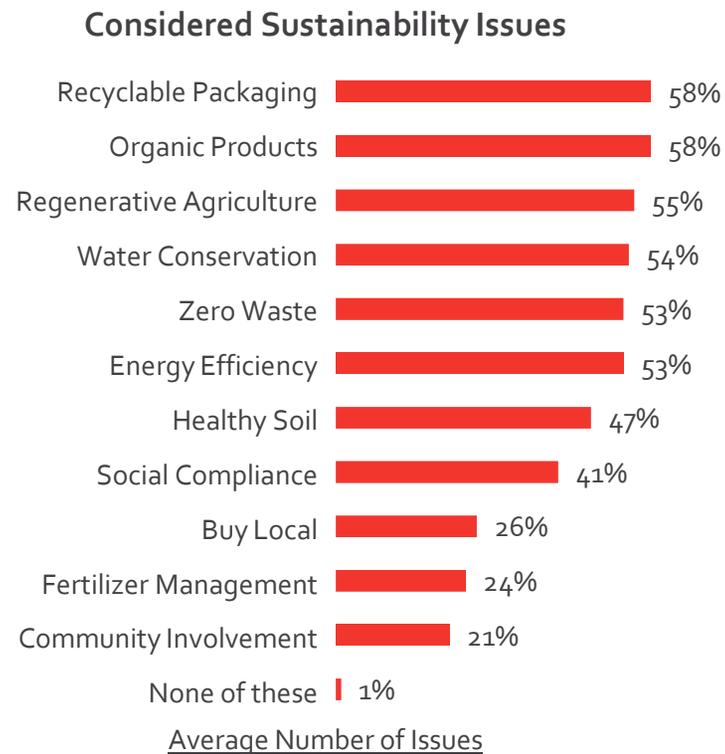


Q1: Overall, how important is sustainability to you?  
 Q2: What industries do you associate with sustainability? Select all that apply.  
 Base: Total Respondents (n=505)



# Issues Considered Under the Sustainability Umbrella

Recyclable packaging tops the list of sustainability issues, along with organic products. There's an array of other issues under the sustainability umbrella in China across environmental issues (regenerative agriculture water conservation, zero waste, and energy efficiency).



5



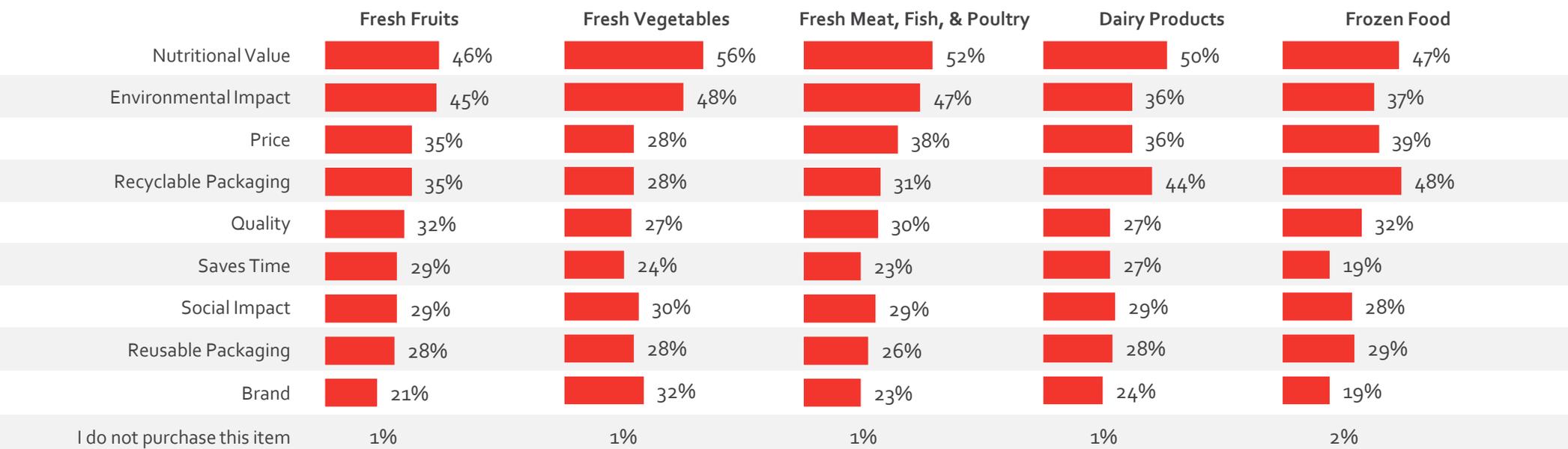
Q3: Which of the following do you consider sustainability issues?  
Base: Total Respondents (n=505)



# Considerations While Grocery Shopping

Environmental impact and nutritional value are equally important considerations when purchasing fresh fruit; environmental impact is second to nutritional value for fresh vegetables and meat. Recyclable packaging is a more important consideration for dairy and frozen food.

Considerations Ranked 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> when Purchasing Grocery Items



Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
 Base: Total Respondents (n=505)  
 See slide 53 for detailed view



# Buying Packaged Fresh Produce

Quality/freshness and safety are most important when purchasing packaged fresh produce followed by label containing helpful information. Package sustainability is a distant fourth.

## Importance of Attributes When Purchasing Packaged Fresh Produce



■ Ranked 1<sup>st</sup> ■ Ranked 2<sup>nd</sup> ■ Ranked 3<sup>rd</sup>

## Do not Purchase Packaged Fresh Produce



## Reasons for not Purchasing Packaged Fresh Produce

Due to small base, frequencies are shown

Not part of my family's diet	2
Concerned about environmental impact	2
Not available where I shop	2



Q5: With 1 being most important and 9 being least important, rank the importance of the following attributes when purchasing packaged fresh produce.

Base: Purchase Packaged Fresh Produce (n=499)

Q6: Why don't you purchase packaged fresh produce? Select all that apply.

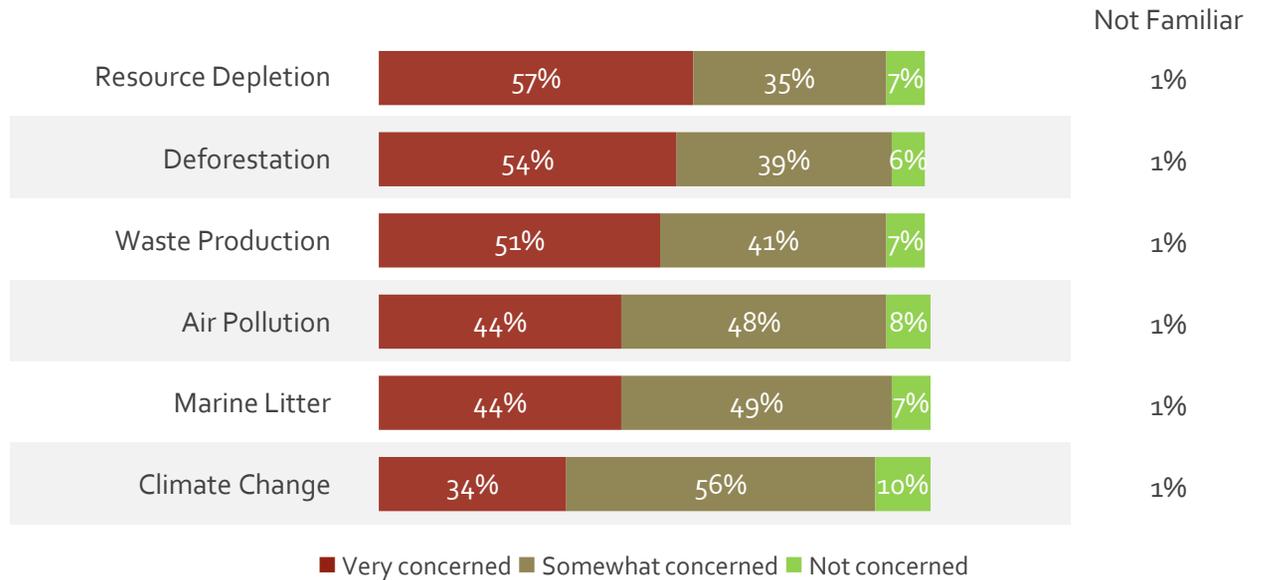
Base: Do not purchase packaged fresh produce (n=6)



# Produce Packaging Concerns

Concern with Environmental Impacts of Produce Packaging

The environmental impact of produce packaging on resource depletion, deforestation, and waste production are the top concerns in China.



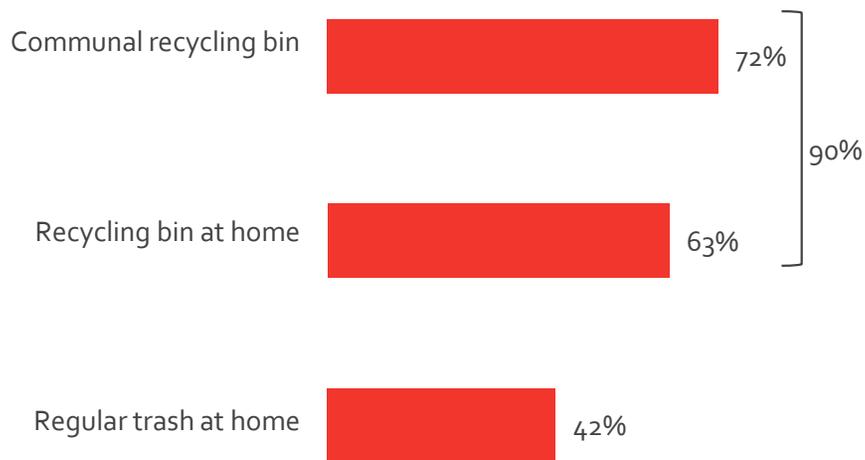
Q7: Using the scale below, please indicate how concerned you are with the following environmental impacts of produce packaging.  
Base: Total Respondents (n=505)



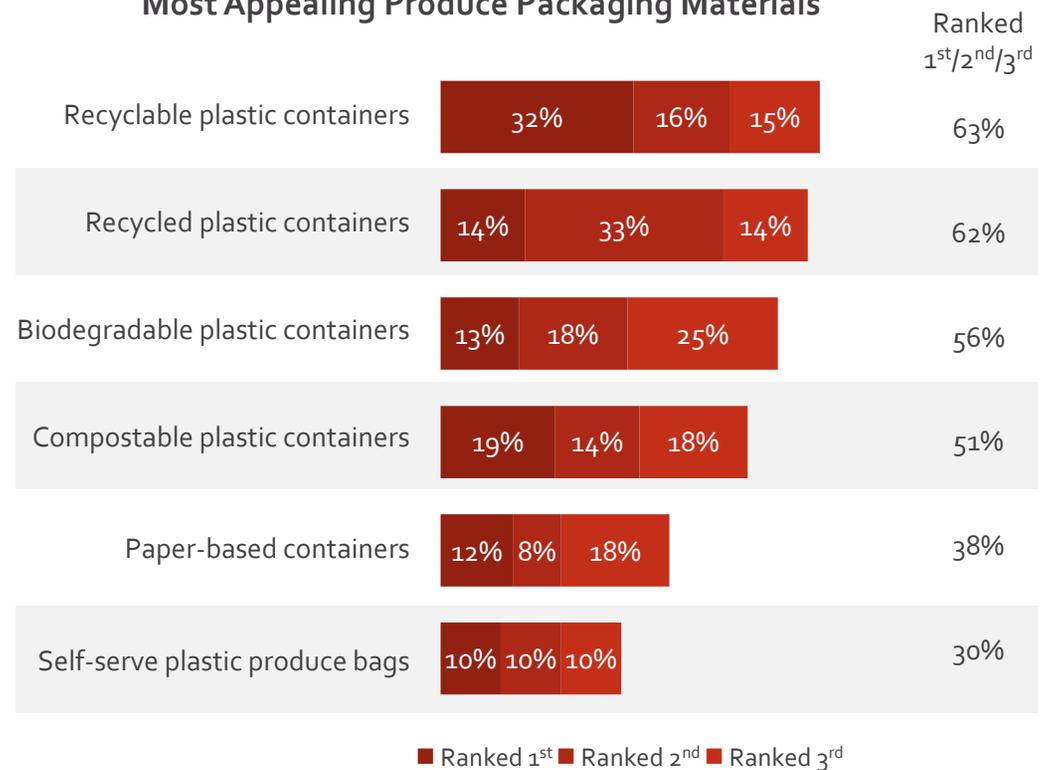
# Produce Packaging Disposal and Materials

Communal recycling is much more popular in China than other markets, and many recycle at home. Despite this, a sizeable segment dispose of produce packaging in the trash. The most appealing package types for fresh produce are recyclable and recycled plastic containers.

Method of Disposing of Produce Packaging



Most Appealing Produce Packaging Materials



Q8: How do you dispose of the plastic produce packaging when you are done with it? Select all that apply.  
 Q9: With 1 being the most appealing and 6 being the least appealing, please rank the following types of packaging for fresh produce.  
 Base: Total Respondents (n=505)



# DETAILED FINDINGS BRAZIL



# Executive Summary - Brazil

While the majority of shoppers in all the countries surveyed in this study say that sustainability is important, the percentage was highest in Brazil with 94% saying it was very or extremely important. They consider water conservation, recyclable packaging, and zero waste the top issues under the sustainability umbrella while healthy soil ranks fourth, and environmental impact is a top consideration when purchasing fresh fruits and vegetables. As with shoppers interviewed in other countries in this study, quality, price, and nutritional value are the other top considerations.

Our respondents in Brazil are very concerned about the environmental impact of produce packaging, with deforestation, air pollution and marine litter being their top concerns. So, it's not surprising that package sustainability is the most important attribute (on a ranked 1st basis) when purchasing packaged fresh produce while other attributes such as maintaining overall quality/freshness, value and ensuring safety are also very important.

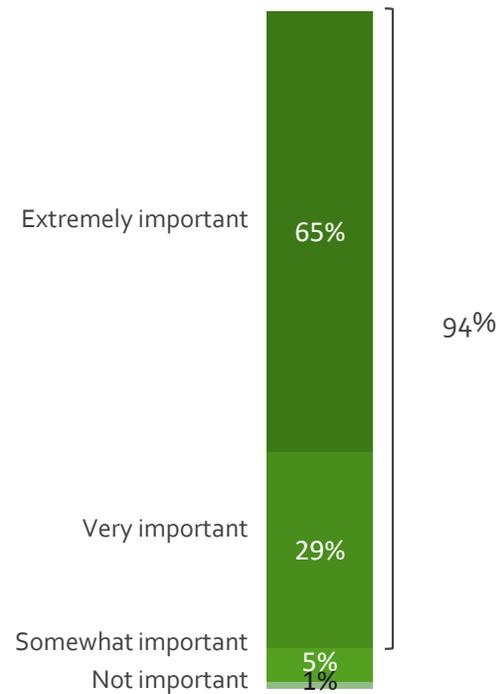
Just under 60% of shoppers in Brazil say they dispose of produce packaging in their recycling bin at home while 25% dispose of the packaging in their regular trash bins. As shoppers look to companies to offer them sustainable solutions that maintain overall quality/freshness, value and safety, they say the most appealing packaging materials for fresh produce are recyclable plastic and biodegradable plastic containers.



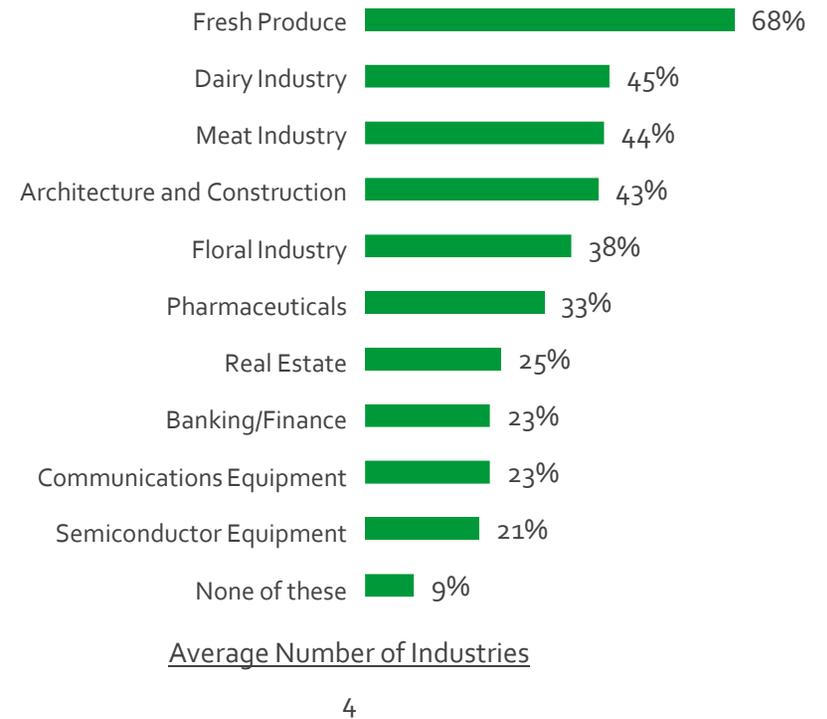
# Sustainability/Industry Overview

Sustainability is nearly universal in Brazil. Along with this, fresh produce is far more associated with sustainability than any other industries. Dairy, meat, and architecture/construction follow.

## Importance of Sustainability



## Industries Associated with Sustainability

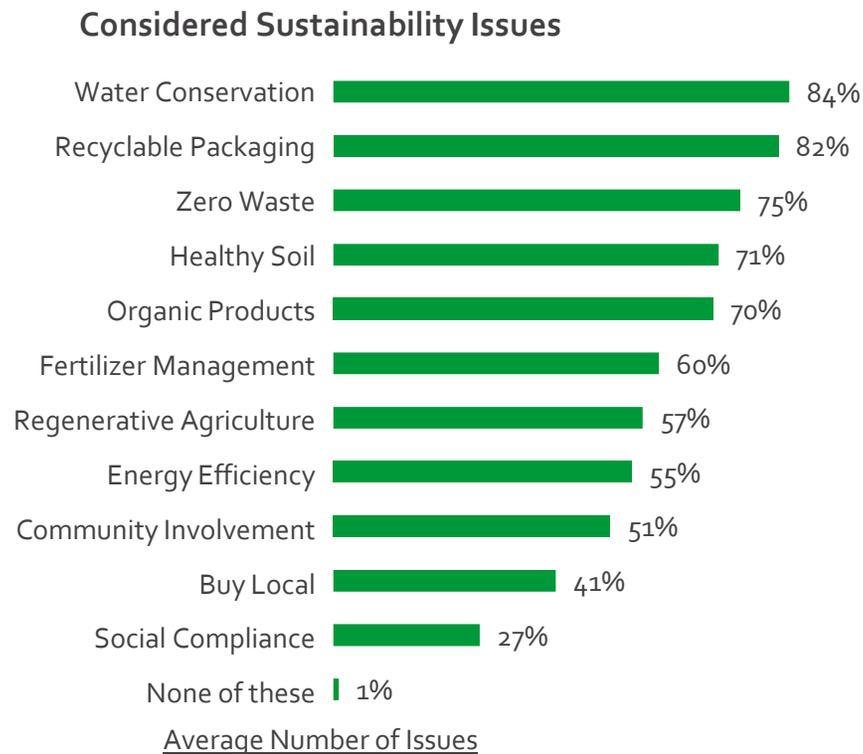


Q1: Overall, how important is sustainability to you?  
 Q2: What industries do you associate with sustainability? Select all that apply.  
 Base: Total Respondents (n=505)



# Issues Considered Under the Sustainability Umbrella

Like Germany, water conservation and recyclable packaging are most often considered sustainability issues in Brazil.



7



# Considerations While Grocery Shopping

Although sustainability is extremely important in Brazil, it is not the top consideration when shopping for any of the grocery categories, quality is. Price, nutritional value, and environmental impact are secondary considerations.

Considerations Ranked 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> when Purchasing Grocery Items

	Fresh Fruits	Fresh Vegetables	Fresh Meat, Fish, & Poultry	Dairy Products	Frozen Food
Quality	69%	64%	68%	58%	62%
Price	50%	39%	56%	46%	48%
Nutritional Value	45%	39%	36%	38%	36%
Environmental Impact	44%	46%	41%	35%	34%
Social Impact	27%	30%	28%	24%	22%
Recyclable Packaging	22%	24%	24%	34%	31%
Reusable Packaging	20%	23%	13%	29%	22%
Brand	12%	14%	21%	27%	28%
Saves Time	12%	12%	12%	9%	17%
I do not purchase this item	1%	2%	2%	3%	2%



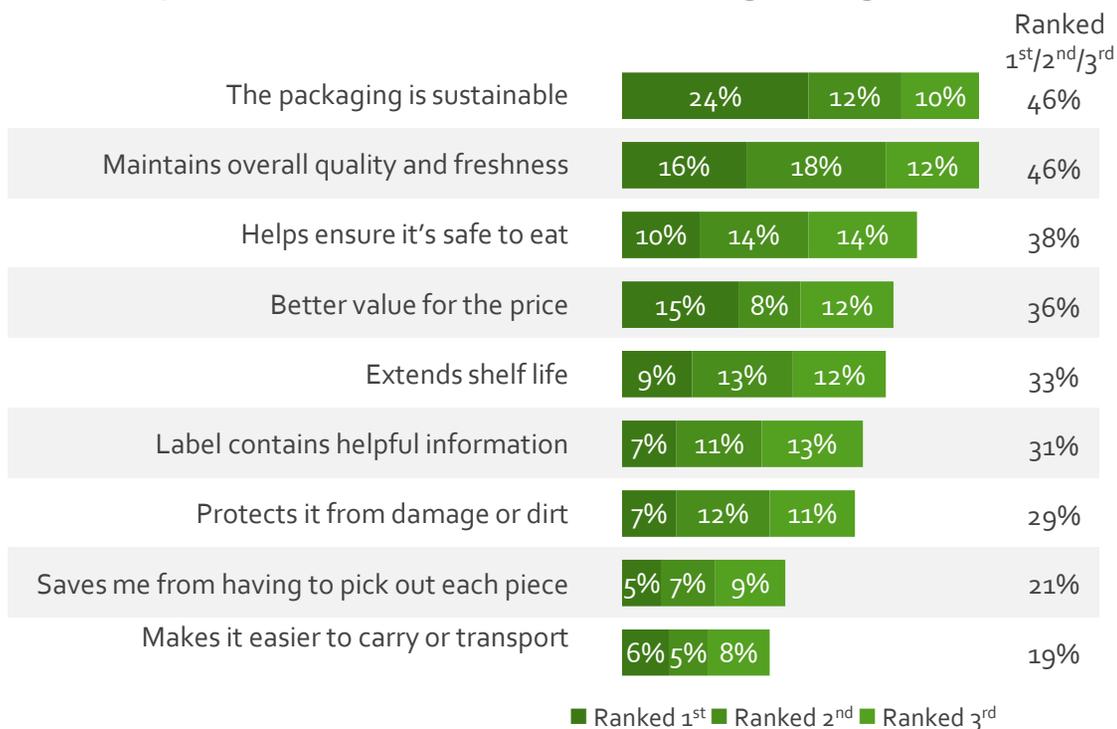
Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
 Base: Total Respondents (n=505)  
 See slide 54 for detailed view



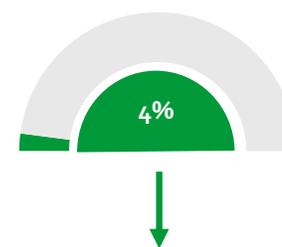
# Buying Packaged Fresh Produce

In Brazil, package sustainability is the #1 most important attribute when purchasing packaged fresh produce. Maintaining overall quality and freshness follow.

## Importance of Attributes When Purchasing Packaged Fresh Produce



## Do not Purchase Packaged Fresh Produce



## Reasons for not Purchasing Packaged Fresh Produce

Due to small base, frequencies are shown

I prefer to select the produce myself	13
Concerned about environmental impact	11
It costs too much	4
Not part of my family's diet	3
Not available where I shop	3



Q5: With 1 being most important and 9 being least important, rank the importance of the following attributes when purchasing packaged fresh produce.

Base: Purchase Packaged Fresh Produce (n=484)

Q6: Why don't you purchase packaged fresh produce? Select all that apply.

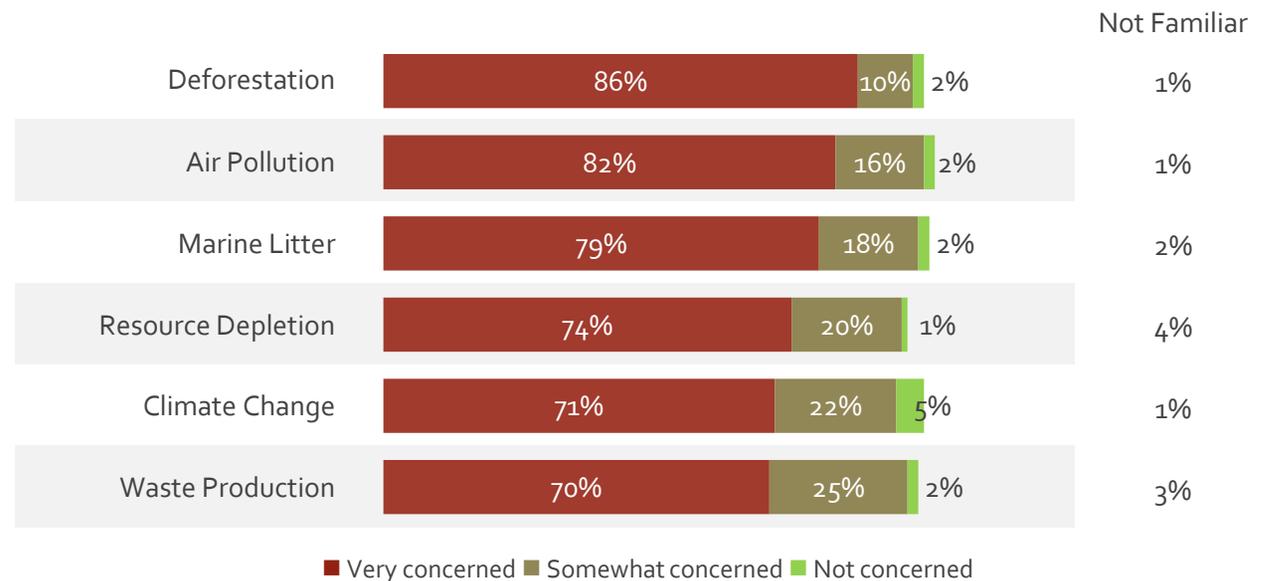
\*Base: Do not purchase packaged fresh produce (n=21) (small base)



# Produce Packaging Concerns

Shoppers in Brazil are much more concerned about all environmental impacts of produce packaging than other countries explored in this study. This is not surprising given how important sustainability is to them.

Concern with Environmental Impacts of Produce Packaging



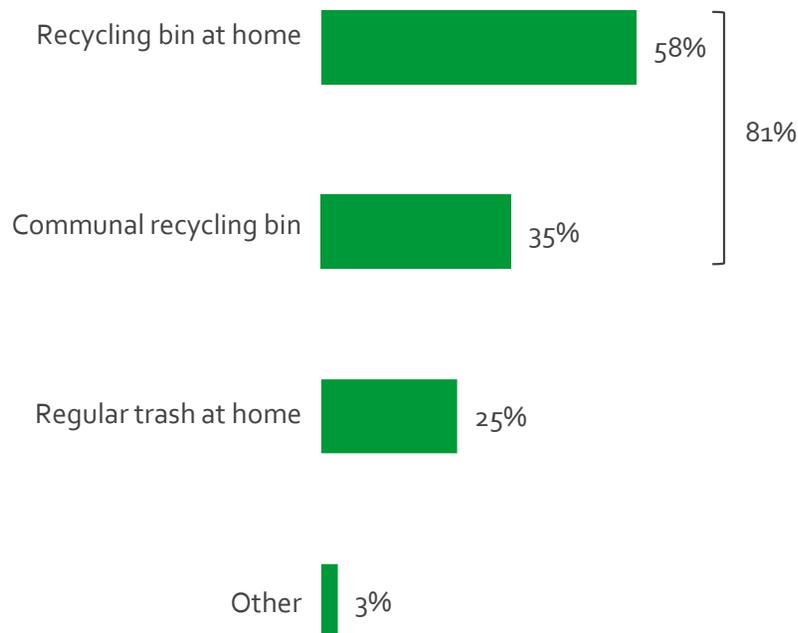
Q7: Using the scale below, please indicate how concerned you are with the following environmental impacts of produce packaging.  
Base: Total Respondents (n=505)



# Produce Packaging Disposal and Materials

Most in Brazil recycle either at home or using a communal recycling bin. The most appealing package types for fresh produce are recyclable and biodegradable plastic containers.

## Method of Disposing of Produce Packaging



## Most Appealing Produce Packaging Materials



Q8: How do you dispose of the plastic produce packaging when you are done with it? Select all that apply.  
 Q9: With 1 being the most appealing and 6 being the least appealing, please rank the following types of packaging for fresh produce.  
 Base: Total Respondents (n=505)



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# APPENDIX



# Relevant Considerations While Grocery Shopping

Considerations Ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> when Purchasing Grocery Items

	Fresh Fruits			Fresh Vegetables			Fresh Meat, Fish, and Poultry			Dairy Products			Frozen Food		
	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>
Quality	39%	21%	13%	34%	22%	17%	37%	23%	13%	27%	24%	19%	25%	24%	15%
Price	19%	25%	21%	23%	22%	20%	27%	23%	20%	28%	21%	17%	27%	22%	16%
Nutritional Value	12%	20%	19%	15%	20%	17%	11%	15%	18%	15%	16%	20%	14%	12%	16%
Environmental Impact	11%	7%	12%	9%	9%	9%	9%	9%	11%	7%	5%	8%	5%	6%	8%
Brand	7%	8%	13%	5%	7%	12%	7%	10%	12%	9%	13%	13%	9%	12%	17%
Social Impact	3%	7%	7%	4%	8%	9%	3%	6%	8%	4%	5%	5%	4%	7%	5%
Recyclable Packaging	4%	4%	6%	4%	4%	6%	3%	5%	7%	5%	6%	7%	5%	7%	8%
Reusable Packaging	4%	5%	4%	3%	5%	5%	2%	5%	4%	2%	6%	6%	6%	4%	6%
Saves Time	2%	3%	5%	3%	4%	6%	2%	4%	6%	4%	3%	4%	6%	6%	9%
I do not purchase this item	2%			1%			3%			1%			2%		



Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
Base: Total Respondents (n=505)



# Relevant Considerations While Grocery Shopping

Considerations Ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> when Purchasing Grocery Items

	Fresh Fruits			Fresh Vegetables			Fresh Meat, Fish, and Poultry			Dairy Products			Frozen Food		
	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>
Quality	32%	22%	10%	31%	25%	11%	34%	22%	10%	29%	22%	14%	27%	22%	13%
Price	20%	23%	15%	23%	20%	16%	22%	24%	14%	23%	19%	16%	23%	21%	15%
Nutritional Value	11%	13%	16%	10%	13%	18%	7%	12%	15%	8%	9%	13%	8%	10%	15%
Environmental Impact	14%	9%	11%	14%	10%	11%	14%	11%	13%	12%	10%	9%	8%	8%	9%
Recyclable Packaging	6%	9%	16%	7%	9%	13%	7%	8%	13%	6%	14%	14%	8%	9%	13%
Social Impact	6%	10%	10%	6%	10%	9%	7%	9%	9%	8%	7%	10%	6%	7%	7%
Reusable Packaging	4%	7%	8%	4%	5%	9%	3%	6%	7%	5%	7%	8%	6%	8%	9%
Brand	4%	4%	8%	5%	5%	7%	4%	5%	12%	7%	8%	11%	6%	9%	12%
Saves Time	4%	2%	5%	1%	2%	6%	3%	3%	7%	3%	4%	5%	7%	6%	9%
I do not purchase this item	0%			1%			4%			3%			2%		



Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
Base: Total Respondents (n=503)



# Relevant Considerations While Grocery Shopping

Considerations Ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> when Purchasing Grocery Items

	Fresh Fruits			Fresh Vegetables			Fresh Meat, Fish, and Poultry			Dairy Products			Frozen Food		
	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>
Quality	41%	22%	13%	42%	20%	13%	45%	18%	10%	34%	24%	11%	29%	20%	13%
Price	16%	19%	20%	16%	19%	20%	14%	20%	21%	17%	15%	22%	19%	18%	17%
Environmental Impact	15%	16%	13%	14%	18%	11%	14%	18%	15%	14%	12%	11%	10%	14%	12%
Nutritional Value	8%	11%	13%	7%	14%	13%	6%	11%	13%	7%	12%	10%	7%	11%	11%
Recyclable Packaging	5%	10%	11%	6%	9%	13%	6%	9%	12%	11%	11%	16%	11%	11%	14%
Social Impact	8%	8%	8%	5%	9%	9%	9%	11%	10%	4%	9%	7%	6%	7%	7%
Reusable Packaging	3%	8%	11%	4%	6%	11%	2%	4%	8%	6%	7%	10%	7%	6%	8%
Brand	3%	5%	6%	4%	3%	6%	3%	6%	6%	5%	7%	7%	5%	6%	9%
Saves Time	2%	2%	6%	2%	2%	6%	2%	2%	5%	2%	3%	5%	7%	7%	8%
I do not purchase this item	1%			0%			4%			3%			5%		



Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
Base: Total Respondents (n=506)



# Relevant Considerations While Grocery Shopping

Considerations Ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> when Purchasing Grocery Items

	Fresh Fruits			Fresh Vegetables			Fresh Meat, Fish, and Poultry			Dairy Products			Frozen Food		
	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>
Nutritional Value	21%	17%	8%	23%	24%	9%	23%	20%	8%	23%	19%	8%	13%	26%	7%
Environmental Impact	20%	16%	9%	20%	17%	11%	18%	18%	11%	10%	15%	10%	11%	13%	13%
Price	5%	9%	22%	5%	7%	16%	8%	8%	23%	6%	9%	21%	5%	6%	27%
Recyclable Packaging	11%	13%	10%	8%	11%	10%	10%	11%	10%	21%	14%	9%	28%	10%	10%
Quality	14%	12%	7%	13%	8%	6%	11%	11%	8%	9%	11%	7%	11%	11%	10%
Saves Time	5%	8%	16%	6%	6%	12%	5%	6%	12%	6%	6%	15%	6%	6%	7%
Social Impact	9%	10%	10%	10%	10%	9%	9%	10%	10%	9%	8%	12%	9%	10%	8%
Reusable Packaging	10%	10%	8%	9%	10%	9%	8%	9%	10%	10%	9%	9%	9%	9%	11%
Brand	5%	5%	11%	6%	7%	19%	8%	7%	7%	6%	8%	10%	6%	7%	6%
I do not purchase this item	1%			1%			1%			1%			2%		



Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
Base: Total Respondents (n=505)



# Relevant Considerations While Grocery Shopping

Considerations Ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> when Purchasing Grocery Items

	Fresh Fruits			Fresh Vegetables			Fresh Meat, Fish, and Poultry			Dairy Products			Frozen Food		
	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>	Ranked 1 <sup>st</sup>	Ranked 2 <sup>nd</sup>	Ranked 3 <sup>rd</sup>
Quality	37%	19%	13%	31%	20%	13%	34%	23%	12%	27%	18%	13%	29%	21%	13%
Price	11%	17%	22%	14%	14%	19%	17%	20%	19%	14%	14%	18%	15%	14%	19%
Nutritional Value	14%	17%	14%	11%	15%	13%	10%	13%	13%	13%	13%	12%	10%	15%	12%
Environmental Impact	17%	15%	13%	20%	15%	11%	17%	14%	10%	14%	10%	10%	12%	14%	8%
Social Impact	7%	11%	8%	11%	12%	7%	8%	10%	10%	7%	10%	7%	7%	7%	8%
Recyclable Packaging	4%	7%	10%	4%	9%	11%	7%	7%	10%	9%	13%	12%	12%	8%	11%
Reusable Packaging	5%	7%	8%	6%	7%	10%	2%	5%	7%	10%	9%	10%	6%	8%	8%
Brand	2%	3%	7%	2%	3%	9%	4%	4%	13%	4%	9%	14%	5%	9%	14%
Saves Time	3%	3%	6%	2%	3%	7%	2%	3%	7%	2%	2%	5%	4%	5%	7%
I do not purchase this item	1%			2%			2%			3%			2%		



Q4: With 1 being the most important and 3 being the least important, please rank your top 3 relevant considerations when purchasing the following grocery item.  
Base: Total Respondents (n=505)

