

International Food  
Information Council

# ***Consumer Perceptions of Food Technology***

**2010 Survey Findings**





# Objectives and Methodology



# Objectives

The purpose of this survey is to:

- **Track** awareness and perceptions of food technology
- **Reveal** concerns, gaps in information, etc. related to food biotechnology and new/emerging technologies
- **Measure** the extent to which consumers' views of food technology change over time
- **Identify** benefits of food biotechnology that resonate with consumers

*This study has been conducted annually since 1997, except in 1998 when no survey was conducted and in 1999 and 2001 when two surveys were conducted per year.*



# METHODOLOGY

	<u>2010</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005 and prior</u>
<b>Population:</b>	U.S. adults (18+)	U.S. adults (18+)	U.S. adults (18+)	U.S. adults (18+)	U.S. adults (18+)
<b>Methodology:</b>	100% web	100% web	100% web	50% web 50% phone	100% phone
<b>Data collection period:</b>	April 5 – April 26	July 29 – August 18	July 11 – July 27	June 21 – July 24	
<b>Sample Size (error):</b>	n=750 ( $\pm 3.6$ pp)	n=1,000 ( $\pm 3.1$ pp)	n=1,000 ( $\pm 3.1$ pp)	Web: n=497 ( $\pm 4.4$ pp) Phone: n=503 ( $\pm 4.4$ pp)	n=1,000 ( $\pm 3.1$ pp)
<b>Weighting:</b>	Data weighted on education and marital status to be nationally representative	Data weighted on education and marital status to be nationally representative	Data weighted on age and education to be nationally representative	Data weighted on race, age, gender and education to be nationally representative	Data weighted on demographic variables to be nationally representative

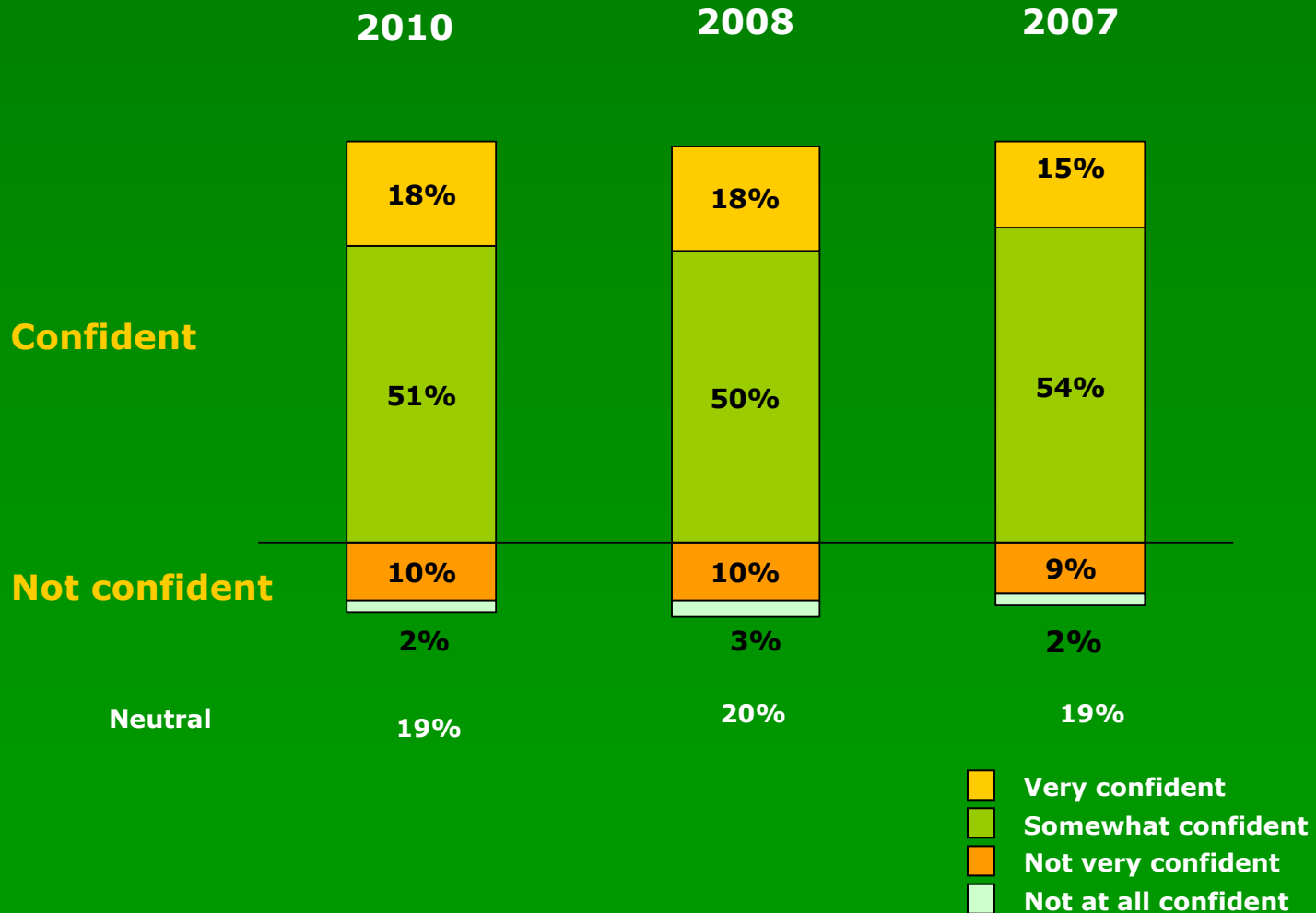
*Use of the term significant throughout the report refers to the statistical significance – meaning we are 95% confident that the change indicated in the sample exists in the total universe.*



# Confidence in the Food Supply



# Confidence in the Food Supply



Q3. How confident are you about the safety of the US food supply? Would you say...?

# Food Safety Concerns

Percent concerned with each food safety issue (unaided):

	2010	2008	Change
Disease/contamination	38%	50%	-12% pts.
Handling/preparation	33%	29%	+4% pts.
Food sources	11%	13%	-2% pts.
Preservatives/Chemicals	10%	6%	+4% pts.
Health/nutrition	9%	8%	+1%pts.
Agricultural production	9%	7%	+2% pts.
Packaging/labeling	5%	3%	+2% pts.
Biotech	2%	1%	+1% pts.
Processed foods	1%	1%	---
Other	4%	2%	+2% pts.

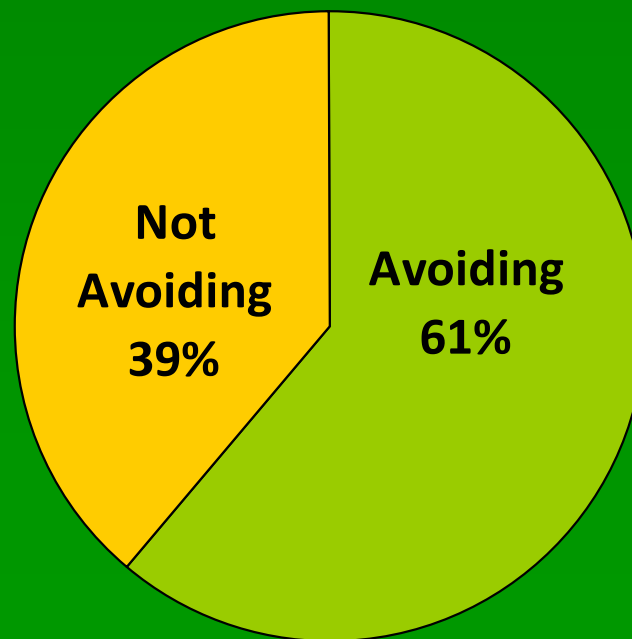
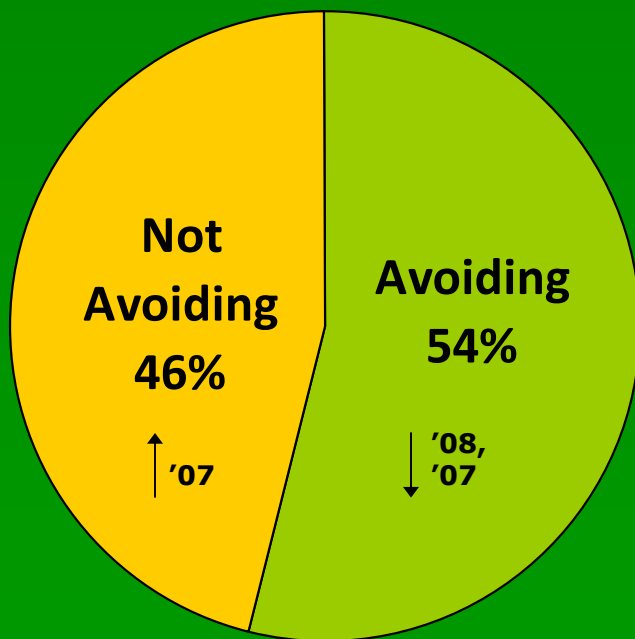
Q4. What, if anything, are you concerned about when it comes to food safety? [OPEN END]

# Americans Avoiding Certain Foods

Significantly fewer Americans are avoiding specific foods or ingredients compared to 2007.

2010

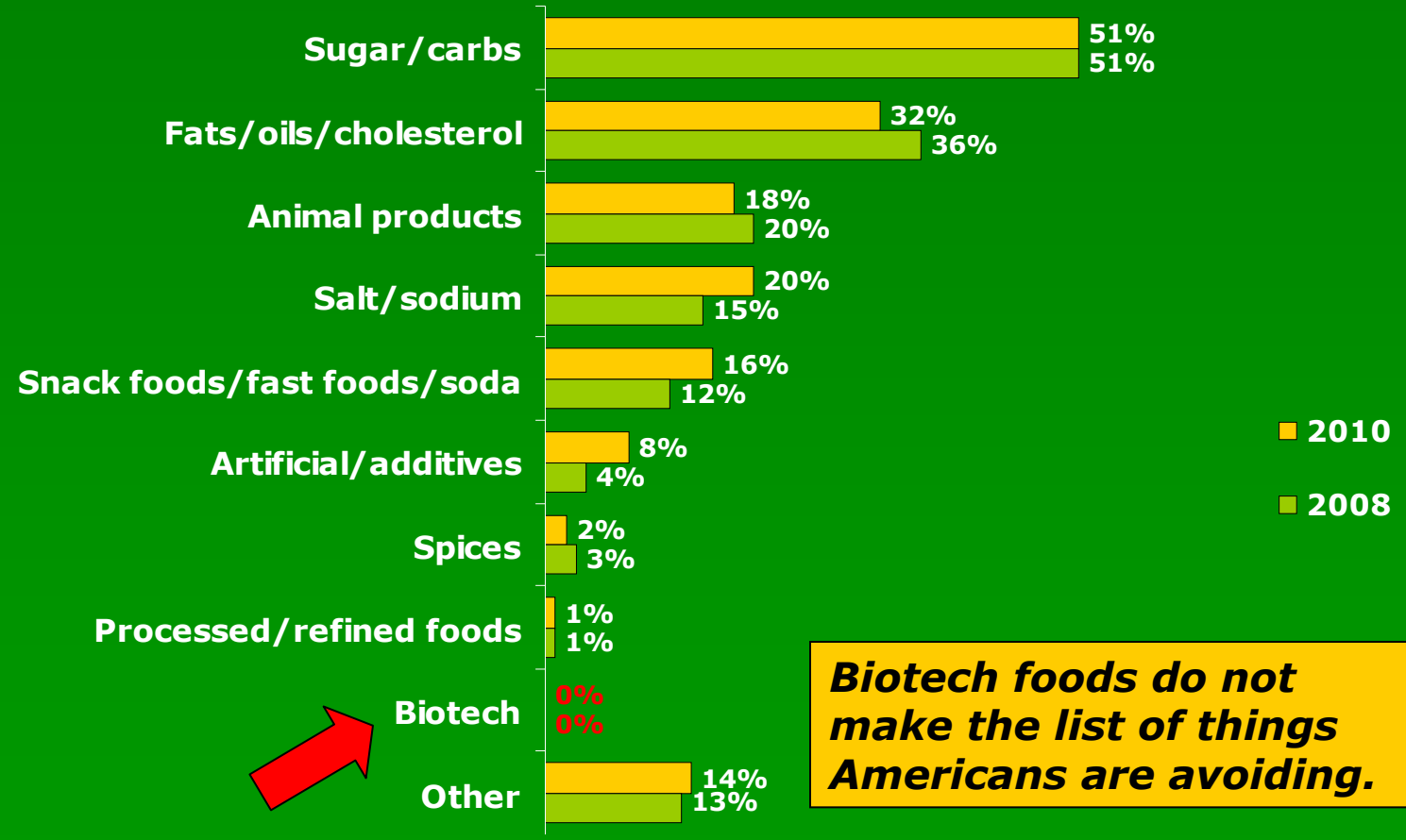
2007



Q1. Thinking about your diet over the past few months, are there any foods or ingredients that you have avoided or eaten less of?



# Types of Food Avoiding



**Biotech foods do not make the list of things Americans are avoiding.**

Q 1b. [IF AVOIDED FOODS] What foods or ingredients have you avoided? [OPEN END]

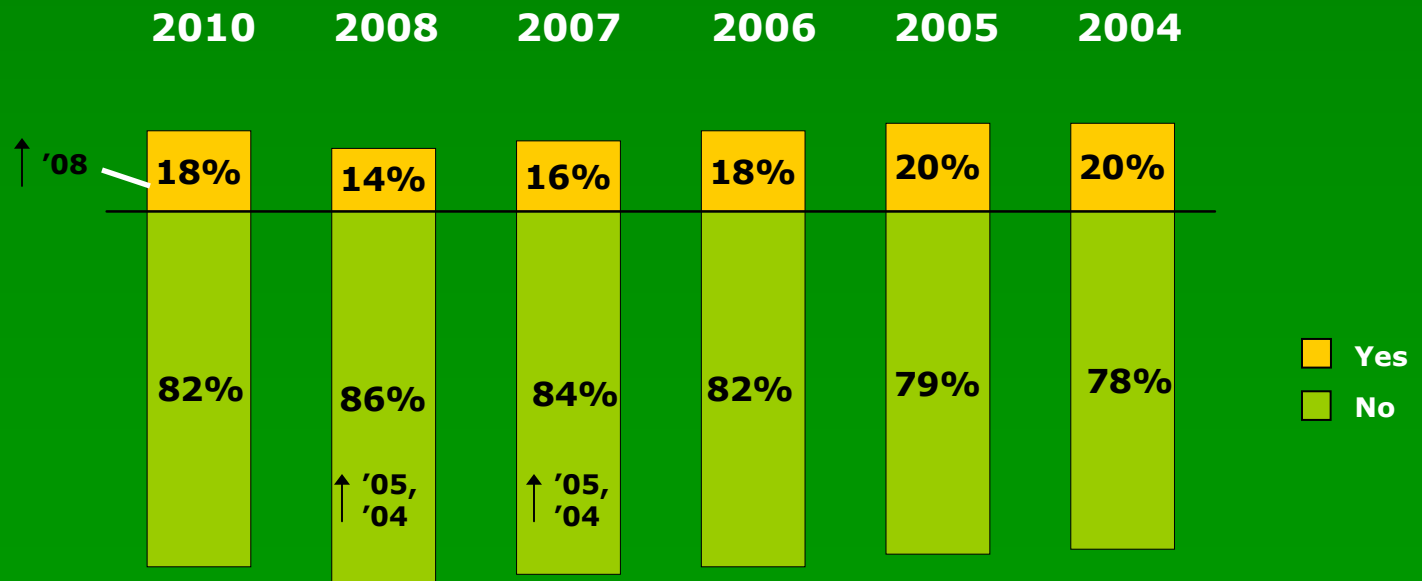


# Food Labeling



# Satisfaction with Current Food Labels

***In 2010, only 18% of Americans can think of information they would like to see added to food labels. Only 3% of Americans mentioned a desire to see biotech foods labeled.***



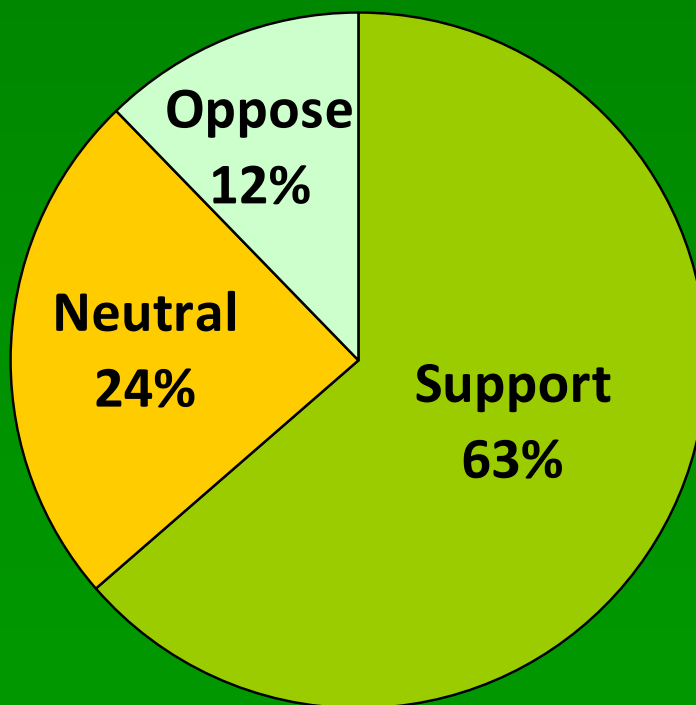
Q2. Can you think of any information that is not currently included on food labels that you would like to see on food labels?

Q 2b. [IF YES] What types of information would that be? [OPEN END]

*\*Those who said "Nothing" or "Don't know" to Q10 were recoded as "No" answers in Q2.*

# The Majority of Americans Support the FDA Labeling Policy

2010



Q16. The U.S. Food and Drug Administration (FDA) requires special labeling when a food is produced under certain conditions: When biotechnology's use substantially changes the food's nutritional content, like vitamins or fat, or its composition; or when a potential safety issue is identified. Otherwise, special labeling is not required. Would you say that you strongly support, somewhat support, neither support nor oppose, somewhat oppose or strongly oppose this FDA policy?

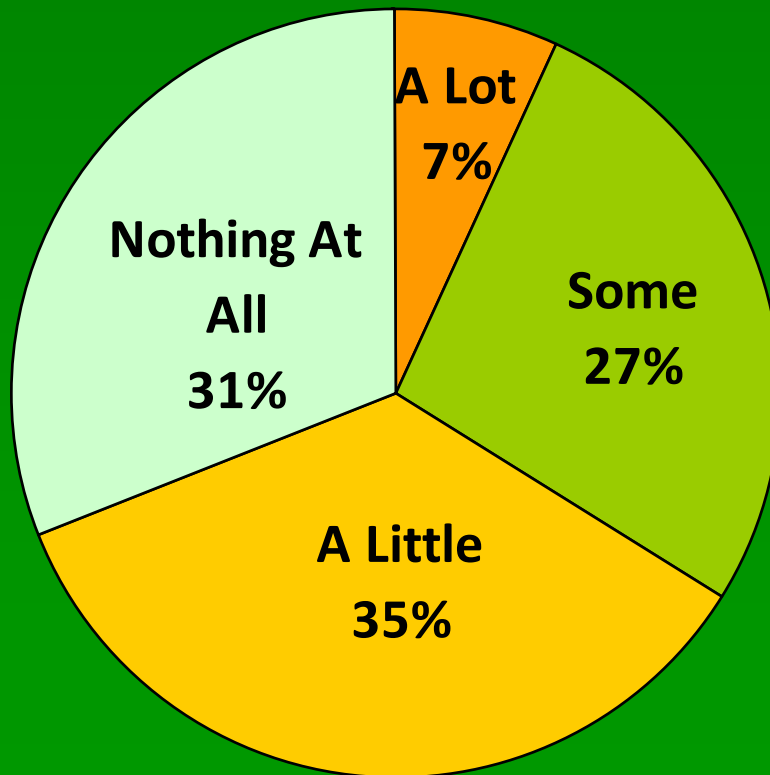


# Plant Biotechnology



# Awareness of Plant Biotechnology

2010



**More than two-thirds of consumers have heard at least "a little" about food biotechnology, as was the case in previous years.**

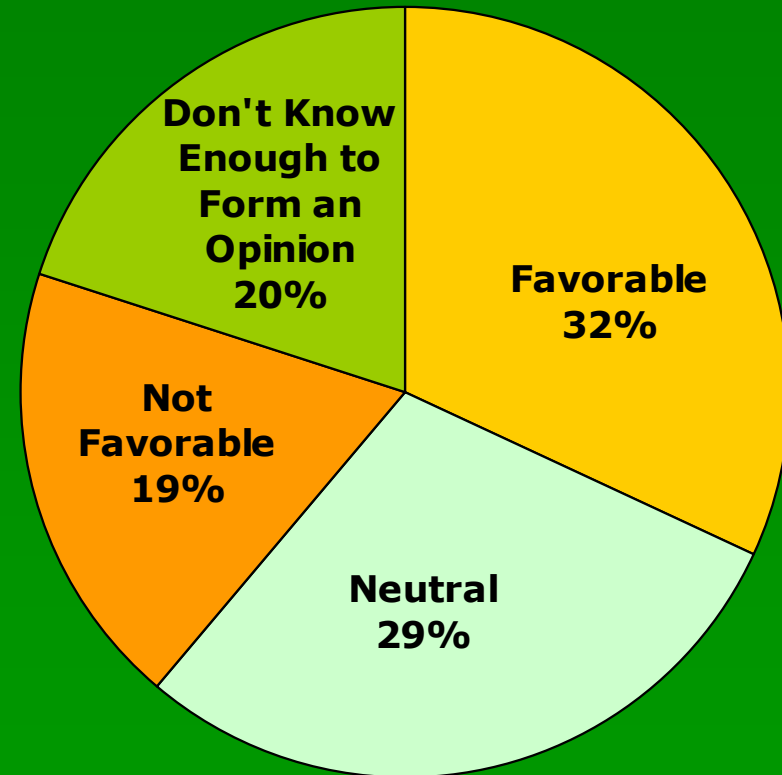
Q5. As you may know, some food products and medicines are being developed with the help of [OLD: new] scientific techniques. The general area is called "biotechnology" and includes tools such as genetic engineering. Biotechnology is also being used to improve crop plants. How much have you heard or read about biotechnology? Would you say you have read or heard...?

# Impressions of Food Biotechnology

2010

***More than 30% of consumers are favorable toward the use of biotechnology in food production, consistent with previous years.***

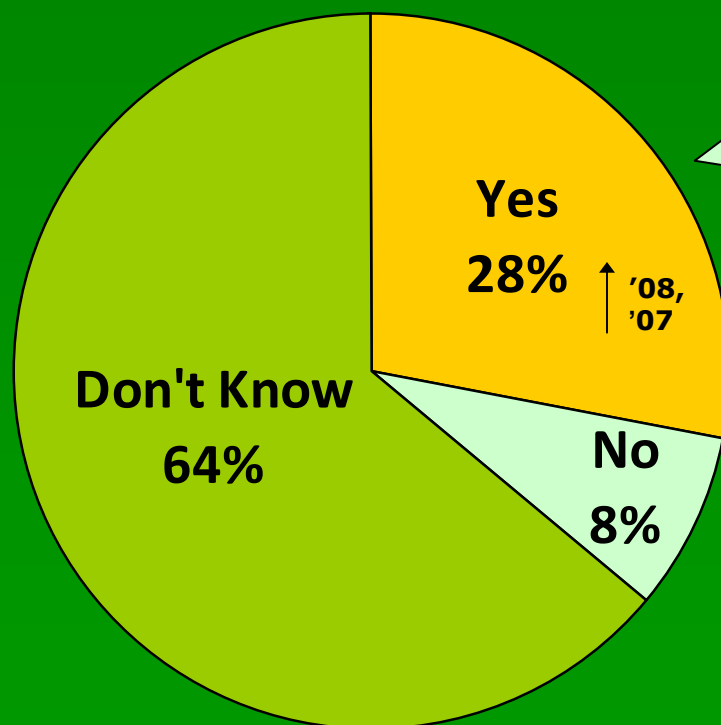
***Those who have an opinion are nearly twice as likely to have a favorable impression as opposed to unfavorable.***



Q6. What is your overall impression of using biotechnology with plants that produce food products? Would you say you are...?

# Awareness of Availability of Biotech Foods

2010



*(Among those who said "yes")*  
**Biotech Foods Believed to Be Available in the Supermarket:**

Vegetables	37%
Corn/Corn products	21%
Fruits	19%
Meats/Eggs/Fish	14%
Tomatoes	10%
Cereals/Grains	4%
Milk/Dairy	4%
Soy	4%
Potatoes	1%
Processed Foods	<1%
Other	7%

- Q 7a. As far as you know, are there any foods produced through biotechnology in the supermarket now?  
 Q 7b. Which foods would those be? [OPEN END]

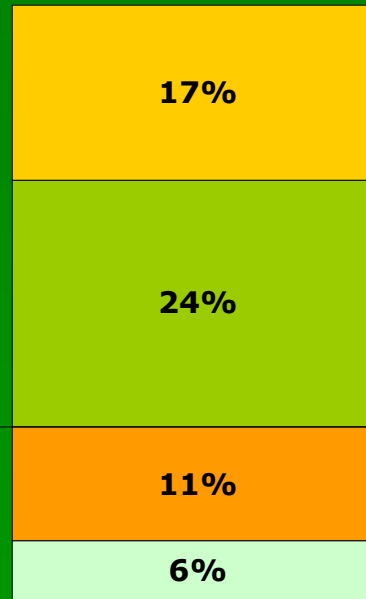
# Impressions of Biotech Wheat



2010

Favorable

Not favorable



- Very favorable
- Somewhat favorable
- Not very favorable
- Not at all favorable

Neutral 23%

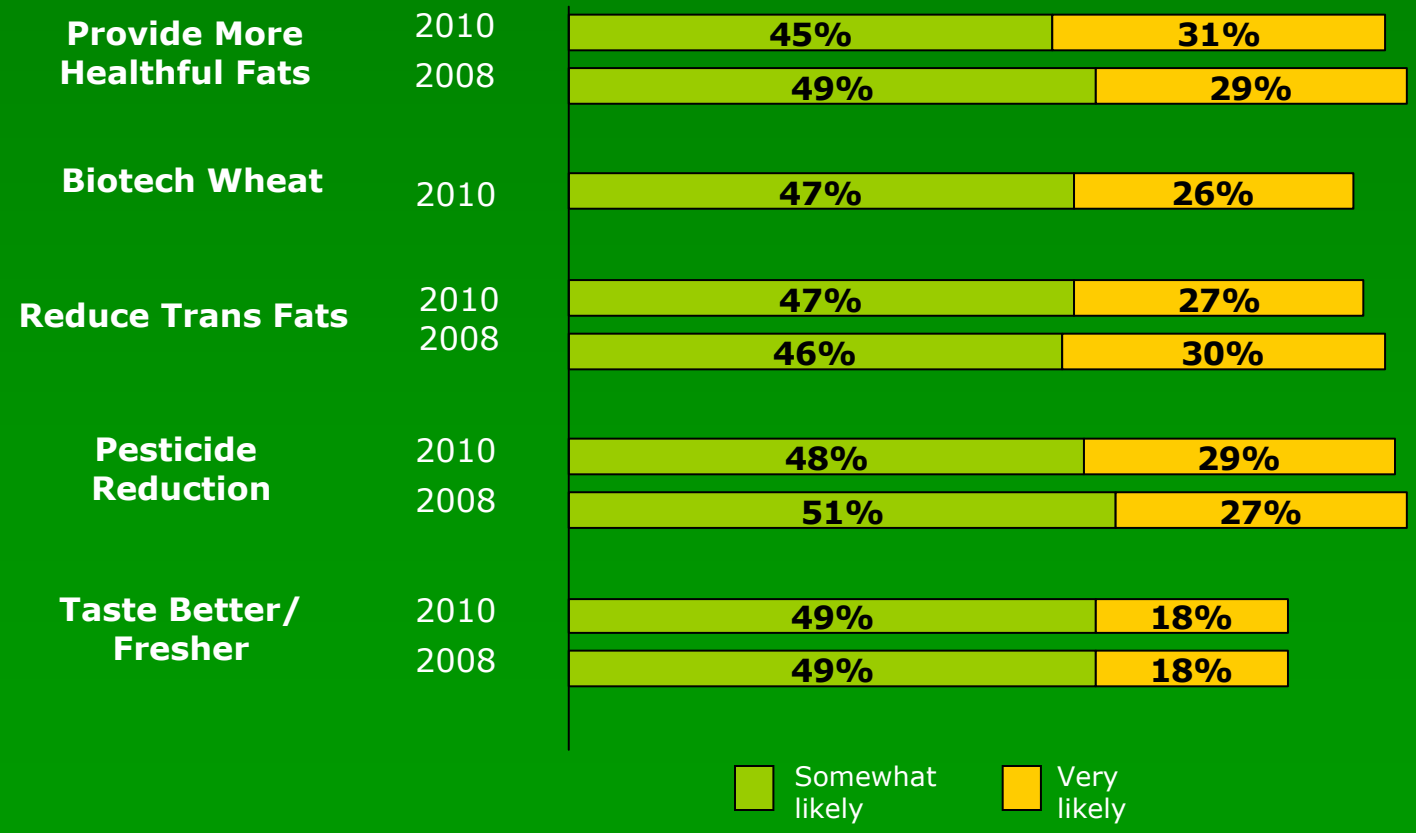
Don't know enough  
To form an opinion 19%

Q13. What is your overall impression of using biotechnology with wheat and grains to produce food products such as bread, crackers, cookies, cereals and pasta?



# Likelihood to Purchase Biotech Foods

*The majority of Americans continue to be likely to purchase biotech foods for specific benefits. Across the board, awareness of these benefits drives favorability.*



Q9-12,14. All things being equal, how likely would you be to buy a variety of produce, like tomatoes or potatoes, if it had been modified by biotechnology to (Q9=taste better or fresher, Q10=be protected from insect damage and required fewer pesticide applications, Q11=reduce the trans fat content in the food, Q12=provide more healthful fats, like Omega-3, in the food, Q14=food products made from biotech wheat to use less land, water, and/or pesticides)?

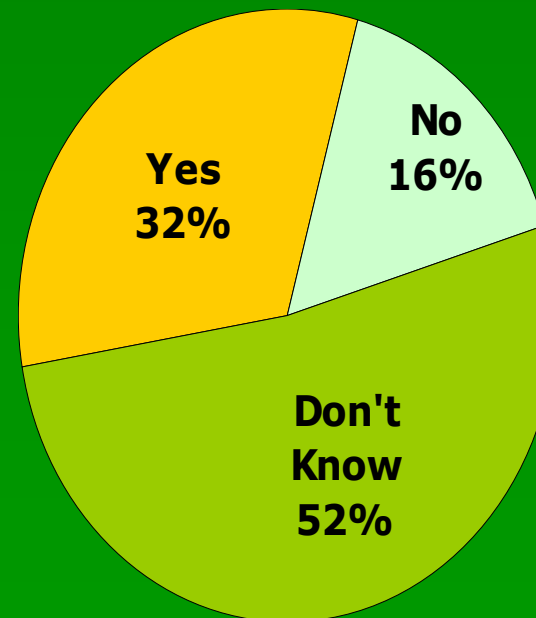
# Perception of Benefits

*As seen in previous years, more than half of Americans are unsure if biotechnology will provide them benefits. Those who believe that biotechnology will provide benefits most commonly mention nutrition and health.*

*(Among those who say "yes")*  
**Benefits of Biotechnology in Next 5 Years:**

Nutrition/health benefits	32%
Improved quality/taste/variety	24%
Price/economic benefits	24%
Improved crops/agricultural production	21%
Safer foods	10%
Reduced pesticides/chemicals	3%
Medical advances	1%
Other	10%
Don't know	3%
Nothing	6%

2010



Q 8a. Do you feel that biotechnology will provide benefits for you or your family within the next five years?

Q 8b. What benefits do you expect? [OPEN END]

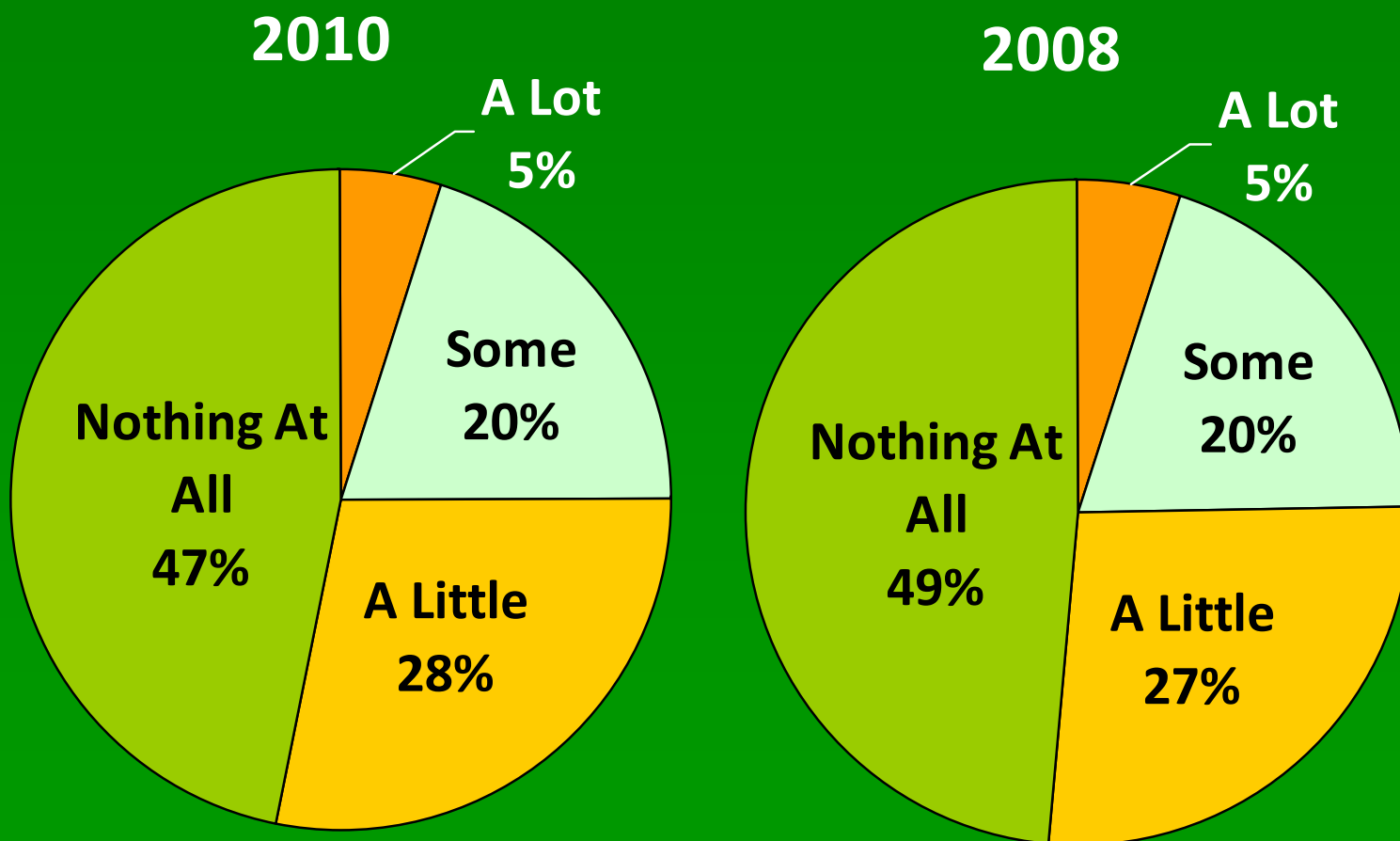


# Animal Biotechnology



# Awareness of Animal Biotechnology

*The percentage of consumers that has read or heard at least 'a little' about animal biotechnology remains steady over the last three years.*



Q17. First of all, how much have you read or heard about applying the science of biotechnology to animals? Would you say you have heard...?

# Impressions of Animal Biotech

2010

- Very favorable
- Somewhat favorable
- Not very favorable
- Not at all favorable

Favorable

Not favorable

Neutral

Don't know enough  
to form an opinion

10%

19%

13%

14%

24%

20%

**(Among those who were "not favorable"): Why are you not favorable toward using biotechnology with animals that produce food products:**

**I don't have enough information** 55%

**I don't understand the benefits of using biotechnology with animals** 39%

**I don't eat milk or dairy products** 3%

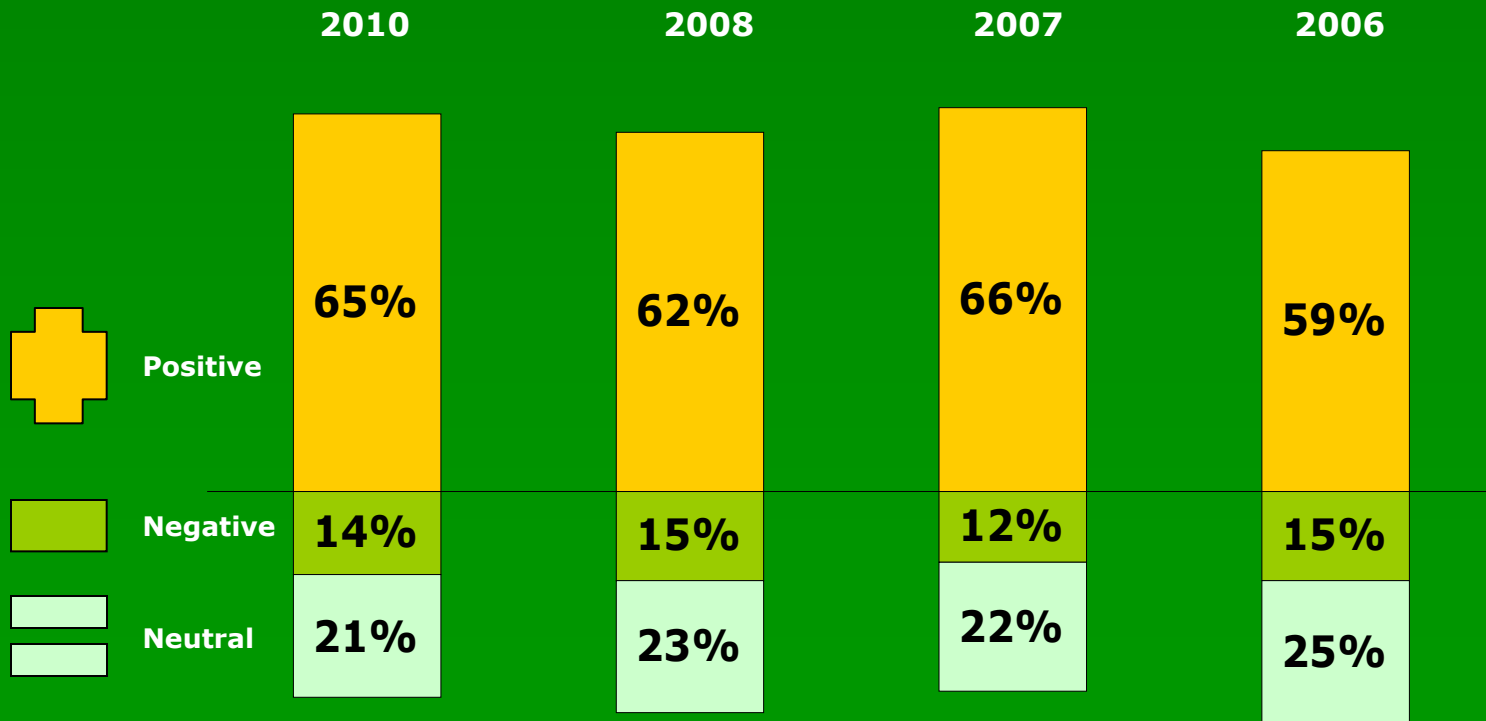
**Other** 23%

Q18. What is your overall impression of using animal biotechnology with animals that produce food products such as meat, milk, and eggs? Would you say you are...?

Q19. Why are you not favorable toward using biotechnology with animals that produce food products? Check all that apply.

# Quality and Safety Impact on Animal Biotech Impressions

**Consumers continue to state that safety benefits associated with animal biotech have a positive impact on their impression.**

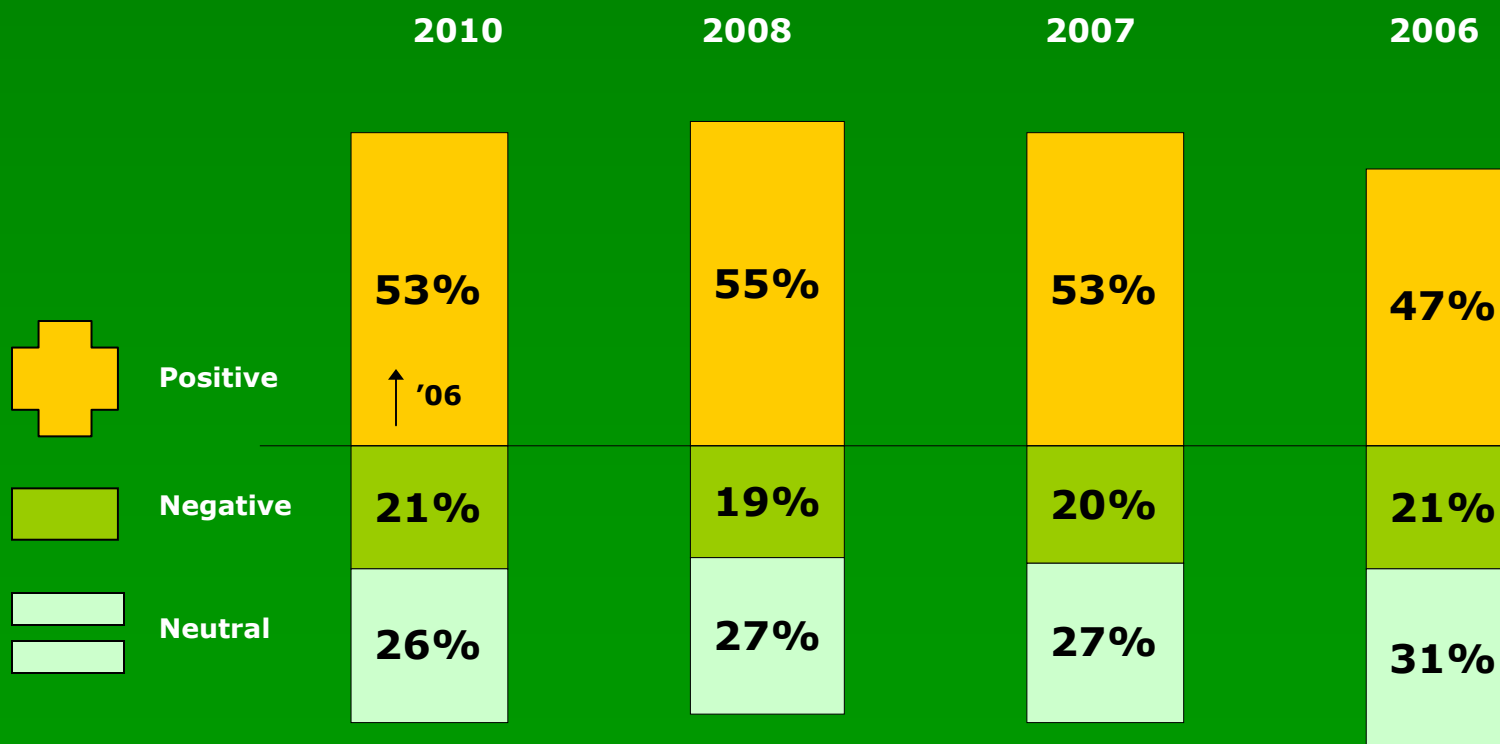


Q23. Animal biotechnology can improve the quality and safety of food (for example, through improved animal health or improved nutritional quality of the food produced). – Please tell me whether the information has a positive effect on your impression, a negative effect, or no effect at all.



# Farm Efficiency Impact on Animal Biotech Impressions

*Significantly more consumers were positively impacted by animal biotech's role in farm efficiency relative to 2006.*



Q22. Animal biotechnology can increase farm efficiency; that is, it can increase the amount of food produced while decreasing the amount of resources needed, such as animal feed (i.e. corn, water, etc.). – Please tell me whether the information has a positive effect on your impression, a negative effect, or no effect at all.

# Environmental Impact on Animal Biotech Impressions

**About one-half of Americans say that animal biotech's ability to reduce the environmental impact of animal waste has a positive effect on their impression.**

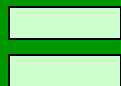
2010



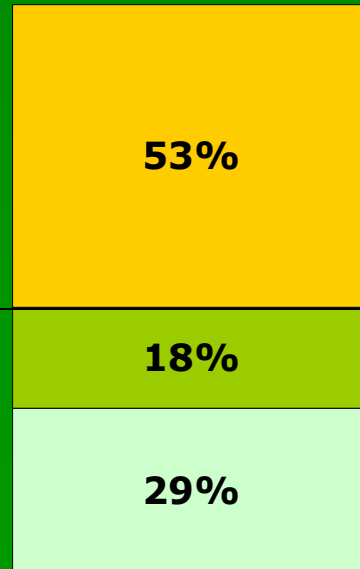
Positive



Negative



Neutral



Q24. Animal biotechnology can reduce the impact of livestock, such as animal waste, on the environment. -Please tell me whether the information has a positive effect on your impression, a negative effect, or no effect at all.



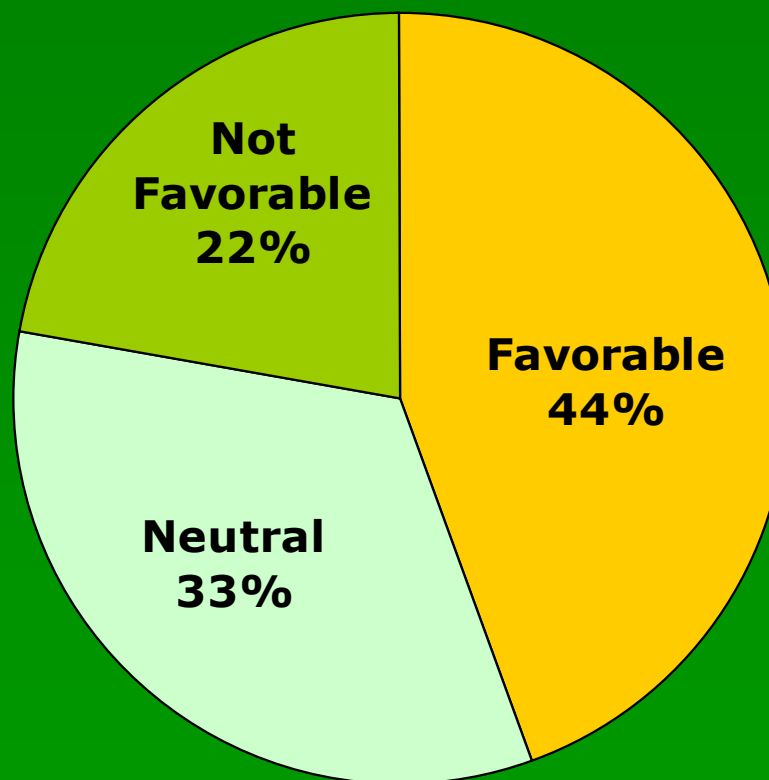


# Genomics and Genetic Engineering



# Impressions of Animal Genomics

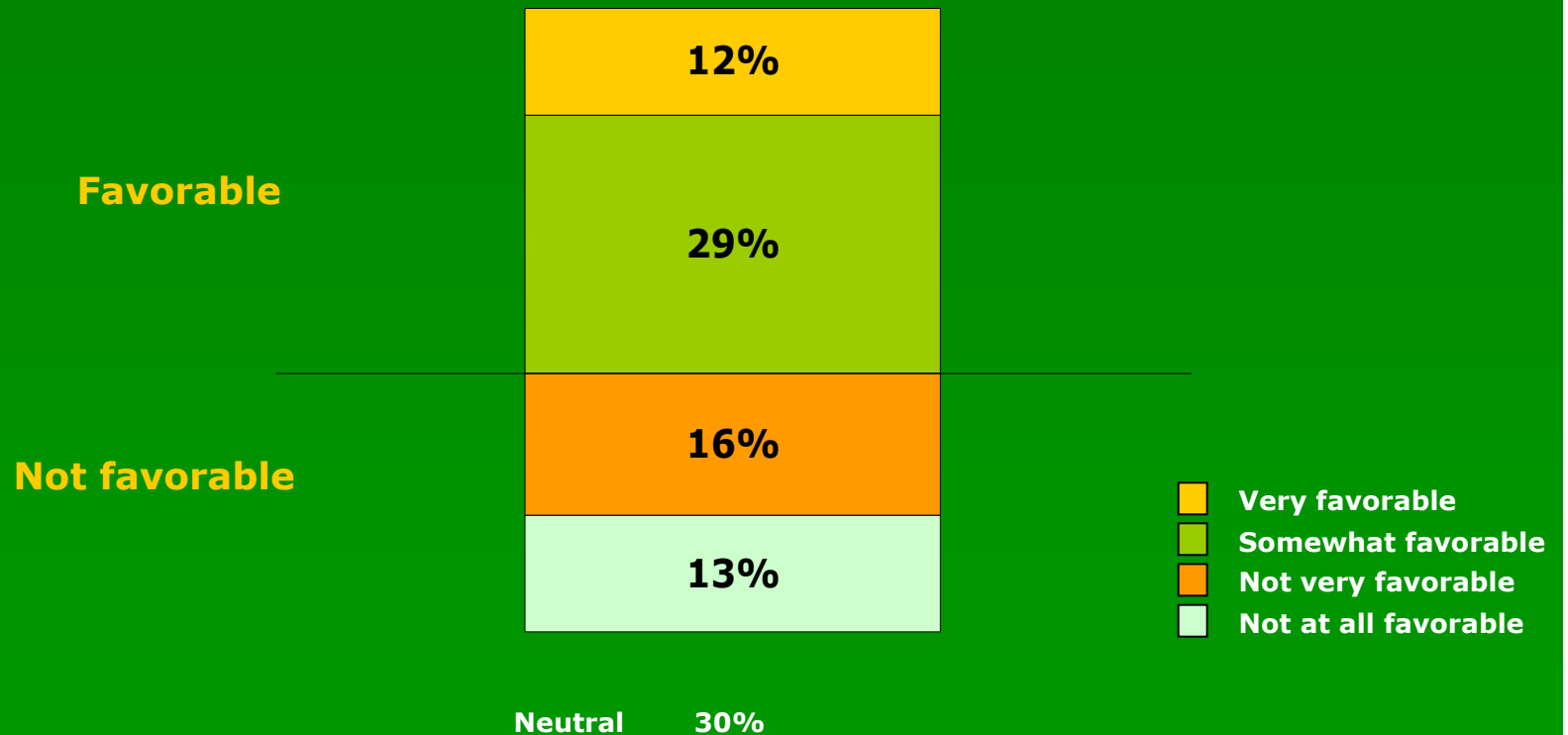
## 2010



Q20. Genomics is a form of animal biotechnology that uses knowledge about the genetic makeup of farm animals to aid in producing better offspring for improved meat, milk, and egg quality. What is your overall impression of animal genomics?

# Impressions of Genetic Engineering

2010



Q21. *Genetic engineering.* Genetic engineering is a form of animal biotechnology that allows for the transfer of beneficial traits from one animal to another in a precise way that allows for improved nutritional content or less environmental impact. What is your overall impression of genetic engineering in animals?

# Likelihood to Purchase Meat & Dairy Products from GE Animals

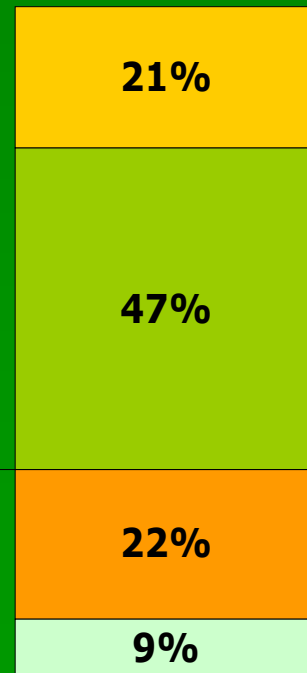
**More than two-thirds of Americans say they would purchase meat and dairy products from GE animals, since FDA has determined they are safe.**



**Likely**

**Unlikely**

**2010**



- Very likely
- Somewhat likely
- Not too likely
- Not at all likely

Q25. Since the U.S. Food and Drug Administration (FDA) has determined that meat, milk, and eggs from animals enhanced through genetic engineering are safe, how likely are you to buy them?

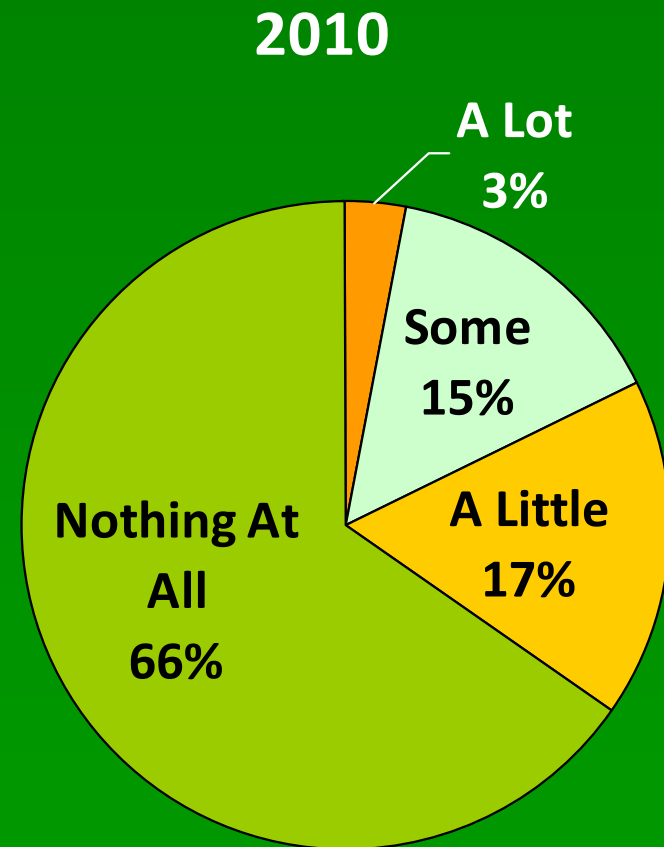


# Nanotechnology



# Awareness of Nanotechnology

***Slightly more than one-third of Americans have heard or read at least "a little" about applying the science of nanotechnology in food applications.***



Q26. How much have you read or heard about applying the science of *nanotechnology* in food applications?  
Would you say you have read or heard...?

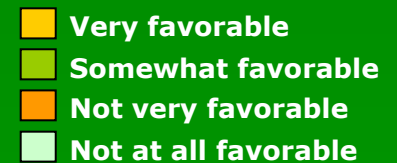
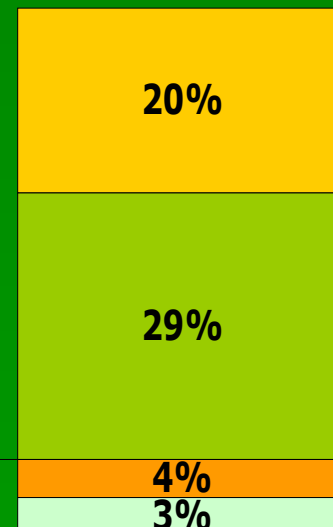
# Perceptions of Nanotechnology

**Although two-thirds of Americans are not familiar with nanotechnology, about half of consumers say they have a favorable impression of nanotechnology when provided with potential benefits in food production and packaging.**

2010

Favorable

Not favorable



Neutral	20%
Don't know enough To form an opinion	23%

Q27. What is your overall impression of using nanotechnology in food production or packaging for such purposes as extending freshness, decreasing the risk of foodborne illness, and improving nutrition? Would you say you are...?



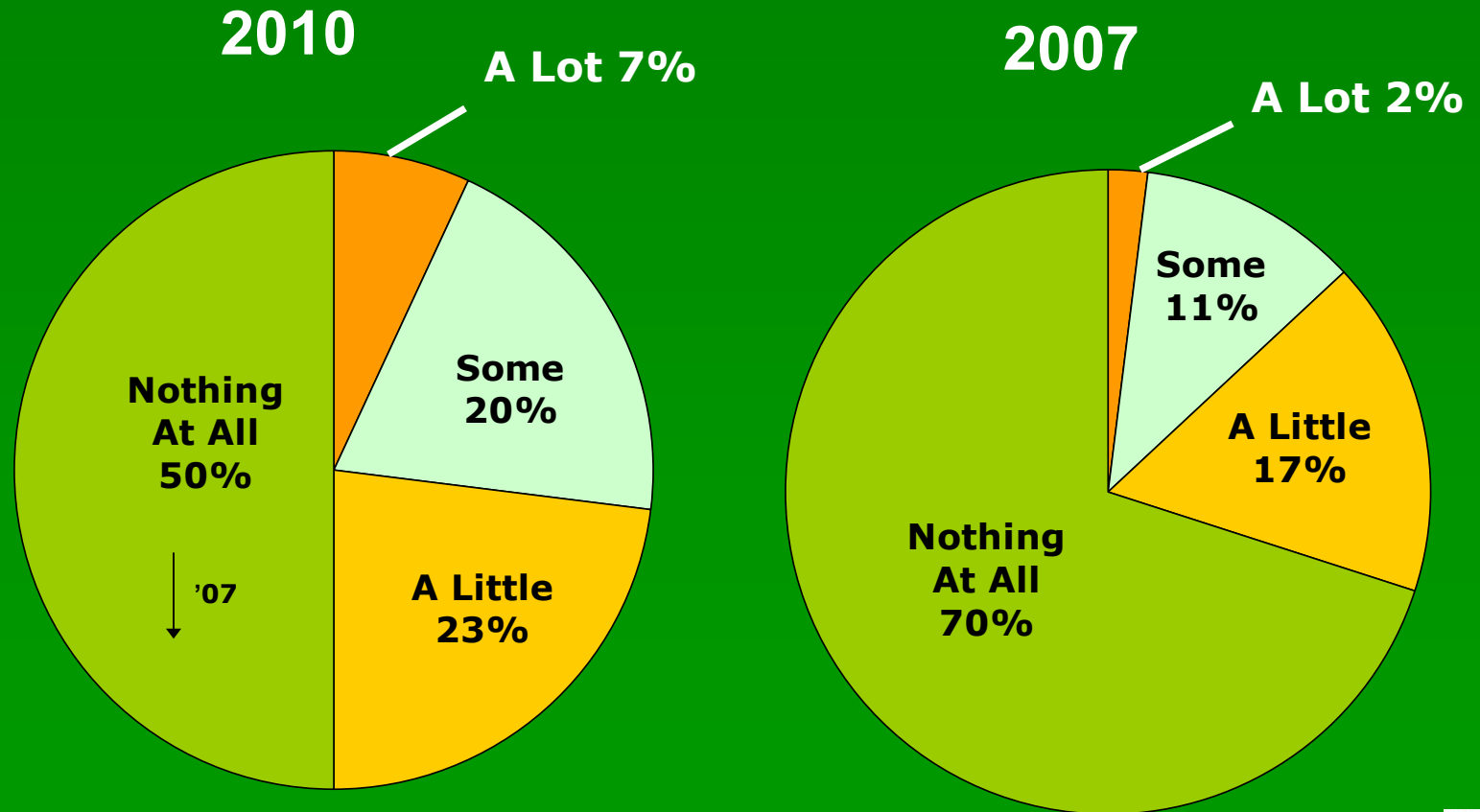
# Sustainability





# Awareness of Sustainable Food Production

**Half of consumers have heard or read at least "a little" about the concept of sustainability in food production. Those who have heard or read "nothing at all" have significantly decreased since 2007.**



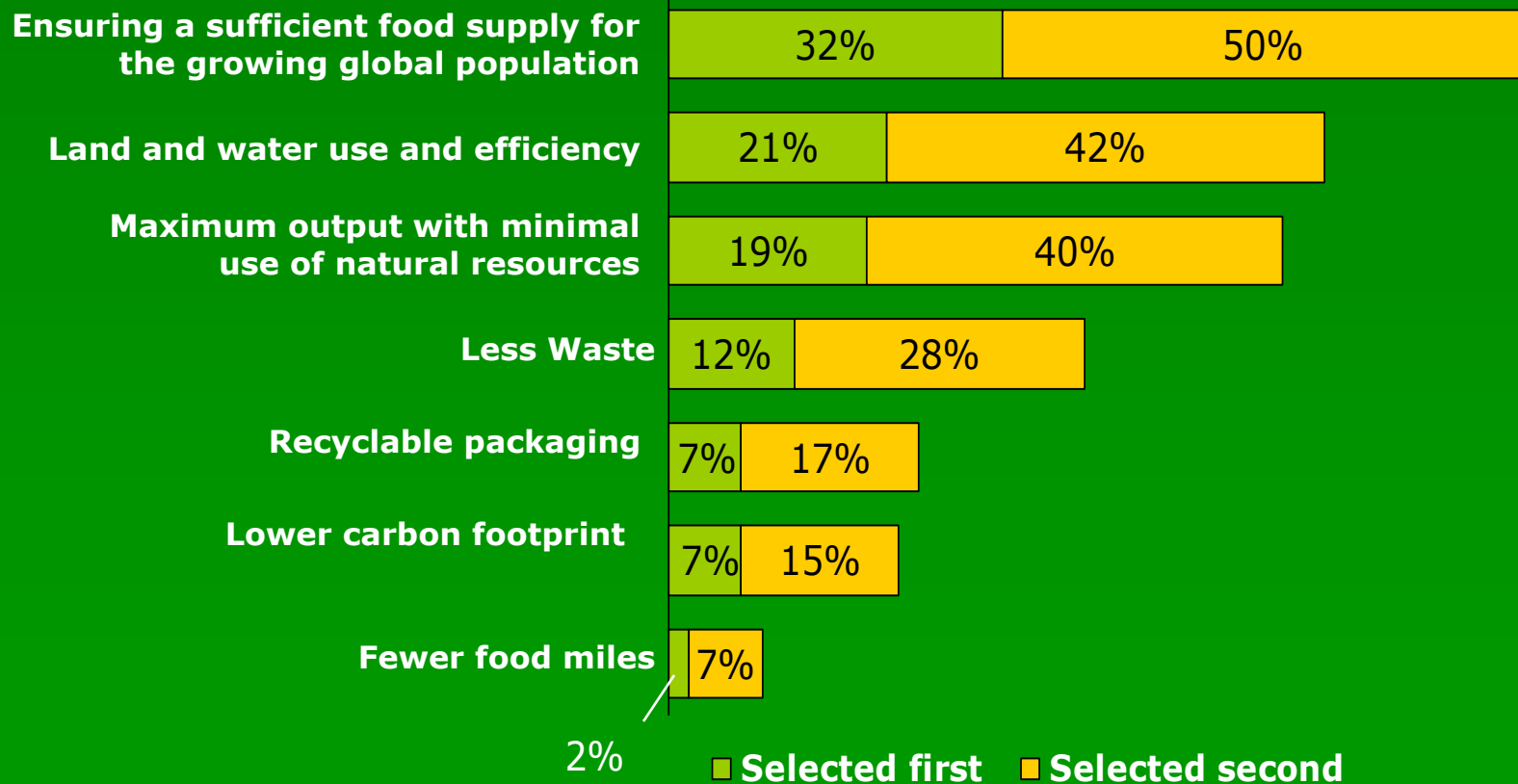
Q28. How much have you read or heard about the concept of sustainable food production?



# Importance of Aspects of Sustainability

2010

Percent that ranked each aspect first or second:



Q29. Please rank the following aspects of "sustainability" in order of importance to you.



# Importance of Crop Growing Factors

2010

Percent that ranked each factor first or second:

**Growing more food on less land so valuable land like rain forests is NOT needed as growing space**

27%

50%

**Reducing the amount of pesticides needed to produce food**

27%

48%

**Growing more food to help feed the growing global population**

23%

40%

**Plants that use water more efficiently, thereby conserving fresh water**

13%

34%

**Using conservation tillage farming methods, which reduce soil loss and greenhouse gas emissions**

10%

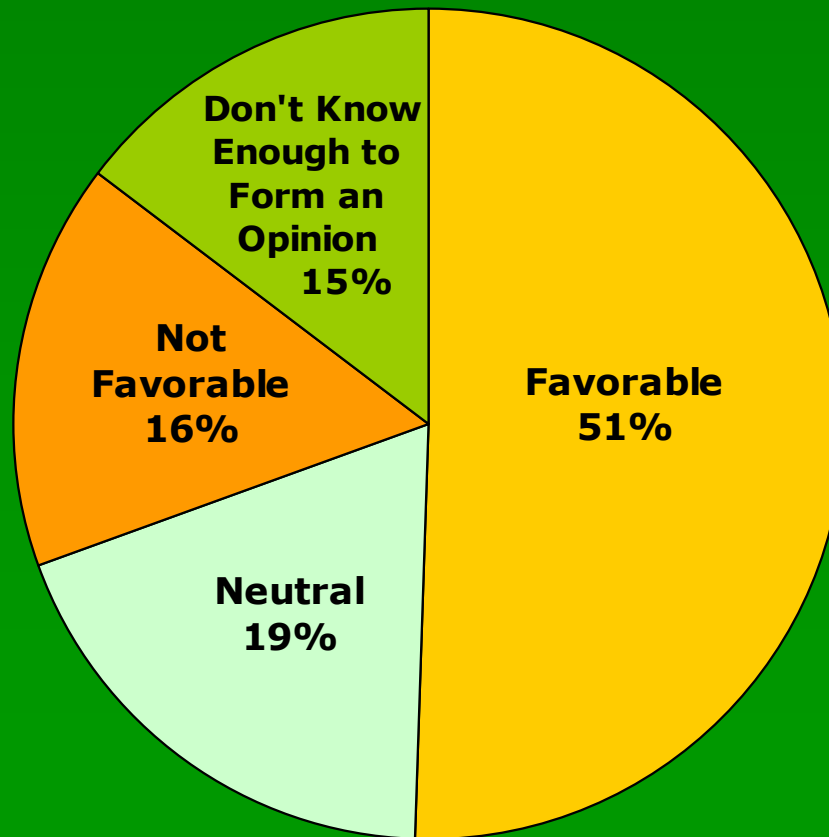
29%

■ Selected first ■ Selected second

Q30. Please rank the following five factors related to growing sustainable crops in order of importance to you. 1=Most important, 5=Least important.

# Impressions of Farmers Using Biotechnology to Help Meet Food Demand

2010



Q15. What is your overall impression of farmers using biotechnology to grow more crops that would help meet food demand? Would you say you are...?



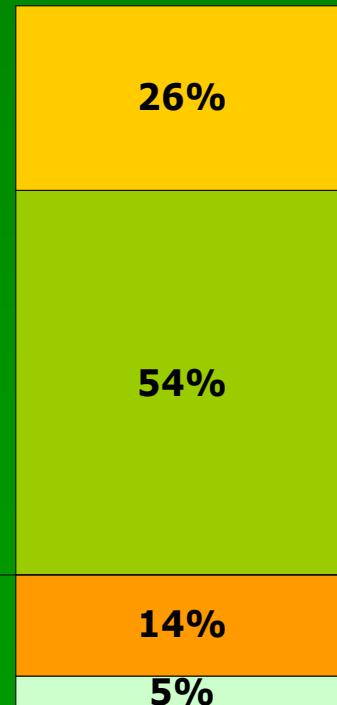
# Likelihood to Purchase Biotech Wheat Products Produced Using Sustainable Practices

**80% of Americans say they would purchase biotech wheat products if produced in a sustainable manner.**

2010

Likely

Unlikely



- Very likely
- Somewhat likely
- Not too likely
- Not at all likely

Q31. How likely would you be to purchase bread, crackers, cookies, cereal, or pasta products containing wheat that was grown using plant biotechnology, if they were produced using sustainable practices to feed more people using less resources (such as land and pesticides)?

# Summary

- Americans' support of the use of food biotechnology is strongest when they consider its potential benefits for impacting issues of importance to them, such as:
  - Reducing the impact of food and food production on the environment
  - Improving sustainability
- Putting food technologies into context (e.g. what it is, what it does, and how it makes an impact) is important in improving consumer understanding.
- Putting a “human face,” such as a farmer, with the application of food technology helps to bridge the gap between science and real life scenarios.





# Thank You!

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