

# Stop Playing Not to Lose and Start Playing to Win – Re-Defining Agriculture to Build Consumer Trust

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# CENTER CE

#### **CFI** Mission

- To build consumer trust and confidence in today's food system by...
  - sharing accurate, balanced information
  - correcting misinformation
  - modeling best practices and
  - engaging stakeholders



# **Building Consumer Trust**

# Freedom to Operate

# Social License

# Social License



**Definition:** The privilege of operating with minimal formalized restrictions (legislation, regulation, or market requirements) based on maintaining public trust by doing what's right.

**Public Trust:** A belief that activities are consistent with social expectations and the values of the community and other stakeholders.

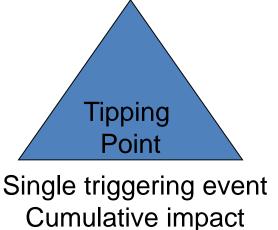
## The Social License To Operate



Flexible Responsive Lower Cost

#### **Social License**

- Ethics
- Values
- Expectations
- Self regulation



Rigid Bureaucratic Higher Cost

#### **Social Control**

- Regulation
- Legislation
- Litigation
- Compliance

## The Social License To Operate



#### **Proactive**

### Market Intervention Can Shift Balance

- Customer Mandates
- Consumer Boycott

#### Reactive

Industry Engagement

**Education, BMP's, Certification, Verification** 

**Lobbying, Regulatory Affairs, Litigation** 

**Social License** 

Social benefit perceived greater than social cost

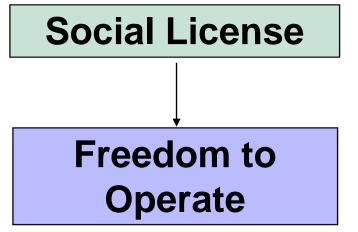
Tipping Point **Social Control** 

Social cost perceived greater than social benefit

Change in social norms (values, ethics, expectations) can shift tipping point

# Earning and Maintaining the Social License (Sapp/CMA)





# Trust

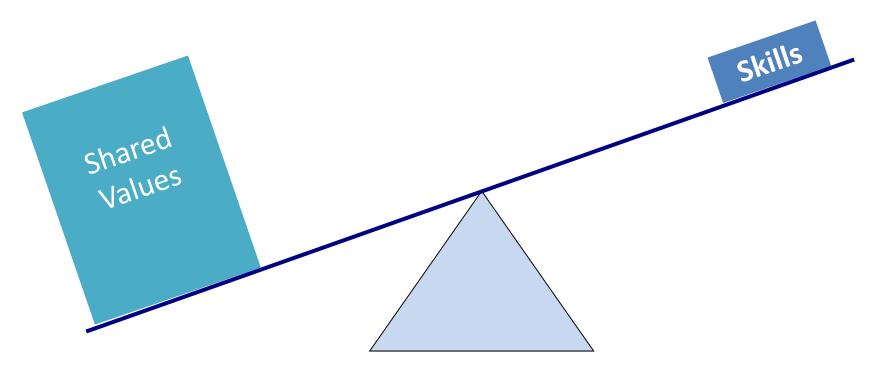
# Influential Others

# Competence

# Confidence

## What drives Consumer Trust?





Shared values are 3-5X more important in building trust than demonstrating competence

Trust research was published in December, 2009 – *Journal of Rural Sociology* 



### What Does It Mean?

# "They don't care how much you know until they know how much you care!"

- Theodore Roosevelt

## Questions of Values and Ethics Kohlberg's Moral Hierarchy





Lawrence Kohlberg, 1927 - 1987

#### Three Levels – Six Stages

- 1. Pre-Conventional
  - Direct impact on me
- 2. Conventional
  - Societal expectations
- 3. Post-Conventional
  - Principle driven

# Questions of Values and Ethics Kohlberg's Moral Hierarchy



**Post Conventional** 

Principle driven

**Conventional** 

Societal expectations

**Pre-Conventional**Direct impact on me

Universal ethical principle orientation

Social contract orientation

The "law & order" orientation

The "good boy / nice girl" orientation

Personal rewards orientation

**Punishment-Obedience** 

We have an ethical obligation to our employees, the environment, our customers and our communities

We comply with all environmental and employment laws and regulations

We take care of the land and animals because that's when we get the best ROI

# Questions of Values and Ethics Kohlberg's Moral Hierarchy



**Post Conventional** 

Principle driven

**Conventional** 

Societal expectations

**Pre-Conventional**Direct impact on me

Universal ethical principle orientation

Social contract orientation

The "law & order" orientation

The "good boy / nice girl" orientation

Personal rewards orientation

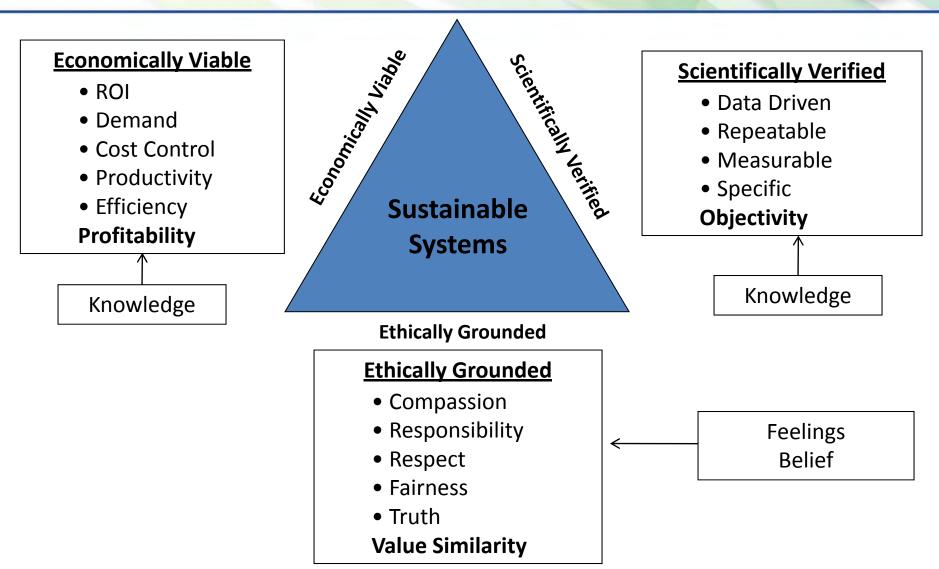
**Business** 

NGO's

**Punishment-Obedience** 

#### Sustainable Balance





## Consumer Perception



- The public senses change in the way food is produced but does not understand
- Lack of understanding creates opportunity for activists and detractors
- The food system must engage in value based communication that is ethically grounded, scientifically verified and economically viable to build trust in today's systems



# Consumer Trust in the Food System

**Summary Slides – 2009 Research** 

## Thank You to the 2009 Consumer Trust Research Sponsors



























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#### **CFI Annual Consumer Trust Survey**



- Qualitative research in 2009 study
  - "What will cause consumers to grant more social license?"
  - Eight consumer focus groups
    - April 2: Des Moines, IA
    - April 7: Syracuse, NY
    - April 8: Nashville, TN
    - April 13: Fresno, CA

#### **Two Observations**



#### Disinterested and uninformed.

- "Give me safe food, and I will trust you to give me safe food. I will trust you (farmers) until you do something to break that trust."
  - Connie, Nashville focus group
- "They could let us know more about what they do... I've never been on a farm, I don't know what they do."
  - Judy, Des Moines group

#### Trust farmers but aren't sure contemporary production is still farming.

- "Large producers are about the money and rushing production with antibiotics... Small farmers are concerned about their name..."
  - Consuela, Nashville focus group
- "There is a difference: a farmer grows and sells locally with ethics, whereas commercial producers are all about the paycheck."
  - Maria, Nashville focus group

## The Challenge



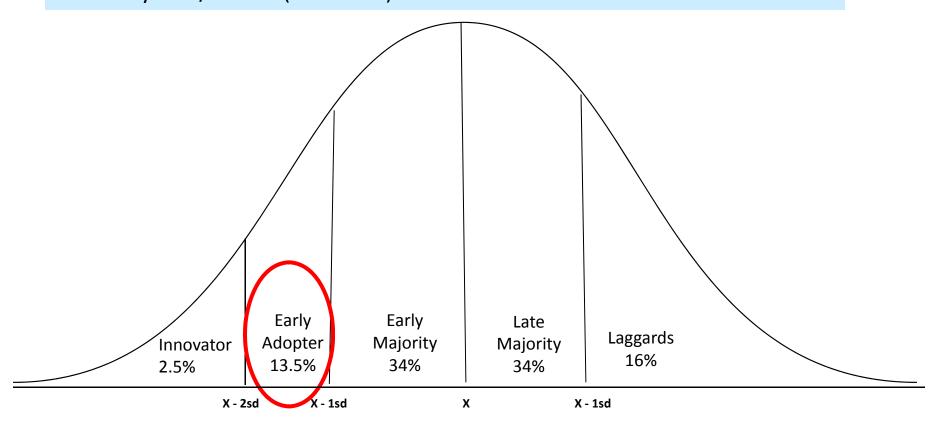
- Building trust and confidence in the contemporary food system among a public that is largely disinterested and uninformed.
- The contemporary food system is not perceived as being consistent with the understanding or values of consumers or with the positive attributes historically assigned to farmers.
- Voices questioning current food system practices are increasing in number, volume and impact.



# **Adopter Segments**



Past research has shown that the Adopter Segments are normally distributed in a social system/market (bell curve)



# Building Trust in Food System Practices Among Early Adopters



#### Early Adopters...

- Are opinion leaders
- Can influence others
- Gate-keepers
- Drive social change
- Seek educational information Web sites and topic-specific TV programs/networks
- Significantly more likely to believe and be impacted by educational food system information, than Laggards

## Attributes of Early Adopters



- Socio-Economic
  - More educated
  - Higher social status
  - Greater upward mobility
- Communication behavior
  - Larger interpersonal networks
  - Greater exposure to mass media and interpersonal communication
  - Information seekers
  - More knowledge of innovations
  - Opinion leaders

#### Personality

- Greater empathy
- Less dogmatic
- Greater ability to deal with abstractions
- Greater rationality
- Higher intelligence
- More favorable toward change
- Able to deal with uncertainty and risk
- More favorable attitude toward science
- Less fatalistic
- Have higher aspirations

#### Adopter Classification Scheme



- Adopter classification is issue dependent
  - Consumers may be an Early Adopter in one issue area, such as food safety, but may be an Early or Late Majority in along another issue such as Humane Treatment of Farm Animals

 Self-classification into segments identifies those who believe they are Early Adopters

 Adopter classification is accomplished in this study through self-classification for <u>each key issue</u>

#### **CFI Annual Consumer Trust Survey**



- Qualitative research component for 2010 Study
  - Eight consumer focus groups with ONLY Early Adopters
    - April 26: Concord, CA
    - April 28: Bloomington, MN
    - April 29: Atlanta, GA
    - April 30: Philadelphia, PA
      - Don't understand personal benefits of today's systems
      - Don't trust larger systems and the use of technology
      - Continue to be concerned about food safety and nutrition
      - Understand some trade-offs, but not willing to sacrifice principles for economics

## **Key Findings**



- Nutrition, health and food safety (which are seen as related to health) were the topics of greatest concern to most Early Adopters.
- Early Adopters are deeply skeptical and distrustful of claims that improvements in technology and innovation in food production/processing are beneficial to the health and welfare of consumers, the environment or animal well-being.
- Many Early Adopters had difficulty accepting that food production MUST increase in efficiency to feed a growing population, because they feel this will further industrialize agriculture and probably make food less healthy.
- Many Early Adopters felt that it would be more socially responsible and healthier for consumers to eat more organic foods, buy foods locally and eat what is in season.
- Cheap food was generally considered unhealthy. Many Early Adopters felt that they had to choose between feeding their family lower quality "processed" food that was within their budget or buying more expensive fresh foods.



## 2010 Quantitative Research

Summary of Findings

#### Thank You

#### 2010 Consumer Trust Research Sponsors



























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# Quantitative Methodology and Sample Design



- Respondents were recruited to participate in the study through Survey Sampling International's consumer Web panel
- Total of 2002 completed surveys (sampling error at 95% confidence level +/- 2.2%)
- The Web surveys averaged 30 minutes and data collection took place in August 2010. Split sample to accommodate the survey content
- T-tests and z-tests used to determine significant differences
- State specific results for Iowa, Wisconsin, California, Indiana, Pennsylvania, Minnesota, and North Carolina.

## Respondent Profile



- 60% female and 40% male
- 50% were primary shoppers in the house
- ~89% shop once or twice a week
- Representative of the typical U.S. food shopper regarding:
  - Education
  - Income
  - Political orientation
  - Vegetarian practices
  - Consumer advocacy

#### Concern About Issues



- Consumers were asked to indicate how concerned they were about several life and current event issues
- Used a 0 to 10 scale where "0" meant they had no concern about the issue and "10" meant they were very concerned about the issue:
  - 0 to 3 ratings indicate relatively low level of concern
  - 4 to 7 ratings indicate relatively moderate level of concern
  - 8 to 10 ratings indicate relatively strong level of concern
- Highest concerns included (based on mean scores):
  - The U.S. Economy (8.07)
  - Rising Health Care Costs (7.98)
  - Unemployment in the U.S. (7.94)
  - Rising Energy Costs (7.76)
  - Personal Financial Situation (7.71)
  - Rising Cost of Food (7.70)
- Lowest Concern (based on mean scores):
  - Global Warming (6.00)
  - Having Enough Food to Feed People in Developing Countries (5.59)

# Summary of Concerns About Issues (Randomized)



Issue	Mean	% Very Concerned
1. The U.S. Economy	8.07	70%
2. Rising Health Care Costs	7.98	68%
3. Unemployment in the U.S.	7.94	67%
4. Rising Energy Costs	7.76	64%
5. Personal Financial Situation	7.71	64%
6. Rising Cost of Food	7.70	63%
7. Food Safety	7.37	56%
8. Safety of Food Imported from Outside the U.S.	7.36	57%
9. Impact of Oil Spill in the Gulf	7.23	56%
10. Global Economy	7.08	52%

#### Summary of Concerns About Issues (cont'd)



Issue	Mean	% Very Concerned
11. U.S. Military Involvement in Iraq/Afghanistan	7.02	52%
12. Having Enough Food to Feed People in U.S.	6.92	50%
13. Humane Treatment of Farm Animals	6.52	43%
14. Access to Accurate Information to Make Healthy Food Choices	6.39	41%
15. Obesity in America	6.38	41%
16. Global Warming	6.00	40%
17. Having Enough Food to Feed People in Developing Countries	5.59	31%

### Mean Summary of Concerns About Issues by Innovator Segment



Issues	Total	Innovator	Early Adopter	Early Majority	Late Majority	Laggard
The U.S. Economy	8.07	8.14	8.57	8.10	8.00	5.63
Rising Health Care Costs	7.98	7.91	8.43	8.03	8.00	5.42
Unemployment in the U.S.	7.94	7.95	8.46	7.96	7.91	5.27
Rising Energy Costs	7.76	8.22	8.25	7.82	7.58	5.19
Personal Financial Situation	7.71	7.71	7.81	7.74	7.67	5.88
Rising Cost of Food	7.70	8.12	8.27	7.60	7.52	5.20
Food Safety	7.37	7.65	8.24	7.57	6.83	4.77
The Safety of Food Imported from Outside the U.S.	7.36	7.53	8.20	7.55	6.89	4.64
Impact of Oil Spill in the Gulf	7.23	7.19	7.98	7.42	6.85	4.73

### Mean Summary of Concerns About Issues by Innovator Segment



Issues	Total	Innovator	Early Adopter	Early Majority	Late Majority	Laggard
The Global Economy	7.08	7.20	7.72	7.10	6.86	4.63
U.S. Military Involvement in Iraq and Afghanistan	7.02	6.97	7.75	7.24	6.56	5.00
Having Enough Food to Feed People in the U.S.	6.92	7.28	7.60	7.02	6.51	4.63
Humane Treatment of Farm Animals	6.52	6.88	7.32	6.72	5.93	4.33
Access to Accurate Information to Make Healthy Food Choices	6.39	6.61	7.45	6.60	5.58	4.15
Obesity in America	6.38	6.25	7.24	6.78	5.73	4.46
Global Warming	6.00	6.26	6.87	6.14	5.37	3.98
Having Enough Food to Feed People in Developing Countries	5.59	5.64	6.37	6.14	4.85	3.78



#### **Building Food System Trust**

### Changing Attitudes Toward Food System Practices



- In this study, an experimental design was used to determine the impact of education on attitudes and interest in programming ideas related to food safety
- The basic flow of questions was as follows:



#### Moving the Needle



- Correlating current understanding and perceptions of the Early Adopter with messages that increase their understanding, appreciation and trust of the contemporary US food system.
- Designing and implementing programming based on those findings.



#### **Building Food Safety Trust**

# Innovator Self-Classification Along Food Safety Issues

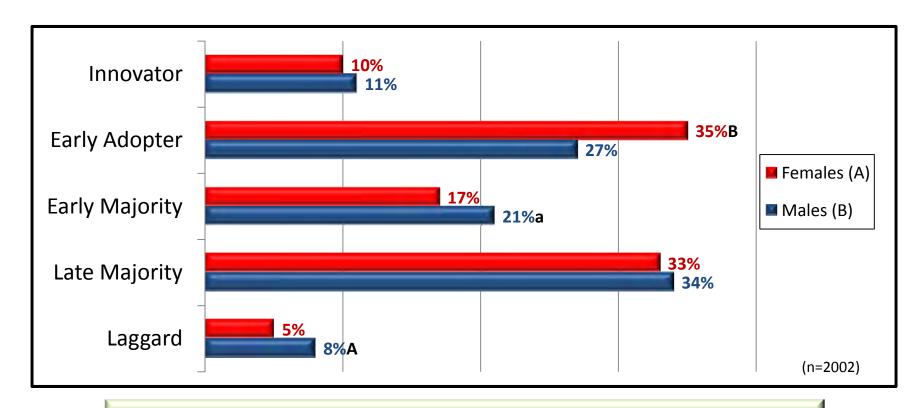


Segments	Total (A)
(Base)	(1009)
I'm quick to form opinions on food safety and rarely rely on others for input (Innovator)	10.5%
I actively seek information on food safety issues so I can weigh the issues and have informed opinions (Early Adopter)	31.9%
I usually make up my mind about food safety issues after others have debated the issues at length (Early Majority)	18.3%
I don't really think about food safety issues unless I happen to hear something on the radio or see something on TV (Late Majority)	33.3%
I only think about food safety issues if I'm forced to (Laggard)	6.0%

 One-third of respondents (31.9%) self-classified themselves as Early Adopters along Food Safety issues.

### Innovator Self-Classification Along Food Safety Issues by Gender





 Females were significantly more likely than males to classify themselves as Early Adopters along Food Safety issues, while males were more likely to self-classify as Early Majority and Laggard.

# Change in Attitudes Toward Food Safety as a Result of Educational Information Early Adopters



- Early Adopters rated their agreement significantly higher on average after the education on four food safety statements:
  - The FDA oversees dairy production by regularly inspecting all dairy farms
  - Government food safety agencies are doing a good job ensuring the safety of the food we eat
  - The FDA strictly regulates the use of antibiotics given to animals raised for food
  - I have access to all of the information I want about where my food comes from, how it was produced and its safety



## **Building Humane Treatment of Farm Animals Trust**

### Innovator Self-Classification Along Humane Treatment of Animals Issues

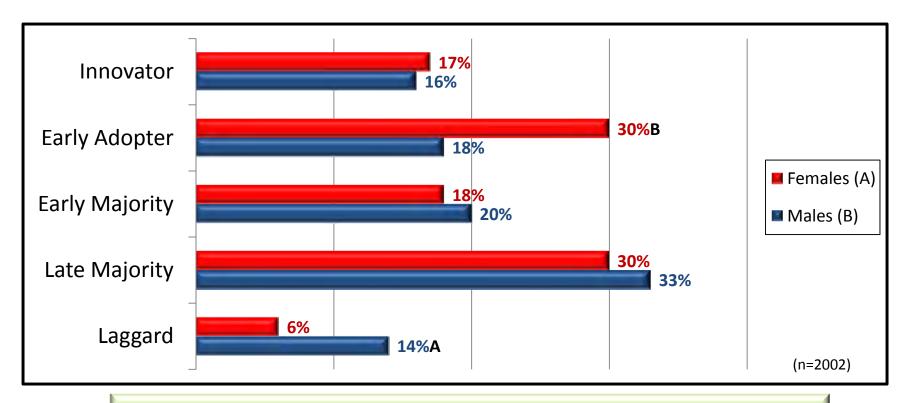


Segments	Total (A)
(Base)	(2002)
I'm quick to form opinions on humane treatment of farm animals issues and rarely rely on others for input (Innovator)	16.2%
I actively seek information on humane treatment of farm animals issues so I can weigh the issues and have informed opinions (Early Adopter)	25.1%
I usually make up my mind about humane treatment of farm animals issues after others have debated the issues at length (Early Majority)	18.5%
I don't really think about humane treatment of farm animals issues unless I happen to hear something on the radio or see something on TV (Late Majority)	30.9%
I only think about humane treatment of farm animals issues if I'm forced to (Laggard)	9.2%

• One-fourth of respondents (25.1%) self-classified themselves as Early Adopters along Humane Treatment of Animals issues.

# Innovator Self-Classification Along the Humane Treatment of Farm Animals Issues by Gender





 Females were significantly more likely than males to classify themselves as Early Adopters along the Humane Treatment of Farm Animals, while males were more likely to self-classify as Laggard.

### Change in Attitudes Toward the Humane Treatment of Farm Animals as a Result of Educational Information Early Adopters



- Early Adopters were significantly more likely to agree with 5 out of 10 of the attitudinal statements after being presented with the educational information.
  - However, agreement was still moderate with the second set of ratings ranging from 5.79 to 7.69, on the 0 to 10 scale.
  - The largest changes in attitude occurred in these statements:
    - Most pigs, turkeys and chickens are raised indoors (1.32 change)
    - Raising animals indoors is beneficial to the animal (1.12 change)



#### **Building Nutrition Trust**

### Innovator Self-Classification Along Nutrition Issues

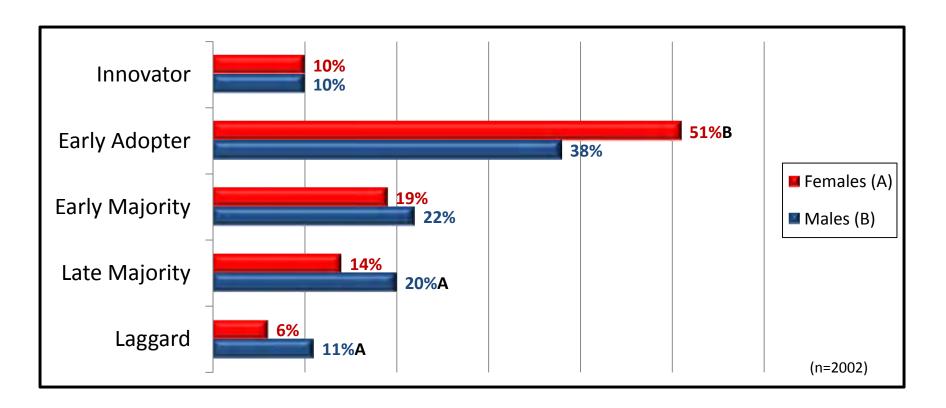


Segments	Total (A)
(Base)	(1009)
I'm quick to form opinions on nutrition and rarely rely on others for input (Innovator)	9.9%
I actively seek information on nutrition issues so I can weigh the issues and have informed opinions (Early Adopter)	45.4%
I usually make up my mind about nutrition issues after others have debated the issues at length (Early Majority)	20.1%
I don't really think about nutrition issues unless I happen to hear something on the radio or see something on TV (Late Majority)	16.7%
I only think about nutrition issues if I'm forced to (Laggards)	7.9%

• Almost half of respondents (45.4%) self-classified themselves as Early Adopters along Nutrition issues.

# Innovator Self-Classification Along Nutrition Issues by Gender





 Females were significantly more likely than males to classify themselves as Early Adopters along Nutrition issues, while males were more likely to self-classify as Late Majority and Laggard.

### Change in Attitudes Toward Nutrition as a Result of Educational Information Early Adopters



- Early Adopters rated their agreement significantly higher after the education on 6 out of 17 nutrition statements:
  - Increasing production and availability of affordable food is a critical need today
  - Malnutrition and obesity, symptoms of not having enough food or the right food, trap children in an intergenerational cycle of ill health and poverty
  - Grocery stores are addressing obesity in the U.S. by offering more products with reduced fat, sodium and sugar
  - Food processing includes fortification which makes it possible for both children and adults to achieve the daily recommendations of essential vitamins and minerals, helping them stay healthy and strong
  - Meat products are full of nutrients and provide more nutrition per serving than many other foods
  - Obesity is related to not having the resources to purchase enough nutritious food



# Building Responsible Use of Technology and Innovation for Food Production Trust

# Innovator Self-Classification Along the Responsible Use of Technology and Innovation for Food Production Issues

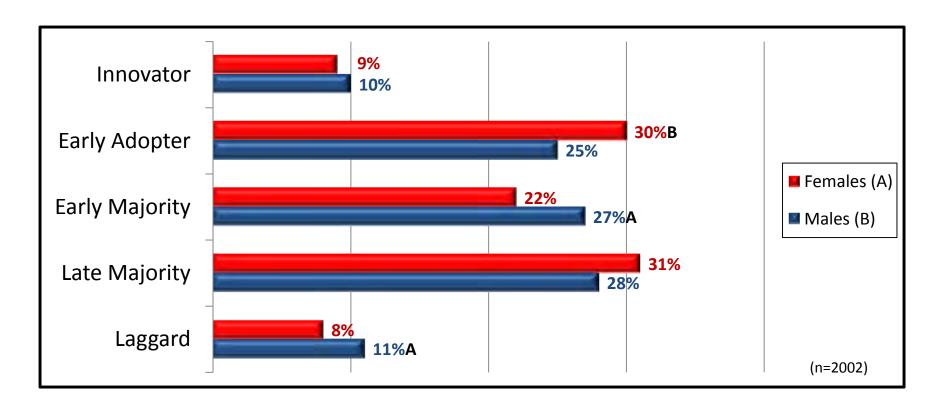


Segments	Total (A)
(Base)	(2002)
I'm quick to form opinions on the responsible use of technology and innovation for food production and rarely rely on others for input (Innovator)	9.4%
I actively seek information on the responsible use of technology and innovation for food production issues so I can weigh the issues and have informed opinions (Early Adopter)	28.3%
I usually make up my mind about the responsible use of technology and innovation for food production issues after others have debated the issues at length (Early Majority)	23.6%
I don't really think about the responsible use of technology and innovation for food production issues unless I happen to hear something on the radio or see something on TV (Late Majority)	29.5%
I only think about the responsible use of technology and innovation for food production issues if I'm forced to (Laggards)	9.2%

• Twenty-eight percent classified themselves as Early Adopters along the Responsible Use of Technology and Innovation for Food Production issues.

#### Innovator Self-classification Along the Responsible Use of Technology and Innovation for Food Production Issues By Gender





Females were significantly more likely than males to classify themselves as Early Adopters along
the Responsible Use of Technology and Innovation for Food Production, while males were more
likely to self-classify as Early Majority and Laggard.

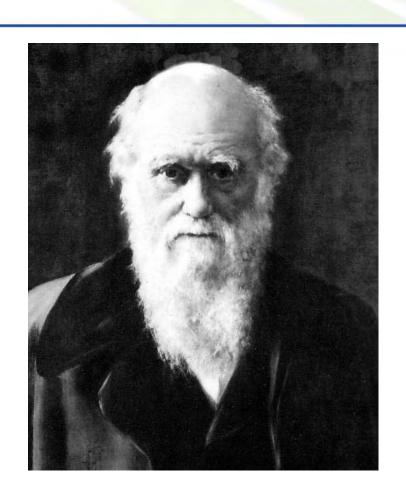
### Change in Attitudes Toward the Responsible Use of Technology and Innovation for Food Production as a Result of Educational Information - Early Adopters



- Early Adopters rated their agreement with 6 of 16 statements significantly higher after the education:
  - The majority of the additional food needed for a growing global population will need to come from advancements in farming technology
  - The next 40 years we need to double the amount of food produced on the same amount of land to protect the environment and preserve our natural resources
  - Planting genetically modified corn and soybeans is a widespread farming practice in the U.S.
  - Using pesticides and herbicides helps farmers protect their crops from weeds and insects, which reduces the cost of production, increases yields and lowers food prices
  - More intensive farming methods are better for the environment
  - The use of herbicides and pesticides increases crop yields and crop quality, which means lower prices at the grocery store

#### **Times Have Changed**





"It is not the strongest species that survive, nor the most intelligent, but the ones who are most responsive to change."

- Charles Darwin

#### **National Discussion**



"A long-overdue national conversation about food so far hasn't been much of a conversation. Instead, what we have are two armed camps deeply suspicious of one another shouting past each other."

- Russ Parsons, Los Angeles Times, Jan. 2010









#### 1950





U.S. population154 million

• 5.6 million farms

 One farmer produced enough to feed 30 people

#### 2009





U.S. population
 305 million

2 million farms

 One farmer produced enough to feed 155 people

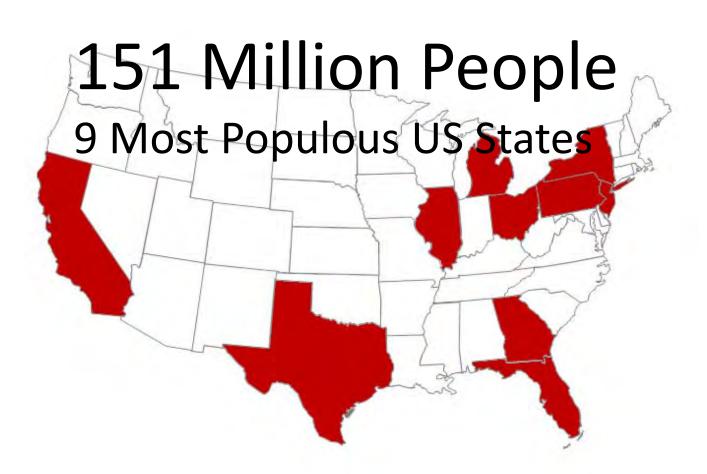
#### Then and Now



If the number of farms and level of productivity remained constant since 1950, there would be no food for anyone in the following states.

#### Then and Now





- California
- Texas
- New York
- Florida
- Illinois
- Pennsylvania
- Ohio
- Michigan
- Georgia

#### Heightened Public Interest



The public has a right to expect farmers, food companies, restaurants and grocery stores to act in a responsible manner.

New public interest about food provides the U.S. food system the opportunity to:

- 1. Look in the mirror ...
- 2. Tell our story ...

#### BLT and a Glass of Milk







#### Pork





### Compared to 1950 we produce 176% more pork per sow with 44% fewer sows

"Because we take care of our animals the way that we do, we pride ourselves in supplying a safe, nutritious, affordable food product."

- Kenny Brinker, Missouri hog farmer



#### Corn





 Primary ingredient in feed for pork production as well as poultry and cattle

#### Corn



# Compared to 1950 we produce 333% more corn on 11% more acres





"My proper care and husbandry of the soil and the crop, allows me to look forward to passing it on to the next generation, either my daughters or other relatives, to keep producing the food that we do for the world."

- Kurt Stiefvater, South Dakota corn farmer

#### Lettuce & Tomatoes





#### Lettuce Monterey County, California



Compared to 1950...

12 times the production
2.5 times the land

Tomatoes
Yolo County, California

8 times the production 3 times the land

#### **Lettuce & Tomatoes**





"We love being able to supply our state with healthy, fresh, and safe vegetables."

- Jason Ruhlig, Michigan vegetable farmer

#### Mayonnaise





#### Eggs



Compared to 1950, we produce 53% more eggs

with 3% fewer hens





"Our family is committed to making safe and affordable food in a responsible way. We want our customers to feel good when they consume our product knowing how much care is given to each dozen eggs."

- Harry Herbruck, Michigan egg farmer

#### Soybeans





 Oil used in food production, i.e. mayonnaise

 Meal used in livestock feed

#### Soybeans



## Compared to 1950, we produce 11 times more soybeans on 5 times the acres





"We know the challenges of a growing population in the world and our farm is going to be a part of producing food for that population."

- Vicki Coughlin, Wisconsin, soybean farmer

#### Bread





#### Bread



### Compared to 1950 we produce 69% more wheat on 6% fewer acres





"It's a good feeling to provide food, fuel and fiber for others worldwide." - Chet Edinger, South Dakota wheat farmer

### Milk





#### Milk



### Compared to 1950 we produce 63% more milk with 58% fewer cows





"Everything we do is for the health and safety of our cows and the quality product that ends up on the grocery story shelf." - Stephanie Dykshorn, Iowa dairy farmer



# Surely this means we can meet the world's growing demand for food ...RIGHT?

#### Record High Food Insecurity



- 14.6 percent of U.S. households were food insecure in 2008, up from 11.1 percent in 2007.
- Highest recorded rate since 1995 (the first national food security survey).
- Approximately 60% of the 30 million children who participate in the National School Lunch Program receive free or reduced-price meals.

(NYC 73%, Chicago 84%, Dade Co. 67%)

#### Food Affordability



Country	Percent of Income Spent on All Food
United States	10%
United Kingdom	22%
Japan	26%
India	50%
United States (1908)	50%

Source: USDA-ERS





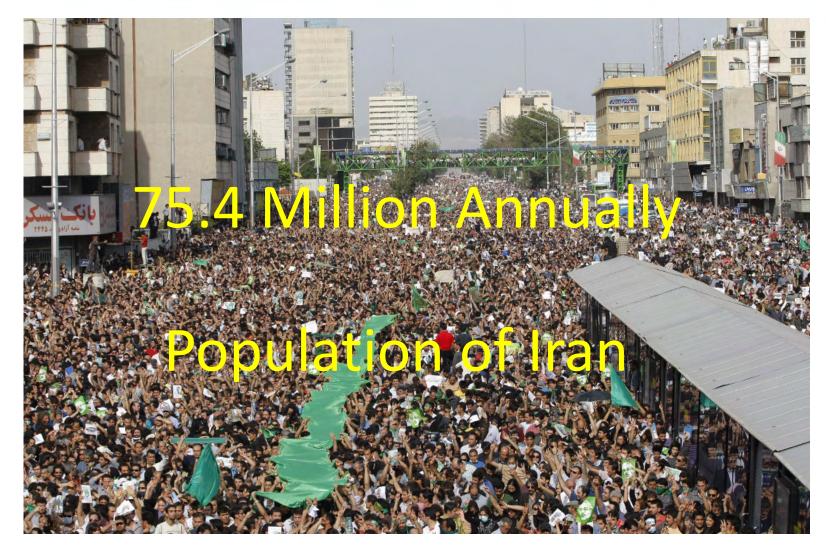
Source: United Nations Food and Agriculture Organization, 2008





#### Global Population Increases ...

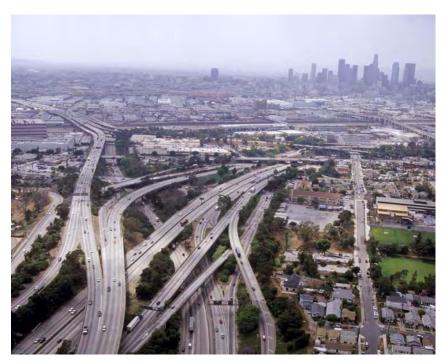




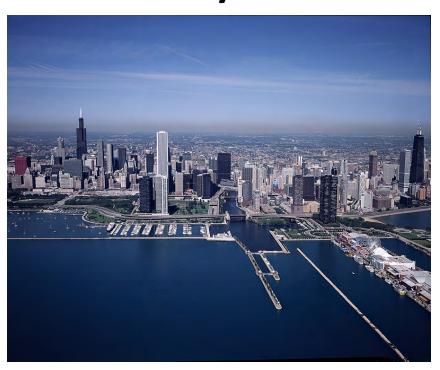
#### Global Population Increases ...



#### 6.3 Million Monthly







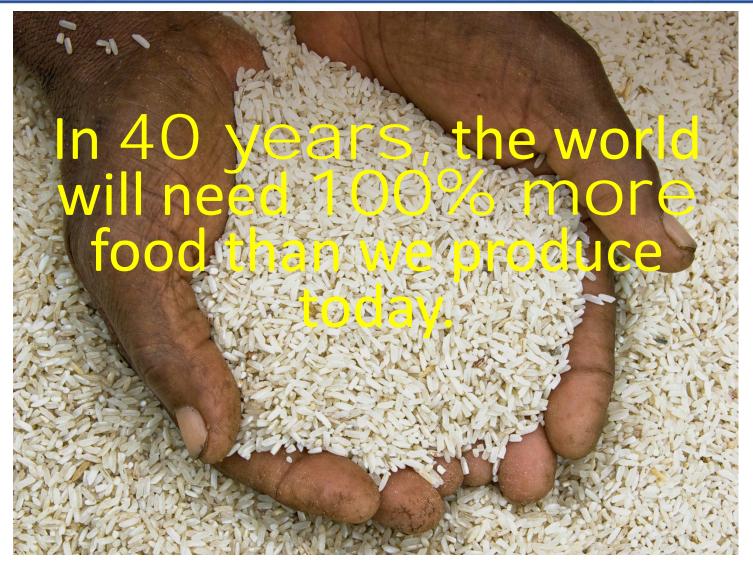
Chicago

#### Global Population Increases ...









Source: Science Magazine, 2005

#### The Need for More

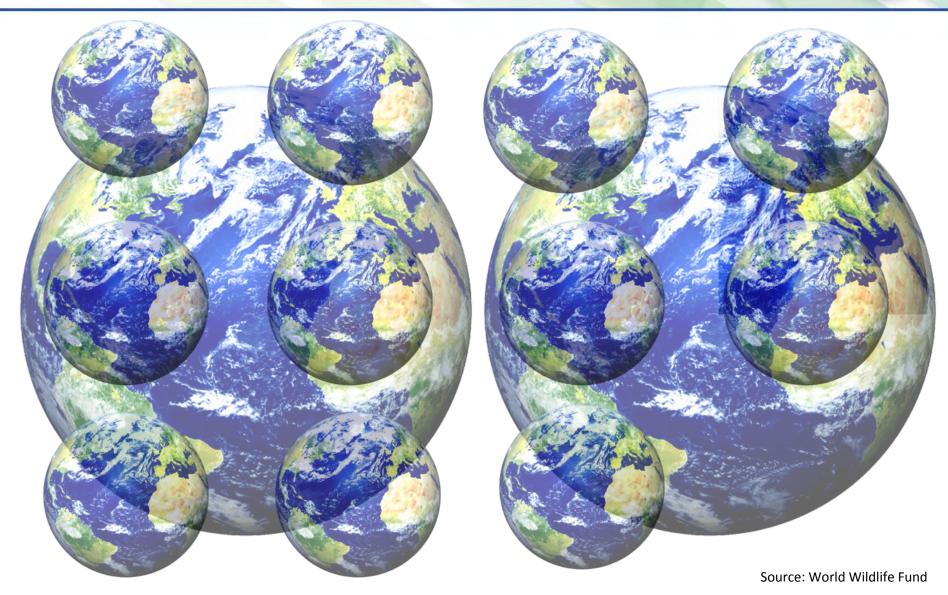


"...The world has the technology to feed, on a sustainable basis, 10 billion people. The pertinent question today is whether farmers and ranchers will be permitted to use this technology."

— Norman Borlaug, 2000

















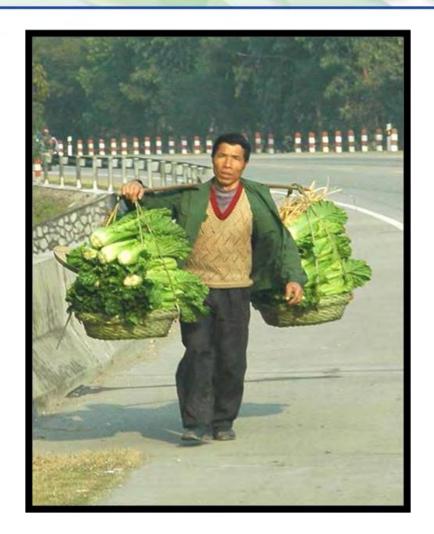
"By almost any measure, producing food has the largest impact of any human activity. Most estimates suggest that we will need to produce twice as many calories on the same amount of land we use today if we want to maintain biodiversity and ecosystem functions."

- Jason Clay, World Wildlife Fund

#### **Growth Limitations**



- 80% of future production growth must come from increased yields- responsible use of innovation & technology
- 10-15% could be achieved from higher cropping density
- 5-10% from expansion of land use





#### Three Things You Can Do

#### Plant a Garden and Support Choice



- Choice is good
- Americans have the most affordable food in the world
  - 1908 50% of income
  - Today <10%</p>
- The public has a right to expect the food system to act in a responsible manner



# Learn More about your Food and Understand the Consequences of Policy and Market Decisions



Decisions have consequences

Decisions that limit our ability to increase productivity will result in increased hunger in the US, around the world and for future generations



#### The Ethical Choice



Support responsible, food production systems that allow us to produce the food we need using fewer resources to meet the growing global demand for food.





# It's the ethical choice for people, animals and the planet



# Stop Playing Not to Lose and Start Playing to Win – Re-Defining Agriculture to Build Consumer Trust

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