

How Safe is Your Produce?



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ECO SOLUTIONS FOR FOOD SAFETY
growgreen
INDUSTRIES



From Field to Table

Before it reaches your plate, it has likely been sprayed with over 20 different pesticides



Waxed, sealing in dirt and residue...



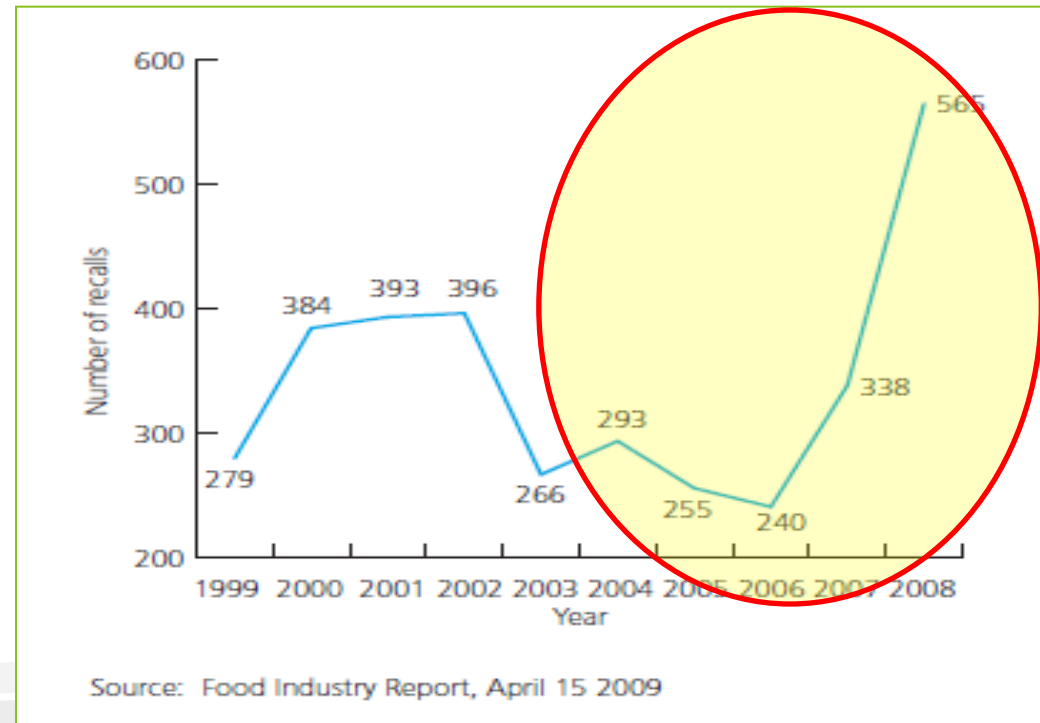
Traveled over 1,500 miles...



Food Safety Facts

According to the CDC, about 48 million Americans are impacted by food-related issues each year, with 125,000 hospitalizations and 3,000 deaths from foodborne illnesses

- Product recalls have more than doubled since 1999
- From 2007 to 2008 alone, food and beverage recalls increased by 60 percent
- Microbial contamination primary cause of recalls
- Links between chemical preservatives and cancer (British Journal of Cancer, 2012)
- Links between chemical pesticides and ADHD (Pediatrics Journal, 2010)



The 10 Riskiest Foods*

#10: BERRIES: 25 outbreaks involving 3397 reported cases of illness

#9: SPROUTS: 31 outbreaks involving 2022 reported cases of illness

#8: TOMATOES: 31 outbreaks involving 3292 reported cases of illness

#7: ICE CREAM: 74 outbreaks involving 2594 reported cases of illness

#6: CHEESE: 83 outbreaks involving 2761 reported cases of illness

#5: POTATOES: 108 outbreaks involving 3659 reported cases of illness

#4: OYSTERS: 132 outbreaks involving 3409 reported cases of illness

#3: TUNA: 268 outbreaks involving 2341 reported cases of illness

#2: EGGS: 352 outbreaks involving 11,163 reported cases of illness

#1: LEAFY GREENS: 363 outbreaks involving 13,568 reported cases of illness



*FDA-regulated
products between
1990 and 2006.

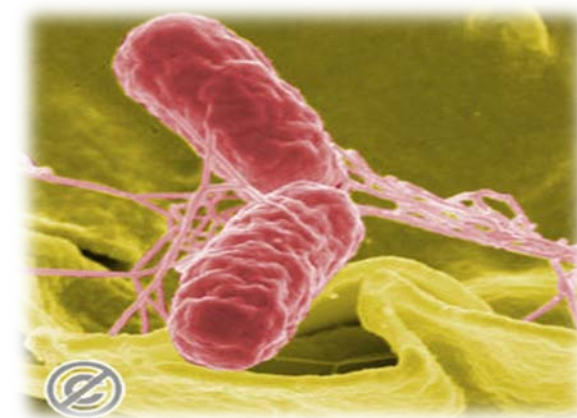
Food Borne Illness Culprits

Causes of foodborne illness in U. S.^[40]

	Cause	Annual cases	Rate (per 100,000 inhabitants)
1	<i>Norovirus</i>	5,461,731 cases	X
2	<i>Salmonella</i>	1,027,561 cases	X
3	<i>Clostridium perfringens</i>	965,958 cases	X
4	<i>Campylobacter</i>	845,024 cases	X

Causes of death by foodborne illness in U. S.^[40]

	Cause	Annual deaths	Rate (per 100,000 inhabitants)
1	<i>Salmonella</i>	378 cases	0.126
2	<i>Toxoplasma gondii</i>	327 cases	0.109
3	<i>Listeria</i>	255 cases	0.085
4	<i>Norovirus</i>	149 cases	0.050



**Small but deadly
Salmonella**

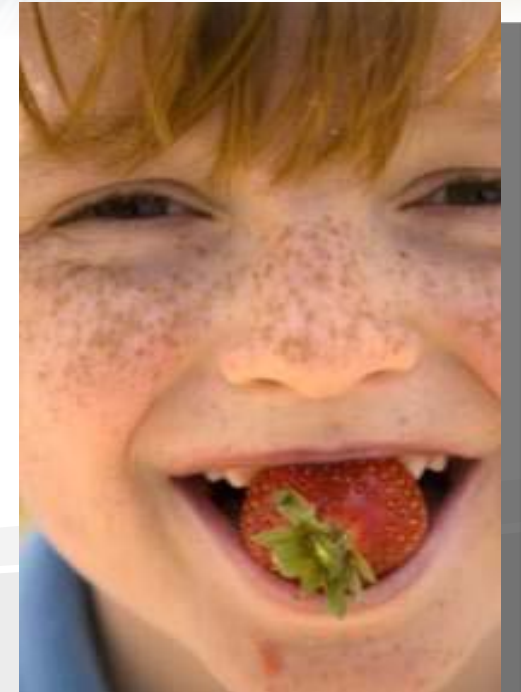
*According to Centers for Disease Control and Prevention

Who is at Risk?

Shifting demographics and changing consumption patterns reinforce the need for food safety awareness.

- 20 to 25% of the population is elderly, pregnant women and **children** — the highest risk categories
- As more Americans live longer with chronic illnesses, including cancer and diabetes, vulnerability will only increase.
- Salad bars at schools and USDA's Smart Snacks in School standards increase consumption of raw produce

At the end of the day, ANYONE can get sick.





Is it REALLY clean?

What's on/in your fresh food? Things to consider.

Microbial pathogens

- Bacteria
- Dirt particles
- Viruses
- Parasites

Agrochemicals/Environmental Hazards

- Pesticide residues
 - Organophosphates
 - Carbonates
 - Heavy metals
 - Nitrates
 - Phosphates
 - Radioactivity

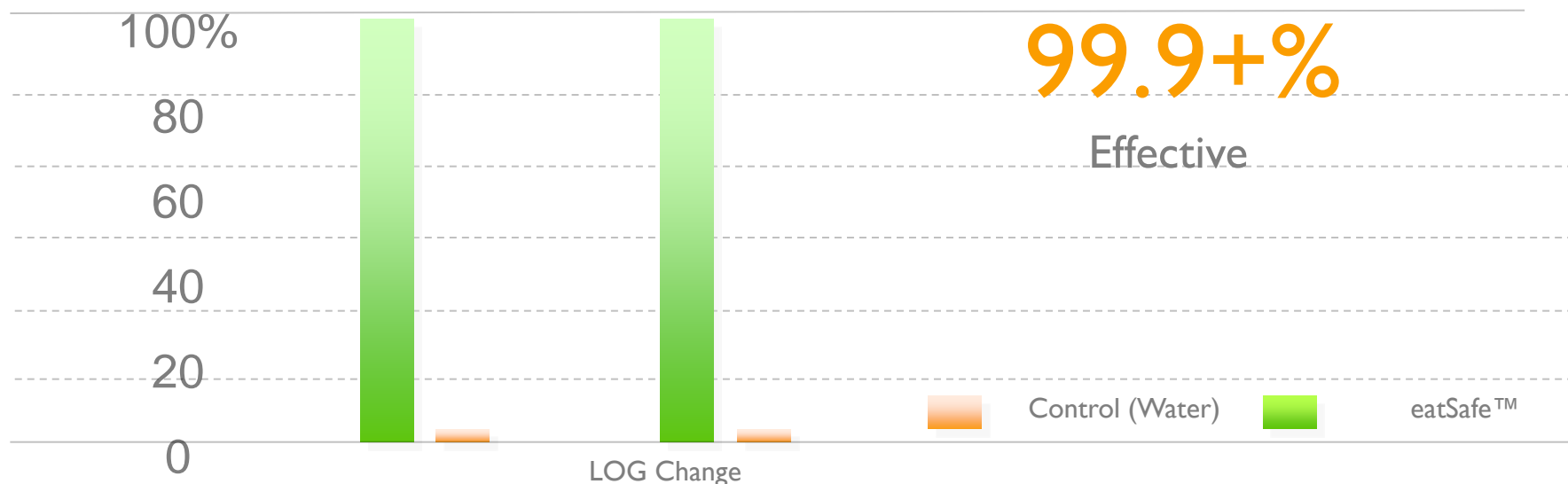
Wax

- Carnauba and paraffin wax coating

Chemical additives

- Artificial preservatives, chemicals, colors and sweeteners

Rinsing With Water Isn't Enough



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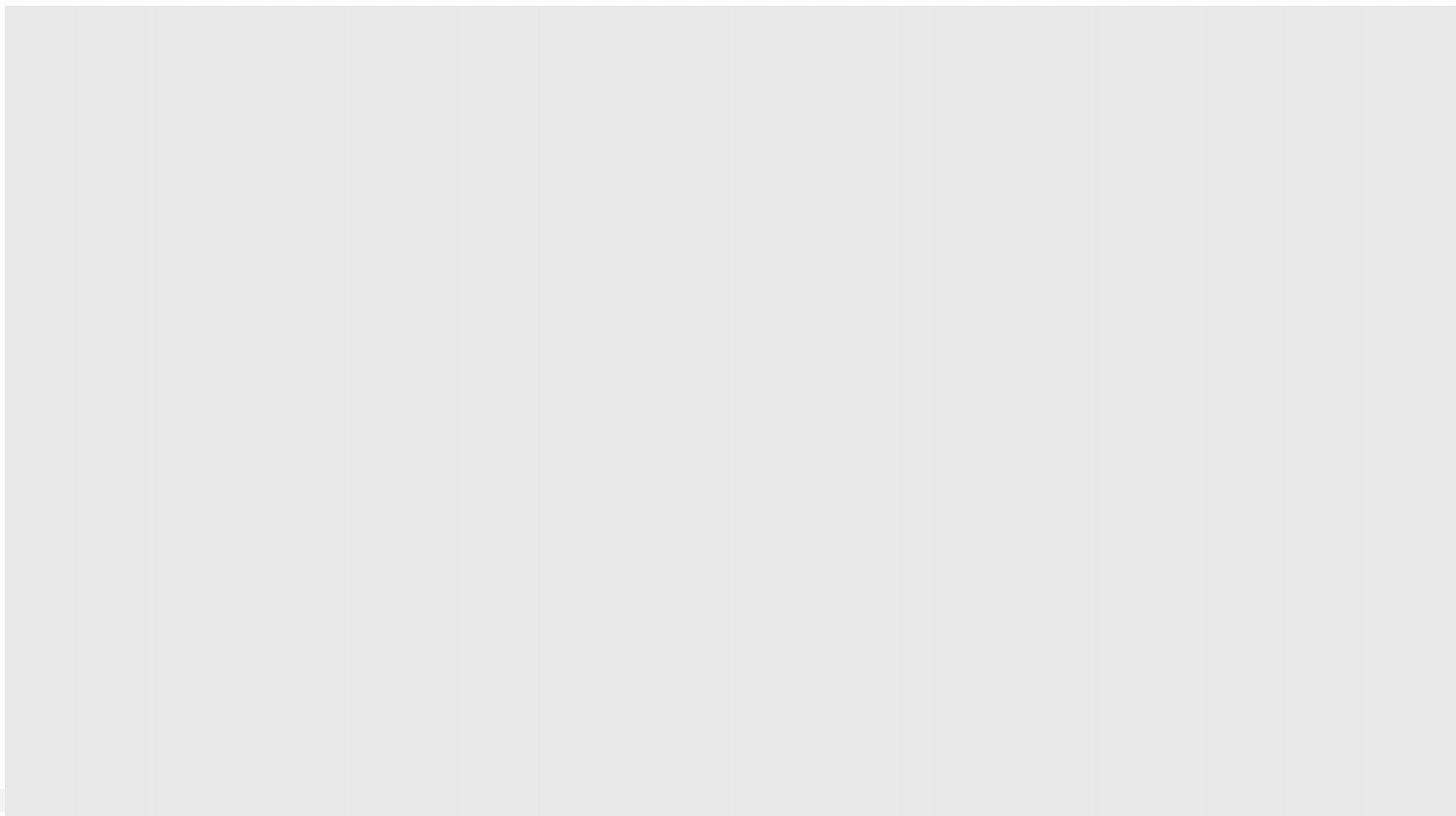
WITH THE ALARMING
REPORTS ABOUT
FOODBORNE ILLNESS
SCARES, CONSUMERS ARE
MORE CONCERNED THAN
EVER ABOUT THE SAFETY OF
THEIR FOOD SUPPLY!

✓ In 4 independent lab studies, **eatSafe™** effectively removed up to 99.9+% of E.coli, Salmonella in a cultivated environment.

✓ In a 28-day microchallenge test, **eatSafe™** effectively inhibited the growth of Pseudomonas Aeruginosa (bacteria), Staphylococcus Aureus (bacteria), E.coli (bacteria), Candida Albicans (yeast) and Asperilligus Niger (mold) 100%.

✓ Validated by the INSTITUTE FOR FOOD SAFETY AND HEALTH

Best Practices for Cleaning Produce



[Watch Video](#)

[Watch Video](#)

Visual Difference



Visual Difference



CONTROL

eatSafe™

CONTROL

eatSafe™

14 day shelf life test

Reducing Risk

Goal: Improve the safety of produce , enhance appearance, extend shelf life and increase consumption

Processing Challenges:

- Specialty fruit and vegetables are sensitive to handling and storage conditions
- Ability to innovate is limited to longer shelf life, hardier ingredients
- Wax film on produce, especially grapes and broccoli, dulls appearance and makes it less appealing
- Processing aids on cut produce can leave an aftertaste
- If produce is not served quickly, molding and spoilage is imminent, leading to shrink and reduced profit margins





Reducing Risk

Reducing vulnerable areas can greatly reduce exposure to harmful bacteria and potential food borne illness.

- Adhering to USDA and CDC/HACCP guidelines of handling and storage of whole and cut produce
- Proper washing and agitation techniques
- Using proven products that extend shelf life and inhibit growth of bacteria of whole and cut produce

Best Practices

Grapes, Strawberries, Kiwis and Other Soft Fruits

How eatSafe makes a difference: Strawberries can be pre-washed and last up to five days in refrigeration. This significantly cuts down on waste and the strawberries remain beautiful, delicious and encourage healthy eating.

Proven Efficacy: Extends shelf life an average of 14 extra days



Protocol:

- Upon receiving visually identify that the product is free of spoilage or infestation
- In a clean basin or bowl, mix required concentration of eatSafe powder in room temperature water to remove any dirt, pesticides or surface contamination
- Produce may also be misted by preparing concentration and placing in spray bottle, sit for two minutes, then rinse
- Maintain temperature at 41 degrees F or below
- "Probe" monitor and record temperature prior to service
- Establish the use by date at 5 days after treatment with eatSafe

Best Practices

Whole Apples, Oranges, Pears and Other Citrus and/or Stone Fruit

How eatSafe makes a difference:

The old saying that one rotten apple can spoil the entire batch is true. When you receive your produce, wash it in eatSafe and you will eliminate the potential waste of the 40 lb. apple box.

Proven Efficacy: Extends shelf life up an average of 21 extra days



Protocol

- Upon receiving visually identify that the product is free of spoilage or infestation
- In a clean basin or bowl, mix required concentration of eatSafe powder in room temperature water to remove any dirt, pesticides or surface contamination
- Produce may also be misted by preparing concentration and placing in spray bottle, sit for two minutes, then rinse
- Maintain refrigerated at 41 degrees F or below



Produce Washing



“We are looking forward to a new school year with ‘cleaner’ produce to offer our students. After the first use of **eatSafe**, I was sold on the improved appearance of certain fruit and vegetables, because as you know we eat with our eyes.”

- Dale Ellis, RD, MBA, and
Director of Nutrition
Services for Newport-Mesa
Unified School District





THANK YOU

How Safe Is Your Produce?

