



What is Food Safety and Why is it Important?

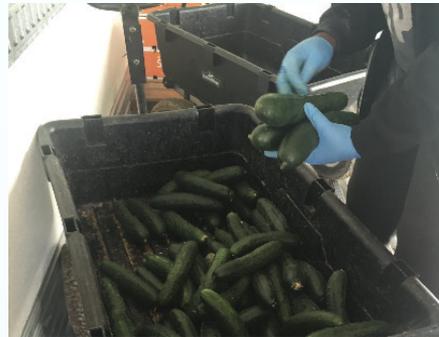
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UC ANR Workshop: Food Safety Basics for Urban Farmers
San Diego
April 26, 2018

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Extension Fresno/ Sacramento & Small Farm Program.
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What is Food Safety?

Food safety is a scientific discipline describing handling, preparation, and storage of **food** in ways that prevent foodborne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards.



Source: Shutterstock





What causes people to get sick?

Three Types of On-Farm Contamination

Biological, chemical, physical



Foodborne Illness Outbreaks

- About 48 million people (1 in 6 Americans) get sick each year, 128,000 are hospitalized, and 3,000 die from foodborne diseases, (CDC).



Food Safety News

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Not it: Grocery stores, school say they don't have the romaine

BY CORAL BEACH | APRIL 23, 2018

Officials from two regional grocery chains in Wisconsin and a state university in Connecticut are distancing their operations from a nationwide E. coli outbreak linked to romaine lettuce.

Federal officials have traced the ongoing E. coli O157:H7 outbreak to romaine from the Yuma, AZ, area. The outbreak has sickened at least 53 people in 16 states, with 31 people having been hospitalized. Five of the victims have developed kidney failure.



CDC – E. Coli outbreak
53 people
16 states
31 hospitalized
5 kidney failure

SMART HOME

Ditch all romaine lettuce and check your eggs — a bad week for food recalls

Women, millennials make up large percentage of those sickened by bad lettuce

By **Bruce Brown** — Posted on April 23, 2018 - 2:13AM

SECTIONS HOME SEARCH

The New York Times

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When Is It Safe to Eat Salad Again?

By TARA PARKER-POPE APRIL 19, 2018



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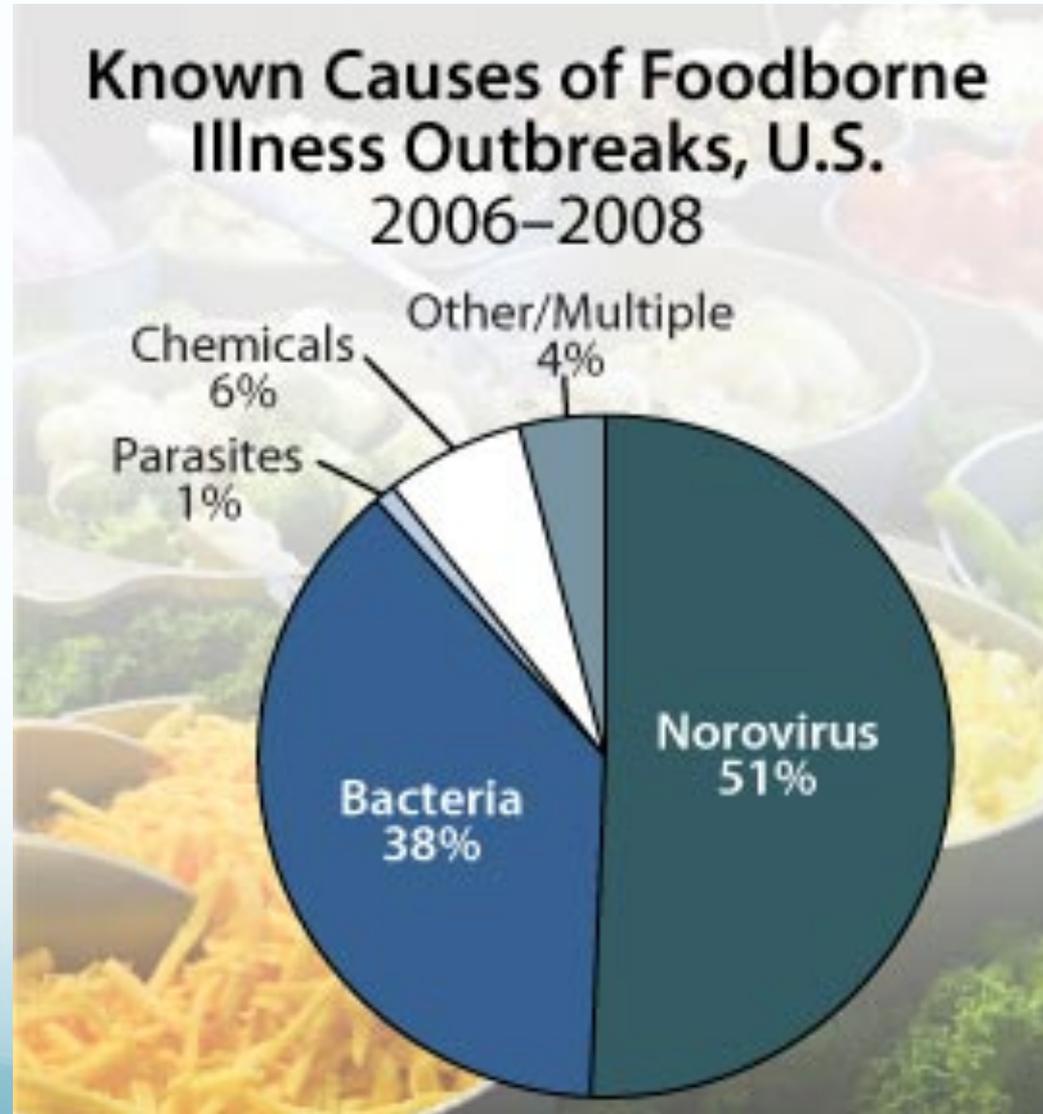
JW 1 hour ago
The CDC is suggesting that cows, deer or wild pigs have caused this E.Coli outbreak??? How many animals would it require to cause such a...

Contamination in the Field: Small Strawberry Farm

- Locally grown berries in NW Oregon, 2011
- Strawberries tainted with E. coli O157:H7 Sicken 14, One Dies
- Sold at U-pick, farm stands, farmers markets
- High concentration of deer feces

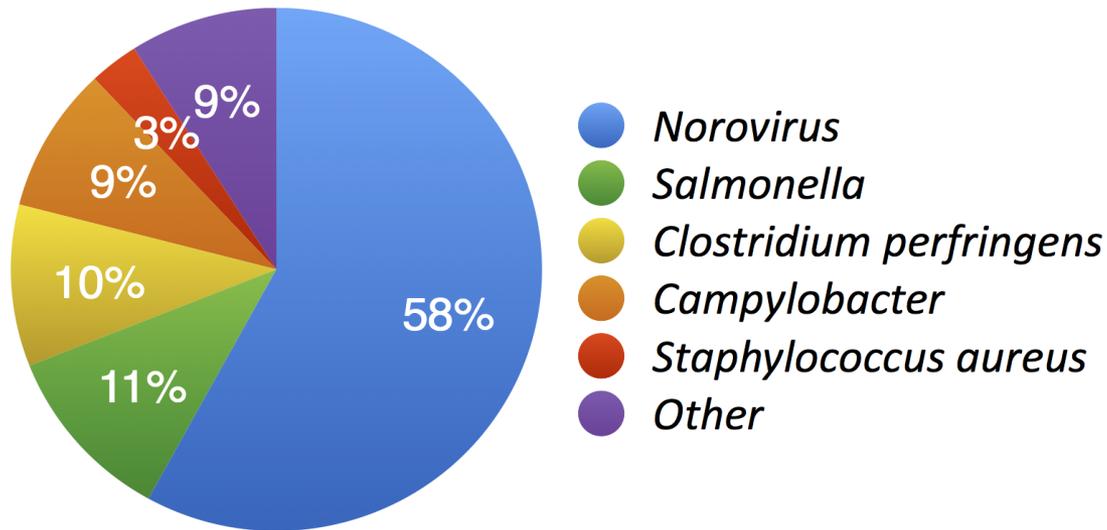


Primary Causes of Illness - CDC



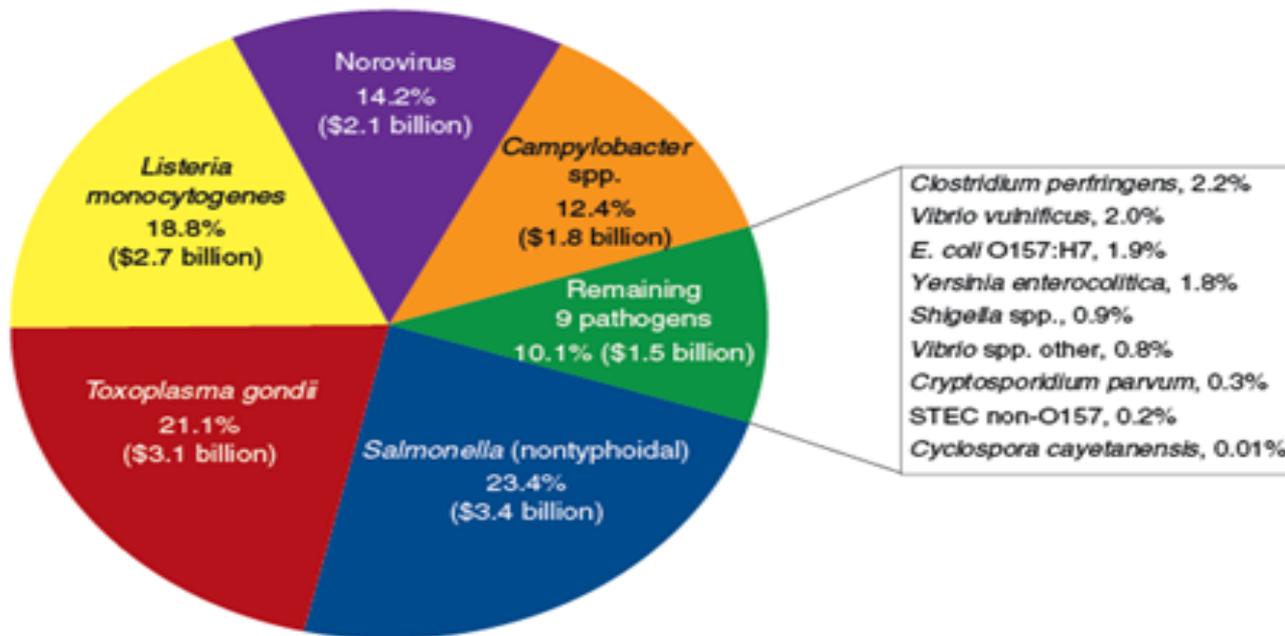
Norovirus sickens the most people

Foodborne Illness in the U.S., by Pathogen



Salmonella poses greatest cost (hospitalization, death)

Salmonella imposes the greatest cost of the 14 major foodborne pathogens



Note: Annual cost estimates are in 2010 dollars based on disease incidence estimates published in 2011.

Source: USDA, Economic Research Service.

Human Salmonella outbreaks linked to contact with live poultry have increased in recent years as more people keep backyard flocks. In 2016, a record number of illnesses were linked to contact with backyard poultry (895 infected, 209 hospitalized, 4 deaths) - CDC

Some outbreaks associated with infected workers

Date	Produce	Pathogen	# of cases	Produce origin
1987	raspberries	Hepatitis A virus	92	United Kingdom
1990	strawberries	Hepatitis A virus	53	United States
1994	green onions	Shigella	72	CA
1996	leaf lettuce	E. coli O157:H7	49	United States
1997	strawberries	Hepatitis A virus	250	CA
1997	green onions	Cryptosporidium	55	United States
1997	basil	Cyclospora	341	United States
1998	green onions	Hepatitis A virus	43	United States/CA
1999	parsley	Shigella	486	United States
2003	parsley	enterohemorrhagic E. coli	77	United States

Which is best?



HANDWASHING IS BEST!

- Washing hands well and often is the most important thing you can do to prevent **germs (bacteria, viruses, fungi)** from leading to infections and sickness.
- Hand sanitizers **do not** kill some common germs such as salmonella, e. Coli, MRSA (methicillin-resistant staphylococcus aureus) and [norovirus](#). - CDC



Why is Food Safety Important?

- We do not want our customers to get sick.
- Fresh fruit and vegetable consumption has grown significantly
- Rise of foodborne illness (*Salmonella*, *E. coli* O157:H7; *Shigella*, *Listeria*)
- Protect reputation of urban farms
- Many buyers (schools, packing houses, grocery stores) are requiring farmers to have food safety programs.
- CDFA Small Farm Food Safety guidelines requiring food safety assurances

