

CR Investigates Recent Romaine Lettuce E. coli Outbreaks And What Should Be Done to Make Leafy Green Safer

In response to a string of recent romaine lettuce outbreaks, Consumer Reports took a closer look at what's at the root of the problem and what critical changes are needed to protect consumers.

E. coli outbreaks continue to pose risks to consumers

- A romaine lettuce E. coli outbreak in 2018 resulted in **240 illnesses and 5 deaths in 37 states**. In 2019, another romaine lettuce outbreak resulted in **167 illnesses in 27 states**.
- According to the latest data available from the CDC, **vegetable row crops comprised the majority of E. coli outbreaks at 48.3%**, with leafy greens being the main offender. (Beef - 25.8%; Dairy - 6.6%; Fruits - 5.1%; Other foods - 13.1%.)
- A triple washed label on a package does not guarantee that the product is pathogen-free.
- In a 2019 Consumer Reports survey of 1003 Americans, **52% admitted being concerned about getting sick from leafy greens**, more than from beef, poultry, or eggs.
- In the wake of the 2018 outbreaks, **sales of romaine lettuce decreased \$98 million** from their peak of \$563 million in 2018 to \$465 million in 2019. (Source: Nielsen marketing data)\

Consumer Reports tests leafy greens for contamination

- Consumer Reports tested 283 samples of bagged and whole heads of leafy greens -- romaine, spinach, kale and spring mix.
- We did not find E.coli O157:H7, but we did find that certain samples contained coliform bacteria. While this does not cause illness, it is a sign that feces may have come into contact with the leafy green. It also is considered a harbinger of possible contamination with harmful bacteria.
- There was no difference in bacteria levels between whole head and packaged greens, and packaged greens that were labeled "triple washed" had bacteria levels similar to those in packages marked "unwashed."
- We found Listeria monocytogenes in six of the samples - two bagged and four loose heads - and immediately informed the FDA and the CDC. One of the samples had a strain genetically linked to at least two cases of listeriosis reported to the CDC.

How leafy greens can become contaminated

- The waste of animals in nearby feedlots can contaminate the water used to irrigate the field, or it can be carried by the wind and deposited on the soil or greens. Pathogens then can be absorbed by the plant's roots.
- Wild animals or birds flying overhead can deposit pathogens in the field.
- Farming equipment traveling over contaminated soil may carry pathogens into the field.
- Pathogens may be transferred by workers' hands or gloves, by contaminated knives, or in storage bins.
- Pathogens may enter greens when cut or chopped at the processing plant, especially if hands or equipment are not properly cleaned.
- Greens from various farms are mixed together at a processing facility, resulting in cross-contamination.

What should be done to reduce the risk

- Congress should **pass the Expanded Food Safety Investigation Act** (H.R. 5415, S. 2958), which would enhance FDA's ability to inspect animal feeding operations for pathogens that could be infecting row crops.
- The FDA needs to **implement the stricter water testing rules outlined in the Food Safety Modernization Act (FSMA)**. These rules require more testing of more water samples, and goes beyond the testing standards set by the Leafy Greens Marketing Agreement (LGMA), which is at least once in the 21 days before harvest.
- As required under FSMA, the **FDA should issue a list of high-risk foods and place leafy greens on this list**. This designation would provide FDA with more authority to **establish additional traceability record-keeping requirements** and compel recalls.
- **The FDA should alert the public about outbreaks and recalls more quickly**. Even if a product is past its expiration date and no longer on store shelves, the FDA should make these announcements sooner to allow consumers to decide if they would like to continue consuming the product.

To learn more, see [CR's Leafy Greens Safety Guide](#) or contact Brian Ronholm, Director of Food Policy at Consumer Reports, brian.ronholm@consumer.org

