

The Food Review

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Cut Leafy Greens and Cut Tomatoes are Potentially Hazardous Foods



Most produce is grown outdoors and is therefore susceptible to contamination from harmful organisms that may be present in the soil. Produce can also be contaminated by agricultural water, by water used for post-harvest washing or cooling, from manure used as fertilizer, and the presence of animals in fields or packing areas. Inadequate worker health and hygiene can also be a source of contamination. These factors make cut leafy greens and cut tomatoes potentially hazardous foods.

According to the Idaho Food Code a potentially hazardous food has to be temperature controlled. Most food establishment owners / managers are already storing these produce items at 41°F or below. Your attention to maintaining cut leafy greens and cut tomatoes at the safe temperature will prevent a major risk factor violation.

If you need more evidence consider this:

Cut Leafy Greens

From 1996 - 2008, 82 foodborne illnesses were associated with produce. Twenty-eight, or 34%, of the outbreaks were associated with cut leafy greens. During this time, 949 illnesses and five deaths were associated with cut leafy greens. Escherichia coli (E. coli) O157:H7, Cyclospora and Salmonella were the cause of the outbreaks. E. coli was identified in 85% of these outbreaks.



The Food and Drug Administration defines cut leafy greens in the 2009 Model Food Code as:

Cut leafy greens means fresh leafy greens whose leaves have been cut, shredded, chopped, sliced, or torn.

Leafy Greens include iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby leaf lettuce, (i.e., immature lettuce or leafy greens) escarole, endive, spring mix, spinach, cabbage, kale, arugula, and chard. Leafy Greens does not include herbs such as cilantro and parsley.

Cut Tomatoes

Since 1990 at least 12 large, multi-state foodborne illness outbreaks, as well as small local outbreaks, have been associated with different varieties of tomatoes. From 1998-2006, tomatoes were implicated in 17% of the produce related outbreaks.

FDA studies have demonstrated that cut tomatoes have a water activity value and pH that can support the growth of Salmonella bacteria. Salmonella can be on the outside of the tomato and brought inside when sliced. The conditions inside a tomato can be favorable for salmonella growth.

Potentially Hazardous (continued)

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Salsa or cut tomatoes that are acidified with vinegar, lemon juice or lime juice and have a pH of less than 4.2 are considered a non-potentially hazardous food and are not required to be temperature controlled.

Cold Storage is the Key

With both cut leafy greens and cut tomatoes, cold storage will not only prolong shelf life, but will also reduce the chance of these products fostering foodborne illness. The Idaho Food Code states these products must be stored at 41 °F or below. Remember to work with clean and sanitized utensils and food contact surfaces. Remind your kitchen staff that bare hand contact with these potentially hazardous foods is prohibited. Attention to these details will prevent your establishment from getting a major risk violation at your next inspection.

FoodNet Tracks Trends in Foodborne Illness

The Centers for Disease Control and Prevention (CDC) recently released the results of a study of diseases commonly transmitted through food. While there have been improvements in some areas, there remains the need to develop new food safety strategies. The data were collected through FoodNet, a collaborative project of CDC, ten state health departments, the U.S. Department of Agriculture (USDA), and the Food and Drug Administration (FDA).

The rate of a severe form of Escherichia coli diarrhea decreased 25% in 2009, reaching the lowest level since 2004. The decrease in E. coli O157 infections may be due, at least in part, to continuing control efforts to decrease contamination in ground beef and of leafy green vegetables consumed raw.

Shigella infections dropped 27% compared to data from 2006-2008. Although some Shigella infections are transmitted by food, most are probably transmitted directly from one person to another, often among children in child care settings, rather than through food.

Vibrio infections increased by 85% compared with the baseline data from 1996-1998. While Vibrio infections represent a small percentage of all foodborne illnesses, the infection may cause severe illness or death, particularly in people with weakened immune systems. Most Vibrio infections are the result of eating raw or under cooked shellfish, especially oysters.

The number of Salmonella infections is virtually unchanged since 2004. One possible reason for the slow progress in fighting Salmonella is that it is spread through a wide variety of foods, and also through non-foodborne routes. Salmonella can be spread by poultry, meat, eggs, produce and processed foods, as well as by contact with animals like baby chicks, small turtles, reptiles and frogs. The study concludes that improving the prevention of foodborne illness will require further understanding of the routes of exposure to these pathogens, so that additional targeted control measures can be developed. Our food consumption patterns and food industry processes are continuously evolving.

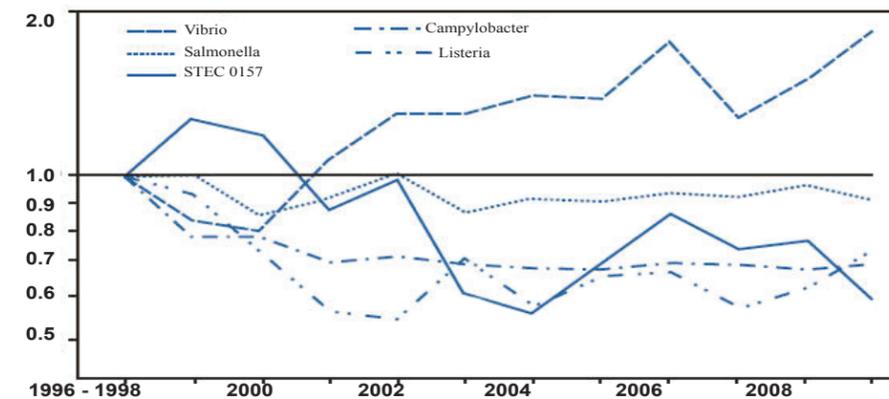


FoodNet Tracks Trends in Foodborne Illness (continued)

FoodNet studies have demonstrated there is an association between illness and consumption of foods such as undercooked ground beef, chicken, and eggs. Additionally, recent outbreak investigations have identified novel food and nonfood vehicles, including jalapeno peppers, peanut butter-containing products, raw cookie dough, and direct contact with baby chicks, small turtles, and African dwarf frogs.

The complete study can be found at www.cdc.gov/mmwr.

Relative rates of laboratory - confirmed infections with **Campylobacter, STEC*0157, Listeria, Samonella, and Vibrio compared with 1996--1998 rates, by year --- Foodborne Diseases Active Surveillance Network (FoodNet), United States, 1996--2009†**



* Shiga toxin-producing Escherichia cell.
† The position of each line indicates the relative change in the incidence of that pathogen compared with 1996--1998. The absolute incidences of these infections cannot be determined from this graph. Data from 2009 are preliminary.

Are You as Smart as a Fourth Grader?

We see them everywhere – hand sanitizers – especially since the onset last year of the H1N1 (swine) flu. But a fourth grader in Olympia, Washington is questioning whether hand sanitizers are as effective at killing germs as advertised.

Nine-year-old Celia Vernon won her class science fair at Roosevelt Elementary School with an experiment involving a live sample of E. coli. Her father, a biologist, helped Celia test several solutions on E. coli, including the popular Purell® brand of hand sanitizer.

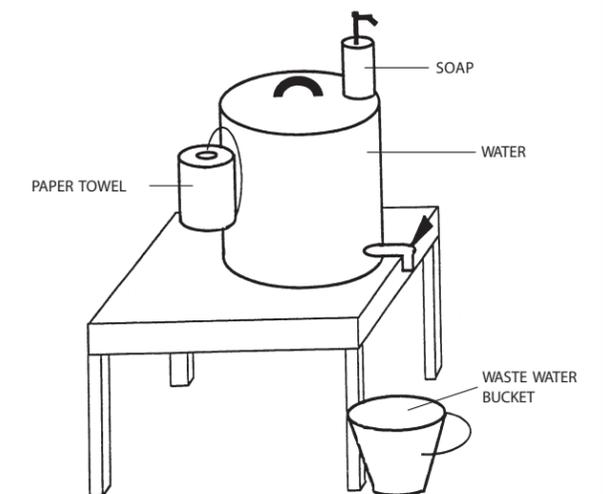
In a side-by-side comparison with common bleach, the E. coli on the Purell® side survived, but on the bleach side it died. The Vernons were as surprised as anyone to discover that Purell® doesn't kill one of the main dangers associated with bathroom germ exposures.

The CDC says it hasn't studied the effectiveness of hand sanitizers on E. coli and they recommend hand sanitizers only when soap and water isn't available for hand washing.

The lesson here for the food industry is a familiar one; frequent hand washing will reduce the risk of foodborne illness.

A field hand wash station at special events, such as farmer's markets is necessary equipment and easily set up. Easy access and use of a hand washing station is an important risk factor control, regardless of the setting.

FIELD HANDWASHING SET-UP



Also acceptable as water container: Collapsible water jugs, plastic jug, each with TURN valve.

Survey Indicates Half of Restaurants at Risk of Norovirus Outbreak By Bob Jue

In April 2010, I sent an email to about 300 restaurant operators asking three questions regarding the type of sanitizer used on wiping cloths and in the dish washing process. Thanks to those operators that responded. The results seem to indicate half of the respondents could be putting their businesses at risk of a norovirus outbreak.

Norovirus is now the fifth disease added to the Food Code in the section requiring prompt action by the person-in-charge when notified an employee has one of those diseases. The other diseases are Shigella, Shiga-toxin producing E.coli, Salmonella Typhi, and hepatitis A.

In each case the employee must be excluded from work. The exclusion can only be lifted by the health department or a doctor.

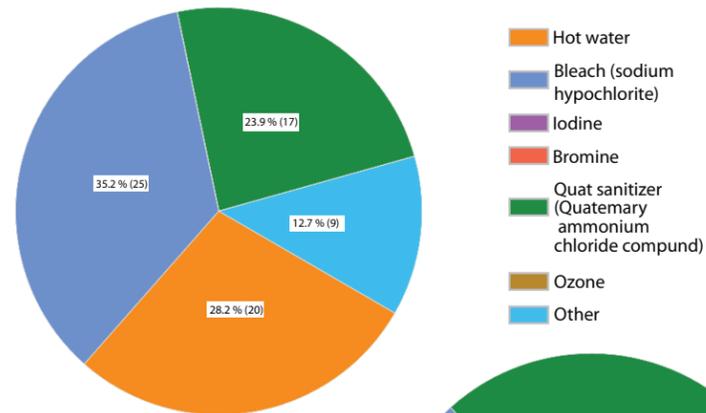
All these diseases can be controlled with good hand washing and proper dish and equipment sanitizing in the restaurant. While most household sanitizers effectively kill the other diseases, only sodium hypochlorite (bleach) is effective against norovirus.

SURVEY RESULTS:

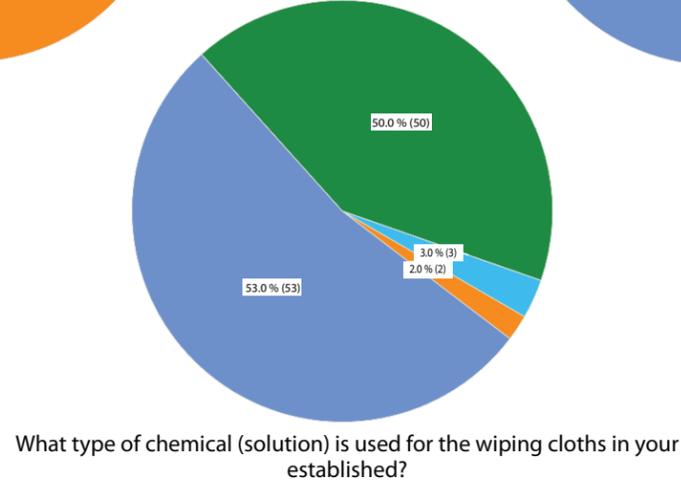
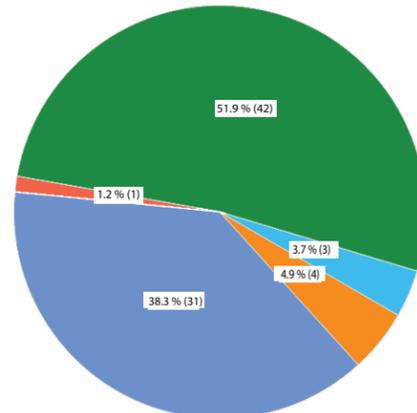
The point of the survey was to assess the vulnerability of restaurants to a norovirus outbreak. The trend is pretty clear. Half of the respondents don't use bleach to sanitize in the dish washing process or for their wiping cloths. That puts them, and their customers, at greater risk of a norovirus outbreak.

Next I'd like to see if there is any correlation between customer illness complaints and the sanitizer used by restaurants. If we can discover a trend we'll report it in the next edition of this newsletter.

If you have a dishwashing machine, what type of sanitizer does it use for the final rinse?



If you use a sink for dishwashing, what type of sanitizer is used for the final rinse?

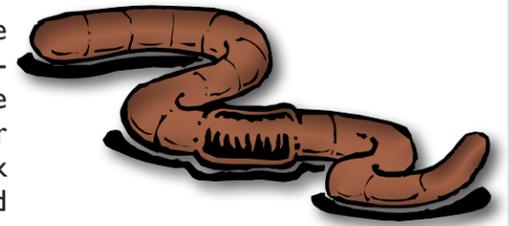


From Worms in the Basement to Mileage on the Menu



Restaurateur Dave Krick

Boise restaurateur Dave Krick is a man on a mission, a local mission. The owner of the Red Feather Lounge and Bittercreek Ale House has garnered national attention for something kind of strange going on in his basement. In a pair of big metal bins he has a collection of some 200,000 Vermont red wigglers, which are happily eating their way through about a hundred pounds of kitchen waste and newspapers every day, turning food and paper into organic nutrient-rich compost.



Krick's restaurants are probably the only ones in the continental United States composting on-site. The Kona Brewing Company in Hawaii reportedly does composting on-site.

Long before Krick got into composting, his business had focused on sustainability. He serves grass-fed Idaho beef and local cheeses. The wine and beer lists tell patrons how many miles their libations have traveled to get to the table. Even the ketchup is made in-house.

The composting is just one more step on a journey to making his restaurants waste-free by 2012. Krick started thinking about all the food that gets wasted in the restaurant business several years ago. He studied his restaurants' waste stream and researched composting methods, settling on the worms because they don't create the smell of traditional compost. This was an important factor for maintaining compost on-site.

The 14-by-4-foot metal bins are big enough to handle all of the kitchen vegetable waste generated by Krick's two restaurants. Leftovers from patrons do not go in the bins. With the acquisition of a shredder he hopes to soon start composting the cardboard boxes that come into his establishment.

For now the compost goes on the flower beds on the patio and to supplement his home garden. Soon Krick hopes to sell his organic compost at a local organic garden supply store.

While CDHD applauds Krick's efforts at sustainability, we caution other restaurateurs to check with the health department before installing their own compost facilities, as Krick did. The compost must be completely separate of the service side of a restaurant to ensure there is no cross-contamination of the food that isn't going to the worms.



Vermont Red Wigglers at work



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Seeing is Believing When it Comes to Handwashing

Remember the old saying “out of sight, out of mind?” Well, the same can be said for handwashing sinks.

Handwashing is one of the most important interventions in the control of foodborne illness. There must be enough handwashing sinks available to make handwashing not only possible, but likely to occur at all appropriate times and places.

The 2009 FDA Food Code cited a study that found handwashing occurred more frequently in restaurants where food service workers had:

- Food safety training
- Access to more than one handwashing sink
- A handwashing sink within sight of their work station

If they can see it, they will wash. Consider this when assessing your kitchen layout.

Food Review is sent biannually, free of charge to all licensed food establishments in our health district. We hope to include news of interest and importance. Topic ideas or articles written by the readers are welcome to be sent to: Editor, Food Review, CDHD, 707 N. Armstrong Pl., Boise, ID 83704. Extra copies of the newsletter are available at your local Health Department office.