



Why Green Alternatives for the Food Industry are a Win-Win

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Recent food industry problems illuminate a decades-long struggle for food producers to control the spread of dangerous pathogens that threaten public safety. And it's not letting up.

Cargill's recall of 36 million pounds of ground turkey for exposure to a resistant form of Salmonella, for example, infected at least 77 people in 26 states, hospitalizing more than a third of victims and killing one. More recently, 55 people in 14 states became infected with Listeria from cantaloupes, killing 25 people in what authorities are calling the worst outbreak in 10 years.

Countless other food industry crises have threatened public safety, and we can expect more of the same, if history is an indicator of what's to come. Yet there are greener alternatives ripe for exploration in a food industry that faces more than a few daunting adversaries.

The Center for Disease Control and Prevention (CDC) estimates that food borne pathogens cause 76 million illnesses per year in the U.S., resulting in 325,000 hospitalizations and 5,200 deaths. Although Americans have come to expect the risks associated with meat products, such as raw hamburger, the proportion of outbreaks caused by seemingly innocuous fruits and vegetables is increasing.

E. coli alone causes approximately 70,000 infections each year, and 5 percent to 10 percent of those infected develop a potentially fatal kidney complication called hemolytic uremic syndrome.

In short, food-borne illnesses create consumer health issues and raise fears. Food recalls can cause a significantly negative economic impact on businesses. The CDC estimates that salmonella infections cost more than \$1 billion in medical costs and lost wages annually.

Find a Greener Alternative

There are plenty of toxic chemicals on the market that will kill dangerous pathogens on a hard surface but cannot be sprayed directly on or near food. Chemicals that are permitted are typically diluted to the point where their efficacy is questionable. These chemicals are another industry albatross because they can be just as dangerous as the pathogens they're trying to eliminate, both in terms of their toxicity and industry reliance on questionable results.

Controlling these dangerous adulterants closer to the food source -- and wherever else they are lurking -- could be solved by applying greener product formulations approved for use on or near food without introducing a harmful toxins into the process.

Be Innovative

The food industry should take a cue from the consumer products industry, which has for years pursued more environmentally friendly alternatives. Major disinfectant lines began offering greener, safer products several years ago, including formulations from Clorox's GreenWorks line and Seventh Generation. Food producers, however, have relied on the same battery of harsh chemicals to disinfect their facilities from harmful bacteria, such as E.coli, Salmonella, Listeria and other pathogens.

A number of innovative biotechnologies on the market today offer highly effective alternatives to traditional chemical formulas, proving that products don't need to be toxic to be effective.

For example, the molecule silver dihydrogen citrate (SDC) is non-toxic but proven effective at killing a wide range of pathogens, such as MRSA, Salmonella, E.coli, Listeria and others. SDC-based disinfectants are registered with the EPA and have the lowest toxicity rating yet have the same power to kill dangerous pathogens as harsh chemicals.

SDC has also been determined Generally Recognized as Safe (GRAS), according to criteria established by the FDA, for use as a biocide on food processing equipment, machinery and utensils. In addition, recent tests results show the SDC molecule can effectively kill E. coli O157 and other shiga toxin-producing E. coli bacteria on beef when used as a spray and a dip, as well as when incorporated directly into ground beef.

This all goes to show that there are innovative new solutions to control food industry problems, if we're smart enough to embrace them.

Go to the Root of the Problem: Stop Breeding Resistant Bacteria

It's common practice for meat industry producers to feed antibiotics to healthy livestock from birth to slaughter in order to promote growth. Approximately 10 million pounds of antibiotics are fed to healthy hogs each year, 11 million pounds to poultry, and 4 million pounds to cattle, according to industry estimates.

Overuse of antibiotics may give rise to resistant forms of bacteria in the same way it has, along with overuse of antibacterial hand soaps, created 'superbugs' in humans. Instead, deploy a greener disinfecting solution to clean where animals are kept.

Going Green is Easier than You Think -- and It's Good for Business

In addition to the significant health problems dangerous outbreaks can cause, they can also produce a potentially horrific business impact to the bottom line and a company's brand. If there's a way to control these outbreaks and also "green" your

operations in the process, this will have a positive effect on the brand and your business.

By comparison, consider that the world organic market has been growing by 20 percent a year since the early 1990s, with future growth estimates ranging up to 50 percent annually. Consumers have come to respect the organic production process, and perceive the end product to be healthier and more natural. That has been great for business. There is now an opportunity to address current food industry challenges in a way that's effective and also wins consumer support.

Food-borne illnesses today create significant health and economic problems around the globe. We need to recognize that the food production process is broken, and begin using fundamentally different, smarter solutions to keep consumers safe with greener, more effective processes and products right away.