

## It's time to fuel food safety change

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**May 17, 2019** - Human nature is to resist change. There is no question that for most people, maintaining the status quo is more comfortable than facing an uncertain future. But sometimes change is necessary to ensure the future. Our industry is at such a crossroads now regarding fresh produce safety. The good news is, we already have access to tools needed to fuel change, so that we can move forward for the sake of our consumers, our future business and our employees.

In the business world, corporate culture can play a big role in fostering willingness to change. For c-level management, implementing change throughout a company can be difficult, especially when companies are large, complex and geographically dispersed – as they can be in our industry.

Here, corporate culture can play a critical role in encouraging staff to embrace change and to seek continuous improvement. A sign of a truly great company is when employees are fully engaged, celebrating success and learning from failure.

When it comes to produce safety today, corporate culture has to be courageous and science-focused. As our industry continues to be rocked by new foodborne illness outbreaks, we are at a turning point where we can no longer continue with the status quo. To address the food safety crises that are plaguing our industry, we must rely on scientific research to illuminate the path forward.

Here, the Center for Produce Safety can help.

The foundational science that CPS has funded over the past 10 years has profoundly improved our knowledge of how pathogens enter and survive in the food supply chain. Now, we need to use the wealth of knowledge that CPS has amassed to answer the question many of our orgs face: “Why should we change when we’ve always done it this way?”

Numerous companies in our industry are setting examples that you can follow, armed with CPS research. Lipman Family Farms is the largest field tomato supplier in the U.S., with multiple farms located on both coasts, and 16 repack or value-added locations, of which six process fresh-cut items. It also sources other produce from Mexico and Central America, and recently acquired greenhouses in Ontario.

Suresh DeCosta, Lipman’s director of food safety, has vast responsibility covering nearly every aspect of Lipman’s supply chain. He stays current with CPS research on produce safety science. Starting on the farms, DeCosta’s goal is to minimize potential pathogen contamination from irrigation water, animal intrusion and employees’ activities.

The majority of Lipman’s irrigation water is sourced from wells, while some areas use surface water from natural ponds. For farms in the Eastern U.S., Lipman’s best practice is to use drip irrigation (minimizing pathogen contamination from water contacting the plants), and to treat irrigation water prior to use.



Clearly, in treating surface irrigation water, Lipman is going the extra mile to mitigate potential food safety hazards.

DeCosta has found CPS's ag water research projects, led by Channah Rock, Ph.D., of the University of Arizona, to be very helpful. One example is a 2018 project that brought grower-inspired improvements to a mobile app designed to help growers evaluate ag water and comply with the Food Safety Modernization Act ag water requirements.

Dr. Rock is also leading a CPS Rapid Response research project now underway in the Yuma Valley that is designed to answer questions resulting from recent leafy greens outbreaks.

He points to 2019 work by Virginia Tech's Laura Strawn, Ph.D., to review *Listeria* growth and survival on surfaces, and a 2018 project by University of California, Davis' Linda Harris on characterizing and mitigating bacteriological risks associated with fresh-market citrus packing. 2018 research by Spain's Ana Allende looked at establishing operating standards for fresh produce wash systems, studying specific wash system metrics and test methods.

DeCosta has also used CPS-funded research to improve Lipman's Sanitation Standard Operating Procedures, and to establish an environmental sampling plan for its packing houses instead of starting a random program. Most impressive is that Lipman celebrates getting a positive sampling result! Staff are challenged to find problems and then determine their source to resolve them.

DeCosta reports that he has not run into many issues in applying CPS science to enhance Lipman's food safety program. Although, one of the constant challenges Lipman faces is ensuring consistent food safety training for its dynamic on-farm labor force.

Meanwhile, a leafy greens industry group facilitated by Western Growers is using CPS ag water research to develop new guidelines on irrigation water. An important change is that surface water used for overhead irrigation must be treated if applied within 21 days of scheduled harvest. The CA LGMA has announced the changes [here](#).

CPS and other agencies have funded much research on the topics of ag water quality indicators, index organisms, and sampling regimes. A great deal of research is available from CPS on determining quality of surface water (indicators and index organisms), sampling regimes to determine prevalence of pathogens, and water treatment.

For example, Cornell University's Martin Wiedmann reported in 2016 on how hydrological landscape and weather data can predict surface water quality. University of Arizona's Gerardo Lopez reported that same year on potential reservoirs and occurrence of *Cyclospora* in irrigation water, and Spain's Allende reported on practical, effective and environmentally-sustainable ag water treatments.

New CPS research projects will focus on finding ag water treatment solutions: where and when treatments are appropriate, and what options are available to growers. CPS understands that to work in the real world, solutions need to be effective in knocking out pathogens, cost effective and environmentally friendly.

To start finding out what CPS research can inform your company's food safety program, visit CPS's website. Better yet, make plans now to attend CPS's June 18-19 annual Research Symposium in Austin, Texas. You will learn the best and latest information on current issues facing the fresh produce industry.

Topics include packinghouse and processing, validation tools, and agricultural water. And you will be surrounded by peers, researchers and industry leaders all working toward the same goal. See you there!

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