



Cactus Section
Institute of Food Technologists

A professional group of IFT members in Arizona seeking to advance the science and technology of food through exchange of knowledge

A Quarterly Newsletter

November 2014

Giving Back

Cactus IFT members volunteer at St. Mary's Food Bank.

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Cactus Section IFT Gives Back to the Community

In addition to being an organization that fosters business relationships and learning opportunities, Cactus Section IFT is an asset to the community. Recently, members of the Section gave back by attending the "Rock n' Box" volunteer night at the St. Mary's Food Bank Del Webb Distribution Center.

Before getting to work, members enjoyed a tasty dinner provided by the St. Mary's CK (Community Kitchen) Catering group--a community resource that provides life skills and food service training for those without employment.

With full bellies, members created an assembly line and began packing emergency food boxes, which included canned goods, toiletries, and other nonperishable items. The team worked so efficiently that the assigned quota--18 pallets of food box--was completed in just a couple hours!

The good deeds of the Section didn't stop there. President Holly Long also presented a \$500 check to St. Mary's on behalf of Cactus Section IFT. This amount provides 3500 meals to the community.

Thank you to all the members who volunteered their time to make this event a complete success!

- Tedley Pihl, Cactus Section IFT President Elect



Attendees at the St. Mary's Food Bank "Rock n' Box" volunteer night



Cactus Section IFT members joined the assembly line of volunteers to create 18 pallets of emergency food boxes.



A Tomato, My Kingdom for a Tomato

I suspect that I have never gone a day without a tomato of some kind. Life would not be life, as I know it, without tomatoes. If flavor is king, in fact, then I'd venture to say that the king of all that is food must be, that biological marvel of a red fruit that is used like a vegetable, that reminder of summers past, that sphere of sweetness, salt, and savory, that bloody gush of lycopene-colored goodness, that which tastes just as good when warm off the vine as it does in a vegetable salad, which could not be complete without it, that essential component of so many soups, salsas and sauces, the one and only tomato.

Clearly it's hard for one who's studied food to not fall in love with the tomato. Had I not studied food science, had I not joined Cactus Section IFT, had I not had my curiosity piqued by trainings on flavor science, and preservation and processing of foods, I could have not ever truly appreciated the taste of a tomato. The reason is its versatility across a wide variety of foods. It's equally hard to not adore the tomato as a nutritionist. Whenever more tomatoes are around, more people receive their recommended daily servings of fruits, as well as vegetables. They get their vitamin C, they get their potassium, they get lycopene, and a range of other health-promising carotenoids.

Food processing also has nothing on the tomato. No pounding, mashing, pureeing, blending, or heating appears to do it harm. In fact, these all only appear to intensify its flavor, condensing the content of tomato aroma volatiles; simultaneously, they break apart natural binding components to release carotenoids making them more easily absorbed. And because those carotenoids are fat-soluble, any fusion with fats or oils as part of a prepared product only improves a tomato's nutrition still further.

According to Wayne Bidlack, a professor in the Human Nutrition and Food Science Department at the California State Polytechnic University in Pomona, CA, the tomato serves as a useful example of how a fresh food can be nutritious, even more nutritious, through food processing. Likewise, processing improves the release and absorption of beta-carotene from carrots, and removes phytate along with bran from grains that improves bioavailability of minerals including iron, calcium, magnesium, and zinc.

Too often taken for granted are the cases when food processing has actually improved our diets. We, as food scientists and technologists, might do well to remind others of these examples and that, despite a few setbacks and contrary to popular opinion, the food industry has achieved great things.

The food industry only sells products that people want to buy and if it doesn't sell, it creates something else, Bidlack reminds. Consumer preference does have the power to change food patterns, starting at home but influencing restaurant foods and food processing methods. The low-fat, low-carb, and gluten-free crazes of years past are all products of this ever-changing consumer environment. Food companies are quite conscious of the nutrition they sell, and, for the most part, the quality of our food supply has improved dramatically over the years.

For example, the food industry can be credited for improving the way fresh fruits and vegetables are harvested and transported to market—over days and weeks, some stored in cold rooms to extend its freshness. The processing of foods, Bidlack explains, also increased their shelf life extending outside of their seasonal production. This enabled their distribution over greater distances, decreasing spoilage and lowering prices that allowed lower income populations to access them.

We can also thank the advent of food preservation and processing for giving us tomato flavor anytime and anywhere in a variety of foods for our nutrition and enjoyment. That's all good news for me given as much as I love tomatoes fresh, in vegetable salads, as tomato sauce on pasta and in pizza, in tomato soup or gazpacho, and as tomato salsa in burritos or with chips.

All of these foods keep my tomato tooth satisfied, along with my sweet, salt, and savory teeth, and as long as portions are controlled can be part of a healthy, balanced diet.

- David Despain, M.Sc., Cactus Section IFT Member at Large

Member Spotlight: Madonna Kash



Madonna Kash, Cactus Section IFT ACF Liaison

The success of an organization depends on the dedication of its members. Cactus Section IFT has benefited greatly from Madonna Kash's commitment and leadership. Her experience and knowledge from being an active member of the food science and culinary fields makes her insight invaluable to the Section. Here are some questions we asked her:

How long have you been a member of IFT?

I have been professional member of IFT for three years.

How did you find out about IFT?

I was introduced to IFT by Lynn Abarr-Boubelik.

Why do you stay involved in IFT?

I enjoy learning about all aspects of the food service industry and working with like minded individuals. I also enjoy the opportunities to help others and share knowledge.

What do you do professionally?

Food service marketing, training, and professional development is my best answer for that, yet I'm shaking that up in 2015 by adding event planning back into my portfolio. I have taken over the sales and marketing of a 50 year old entertainment company, which includes catering. I am also a proctor for the National Restaurant Association for ServSafe.

How has IFT benefited your career?

The IFT added credibility to my portfolio and affords me opportunities to help others see there's more to food service beyond a commercial kitchen.

If you had to choose, what has been your favorite IFT event? Why?

The meeting with John Ruff, Immediate Past President of IFT, would have to be my favorite. I really enjoyed learning about industry trends, functional roles of food science, and what is developing today to better tomorrow.

Do you enjoy any hobbies? If so, what?

Learning. I love learning about food, food service, and sustainability. I also love connecting people with information for community development.

What would you eat for your last meal?

I would eat any vegetarian or vegan meal made by Chef Bernard Guillas while dining at the Marine Room. The meal would include: DIY; roasted mixed beets with olive oil and rosemary; Brussels sprouts with lemon butter, toasted almonds, and parmesan cheese; and roasted fingerling potatoes with white pearl onions. My beverage of choice would be a nice red wine such as a shiraz with the meal. For dessert, I'd have Leonidas Pralines with a Nutty Irishman cordial.

Research Brief: Ultraviolet light treatment may benefit fresh-cut fruit

A study published in the *Journal of Food Science* shows that treating fresh-cut mango and pineapple with ultraviolet (UV-C) light may extend the fruit's shelf-life while enhancing microbial inactivation and health-promoting compounds.

The researchers investigated the effects of UV-C and medium heat (70°C) treatments on the quality of fresh-cut Chokanan mango and Josephine pineapple. Quality attributes included physicochemical properties (pH, titratable acidity, and total soluble solids), ascorbic acid content (vitamin C), antioxidant activity, as well as microbial inactivation. Consumers' acceptance was also investigated through sensory evaluation of the attributes (appearance, texture, aroma, and taste). Furthermore, shelf-life study of samples stored at $4 \pm 1^\circ\text{C}$ was conducted for 15 days.

The fresh-cut fruits were exposed to UV-C for 0, 15, 30, and 60 minutes while heat treatments were carried out at 70°C for 0, 5, 10 and 20 minutes. The researchers found that both UV-C and medium heat treatments resulted in no significant changes to the physicochemical attributes of both fruits. The ascorbic acid content of UV-C treated fruits was unaffected; however, medium heat treatment resulted in deterioration of ascorbic acids in both fruits. While the antioxidants were enhanced with UV-C treatment, the heat treatments resulted in decreased antioxidant activities.

Both treatments reduced the microbial count in both fruits. The shelf-life of the fresh-cut fruits was also successfully extended to a maximum of 15 days following treatments. As for consumers' acceptance, UV-C treated fruits were the most accepted as compared to their heat-treated counterparts.

The researchers concluded that the ability of UV-C treatment to retain quality and enhance antioxidant activity in fruits could be well exploited for the benefit of consumers.

Adapted from www.IFT.org

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Are you interested in membership, sponsorship opportunities, contributing or advertising in this newsletter, or volunteering for Cactus Section IFT? Contact one of our officers on the list below.

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Get Social with Cactus Section IFT

Be sure to “like” our Facebook page to stay up to date on the latest news and upcoming events. (<https://www.facebook.com/pages/Cactus-Section-Institute-of-Food-Technologists>)

Other ways you can stay in touch with the happenings of Cactus Section IFT:

- Visit our website: www.cactusift.org
- Follow us on Twitter @CactusIFT
- Connect with us on LinkedIn by searching for Cactus Regional Section Institute of Food Technologists (IFT)
- Read our blog at www.cactusift.org/blog
- Email CactusIFT@gmail.com if you have any questions or concerns



Save the Date

- **March 2015:** Spring Training Social (exact date TBA)
- **April 7, 2015:** Supplier’s Night

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