



The Hornblower



NORTHERN CALIFORNIA INSTITUTE OF FOOD TECHNOLOGISTS



SAVE THE DATE

Suppliers' Night & Symposium 2024

Golf Tournament

Symposium & Expo

April 22, 2024

April 23, 2024

The Bridges Golf Club
San Ramon, CA

Alameda Fairgrounds
Pleasanton, CA



The Excitement of Suppliers' Night Events in Northern California

by Bruce Ferree, CFS, IFT Fellow

I always look forward to attending the NCIFT Suppliers' Night events. There's so much energy and excitement crammed into the 2 days. I'm no longer the Suppliers' Night Chair but that doesn't mean I don't still get excited and anticipate attending all that I can and even volunteering to help the current leaders.

I know that Monday is always the exciting Golf Outing. The coordinators always make sure to tell us that this is

NOT A TOURNAMENT – it's an OUTING. I've never been even a halfway decent golfer so I don't get to the links that much. In this case, that doesn't matter, the format is set so that a team competes – not individuals, and the prizes are all for fun. Whether you like to golf, want to sponsor your best customer (so that you can have a 6-hour business meeting with them!) or just enjoy being outdoors in the spring – this is an event you can't miss. There are lots of connections to be made and enhanced just by being

CONTINUED ON PAGE 3

The Food Tech Club was honored to have Dal Perio speak about his experiences working at the forefront of innovation and product testing for Starbucks! We also had the opportunity to ask him anything, ranging from favorite products to job applications.

UC Davis Update

Submitted by: Jonah Messinger

This winter, despite the typical barrage of wet weather and gray skies, the UC Davis Food Tech Club remained active. Throughout the quarter, members enjoyed a series of innovative industry tours, enlightening guest speaker sessions, and a variety of other engaging events, all of which are detailed below. As the quarter drew to a close, elections were held to welcome a new cohort of students who will lead the Food Tech Club from spring through the following winter.

Make sure to say hi to the Food Tech Club at NCIFT Suppliers Night on April 23rd, or during Picnic Day on April 20th, where for the first time since the pandemic, the Food Tech Club will be bringing back the tradition of producing and giving away ice cream at the Robert Mondavi Institute.

CONTINUED ON PAGE 5



CLFP was a great event this year. See the back page for more photos and details.

Current Officers of NCIFT

PRESIDENT

Dr. Zhongli Pan
UC Davis

PRESIDENT-ELECT

Dr. Vivian Wu
USDA-ARS

IMMEDIATE PAST PRESIDENT

Ms. Ellice Ogle
Tandem Food

SECRETARY

Dr. Gabriella John Swammy
SJSU

TREASURER

Dr. Nishtha Lukhmana
Premier Nutrition Company

MEMBERSHIP SECRETARY

Ms. Erin Evers
SPI Group

Directors-at-Large

Dr. Xi (Alex) Feng
SJSU

Mr. John Frelka
Del Monte Foods, Inc

Ms. WanChin Lim
MycoWorks

Dr. Leigh Schmidt

Ms. Yanyao Yu
Thrive Freeze Dry

Dr. Victor Hong

Committee Chairs

PROGRAM CHAIR

Ms. Ellice Ogle
Tandem Foods

NOMINATING & ELECTIONS

COMMITTEE CHAIR
Dr. John Frelka
Innovative Products and Services

SUPPLIERS' NIGHT EXPO CHAIR

Mr. Mike Toomey
Advanced Biotech

GRANTS COMMITTEE CHAIR

Ms. Yanyao Yu
Thrive Freeze Dry

NEW PROFESSIONALS GROUP CHAIR

Ms. Erin Evers
SPI Group

VOLUNTEER COMMITTEE CHAIR

Dr. Poonam Bajaj

SCIENCE FAIR AWARDS CO-CHAIRS

Ms. Rachael Hung
Impossible Foods
Jagritree Munshi

SOCIAL MEDIA CHAIR

Ms. Meredith Morris-Gaudreau

SOCIAL MEDIA CO-CHAIR

Ms. Jaime Lynn Lawrence

EDUCATIONAL CHAIR

Dr. Ashwini Wagh
Clorox

GOLF TOURNAMENT

LEAD CO-CHAIR

Daniel Andrews
Elite Spice Inc

GOLF TOURNAMENT CO-CHAIR

Mr. Jaspreet Walia (Jas)
Aemtek

DIVERSITY, EQUITY, INCLUSION,

AND BELONGING (DEIB)

AMBASSADOR

Ari Kenney

Student Representatives

UC Davis

Undergrad Student Representatives

Saanya Gupta
Jonah Messinger

Graduate Student Representatives

Yu Wang
Natalia Ribeiro

Campus Contact

Stephanie Myers

CSU Chico

Campus Contact
Maria Giovanni

CSU San Jose

Campus Contact
Dr. Xi Feng

Other Important Contacts

HORNBLOWER EXECUTIVE EDITOR

Jaime Lawrence
Flavor Insights

HORNBLOWER CO-EDITOR

Anissa Lee
INW Pro-Form Laboratories

JOB LISTINGS:

Imelda Vasquez
NCIFT Office at Marketing Designs

NCIFT OFFICE

Imelda Vasquez
NCIFT Office at Marketing Designs



Check out our website:
www.ncift.org



The Hornblower

MAGAZINE OF THE NORTHERN CALIFORNIA INSTITUTE OF FOOD TECHNOLOGISTS

EXECUTIVE EDITOR: DESIGN, PRINTING &
Jaime Lynn Lawrence BUSINESS MANAGER
jaimelynnlawrence@gmail.com Marketing Designs650.802.0888

CAMPUS CORRESPONDENTS:

UC Davis: Stephanie Myers

sxmyers@ucdavis.edu

CSU Chico: Maria Giovanni

530.898.4023 mgiovanni@csuchi-
co.edu

SJSU: Xi Feng

408.924.3146 xi.feng@sjsu.edu

The Hornblower (USPS 257-140) is the official publication of the Northern California Section of IFT, a nonprofit organization, and is published triannually. Postage is paid at Belmont, CA.

POSTMASTER: Send address changes to: THE HORNBLOWER, c/o NCIFT, 850 Old County Road, Belmont, CA 94002.

HORNBLOWER EDITORIAL POLICY

Opinions expressed by the editors or contributors to *The Hornblower* do not necessarily reflect the official position of the Section. The publisher reserves the right to edit or reject any copy that is submitted.

SUBSCRIPTIONS are included with NCIFT Membership. Please send to: NCIFT, 850 Old County Road, Belmont, CA 94002.

HORNBLOWER ADVERTISEMENT POLICY

Continuous, year-round advertising is available to our suppliers through *The Hornblower* Classified Ads posted to www.ift.org/sections/ncift/hornblowerads.pdf, as well as placement in all three hard copy issues of *The Hornblower* – including an Annual Membership Directory mailed to members quarterly.

As noted below, special rates are available for ads to run one-time-only in any single issue. You may submit completed ad copy electronically. If you provide a rough draft, the publisher will create, design, and typeset an ad for you at a very reasonable rate.

ADVERTISING RATES PER YEAR:

Full Page\$1,300 1/4 Page\$475

1/2 Page\$750 Business Card\$350

ADVERTISING RATES PER SINGLE ISSUE:

Full Page\$350 1/4 Page\$150

1/2 Page\$200 Business Card\$120

DEADLINES FOR CONTRIBUTORS, ADVERTISERS AND ANNOUNCEMENTS:

<u>Issue</u>	<u>Deadline</u>
January – April.....	April 5, 2024
May – August.....	August 5, 2024
September – December.....	December 5, 2024

TO PLACE AN AD, CONTACT:

Business Manager – Imelda Vasquez
NCIFT Office at Marketing Designs, 850 Old County Road,
Belmont, CA 94002; Phone: 650-802-0888; Fax: 650-802-0188
Email: ncift@marketingdesigns.net

The Excitement of Suppliers' Night

CONTINUED FROM FRONT PAGE

there. And the bling bags are filled with neat stuff!!

Then on Tuesday, the afternoon starts off at 1PM with the symposium. I'm excited by the topic this year – "What's New in Food Testing." As a quality and food safety geek, testing was always part of the job – especially rapid testing that can be done by technicians on the production floor. And there are always new tests coming out that I want to keep my eye on.

The student poster competition and the EXPO start at 3PM. I may be a nerd, but I do enjoy seeing and reading the students' posters. It's amazing what is being studied, and how well the next generation is able to present their work. This is the future of our profession and I like to meet the students and then follow them as their career moves forward. Of course, the EXPO is the big treat. Lots of exhibitors sharing their wares. Whether labs, distributors, manufacturers, or other service providers, it's always great to see what's new. I used to specify the materials we were buying and look for new suppliers; but I also needed to get out and reconnect with NCIFT friends. Sometimes it is difficult to see all the exhibitors because I'm catching up with colleagues and friends. But that's okay. I'm still excited to be there amongst all the best food geeks in IFT – the NCIFT food geeks.

I look forward to catching up, seeing old friends, making new friends and learning the latest in food science. I'll look for you there too.

Welcome New Members

Pooja Baralu Umesh	Dan Test
Matt Cholakian	Massie Test
Chelsea Gregg	Devotha Tumushimiyimana
Lauren Jackson	Talia Valeriote
Willie Scott	

Welcome New Student Members

Renata Alyssa	Dorian Simpson
Enrique Fernandez	Dion Skaria
Owen Gozan	Carmen Smith
Maria Le	Ethan Truong
Shijia Lin	Darien Tseng
Maany Ramanan	Graceanna Wibisono
Gabriella Rogers	Natalee Wolley
Mana Rogers	Ella Wu
Lilly Sallomi	Alex Wu
Wesley Seifers	Frederick Yurianto
Maite Serantes-Laforgue	

New Professionals Event: Connecting and Belonging – DEIB Resources



In March, Ari Kenney, NCIFT DEIB Ambassador, gave an educational presentation on IFT's Diversity, Equity, Inclusion, and Belonging (DEIB) resources. While sipping wine provided by Total Wine, we learned about IFT's many resource groups such as the Women's Resource Group and how to foster community in the food industry. In addition, Michelle Flood, R&D Director at Del Monte Foods, gave an inspirational talk about her career path and offered advice about career growth. Thank you to our speakers and all who joined! See you at our next event!

14th Class of Outstanding Food Scientists, Engineers and Technologists

The International Union of Food Science and Technology (IUFoST) is proud to present the 14th class of outstanding food scientists, engineers and technologists to be elected to the International Academy of Food Science and Technology (IAFoST).

These 25 new Fellows will be inducted by the Academy Executive Council, led by Dr. Charles Aworh, Academy President, at the 22nd World Congress of Food Science and Technology to be held in Rimini, Italy 8-12 September 2024:

Francisco J. Barba, Spain
Phil Bremer, New Zealand
Oswaldo Campanella, USA
Lijun Chen, China
Kuan-Cheng Cheng, Taiwan
Marco Dalla Rosa, Italy

Ferruh Erdogan, Turkey
Haiyan Gao, China
Maduebibisi Ofo Iwe, Nigeria
Bo Jiang, China
Johannes le Coutre, Australia
Shingo Matsukawa, Japan
Alexander Mathys, Switzerland
Olusola Bandele Oyewole, Nigeria
Dolores O'Riordan, Ireland
Min-Hsiung Pan, Taiwan
Zhongli Pan, USA
Conrad Oswald Perera, New Zealand
Rekha S. Singhal, India
Baoguo Sun, China
Dongxiao Sun-Waterhouse, New Zealand
Brijesh Kumar Tiwari, Ireland
Declan Troy, Ireland
Jason Wan, USA
Jianping Wu, Canada

Nominations for each new roster are made by IAFoST Fellows and/or IUFoST Adhering Bodies. Those elected to IAFoST by the Fellows of the Academy are acknowledged by their peers as outstanding representatives of international food science and technology.

The International Academy of Food Science (IAFoST) collectively forms a diverse pool of scientific expertise in food science and technology and related disciplines from which IUFoST draws non-aligned expert advice on scientific matters. Fellows serve as independent professional leaders who engage and endorse high standards of ethics and scientific endeavors.

Producing Meat Out of Thin Air

by Quynh Pham (Department of Nutrition and Food Science, San Jose State University)

Plant-based meat has been a trend in recent years, however, new technologies continue to be introduced, such as air protein. This work involves numerous companies globally, including Bay Area start-up Air Protein. The inspiration behind this technology started at NASA fifty years ago, when they thought about a way to recycle carbon dioxide to create unlimited sources of food that can sustain the staff onboard for year-long missions (Air Protein, n.d.). In fact, this is not a novel concept. Cultivation of organisms for biomass started more than 60 years ago, with the term “single-cell protein” coined to refer to the proteins produced by “bacteria, yeasts, microscopic fungi, and microscopic algae” (Mateles & Tannenbaum, 1968).

According to a report from the Defense Advanced Research Projects Agency (2023), Air Protein is manufactured by “protein oxyhydrogen cultures” with carbon dioxide, oxygen, nitrogen, and water. Even though they did not specify the details of the processes, the lists of gases used can tell us that hydrogen-oxidizing bacteria are utilized. These chemoautotrophs can use hydrogen and oxygen gas, which are harvested from the electrolysis of water, as electron donors and acceptors, and carbon dioxide as the carbon source to produce biomass (Pander et al., 2020). Proteins that are produced can be further purified and dried into powder forms, which can be used to make chicken, scallops, and fish. However, these products

are currently not available in the market, and it is not possible to assess the nutritional value, taste, and texture of the meat product. The company claimed that Air Protein contains vitamins, minerals, and all 20 amino acids.

The production of meat from animal sources accounts for 57% of total greenhouse emissions globally. This is twice the amount of greenhouse emissions released from manufacturing plant-based food products (Xu et al., 2021). According to their website, the production of Air Protein is carbon-negative. This is a result of capturing carbon dioxide from the atmosphere, and utilizing them to be raw materials. Another concern would be the pricing of these products. Air Protein strictly requires bioreactors to provide a robust environment to incubate and culture the microbes into



Fig 1. Air Protein

forming proteins. These bioreactors could be more expensive than conventional farming practices. In addition, creating meat from the air depends on microbiological processes.

In summary, producing meat out of greenhouse gases is innovative and promising. It addresses the carbon dioxide that is already present in the atmosphere and offers a greener alternative in place of the traditional method that is damaging to the environment. Nonetheless, the potential high expense from producing Air Protein might discourage consumers from purchasing the product. While Air Protein might not replace meat derived from animals anytime soon, this could be an initial step towards addressing the environmental issues while sustaining the food sources for humans.

UC Davis Update

CONTINUED FROM FRONT PAGE

Guest Speakers

President Saanya Gupt arranged for two different guest speakers, both UC Davis grads, to talk about their journeys navigating the food industry, providing club members with advice and insights they have learned along the way.

- Andersen Kusuma, the Product Innovation Manager at Panda Restaurant Group shared how after graduating UC Davis in 2012, he leveraged a job within quality assurance to land himself into R&D and product development, an area where he still is today.



Food Tech Club had its first collab of the quarter with the Aggie Baking Club! We held an awesome competition to see which team could make the best gingerbread trifle, and only one was crowned winner...

- Dal Perio, the Senior Manager of Product Insights at Starbucks, walked club members from his time in undergrad at UC Davis where he utilized his mentors to propel himself into a successful and lasting career in sensory science.

Industry Tours

The Food Tech Club was able to visit two very different companies this quarter, Mattson and Flavor Insights, organized by External Relations Chair Jonah Messinger.

CONTINUED ON PAGE 7

Dale Frederick Olds | July 25, 1949 – December 9, 2023

Dale Frederick Olds – devoted husband, father, and brother; respected food scientist; Master Gardener; musician; friend; and all around fine human being – left this earthly life on Dec. 9, 2023, at the age of 74. He was in the process of pruning a bush at a Master Gardener demonstration garden in Livermore when he collapsed from a heart attack and was not able to be revived. He was in a garden, outdoors, doing what he did best: helping wherever he was needed.

Dale was born in Stockton, California on July 25, 1949, to Caroline Oberle Olds and Frederick William Olds. He graduated from high school in Stockton in 1967 and from there entered UC Davis, where he met Jean Johnson in early 1968. They began keeping company soon after and throughout their four shared years of college, both graduating in June, 1971, Dale with a Bachelor of Science degree in Zoology. They married on June 17, 1972 and settled first in Walnut Creek until Dale secured a laboratory technician position at Foremost Food Labs in Dublin, CA. Dale commuted to Dublin until August, 1974, when they moved into their first home in Dublin.

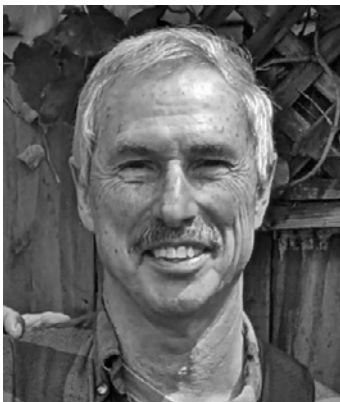
Throughout his working years in Dublin, Dale saw the lab become Foremost-McKesson Foods, then the National Food Laboratory. From 1987-1994, Dale continued working full-time in product development, commuting to San Jose State University to earn a Master's of Science degree in Nutrition and Food Science, and raising two children, Erin and Evan, with Jean. Dale's natural gift for formulating food products with just the right blend of palatable flavors, coupled with his professional training as a Sensory Analyst, made him a valued asset in developing food products. His first patent was for the chocolate ice cream topping Magic Shell.

Dale retired twice. The first time was from his salaried position at the lab in 2007. He then almost immediately returned to lab work, hoping to work part time at his own pace, but because he didn't want to lose control over his projects, he ended up working pretty much full-time hours. When someone from HR called him in and told him the working arrangement wasn't legal, he went on to form his own company for product development, IDEA Food Consulting, LLC: "Invent-Develop-Engineer-Assist." Through that he worked on projects outside the lab as well as continuing to work on projects at the lab. Finally he retired from all food product development in the summer of 2019.

Looking ahead to retirement, in the spring of 2019 Dale enrolled in the Alameda County Master Gardener training through UC Davis Extension. He graduated in May and shortly thereafter began assisting with Master Gardener projects and earning the required annual continuing education

hours. Over the past 3 years, Dale helped with projects in local community gardens (Pleasanton and Dublin), hosted a Master Gardener table offering gardening advice at the Dublin Farmers' Market, assisted with the annual spring plant sale to raise funds for the Master Gardener program, and helped set up the Master Gardener booth at the Alameda County Fair in Pleasanton.

At home, Dale was the go-to handyman, both in his own home and for neighbors. There was hardly any project that he couldn't do, from plumbing to construction to electrical work to computer and technical work. He took time to study



Olds

a problem, learn (often from You Tube) how to tackle it, and then do the work to correct it. "I just keep at it until I get it" was his mantra. He re-landscaped his own yard in a water-efficient manner and took great pleasure in selecting plants that would thrive in Dublin's climate and planting a variety of food crops in his backyard garden beds. He always found time to help his children with their projects as well, relishing the opportunity to help landscape and maintain daughter Erin's yard and garden and assisting son Evan with his many varied home improvement tasks. Expanding on his

helpful tendencies, for the past year and a half he volunteered with Jean in the Grocery Rescue program once a week, taking discarded food from a local grocery store to a food bank in Livermore.

Dale was a talented musician, on both the guitar and the octave mandolin. For the past 20 years, he and Jean (on fiddle) enjoyed attending music camps together and playing in 2 traditional and Irish music bands locally. Dale had recently returned to playing golf regularly after years of only intermittent play. And his life story is not complete without mention of one of his greatest passions, fishing. He and Alan spent many, many happy hours over the years fishing together.

Dale was an avid traveler, visiting such places as Costa Rica, Iceland, Ireland, Scotland, Belize, and Italy in recent years.

Above all else, Dale was a happy person. His warm smile, quick wit, and enthusiasm for everything life had to offer drew everyone to him. He left us all too soon...he wasn't finished taking in all the joy that life afforded. He is survived by his Brother Alan and sister-in-law Barbara Olds, children Erin Helm (Mike) and Evan Olds (Alice Morassi), and his wife of 51 years, Jean.

As a 50th anniversary gift to Jean, Dale had a glass terrarium engraved with the words, "It doesn't matter where you go in life, it's who you have beside you." There was no finer life companion than Dale. His place walking beside us is empty, but his spirit continues to light up the lives of all who knew and loved him.

The NCIFT would like to thank our generous Platinum and Gold sponsors for their contributions to our symposium and suppliers' night.

PLATINUM Sponsors



GOLD Sponsors

FlavorSum

MUNZING

Barentz

Sapphire Flavors & Fragrances

CJ Food & Nutrition Tech

Guittard Chocolate Company

Advanced Biotech

Pacific Ingredient Exchange

Clark Pest Control

Prosur Inc.

McGill International

UC Davis Update

CONTINUED FROM PAGE 5

- Mattson CEO Justin Shimek and Executive Vice President of Product Development and Commercialization, Jamie Reeves, showed club members how Mattson has been making food happen for the last 47 years. Club members met members of the product innovation team and tasted the wide variety of projects they had been working on, from caffeine infused plant based jerky to savory granola bites.
- Adam Schrethaler, the Vice President of Technical Operations at Flavor Insight led twenty-two members throughout the massive Benicia based warehouse where flavor comes alive. At the end of the tour Flavor Chemist Hunter Pickett answered questions about what exactly a Flavor Chemist does, and showed how by adding one carbon, the smell of a molecule changes from nail polish to caramel.

Food Demonstrations

Product Development Chair Summer Plepalakon ran a

food demonstration where members learned how to make pan fried dumplings in recognition of the Lunar New Year. These food demonstrations are a critical part of the community building that is so essential to the Food Tech Club.

Volunteering

Co Activities Chair Amanda Hui and Remi Nakai organized an opportunity where twice a week club members helped package leftover food from the coffee house on campus to be donated to local food banks. This is an ongoing service project that the club will continue for the foreseeable future.

Club Collaboration

Collaborating with the Ethics and Cultural Affairs Committee, another club on campus, External Relations Chair Jonah Messinger ran a facilitated discussion where club members talked through defining cultural appropriation and how to appreciate instead of appropriate all in the context of food product development.

Inspiring The Next Generation Of Food Scientists

by Richard F. Stier

Did you ever think about how you ended up as a food scientist? For me, the answer is quite obvious. My Mother, Dr. Elizabeth Fleming Stier, taught sensory science in the food science department at Rutgers for forty-some years so I was exposed to the industry and its people. And, yes, the only IFT major award named for a woman is the one that acknowledges my Mother so I am quite proud of that. My exposure to food science was more than just the department. It was annual meetings, visits to processing plants and meeting people throughout the food industry, government and academia. So, maybe I was a bit brainwashed.

So, what can we as members of the industry and the industry itself do it inspire children and young adults to enter the field? Now, many persons may think that with computers, distance learning, podcasts, and AI, this will be the route to follow. Theoretically, these tools can bring the knowledge and such to the home and the child. In reality, they are great tools but are not the answer. Talk to a teacher or a parent about their experiences with distance learning during COVID or look at the research on the pandemic that has since been done. Children got behind in their lessons and progress; a situation that was observed around the world. In addition, it took time for the children to catch up.

So, what can be done to introduce food science to children of all ages and perhaps inspire them to pursue that as career.

INTERACT WITH YOUR KIDS AND CLASSROOMS

Have you ever talked to your kid's teachers and offered to come into school to share the world of food science with him or her and their classmates? Consider it...If you make a commitment to talk to kids, carefully consider your presentation. It should include information that the children can not only wrap their hands around but, most important, it should be interactive and fun. When an audience gets to hear and see something and then participate, the message has a greater probability of sticking. The America Chemical Society has created a few interactive programs that can be shared with kids under "Celebrating Chemistry" (www.acs.org/kids)

I have had the opportunity to go into grade school classes to talk food science with my nephews and nieces. As a food microbiologist, that was the focus of the presentation. The class had twenty (20) kids so I wanted all to be able to participate. The subject was germs so the presentation focused on microorganisms and how they are all over. The interactive part involved have brought enough nutrient agar petri dishes so that all the kids and the teacher got to participate. Each child was asked to touch a dish with four fingers. Dishes were sealed with tape and their names written on the dishes. Five kids were asked to wash and dry their hands after touching the plates and repeat the operation. We also placed a dead fly on one dish and human

hair on a few others. The class looked at the plates the next day and learned that hands are very dirty and handwashing was important. One young lady's dish was so overgrown and smelly, the teacher brought in the school nurse to look at it.

We did one other activity; we made yogurt. This is quite easy but given the potential liability issues in today's world, may be nixed in some places. The classroom had a gas burner so boiled milk, added non-fat dry milk powder, allowed the milk to cool and added yogurt with an active culture. The blend was transferred to cups, covered and allowed to incubate overnight. The kids enjoyed something they made the next day.

Utilize your own expertise to create interactive programs to share with your kids and their friends. When I did the program, my nephew's response was heartening...."That was so cool".....

ASSOCIATIONS AND TEACHERS

Many years ago, the Institute of Food Technologists (IFT) had a committee called the Continuing Education Committee. The person that ran the committee had developed materials to espouse food science to middle and high school science teachers. He would attend and exhibit at state school conventions around the country sharing materials describing food science, food science as a major, universities that offered degrees in food science and the Experiments in Food Science documents created by IFT members. This is a program that IFT should bring back through both the IFT Sections and at the National/International level. Don't rely solely on the internet. Show science educators around the country that we care about getting them good, solid information on food science as a career and that food scientists are real people. Now IFT does have some materials on their website that are available to teachers (<https://www.ift.org/community/educators/k12-teaching-resources>) but person-to-person is still the best route for getting the message out. Another link for sharing science is <https://www.sciencebuddies.org>. Another outlet for sharing information is your local library. Many are willing to set up programs on weekends or after hours for children.

PLANT VISITS

When I was in grade school, we made several field trips to farms and food processing operations. Perhaps the most interesting visit was to a dairy in New Jersey where cows were milked in a merry-go-round. The animals walked on the apparatus and were hooked up to a milking machine as the rotated. A bit over half way around the unit, the cow was properly milked and the milking machine was removed and the animal walked off. The milking unit was then cleaned and sanitized and readied for the next cow. And, to top it off, each kid who was on the field trip got a small carton of milk and a prize from the dairy. Children need to understand where food comes from and how it is produced. I have seen very sad

CONTINUED ON FACING PAGE

reports about how children respond when asked where their food comes from. The answer is all too often something like “From the supermarket” or “Out of the cereal box.”

The sad thing is that food plant visits by children and others is becoming more and more difficult. There are liability issues. Many facilities are not designed to handle visitors as there are no viewing areas and operators do not want visitors on the production floor even if there are designated pedestrian areas. There are also potential security issues; processors fear that trade secrets might be pinched.

Hopefully, food processors building a new facility or modifying their processing plant will look to the Jelly Belly facility in Fairfield. If you have not visited the operation, do so. The whole process flow is visible from an upper balcony complete with signage that describes what goes on below. There are also interactive exhibits available to the visitors. And, children do get a small package of jelly beans. I can vouch for the fact that children really enjoy the experience. So, food processors, consider how you might expand your operations to make it more accessible to your customers and children.

OPEN THE EXHIBITION FLOOR TO CHILDREN AGAIN

Years ago, the IFT used to allow children on the convention floor at the annual meeting. This policy was rescinded thanks to legitimate complaints from exhibitors that the children were “running amok.” And, they were because they were not properly supervised. Consideration should be given to allowing children back on the convention floor, but with strict provisions specifically that any child be accompanied by a parent or guardian; one parent or guardian per child to ensure that are escorted at all times. The convention floor, the foods and exhibits

can be a real inspiration to a child. I recall seeing a wonderful exhibition presented by one of the flavor houses at an annual meeting when I was 10 or 12 years old. It was called “What is This Thing Called Food” and featured close-up photographs of about twenty different foods. The supplier handed out a multiple-choice check sheet so one could guess what the foods were. A small prize was awarded for those scoring a certain percentage. This exhibit stuck in my mind for years. One year while planning what the students should do at Rutgers’ Agricultural College’s Ag Field Day, the exhibit came to mind. It was proposed and we were able to get the slide set from the flavor house and, thus, set it up for the event. It was very successful and fascinating for the those who participated. If IFT had prevented kids from being on the floor, we never would have had that exhibit. So, as an organization, we need to do whatever we can to encourage children. So, maybe open up the floor again.

WHAT NEXT?

The key to interesting children in food science are interactive programs, that is, programs where kids and adults work together. These could include but need not be limited to class room experiences, field trips to food plants or farms, working with science teachers who will work with kids and encouraging professional societies to create opportunities for children to see how the industry works (allowing children to see the exhibits at annual meetings). To make these programs work, food scientists need to be willing to work with their children and their teachers, make a commitment to building interactive programs and looking to the future. Do computers play a role in this? Yes, but it is people that will inspire the children and make the programs work.

**New Professionals Event:
The Science of
Hydration with
Drip Drop
Hydration, Inc.**



To kick off the new year, Drip Drop hosted our first NCIFT New Professionals Event. A huge thank you to Brian Chan, Director of Quality Assurance at Drip Drop, and team members! We gained so much knowledge through an educational yet fun presentation about the history of Drip Drop, the science of hydration, and the importance of electrolytes. Who knew that Drip Drop was invented by a doctor on a relief mission? Attendees were also well hydrated—thanks to the many samples of Drip Drop flavors—and had a memorable time playing trivia for prizes.



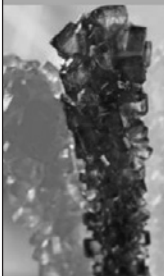


CLASSIFIED ADVERTISING

You will find the advertisers listed here on the page indicated to the right.

ABCO Laboratories, Inc.....	14
Aemtek, Inc.....	12
Carolina Ingredients (Mitsubishi).....	13
Clark Pest Control.....	13
Custom Flavors.....	11
Flavor Producers, Inc.....	15
Foodarom Flavor Designers.....	15
Mane, Inc.	13
Mitsubishi International Food Ingredients, Inc.....	15
Pacific Coast Chemicals Co.	10
Sweetener Products Co.....	10
Virginia Dare.....	15
Westco Chemicals, Inc.....	14





Member of
Ingredients + Service

Bakery
Beverages
Canning & Sauces
Confectionery
Dairy
Meat
Seafood
Spices & Seasonings

For a complete listing of our products,
please visit us at pccchem.com



201 N. Civic Drive, Suite 190
Walnut Creek, CA 94596
Offices & Warehouses Nationwide
510.549.3535 | 800.348.1579



323.234.2200, fx 323.232.3608
www.sweetenerproducts.com

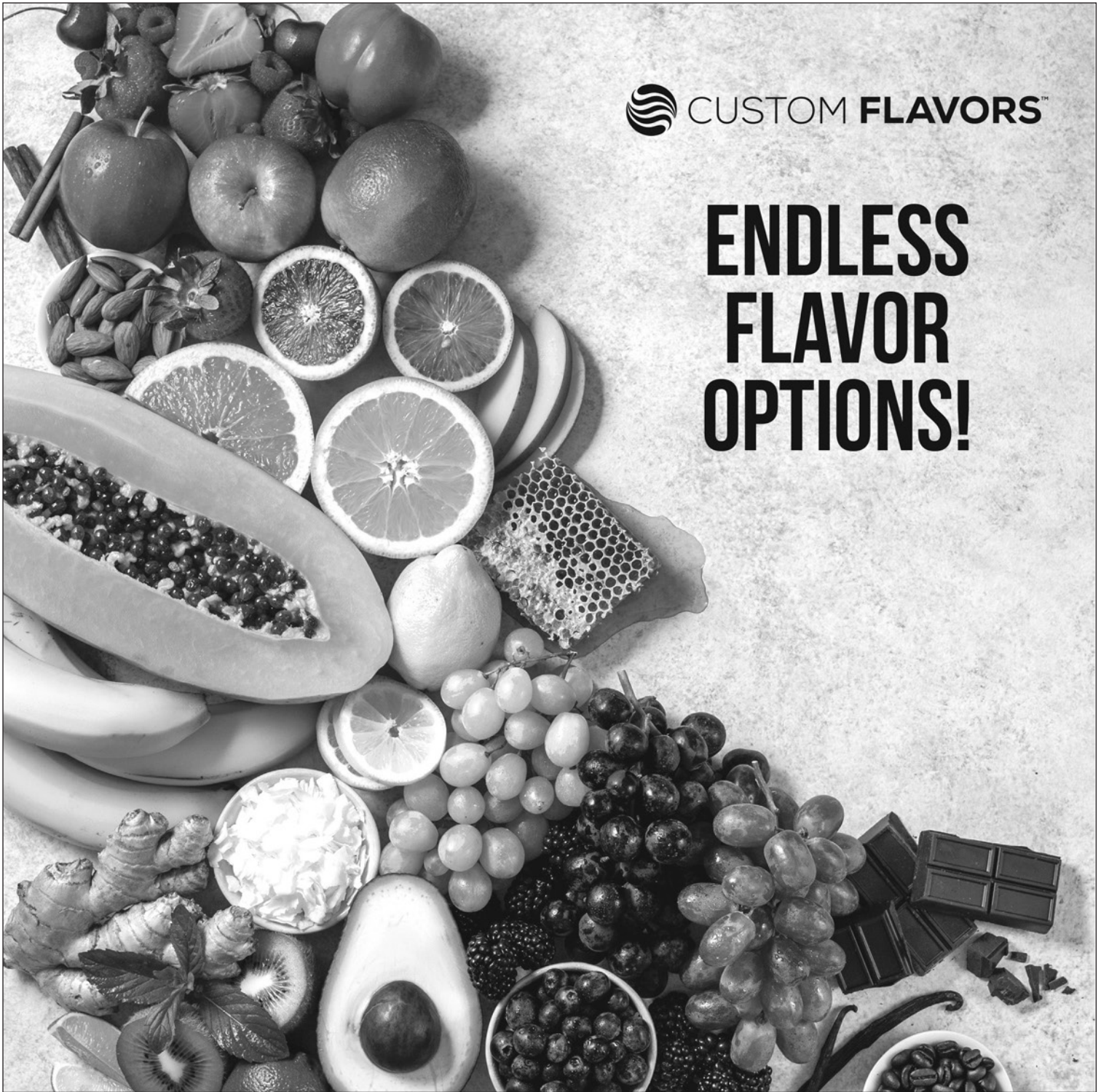
SWEETENER PRODUCTS CO.
Since 1923

Gran. Fructose	Acidulants	Sugar	Dairy Products	Vital Wheat Gluten
Evap. Cane Juice	Leavening Agents	Dietary Fiber	Encapsulates	Flavor Enhancers
Corn Syrup Solids	Dough Conditioners	TVP/HVP	Rice Syrup	Phosphates
Corn Syrup	Shortening	Emulsifiers	Agave Nectar	Lecithin
Mold Inhibitors	Dextrose	Flow Agents	Tapioca Glucose	Rice Protein
Soy Protein	HFCS	Fortifiers	Propylene Glycol	
	Starch	Gums	Molasses	
		Humectants	Salt	
		Polyols	Glycerin	






ENDLESS FLAVOR OPTIONS!



LIQUID & POWDER FLAVORS • ORGANIC • NATURAL • NON-GMO

We manufacture custom flavors for formulators and innovators while using only the highest quality ingredients to create the best tasting products on the market. Our expert team is ready to help from idea to reality!

Reach out today at info@customflavors.com

CUSTOMFLAVORS.COM | 949.276.7995



GREAT TASTE BY DESIGN

FAMILY OWNED & OPERATED




AEMTEK, INC.

ACCURATE, FAST, AND RELIABLE LABORATORY SERVICES

Food Microbiology | Food Chemistry |
EMP Testing & Data Trending | Probiotic
Enumeration | Shelf-Life | Process
Validation | Challenge Study |
Spoilage Investigation

Serving You From Fremont,
Modesto, & Salinas

GET A QUOTE TODAY

 510-979-1979

 www.aemtek.com

 Lab@aemtek.com

WHY AEMTEK?

-  Industry Leading Client Care
-  Deep Technical Expertise & Easy Access to Ph.D. Scientists
-  Reliable & Accurate Results with Competitive Pricing & Fast TATs
-  A Partner in Growth



Food safety is as important to us as it is to you

Clark Pest Management is a leading-edge company that is fully engaged in supporting your commitment to produce safe, compliant, quality foods for your customers.

Clark professionals provide science-based approaches to pest management, resources for food safety education and facility assessments to help you meet the challenges of today and the future.



foodsafety@clarkpest.com
877.213.9903

clarkpest.com/commercial-services



CUSTOM SEASONING BLENDS

**SNACK
CLEAN
SEASONINGS**

- Non GMO
- Low Sodium/Sugar
- Flavor Enhancement
- Better For You
- Clean Label
- Nutritional Blends

We provide the service, expertise, and consistency in seasoning blends, flavor profiles, and flavor systems to become your personal blending room.

LOWER SODIUM | CLEAN TASTING | LABELED AS "SEA SALT"



- US Food Grade Certified Kosher
- AHA Recommended USDA Organic
- HACCP Certified SQF Certified

a subsidiary of Mitsubishi International Food Ingredients, Inc.

mifiusa.com | carolinaingredients.com

FLAVOURS

DEVELOP A TASTE FOR OUR KNOW-HOW

WE CAPTURE WHAT MOVES

www.mane.com

Check out our website:
www.ncift.org

WESTCO CHEMICALS INC

FOOD & PHARMACEUTICAL INGREDIENTS

Antifoams	Maltodextrins
Ammonium Bicarbonate	Organic Additives
Ascorbic Acid	NonGMO
Baking Ingredients	pHase
Calcium Propionate	Potassium Chloride
Citric Acid	Potassium Sorbate
Corn Starch	Phosphates
Dextrose	Propylene Glycol
Guar Gum	Sodium Benzoate
Magnesium Carbonate	Xanthan Gum

Dave Wiley Sales Representative Northern California
707-631-0943 / dwiley@westcochemicals.com
Office: 12551-61 Saticoy Street South
North Hollywood, CA 91605
818-255-3655

Spice, Dry Blend Food Seasonings and Functional Ingredient Blends

Meat Processing

Seasoning for sausage, jerky, cured and fresh meats and fish

Snack Food

Seasoning for pretzels, crackers, popcorn, chips, nuts and seeds

Artisan Bakeries

Seasoning for breads, tortillas and bagels

Restaurant & Institutions

Soup and gravy mixes, dry marinades, bakery mixes, salad dressing & dip mixes

Condiment Mfg & Canneries

Seasoning for salsa, salad dressings, catsup, canned vegetables, fruit & beans



ORGANIC KOSHER GLUTEN FREE

CUSTOM & CONTRACT MANUFACTURING



ABC Laboratories, Inc. Fairfield, California 800-678-2226 www.abcolabs.com

FOODAROM
Flavor designers
Powered by Glanbia Nutritionals

Montréal • Corona • Salt Lake City • Bremen • Milano

VIRGINIA DARE™

Casey Lopez
Account Executive

EMAIL Clopez@virginiadare.com
MOBILE 563-506-5698
882 Third Avenue, Brooklyn, NY 11232
VIRGINIADARE.COM

VIRGINIA DARE™

Joyce Igasaki
Account Executive

EMAIL jigasaki@virginiadare.com
OFFICE 949-709-3605 MOBILE 949-466-1497
882 Third Avenue, Brooklyn, NY 11232
VIRGINIADARE.COM

**PIONEERS
IN NATURAL,
ORGANIC, &
PLANT-BASED
FLAVORS**

flavorproducers.com

NATURAL COLORS
FOR
PLANT-BASED APPLICATIONS

DDW
The Curry House
a loyal supplying partner of Mitsubishi

**PRE-COOKED | DELI SLICES | RAW-TO-COOKED
SAUCES & GLAZES | NON-DAIRY CHEESE**

Mitsubishi International Food Ingredients, Inc. mifiusa.com



ncift.org



NCIFT Participates at CLFP Expo



NCIFT has a long standing relationship with the California League of Food Processors, and we thank them for providing a booth for NCIFT every year at their Food Processing Expo. This annual event is held in Sacramento and draws the global processing industry together including students, growers, food processors, government agencies and educational institutions.

This year's NCIFT booth was staffed with volunteers Erin Evers, Kathy Kennedy, and Bruce Feree. At the NCIFT lunch, we were honored to hear from Professor Ruihong Zhang as the speaker as she presented the topic: *Innovative Technologies for Upcycling Byproducts and Reducing Food Loss*.

Thank to all NCIFT members who supported and participated!

