

28TH EDITION

OCTOBER 2021



Abhyuday

Reliving the Legacy



GREEN PACKAGING:
THE NEW BUZZWORD IN FOOD PACKAGING

This Issue

Words from the Editor's desk...

**"There are no happy endings.
Endings are the saddest part,
So just give me a happy middle
And a very happy start."**

These words of Shel Silverstein made me realize that there is usually not much we can do about the ending. The only thing we can focus on is the happiness experienced up until that point.

Dear beloved 'PIEthons', the memories we shared will be treasured in our hearts forever. As we say goodbye, you shall be waving hello to new opportunities in your upcoming life, and we wish you all the best for that. After all, endings are the beginnings of a million new stories!

To all the distinguished readers

On behalf of team Abhyuday, I humbly present to you the 28th edition of the magazine put together by the 56th batch of M.Sc. Food Technology, the 'PAVrangers'.

The next generation of sustainable food requires sustainable packaging solutions too! Dive into the COVER STORY "Green packaging: The new buzzword in food packaging" to see how plant waste can be used as a substitute for plastic based packaging.

'INDUSTRY BUZZ' is here to keep you up with the buzz of new products and innovations in the industry.

Life has its own unique ways of teaching us. Our prestigious alumni Mr. Mahendra M. Barve from the batch of 1994-96, is here to inspire us with his experiences and journey in 'EXPERIENCE TALK'.

Relive your CFTRI memories as we take you through the activities in the campus through 'KAMPUS KHABAR'.

Touching the lives of millions of people, The Coca Cola Company is among the most preferred beverage brands in the country. 'FOOD INCORPORATED' will take you through its history and new products.

Ever heard of ice cream made from animal meat and fat? 'WHAT THE FOOD' is here to raise some eyebrows with the Alaskan delicacy "Akutaq".

Stroll down the memory lane with Dr. Rohit Upadhyay (CFTRI Alumni, 2008-10) in 'ALUMN COLUMN' as he recalls his glorious days in the campus.

'CAREER CORNER' is here to throw some light upon Food Consulting as a possible career option for food technologists.

Let's take a moment to congratulate our beloved PIEthons in 'PLACEMENT' section and wish them all the best for their future endeavors.

Unwind your mind in the 'GAMES' section, because all work and no play makes Jack a dull boy. Take a return ticket to the beautiful CFTRI campus with the 'PHOTOGRAPHY' section, and relive the good old days!

Have a wonderful reading.

Regards
YASHMITA GROVER



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About Abhyuday.....

Emerging as a pioneer in food research in 1950 and continuing to provide an impetus to the food and allied sectors, CFTRI is the backbone of food-based scientific as well as industrial developments in India. The genesis of Abhyuday owes itself to the heritage that was created by the great minds that have been a part of this institution ever since the beginning and emerged from here as successful individuals spreading the glory of this place far and wide.

Abhyuday is a Sanskrit word which means beginning or awakening...

Awakening for re-inventing the vigour and strength by breaking away from the shackles of mediocrity and sombreness...Awakening for being the change and leading the way...

The e-newsletter, it is expected, would try and achieve its goal of promoting dissemination of the right and benign knowledge and act like an umbilical cord that would keep us connected to our mother institution.

Industry Buzz will include the past months developments in food industry viz. M&A, new product launches, new market entrants, market reviews, inventions and innovations etc. The Cover-Story will track one most important development of the month in the food industry with a detailed analysis from all the quarters. What The Food! will shed light on the interesting and lesser known facts about food. Kampus Khabar will attempt to track the campus news, developments, conference and seminars, tech-talks by our alumni. Career Corner would be the space where articles related to interpersonal and communication skill development, interview etiquette, CV writing skills etc. would be stressed.

The most exclusive of all the sections would be the Alumn Column which will feature technical articles, literary and artistic works, tweets and blogposts, creative and memorable contributions by our distinguished alumni. Also, we shall run a feature on one prominent CFTRIian in any field in each edition.

Besides, updates regarding upcoming seminars and events, congratulatory messages on birthdays and anniversaries, placements and promotions of alumni will also be featured. Advertisements from industries and entrepreneurs will also be featured for free. With a view to ensure the involvement of the readers and make the experience worthwhile, some games like crosswords, food quiz, jigsaw puzzles, riddles etc. would also be incorporated.



GREEN PACKAGING

The New Buzzword In Food Packaging

Food loss and food waste are one of the biggest issues faced by the food industry today. With packaging being a key component of the move towards sustainable business practices, how can packaging companies help address this problem, while striking a balance between the sustainability of the packaging materials and their function to keep food fresh?

With the growing concerns of plastic based packaging materials and increasing awareness of the consumers, sustainability is no longer nice-to-have. It is a must-have for the brands looking to future-proof their operations against the rising tide of consumer scrutiny.

WHAT IS GREEN/BIO-BASED PACKAGING?

Green packaging is a technique used to develop sustainable and eco-friendly packaging materials. These can be reused and recycled easily, and at the same time utilizes the minimum amount of energy and resources as possible. Green packaging includes bio-plastics, biopolymers, biodegradable microbial polymers, and bioactive films and coatings.

Bio-packaging is a term used to refer to the protective material used to coat, cover or encase a food product, and is composed of biopolymers, instead of being polymeric. These include proteins, polysaccharides, lipids, and polyesters. These bio-based materials are mostly biodegradable, and thus pose less threat to the environment.

Bioplastics, under the umbrella of sustainable packaging, are made using renewable biological resources. Unlike traditional plastics, these are compostable, or even edible! Bioplastics can further be classified as Biodegradable plastics, Compostable plastics, and Biobased plastics. Biodegradable plastics are synthesized in bioreactors, through 'White Technology', which involves the use of bacteria.

GREEN PACKAGING FROM PLANT BY-PRODUCTS

A plethora of waste is generated during the processing of fruits and vegetables. It includes pomace, husk, peels, fibers, seeds, etc. Though most of them are discarded as waste, research shows that these so-called waste products are rich in bioactive compounds like phenols, vitamins, and minerals. Surprisingly, sometimes the waste has more concentration of these compounds than the vital parts themselves! These waste products can be used as a raw material for the synthesis of other compounds like PLA's. Therefore, the utilization of these waste materials for potential packaging applications has a promising future, both from an environmental and food protection point of view. Here are some of the fruits whose waste can be utilized for making green packaging:

1. PINEAPPLE FIBRES AND PEEL

The pineapple peel makes 35% of the total pineapple fruit. It is considered as waste during processing and its improper disposal can lead to serious environmental hazards. These peels are principally rich in cellulose, hemicellulose, and pectin, making them a potential candidate for the packaging industries. The cellulose obtained from pineapple peels has received considerable interest due to its nontoxicity, environmental-friendly advantages, biocompatibility, and easy for use, it is converted into derivatives like carboxymethyl cellulose (CMC), methyl cellulose and cellulose acetate. The CMC thus obtained can be used as a component of bio-plastics, and can be used to make edible films and coatings for various foods. Pineapple leaves too have a considerable amount of cellulosic fiber, which can be used to make biodegradable cups and plates. Coating these plates with beeswax can confer them water resistance.



2. JACKFRUIT SEED, RIND AND STRAW



Accounting for 60-70% of its total weight, jackfruit waste includes skin, seeds, straw, and core. The rind, which accounts for more than half of the total jackfruit by weight, contains several bio substances. The flour obtained after drying the by-products could be used in the manufacture of packaging materials.

Production of composite films using polyvinyl alcohol and jackfruit waste flour will not only allow utilization of agricultural waste but also will reduce the over utilization and dependency on synthetic polymers.

3. MANGO PEEL AND KERNEL

The king of fruits, mango, is a stone fruit in which the seed makes up 20-60% of the whole fruit. The peel, constituting 15-20% of the whole fruit is also discarded. This waste material is rich in bioactive compounds and thus has the potential to be utilized in the manufacture of biofilms. In a study conducted, a film was prepared using PVA-cyclodextrin-gelatin infused with Langra Mango Peel Extract. Minced chicken, when packed in these films and stored at chilling temperatures, remained safe for ten days more than control.



4.COCONUT FIBRES



From the brown colored husk of coconut can be extracted coconut fiber, called coir. The cellulose extracted from these can be incorporated into potato starch-based biodegradable films. Films thus prepared have adequate barrier properties and mechanical strength.

Various other fruit wastes, including pomegranate peel, seed and pomace; banana fibers and peels, etc. have also been used in the manufacture of green packaging.

GREEN PACKAGING AND CIRCULAR ECONOMY

The increasing utilization of plant-based substances in developing green packaging materials elicits environmental benefits, including reduction in waste, harmful chemicals/pollutants, and greenhouse gas emissions along with the conservation of ecosystem and biodiversity, contributing to the circular economy. The circular economy represents a shift towards sustainable production. In the circular economy, resource utilization and recycling/reuse is emphasized while minimizing the amount of waste produced, thus representing a shift towards sustainable production. The plant-based polymers can be composted or burned to carbon dioxide which then can be reassimilated by plants. Moreover, they have low toxicity and can be recycled in their polymeric form or hydrolyzed to their component monomers for reassembly into biopolymers.

THE MARKET OF GREEN PACKAGING INNOVATIONS

The demand for green and sustainable packaging continues to rise due to the increase in consumer interest towards the consumption of fresh products with extended shelf life. The introduction to sustainable packaging opens up a whole new world of coming up with ingenious solutions such as recently, the multinational beverage company, Coca-Cola put forward the first-ever prototype of 100% recyclable paper bottle, aiming at a vision for a world without waste. Similarly, Nestle is intensifying its actions and paving a path towards a sustainable future by rolling out sustainable packaging education and training programs and supporting the transition from virgin plastics to food-grade recycled plastics. For instance, making 'Smarties' available in a recycled paper wrapper, and introducing Nespresso capsules made with 80% recycled aluminium. Mars Wrigley, one of the world's leading manufacturer of chocolate, chewing gum, mints and fruity confections, recently launched the "MARS PACKATHON", a competition aimed at finding innovative solutions for developing sustainable packaging.

Today, sustainability is a booming segment wherein green packaging serves as a solution in eliminating the use of conventional packaging materials and formulating biodegradable packages. In addition to this, green packaging aids in alleviating the carbon footprint and associated carbon emissions that may cause harm to the environment.

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TAKE A PLANT-BASED BREAK -VEGAN KITKAT IS HERE!

Nestle is fulfilling the wishes of plant-based fans around the world by launching a vegan KitKat in 2021. One of the world's most popular confectionery bars now has a delicious plant-based option that delivers the perfect balance between crispy wafer and smooth chocolate that people know and love.

The company has already launched plant-based alternatives to dairy, made from rice, oats, soy, coconut, peas and almonds across categories. Examples include non-dairy ice cream, coffee creamers, rice and oat-based



beverages, plant-based cappuccinos and lattes, a vegan condensed milk alternative, as well as a range of non-dairy cheese to complement existing plant-based burgers. KitKat V is certified vegan, and made from 100% sustainable cocoa sourced through the Nestlé Cocoa Plan in conjunction with the Rainforest Alliance. It follows other recent innovations from KitKat, including KitKat Ruby and KitKat Chocolatory Cacao Fruit Chocolate, the first product to use chocolate made entirely from the cocoa fruit.



HATSUN AGRO LAUNCHES PANEER UNDER 'AROKYA' BRAND

Hatsun Agro Product Limited (HAP), India's leading private sector dairy company, has launched Arokya Paneer, a delectable new addition to its wide dairy product portfolio. It is made using fresh milk sourced directly from farmers and natural lemons. The company has always taken pride in pioneering healthy dairy products. The product will meet the growing preference among consumers for natural and fresh paneer made by traditional process using lemons. It will be a unique offering as it uses lemon juice to curdle milk the traditional way, which ensures the texture of Paneer remains soft that makes it suitable for preparing various dishes.

WOW! MOMO SETS FOOT INTO FMCG WITH READY-TO-EAT MOMOS

India's biggest Homegrown QSR Momo chain, 'WOW! MOMO' has announced its entry into the ready-to-eat food category. The company launched a variety of authentic flavours in the frozen ready-to-eat Momo category, such as Veg Darjeeling Momos, Chicken Darjeeling Momos, Masala Chicken Momos, Corn and Cheese Momos and Chicken Cheese Momos. With the promise of "Made for home. Made at home" the brand is all set to revamp the trend of in-home snacking.



The 5 launch flavors in veg and non veg will be available on BigBasket, in packets of INR 10 and INR 20. The Momos are filled with goodness; with no MSG and preservatives and a healthy shelf life of 9 months. It aims to become the go-to home snack; which one can make in less than two minutes.

HYE FOODS EXPANDS PRODUCT PORTFOLIO WITH MILKY DUNES – RANGE OF FLAVORED CAMEL MILK POWDER



Bringing a healthier twist, Hye Foods, a forward-looking FMCG brand for aspiring health-conscious millennials, has recently launched Milky Dunes, a range of flavored camel milk. These healthy drinks are packed with nutrition and come in three different flavors to spark up your taste buds, including Delicious Bourbon Chocolate, Refreshing Strawberry, and a Healthy Ayurvedic blend of Turmeric and Ashwagandha. The brand so far owns Camel Milk Powder, Goat Milk Powder, Soy Milk Powder and Coconut Milk Powder in its exciting range of products.

MARS WRIGLEY TURNS TO DANIMER SCIENTIFIC FOR BIODEGRADABLE PACKAGING

Mars Wrigley and Danimer Scientific have launched a new two-year partnership to develop home compostable, flexible and rigid packaging for some of the brand's biggest sellers- including Skittles. The joint development agreement is being described as a key component of Mars Wrigley's strategy to transform its packaging portfolio to support a circular economy and drive progress against its goal of 100% reusable, recyclable or compostable packaging by 2025. The aim of this collaboration is new, biodegradable packaging for various Mars Wrigley brands, starting with smaller and single packs that are more likely to be littered and typically less likely to be recycled.

From 2021, Mars Wrigley UK is reducing the plastic packaging of selected sharing bags of some of the nation's favourite treats to:

- Remove 51 TONNES of plastic packaging
- Take out the equivalent of 100% football pitches worth of plant-based plastic
- Make it more efficient to work packs to shape
- Take the equivalent of 1000 buses loads off the road each year

It's all part of our plan for a healthier planet and becoming... Sustainable in a Generation Plan MARS

MARS WRIGLEY

FSSAI FIXES ACIDITY EXPRESSED AS CITRIC ACID FOR LEMON JUICE AT 3.5% MINIMUM:

July 08, 2021

The food authority has decided to review the acidity of 'lemon juice' expressed in citric acid and fix it at 3.5% minimum. The Food Safety and Standards Authority of India (FSSAI), in this regard, has issued a direction regarding minimum % acidity expressed as citric acid for 'lemon juice', which says that the value 'minimum 3.5%' was approved by the food authority in its 28th Meeting.



NOW, MATURED COCONUT FRUIT CAN BE USED FOR PRODUCTION OF COCONUT WATER:

July 02, 2021

The FSSAI has issued a direction reviewing the definition of coconut water. Now, food businesses involved in coconut water production can use the matured coconut fruit for the production of coconut water. According to the definition notified in the Food Safety and Standards (Food Products Standards and Food Additives) Tenth Amendment Regulations 2020 notified in December last year, the product, 'coconut water' is obtained from 'tender coconut' without expressing the coconut meat. The FSSAI has agreed to remove the word 'tender' from the definition of coconut water. Now the definition would be, 'The product 'coconut water' which is obtained from coconut without expressing the 'coconut meat'.



FSSAI ISSUES DRAFT REGULATIONS FOR AYURVEDA FOOD PRODUCTS:

July 01, 2021

In a big move, the apex food regulator has issued draft regulations for Ayurveda food products. These regulations also list 68 specific books, which food businesses can refer for preparations of Ayurveda food products. Called Food Safety and Standards (Ayurveda Aahar) Regulations, 2021, these regulations define Ayurveda Aahar, as a food prepared in accordance with the recipes or ingredients and/or processes as per methods described in the authoritative books of Ayurveda listed under 'Schedule A' of these regulations. These regulations also prescribe a logo for such products and microbiological standards.



FSSAI DIRECTS BLENDED OIL TO BE NOW RENAMED AS MULTI SOURCED EDIBLE OIL:

June 29, 2021

The Food Safety and Standards Authority of India (FSSAI) has issued a direction for revision in the nomenclature of 'Blended Edible Oil'. According to the direction, the blended edible oil which was renamed as 'Multi Sourced Edible Vegetable Oil' recently will now be called as 'Multi Sourced Edible Oil'





Experience talk



Mr. Mahendra M. Barve

(1994-96)

General Manager

ITC Limited

“He has served more than two glorious decades in food industry. He worked at global leading companies including, Nestle, Pepsico and ITC Limited. We are grateful for his time, patience and valuable efforts to share his experience with our large audience.”

1. Leaving CFTRI and entering into industry, what were your aspirations as a fresher from food industries? Did your first job met your expectations or did you observe any differences in the real work culture?

It was 12th of April 1996 when we were about to pass out in a couple of months that I received an appointment letter from Nestle! As it was my dream company, I was looking forward to a great learning experience and career growth as well as providing unique contributions. My first job was an in-charge of a microbiology lab for testing South India factory products including, coffee, Milo, Dosa mixes, Chocolates etc. While the basics of learning microbiology worked, it was real life task to dwell into an issue resolution, which can't be taught in books. Luckily, I had a Manager in Mr B. Chandra and amazing colleagues, who helped me into settling into a role. I resolved issue on hand and implemented 5S. Just after 4 months I was transferred to Production for Coffee. It was a difficult process to understand and no Food Tech knowledge was enough to understand what's happening. Apart from managing operations, I implemented 5S on the shopfloor which was not an easy task, so, was remembered for many years even after I left that factory after 3 years of working to join Chocolate factory at Ponda, Goa.

2. You had your Executive MBA from Goa Institute of Management. What role did it play in enhancing your profile?

I pursued my BSc in Agriculture and then MSc. at CFTRI. When you grow into an organisation, what counts is understanding business well coupled with people management. This requires a good financial knowledge, Marketing and sales knowledge as well as relationship management with internal and external stakeholders. This is where EMBA helped. I did my 3 years EMBA from Goa Institute of Management. I guess doing my EMBA was the best decision of my life. It gave me a perspective to look beyond the obvious and challenge yourself and the system.

What I feel is CFTRI should include a Finance management and organisational behaviour courses as part of curriculum. Science and Technology is of no use without a healthy balance sheet and people management.



3. How has been your experience serving as a General Manager at ITC Limited?

It has been amazing joining ITC in Jul 2015. A company which puts India first. I joined here to start ITC's entry into Chocolate business. And imagine a pleasure of starting a new business, launching a new brand called "Fabelle" and creating some of the iconic products. Also develop team capabilities considering no one in the cross functional team has handled chocolates before. Work on Materials, Products, set up 2 new factories, train people, work with hotels team and chefs to launch our first chocolate boutique at ITC Gardenia hotel in Bengaluru on 26th Apr 2016! Further expanding to several more boutiques, launching FMCG chocolates and so

4. How was your experience in leading the R&D Snacks Department at PepsiCo?

After working with Nestle for a longer than 15 years I decided to join PepsiCo in 2011. It was wonderful experience working with amazing mentors and wonderful team there. The feeling of working as one R&D was amazing! I was part of some of the iconic innovations like Puff corn, Crunchy rings and renovation of Kurkure! PepsiCo also brought in thought leadership skills and leading some global team calls.

5. Indeed, 15 years is a long period for a person to devote to the same company. At Nestle, how would you put forward your journey from being a QA & Production Officer to Senior Manager?

Nestle has a unique culture where levels do not matter. Everyone can make an impact and it's appreciated. There are situations where the sub-ordinate becomes a boss. It's about the individual proving himself/herself. Nestle provided amazing opportunities to explore different facets of technical functions. I worked in Manufacturing, Quality, Packaging development, Industrial performance and Product Development. So, I explored 360 Degrees of Technical functions. I was the only one to do that at Nestle till I moved on. I got some of the amazing experiences to be part of zone AOA team on spec harmonization based in Bangkok and then for Zone Europe and also target setting project in Germany. I also was one of the first to get trained on "Globe" one of the critical projects that Nestle implemented. I went on to head Chocolates and Confectionery business for Nestle South Asia and a regional chocolate expert. I don't think I would have got so much exposure elsewhere.

6. How do you think Covid-19 will affect people working in the food industry in the upcoming future?

Covid 19 has thrown many challenges as well as opportunities. The concept of Hygiene, Housekeeping is much more known now. Significance of personal hygiene, clean food, clean facilities will help in bringing more people to eat pre-packed foods. Challenge for Food Technologists is to create new technologies and products as well as unique ingredients that can provide assurance to people consuming it but also don't compromise on taste. One thing is for sure that whether it's physical, digital or imaginary, the world would keep changing but the fact will remain that people will need a physical food to eat. And that wouldn't change for ages....





7. Also, a huge congratulations on receiving “The Chocolatier of the Year – R&D - 2021” award. How would you use this achievement to influence others and how would it impact your career?

It's a nice achievement! Imagine there are several Chocolate companies in India and many of them have a Global product portfolio still an Indian company innovating more and creating some of the iconic and world class innovations under Fabelle is a distinction in itself. It's about seeing the future and working to get it. Being an Indian brand, we can't just bask on the glory of global brand reputé but have to do extraordinary efforts to get extraordinary results. We are the first in India to launch Ruby Chocolates, A Carbon positive Chocolate, Worlds most expensive chocolate to create a Guinness book of world records, to launch a visible inclusion bar having different inclusion on each cube, to launch 33% Roasted almonds visible in a chocolate bar, and also to launch Ganache in India.

8. Would you please tell us about the most difficult situation you've encountered in the food industry till now? What were your strategies in dealing with them?

There are several instances when I have failed. There are products which haven't done well in the market in spite of your best efforts, there are situations when you are about to complete a project working on it for a year and it's not even launched, there are times when your customers reject something for a sake of rejecting. There are instances in operations when an equipment breaks down at critical moment. Remember all these phases are temporary. It's your resolve, it's your team's morale, it's your innate character to not give up and finally it's a thorough work on “Risk analysis and mitigation” plans that helps in long run. One has to be a dancer but at times go to the audience to see how the dance is perceived. Ensure you give what your customer needs/wants or create that want. That will help one succeed.

9. What message/advice would you like to bestow upon the existing students and the upcoming generations of CFTRI?

It's a mobile phone world. I am sure things will evolve sooner to something else. But food will remain food. So please be the best at the basics when you study. No one will teach you that again. Science is quite evolving. There is a talk about plant protein to replace animal meat, there are people going to the space like we used to walk on Dhanwantari road, Blockchain is becoming tool of importance to trace food chain etc. All this will keep happening, Keep pace with that. Focus on doing things that are world class. Put thoughts in your actions. Remember “Ordinary actions give ordinary results”. In order to succeed make sure that you remain restless, create a significant dissatisfaction within you so that you remain restless to achieve more. Best Wishes!





Eid al-Fitr CELEBRATIONS



Eid al -Fitr (Arabic: Festival of Breaking Fast) was celebrated in the hostel on 13th May 2021. Everyone exchanged joyous wishes and blessings. A cake was cut by the M.Sc. students to celebrate this occasion. Asfiya Tabassum, our fellow batchmate, explained to everyone the history and cultural importance of the festival, and how it is celebrated at her home with delicious food and exchanging gifts. It was indeed enlightening to know the science behind Roza!

IFT VIRTUAL GET TOGETHER

A virtual get together was hosted by the IFT Club on 29th May 2021 during the evening hours for all the MSc. Food Technology students. The seniors made a special effort to make the grey lockdown days joyous for both the students at hostel and at home. The event was full of fun activities and competitions, and brought back the memories of good old campus celebrations. *Filmi firangi*, an event in which the participants were asked to send clips of their performances.



'*Filmi firangi*' was won by Akshay V, Manoj U and Thejas C M of first year, while seniors Siddesh Odeyar K and Bhavyatha G were the runner ups. '*Mic is all yours*' was a stand-up comedy event where Shailaja H. Poojari won everyone's heart with her hilarious poem and Akshay V tickled everybody's funny bones, bagging the second prize. Participants sent their best CFTRI memory sketched on paper for the next competition, '*Artistic Affair*', wherein Samiksha Jaygadkar won the first prize for her painting, while Divya Aggarwal won second position for her doodle. '*Desi Jugad*' was yet another fun and innovative competition where the participants were supposed to send pictures describing how they tackled a problem in hostel life and fixed it with whatever means available. Shivani Dhaka received the maximum applause for her jugad, and managed to win the competition. Mr. Siddesh Odeyar K won second prize for his jugad of using a soap cover as toothbrush holder! The very last competition, '*Caption ka war*', was won by Yashmita Grover and Ashna Xavier secured the second place. Judges for this event were Major Karthick V and Shubhangi ma'am, along with Major Jabez Philip and Dr. Merin Cheeran. Everybody enjoyed a fun relaxing evening in their favourite corners with their laptops.

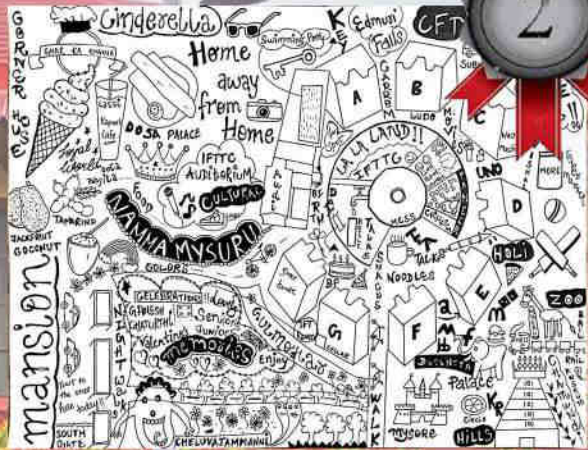
ARTISTIC AFFAIR

1



SAMIKSHA JAYGADKAR

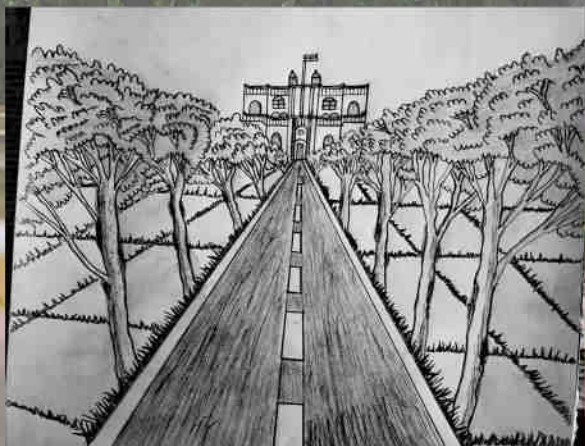
2



DIVYA AGGARWAL



SHAILAJA H POOJARI



AKSHAY V



SHALINI SINHA



ACHALA ACHALKAR

IFT ELECTIONS



IFT elections for the new office bearers of MSc. Food Technology 2020-2022 batch were conducted in online mode by the outgoing office bearers. Mr. Manoj U was elected as the President of the club. Ms. Ashna Xavier and Mr. Thejas C M were elected as the Cultural and Assistant Cultural Secretary respectively; Ms. Bhageerathi Kalyani as the Treasurer; Ms. Shalini Sinha as the Sports Secretary; Ms. Yashmita Grover as the Quest CEO and Mr. Akshay V as the DJ of the IFT Club.

FAREWELL “ARDIEVAS”

A loving farewell was arranged by PAVrangers for their beloved seniors, the PIETHons, on 30th July 2021. The chief guest for the evening was Director CFTRI, Dr. Sridevi Annapurna Singh, while Dr. Pradeep Singh Negi, Dr. R P Singh, Mr. Srinivas A, Dr. Shashikala V B, Dr. Poornima Priyadarshini C G and Dr. Sachin M Eligar were the guests. The event was organized in the CFTRI Auditorium, which was beautifully decorated. All the juniors came together and gave a beautiful dance performance, opening the stage for the PIETHons. Various games were played, including guessing the seniors from their childhood pictures, ‘Game of Trust’ and ‘1234 get on the Paper Floor’. A farewell video put together by the juniors for the outgoing batch brought back the good old days and left everyone teary eyed. A goodbye dinner was arranged in the TV room embellished with lights, giving the entire evening a dreamy look. The evening was concluded with lighting fire balloons. Ahh, what a picturesque moment it was!



FOOD INCORPORATED



HINDUSTAN COCA-COLA BEVERAGES PVT. LTD.

THE COCA-COLA COMPANY

Coca-Cola was first introduced to the world on May 8, 1886 by a pharmacist named Dr. John S. Pemberton. The original recipe was initially sold as a patent medicine in soda fountain stores, with the claim that it would be a remedy for ailments including heartburn, nausea, and headaches. Slowly, as the company expanded, Coca-Cola was brought to the rest of the world.

It has become one of the most recognizable brands and trademarks in the world. With over 1.7 billion servings of Coca-Cola products being served each day, Coca-Cola continues to be one of the world's most ubiquitous beverages.

The Coca-Cola Company originally started operating in India in 1950, and is now one of the country's leading beverage producers, offering a range of healthy, safe, high quality and refreshing beverage options to consumers.

Since its re-entry in the country in 1993, the company has been refreshing consumers with its wide range of beverage products, including Coca-Cola, Coca-Cola Zero, Diet Coke, Thums Up, Thums Up Charged, Fanta, Limca, Sprite, Maaza, VIO flavored milk, Minute Maid range of juices, and much more. With its various products, the company touches the lives of millions of consumers, at a rate of more than 500 servings per second. Its brands are some of the most preferred and most sold beverages in the country, with Thums Up and Sprite being the top two selling sparkling beverages.

Thums Up celebrates 100 years of India at the Tokyo Olympic Games

The Coca-Cola Company's home-grown soft drink brand - Thums Up, has announced its worldwide partnership with the Olympic Games being held in Tokyo. As India enters its 100th year of participation at the Olympic Games, Thums Up aims to celebrate and salute the real heroes of the Olympic Games - athletes who overcame tremendous odds to reach where they are today.



Coca-Cola brings Delightful Fruit Nutrition from the 'Farm to Table'

The company under its master brand Minute Maid, introduced two new products delivering some of the daily essential nutrition requirements, made with fruits grown by Indian farmers. Minute Maid Nutriforce and Minute Maid Vita Punch offer much needed benefits of, mental agility and immunity, demonstrating commitment to expand the company's portfolio of delightful nutrition for everyday occasions.



Minute Maid Vita Punch is a range of delicious fruit cocktails crafted from Indian fruit recipes that provide 100% of one's daily requirement of Vitamin C to support immunity. This also marks Coca-Cola India's entry into the nascent category of immunity-boosting beverages.

Minute Maid Nutriforce is designed especially for Indian mothers, who are seeking nutritious choices for their growing children. It blends the great taste of Kashmiri apple juice with Iron, Zinc and other essential vitamins that support cognition and mental acuity, helping children learn faster.



VIO Spiced Buttermilk, a refreshing new product from Coca-Cola India

Coca-Cola India has introduced Spiced Buttermilk, a refreshing offering under its dairy beverage brand- VIO. Made from curd, VIO Spiced Buttermilk offers pure goodness of the traditional homemade chhaas with a spicy twist, crafted to suit the palate of Indian consumers. The product contains no preservatives or added color and comes in a convenient 180ml Aseptic pack, at an attractive price point of INR 15.

Coca-Cola is changing the recipe for Coke Zero

The company has recently announced that Coca-Cola Zero Sugar, its popular no sugar beverage, would be getting not just a new look, but an all-new recipe and taste too. The new Coke Zero will contain the same ingredients, and its nutritional value will remain the same. However, this new version will optimize the taste of the drink.



Akutaq (ah-goo-duck), an Alaskan delicacy, is nothing like your typical summer dessert. Unlike regular ice cream, this one is a concoction made from animal fats, oils, berries, freshly fallen snow and occasionally ground fish.



It is also called “Eskimo Ice Cream”. BUT WHY?? There are several stories behind calling it like that: This high calorie mixture kept the Eskimos energized and healthy while they went for long expeditions in the cold and dangerous landscape. This name is the creation of the white men. Probably, they came up with the name because they saw berries on the dish that somewhat looked like an ice cream.

WHAT THE FOOD!

The word “Akutaq” is a Yupik word, which literally translates into ‘Mix them together’.



AKUTAQ A BIZARRE ICE CREAM!

How did Akutaq originate?

In polar regions, dairy was traditionally not a part of the normal diet. So fat was taken from other, more available sources – such as seals, reindeers, caribous, walruses, mooses and whales. Akutaq or Eskimo ice cream is a traditional dish that was prepared long time ago by the native Yupik people. They ate this dish before they went out on long hunting expeditions, exposing themselves to freezing temperatures. They even carried Akutaq along with them to fill their bellies when out in the cold.

Preparation of Akutaq

The traditional Akutaq was prepared without any sugar, but could contain a lot of things like seal oil, fish, caribou meat, caribou fat, moose fat, moose meat etc. along with several types of berries.

A variety of berries were (and are) used for Akutaq. Some of the most common berries include blueberries, cloudberry, crowberries, cranberries etc. Roots and tundra grass were also used for preparation of the Akutaq..

Some Interesting Facts:

- Traditionally, Akutaq was prepared in a wooden bowl known as “Tumnaq”
- Akutaq is sometimes made out of polar bear meat
- It is eaten as a dessert, a meal, a snack or a spread
- Traditionally, it was always made for funerals, pot latches, celebration of a boy’s first hunt or almost any other celebration
- Akutaq preparation follows no specific recipe
- Teaching the preparation method is all about allowing the kids to carefully watch the Akutaq preparation process every time it is made. ◆◆◆

Alumn Column

Dr. Rohit Upadhyay
Batch: 2008-2010
Flavor Specialist,
Nestle R and D Center India Private Limited

Alumn Column would like to thank Dr. Rohit Upadhyay of 2008-2010 batch, currently working as Flavor Specialist at Nestle R and D Center India Private Limited; for giving us his valuable time and sharing some of his cherished memories at CFTRI.



What was your batch name and the story behind that name?

Our batch unanimously agreed to be called as 'Bellwethers' dictionary denotation to trend setters or change agents. Many in our batch believed in being diverse, lived, and continue to live (personal or professional) very differently than long standing and celebrated tradition of CFTRI.

Proud fact: We felt proud to be passed out in diamond jubilee celebration year and cemented legacy of this great institute by celebrating as Diamond Jubilee Batch.

How CFTRI has changed your life and personality?

For me, CFTRI phase brought a fresh and distinctively constructed experiences in two ways, (1) entering as fresher to hostel life incentivized my people skills, thought process, and decision making, and possibly reshaped whole outlook towards life.(2)giving opportunity to see food technology from medical science lens (my UG background) I could understand the concepts very differently and had my own moments of success and failures.

Ultimately, the experience drove lot of passion and energy which reflected in my career decisions lately. In totality, it helped rate my perception towards food technology profession as novel as medical science.

CFTRI is full of legacy. Which legacy you would like to acknowledge?

CFTRI, being an integral lab of CSIR, has cemented its legacy time and again. With great scientists and state of art in one place, it is undoubtably at the top in India. What stands out for me is the cultural diversity where you get to meet and live with brilliant and uniquely talented batchmates from different regions. The first onsite of CFTRI campus has an optimistic vibe and needless to say, a mini India lives there. That's the legacy I sincerely wish continues forever.

Which faculties lectures you never missed at CFTRI?

That's a good question but easy for me. I would say Food Engineering. It used to be the first lecture of the day. I enjoyed it and credit goes to best scientists who transferred the knowledge skillfully. Understanding the real concepts that applies to food manufacturing was always intriguing. And I went on to score my personal best grades in it (moment of high).

Fun fact: Me and couple of my batchmates did enjoy time standing outside of lecture room as we used to reach late. Morning race to HRD was fun to mark your attendance. I miss it too and I missed many lectures too.

How did you feel during intro sessions?

I was new to it as compared to many of my hosteler batchmates. Hence, was skeptical in the beginning, but later realized it was more of fun and team bonding session. Like all, we did all crazy stuffs and prepared for these sessions like remembering the name of departments, seniors, state seniors, their work location and what not! And lastly repeating the same exercise with batchmates. I used to get shell-shocked when couple of my batchmates spell out everything superbly (while I put my medical science trained brain to scout the best ever excuse to skip the session). Later, these sessions were turned as stress buster and yes, we had our laughs when we became seniors. Nevertheless, staying connected is more important and intro sessions were the first few steps towards building a great networking skill. It immensely helps in the long run.

If you were given a second chance to come back to CFTRI, which part of your campus life you would like to live again?

CFTRI happened to be a blessing for me. There are many reasons and it will be unjustifiable to cite one or two. I loved the fresh climate, feeling of easiness, and opportunity to be friendly with people from diverse culture. Even now when I cherish the sports time when we played cricket, volleyball, badminton, and sometimes cards (after dinner) is still refreshing. I want to relive it with same energy and with my friends. And if given chance, would also love to re-write my class tests to just relive the time.

Being attending online classes, any suggestions to juniors about the events or aspects which they should not miss at CFTRI?

Celebrate the time you have in CFTRI. It's a beautiful place, close to nature, and just perfect to learn and gain new skills. Bond with great minds (students, scholars, scientists) under one roof. Don't take end pressure, put small timely efforts to upgrade yourself for external competition. Strive to self-learn new, something not taught earlier. Don't fear to live the hardships, the experiences will only lead to a successful later life.

As we are having limited time for developing practical skills at campus due to pandemic, any suggestions to juniors for improving their skills?

Tectonic changes are happening like never before. Skills valued in 2010 have undergone transformation in 2021 and that calls for greater self-awareness. Look beyond your curriculum and compare yourself globally. Leverage the power of internet for skill development and reading through cutting-edge technologies. Food technology is undergoing digitalization, so prepare to get equipped. Build a habit to read global researches and consumer trends. I encourage you to build a researcher brain with entrepreneur mind to stand out from the crowd.

Do you feel pressurized when others see you as a pass out from this prestigious institute?

It is not about pressure but more about a sense of responsibility and accountability because expectations are sky high. A pass out of CFTRI is expected to deliver what others cannot since we are trained and exposed to cutting edge research and latest techniques happening in the area of food science and technology. Yes, that's why people value CFTRI, because they bring onto table a different experience and exposure that they gain in two crucial years, which probably is not there in other institutes.

FOOD CONSULTING 101: HOW TO BECOME A FOOD CONSULTANT?

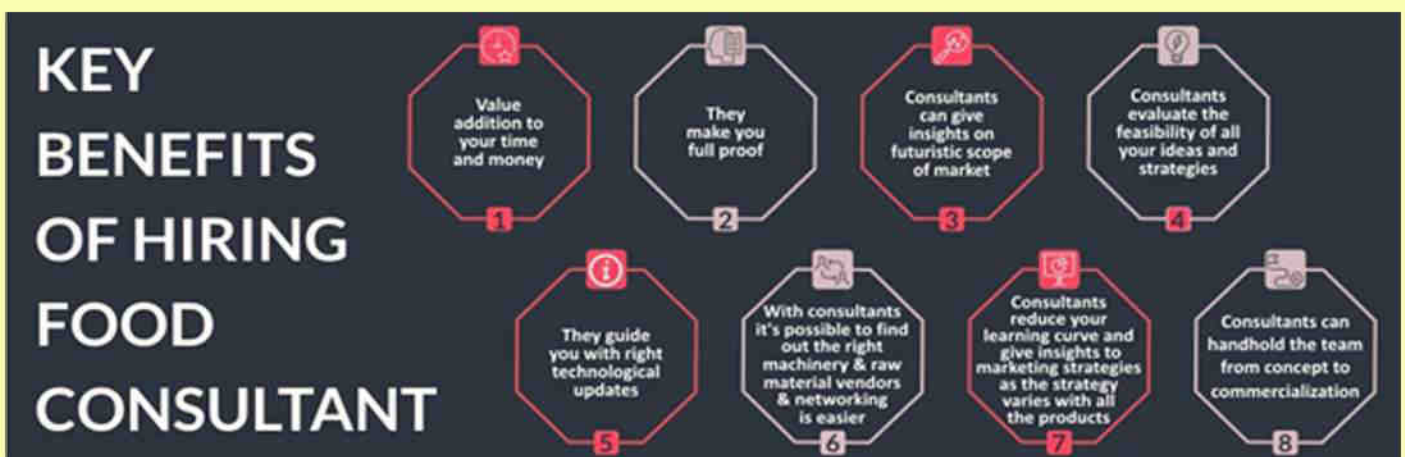


In India, the food sector has emerged as a high-growth and high-profit sector, particularly within the food processing industry. The Indian food and grocery market is the sixth largest market in the world and it contributes to 70% of the total sales. In this rapidly growing industry, new needs arise on a daily basis. Even successful businesses hit a roadblock and need a second opinion or a helping hand, and that is where a food consultant comes into the picture.

WHAT IS FOOD CONSULTING?

Food consultants are experts in gastronomy, food safety and food quality who advise food industry businesses and professionals on the development and improvement of their food service operations. They extend their professional services which are backed by years of experience and expertise, helping food entrepreneurs in achieving their goals. One can rely upon food consultants for several reasons, starting from lack of knowledge regarding one part of business to needing a more creative solution for your business problem. A food industry consultant is an independent adviser who gives professional assistance to clients working in some aspect of the food industries. These clients might be restaurant owners, school cafeteria, managers, hotel owners or professionals working in any area where food is served to public. There is plethora of jobs related to food consulting and the career path of a consultant is based on their speciality. Jobs available to food consultants are:

- Food and facility inspectors
- Food service quality consultant
- Food safety auditor
- Menu engineer and designer
- Menu developer
- Environmental safety regulator
- Food engineer



WHAT QUALIFICATIONS DO YOU NEED TO BE A FOOD CONSULTANT?

A Bachelor's degree in food industry management, hospitality or a related field may be helpful in gaining experience required for this field. Key skills include attention to detail, problem solving, speaking skills, knowledge of analytical software, databases, sales and marketing, customer service, food production and health and fire regulations.

BUILDING YOUR FOOD CONSULTING BUSINESS:

If you plan on becoming a food consultant, you can build your business through a process that will provide you the experience, qualifications and knowledge on how to succeed in the industry. Your educational background and work experience will make you qualified to become a thought leader in your field and will open up variety of opportunities. Here are the steps to become a food consultant:

- o Earn a Bachelor's degree: Depending on the type of food consultant you want to be, you will need a bachelor's degree in that food related field. Your best bet is to get your degree in food science, food chemistry, food microbiology, management and/or nutrition. The more diverse and solid your educational background in food is, the more opportunities you will have.
- o Gain experience in the food industry: Potential food industry consultants can gain that experience by working in a managerial capacity at a variety of work environments, including restaurants, school cafeterias, hospitals, fast food establishments and even some factories and offices. First-hand experience will get you accustomed to the process of health inspections, management issues, facility management, menu design and more.
- o Attain a position as an employee of a food consulting firm: There are quite a few consulting firms in India and many of them specialize in different fields. Find the firms that are working in the specialty you are interested in, and apply to work there. The right firm will provide you the required experience, connect you with the right network and give you insights on how to become a professional in your field.

LIST OF TOP FOOD CONSULTANTS IN INDIA

1. Deloitte
2. Boston Consulting Group
3. DuPont Sustainable Solutions
4. Jayvin Management Systems and Solutions
5. Pioneer Food Solutions



PLACEMENT



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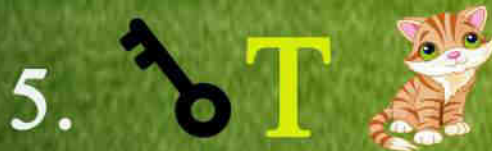


Ramya V



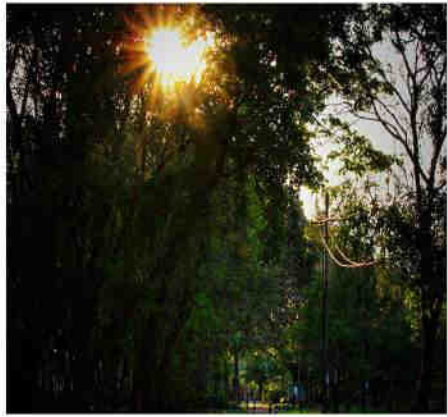
GAMES

Identify the food items and brands



- Pancake
- Dairymilk
- Rice
- Doritos
- Fivestar
- Kitkat
- Burger king
- Lipton
- Seven-up
- Cornflakes

ANSWER



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