

35th Edition

March 2024



Abhyuday

Reliving the Legacy



LegendDAIRY Advances

Latest Trends in the Indian Dairy Industry

This Issue

Words from the Editor's desk...
"Everything comes to us that belongs to us
If we create the capacity to receive it"



These words by Rabindranath Tagore resonate with the "samuRYEs" as we receive the "unBEETables" towards the grandeur of the Cheluvamba Mansion and embark adventures of M.Sc. Food Technology to another New Year.

Dear Distinguished Readers,
I hereby present to you the 35th issue of *Abhyuday*, brought to you by the 58th batch of M.Sc. Food Technology, the "samuRYEs".

Delve into the fascinating strides of the Indian Dairy Industry through the COVER STORY, and find out how brilliantly they are adjusting to the latest technologies to stay atop in the global scenario.

Learn about the latest on-goings in your favorite CSIR-CFTRI campus over KAMPUS KHABAR.

If you are a fitness enthusiast with an inclination to indulge into cheesecakes and pancakes, then discover the "Atmosphere" of your gut health to keep treating yourself without guilt in the FOOD INCORPORATED of this edition.

For those looking for some tips and tricks to guide you through your interviews, CAREER CORNER is here to guide you through your worries and help you polish your interview skills.

Did you know that QR codes are to be put on food labels to help visually challenged people? Get in touch and update yourself with the latest food laws under the FSSAI REGULATIONS.

When times get boring, GAMES section comes to tease your brain with some "dairy"-ing puzzles. You will be "udderly" invested.

Read about the anecdotes and accomplishments of our beloved alumni Mr. Ravichandran Parthasarathy and Mr. Sanjeev Kumar Sharma, as they walk us through their journey from CFTRI campus to the Food Industry over ALUMN COLUMN and EXPERIENCE TALK.

If you are an experimentalist, and do not hesitate to expose your tongue to weird foods, tickle your curiosity with "Pickled Eggs" and "Pork Blood Soup" beneath WHAT THE FOOD.

A sight for sore eyes- PHOTOGRAPHY and KALAKRITI brings forth the artistic and visual talents of the "samuRYEs".

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Regards
Editor in Chief
ISHA GHOSH

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.

LegenDAIRY Advances

Latest Trends in the Indian Dairy Industry



The Indian Dairy Industry, a cornerstone of the nation's agricultural landscape, is experiencing a transformative wave of innovation and development. Dr. Verghese Kurien's contributions transformed the Indian dairy landscape but also showcased the potential of cooperative models in addressing socio-economic challenges. His visionary leadership and unwavering commitment to empowering rural farmers played a pivotal role in transforming India from a milk-deficient nation to the world's largest milk producer. His contributions towards formation of AMUL, the Co-operative Movement, Operation Flood, adaptation of latest technologies of that time, building of institutions like NDDDB, GCMMF etc., empowerment of farmers transformed the Indian Dairy sector from scratch to the leading producer of the world.

Technological Leap

The integration of technology in dairy farming has witnessed unprecedented growth. Smart farming practices, including the use of sensors for monitoring cattle health, automated feeding systems, and data analytics, are becoming commonplace. These technological interventions not only enhance productivity but also ensure the well-being of the dairy herd. There have been applications of smart dairying by using RFID tags for identification, sensor based automatic micro-climatic manipulations, use of GPS collars, animal behaviour sensors, herd management software etc.



The current stakeholders have taken over the legacy of Dr. Kurien. From technological advancements to changing consumer preferences, the industry is adapting to meet the demands of a dynamic market. We delve into the latest developments that are reshaping the contours of the Indian Dairy Industry.

Information and Communication Technology based information delivery can also help the livestock farmers to make significantly better quality decisions on various livestock practices.



Precision Nutrition

Dairy nutrition has entered a new era with precision feeding gaining prominence. Farmers are utilizing advanced nutritional formulas and tailored diets, leveraging technology to optimize the nutritional intake of each animal. This not only improves milk quality but also contributes to the overall health and longevity of the cattle. There have been studies on optimizing rumen fermentation as the fundamental principle in feeding ruminants.

It was found that if the rumen fermentation is optimized, the production performance and production economics are optimized as well. In order to keep the rumen optimally functional, the most important things are to maintain rumen pH in the range of 6 to 6.5, continuous input of substrates for the microbes, and removal of end products of microbial metabolism.

Dairy Healthcare Diagnostics and Therapy

Modern concepts in dairy health have expanded and perhaps the single biggest advance in dairy health in the last 25 years has been the paradigm shift from treatment of clinical illness to disease prevention. A fundamental advancement has been recognition of the multifactorial nature of almost all diseases of importance in dairy cattle. Health management or production medicine is characterized by an integrated, holistic, proactive, databased and economically framed approach to prevention of disease and enhancement of performance.



Health management has been defined as the promotion of health, improvement of productivity and prevention of disease in animals within the economic framework of the owner and industry, while recognizing animal welfare, food safety, public health and environmental sustainability.

Scientific Breeding and Reproductive Biotechnology

NDDB in collaboration with INFOSYS, an Indian software company, have developed Information Network for Animal Productivity and Health (INAPH), an application database for dairy cattle data recording in India. INAPH also covers the CMU recognized semen stations with registered bulls by the application called INSPRM.

INAPH helps to record activities of Animal Breeding, Progeny Testing, Nutrition and Health programs in the field and also helps to evaluate & estimate Breeding Values of bulls & bull mothers on the basis of their daughters' performance thru field based progeny testing program.

AI and Genetic Selection

Artificial Intelligence (AI) is playing a pivotal role in genetic selection, aiding farmers in breeding programs to develop high-yielding and disease-resistant cattle. Through sophisticated algorithms, farmers can make data-driven decisions, ultimately leading to more efficient and sustainable dairy farming practices. The flexibility of machine learning algorithms is very much needed when dealing with massive

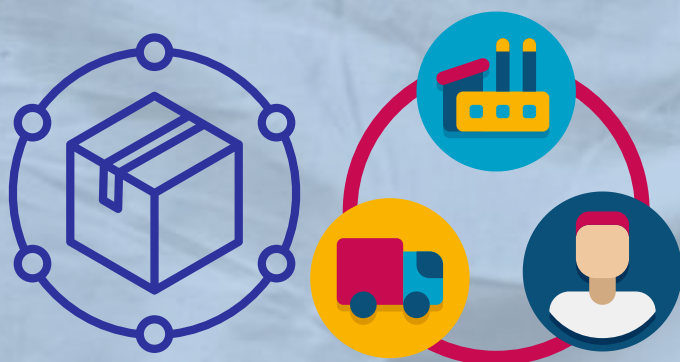
quantities of genomic and phenotypic data, for predicting the breeding values of selection candidates. Application of Artificial Insemination, Sexed Semen, Embryo Transfer Technology, In Vitro Maturation/ Fertilisation, Cloning, and Transgenics with Marker Assisted Selection and Softwares for record keeping of databases pose lucrative potential for the future ahead.

Climate Resilient Strategies

Some mitigation strategies to reduce GHGs from dairy sector include reduction of enteric methane through nutritional interventions- propionate enhancers, oil supplementation, Ionophore supplementation etc., reduction of enteric methane emission using plant secondary metabolite, management of crop rotations that sequester carbon, conserve water and maintain soil fertility, improvement of feed resources that reduce greenhouse gas emissions, sustainable

management of grazing in combination with fallowing and/ or rehabilitation of degraded lands, development of vaccines for methane reduction in ruminant, proper soil and pasture management mitigate the release of emissions, and rotation of animals through pastures and moving feeding, watering and shade areas, spread the manure and urine out more uniformly and help decrease N₂O emissions from pasture soils.

Cold Chain Infrastructure



The dairy supply chain is undergoing a significant upgrade with the development of robust cold chain infrastructure. From farm to table, the emphasis on maintaining the freshness and quality of dairy products has led to investments in refrigerated storage, transportation, and retail outlets. This not only extends the shelf life of products but also ensures food safety.

Diversification of Dairy Products

The Indian consumer's palate is evolving, driving the dairy industry to diversify its product offerings. Beyond traditional staples like milk and ghee, there's a surge in demand for value-added products such as probiotic yogurts, flavoured milk, and health-focused dairy snacks. This shift reflects changing consumer lifestyles and preferences. Very latest trends of development of dairy probiotic foods such as probiotic ice cream, probiotic cheese, probiotic yoghurt,

probiotic milk, probiotic shrikhand, designer paneer etc. has gained high popularity. In terms of processing, Flavouartech's Spinning Cone Column Technology (SCC) for capturing the flavours from volatile components, Bactofugation for non-thermal sterilization of milk, and Super-Heated water spray sterilizer for heat sensate products have gained acceptance and recognition of late.



E-commerce and Direct-to-Consumer Models

The advent of e-commerce platforms has revolutionized the distribution of dairy products. Farmers and dairy processors are increasingly adopting direct-to-consumer models, leveraging online platforms to reach a wider audience. This not only ensures fresher products but also provides a direct link between producers and consumers. A company which is already applying and succeeding in this sector is Country Delight: an Indian online milk and grocery delivery platform. Founded in 2013 by Chakradhar Gade and Nitin Kaushal, it is operational across 18 cities in 11 states in the country.



Quality Assurance and Certification

With an increasing emphasis on food safety and quality, dairy producers are pursuing rigorous quality assurance measures and certifications. Adherence to national and international standards not only boosts consumer confidence but also opens up avenues for global market penetration, positioning Indian dairy products on the international stage. FSSAI has been coming up with regulations to incorporate probiotics in dairy products to prevent misinformation to consumers. Regulation for labelling products

by the name of “Ice cream” being only allowed for products containing pure milk fat helps raise awareness among consumers about the basic ingredients of their food and what they are paying for. Mandatory BIS certification for Infant foods and follow up formula protects the most delicate segment of consumers from any fatal harm. Mandatory AGMARK certification of ghee is an entrustment of purity for the consumers.



In conclusion, the Indian Dairy Industry is at the cusp of a new era, driven by technological innovation, changing consumer dynamics, and a commitment to quality. From smart farming practices to a diversified product portfolio, the latest developments in the industry promise a

brighter and more sustainable future. As the industry continues to evolve, it stands poised to meet the challenges of a growing population while contributing significantly to the nation's economic growth and agricultural sustainability.

ALUMN COLUMN

How do you describe the two years in CFTRI?

CFTRI life is one of the best part of my life. It exposes me to the world of food, fun, friendship and laid the foundation for our successful career in the food industry. I always cherish the memories, applying the learnings in both my personal and professional life.



Ravichandran Parthasarathy
Creation and Design Director, IFF India
Batch: 1988-1990

How did CFTRI prepare you for such a high position as yours?

Without CFTRI it was impossible to conquer my dream as a Subject Matter Expertise. The Institute has motivated and inspired me to chase my dream in the food industry. Mentors were pillars of my career and they shaped up my professional ability in the field of food technology. Without the support of CFTRI and my mentors I would not have achieved the position which I am holding in the Food Industry.

Could you share a moment in CFTRI that you want to relive again?

Every minute I spent in this campus and in and around of this campus is a happy and enjoyable moment. It starts from international hostel room to canteen to club room to classroom to labs to tea shop at railway station in the midnight and going to bed in the early morning. Every place mentioned here will require volumes of books and hundreds of years of life to relive again.

Which legacy of CFTRI would you like to acknowledge?

CFTRI is not only the Institute, its serves to the society. Without food, no society and no world. CFTRI's signature is the strong network of academics and industry professionals, not just across India but around the world. CFTRI graduates are doing wonders in the food space across the globe.

Rapid fire

Favorite dept: Plantation products and Flavors technology

Favorite spot on campus to hang out: Outside the club room.



What skills or qualities do you believe are crucial for success in the food industry, considering your own journey and observations?

In my opinion, these are the important qualities that are crucial for success in the food industry:

- Focused application
- Analytical mind
- People leadership
- Continuous learning
- Ability to handle pressure
- Networking
- Smart working



What are the biggest challenges the food technologists face in today's industry and suggest how to work and stay ahead of those challenges?

The biggest challenges food technologists face today are adaptability to the fast-changing corporate world, cultures and consumer preference and demands. We need to change our approach, application of our knowledge, understanding the insight of the consumers and their demand and come out with the successful solution to meet all these requirements.



What advice you would give to CFTRIans?

CFTRIans always follow your dreams, no matter how much struggle and hardship you face but never give it up. Do not compare you with others, always feel proud about yourself for being CFTRIans. Be focused, think positive and fly high. Remember you deserve the best in this food world.



World Food Day

This day holds a special place in the hearts of food enthusiasts, reminding us of the significance of sustainable and nutritious eating. The highlight of the day was undoubtedly the quiz competition organized by our IFT club on 17.10.2023.

We divided ourselves into seven groups, and the quiz consisted of three rounds, each of which was not only immensely engaging but also thoroughly entertaining.

Our journey began with a time-bound written quiz to screen the groups, followed by rounds that put our knowledge of food brands to the test, including challenges like guessing logos, brand names, and taglines.

At each level, there was a fresh burst of fun and excitement. Laughter, learning, and tasty tidbits were the order of the day, and we cherished every moment.

KAMPUS KHABAR

Ganesh Chaturthi

It is also known as Vinayaka Chaturthi, is a vibrant and joyous Hindu festival that celebrates the birth of Lord Ganesh, the elephant-headed God of wisdom and prosperity. This auspicious occasion usually falls in the month of August or September and is observed with great fervor across India. samuRYEs and unBEETables gathered in the IFT room for Ganesh pooja on October 21st. IFT room was decorated with flowers and Rangoli. Everyone took their turns for Aarti and prayed to Lord Ganesh.





Onam

Onam is a festival of colors, culture, and culinary delight. It is the harvest festival of Kerala, South India, which marks a time when communities come together to celebrate the bounties of nature, unity, and cultural richness. This is an annual extravaganza, spanning ten days. We celebrated Onam with full enthusiasm where people from various regions of India came together showcasing the diverse and inclusive spirit of the festival. We made the distinctive floral carpet known as the "Pookalam". We conducted several games like lemon and spoon, musical chair and tug-off-war. We ended the celebration with a photoshoot.

Dussehra and Dandiya Night

Dussehra, also known as Vijaydashami, symbolizes the victory of good over evil, making it one of India's most cherished festivals. IFT Club organized Dussehra Celebration on September 23, 2023. Our event brought together MSc students, PhDs, and ISMT students in the spirit of unity and positivity. The well-decorated IFT room provided the perfect backdrop for a Pooja ceremony that was a powerful reminder of the triumph of righteousness.

Sweets were shared as a symbol of the sweet moments we enjoy with our fellow students. Same day we celebrated Dandiya night which is a vibrant and energetic celebration that originated in the state of Gujarat but has gained popularity worldwide. It typically takes place during the festival of Navratri. unBEETables dressed in colorful traditional attire and came together to perform Dandiya in the mess lawn. It was a memorable and entertaining cultural experience.



IFCoN 2023



Association of Food Scientists & Technologists (India), organized its “9th International Food Convention (IFCoN) on 7th-10th December 2023” at CSIR- CFTRI premises in association with CSIR-CFTRI, DRDO-DFRL & CSIR-IITR as a co-organizer. The Theme of the conference was “TRIMS SAFE – Technology Re-engineering for Innovation and Mitigating the risk for a Safe, sustainable Affordable & secure Food Eco-system”. The exhibition at the premises of CSIR-CFTRI saw delegates from different parts of the country who had come to explore the innovations and achievements made in the area of food technologies. The expo was open to the public from 1pm to 5 pm on December 8 and from 10 am to 5 pm on December 9. The mega Food Expo organized during the conference provides a

unique opportunity or the manufacturing industry, analytical laboratories, ingredients manufacturers, educational institutes, and various other stakeholders in the field of food to showcase their activities and scope for business and other mutual collaborations. The highlight of the expo is an exclusive pavilion on millets that showcases the technologies developed on millets by the CSIR-CFTRI and DRDO-DFRL and others. Those who availed the millet-based technologies from the CFTRI and launched the products commercially with value additions were also on display. The 4-day Mega event was an ideal platform for the deliberation, networking and the exchange of Knowledge and Partnership between global stakeholders.



Vist to Chamundi Temple

On 4th November 2023, we samuRYEs took our juniors unBEETables to Chamundi Temple as a part of our legacy. We took blessings of the Almighty, followed by capturing our moment of the first togetherness in front of Mahishasur statue. We enjoyed the beauty of Mysuru at viewpoint, had breakfast and returned to campus with a sense of blissfulness.

Christmas

The Christmas festivities at CFTRI commenced a week before, with the decoration of the Christmas tree and the Crib, celebrating the birth of Jesus Christ and conveying his message of love, tolerance, and brotherhood. On Christmas day, samuRYEs and unBEETables attended a night church service, followed by cake cutting near the crib. The highlight was the Secret Santa event, where students, dressed in various attires assigned by their secret Santa, enjoyed a joyous experience, particularly the freshers. The celebrations concluded with the exchange of gifts from secret Santa to their Christ Child, filled with lots of fun and captured in tons of pictures.



Fresher's Day

On 18 November 2023, the campus radiated with enthusiasm as we officially welcomed 'unBEETables' though they were welcomed into our hearts the moment they entered the campus.

'Hollapalooza' aimed to welcome and celebrate the juniors with a lively and entertaining atmosphere with the Fresher's party.

The Newcomers of CFTRI were surprised with an invitation at their doorstep. Little did they know, the samuRYEs had planned a series of delightful surprises to truly astonish their beloved juniors. The evening commences with the best wishes from our esteemed guests - Dr. Sridevi Annapurna Singh (Director of CSIR-CFTRI), Dr. PS Negi (former Head, HRD), Dr. Neelabh Singh

(Alumni of batch 1986-1988), Dr. Vivek Babu (Warden).

The crowd cheered loudly and whistled as the beautiful girls and handsome guys from the unBEETables walked together on the ramp hand in hand. The samuRYEs had come up with special tasks for the unBEETables to shortlist their Mr. and Miss Fresher. The newcomers had numerous performances to display their talents and win the audience hearts. After a short energizing dinner, the unBEETables set the stage on fire with their fusion dance performance. Aishwarya M. and Mahesh Babu were crowned as Miss and Mister Fresher's 2023 respectively. The night later ended with cake cutting embracing the fresh start of unBEETables.



Makara Sankranti

The Pongal celebration at CFTRI was marked by traditional fervor and enthusiasm, with the IFT Club adorned in vibrant decorations. The aroma of freshly cooked Pongal wafted through the air as samuRYEs came together to celebrate the harvest festival. The day began with a special prayer ceremony, followed by a grand Pongal feast featuring an array of delicious dishes. Cultural performances showcasing traditional music and dance added to the festive spirit, creating an atmosphere of joy and camaraderie. The Pongal celebrations at CFTRI reflected the rich cultural diversity and unity among its members.



FOOD INCORPORATED

Launched in 2018, Atmosphere has been dedicated to keeping one thing at the forefront of all its endeavours: gut health. A commitment to educating friends and followers about the benefits of a healthy gut is maintained through a line of health-boosting products, ranging from kombucha and kefir to raw vegan cheesecakes, all packed with the goodness of probiotics and prebiotics. The founders, Rebekah and Ariella, who grew up in the Himalayas, carried their understanding and passion for a clean life to New Delhi, where they began working in the wellness space. The negative effects of a busy lifestyle and a polluted environment inspired the establishment of Atmosphere. The team, led by Rebekah and Ariella, includes a strong female workforce, providing opportunities and support for women from diverse backgrounds. Atmosphere's consciously built brand not only contributes to individual health but also creates a positive ecosystem, empowering and benefiting the lives of the team members.

Raspberry Detox – Sparkling Probiotic Tea



The magical detoxifying powers of activated charcoal are combined with a tangy blast of antioxidants from raspberries and strawberries in this slightly effervescent, naturally fermented tea—a gut tonic. This bubbly elixir is fermented for 10 days and infused with fresh fruits and herbs, bursting with vitamins and probiotics. The immune system is boosted, the mind is refreshed, and digestion is calmed by Kombucha.

Ingredients include water, Kombucha Culture (Yeast and Bacteria), Organic Tea, Organic Sugar, Strawberries, Raspberries, and Activated Charcoal. Storage in the fridge is necessary for Atmosphere kombucha, with a 4-month shelf life unopened. Once opened, it remains good in the fridge for a week. Other flavours include – Malta Orange Kombucha, Kargil Apricot Kombucha, Spicy Ginger Kombucha, etc.

With elegant champagne-like bubbles, this floral and citrusy immune-boosting kombucha features the ancient healing plant, elderflower, known for treating various ailments. The LIMITED EDITION Elderflower kombucha soothes the digestive system, boosts immunity, and calms inflammation. This slightly effervescent, naturally fermented

tea, infused with fresh fruits and herbs, acts as a magical gut tonic, rich in vitamins and probiotics. The elixir's core is Kombucha, renowned for immune-boosting, mind-refreshing, and digestion-calming properties. Ingredients include water, Kombucha Culture, Organic Tea, Organic Sugar, and Dried Elderflower.

Elderflower Kombucha



Sparkling Apple Spice Water Kefir



An explosively bubbly drink infused with all the warm flavours of winter. This sparkling apple beverage is produced by fermenting bacteria and yeasts, resulting in a product that is completely organic and naturally low in sugar. An amazing source of over 30 strains of

probiotics and B12, kefir makes for the perfect immune-boosting energy tonic. Caution: open slowly! This extremely bubbly drink is made with ingredients such as Water Kefir, Apple, Orange, Cinnamon, Nutmeg, Cloves, and Raisin. The kefir comes in 120 ml bottle.

Cheesecakes

Crafted with the satiating goodness of nut butter, roasted nuts, coconut yogurt, and dollops of fresh fruit, these cheesecakes are declared sugar-free, gluten-free, dairy-free, and 100% vegan. In classic Atmosphere style, they are also enriched with probiotics and prebiotics to nourish the good bacteria in your gut. Crafted with cocoa nibs, cocoa and hazelnut butter, and coconut yogurt, this



raw vegan blend is truly amazing. These cheesecakes are sweetened with inulin—a keto and diabetic-friendly prebiotic. Ingredients: Almonds, Dried Coconut, Sunflower, Dates, Chicory Root Fiber, Vanilla, Coconut Yoghurt, Hazelnut Coconut Butter, Coconut Yoghurt, Inulin, Vanilla, Salt, Cacao Butter, Cocoa Beans, Erythritol, Espresso. Other varieties available are: Mango Cheesecake, Blueberry Lemon Cheesecake, Summer Duo, etc.

Atmosphere made efforts to bring a grain free pancake mix which also with low carbs, a swoon worthy flavour and definitely without dairy, gluten or any guilt. A whole lot of gut loving ingredients that combines healthy fats, protein

and prebiotic fibres goes into this mix. The ingredients are Almond, Cassava, Coconut, Arrowroot, Freeze Dried Banana, Egg, Baking Powder, Baking soda, Erythritol, Salt. One pack cost Rs. 350/-.

Pancake Mix



Interview Preparation

Interviewing- What is it?

A structured meeting between you and Panelists.

Interviewing is a skill- like riding your bike.

PRACTICE makes PERFECT.

Panelists are attempting to determine if you are an appropriate fit for the job and their culture.

You decide if the environment is right for you.



Mastering the Art of Interview Preparation

Effective preparation is the key to success in any interview. Follow these steps to boost your confidence and increase your chances of making a lasting impression.

Body Language: What signals are you sending?



Positive Signals

1. Show interest
2. Smiling
3. Friendly nodding
4. Attentive and alert
5. Eye contact
6. Curious and focused

Negative Signals

1. Crossed arms
2. Defensive
3. Fidgeting hands or tapping feet
4. Nervous or bored
5. Lack of eye contact
6. Untrustworthy
7. Leaning back
8. Discomfort

1. Research the Company

- Gain a deep understanding of the company's values, culture, and recent achievements.
- Familiarise yourself with their products, services, and key personnel.

2. Understand the Job Description

- Analyse the job requirements and align your skills and experiences accordingly.
- Prepare specific examples to demonstrate how your background matches the role.

3. Know Your Resume Inside Out

- Be ready to discuss your experiences, skills, and achievements in detail.
- Connect your past accomplishments with the skills required for the position.

4. Anticipate Common Questions

- Practice answering common interview questions. Be concise and focus on relevant details.
- Use the STAR (Situation, Task, Action, Result) method to structure your responses.

5. Develop Your Own Questions

- Prepare insightful questions about the company, team, and role to showcase your genuine interest.
- This demonstrates your proactive approach and eagerness to contribute.

6. Dress Appropriately

- Choose professional attire that aligns with the company's culture.
- Ensure your clothing is clean, neat, and fits well.

7. Practice, Practice, Practice

- Conduct mock interviews with a friend or mentor to simulate the real experience.
- Use feedback to refine your responses and improve your overall presentation.

8. Stay Informed About Industry Trends

- Be aware of current trends and news in the industry to showcase your industry knowledge.
- This demonstrates your commitment to staying informed and adapting to change.

9. Plan Your Route

- Know the interview location and plan your route in advance.
- Aim to arrive 10-15 minutes early to account for any unexpected delays.

10. Mind Your Body Language

- Maintain eye contact, offer a firm handshake, and exude confidence.
- Pay attention to your posture and non-verbal cues throughout the interview

11. Answering the panelist's questions

- Always try to conveying information in a straightforward and uncomplicated manner.
- Expressing your thoughts or ideas with clarity, precision, and skillfull use of language, often in a more refined or detailed manner and you have the ability to convey complex concepts effectively manner.
- Craft responses to reflect enthusiasm and alignment with panelist expectations, demonstrating genuine interest and effort towards the company and never answer in a negative tone.



FSSAI Regulations and Policies

Avoid Using Newspaper To Wrap, Serve Food: Food Authority Highlights Health Risks Involved



According to FSSAI, the printing ink contains "various bioactive materials" that can be harmful to health. The ink used in newspapers contains various bioactive materials with known negative health effects, which can contaminate food and lead to health issues when ingested. Ink may have chemicals such as lead and heavy metals that can enter the human body through the food served or wrapped in newspaper. "Moreover, newspapers are often subjected to various environmental conditions during distribution, making them susceptible to contamination by bacteria, viruses or other pathogens that may transfer to the food, potentially causing foodborne illnesses," FSSAI warned.

FSSAI withdraws order to declare 'best before date' on loose sweets

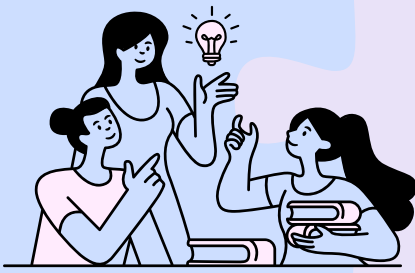
The Food Safety and Standards Authority of India (FSSAI) has withdrawn a September 2020 order that made it mandatory to declare a 'Best Before' date on containers and trays of non-packaged loose sweets. The directive for withdrawal was issued on November 7, 2023, barely days before Diwali.



Food labels to have QR code to help the visually disabled



The Food Safety and Standards Authority of India (FSSAI) has recommended the inclusion of QR code on food products for accessibility by visually impaired individuals stating that this will ensure access to safe food for all including individuals with special needs, such as visually impaired individuals. One effective means to achieve this is by incorporating Quick Response [QR] codes on product labels. "These QR codes should encompass comprehensive details about the product, including, but not limited to, ingredients, nutritional information, allergens, manufacturing date, best before/expiry/use by date, allergen warning, and contact information for customer inquiries", FSSAI says.



GAMES

Read the riddles, guess the dairy item. Check for answers!.

A. I am a popular breakfast choice, often poured over cereal or enjoyed with fresh fruit. I come in various flavours, including plain and fruity. What am I?

B. I am a clarified butter commonly used in Indian cuisine. Known for my rich and nutty flavour, I am often used in frying, sautéing, and as a flavourful addition to various dishes. What am I?

C. I am a dairy product that is produced by fermenting milk. I have a tangy taste and a smooth, creamy texture. People love to spread me on bagels. What am I?

D. I am a type of cheese that is known for my strong aroma. I have a soft, creamy interior and a rind that is often eaten with the cheese. What am I?

E. I am a classic dairy product often used in baking. I am created by separating the liquid and solid parts of milk. What am I?

F. I am a popular topping for desserts and a key ingredient in ice cream. I am made by whipping cream until it becomes thick and fluffy. What am I?

G. I am a type of cheese with a distinctive orange colour. I am often used in grilled cheese sandwiches and as a topping for burgers. What am I?

H. I am a fermented dairy product that is known for my strong and sharp flavour. I am often crumbled over salads or used in cooking. What am I?

I. I am a dairy product that is produced by curdling milk and draining the whey. I am often used in cooking and baking, and I come in varieties like ricotta and cottage. What am I?

J. I am a popular beverage made by fermenting milk. I am often enjoyed in various flavours and can be served plain or with added fruits. What am I?

A. Yoghurt B. Ghee C. Cream Cheese D. Brie Cheese E. Butter F. Whipped Cream G. Cheddar Cheese H. Blue Cheese I. Cheese Curd J. Kefir

INDUSTRY BUZZ

TATA CONSUMER PRODUCTS TO ACQUIRE CAPITAL FOODS, OWNER OF 'CHING'S SECRET' AND 'SMITH & JONES' BRANDS

Tata Consumer Products 19 January 2024 announced that it has signed definitive agreements to acquire 100% equity shares of Capital Foods, owner of the brands 'Ching's Secret' and 'Smith & Jones', in a phased manner. 75% of the equity shareholding will be acquired upfront and the balance 25% shareholding will be acquired within the next three years. This move is consistent with Tata Consumer's strategic intent to expand its product portfolio and its target addressable market in fast growing/high margin categories. Capital Foods has

strong umbrella platform brands with a portfolio of unique products for in-home consumption in fast growing categories. Ching's Secret is a market leader in Desi Chinese across its product categories - Chutneys, Blended Masalas, Sauces and Soups. Smith & Jones is a fast-growing brand catering to in-home cooking of Italian and other western cuisines. Overall, Capital Foods has #1 or #2 positions in five large categories. This acquisition will enable Tata Consumer Products to expand its product portfolio and further strengthen its pantry platform. There are significant

synergy benefits with the existing businesses of Tata Consumer Products in areas spanning distribution, logistics, exports and overheads. The overall size of the categories in which Capital Foods operates in is estimated at Rs 21,400 crores. Structural growth drivers for the category include continued growth in income levels, evolving consumer preferences leading to increased salience of global cuisines in in-home cooking and increasing need for convenience.



MOTHER DAIRY LAUNCHES BUFFALO MILK IN DELHI-NCR AT RS 70/LITRE

Mother Dairy has introduced a buffalo milk variant in the Delhi-NCR market. The company aims to establish this new segment as a Rs 500 crore brand by March next year. Mother Dairy launching buffalo milk at Rs 70 per litre in Delhi-NCR,

The company will be supplying 50,000-75,000 litres of buffalo milk per day in Delhi-NCR. The milk will be available in the market from February 2024.

By March 2025, company aim to reach 2 lakh litres per day. The company intend to make the buffalo variant a Rs 500 crore



brand in one year. This segment is growing. There is a demand for high-fat milk.

In a couple of months Mother Dairy would launch the buffalo milk variant in Uttar Pradesh, Haryana and Maharashtra also. Mother Dairy buffalo milk offers 6.5 per cent fat content and 9 per cent SNF (Solid Not Fat), giving it a creamier texture and rich taste profile. Furthermore, the new variant will consist of A2 protein.

Commissioned in 1974, Mother Dairy is now a wholly-owned subsidiary of the National Dairy Development Board (NDDB).

PEPSICO WINS APPEAL AGAINST INDIAN ATTEMPT TO REMOVE POTATO PATENT

India's Protection of Plant Varieties and Farmers' Rights (PPVFR) Authority in 2021 revoked the intellectual protection for the U.S. snacks and drinks maker's FC5 potato variety, saying Indian rules did not allow seed varieties to be patented. PepsiCo petitioned the Delhi High Court against the decision, but in July 2023 judge Navin Chawla dismissed its appeal. The company then appealed to the same court to

reverse that decision. In a judgement dated January 9 and seen by Reuters, Delhi High Court judges Yashwant Varma and Dharmesh Sharma reversed the July 2023 ruling. PepsiCo, which set up its first potato chip plant in India in 1989, supplies the FC5 seed variety to a group of farmers who in turn sell their produce to the company at a fixed price. In 2019, PepsiCo sued some Indian farmers

for cultivating the FC5 potato variety, accusing growers of infringing its patent. The company sought more than 10 million rupees (\$120,490) each for the alleged patent infringement. Within months, PepsiCo withdrew the lawsuits against farmers. PepsiCo has said it exclusively developed the FC5 variety and registered it in 2016. The FC5 variety has a lower moisture content required to make snacks such as potato chips.

ID FRESH FOOD INTRODUCES GLUE STICK DESIGN INSPIRED BUTTERSTICK



iD Fresh Food has launched a new product called Twist and Spread Butter stick, designed to simplify the process of spreading butter, making it cleaner and more convenient for storage. The product has been launched

in all major key markets and is priced at ₹69 (50 gm). Inspired by the glue stick design, the product comes in such a form that it softens quickly at room temperature and can be refilled.

Experience Talk



Sanjeev Kumar Sharma

Senior Group Leader, Chocolate
R&D, Mondelez International

Batch: 2005-2007

Leaving from CFTRI and entering to food industry, what were your aspirations as fresher? Did your first job met your expectations?

My first job didn't meet my expectation that's why I left in seven months. When we are in college, we have aspirations, dreams and we live in a dreamland. Those aspirations are generally away from reality because we assume many things about industries and departments.

I joined Nestle in the Rudarpur factory as a production officer. I was interested in R&D. I realized that my skillset and skillset required in production were not matching. At that level, role required more managerial skills than technical one.

But now, when I reflect back, I think I got the best start in my career because it was Nestle. Nestle is the biggest food industry, its systems and processes are world class and there were many things to learn. So, in the beginning of my career, I was exposed to top class quality system, equipment, management, personnel safety, my horizon of thought was extended. Later in my career I had a reference what a world class is which helped me to further perform better in my subsequent roles.

What obstacles you encountered while working as Technical Trainee in Nestle and How did you overcome them?

There were many problems, but I didn't solve them from my fundamental food science knowledge, not atleast during nestle. Because in Nestle it was more operational issue, human resource issues, I solved them through more common sense and inter-personal skills. Of course, the knowledge gained there helped me in serving R&D. Nestle was a great experience I can say.

How interesting was R&D role in The Kraft Heinz Company?

The team at Heinz was very small. Within R&D, there are many departments. It extends beyond mere product development to encompass process development, scale-up, regulatory, sensory science, analytical science, and quality assurance. During my tenure at Heinz, due to the limited team size, I was responsible for almost everything. Reflecting on this experience, I now realize that it was the best thing that could have happened to me early in my career, as it provided exposure to every facet of the field within just two and a half years. At Heinz, I was actively involved in product development, collaborated with external entities to implement scale-up processes, worked on machinery design, and navigated regulatory requirements, particularly during the early stage of FSSAI, to ensure compliance with both regulatory and sensory standards. Every aspect of the process was under my purview, and in retrospect, I view this comprehensive experience as invaluable in shaping my career as an R&D professional.

How would you describe your long journey in Mondelez International, starting from being product development manager to senior group leader?

It's been 14 years I have been with Mondelez. I worked in different role. I started as product development manager in chocolate category. Then I moved to specification management, value engineering role and currently in innovation role.

In specification management, I was in regional role, taking care of ten countries in Asia Pacific region. This helped me to grow professionally as well as personally. Getting exposed to cultures of different countries, meeting new people, managing and training them was a great experience from personal perspective.

Then I moved into value engineering role and innovation role which is a niche segment in product development where the goal is to reduce raw material cost of product without changing the taste profile. These years of journey was not only learning technical.

What do you wish you had known before starting your career?

Not specifically anything because you will learn from the scratch in the industry. Even an experienced person joins a new company, he/she also have to learn everything as new, because every industry has their own equipment, recipes, processes etc. For experienced professional, advantage is that learning time is shorter.

What advice would you give to current students at CFTRI in terms of the competitive scenario in the food industry?

I would suggest you to enjoy, be open, be collaborative. Few things you can do in campus is analyze the product launched in the market, compare it with other competitors with respect to labelling, ingredients, manufacturing, packaging etc. Bring food technology aspects in the product you eat and drink. Explore beyond your academics if you are aspiring for industry. Understand the industry from industrial view. Spend time in Pilot Plant of Engineering Department to learn different pumps, machine, operation etc.

Can you share us your thought process behind initiating FoodTech Pathshala?

Ans: How can I give back to my fraternity, was the basic thought. I was fortunate to secure a seat at CFTRI, just because others couldn't join CFTRI doesn't imply they lacked capability. My aim was to give back to society by leveraging the valuable knowledge I gained at CFTRI.

Upon rejoining Heinz in R&D, I sought out diverse suppliers and ingredients, looked for technical answers. Pagalguy.com, an online platform to share information and knowledge about MBA entrance exam, inspired me to make foodpathshala.com. The idea was to create a platform for food technologists to share knowledge efficiently. In 2010, I founded Food Pathshala, later it became FoodTechPathshala.

What is the motivation behind the "Objective Food Science Award 2024"?

Again, the objective was to giving back to the society.

When I was preparing for CFTRI there was no single book for revision as we have for other subjects. My idea was to create a book to revise at the end of preparation.

In 1st year MSc, I wrote the book based on my graduation notes, MSc notes and several books from library. During this 18years, I have got love and respect from this food science fraternity. Now it's the time to give back. As the royalty which I get from publisher is money of students, let it go back to the students only.

I wanted to run the programme continuously even if I depart , so I had to plan for the corpus amount and also look for an organisation to whom I can donate my entire royalty that I used to get every year.

What according to your experience that the fresh graduates should be aware of?

We tend to impress the people there by finding problems and giving solutions.

Instead of that, try to learn first. So before pointing any suggestions, be open to learn first, show your willingness to learn, your curiosity.

Second thing is don't compare yourself with others. Everyone has their own destiny. After few years everyone will be successful in their own way. So where ever you are, learn new things, collaborate with everyone.

In the current situation, where many other institutes are offering Masters' course in Food Technology, how would you suggest CFTRIans to be "Industry-ready"?

We all have the 'CFTRI' brand name on our shoulders. Our alumni have created wonderful image regarding CFTRI in industries by their contribution. We should also follow the same. Keep upgrading yourself. Know about companies, products etc... Bring those angles to your thought. Learn about novel technologies, digitalization and upscale yourself.



WHAT THE FOOD

Pickled Eggs

Pickled eggs are typically hard-boiled eggs that are cured in vinegar or brine. As with many foods, this was originally a way to preserve the food so that it could be eaten months later. Pickled eggs have since become a favourite among many as a snack or hors d'œuvre and popular in pubs, bars, and taverns, and around the world in places where beer is served. After the eggs are hard-boiled, the shell is removed and they are submerged in a solution of vinegar, salt, spices, and other seasonings. Recipes vary from the traditional brine solution for pickles to other solutions, which can impart a sweet or spicy taste. The final taste is mostly determined by the pickling solution. The eggs are left in this solution from one day to several months. Prolonged exposure to the pickling solution may result in a rubbery texture. A common practice is to puncture the egg with a toothpick to allow the pickling solution to penetrate to the egg's interior, but this is dangerous as it can introduce Clostridium into the finished product. Eggs prepared with this method have sometimes had high enough levels of botulinum toxin to cause illness in a human. Pickled eggs may be served as part of a main course, hors d'œuvres, or garnishes.

Recipes

A variant historically associated with the Pennsylvania Dutch is the pickled beet egg where whole beets, onions, vinegar, sugar, salt, cloves, and (optionally) a cinnamon stick are used as the brine. The eggs take on a pink or even purple colour from the beets and have a sweet and sour taste. Pickled red beet eggs, long a common food at picnics and potlucks in the Pennsylvania Dutch country, have diffused into the folk cuisine of the surrounding "English" and become a popular snack that can be bought in supermarkets as far east as the Delaware River. A typical British recipe for pickled eggs includes eggs, vinegar, salt, and sugar. The eggs are first boiled, peeled, then boiled with the other ingredients. They last for three to four months (for best quality) and are traditionally found in British public houses and fish and chip shops.



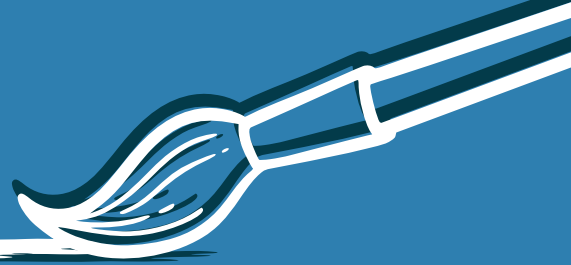
Pork Blood Soup



Pork Blood Soup is soup in Chinese cuisine, and was consumed by labourers in Kaifeng "over 1,000 years ago", along with offal dumplings called jiaozi.

It is a soup that uses pork blood as its primary ingredient. Additional ingredients may include barley and herbs such as marjoram, as well as other foods and seasonings. Some versions are prepared with coagulated pork blood and other coagulated pork offal, such as intestine, liver and heart. It is mainly popular in China, Thailand and Czech Republic.

Kalakariti



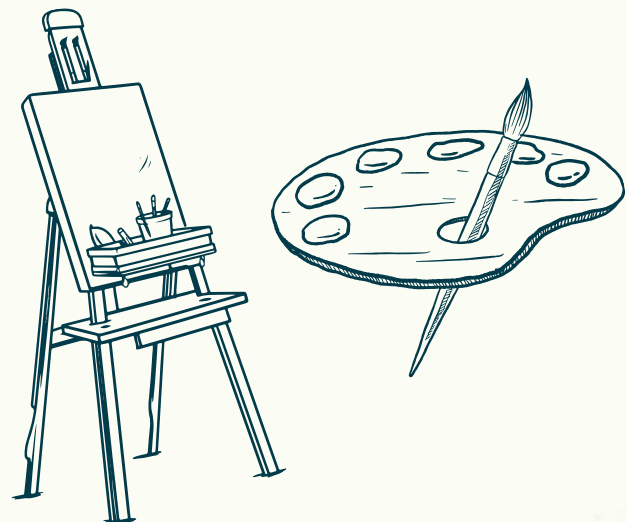
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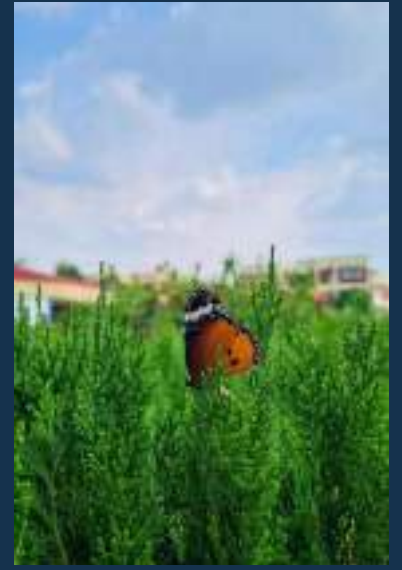
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