



Participant Handbook

Academic year 2020-2021

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1. DUPONT NUTRISCHOLARS AWARDS

1.1. BACKGROUND

Bridging the academia with industry, fostering innovations and empowering the Indian food academicians, DuPont Nutrition & Biosciences proudly presents the third edition of its pan-India food science program 'DuPont NutriScholars Awards'.

Following the success of Season 1 and 2, DuPont provides platform and hands-on product development experience for students to innovate and formulate vegetarian foods with higher protein content from plant and dairy sources.

The program enables a gateway for the students of food science to enrol, innovate and explore the world of the food industry.

DuPont is calling all the young innovators and students across food science, technology and relevant interdisciplinary fields from Indian academia to implement their innovative ideas in the plant-based protein concept.

The DuPont NutriScholars Awards 2020 edition features four distinctive award categories:

- Convenient and nutritious breakfast
- Quick Service Restaurant (QSR) style lunch/dinner
- Healthier desserts/indulgences
- 4 PM healthy savoury snacks

DuPont NutriScholars Awards (DNA) program was initiated by DuPont Nutrition & Biosciences to drive commercially viable innovation in academic fraternity and increase DuPont's capabilities in foods and beverages by engaging academia at multiple levels.

Plant-based protein market in India has been rapidly growing with numerous product-launches and emerging start-ups. Urban and young population are growing at a faster rate and the demand for nutritional, convenient and healthy foods are becoming important, more than any other time in history. DuPont Nutrition & Biosciences is keen to ignite the flame of imagination in student's minds, and direct innovation towards developing food products enriched with nutritional and sensory attributes.

The current edition of DNA strengthens DuPont's objective of bringing innovative plant-based protein food ideas using DuPont™ Danisco® range of ingredients.

DuPont Nutrition & Biosciences (www.dupontnutritionandbiosciences.com) has partnered with F1rst (www.firstmr.com) for roll-out of the program across 300+ universities and institutions in the country.

2. PURPOSE AND SCOPE

2.1. PURPOSE AND SCOPE

The purpose of the programme is to:

- Provide a platform for collaboration between industry, students, and the academia
- Develop commercially scalable innovation capability of university students with support from DuPont Nutrition & Biosciences
- Create a pipeline of innovative protein food ideas using DuPont™ Danisco® plant-based protein and functional food ingredients

2.2. AWARD CATEGORIES

The DuPont NutriScholars Awards - Season 3 offers four exciting award categories:

- Convenient and nutritious breakfast
- QSR style lunch/dinner
- Healthier desserts/indulgence
- 4 PM healthy savoury snacks

| Award Category | Description |
|-------------------------------------|---|
| Convenient and nutritious breakfast | Convenient and easy to prepare (ready to cook/drink) breakfast concept |
| QSR style lunch/dinner | Convenient, easy and fast to prepare and serve quick service restaurant (QSR) relevant lunch/dinner concept |
| Healthier desserts/indulgence | Sweet and tasty dessert/indulgence food with enhanced protein content |
| 4 PM healthy savoury snacks | Tasty and healthy savoury snacks with enhanced protein content |

Key criteria for developing protein food product:

- Product concept should contain at least one to maximum of five DuPont™ Danisco® ingredients listed under the section 3.2
- It is mandatory to use one or more ingredients from the DuPont™ Danisco® protein ingredient portfolio.
- The concept should contain minimum protein content necessary for claiming 'Source' of protein or 'rich/high in protein'.

| Protein related claims | Minimum requirement |
|------------------------|---|
| Source | 10% of RDA per 100 g for solids 5% of RDA per 100 ml for liquids Or 5% of RDA per 100 kcal |
| Rich/High | 20% of RDA per 100 g for solids 10% of RDA per 100 ml for liquids Or 10% of RDA per 100 kcal |

- Minimum 50% of the total protein content of the product should be met through the usage of DuPont Danisco soy and/or pea proteins
- The concept must be vegetarian
- The concept should be industry scalable at the plant level
- Target age group must be specified for each product concept
- The final developed product should be stable either at ambient or frozen condition
- Product concept must be designed to retain microbial safety and stability during storage and logistics

Additional criteria for bonus points:

Additional points will be awarded for the concepts with:

- Enhanced nutritional value of the concept compared to similar products available in the market. Improved nutrition such as reduced calorie, fat, salt and/or sugar; high in protein content and fiber

- Concepts with fiber related claims must have fiber ingredients only from DuPont™ Danisco® portfolio (Litesse Two Polydextrose, Fibrim 1020)
- More number of DuPont™ Danisco® ingredients, up to five appropriate DuPont™ Danisco® ingredients can be added.
- Cost estimation comparing the concept with a benchmark product from market
- The concept may cater to a market need or insight such as vegan, weight management, etc.
- If the snack/dessert concept requires elaborate cooking (apart from microwave or adding hot water) before serving, then final cooked product has to be prepared and submitted for the phase 2 evaluation by the student team ensuring the shelf life and safety
- In case of breakfast or QSR style lunch/dinner, the product should match the segment needs such as:
 - Easy and quick to prepare such as microwave cooking or addition of hot water in 5-10 minutes
 - Convenient to serve

About DuPont Nutrition & Biosciences products

The DuPont™ Danisco® range of ingredients provides food and beverages, and dietary supplements manufacturers a broad portfolio of solutions, delivering enhanced bio-protection, improved nutritional profile, and better taste and texture with greater cost efficiency and lower environmental impact.

The DuPont™ Danisco® plant-based protein ingredients help food brands to formulate high protein foods and beverages with taste, nutrition, cost and sustainability

Our portfolio includes:

- Antimicrobials
- Antioxidants, extracts and flavours
- Betaine
- Cultures
- Dietary fibers & prebiotics
- Emulsifiers
- Enzymes
- Hydrocolloids
- Probiotics
- Plant-based proteins (soy and pea)
- Sweeteners
- Tailored Blends

2.3. AWARDS AND RECOGNITION

- Each prize-winning team and runner-up team in the four categories will be rewarded INR 50,000 and INR 25,000 respectively.
- Each member of the finalist teams will receive a certificate.
- It is free to apply in the competition
- The platform offers up to INR 50,000 and INR 25,000 prize money to Phase 2 winner and runner-up teams and up to INR 4,000 of experimental fund for each shortlisted team from Phase 1.
- The winning team members will stand a chance of earning an internship with DuPont Nutrition & Biosciences for a period of up to four weeks, which will help in shaping up his/her career in food industry.
- All members from the winning team will have an opportunity to be interviewed for a four weeks internship. Up to two interns will be selected for internship during the year 2021
- Appearing in the selection process does not guarantee an internship
- If selected, internship will be provided in the DuPont food application centre in Gurugram in the calendar year 2021.
- If the proposals submitted fail to meet relevant requirements and rules of the competition, the organizers have the right to adjust the number of final proposals and awards.

3. GUIDELINES

3.1. RULES AND REGULATIONS

- Entries must include an experimental concept to implement their ideas in the four award categories.
- Selection committee will be evaluating the product design proposal based on the innovativeness, potential of the product to be successful commercially and technical skills in product development using one or more DuPont™ Danisco® food ingredient(s). Following are the rules and regulations for the program:
 1. The program will focus on food science and technology skills in product design and development, so no extra points will be awarded for packaging graphics or presentation. However, packaging has to be designed to maintain integrity and safety of the product
 2. Proposal already submitted for any other competition or funded by external or government agency must not be used/entered in this competition. If found at a later stage, such proposal(s) will be rejected.
 3. The organizers have the right to invite food manufacturers to trial-produce some or all the samples/ concepts according to the submitted reports, and the finalists are obligated to provide certain ingredients and technical assistance.
 4. Product concept and report should be original and not copied (words, ideas or any additional information) without reference or credits. Product concept that are identified as plagiarism, then the team will be banned from participating in the competition.
 5. If the finalists, for some reasons, cannot submit samples and reports according to the plan, they shall promptly notify the organizers or the evaluation panel and explain the reasons, and the organizers have the right to recover some or all the supporting scientific research funds.
 6. All concepts, ideas, product writes ups, reports, presentations and samples submitted as well as all the intellectual property associated with these entries as part of Phase 1 shall be the exclusive property of DuPont. The same can be used by DuPont for further development as per their business needs and the participants agree that they shall never challenge DuPont's exclusive right over the same.
 7. The participants confirm that the entries and product concepts that they submit shall not infringe the intellectual property right of any third party. If they have used the intellectual property of any third party in their submissions, they confirm that they have the right to use the same. The participant agrees to indemnify DuPont against all claims and actions including legal costs should any third party bring a claim of infringement of their intellectual property against DuPont for the use of any intellectual property that was a part of the submission for this contest.
 8. The participants agree that they shall not disclose in any manner whatsoever the submissions they are making for this contest including the formula, technology to any third party without the explicit written permission of DuPont.
 9. Any matters not included in these rules or the interpretation of these rules shall be decided by the DuPont Nutrition & Biosciences organizing committee and their decision will be final.
 10. The courts at Gurgaon shall have exclusive jurisdiction over any disputes arising under this contest.

3.2. FOOD INGREDIENTS FROM DUPONT DANISCO RANGE

DuPont Nutrition & Biosciences has a vast ingredient portfolio and some of the suggested nutritional and functional ingredients for the protein food innovation are listed below:

| Plant- based protein Ingredients* from Dupont Nutrition & Biosciences | |
|---|--------------------|
| Supro® XT 221D | Response® 4438 |
| Supro® XT 219D | Supro® 570 Nuggets |
| Supro® 670 | Supro® 220 D |
| Supro® 500E | Supro® 120 IP |
| Supro® Plus LF | Trupro® 2000 |
| Supro® Plus 2640 | Trupro® 1670 |

Usage of protein ingredient is mandatory; Ingredient details will be provided on request basis*

| Optional food Ingredients* from Dupont Nutrition & Biosciences | |
|--|---|
| Stabilizers and hydrocolloids | Fibers# |
| Grindsted® JU 543 | Litesse® Two Polydextrose |
| Grindsted® JU 4801 | Fibrim® 1020 |
| Recodan® CM 220 | Bakery Specific Ingredients |
| Grindsted® AM 9243 | Breads POWERbake® G 1007, Panodan® AB 100 SSL P 55 Veg |
| Pectin AMD 922 | Cake Dimodan® HP 75 B/MB, PGE 55, Xanthan 200 |
| Cremodan® SE 40 | Biscuits Panodan® AB 100, |
| Cremodan® Sampoorna | Flat Bread Flat Bread 104 |
| Guar Gum 250 | |

Ingredient details will be provided on request basis*; #fibers can only be used for the concept with fiber claim

3.3. ELIGIBILITY

1. A team can consist of minimum of one to maximum of five members from same institute. The team can be formed with students from interdisciplinary courses at undergraduate, postgraduate and PhD levels.
2. Each team must have a faculty advisor to testify to confirm compliance with the program regulations and verify status of the students.
3. Each team member must be enrolled at an accredited college/university as a student for the academic year 2020-2021.
4. Each team can participate in only one of the four award categories. No duplication of team or team members are allowed.
5. Each team must designate a team leader as main contact. Such nominations made by the team shall be final and can't be changed at a later stage unless with prior approval of DuPont Nutrition & Biosciences
6. Product concept must contain at least one or more products from DuPont™ Danisco® protein and food ingredient portfolio. Refer the list of food ingredients in the section 3.2 that can be used in the protein food product design and development.

Kindly note that...

7. DuPont Nutrition & Biosciences has the right to invite food manufacturers to trial-produce some or all the samples/concepts according to the submitted reports, and the finalists are obligated to provide certain ingredients and technical assistance.
8. If the finalists, for some reasons, cannot submit samples and reports according to the plan, they shall promptly notify the organizers or the evaluation panel and explain the reasons, and the organizers have the right to recover some or all the supporting scientific research funds.
9. The intellectual property rights of finalist and winning works are mutually owned by the participants and DuPont Nutrition & Biosciences.
10. DuPont Nutrition & Biosciences has the right to use relevant formulation and picture information in market development or other activities. DuPont Nutrition & Biosciences has right to develop concepts from Phase 1, finalist and winning products from Phase 2 of this competition.

3.4. PROCESS

3.4.1. PHASE 1: PRELIMINARY SELECTION FOR FINAL AWARDS ENTRY

On August 10, 2020, student teams from Indian Universities/institutes will be invited to submit a comprehensive and detailed proposal of their solution to any one of the four-protein food concept. These proposals will be assessed and evaluated based on the extended list of predefined criteria.

Evaluation panel will select top four best-scored proposal by second week of October 2020.

- All the applications must be submitted electronically using the online form.
- Participating team should submit complete proposal reports in the prescribed application format only by 11.59pm I.S.T on September 21, 2020. Applications received after September 21, 2020 will not be accepted.
- Completed applications in word format (.doc, .docx) must be submitted in the program website www.dupontnutrischolars.com
- Mentor signature must be uploaded to confirm compliance to the program regulations in image format (.jpeg, .jpg, .png)
- Image attachments (maximum two for each criteria) to showcase the technical feasibility of your proposal, infrastructure available must be uploaded in the image format (.jpeg, .jpg, .png)
- Application for Phase 1 requires product concept report, which must be three-page or less (not including cover page, reference and other attachments)
- The cover page should contain the product and team information (product name, team member's names and institute name).
- The report must be a word file in 11pt Arial font and single-spacing format, and all text and figures must be on A4 paper (21cm × 29.7 cm) size.
- The total score granted by the evaluation panel will determine the finalists and winners
- Finalized teams in award category to compete in Phase 2 of DuPont NutriScholars Awards will be selected according to the three-page proposal and requisite documents. The reports will be scored using the 100-point scale (tabulated below)
- The cover page should contain the product and team information (product name, team member's names and institute name). Product concept report should contain the following contents and all the applications will be evaluated based on the criteria:

| Criteria | Score |
|--|------------|
| Product: | |
| - Product Description | 5 |
| - Product formulation | 10 |
| Process description | 5 |
| Innovativeness | 10 |
| Technical feasibility/workability | 10 |
| Relevance of the concept for respective category | 5 |
| Improvement in health/nutrition value/taste (meeting the claim of "source of protein") | 10 |
| Meeting the claim of "High in protein" | 5 |
| Application of listed DuPont™ Danisco® ingredients (for usage of one Ingredient) | 5 |
| Application of listed DuPont™ Danisco® ingredients (for usage of more than one Ingredient) | 5 |
| Cost estimation | 5 |
| Market: | |
| - Product market positioning | 5 |
| - Market potential | 5 |
| Safety and Shelf life: | |
| - Food safety and quality | 5 |
| - Validation of shelf life | 5 |
| Bonus point: quality of abstract or report | 5 |
| TOTAL | 100 |

1. All references cited within the proposal must follow Journal of Food Science formatting. References list must be submitted as a separate document with the Phase 1 application.
2. The information on each of the participants in the team including name, school and university, class/ grade and contact information (phone number and email address) should be submitted as a separate document in the given application format and should not appear within the proposal.
3. Selection panel for Phase 1 will comprise of DuPont experts. The proposal from each participating university will be evaluated according to the scoring criteria by the expert panellists.
4. The organizing and selection committee will preliminarily review and score each of the submitted proposals and select at least four teams under each category for the grand finale.
5. All the finalist team will obtain the DuPont™ Danisco® ingredients and supporting experiment fund of INR 4,000 offered by DuPont Nutrition & Biosciences.
6. The intellectual property rights of finalist and winning works are mutually owned by the participants and DuPont Nutrition & Biosciences.

3.4.2. PHASE 2: GRAND FINALE

Four finalist teams for each award category will receive experimental fund (INR 4000 each)

Each finalist team must develop product based on their proposal and submit complete report and prepared product by third week of November 2020 for the awards. Virtual award ceremony for the winning products will be conducted first/second week of December 2020.

1. DuPont/F1rst will have continuous interaction with the selected teams to ensure that the product development goals are achieved.
2. Each finalist team must submit final product report in the prescribed format along with the photographs of the product in the program website www.dupontnutrischolars.com by November 23, 2020. Shipping and serving conditions to be defined by the selected team members.
3. Each finalist team shall submit at least 15 servings/units (copies) of the product samples described in the proposal to the organizers from November 16, 2020 to November 23, 2020 (depending on the product shelf life) for sensory evaluation by the selection panel during the grand finale.
4. It is suggested that the products should be packaged in the way as described in the proposal (pictures in the report might not be included).
5. Each product must have a minimum shelf life of fifteen (15) days and remain robust, stable and maintain aesthetic values in the prescribed conditions during storage and logistics.
6. The product samples should also come with one printed copy of final product report. In addition, their mentor shall issue a letter of certification to ensure the product hygiene, production technology, dosage and usage of ingredients are as per the report submitted.
7. After receiving the product samples submitted by the selected teams from specific Indian Universities within the prescribed period, evaluation panel consisting of DuPont experts will evaluate the product.
8. DuPont NutriScholars Awards finalist teams competing in the Phase 2 will be evaluated using 300-point scale.
9. Finalists for each award categories will be selected by the expert panel based on the above criteria only. A list with the average scores and rank for each award category will be prepared by the expert panellists. In the event of a tie, decision by the panellists will be considered as final.
10. Grand Finale evaluation criteria and the weightage are distributed as stated below:

| Criteria | Score |
|---|-------|
| Report (30% weightage) | |
| Innovativeness | 15 |
| Originality & clarity | 10 |
| Industrial scalability | 10 |
| Improvement in health/nutrition value/taste (meeting the claim of "source of protein") | 10 |
| Meeting the claim of "High in protein" | 5 |
| Application of listed DuPont™ Danisco® ingredients (for usage of one Ingredient) | 5 |
| Application of listed DuPont™ Danisco® ingredients (for usage of more than one Ingredient) | 5 |
| Product description | 10 |
| Process description | 10 |
| Marketing | 10 |
| Safety/shelf life | 5 |
| Completeness of the report | 5 |
| Product (40% weightage) | |
| Sample product appearance | 20 |
| Taste/ flavor | 30 |
| Texture/ physical sensory | 30 |
| Shelf life | 10 |
| Packaging | 10 |
| Quality of Presentation content | 10 |

| Criteria | Score |
|------------------------------|-------|
| Presentation (30% weightage) | |
| Presentation Delivery | 10 |
| Product Innovativeness | 10 |
| Originality & clarity | 10 |
| Technical feasibility | 10 |
| Nutrition and health value | 10 |
| Product description | 10 |
| Process description | 10 |
| Marketing | 10 |
| Safety/ shelf life | 10 |
| TOTAL | 300 |

4. TIME-LINE

4.1. DATES AND DEADLINES

| | |
|---|---|
| September 21, 2020 | Application deadline for DuPont NutriScholars Awards – Season 3 |
| October 9, 2020 | Announcement of finalist teams for DuPont NutriScholars Awards – Season 3 |
| October 2020 – November 2020 | Financial and technical support to finalist teams |
| November 12, 2020 | Application deadline for final product report |
| November 23, 2020 | Deadline for submission of products for Phase 2 evaluation |
| November 23-24, 2020 | Final Adjudication: DuPont NutriScholars Awards |
| December 1, 2020 | Announcement of DuPont NutriScholars Award winners for Season 3 |
| December first/second week, 2020 | DNA Season 3 Awards ceremony |

5. DUPONT NUTRISCHOLAR AWARDS PROGRAM CHECKLIST

Use the following checklist to ensure the required items are present in complete form.

Phase 1

- Check proposal report format in .doc format
- Apply online by the deadline September 23, 2020 11.59pm IST
- Submit relevant documents/images and mentor signature

Phase 2

- Check final product report format in .doc format
- Submit complete product report in the word format by the deadline November 23, 2020 11.59pm IST
- Final report must contain detailed information on product description, process description, product packaging and serving
- Photographs of the product must be submitted in the image format
- Prepare, pack and send one printed copy of the report and adequate food product samples for sensory evaluation starting from November 12, 2020

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