

# IFTSA Developing Solutions for Developing Countries Product Development Competition

## RULES AND GUIDELINES

### BACKGROUND

The Student Association is committed to engaging student members from around the world and utilizing their scientific skills to serve a bigger cause. The IFTSA Developing Solutions for Developing Countries (DSDC) Competition promotes the application of food science and technology and the development of new products and processes that are targeted at improving the quality of life for people in developing countries.

### PURPOSE

- To promote the use of food science and innovative thinking as tools to improve the development, safety, and distribution of food in developing countries
- To promote global awareness of issues related to food availability, nutrition, and health
- To build a cohesive community of the next generation of food science leaders and to use IFT as the catalyst for creating and supporting the community
- To provide a link between government, international organizations, students and IFT regarding food problems in the developing world
- To provide IFT student members with a platform to develop relationships with other students and food science professionals that have a common interest
- To energize the best and brightest food science students to harness their energy and passion to explore the limitless opportunities to address global food challenges; and
- To leverage a holistic approach to address food system challenges.

### SPONSOR

Feeding Tomorrow Fund

### SCHEDULE

Date	Event
February 1, 2023	Preliminary application deadline
March 1, 2023	Finalists notified
May 1, 2023	Finalist proposals due
July 16 - July 19, 2023	IFT FIRST in Chicago

## 2022-2023 THEME

For fruit-based beverages to achieve stability on the shelves and allow them to be distributed outside cold chains, it is paramount that they achieve microbial stability. A company has been processing fruit juices and using cold chain distribution to reach their customers who have traditionally been in the Hotel/Restaurant/Catering (HORECA) space. They purchased some equipment to pasteurize the product, but the first trials failed in the market. They would like some expertise in developing their product quality and shelf life.

Develop a product, package and process that results in a high-quality nutritious product with at least 6 months ambient shelf life.

The final product should be affordable, available, and accessible. The packaging should be sustainable. The process should aim to minimize food waste.

## GENERAL COMPETITION RULES

Entries must consist of a proposal for a new concept readily applicable to food or water in developing countries. This may include, but is not limited to, concepts such as a new food product, microbiological/chemical/biochemical method, distribution system, packaging material, food delivery system, nutrient fortification concept, new use of local ingredients for a safer, more nutritious product, etc.

The judges will be evaluating the rationale behind the proposal, the scientific value of the proposed concept, the technical problem-solving skills, the economic feasibility and the societal impact on developing countries. Ultimately, the entry must benefit the quality of lives of people in developing countries and should be applicable to such a setting. The competition theme will be released during the fall of the current competition year. The purpose of the theme is to promote issues that are relevant and urgent and to allow for a common ground when evaluating the entries.

## LIMITATIONS

- The focus of this competition is applying food science skills; therefore, judges will not award points for package graphics or other advertising material.
- Written proposals must be submitted via the submission portal at IFT.org in both Word and PDF format and received *on or before* deadlines stated herein, including those that fall on weekends or holidays.
- All parts of the competition will be conducted in English.
- If a team is chosen as a finalist, all participants of the finalist team agree not to claim any intellectual property rights (including patent rights) as to any material created in connection with the competition. As the purpose of the competition is to create and develop ideas which can be leveraged in the developing world, all finalist submissions

may be shared with the sponsoring company and affiliated groups.

## **ELIGIBILITY**

1. Teams do not have to represent a certain IFTSA Chapter.
2. At least one (1) team member must hold student member status in IFT at the time of the submission of the preliminary report. All members of the finalist teams must be current IFT members to compete in the finals at the annual meeting.
3. Entries must be students' work. Professors may be consulted and referenced but may not be a major contributor to the actual work.
4. Industry support such as donation of ingredients or use of equipment is allowed and encouraged but should not be acknowledged by any team in the preliminary proposal or oral presentation. Acknowledgment should be included in the final proposal.
5. Projects from product development or other classes are eligible in the competition.
6. MS, Ph.D., or summer internship projects ARE eligible entries in the competition.
7. Maximum number of applications accepted per university is FIVE. However, there is no limit on the number of members in each team.
8. Only a maximum of three (3) team members will present the product in the oral competition. Additional team members may be present to answer questions.
9. Each individual may only be a part of one (1) submission.
10. The chair of the competition will be excluded from participating on any competing team.
11. Teams are allowed and encouraged to seek funding from outside sources to help with their research process

## **PRELIMINARY ROUND PROCEDURES**

### **Application**

1. Teams must submit a copy of their proposal via the submission portal on IFT.org (in both Word and PDF format) by February 1st at 11:59 PM CST.
2. The following information should be provided in the submission portal.
  - a. Team members' names and IFT membership numbers
  - b. Sponsor companies, donors of goods, services, or money (if applicable)
  - c. The name, mailing address, phone number and e-mail address of a contact person to whom all correspondence should be directed
  - d. Name of the school, name of entry, and advisor's name and contact information

### **Preliminary Written Proposal**

1. The preliminary proposal is limited to two (2) pages, not including one (1) title page, one (1) page for graph representation of the entry (photograph, drawing, flow-diagram, etc.), one (1) appendix page used at the discretion of the contestants, and reference page(s).
2. The report must be typed, double-spaced, in 12-point font, Times New Roman font with 1-inch margins. All text and figures must fit on 8.5" × 11" paper.

3. The title page may only include the name of the product and the date of submission. Please do not include any discriminating information on this page. Names of sponsor companies, any university, students, or other indication of team location are not acceptable on the title page, in the report, or on the product picture.
4. References
  - a. All references cited within the proposal will be referred to with a number in or at the end of the sentence in which the reference was used.
  - b. The list of references (which are not included in the two (2) page limit) should be included in a separate Word and PDF file submitted with the preliminary proposal.
  - c. If a problem arises with reference credibility a judge may contact the Competition Chair for verification.
  - d. The reference page should be formatted based on Journal of Food Science (JFS) guidelines.

### Cover Letter

A cover letter from a department professor or department head verifying originality of work and the team’s compliance with the competition rules is to be submitted along with the preliminary proposal.

### Judging

Scoring for each proposal will be determined by at least three (3) judges with up to two (2) judges from the sponsoring company. The total judging will include members from academia, industry, and/or a government agency. Each entry will be scored on a basis of 70 points, with the points to be distributed as shown here.

<b>Preliminary Proposal Evaluations</b>	<b>70 points total</b>
Application Description	15 points
Technical Problem Solving	20 points
Originality	15 points
Impact	20 points

1. Judges will select a maximum of six (6) finalists.
2. All competing teams will be informed of only their respective judges’ comments. Teams are not given access to comments for other teams.
3. Judges have the right to reject an entry if they believe it does not fit in with the competition’s selected theme.
4. The finalists will be selected as follows by the judges and Competition Chair:

- a. All point scores are converted into rank scores (highest score out of 70=1, second highest score out of 70=2, etc.).
  - b. Rank scores are totaled for each team (one rank score per judge).
  - c. The lowest six (6) scores are designated as the finalists.
  - d. In the event of a tie, the two lowest rank scores will be added for each group and the team with the lowest score will advance. If this fails, the judges will be asked to provide a decision.
5. All finalists will be notified of their status by March 1, 2023.

## FINAL ROUND PROCEDURES

Responsibilities of finalists include a final written proposal, a 15-minute oral presentation, and an 8-minute Q&A session.

### Final Written Proposal

1. Finalists must submit via the submission portal on IFT.org both Word (.doc) and PDF copies of their final proposals by May 1st at 11:59 PM CST.
2. The maximum number of pages for the final written proposal is twenty-two (22). This number does include proposal body text, references, diagrams, figures, tables, flow diagrams, references and appendices. It does NOT include the one (1) title page and the one (1) picture/diagram page.
3. The report must be typed, double-spaced, 12-point font Times New Roman font with 1" margins. All text and figures must be on 8.5" × 11" paper.
4. The title page, for which there is no specific required format, must include the title of the proposal and date. A list of donors and other contributors that assisted the team can be included in the final proposal.
5. Include one page with a diagram or picture of the entry. Additional images throughout the report are optional.
6. Areas that may be covered, but not limited to, in the final proposal are:
  1. Rationale
    - a. Why were the product/process chosen?
    - b. Identify and justify the need and relevance to the local region of the novel product/process
  2. Product description/evaluation
  3. Product description/use
    - a. Product formulation and ingredient/component functionality
    - b. Competitive framework
    - c. Sensory evaluation plan (actual sensory data is not required)
    - d. Shelf-life estimate
    - e. Package selection and basis for selection
    - f. Nutrition label
  4. Process description/evaluation
    - a. Process description and basis for selection

- b. Process flow diagram
  - c. Hazard Analysis – Critical Control Points (HACCP)
  - d. Process limits
  - e. Operating cost
  - f. Capital investment estimate
5. Safety/Regulations
- a. Safety evaluation with respect to formulations, functionality, and processing
  - b. Legal implications of the product (ingredient labeling)
  - c. Hazard Analysis – Critical Control Points (HACCP)
  - d. Good Manufacturing Processes (GMPs)
  - e. Home use - safety hazards
  - f. Local government regulations if applied
6. Impact on Developing Countries
- a. Impact potential-problem to be solved
  - b. Economic Feasibility (discussion about supply chain, ingredient/equipment procurement, sustainability, etc. \*\*Actual numbers are not required)
  - c. Readiness of application
  - d. Extension and mass production possibilities
  - e. Delivery logistics
7. References should be added to the end of the proposal.
8. Each proposal will be scored on the basis of 100 points with the points being distributed as shown here.

NOTE: These are suggestions and should only be considered if they are pertinent to the topic or aspect of your proposal. These headings/points may or may not be included at the team's discretion. Remember that originality is encouraged although addressing the relevant points is critical. If certain points deemed important by the judges for a particular proposal are not covered in the final paper, then that entry will be penalized accordingly

<b>Final Written Proposal</b>	
Entry description	5 points
Application description	10 points
Technical problem solving	20 points
Safety, Shelf life, Product quality assurance and control	10 points
Originality	15 points
Impact (based on rationale)	25 points
Economic feasibility	15 points

## Oral Presentation

Finalists will present a fifteen (15) minute oral report. An eight (8) minute Q&A session will immediately follow the oral report.

1. A maximum of three team members will present the report.
2. A PowerPoint (or other type of presentation) is required. The Competition Chair is responsible for bringing/acquiring a laptop computer. The Chair will provide finalists with details concerning the PowerPoint presentation (format, version, disk type, file size, etc.). It is the responsibility of the presenting team to ensure that their presentation is in a compatible format to be shown on the computer provided.
3. The presentations will be open to the public. In order to help the judges make their decision, a picture, visual aids or a video displaying the product or process is highly encouraged but not required as part of the oral presentation.
4. Physical samples of products or packaging are NOT allowed in the oral presentation. Please do not bring them.
5. Videos are allowed to be included in the final oral presentation. The entire presentation will still have to fit within the fifteen (15) minute requirement, however.
6. Each presentation will be scored on the basis of 100 points with the points being distributed as shown here.

<b>Oral Presentation</b>	
Presentation quality and organization	30 points
Communication and interest generated	25 points
Potential impact on developing countries	35 points
Effectiveness of selling the product idea	10 points

## Question and Answer Session

Finalists will participate in an 8-minute Q&A session immediately following their oral presentation. The Q&A will be reserved for questions from the judges and related discussion. This event will be moderated by the DSDC competition chair and related personnel.

<b>Question and Answer Session</b>	
Quality of answering questions thoroughly and concisely	50 points

## Judging

Final proposals will be scored on a basis of **250** points, distributed as follows.

<b>Final Round Evaluation Total</b>	<b>250 points</b>
Final Written Proposal	100 points
Oral Presentation	100 points
Question and Answer session	50 points

1. At least three (3) judges will evaluate preliminary proposal submissions and at least five (5) judges will evaluate the final proposals, oral presentations, and roundtable discussion. The judging panel may include members from academia, industry, or a government agency. Up to two (2) judges may be from the sponsoring company.
2. A judge will be appointed from each of our sponsors, whenever possible.
3. Judges are encouraged to serve a three-year term or find a suitable replacement if they are unable to participate.
4. Judges or sponsors may be solicited for determining each year's theme. The following year's theme must be decided in the fall following the end of the current year's IFT Annual Event.
5. Judge identities will remain anonymous until the final competition.
6. Judges are encouraged to evaluate products by point totals, not personal preferences.

## AWARDS

1. A total of six (6) teams will make it to the finals. The 6 teams will all be judged against one another in the finals.
2. Each finalist team will receive a travel reimbursement of up to \$1500.
3. The 1st place winner will receive \$3,000, the 2nd place winner will receive \$1,500, and the 3rd place winner will receive \$500.
4. The Student Association will present the finalist teams with a personalized certificate after the IFT Annual Event. The top three finalist teams and their winning entries will be highlighted in IFT's Food Technology magazine.

<b>Placement</b>	<b>Award</b>
1 <sup>st</sup> place	\$3000 and travel reimbursement up to \$1500 total
2 <sup>nd</sup> place	\$1500 and travel reimbursement up to \$1500 total
3 <sup>rd</sup> place	\$500 and travel reimbursement up to \$1500 total
4 <sup>th</sup> , 5 <sup>th</sup> , and 6 <sup>th</sup> place	Travel reimbursement up to \$1500 total



## NOTES

- If a competition rule has been breached, the Competition Chair will be allowed to present a report detailing the infraction(s) to the judges. The team captain/contestant will be provided a sufficient amount of time to defend their actions to the judges. The judges reserve the exclusive right to decide regarding the case, and to recommend an appropriate penalty, if the situation warrants. Judges will communicate their decision, which will be considered final, in a prompt fashion to both the chair and the team captain.
- Changing the integrity of or making major deviations from the preliminary proposal may result in penalization at the discretion of the judges.
- Any team or team member that does not follow the IFT Event Code of Conduct will risk being disqualified.

## QUESTIONS

- Please contact the Developing Solutions for Developing Countries Competition Chair via email at [iftsa.dsdc@gmail.com](mailto:iftsa.dsdc@gmail.com).