

	ABC	Doc. No. : /PR/06 FSSC 22000 V 5.1
	Procedure Manual	Issue No- 1.0 Rev. No. : 00
		Date : 01.09.2022
		Page : 1

## **New Food Product Development**

### **1.0 Objective**

To establish a procedure for developing a new food product and its commercialization.

### **2.0 Scope:**

Applies to the development of new products with the current facilities/ new facility as identified by the company or by customer request.

### **3.0 Responsibility**

R& D Team

### **4.0 Procedure**

#### **Processes in Development of new product**

##### **a) GENERATION of IDEA**

Generation of idea can be done by creating a request by Marketing team of company or by customer enquiry. Marketing teams may be charged with the central development of ideas with supplementation of researcher input. Ideas may also come from consumer. Ideation sessions using participants from all departments can also be a part of corporate idea generation. After idea generation, the major steps in developing a new food product may be divided into four phases: screening, feasibility, test marketing, and commercialization.

Idea generation should be completed by gathering information about trending ingredients and consumer wants by attending trade shows, keeping up to date on new product releases by other companies, scanning research articles and trade publications, and monitoring grocery shelves.

##### **b) SCREENING**

Once the idea is created, the steps of product development begin. Screening is the most critical step in a product development project. Thorough testing of product concepts will be done in deciding whether to invest time and money into a venture, or to abandon the efforts completely. Project ideas should be congruent with organizational goals. R&D Division should screen ideas throughout the development project in order to gauge if the marketplace has shifted in its acceptability of the concept, ingredient availability, and regulatory factors. Company may call on outside firms to assist in market screening if necessary.

Questions for Screening Concepts Screening will be guided by questions Like:

- Who will use the product?
- How will it be used?
- What preparation is necessary for the consumer?

	ABC	Doc. No. : /PR/06 FSSC 22000 V 5.1
	Procedure Manual	Issue No- 1.0 Rev. No. : 00
		Date : 01.09.2022
		Page : 2

- How will the consumer benefit from it?
- Does it have any other uses?
- Who is the competition? How is the product different?
- Where will the product be available?
- How will people find out about the product?
- What will the price be?

Collaboration of departments during the screening being initiated to evaluate individual areas involved in product development including financial and legal considerations, process and equipment availability, purchasing power and ingredient accessibility, shifts in the marketplace, and consumer perceptions. Examining markets and conducting consumer research are vital to product screening. Consumer testing is essential when screening products.

### c) FEASIBILITY

Feasibility considerations for a business include regulations, technology, and finances. By setting up an interdepartmental team and the team will review the aspects such as attainability that may be introduced at any stage during the development process.

#### Regulations

At the start of a project, the company must ensure the legal and other compliance requirements as per FSSAI or any other regulations as applicable.

#### Technology

In order to launch a new food product, the necessary equipment, facilities, and processes needed to manufacture a product must be established. When products are found to not be technologically feasible, the project should be terminated.

#### Formulation

Varying ingredients, processing parameters, and packaging options will be utilized in order to find the best combination to create the desired product. Sound statistical analysis and good record keeping are critical at this step. After some initial trials, an experimental design will cut down on the number of prototypes to be developed which will save time and money. All formulas and experiments will be detailed in a laboratory record. Each entry should include all necessary details. This is beneficial when projects are temporarily delayed, last for long periods of time, or may be passed to other developers at the organization.

#### Ingredients

Considerations when choosing ingredients include whether the commodity will be available for purchase year-round or seasonally. Product developers will generally consider more than

	ABC	Doc. No. : /PR/06 FSSC 22000 V 5.1
	Procedure Manual	Issue No- 1.0 Rev. No. : 00
		Date : 01.09.2022
		Page : 3

one supplier of the same product to test quality and cost effectiveness. Company may need to find more than one supplier of the same product to fulfill needs. If more than one supplier is used, Clear product specifications must be followed by all suppliers.

### **Processing**

Processing will be carried out on equipment that is already acquired if possible. New equipment is a big capital expense, so new product development projects are often based on expanding product lines using existing facilities and equipment.

Processing will describe the product development phases which include the product development reviews to be performed, and validations to be held.

### **Facilities**

The facility that is available for processing will be considered. If the company has acquired a new plant, the water supply and sewage systems will need to be inspected. The conditions inside the plant, such as temperature and relative humidity control, should be taken into account.

### **Packaging**

Packaging is an important part of a consumer's appeal for a product, especially with first time purchases. It is important to consider how consumers will view the packaging and if it will convey the product's quality goals, such as being a high quality premium product or a generic grade. Marketing Department and product developing team will consider the types of packaging materials that are being used on competitors' products and how to set themselves apart.

### **Distribution**

Products that require special distribution needs include frozen and refrigerated foods. Organizations should consider the cost of special distribution. Other distribution considerations include the radius in which the product will be available. Will the product have nationwide or regional distribution? The distribution radius can also influence the packaging needs.

### **Shelf Life**

Shelf life is the determination of how long a product will hold its quality as perceived by customers. The shelf life of a product is important and it will be determined through the use of accelerated or real time testing.

### **Safety**

Product developers will consider the safety risks of their products. History of outbreaks and published safety risks of certain product categories can help give inputs on risk factors of

	ABC	Doc. No. : /PR/06 FSSC 22000 V 5.1
	Procedure Manual	Issue No- 1.0 Rev. No. : 00
		Date : 01.09.2022
		Page : 4

which processors should be cognizant. Some products are susceptible to the growth of spoilage and pathogenic microorganisms. Allergens and physical contaminants, like metal shavings from processing equipment, can pose safety threats to consumers as well.

## **Finances**

Before a food product is for sale, an understanding of all production and marketing costs is required. A detailed cost analysis will be made prior to manufacture. The two types of costs to consider include fixed costs and variable costs.

### **d) TEST MARKETING**

The next logical step is development of the product and test marketing.

Consumer tests at this stage are sometimes conducted as in-home use tests. Consumers assess the likes and dislikes of the product prior to the organization launching a larger marketing scheme. Market testing is most effective when planned well in advance with the help of an expert in the field. Ask for assistance from marketing specialists who can devise a plan and interpret the results of the test.

### **e) COMMERCIALIZATION**

Once market potential test prove successful, the product will be ready to commercialize. The product can still be produced at an existing food processing plant; otherwise, the main concern at this step is to find a location to manufacture the product. To set up a processing facility, a firm must address issues that include finding a location, building, equipment, utilities, and personnel. Consumer concerns during test marketing will be taken into consideration, and a second test may be conducted if deemed necessary.

## **5.0 Reference**

1. Inputs
2. Development Plan

## **6.0 Records**

1. Development request/ Customer specifications
2. List of ingredients
3. Product review records
4. Product validation records
5. Test reports
6. Shelf life test reports