

# Food Quality Regulation and Maintenance

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# Quality

- Quality is the ultimate criterion of the desirability of any food product.
- Quality is defined as degree of excellence and includes such things as taste, appearance and nutritional content.
- When we select food and when we eat, we use all of our physical senses, including sight, touch, smell, taste and even hearing.

# Quality detectable by our senses

- **APPEARANCE**: Includes size, shape, wholeness, different forms of damage, gloss, transparency, colour and consistency.
- **TEXTUARAL**: Includes handfeel, mouthfeel of firmness, softness, juiciness, chewiness and grittiness.
- **FLAVOUR**: Includes sweet, salty, sour and bitter and aroma perceived by the noses.

# Quality Control

- Quality control is a reactive process and aims to identify and rectify the defects in finished products.
- Quality Control can be achieved by identifying and eliminating sources of quality problems to ensure customer's requirements are continually met.

# Objective of Quality Control

1. Improvement of Quality.
2. Reduction of rework.
3. Efficient use of men and machines.
4. To determine the any needs for corrective actions in the manufacturing process.
5. A better understanding of customer needs.

# Quality Assurance

- All those planned and systematic actions necessary to provide adequate confidence that a product or service will satisfy given requirements for quality.
- It is a strategic management function that establishes policy, adapts programme to meet established goals, provides confidence that these measures are being effectively applied.

# QUALITY ASSURANCE

- It describes and manages the activities of control, evaluation , audits and regulatory aspects of a food processing system.
- It is advisory function. It may be audit the system and provide assistance in making improvements.

# Function of Quality Assurance

3 Fundamental functions:

- Quality Control: Specific Processes and unit operation.
- Quality Evaluation: Quality control laboratory.
- Quality Audits: Internal and 3<sup>rd</sup> party( outside organization)



# Function of Quality Assurance

- ❖ Corrective action and continual improving activities.
- ❖ Formulating and Recommending company policies, strategies, Goals and Objectives relating to quality.
- ❖ Providing leadership for the quality function as necessary.
- ❖ Designing company's operating procedure.

# Responsibilities of Quality Assurance

- Line inspection and control of a supplies, ingredients materials and raw products, operating procedures and finished products.
- Physical evaluation and qualification of raw and processed products and ingredients.
- Chemical evaluation and Microbiological evaluation of the products.
- Warehousing Condition(Shelf life time, Temperature control and handling procedure).
- Sanitation control of product, process and storage.

# Difference

## Quality control

- I. It is a procedure that focuses on fulfilling the quality requested.
- II. Aims to identify and fix the products

## Quality Assurance

- I. It is a procedure that focuses on providing assurance that quality requested will be achieved.
- II. Aims to prevent the defect

# Difference

## Quality Control

- iii) Method to verify the quality validation.
- iv) Corrective Technique.
- v) Confirms that Standards  
Are followed while working  
on the product.
- vi) Identify the defects in the  
system

## Quality Assurance

- iii) Method to manage the  
quality verification.
- iv) Preventive Technique.
- v) In order to meet the  
customer requirements it  
defines Standard and  
methodologies.
- vi) To prevent the defects in  
the system.

# RAW MATERIALS

It includes

Ingredients, Packaging Materials ( Foundation to finished products).

Raw materials must meet regulatory requirements( safe and legal for your intended uses) and specifications(Contribute to the functionality and quality of the process and product ).

## Traditional Role:

### 1) Research and Development:

Invents the finished products to meet the customer expectations.

### 2) Quality:

Program and practice will result in food product(safe, legal and meet the company's standard as well as specifications outlined by Research & Development.

### 3) Production:

From receiving to shipping raw materials are handled carefully.

### 4) Sales:

Customer must meet the expectations.

## Raw materials selection based on

- Functionality(Binders, Thickeners, plastic Packaging)
- Organoleptic properties( flavor, color, aroma and texture)
- Product safety char( acidity, water activity)
- Preservatives( Class 1 and class 2)



➤ Plant discussion and trials:

Does the Raw material present a potential safety or handling concern to the employee's or the facility( flammable materials or an irritating powder).

➤ Product safety consideration:

Finished product should be safe.

➤ Facility and Equipment Capabilities:

Can the plant appropriately handle the material( sufficient storage capacity) and is the existing equipment capable of handling the materials.

➤ Materials and production cost

## Analytical information of product

- Biological: plate count
- Chemical: Fortification levels, sulfite, heavy metals etc.
- Physical: Colour, physical measurements.
- Packaging size and composition