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# DEPARTMENT OF AGRICULTURAL ENGINEERING

## IV YEAR – 07TH SEMESTER

## OFD352:TRADITIONAL INDIAN FOODS

## UNIT 4: COMMERCIAL PRODUCTION OF TRADITIONAL FOODS

## COMMERCIAL PRODUCTION OF VARIOUS TRADITIONAL FOODS


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## Commercial production of traditional breads

### Types of Traditional Breads

1. **Naan**: Leavened, butter-topped flatbread.
2. **Roti**: Unleavened whole wheat flatbread.
3. **Paratha**: Layered, unleavened flatbread.
4. **Puri**: Deep-fried, puffed bread.
5. **Batura**: Deep-fried, puffed bread.

### Commercial Production Process

1. **Dough Preparation:** Mixing of flour, water, yeast, and other ingredients.
2. **Fermentation:** Allowing the dough to rise, giving bread its characteristic flavor and texture.
3. **Sheeting and Cutting:** Rolling out the dough into sheets and cutting into desired shapes.
4. **Proofing:** Allowing the shaped bread to rise again.
5. **Baking or Frying:** Cooking the bread to the desired crispiness and golden-brown color.
6. **Packaging:** Wrapping or packaging the bread for distribution and sale.

**Automation and Technology**

1. Automated Dough Mixers: Efficient mixing and kneading of large batches.
2. Tunnel Ovens: High-capacity baking with precise temperature control.
3. Bread Slicers: Automated slicing for uniform thickness and size.
4. Packaging Machines: High-speed wrapping and packaging for efficient distribution.

**Quality Control and Safety**

1. Raw Material Inspection: Ensuring quality and purity of ingredients.
2. Process Monitoring: Regular checks on temperature, humidity, and dough handling.
3. Microbiological Testing: Regular testing for pathogens and contaminants.
4. HACCP (Hazard Analysis and Critical Control Points): Implementing a systematic approach to identify and control food safety hazards.

**Conclusion**

- Commercial production of traditional breads requires a combination of traditional techniques, modern automation, and strict quality control measures.
- By embracing innovation and technology, bakeries can produce high-quality, authentic traditional breads on a large scale.

## Commercial production traditional snacks

### Types of Traditional Snacks

1. Sev: Crunchy, fried gram flour noodles.
2. Bhujia: Spicy, fried snack made from gram flour, onions, and spices.
3. Namkeen: Savory, spicy snack mix made from nuts, seeds, and dried fruits.
4. Papadum: Thin, crispy flatbread made from lentil or chickpea flour.
5. Murukku: Crunchy, fried snack made from rice flour and spices.

### Commercial Production Process

1. Raw Material Sourcing: Procuring high-quality ingredients like gram flour, spices, and nuts.
2. Mixing and Blending: Combining ingredients in the right proportions to create the perfect blend.
3. Extrusion or Forming: Shaping the mixture into desired forms like sev, bhujia, or papadum.
4. Frying or Baking: Cooking the snacks to the perfect crispiness and golden-brown color.
5. Seasoning and Packaging: Adding flavorings and packaging the snacks for distribution and sale.

**Automation and Technology**

1. Extrusion Machines: High-capacity machines for producing uniform snack shapes.
2. Frying Systems: Automated frying systems with temperature control and oil filtration.
3. Baking Ovens: High-capacity ovens with precise temperature control and humidity management.
4. Packaging Machines: High-speed packaging machines for efficient and hygienic packaging.

**<u>Commercial production of ready to eat foods</u>**

**Types of Ready-to-Eat Foods**

1. Canned Goods: Canned vegetables, fruits, meats, and soups.
2. Frozen Meals: Frozen pizzas, curries, and other meals.
3. Dehydrated Foods: Dried fruits, nuts, and instant soups.
4. Retort Pouch Foods: Pre-cooked, sterilized foods packaged in retort pouches.
5. Convenience Foods: Instant noodles, cup-a-soup, and other easy-to-prepare foods.

**Commercial Production Process**

1. Raw Material Sourcing: Procuring high-quality ingredients.
2. Food Preparation: Cooking, blanching, or dehydrating ingredients.
3. Packaging: Filling, sealing, and labeling containers or pouches.
4. Sterilization: Applying heat, steam, or radiation to kill bacteria and extend shelf life.
5. Quality Control: Checking for texture, flavor, and safety

**Automation and Technology**

1. Automated Cooking Systems: High-capacity cooking systems with temperature control.
2. Retort Machines: Sterilization machines using steam or hot water.
3. Packaging Machines: High-speed filling, sealing, and labeling machines.
4. X-Ray Inspection: Detecting contaminants and ensuring product safety.
5. Modified Atmosphere Packaging (MAP): Removing oxygen and replacing with inert gases to extend shelf life.

**Commercial production of instant mixes**

**Types of Instant Mixes**

1. Breakfast Mixes: Instant oats, idli, dosa, and upma mixes.
2. Snack Mixes: Instant bhel, chaat, and namkeen mixes.

3. Meal Mixes: Instant curry, biryani, and pulao mixes.
4. Dessert Mixes: Instant gulab jamun, jalebi, and halwa mixes.

**Commercial Production Process**

1. Raw Material Sourcing: Procuring high-quality ingredients.
2. Mixing and Blending: Combining ingredients in the right proportions.
3. Grinding and Milling: Grinding and milling ingredients to the required texture.
4. Sifting and Sieving: Sifting and sieving the mix to ensure uniformity.
5. Packaging: Filling, sealing, and labeling packets or jars.

**Automation and Technology**

1. Automated Mixing and Blending Systems: High-capacity mixing and blending systems.
2. Grinding and Milling Machines: High-speed grinding and milling machines.
3. Sifting and Sieving Machines: High-capacity sifting and sieving machines.
4. Packaging Machines: High-speed filling, sealing, and labeling machines.
5. Quality Control Systems: Online quality control systems for monitoring mix quality.