

## National Occupational Standards

# Introduction to Jelly Processing & Packaging

Unit Code: FIC/N0213

Version: 1.0

NSQF Level: 3

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### Description

This OS is about processing fruits and vegetables to make jelly by receiving, checking raw material quality, sorting, pulping, pasteurizing, cooking, juice extracting, clarifying, filtering, sampling for quality analysis, cooling, packaging and storing.

### Scope

The scope covers the following :

- Processing of jellies
- Post-production activities

### Elements and Performance Criteria

#### *Processing of jelly*

To be competent, the user/individual on the job must be able to:

- PC1.** wash the fruits and vegetables using the appropriate washing methods
- PC2.** transfer washed fruits and vegetables to the sorting/inspecting line
- PC3.** sort/grade fruits and vegetables according to size, quality, etc.
- PC4.** feed sorted fruits and vegetables in the peeler or corer
- PC5.** transfer the fruits for pulping and Select the appropriate method and equipment for pulping based on the type of produce
- PC6.** operate the pulping equipment according to the manufacturer's instructions, ensuring consistent and efficient operation
- PC7.** check the quality of fruit pulp/ fruit juice through physical parameters such as appearance, colour, odour, etc. sample and transfer to the quality lab for analysis
- PC8.** transfer measured quantity of fruit pulp for preparing jam
- PC9.** set the temperature, pressure, stirrer speed, etc. of the cooking kettle/tank, set mixing time, cooking time, cooking temperature, etc,
- PC10.** measure ingredients such as sugar, pectin solution, flavour, colour, etc for batch referring to the formulation chart and add in sequence into pulp/juice in kettle following sop and continue cooking along with stirring
- PC11.** check the quality of cooked product through physical parameters such as colour, appearance, texture, taste, etc., sample and transfer to the quality lab for analysis and conformance to standards
- PC12.** open valves or start the pump to transfer the hot product into the packaging machine to pack jam
- PC13.** load packing materials such as glass bottles, plastic bottles, pouches, etc., and sealing materials such as lids, closures, etc. in packaging machines
- PC14.** place the packed and labelled products in cartons and transfer them to the storage area and store maintaining storage conditions following SOP

#### *Post-production activities*

To be competent, the user/individual on the job must be able to:

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- PC15.** clean the work area, types of machinery, equipment, and tools using approved cleaning agents and sanitizers
- PC16.** attend minor repairs/faults of all machines (if any)
- PC17.** ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals
- PC18.** ensure that all equipment surfaces that come into contact with food are thoroughly cleaned and sanitized using CIP methods, with no visible residues or contamination
- PC19.** follow the prescribed CIP protocols, including the correct sequence of cleaning steps, appropriate use of cleaning agents, and adherence to specified times and temperatures

### *Food safety practices*

To be competent, the user/individual on the job must be able to:

- PC20.** follow Good Manufacturing Practices (GMP) at the workplace
- PC21.** follow Good Hygiene Practices (GHP) at the workplace appropriately
- PC22.** ensure to proper tagging and number of all the equipment, machinery, tools, and other processing aids to keep proper traceability of the product being manufactured and handled at the site
- PC23.** ensure the record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control parameters
- PC24.** follow FSSAI Schedule IV requirements related to pest Control, Cleaning, and Sanitation, Utilities, Waste Disposal, Prevention of Cross-Contamination, allergen management, corrective action, preventive actions, food operation control, etc.
- PC25.** report any food safety and GMP issues to the supervisor, if any

### *Entrepreneurial Skills*

To be competent, the user/individual on the job must be able to:

- PC26.** understand the significance of employability skills in meeting job requirements
- PC27.** identify constitutional values, civic rights, duties, personal values and ethics, and environmentally sustainable practices
- PC28.** explain 21st Century Skills such as Self-awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset, etc.
- PC29.** speak with others using some basic English phrases or sentences
- PC30.** follow good manners while communicating with others
- PC31.** work with others in a team
- PC32.** communicate and behave appropriately with all genders and PwD
- PC33.** report any issues related to sexual harassment
- PC34.** use various financial products and services safely and securely
- PC35.** calculate income, expenses, savings etc.
- PC36.** approach the concerned authorities for any exploitation as per legal rights and laws
- PC37.** operate digital devices and use their features and applications securely and safely
- PC38.** Use the internet and social media platforms securely and safely
- PC39.** identify and assess opportunities for potential business
- PC40.** identify sources for arranging money and associated financial and legal challenges
- PC41.** follow appropriate hygiene and grooming standards

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**PC42.** create a basic biodata

**PC43.** search for suitable jobs and apply

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** resource management process

**KU2.** procedure to estimate manpower and raw material

**KU3.** methods to inspect tools, equipment and machinery

**KU4.** Knowledge about drinking water specifications and its relevant standards required for washing of fruits and vegetables

**KU5.** standard methods used for drying in fruits and vegetable after washing

**KU6.** how to carry out processes such as peeling and slicing without damaging the fruits and vegetables

**KU7.** sorting and grading the fruits and vegetables on the basis of their size, shape, colour, appearance, etc.

**KU8.** inspection techniques to detect spoilages, damaged fruits and vegetables and procedure followed to discard them appropriately

**KU9.** food laws and regulations applicable to product packaging and labelling and the information to be printed on the packet labels

**KU10.** different types of packaging material to be used for packaging of jelly

**KU11.** Different methods of jelly processing

**KU12.** organizational procedure for disposal of waste material from the processing area in an environmentally safe manner

### Generic Skills (GS)

User/individual on the job needs to know how to:

**GS1.** maintain work-related notes and records

**GS2.** read the relevant guides and literature to get the latest information about the field of work

**GS3.** communicate clearly and politely

**GS4.** perform basic calculations

**GS5.** listen attentively to understand the instructions being given

**GS6.** identify solutions to work-related issues

**GS7.** plan and prioritize tasks to ensure timely completion

**GS8.** make quick decisions in case of an emergencies

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Processing of jelly</i>	15	35	-	10
<b>PC1.</b> wash the fruits and vegetables using the appropriate washing methods	-	-	-	-
<b>PC2.</b> transfer washed fruits and vegetables to the sorting/inspecting line	-	-	-	-
<b>PC3.</b> sort/grade fruits and vegetables according to size, quality, etc.	-	-	-	-
<b>PC4.</b> feed sorted fruits and vegetables in the peeler or corer	-	-	-	-
<b>PC5.</b> transfer the fruits for pulping and Select the appropriate method and equipment for pulping based on the type of produce	-	-	-	-
<b>PC6.</b> operate the pulping equipment according to the manufacturer's instructions, ensuring consistent and efficient operation	-	-	-	-
<b>PC7.</b> check the quality of fruit pulp/ fruit juice through physical parameters such as appearance, colour, odour, etc. sample and transfer to the quality lab for analysis	-	-	-	-
<b>PC8.</b> transfer measured quantity of fruit pulp for preparing jam	-	-	-	-
<b>PC9.</b> set the temperature, pressure, stirrer speed, etc. of the cooking kettle/tank, set mixing time, cooking time, cooking temperature, etc.,	-	-	-	-
<b>PC10.</b> measure ingredients such as sugar, pectin solution, flavour, colour, etc for batch referring to the formulation chart and add in sequence into pulp/juice in kettle following sop and continue cooking along with stirring	-	-	-	-
<b>PC11.</b> check the quality of cooked product through physical parameters such as colour, appearance, texture, taste, etc., sample and transfer to the quality lab for analysis and conformance to standards	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> open valves or start the pump to transfer the hot product into the packaging machine to pack jam	-	-	-	-
<b>PC13.</b> load packing materials such as glass bottles, plastic bottles, pouches, etc., and sealing materials such as lids, closures, etc. in packaging machines	-	-	-	-
<b>PC14.</b> place the packed and labelled products in cartons and transfer them to the storage area and store maintaining storage conditions following SOP	-	-	-	-
<i>Post-production activities</i>	<b>5</b>	<b>10</b>	-	<b>3</b>
<b>PC15.</b> clean the work area, types of machinery, equipment, and tools using approved cleaning agents and sanitizers	-	-	-	-
<b>PC16.</b> attend minor repairs/faults of all machines (if any)	-	-	-	-
<b>PC17.</b> ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals	-	-	-	-
<b>PC18.</b> ensure that all equipment surfaces that come into contact with food are thoroughly cleaned and sanitized using CIP methods, with no visible residues or contamination	-	-	-	-
<b>PC19.</b> follow the prescribed CIP protocols, including the correct sequence of cleaning steps, appropriate use of cleaning agents, and adherence to specified times and temperatures	-	-	-	-
<i>Food safety practices</i>	<b>5</b>	<b>10</b>	-	<b>2</b>
<b>PC20.</b> follow Good Manufacturing Practices (GMP) at the workplace	-	-	-	-
<b>PC21.</b> follow Good Hygiene Practices (GHP) at the workplace appropriately	-	-	-	-
<b>PC22.</b> ensure to proper tagging and number of all the equipment, machinery, tools, and other processing aids to keep proper traceability of the product being manufactured and handled at the site	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC23.</b> ensure the record keeping and documentation such as Daily Monitoring Sheets, Batch Traceability Records, machine records, product parameters, process control paramete	-	-	-	-
<b>PC24.</b> follow FSSAI Schedule IV requirements related to pest Control, Cleaning, and Sanitation, Utilities, Waste Disposal, Prevention of Cross-Contamination, allergen management, corrective action, preventive actions, food operation control, etc.	-	-	-	-
<b>PC25.</b> report any food safety and GMP issues to the supervisor, if any	-	-	-	-
<i>Entrepreneurial Skills</i>	<b>5</b>	-	-	-
<b>PC26.</b> understand the significance of employability skills in meeting job requirements	-	-	-	-
<b>PC27.</b> identify constitutional values, civic rights, duties, personal values and ethics, and environmentally sustainable practices	-	-	-	-
<b>PC28.</b> explain 21st Century Skills such as Self-awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset, etc.	-	-	-	-
<b>PC29.</b> speak with others using some basic English phrases or sentences	-	-	-	-
<b>PC30.</b> follow good manners while communicating with others	-	-	-	-
<b>PC31.</b> work with others in a team	-	-	-	-
<b>PC32.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
<b>PC33.</b> report any issues related to sexual harassment	-	-	-	-
<b>PC34.</b> use various financial products and services safely and securely	-	-	-	-
<b>PC35.</b> calculate income, expenses, savings etc.	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC36.</b> approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<b>PC37.</b> operate digital devices and use their features and applications securely and safely	-	-	-	-
<b>PC38.</b> Use the internet and social media platforms securely and safely	-	-	-	-
<b>PC39.</b> identify and assess opportunities for potential business	-	-	-	-
<b>PC40.</b> identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<b>PC41.</b> follow appropriate hygiene and grooming standards	-	-	-	-
<b>PC42.</b> create a basic biodata	-	-	-	-
<b>PC43.</b> search for suitable jobs and apply	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>55</b>	<b>-</b>	<b>15</b>



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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	FIC/N0213
<b>NOS Name</b>	Introduction to Jelly Processing & Packaging
<b>Sector</b>	Food Processing
<b>Sub-Sector</b>	
<b>Occupation</b>	Processing-Fruits and Vegetables
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Minimum Job Entry Age</b>	16
<b>Minimum Educational Qualification &amp; Experience</b>	10th grade pass OR 5th Class Pass with 3 Years of experience in Food Processing Industry OR Previous relevant Qualification of NSQF Level 2.5 with 1.5 years of experience in Food Processing Industry OR Previous relevant Qualification of NSQF Level 2 with 3 Years of experience in Food Processing Industry
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	18/02/2025
<b>Next Review Date</b>	18/02/2028
<b>NSQC Clearance Date</b>	18/02/2025
<b>Reference code on NQR</b>	NG-03-FI-03747-2025-V1-FICSI
<b>NQR Version</b>	1.0
<b>CCN Category</b>	1