



Soya Products Processor

Electives: Soya Beverages and Paneer

QP Code: FIC/Q8004

Version: 1.0

NSQF Level: 4

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FIC/Q8004: Soya Products Processor

Brief Job Description

The individual at work is responsible for processing soy to produce various types of soya products such as soya milk and flavoured beverages, paneer (tofu), texturized soya protein, etc. as per standard work practices.

Personal Attributes

The job requires the individual to be physically fit with the ability to plan, organize, prioritize, and handle pressure.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N9902: Work effectively in an organisation](#)
2. [SGJ/N1702: Optimize resource utilization at workplace](#)
3. [FIC/N8010: Produce texturized soya protein of different shapes and sizes](#)
4. [FIC/N9026: Prepare for production](#)
5. [FIC/N9901: Implement health and safety practices at the workplace](#)

Electives (mandatory to select at least one):

Elective : Soya Beverages and Paneer

This elective is about production of Soya Beverages and Paneer (tofu)

1. [FIC/N8011: Produce soya beverages and paneer \(tofu\)](#)

Qualification Pack (QP) Parameters

Sector	Food Processing
Sub-Sector	Soya Food
Occupation	Processing-Soya Foods
Country	India

NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL
Minimum Educational Qualification & Experience	12th Class OR 10th Class with 2 Years of experience relevant experience OR 10th Class + I.T.I (2 years) OR 10th Class + I.T.I (1 year) with 1 Year of experience
Minimum Level of Education for Training in School	Not Applicable
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	1.0

Remarks:

Nil

FIC/N9902: Work effectively in an organisation

Description

This unit is about working effectively with others.

Scope

The scope covers the following :

- Communicate effectively
- Work in a team effectively
- Respect diversity

Elements and Performance Criteria

Communicate effectively

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

- PC1.** obtain complete information and instructions from designated personnel
- PC2.** reciprocate understanding and seek clarifications whenever required
- PC3.** provide information accurately and clearly
- PC4.** use inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive

Work in a team effectively

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

- PC5.** plan tasks to be performed as per priority and need
- PC6.** consult with and assist others to maximize effectiveness and efficiency at work
- PC7.** escalate problems and grievances beyond own scope to the concerned authority
- PC8.** take appropriate action to resolve conflicts at the workplace

Respect diversity

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

- PC9.** maintain a gender-neutral behaviour with everyone at the workplace
- PC10.** empathise with People with Disabilities (PWD) and offer help, if required
- PC11.** recognise and report incidents of harassment and discrimination to appropriate authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organizational quality procedures and processes associated with work
- KU2.** standards, policies, and procedures followed in the organization relevant to employment, harassment, discrimination and performance conditions
- KU3.** reporting structure, inter-dependent functions, lines, and procedures applicable at the workplace

- KU4.** different types of harassment and discrimination based on gender, disability, caste, religion, and culture
- KU5.** components of effective communication and its importance
- KU6.** importance of teamwork in organizational and individual success
- KU7.** importance of ethics and discipline for professional success
- KU8.** how to express and address grievances appropriately and effectively
- KU9.** importance and ways of managing interpersonal conflict effectively
- KU10.** different types of disabilities and the challenges faced by persons with disability (PwD)
- KU11.** laws, acts and provisions defined for PwD
- KU12.** importance of gender sensitivity and equality
- KU13.** legislations, grievance redressal mechanisms, and penalties against harassment in the workplace

Generic Skills (GS)

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

- GS1.** communicate information, doubts and concerns about work related matters in local language or Hindi/English
- GS2.** read and interpret information given in local language or Hindi/English
- GS3.** establish priorities and deadlines in consultation with other and record them
- GS4.** be punctual
- GS5.** listen to others concerns and doubts carefully and address them
- GS6.** be courteous

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively</i>	8	13	-	-
PC1. obtain complete information and instructions from designated personnel	2	3	-	-
PC2. reciprocate understanding and seek clarifications whenever required	2	3	-	-
PC3. provide information accurately and clearly	2	3	-	-
PC4. use inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive	2	4	-	-
<i>Work in a team effectively</i>	8	14	-	-
PC5. plan tasks to be performed as per priority and need	2	4	-	-
PC6. consult with and assist others to maximize effectiveness and efficiency at work	2	3	-	-
PC7. escalate problems and grievances beyond own scope to the concerned authority	2	3	-	-
PC8. take appropriate action to resolve conflicts at the workplace	2	4	-	-
<i>Respect diversity</i>	6	12	-	-
PC9. maintain a gender-neutral behaviour with everyone at the workplace	2	4	-	-
PC10. empathise with People with Disabilities (PwD) and offer help, if required	2	4	-	-
PC11. recognise and report incidents of harassment and discrimination to appropriate authority	2	4	-	-
NOS Total	22	39	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9902
NOS Name	Work effectively in an organisation
Sector	Food Processing
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	18/06/2026
NSQC Clearance Date	24/02/2022

SGJ/N1702: Optimize resource utilization at workplace

Description

This unit is about adopting sustainable practices and optimizing use of resources, especially material, energy and waste, in day-to-day operations at work

Scope

The scope covers the following :

- Material conservation practices
- Energy/electricity conservation practices
- Effective waste management/recycling practices

Elements and Performance Criteria

Material conservation practices

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

- PC1.** identify ways to optimize usage of material including water in various tasks/activities/processes
- PC2.** check for spills/leakages in various tasks/activities/processes
- PC3.** plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC4.** carry out routine cleaning of tools, machines and equipment

Energy/electricity conservation practices

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

- PC5.** identify ways to optimize usage of electricity/energy in various tasks/activities/processes
- PC6.** check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC7.** report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment
- PC8.** ensure electrical equipment and appliances are properly connected and turned off when not in use

Effective waste management/recycling practices

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

- PC9.** identify recyclable and non-recyclable, and hazardous waste generated
- PC10.** segregate waste into different categories
- PC11.** dispose non-recyclable waste appropriately
- PC12.** deposit recyclable and reusable material at identified location
- PC13.** follow processes specified for disposal of hazardous waste

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** potential hazards, risks and threats based on the nature of work
- KU2.** layout of the workstation and electrical and thermal equipment used
- KU3.** organizations procedures for minimizing waste
- KU4.** efficient and inefficient utilization of material and water
- KU5.** ways of efficiently managing material and water in the process
- KU6.** basics of electricity and prevalent energy efficient devices
- KU7.** ways to recognize common electrical problems
- KU8.** common practices of conserving electricity
- KU9.** usage of different colours of dustbins
- KU10.** categorization of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU11.** waste management and methods of waste disposal
- KU12.** common sources of pollution and ways to minimize it

Generic Skills (GS)

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

- GS1.** record data on waste disposal at workplace
- GS2.** complete statutory documents relevant to safety and hygiene
- GS3.** read Standard Operating Practices (SOP) documents
- GS4.** communicate with colleagues on the significance of greening of jobs
- GS5.** make timely decisions for efficient utilization of resources
- GS6.** complete tasks efficiently and accurately within stipulated time
- GS7.** work with supervisors/team members to carry out work related tasks
- GS8.** identify cause and effect of greening of jobs

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Material conservation practices</i>	4	8	-	-
PC1. identify ways to optimize usage of material including water in various tasks/activities/processes	1	2	-	-
PC2. check for spills/leakages in various tasks/activities/processes	1	2	-	-
PC3. plug spills/leakages and escalate to appropriate authority if unable to rectify	1	2	-	-
PC4. carry out routine cleaning of tools, machines and equipment	1	2	-	-
<i>Energy/electricity conservation practices</i>	4	8	-	-
PC5. identify ways to optimize usage of electricity/energy in various tasks/activities/processes	1	2	-	-
PC6. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	1	2	-	-
PC7. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	1	2	-	-
PC8. ensure electrical equipment and appliances are properly connected and turned off when not in use	1	2	-	-
<i>Effective waste management/recycling practices</i>	5	10	-	-
PC9. identify recyclable and non-recyclable, and hazardous waste generated	1	2	-	-
PC10. segregate waste into different categories	1	2	-	-
PC11. dispose non-recyclable waste appropriately	1	2	-	-
PC12. deposit recyclable and reusable material at identified location	1	2	-	-
PC13. follow processes specified for disposal of hazardous waste	1	2	-	-
NOS Total	13	26	-	-

National Occupational Standards (NOS) Parameters

NOS Code	SGJ/N1702
NOS Name	Optimize resource utilization at workplace
Sector	Green Jobs
Sub-Sector	Other Green Jobs
Occupation	Resource Optimization
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2026
NSQC Clearance Date	24/02/2022

FIC/N8010: Produce texturized soya protein of different shapes and sizes

Description

This NOS unit is about producing texturized soya protein of different shapes and sizes as per organizational standards.

Scope

The scope covers the following :

- Prepare the raw material
- Prepare extruder to produce texturized soya protein
- Produce texturized soya protein of different shapes and sizes
- Carry out post-production cleaning and regular maintenance of equipment

Elements and Performance Criteria

Prepare raw material

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

- PC1.** check the weight and moisture content of the received raw material (defatted soya flour) as per organizational standards
- PC2.** fix/change screens of the sieving machines, set controls parameters such as speed, start machine and transfer in the sieving machine to remove impurities like dirt, dust, stones, etc
- PC3.** place container under the discharge outlet of the sieving machine, replace the filled container with an empty container
- PC4.** transfer the cleaned raw material to the production area for further processing
- PC5.** weigh cleaned defatted soya flour required for the batch as per work order
- PC6.** add a measured quantity of water and raw materials into the blending machine and operate the machine to start the blending process
- PC7.** stop blending machine, turn wheels or push button to tilt blender to dump the flour into the container (or) open discharge valve of the blending machine to transfer flour into the feeder of the extruder or manually dump the flour into the feed hopper of the extruder for the extrusion process

Prepare extruder to produce texturized soya protein

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

- PC8.** check if all parts of the extruder are clean, all bolts are tightened, die is not blocked
- PC9.** select, assemble and fix the screws in the extruder
- PC10.** clean and install dies of required shape and disc following the work order
- PC11.** assemble and attach the blade to shear off extruded products coming out of the extruder
- PC12.** attach cutter motor to the head section
- PC13.** select and fit machine components and related attachments to meet production requirements

Produce texturized soya protein of different shapes and sizes

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

- PC14.** follow the process parameter chart for the product produced

- PC15.** set processing and operating parameters of extruder such as temperature, pressure, RPM, the flow rate of raw materials, etc in the control panel following standard operating procedure (SOP)
- PC16.** operate extruder and feed raw material in required quantity to produce extruded products
- PC17.** change the die as per shapes and sizes required like nuggets, katoris, grains, chunks, flakes, etc
- PC18.** monitor dials and gauges for temperature, pressure, etc as the product begins to pass out of the extruder and ensure process parameters are maintained and adjust settings as required
- PC19.** check the quality and quantity of product coming out through the extruder die and adjust setting to achieve a product of required specifications
- PC20.** follow emergency shutdown procedure in case of any problem, locate and replace the faulty component and assemble and resume normal start-up procedures
- PC21.** ensure all material has exited the die and stop the extruder
- PC22.** check the quality and quantity of finished products to ensure its specifications are as per organisational and regulatory standards
- PC23.** load packaging materials and labels in packaging machine, set packing quantity and labeling details, start the machine to pack finished products
- PC24.** pack the finished products as per SOP, take a sample and transfer to the quality lab for analysis
- PC25.** place packed and labeled products in cartons and transfer to the storage area and maintain storage conditions following SOP
- PC26.** report discrepancies/concerns to department supervisor for immediate action and implement the suggested corrective action

Carry out post production cleaning and regular maintenance of equipment

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

- PC27.** clean the work area, equipment and tools using recommended cleaning agents and sanitizers
- PC28.** attend minor repairs/faults (if any) of all components and machines
- PC29.** ensure periodic (daily/weekly/monthly/quarterly/half-yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization, process standards, and procedures followed in the organization
- KU2.** types of products produced by the organisation
- KU3.** code of business conduct
- KU4.** Personal Protective Equipment to be worn as required during the work process
- KU5.** job responsibilities/duties and standard operating procedures relevant to the production process
- KU6.** internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours and accident compensation as per organization policy
- KU8.** food safety and hygiene standards followed

- KU9.** types and varieties of soya bean flour used for the production of texturized soya protein
- KU10.** production process and process parameters for texturized soya protein
- KU11.** types of machinery used in processing and machinery used in the organization
- KU12.** operating and handling processing machineries, maintenance of machineries, equipment and tools
- KU13.** principles of the extrusion process
- KU14.** types of extruder and extruder used in the organization and components of the extruder and its importance
- KU15.** operating and maintenance of various types of extruder
- KU16.** basic mathematics
- KU17.** quality parameters and quality assessment based on physical parameters
- KU18.** procedure for disposal of waste
- KU19.** types and category of packaging materials and packaging machinery
- KU20.** storage procedures for raw materials, packaging materials, and finished product

Generic Skills (GS)

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

- GS1.** note down the information communicated by the senior/supervisor such as raw materials used for production, finished products to be produced, process parameters, observations (if any) related to the process, and data for online ERP or as per applicability in the organization
- GS2.** read and interpret the organizational process, process flowchart, equipment manuals, process documents, and information documents sent by internal teams
- GS3.** communicate effectively with team members and supervisors
- GS4.** plan and prioritize various tasks as per standards
- GS5.** plan to utilize time and equipment effectively

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare raw material</i>	7	15	-	-
PC1. check the weight and moisture content of the receive raw material (defatted soya flour) as per organizational standards	1	2	-	-
PC2. fix/change screens of the sieving machines, set controls parameters such as speed, start machine and transfer in the sieving machine to remove impurities like dirt, dust, stones, etc	1	2	-	-
PC3. place container under the discharge outlet of the sieving machine, replace the filled container with an empty container	1	2	-	-
PC4. transfer the cleaned raw material to the production area for further processing	1	2	-	-
PC5. weigh cleaned defatted soya flour required for the batch as per work order	1	2	-	-
PC6. add a measured quantity of water and raw materials into the blending machine and operate the machine to start the blending process	1	3	-	-
PC7. stop blending machine, turn wheels or push button to tilt blender to dump the flour into the container (or) open discharge valve of the blending machine to transfer flour into the feeder of the extruder or manually dump the flour into the feed hopper of the extruder for the extrusion process	1	2	-	-
<i>Prepare extruder to produce texturized soya protein</i>	6	15	-	-
PC8. check if all parts of the extruder are clean, all bolts are tightened, die is not blocked	1	3	-	-
PC9. select, assemble and fix the screws in the extruder	1	3	-	-
PC10. clean and install dies of required shape and disc following the work order	1	3	-	-
PC11. assemble and attach the blade to shear off extruded products coming out of the extruder	1	2	-	-
PC12. attach cutter motor to the head section	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. select and fit machine components and related attachments to meet production requirements	1	2	-	-
<i>Produce texturized soya protein of different shapes and sizes</i>	14	34	-	-
PC14. follow the process parameter chart for the product produced	1	2	-	-
PC15. set processing and operating parameters of extruder such as temperature, pressure, RPM, the flow rate of raw materials, etc in the control panel following standard operating procedure (SOP)	1	3	-	-
PC16. operate extruder and feed raw material in required quantity to produce extruded products	1	3	-	-
PC17. change the die as per shapes and sizes required like nuggets, katoris, grains, chunks, flakes, etc	1	3	-	-
PC18. monitor dials and gauges for temperature, pressure, etc as the product begins to pass out of the extruder and ensure process parameters are maintained and adjust settings as required	2	4	-	-
PC19. check the quality and quantity of product coming out through the extruder die and adjust setting to achieve a product of required specifications	1	3	-	-
PC20. follow emergency shutdown procedure in case of any problem, locate and replace the faulty component and assemble and resume normal start-up procedures	1	2	-	-
PC21. ensure all material has exited the die and stop the extruder	1	2	-	-
PC22. check the quality and quantity of finished products to ensure its specifications are as per organisational and regulatory standards	1	3	-	-
PC23. load packaging materials and labels in packaging machine, set packing quantity and labeling details, start the machine to pack finished products	1	2	-	-
PC24. pack the finished products as per SOP, take a sample and transfer to the quality lab for analysis	1	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. place packed and labeled products in cartons and transfer to the storage area and maintain storage conditions following SOP	1	3	-	-
PC26. report discrepancies/concerns to department supervisor for immediate action and implement the suggested corrective action	1	1	-	-
<i>Carry out post production cleaning and regular maintenance of equipment</i>	3	6	-	-
PC27. clean the work area, equipment and tools using recommended cleaning agents and sanitizers	1	2	-	-
PC28. attend minor repairs/faults (if any) of all components and machines	1	2	-	-
PC29. ensure periodic (daily/weekly/monthly/quarterly/half-yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals	1	2	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N8010
NOS Name	Produce texturized soya protein of different shapes and sizes
Sector	Food Processing
Sub-Sector	Soya Food
Occupation	Processing-Soya Foods
NSQF Level	4
Credits	TBD
Version	1.0
Next Review Date	NA

FIC/N9026: Prepare for production

Description

This NOS unit is about performing various tasks prior to production in the food processing industry.

Scope

The scope covers the following :

- Plan for production
- Clean and maintain work area, machineries, and tools for production
- Organize for production

Elements and Performance Criteria

Plan for production

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

- PC1.** identify work requirements by obtaining instructions from the supervisor. Instructions: process chart, product flow chart, formulation, chart, etc.
- PC2.** plan and prioritize tasks as per work schedule. Tasks: inspect, clean, maintain, verify, etc.
- PC3.** estimate manpower and material requirements as per work requirement. Material: raw materials and packaging materials
- PC4.** ensure required quantity of raw materials, packaging materials, equipment, and manpower for production
- PC5.** plan capacity utilization of machinery with respect to the processing time, production order, and batch size for each product

Clean and maintain work area, machineries, and tools for production

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

- PC6.** clean and maintain the work area as per organizational procedures
- PC7.** clean and maintain the machines and tools and sanitize them as per the organization's specifications and standards
- PC8.** dispose of the waste material at designated place safely. Waste material: hazardous waste, food waste, packaging waste, etc.
- PC9.** inspect the tools, equipment, and machinery to ascertain suitability for use
- PC10.** report information such as faulty tools and equipment to the concerned authority

Organize for production

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

- PC11.** organize tools and equipment
- PC12.** receive and organize production materials appropriately. Production materials: raw materials, packaging materials, etc.
- PC13.** allot responsibilities/work to the assistants and helpers

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** production planning process
- KU2.** analysis and interpretation of various process charts, product flow charts, etc.
- KU3.** resource management process
- KU4.** procedure to estimate manpower and raw material
- KU5.** capacity utilization calculation
- KU6.** organizational policies and SOP on cleanliness
- KU7.** operating procedure and general maintenance of food production machineries
- KU8.** waste management procedures
- KU9.** methods to inspect tools, equipment and machinery
- KU10.** procedure to allot work or responsibility to the team

Generic Skills (GS)

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

- GS1.** read and interpret organizational policies, SOP, production charts, etc.
- GS2.** communicate effectively with subordinates as well as supervisors
- GS3.** plan and prioritize various tasks
- GS4.** be always punctual and courteous
- GS5.** organize all process/equipment manuals to access information easily
- GS6.** discuss task lists, schedules, and activities with the senior/supervisor

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan for production</i>	11	25	-	-
PC1. identify work requirements by obtaining instructions from the supervisor. Instructions: process chart, product flow chart, formulation, chart, etc.	3	6	-	-
PC2. plan and prioritize tasks as per work schedule. Tasks: inspect, clean, maintain, verify, etc.	2	5	-	-
PC3. estimate manpower and material requirements as per work requirement. Material: raw materials and packaging materials	2	4	-	-
PC4. ensure required quantity of raw materials, packaging materials, equipment, and manpower for production	2	5	-	-
PC5. plan capacity utilization of machinery with respect to the processing time, production order, and batch size for each product	2	5	-	-
<i>Clean and maintain work area, machineries, and tools for production</i>	14	32	-	-
PC6. clean and maintain the work area as per organizational procedures	3	7	-	-
PC7. clean and maintain the machines and tools and sanitize them as per the organization's specifications and standards	3	7	-	-
PC8. dispose of the waste material at designated place safely. Waste material: hazardous waste, food waste, packaging waste, etc.	3	7	-	-
PC9. inspect the tools, equipment, and machinery to ascertain suitability for use	3	6	-	-
PC10. report information such as faulty tools and equipment to the concerned authority	2	5	-	-
<i>Organize for production</i>	5	13	-	-
PC11. organize tools and equipment	2	7	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. receive and organize production materials appropriately. Production materials: raw materials, packaging materials, etc.	2	4	-	-
PC13. allot responsibilities/work to the assistants and helpers	1	2	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9026
NOS Name	Prepare for production
Sector	Food Processing
Sub-Sector	Generic
Occupation	Production
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2024
NSQC Clearance Date	24/02/2022

FIC/N9901: Implement health and safety practices at the workplace

Description

This unit is about following health and safety procedures at the workplace.

Scope

The scope covers the following :

- Ensure food safety and personal hygiene
- Follow safety measures to avoid accidents
- Follow emergency procedures
- Manage infection control

Elements and Performance Criteria

Ensure food safety and personal hygiene

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

- PC1.** follow relevant practices to avoid cross contamination at all stages of food processing operations
- PC2.** follow organisational procedures for handling items that may cause allergic reactions
- PC3.** follow Good Manufacturing Practices (GMP) at the workplace. Good Manufacturing Practices: location and layout (ergonomics), cleaning and sanitation, equipment and containers, pest control, facilities (lighting, water supply, drainage and waste disposal, air quality and ventilation), food storage, transportation, and distribution (Source: Schedule IV, FSSAI Licensing and Registration, 2011)
- PC4.** follow Good Hygiene Practices (GHP) at the workplace appropriately. Good Hygiene Practices: use of gloves, hairnets, masks, ear plugs, goggles, shoes etc; washing hands regularly; treating injuries such as cuts, boils, skin infections and grazes; preventive health check-ups ; getting vaccinated whenever required. (Source: Schedule IV, FSSAI Licensing and Registration, 2011)

Follow safety measures to avoid accidents

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

- PC5.** use protective clothing/equipment for specific tasks and work conditions
- PC6.** identify job-site hazardous work and possible causes of risk or accident at the workplace
- PC7.** deal with hazards safely and appropriately to ensure safety of self and others as per organisational protocol
- PC8.** use various types of fire extinguishers effectively
- PC9.** respond promptly and appropriately to an accident situation or medical emergency
- PC10.** provide cardio-pulmonary resuscitation (CPR) as per the requirement (e.g. cardiac arrest)

Follow emergency procedures

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

- PC11.** follow workplace emergency and evacuation procedures
- PC12.** use safe methods to free a person from electrocution

PC13. administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.

Manage infection control

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

PC14. use appropriate disinfectants to disinfect the work area and equipment as per organisational protocol

PC15. ensure personal hygiene by washing hands regularly using alcohol based sanitisers and wearing personal protective equipment (PPE)

PC16. report illness of self and others to the supervisor or concerned authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. meaning of hazards and risks

KU2. possible causes of risk, hazard or accident in the workplace

KU3. where to find all the general health and safety equipment in the workplace

KU4. health and safety policy and procedures of the organization

KU5. health and safety hazards commonly present in the work environment

KU6. work practices and precautions used to control and prevent risks, hazards and accidents

KU7. applicable standards and regulations as listed in The Food Safety and Standards Act, 2006

KU8. importance of each personal protective equipment used such as eye protection, hard hats, gloves apron, rubber boots, etc.

KU9. importance of ensuring personal hygiene at the workplace

KU10. ways to prevent cross contamination at the workplace

KU11. importance of storing food at specified temperatures

KU12. various dangers associated with the use of electrical and other equipment

KU13. preventive and remedial actions to be taken in the case of exposure to toxic materials

KU14. various causes of fire and the ways to prevent them

KU15. techniques of using the different fire extinguishers

KU16. procedure followed for providing cardio-pulmonary resuscitation (CPR) to the affected

KU17. rescue techniques applied during a fire hazard

KU18. various types of safety signs and what they mean

KU19. workplace emergency and evacuation procedures

KU20. appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries

KU21. potential injuries and ill health conditions associated with incorrect manual handling

KU22. safe lifting and carrying practices

KU23. safe practices to be followed for ensuring sanitisation of self and work area

KU24. procedure for storing the sanitising materials appropriately

Generic Skills (GS)

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

- GS1.** write an accident/incident report in local language or English
- GS2.** read and comprehend basic content to read labels, charts, signages, symbols and product manuals
- GS3.** communicate with coworkers appropriately in order to clarify instructions and other issues
- GS4.** make appropriate decisions pertaining to the concerned area of work regarding the work objective, span of authority, responsibility, laid down procedure and guidelines
- GS5.** plan and organize the work schedule, work area, tools, equipment and materials for improved productivity
- GS6.** identify probable solutions to the problems in hand and evaluate them
- GS7.** seek official and authorised sources of help and guidance to resolve problems that cannot be solved at one's level of authority

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure food safety and personal hygiene</i>	7	19	-	-
PC1. follow relevant practices to avoid cross contamination at all stages of food processing operations	1	4	-	-
PC2. follow organisational procedures for handling items that may cause allergic reactions	1	4	-	-
PC3. follow Good Manufacturing Practices (GMP) at the workplace. Good Manufacturing Practices: location and layout (ergonomics), cleaning and sanitation, equipment and containers, pest control, facilities (lighting, water supply, drainage and waste disposal, air quality and ventilation), food storage, transportation, and distribution (Source: Schedule IV, FSSAI Licensing and Registration, 2011)	3	7	-	-
PC4. follow Good Hygiene Practices (GHP) at the workplace appropriately. Good Hygiene Practices: use of gloves, hairnets, masks, ear plugs, goggles, shoes etc; washing hands regularly; treating injuries such as cuts, boils, skin infections and grazes; preventive health check-ups ; getting vaccinated whenever required. (Source: Schedule IV, FSSAI Licensing and Registration, 2011)	2	4	-	-
<i>Follow safety measures to avoid accidents</i>	11	24	-	-
PC5. use protective clothing/equipment for specific tasks and work conditions	2	4	-	-
PC6. identify job-site hazardous work and possible causes of risk or accident at the workplace	2	4	-	-
PC7. deal with hazards safely and appropriately to ensure safety of self and others as per organisational protocol	2	4	-	-
PC8. use various types of fire extinguishers effectively	2	4	-	-
PC9. respond promptly and appropriately to an accident situation or medical emergency	1	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. provide cardio-pulmonary resuscitation (CPR) as per the requirement (e.g. cardiac arrest)	2	4	-	-
<i>Follow emergency procedures</i>	6	12	-	-
PC11. follow workplace emergency and evacuation procedures	2	4	-	-
PC12. use safe methods to free a person from electrocution	2	4	-	-
PC13. administer appropriate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning etc.	2	4	-	-
<i>Manage infection control</i>	6	15	-	-
PC14. use appropriate disinfectants to disinfect the work area and equipment as per organisational protocol	3	7	-	-
PC15. ensure personal hygiene by washing hands regularly using alcohol based sanitisers and wearing personal protective equipment (PPE)	1	4	-	-
PC16. report illness of self and others to the supervisor or concerned authority	2	4	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N9901
NOS Name	Implement health and safety practices at the workplace
Sector	Food Processing
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2024
NSQ Clearance Date	24/02/2022

FIC/N8011: Produce soya beverages and paneer (tofu)

Description

This NOS unit is about producing soya milk and paneer (tofu) as per organisational standards.

Scope

The scope covers the following :

- Clean and de-hull soya bean
- Produce soya milk and flavoured beverages
- Produce soya paneer (tofu)
- Carry out post-production cleaning and regular maintenance of equipment

Elements and Performance Criteria

Clean and de-hull soya bean

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

- PC1.** check the weight of raw materials (soya bean) received from suppliers/vendors/store
- PC2.** fix/change screens of the cleaning machines, set control parameters, dump raw material in the feed hopper and start the machine to remove impurities such as dirt, dust, stones, etc.
- PC3.** set controls such as temperature, pressure, moisture content, etc of the conditioning/tempering bins following SOP, open valves to allow steam to heat raw material for conditioning
- PC4.** adjust clearance between rollers of soya bean dehulling machine, speed of aspirator fan, speed of sifter/shaker of the hulling machine to remove and separate the hull from soya bean to produce dehulled soya bean

Produce soya milk and flavoured beverages

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

- PC5.** weigh dehulled soya bean for the batch and transfer into container/tank
- PC6.** weigh chemical (like sodium-bi-carbonate), measure water and prepare soaking solution (sodium-bi-carbonate solution) following SOP
- PC7.** open valves or start the pump (or) manually add the soaking solution into soya bean for soaking, open drain valve of tank or tilt container to drain excess water after soaking for a specified time
- PC8.** transfer soaked soya bean in the feed hopper of the soya bean grinding machine, start pump or open valves to add a measured quantity of water to the soya bean in the feed hopper
- PC9.** set controls such as the speed of soya bean grinding machine, start the machine and open chute to allow soya bean along with water into the grinding machine to grind into creamy soya bean concentrate
- PC10.** open outlets of grinding machine to collect soya bean concentrate into tank/container and soya fiber residue (okara) in the disposal bin
- PC11.** set controls such as temperature speed, pressure, etc of soya bean grinding machine, open valves to allow steam, monitor dials to control and maintain
- PC12.** start the machine and open chute to allow a measured quantity of soaked soya bean and water to grind into a slurry

- PC13.** set controls like temperature, pressure, time, etc of the cooking machine (in a batch process) or steam jacketed pipes of the cooking line (in the continuous process), transfer soya bean concentrate into the cooker and close cooker
- PC14.** operate cooker by setting controls such as pressure, temperature, time to prepare cooked soya slurry and open outlet valve to transfer cooked soya slurry into tank/container
- PC15.** set controls like temperature of vacuum chamber, start the machine and open valves to transfer hot soya bean concentrate into vacuum chamber to cool to specified temperature under vacuum
- PC16.** set controls like speed/rotation of centrifuge, open valves to allow soya bean concentrate into the centrifuge and start the machine to separate milk and soya fiber residue
- PC17.** open valves to allow soya bean concentrate to pass through screw press/soya milk filter machine, turn wheel or press button to apply pressure manually or mechanically to extract soya milk (batch process)
- PC18.** collect the filtered/ clarified smoother and thinner hot soya milk in collection tank for further processing
- PC19.** open valves or start pump to transfer measured quantity of soya milk and water in required amounts into blending tank
- PC20.** set controls like the speed of blender and start the machine to mix clarified soya milk and water to standardize soya milk to desired protein content
- PC21.** measure ingredients like sugar/sugar syrup, cocoa powder, color, flavor, fortifying agents (like vitamins, minerals), etc following formulation, transfer into soya milk in blending tank (or) transfer ingredients into the small mixing tank, start stirrer to mix the ingredients uniformly to prepare the flavor mix
- PC22.** start the pump to transfer flavor mix into soya milk in blending tank, set controls like speed, mixing time of blender and start blender for uniform mixing of ingredients to make frothy soya beverage mixture
- PC23.** start pump to transfer soya beverage mixture into the storage tank, set controls like the speed of agitator, the temperature of the tank (refrigeration temperature) and start agitator to keep the beverage mixed uniformly maintaining temperature
- PC24.** set controls like temperature, pressure, time, etc of the pasteurizer, open valves to allow steam, monitor pressure gauge to control and maintain steam pressure and open valves or start the pump to pass flavored soya beverage through pasteurizer to sterilize soya beverage
- PC25.** set temperature of chilling line and open valves to allow pasteurized soya beverage to pass through chilling line to cool the beverage
- PC26.** set controls like the pressure of the homogenizer, start homogenizer and open valves or start the pump to allow soya beverage to pass through the homogenizer to break fat and give a uniform smoother consistency
- PC27.** set controls of sterile tank temperature, open valves or start the pump to collect the homogenized soya beverage in the sterile tank, monitor gauge and maintain temperature until transferring soya beverage to the packaging line
- PC28.** load packaging materials and labels in packaging machine set packing quantity and labeling details
- PC29.** pack the finished products, take a sample and transfer to the quality lab for analysis
- PC30.** place packed and labeled products in cartons and transfer to the storage area to maintain storage conditions following SOP

Produce soya paneer (tofu)

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

- PC31.** open valves to transfer hot unflavored soya milk into vat/container and start agitator or manually stir the milk to reduce the temperature
- PC32.** measure soya milk coagulant (like calcium sulphate, magnesium chloride, citric acid, acetic acid etc) and prepare coagulant solution following SOP
- PC33.** check the temperature of soya milk to ensure it has reached process temperature
- PC34.** add a measured quantity of coagulant into soya milk, start stirrer or manually stir until soya milk coagulate and separate into bean curd and soya milk whey
- PC35.** push bean curd away from the drain valve of the vat using a ladle or to the sides of the container
- PC36.** open drain valves of the vat to drain whey through a filter (or) manually transfer liquid through cheesecloth in a container to drain soya milk whey and separate bean curd
- PC37.** transfer a solid mass of bean curd into hooves of screw press and turn the wheel to apply pressure to completely remove soya milk whey
- PC38.** set controls of the pneumatic press and start the machine to mechanically apply pressure to compress and remove soya milk whey to prepare soya paneer (tofu)
- PC39.** cut big blocks of soya paneer into smaller blocks using a knife or mechanical cutter and transfer into a vat containing cold water and keep immersed in cold water for a specified time following SOP
- PC40.** remove soya paneer blocks from cold water and transfer to cutting table or cutting machine
- PC41.** cut soya paneer blocks to the required size and weight using a knife (or) set controls of cutting machine, load tofu blocks on the machine and start the machine to cut to the desired shape and weight
- PC42.** check the quality and quantity of finished products to ensure its specifications are as per organisational and regulatory standards
- PC43.** load packaging materials and labels in packaging machine, set packing quantity and labeling details, start the machine to pack finished products
- PC44.** pack the finished products, take a sample and transfer to the quality lab for analysis
- PC45.** place packed and labeled products in cartons and transfer to the storage area and store maintaining storage conditions following SOP
- PC46.** report discrepancies/concerns to department supervisor for immediate action and implement the suggested corrective action

Carry out post production cleaning and regular maintenance of equipment

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

- PC47.** clean the work area, equipment and tools using recommended cleaning agents and sanitizers
- PC48.** attend minor repairs/faults (if any) of all components and machines
- PC49.** ensure periodic (daily/weekly/monthly/quarterly/half-yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization, process standards, and procedures followed in the organization
- KU2.** types of products produced by the organization

- KU3.** code of business conduct
- KU4.** personal protective equipment to be used
- KU5.** job responsibilities/duties and Standard Operating Procedures relevant to the production process
- KU6.** internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution
- KU7.** provision of wages, working hours and accident compensation as per organization policy
- KU8.** food safety and hygiene standards followed
- KU9.** types and varieties of soya bean for production of soya milk and paneer (tofu)
- KU10.** the production process, process parameters for soya milk and paneer (tofu)
- KU11.** types of machinery used in processing and machinery used in the organisation
- KU12.** operating and handling processing machinery
- KU13.** maintenance of machinery, equipment, and tools
- KU14.** basic mathematics
- KU15.** quality parameters, basic food microbiology and quality assessment based on physical parameters
- KU16.** procedure for the disposal of waste
- KU17.** types and category of packaging materials, packaging machinery
- KU18.** storage procedures for raw materials, packaging materials, and finished product
- KU19.** cleaning procedures like CIP and COP
- KU20.** types of sanitizers and disinfectants used and their handling and storing methods
- KU21.** food laws and regulations on product, packaging, and labeling
- KU22.** food safety and hygiene
- KU23.** Good Manufacturing Practice (GMP)
- KU24.** Hazard Analysis and Critical Control Point (HACCP)

Generic Skills (GS)

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

- GS1.** note the information communicated by the supervisor
- GS2.** note the raw materials used for production and the finished products produced
- GS3.** note the readings of the process parameters and provide necessary information to fill the process chart
- GS4.** note down observations (if any) related to the process
- GS5.** write information documents to internal departments/ internal teams
- GS6.** note down the data for ERP or as required by the organization
- GS7.** read and interpret the process required for producing various types of products
- GS8.** read and interpret the process flowchart for all products produced
- GS9.** read equipment manuals and process documents to understand the equipment's operation and process requirement
- GS10.** read internal information documents sent by internal teams
- GS11.** discuss task lists, schedules, and activities with the supervisor

- GS12.** effectively communicate with team members
- GS13.** question the supervisor in order to understand the nature of the problem and to clarify queries
- GS14.** attentively listen and comprehend the information given by the speaker
- GS15.** communicate clearly with the supervisor and cross-department teams on the issues faced during the process
- GS16.** analyze critical points in the day to day tasks through experience and observation and identify control measures to solve the issue
- GS17.** handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
- GS18.** plan and organize the work order and jobs received from the supervisor
- GS19.** organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
- GS20.** plan and prioritize work based on instructions received from the supervisor
- GS21.** plan to utilize time and equipment's effectively
- GS22.** organize all process/ equipment manuals so as to access information easily
- GS23.** support the supervisor in scheduling tasks for helper(s)
- GS24.** understand customer requirements and their priority and respond as per their needs
- GS25.** support supervisor in solving problems by detailing out problems
- GS26.** discuss the possible solutions with the supervisor for problem-solving
- GS27.** apply domain information about maintenance processes and technical knowledge about tools and equipment
- GS28.** use common sense and make judgments on day to day basis
- GS29.** use reasoning skills to identify and resolve basic problems
- GS30.** use intuition to detect any potential problems which could arise during operations
- GS31.** use acquired knowledge of the process for identifying and handling issues

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Clean and de-hull soya bean</i>	2	5	-	-
PC1. check the weight of raw materials (soya bean) received from suppliers/vendors/store	-	1	-	-
PC2. fix/change screens of the cleaning machines, set control parameters, dump raw material in the feed hopper and start the machine to remove impurities such as dirt, dust, stones, etc.	-	2	-	-
PC3. set controls such as temperature, pressure, moisture content, etc of the conditioning/tempering bins following SOP, open valves to allow steam to heat raw material for conditioning	1	1	-	-
PC4. adjust clearance between rollers of soya bean dehulling machine, speed of aspirator fan, speed of sifter/shaker of the hulling machine to remove and separate the hull from soya bean to produce dehulled soya bean	1	1	-	-
<i>Produce soya milk and flavoured beverages</i>	17	38	-	-
PC5. weigh dehulled soya bean for the batch and transfer into container/tank	-	2	-	-
PC6. weigh chemical (like sodium-bi-carbonate), measure water and prepare soaking solution (sodium-bi-carbonate solution) following SOP	-	2	-	-
PC7. open valves or start the pump (or) manually add the soaking solution into soya bean for soaking, open drain valve of tank or tilt container to drain excess water after soaking for a specified time	1	1	-	-
PC8. transfer soaked soya bean in the feed hopper of the soya bean grinding machine, start pump or open valves to add a measured quantity of water to the soya bean in the feed hopper	1	2	-	-
PC9. set controls such as the speed of soya bean grinding machine, start the machine and open chute to allow soya bean along with water into the grinding machine to grind into creamy soya bean concentrate	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. open outlets of grinding machine to collect soya bean concentrate into tank/container and soya fiber residue (okara) in the disposal bin	-	2	-	-
PC11. set controls such as temperature speed, pressure, etc of soya bean grinding machine, open valves to allow steam, monitor dials to control and maintain	1	2	-	-
PC12. start the machine and open chute to allow a measured quantity of soaked soya bean and water to grind into a slurry	-	1	-	-
PC13. set controls like temperature, pressure, time, etc of the cooking machine (in a batch process) or steam jacketed pipes of the cooking line (in the continuous process), transfer soya bean concentrate into the cooker and close cooker	-	2	-	-
PC14. operate cooker by setting controls such as pressure, temperature, time to prepare cooked soya slurry and open outlet valve to transfer cooked soya slurry into tank/container	1	2	-	-
PC15. set controls like temperature of vacuum chamber, start the machine and open valves to transfer hot soya bean concentrate into vacuum chamber to cool to specified temperature under vacuum	1	2	-	-
PC16. set controls like speed/rotation of centrifuge, open valves to allow soya bean concentrate into the centrifuge and start the machine to separate milk and soya fiber residue	1	1	-	-
PC17. open valves to allow soya bean concentrate to pass through screw press/soya milk filter machine, turn wheel or press button to apply pressure manually or mechanically to extract soya milk (batch process)	-	1	-	-
PC18. collect the filtered/ clarified smoother and thinner hot soya milk in collection tank for further processing	-	1	-	-
PC19. open valves or start pump to transfer measured quantity of soya milk and water in required amounts into blending tank	1	1	-	-
PC20. set controls like the speed of blender and start the machine to mix clarified soya milk and water to standardize soya milk to desired protein content	-	1	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC21. measure ingredients like sugar/sugar syrup, cocoa powder, color, flavor, fortifying agents (like vitamins, minerals), etc following formulation, transfer into soya milk in blending tank (or) transfer ingredients into the small mixing tank, start stirrer to mix the ingredients uniformly to prepare the flavor mix	1	2	-	-
PC22. start the pump to transfer flavor mix into soya milk in blending tank, set controls like speed, mixing time of blender and start blender for uniform mixing of ingredients to make frothy soya beverage mixture	-	1	-	-
PC23. start pump to transfer soya beverage mixture into the storage tank, set controls like the speed of agitator, the temperature of the tank (refrigeration temperature) and start agitator to keep the beverage mixed uniformly maintaining temperature	1	1	-	-
PC24. set controls like temperature, pressure, time, etc of the pasteurizer, open valves to allow steam, monitor pressure gauge to control and maintain steam pressure and open valves or start the pump to pass flavored soya beverage through pasteurizer to sterilize soya beverage	1	1	-	-
PC25. set temperature of chilling line and open valves to allow pasteurized soya beverage to pass through chilling line to cool the beverage	1	1	-	-
PC26. set controls like the pressure of the homogenizer, start homogenizer and open valves or start the pump to allow soya beverage to pass through the homogenizer to break fat and give a uniform smoother consistency	1	2	-	-
PC27. set controls of sterile tank temperature, open valves or start the pump to collect the homogenized soya beverage in the sterile tank, monitor gauge and maintain temperature until transferring soya beverage to the packaging line	1	1	-	-
PC28. load packaging materials and labels in packaging machine set packing quantity and labeling details	1	2	-	-
PC29. pack the finished products, take a sample and transfer to the quality lab for analysis	1	1	-	-
PC30. place packed and labeled products in cartons and transfer to the storage area to maintain storage conditions following SOP	1	1	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Produce soya paneer (tofu)</i>	11	24	-	-
PC31. open valves to transfer hot unflavored soya milk into vat/container and start agitator or manually stir the milk to reduce the temperature	1	1	-	-
PC32. measure soya milk coagulant (like calcium sulphate, magnesium chloride, citric acid, acetic acid etc) and prepare coagulant solution following SOP	1	1	-	-
PC33. check the temperature of soya milk to ensure it has reached process temperature	1	2	-	-
PC34. add a measured quantity of coagulant into soya milk, start stirrer or manually stir until soya milk coagulate and separate into bean curd and soya milk whey	1	1	-	-
PC35. push bean curd away from the drain valve of the vat using a ladle or to the sides of the container	-	1	-	-
PC36. open drain valves of the vat to drain whey through a filter (or) manually transfer liquid through cheesecloth in a container to drain soya milk whey and separate bean curd	-	1	-	-
PC37. transfer a solid mass of bean curd into hooves of screw press and turn the wheel to apply pressure to completely remove soya milk whey	-	1	-	-
PC38. set controls of the pneumatic press and start the machine to mechanically apply pressure to compress and remove soya milk whey to prepare soya paneer (tofu)	1	2	-	-
PC39. cut big blocks of soya paneer into smaller blocks using a knife or mechanical cutter and transfer into a vat containing cold water and keep immersed in cold water for a specified time following SOP	1	2	-	-
PC40. remove soya paneer blocks from cold water and transfer to cutting table or cutting machine	1	2	-	-
PC41. cut soya paneer blocks to the required size and weight using a knife (or) set controls of cutting machine, load tofu blocks on the machine and start the machine to cut to the desired shape and weight	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC42. check the quality and quantity of finished products to ensure its specifications are as per organisational and regulatory standards	1	2	-	-
PC43. load packaging materials and labels in packaging machine, set packing quantity and labeling details, start the machine to pack finished products	1	2	-	-
PC44. pack the finished products, take a sample and transfer to the quality lab for analysis	1	2	-	-
PC45. place packed and labeled products in cartons and transfer to the storage area and store maintaining storage conditions following SOP	-	1	-	-
PC46. report discrepancies/concerns to department supervisor for immediate action and implement the suggested corrective action	-	1	-	-
<i>Carry out post production cleaning and regular maintenance of equipment</i>	-	3	-	-
PC47. clean the work area, equipment and tools using recommended cleaning agents and sanitizers	-	1	-	-
PC48. attend minor repairs/faults (if any) of all components and machines	-	1	-	-
PC49. ensure periodic (daily/weekly/monthly/quarterly/half-yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals	-	1	-	-
NOS Total	30	70	-	-

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N8011
NOS Name	Produce soya beverages and paneer (tofu)
Sector	Food Processing
Sub-Sector	Soya Food
Occupation	Processing-Soya Foods
NSQF Level	4
Credits	TBD
Version	1.0
Next Review Date	NA

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score a minimum of 70% of % aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N9902.Work effectively in an organisation	22	39	-	-	61	10
SGJ/N1702.Optimize resource utilization at workplace	13	26	-	-	39	5
FIC/N8010.Produce texturized soya protein of different shapes and sizes	30	70	-	-	100	35
FIC/N9026.Prepare for production	30	70	-	-	100	25
FIC/N9901.Implement health and safety practices at the workplace	30	70	-	-	100	15
Total	125	275	-	-	400	90

Elective: 1 Soya Beverages and Paneer

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FIC/N8011.Produce soya beverages and paneer (tofu)	30	70	-	-	100	10
Total	30	70	0	0	100	10

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Organisational Context	<p>Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.</p>
Technical Knowledge	<p>Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.</p>
Core Skills/ Generic Skills (GS)	<p>Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.</p>
Electives	<p>Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.</p>
Options	<p>Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.</p>