



Artisanal Cheese Maker- Entrepreneur

QP Code: FIC/Q2008

Version: 1.0

NSQF Level: 4

Food Industry Capacity & Skill Initiative || Shriram Bharatiya Kala kendra, 3rd floor, 1, Copernicus Marg, Mandi House, New Delhi
Delhi 110001

Qualification Pack

Contents

FIC/Q2008: Artisanal Cheese Maker- Entrepreneur	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
FIC/N2027: Prepare for artisanal cheese production	5
FIC/N2028: Carry out artisanal cheese production	14
FIC/N9901: Implement health and safety practices at the workplace	24
FIC/N9902: Work effectively in an organisation	30
SGJ/N1702: Optimize resource utilization at workplace	34
FIC/N2029: Prepare and pack artisan cheese	39
Assessment Guidelines and Weightage	45
<i>Assessment Guidelines</i>	45
<i>Assessment Weightage</i>	46
Acronyms	47
Glossary	48

Qualification Pack

FIC/Q2008: Artisanal Cheese Maker- Entrepreneur

Brief Job Description

A Cheese Maker is responsible for manufacturing and ripening of cheese from milk by following specifications and standards of the organization. The individual is also responsible for receiving good quality of milk, maintaining curing conditions (temperature, humidity, time, etc.) and handling starter cultures, cheese yield, quality, packaging, storage and distribution of cheese as well as undertaking all the preventive measures to avoid defects & contamination in cheese.

Personal Attributes

The job requires the individual to have the ability to plan, organize, prioritize, and handle pressure along with great trouble shooting skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [FIC/N2027: Prepare for artisanal cheese production](#)
2. [FIC/N2028: Carry out artisanal cheese production](#)
3. [FIC/N9901: Implement health and safety practices at the workplace](#)
4. [FIC/N9902: Work effectively in an organisation](#)
5. [SGJ/N1702: Optimize resource utilization at workplace](#)
6. [FIC/N2029: Prepare and pack artisan cheese](#)

Qualification Pack (QP) Parameters

Sector	Food Processing
Sub-Sector	Dairy Products
Occupation	Processing-Dairy Products
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7513.0400

Qualification Pack

Minimum Educational Qualification & Experience	Graduate OR 12th Class with 1 Year of experience food processing OR 10th Class (and 2 years course in any stream) with 1 Year of experience OR 10th Class with 2 Years of experience relevant experience OR 10th Class + I.T.I (2 years) with 1 Year of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	25/11/2021
Next Review Date	25/11/2024
Deactivation Date	25/11/2024
NSQC Approval Date	25/11/2021
Version	1.0
Reference code on NQR	2021/FI/FICSI/05063
NQR Version	1

Remarks:

Nil

Qualification Pack

FIC/N2027: Prepare for artisanal cheese production

Description

This NOS unit is about implementation of standards and procedures in the work place and performing various tasks prior to cheese production.

Scope

The scope covers the following :

- Recognise and identify product types
- Plan for cheese production
- Maintain work area for production
- Maintain process machinery and tools
- Establish materials flow protocols

Elements and Performance Criteria

Recognise and identify product types

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

- PC1.** • identify different cheese types and characteristics
 - Cheese type: fresh, soft, semi-soft, blues, semi hard, hard
- PC2.** • identify cheeses made from different processes
 - Process: acid based, rennet based, acid and heat coagulated
- PC3.** identify types of starter cultures and enzymes to be added depending on cheese type
- PC4.** • identify cheeses made from different milk types
 - Milk type: cow, buffalo and goat
- PC5.** • identify factors affecting cheese affinage
 - Factors: ripening time, temperature, storage, etc.
- PC6.** • identify basic artisanal cheese making equipment
 - Equipment: pasteurizer, cheese vat, agitator, curd strainer, curd mill, etc.

Plan for cheese production

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

- PC7.** organise the work tasks to be completed as per work requirements
- PC8.** • document a standardized production plan for cheese making
 - Production plan: quality and quantity of raw materials to be used, type of cheese to be produced, estimated timelines, refer process flowcharts, formulation recipes, other materials required, tools, equipment to be used, etc
- PC9.** plan the production process by referring to process flow chart, formulation charts, etc.
- PC10.** • identify the type of raw material and equipment depending on the type of cheese to be product
 - Raw material: milk, culture, salt, etc.
 - Equipment: vat, brine bath, strainer, cooling tank, etc.
- PC11.** • identify the type of packaging material required depending on the cheese to be packed
 - Packaging material: polypropylene laminates, parchment paper, etc.

Qualification Pack

PC12. calculate the raw materials, packaging materials, equipment utilisation and equipment utilisation and man hours required for cheese production and confirm availability

PC13. allocate responsibilities/work to the production team and address their queries if any

Maintain work area for production

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

PC14. identify workplace health and safety hazards, assess risks and implement control measures

PC15. identify food safety and quality non-compliance issues, document and/or report according to SOP and rectify before commencing production

PC16. inspect the work area thoroughly to ensure the area is free from waste and hazardous materials

PC17. identify application methods and equipment requirements of common cleaners and sanitisers used in cheese making

PC18. assess cleaning and sanitation methods, materials and regimes for their effectiveness and environmental impact

PC19. select appropriate cleaning and sanitation methods to suit products and processes ensuring minimal risk of contamination and environmental impact

PC20. establish inspection or test methods to confirm effectiveness of cleaning and sanitation program

PC21. document and communicate responsibilities for cleaning and sanitation

PC22. clean and sanitize the work area using appropriate cleaning agents and sanitizers

PC23. dispose of the waste materials from the work area safely as per SOP

Maintain process machinery and tools

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

PC24. inspect the production tools, equipment and machinery for desired functioning

PC25. clean and sanitise the production tools, equipment and machinery using appropriate cleaning and sanitizing agents

PC26. assemble the materials to be used as per standard work practices

Establish materials flow protocols

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

PC27. provide safe working environment for material receipt, testing, storage and processing

PC28. receive fresh milk and other materials from various vendors

PC29. establish receipt and testing procedures for milk and other materials

PC30.

- inspect and test the materials received for quality parameters to confirm desired quality and quantity for production
- Quality parameters: sensory, physical, chemical, biological

PC31. blend milk to the requirements based on test data

PC32. store milk and other material as per food safety standards for further processing

PC33. implement a system to identify defects and abnormalities in delivered milk

PC34. report substandard quality ingredients to the relevant personnel

PC35. organize the ingredients as per production plan

PC36.

- record details as per standard work practices
- Details: materials received, materials consumed, quality testing reports, Goods Receipt Note (GRN), etc.

Qualification Pack

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different cheese types and varieties such as including: fresh cheese, soft ripened, surface mould ripened, semisoft, semi-hard, hard, cheese with and without eyes, blue cheese and pasta filata (stretched curd cheese)
- KU2.** main processing steps in making cheese, including setting the milk, cutting or breaking curd, cooking curd, draining or dipping, knitting curd, salting, pressing, applications and treatments, and the basic equipment used
- KU3.** various cheese ripening principles
- KU4.** different milks used to make cheese and their properties and characteristics, including cow, buffalo and goat
- KU5.** the effect of animal species, animal diet and seasonality can have on cheese
- KU6.** general nutritional properties of cheese
- KU7.** the effect of pH, temperature, ripening time on the cheese making process
- KU8.** various coagulants used in cheese making
- KU9.** factors that affect affinage of cheese
- KU10.** processing steps in different making cheese
- KU11.** purpose, basic principles and processes of artisan cheese making
- KU12.** the main components of milk and cheese (both curds and whey)
- KU13.** milk characteristics and components important in cheese making
- KU14.** types of starters used and their role in the fermentation process
- KU15.** use of coagulating enzymes to initiate the syneresis process
- KU16.** use of adjunct cultures
- KU17.** moisture control in cheese making
- KU18.** food safety risks associated with the process and related control measures
- KU19.** organoleptic properties of cheese and their relationship to processes and ingredients in cheese making
- KU20.** types and impact of inhibitory substances in milk
- KU21.** contamination risk of inoculants and contaminants
- KU22.** SOP to receive, handle and store ingredients safely, maintain their functionality
- KU23.** how to test ingredients and materials for appropriate characteristics and specifications
- KU24.** equipment and tools used for artisan cheese making: operation and routine maintenance requirements of cheese making facility and equipment
- KU25.** work health and safety hazards and controls
- KU26.** cleaning and hygiene management of cheese making equipment and facilities
- KU27.** food safety and quality assurance standards and procedures
- KU28.** hygiene, cleaning and sanitation procedures in line with best practice
- KU29.** routine maintenance procedures
- KU30.** environmental issues and controls relevant to the process, including waste collection and handling procedures related to the process

Qualification Pack

- KU31.** SOP for safe disposal of hazardous materials from the workplace
- KU32.** Food Safety and Standards Authority of India (FSSAI) guidelines for selection of ingredients, storing the materials received, types of cheese to be produced, upkeep of tools and equipment, documentation, etc.
- KU33.** SOP to clean the work area, tools, equipment and machinery as per required standards
- KU34.** the hazards associated with raw milk
- KU35.** the testing and processing stages in preparing milk for further processing
- KU36.** the risks to milk product quality from incorrect preparation and handling of fresh milk
- KU37.** output of each of the processes used in the preparation of milk for further processing
- KU38.** compositional requirements for milk prepared for further processing for a range of processed milk products
- KU39.** principles of operation of equipment and accessories used in the preparation of milk for further processing
- KU40.** critical factors in the testing and preparation of received milk for further processing into dairy products
- KU41.** processes used in the preparation and manufacture of non-fermented dairy products
- KU42.** potential product defects and their causes, which may arise in the preparation of milk for further processing
- KU43.** milk sampling and testing
- KU44.** sampling requirements for cheese making
- KU45.** pH, moisture and salt gradients in brine salted cheese
- KU46.** data requirements appropriate for food safety, quality and production standards
- KU47.** manufacturing processes, including materials and equipment, involved in preparing delivered milk for further processing
- KU48.** milk handling and its impact on properties for further processing

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 with the team effectively
- GS3.** plan and prioritize tasks as per work requirements
- GS4.** be punctual and courteous
- GS5.** organize all process/equipment manuals to access information easily
- GS6.** discuss task lists, schedules, and activities with the team

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Recognise and identify product types</i>	5	5	-	-
PC1. • identify different cheese types and characteristics • Cheese type: fresh, soft, semi-soft, blues, semi hard, hard	3	2	-	-
PC2. • identify cheeses made from different processes • Process: acid based, rennet based, acid and heat coagulated	2	3	-	-
PC3. identify types of starter cultures and enzymes to be added depending on cheese type	-	-	-	-
PC4. • identify cheeses made from different milk types • Milk type: cow, buffalo and goat	-	-	-	-
PC5. • identify factors affecting cheese affinage • Factors: ripening time, temperature, storage, etc.	-	-	-	-
PC6. • identify basic artisanal cheese making equipment • Equipment: pasteurizer, cheese vat, agitator, curd strainer, curd mill, etc.	-	-	-	-
<i>Plan for cheese production</i>	10	15	-	-
PC7. organise the work tasks to be completed as per work requirements	-	-	-	-
PC8. • document a standardized production plan for cheese making • Production plan: quality and quantity of raw materials to be used, type of cheese to be produced, estimated timelines, refer process flowcharts, formulation recipes, other materials required, tools, equipment to be used, etc	-	-	-	-
PC9. plan the production process by referring to process flow chart, formulation charts, etc.	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. • identify the type of raw material and equipment depending on the type of cheese to be product • Raw material: milk, culture, salt, etc. • Equipment: vat, brine bath, strainer, cooling tank, etc.	-	-	-	-
PC11. • identify the type of packaging material required depending on the cheese to be packed • Packaging material: polypropylene laminates, parchment paper, etc.	-	-	-	-
PC12. calculate the raw materials, packaging materials, equipment utilisation and equipment utilisation and man hours required for cheese production and confirm availability	-	-	-	-
PC13. allocate responsibilities/work to the production team and address their queries if any	-	-	-	-
<i>Maintain work area for production</i>	10	15	-	-
PC14. identify workplace health and safety hazards, assess risks and implement control measures	-	2	-	-
PC15. identify food safety and quality non-compliance issues, document and/or report according to SOP and rectify before commencing production	-	1	-	-
PC16. inspect the work area thoroughly to ensure the area is free from waste and hazardous materials	-	2	-	-
PC17. identify application methods and equipment requirements of common cleaners and sanitisers used in cheese making	-	1	-	-
PC18. assess cleaning and sanitation methods, materials and regimes for their effectiveness and environmental impact	-	2	-	-
PC19. select appropriate cleaning and sanitation methods to suit products and processes ensuring minimal risk of contamination and environmental impact	-	1	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC20. establish inspection or test methods to confirm effectiveness of cleaning and sanitation program	-	2	-	-
PC21. document and communicate responsibilities for cleaning and sanitation	-	1	-	-
PC22. clean and sanitize the work area using appropriate cleaning agents and sanitizers	-	2	-	-
PC23. dispose of the waste materials from the work area safely as per SOP	-	1	-	-
<i>Maintain process machinery and tools</i>	5	10	-	-
PC24. inspect the production tools, equipment and machinery for desired functioning	-	-	-	-
PC25. clean and sanitise the production tools, equipment and machinery using appropriate cleaning and sanitizing agents	-	-	-	-
PC26. assemble the materials to be used as per standard work practices	-	-	-	-
<i>Establish materials flow protocols</i>	10	15	-	-
PC27. provide safe working environment for material receipt, testing, storage and processing	-	-	-	-
PC28. receive fresh milk and other materials from various vendors	-	-	-	-
PC29. establish receipt and testing procedures for milk and other materials	-	-	-	-
PC30. <ul style="list-style-type: none"> • inspect and test the materials received for quality parameters to confirm desired quality and quantity for production • Quality parameters: sensory, physical, chemical, biological 	-	-	-	-
PC31. blend milk to the requirements based on test data	-	-	-	-
PC32. store milk and other material as per food safety standards for further processing	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC33. implement a system to identify defects and abnormalities in delivered milk	-	-	-	-
PC34. report substandard quality ingredients to the relevant personnel	-	-	-	-
PC35. organize the ingredients as per production plan	-	-	-	-
PC36. <ul style="list-style-type: none"> • record details as per standard work practices • Details: materials received, materials consumed, quality testing reports, Goods Receipt Note (GRN), etc. 	-	-	-	-
NOS Total	40	60	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N2027
NOS Name	Prepare for artisanal cheese production
Sector	Food Processing
Sub-Sector	Dairy Products
Occupation	Processing-Dairy Products
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/11/2021
Next Review Date	25/11/2024
NSQC Clearance Date	25/11/2021

Qualification Pack

FIC/N2028: Carry out artisanal cheese production

Description

This NOS talks about processing and storage of different types of cheese in an artisan cheese making environment by following standard operating practices.

Scope

The scope covers the following :

- Prepare milk for making cheese
- Produce lactic acid coagulated cheese
- Produce rennet-based coagulated cheese
- Produce acid and heat coagulated cheese
- Monitor the parameters required in cheese making
- Ripen artisan cheese
- Perform different tests for cheese making

Elements and Performance Criteria

Prepare milk for making cheese

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

- PC1.** review production processes for preparing milk for further processing
- PC2.** perform pasteurization of received milk to kill any type of microorganisms
- PC3.** cool down the pasteurized milk adequately to ensure growth of starter cultures
- PC4.** standardize the milk as per the desired requirement for making cheese
- PC5.** transfer pasteurized milk into cheese vat safely and maintaining hygienic practice

Produce lactic acid coagulated cheese

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

- PC6.** add starter culture into the pre heated milk and mix evenly according to specific cheese
- PC7.** add coagulating enzymes to the milk if required by specific cheese
- PC8.** maintain temperature throughout the vat or tank according to cheese variety
- PC9.** manage curd ladling, breaking or cutting to meet production goals
- PC10.** plan curd processing schedule to meet production goals
- PC11.** monitor the moisture in cheese by regulating syneresis
- PC12.** adjust calcium phosphate levels to influence basic cheese structure if required
- PC13.** drain curd to ensure required ph level and consistency is maintained according to production goals

Produce rennet-based coagulated cheese

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

- PC14.** add starter culture and mould spores to the pre heated milk according to cheese variety
- PC15.** use adjunct cultures to influence the texture and flavour of the ripened cheese according to cheese variety

Qualification Pack

- PC16.** use acid to partly acidify the milk prior to adding culture to control the calcium phosphate level in the curd during cheese making, according to required cheese type
- PC17.** add cultures and rennet to milk and hold at temperature according to required cheese variety
- PC18.** maintain log of pH and temperature to monitor yield
- PC19.** calculate total time, flocculation and hardening times for optimum acidification curve, coagulation and moisture content, according to desired cheese type and parameters
- PC20.** monitor curd hardening, temperature and cutting to achieve optimal yield and the required acidification curve and moisture level for the cheese
- PC21.** remove part of the whey and replace with water to wash lactose and lactic acid from the curd if required for specific cheese
- PC22.** mat the curd under the whey to achieve required outcome if required for specific cheese
- PC23.** remove all or part of the whey from the curds by draining out the vat, in line with desired outcome
- PC24.** prepare moulds in which curd will be hooped based on cheese type
- PC25.** prepare curd for milling if required for specific cheese
- PC26.** prepare curd for stretching if required for specific cheese
- PC27.** prepare curd for hooping into prepared moulds
- PC28.** apply adequate pressure to ensure appropriate filling of cheese into the mould for required cheese variety
- PC29.** turn cheeses in moulds at appropriate intervals to maximize optimal drainage and acidification
- PC30.** press cheese and remove from moulds where appropriate for cheese variety

Produce acid and heat coagulated cheese

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

- PC31.** acidify the pre heated milk by adding starter culture to coagulate the whey protein according to cheese variety
- PC32.** hold the curd in the curd and whey mixture after coagulation
- PC33.** control cheese flavour through choice of ingredients, such as whey, milk, cream, acidulant and salt according to cheese type
- PC34.** drain whey from the curd to achieve desired texture
- PC35.** apply salting treatments for required outcome and ensure adverse salt profile effects are minimized in the finished product
- PC36.** cool and dry cheeses before packing

Monitor the parameters required in cheese making

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

- PC37.** monitor the temperature of acidified milk to ensure it is as per requirements
- PC38.**
 - monitor parameters during curd formation for ensuring required consistency
 - Parameters: hardening, temperature, cutting, size, texture, pH, curd protein, etc.
- PC39.** stir the curd according to cheese type and production goals
- PC40.** analyze whey content for fat and other solids to gauge efficiency of acidification, curd, cutting and yield potential
- PC41.** optimize yield of curd by refining process control parameters

Qualification Pack

- PC42.** • monitor and control different parameters in cheese making process appropriately
• Parameters: moisture, fat, texture, flavour, etc.
- PC43.** transfer cheese into a brine bath to add desired amount of salt depending on the cheese to be produced
- PC44.** maintain the temperature of brine solution to ensure uniformity in the flavour of cheese produced
- PC45.** • record information in the logbook after each trial
• Information: pH, titratable acidity, temperature, etc.

Ripen artisan cheese

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

- PC46.** store the cheese appropriately for ageing as per the cheese type
- PC47.** • control and monitor the ripening conditions and stored cheese periodically
• Conditions: Humidity, temperature, aeration, etc.
- PC48.** optimize curing and ripening agents by planning for and adjusting the key composition ratios of acid-coagulated soft cheeses
- PC49.** use surface treatments according to cheese type and recipe
- PC50.** turn and rotate cheese to ensure ripening is even
- PC51.** • extract sample from the lot and perform quality tests during and post production
• Quality tests: pH, salt, texture, fat, moisture, water activity, colour, etc.
- PC52.** record necessary information as required in the work process
- PC53.** take necessary actions for defects in cheese at the maturation process and make adjustments to correct it

Perform different tests for cheese making

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

- PC54.** determine sampling points for physical, chemical and microbial properties
- PC55.** determine an appropriate sampling size
- PC56.** prepare samples for testing according to workplace procedures
- PC57.** select and sterilize sampling equipment
- PC58.** establish and review safe work procedures for processes requiring handling of chemicals and microbes, and involving chemical and microbial reactions in cheese making
- PC59.** make observations and record data for yeasts and moulds
- PC60.** carry out sampling and testing for inhibitory substances in milk
- PC61.** evaluate organoleptic properties of final cheese product using sensory testing
- PC62.** interpret test results for information on composition, properties and reactions
- PC63.** implement changes to cheese making process based on test results

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** various types of cheese such as cream cheese, queso fresco, cheddar, swiss cheese, etc.
- KU2.** raw materials required for producing a specific type of cheese

Qualification Pack

- KU3.** desirable quality parameters of raw materials, additives, ingredients and preservatives as per cheese to be produced
- KU4.** tools and equipment required in the process
- KU5.** different cultures and enzymes to use for different cheese types
- KU6.** recipe formulation for cheese production
- KU7.** standard practice followed for testing, pasteurizing and cooling the milk for cheese production
- KU8.** process of acidification of milk, addition of starter culture and coagulating enzymes
- KU9.** information to be recorded in the entire work process
- KU10.** importance of continuous stirring the preliminary mixtures (such as during curd formation) and monitoring in cheese production
- KU11.** impact of size of cut curd on moisture loss
- KU12.** what size to cut curds according to cheese type being made
- KU13.** how to produce moulded cheese and techniques used (such as hooping, pressing, surface drying, etc.)
- KU14.** importance of adding salt and maintaining temperature of brine solution in the process
- KU15.** procedure to store the cheese produced monitor conditions during ageing
- KU16.** tests conducted to inspect the quality of cheese and procedure followed
- KU17.** microbial testing for and interpretation of results for salmonella, staphylococcus, listeria and E. coli
- KU18.** basic molecular structures of carbohydrates, proteins and fats
- KU19.** acidity profile ranges for different cheeses

Generic Skills (GS)

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

- GS1.** read equipment manuals, internal information documents sent by internal teams, process documents to understand the equipment's operation and process requirement
- GS2.** plan, prioritize and sequence work operations
- GS3.** communicate effectively with the team members and senior/supervisor
- GS4.** write information in standard formats
- GS5.** discuss task lists, schedules, and activities with the senior/supervisor

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare milk for making cheese</i>	5	5	-	-
PC1. review production processes for preparing milk for further processing	-	-	-	-
PC2. perform pasteurization of received milk to kill any type of microorganisms	-	-	-	-
PC3. cool down the pasteurized milk adequately to ensure growth of starter cultures	-	-	-	-
PC4. standardize the milk as per the desired requirement for making cheese	-	-	-	-
PC5. transfer pasteurized milk into cheese vat safely and maintaining hygienic practice	-	-	-	-
<i>Produce lactic acid coagulated cheese</i>	8	8	-	-
PC6. add starter culture into the pre heated milk and mix evenly according to specific cheese	-	-	-	-
PC7. add coagulating enzymes to the milk if required by specific cheese	-	-	-	-
PC8. maintain temperature throughout the vat or tank according to cheese variety	-	-	-	-
PC9. manage curd ladling, breaking or cutting to meet production goals	-	-	-	-
PC10. plan curd processing schedule to meet production goals	-	-	-	-
PC11. monitor the moisture in cheese by regulating syneresis	-	-	-	-
PC12. adjust calcium phosphate levels to influence basic cheese structure if required	-	-	-	-
PC13. drain curd to ensure required ph level and consistency is maintained according to production goals	-	-	-	-
<i>Produce rennet-based coagulated cheese</i>	10	12	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. add starter culture and mould spores to the pre heated milk according to cheese variety	-	-	-	-
PC15. use adjunct cultures to influence the texture and flavour of the ripened cheese according to cheese variety	-	-	-	-
PC16. use acid to partly acidify the milk prior to adding culture to control the calcium phosphate level in the curd during cheese making, according to required cheese type	-	-	-	-
PC17. add cultures and rennet to milk and hold at temperature according to required cheese variety	-	-	-	-
PC18. maintain log of pH and temperature to monitor yield	-	-	-	-
PC19. calculate total time, flocculation and hardening times for optimum acidification curve, coagulation and moisture content, according to desired cheese type and parameters	-	-	-	-
PC20. monitor curd hardening, temperature and cutting to achieve optimal yield and the required acidification curve and moisture level for the cheese	-	-	-	-
PC21. remove part of the whey and replace with water to wash lactose and lactic acid from the curd if required for specific cheese	-	-	-	-
PC22. mat the curd under the whey to achieve required outcome if required for specific cheese	-	-	-	-
PC23. remove all or part of the whey from the curds by draining out the vat, in line with desired outcome	-	-	-	-
PC24. prepare moulds in which curd will be hooped based on cheese type	-	-	-	-
PC25. prepare curd for milling if required for specific cheese	-	-	-	-
PC26. prepare curd for stretching if required for specific cheese	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. prepare curd for hooping into prepared moulds	-	-	-	-
PC28. apply adequate pressure to ensure appropriate filling of cheese into the mould for required cheese variety	-	-	-	-
PC29. turn cheeses in moulds at appropriate intervals to maximize optimal drainage and acidification	-	-	-	-
PC30. press cheese and remove from moulds where appropriate for cheese variety	-	-	-	-
<i>Produce acid and heat coagulated cheese</i>	6	5	-	-
PC31. acidify the pre heated milk by adding starter culture to coagulate the whey protein according to cheese variety	-	-	-	-
PC32. hold the curd in the curd and whey mixture after coagulation	-	-	-	-
PC33. control cheese flavour through choice of ingredients, such as whey, milk, cream, acidulant and salt according to cheese type	-	-	-	-
PC34. drain whey from the curd to achieve desired texture	-	-	-	-
PC35. apply salting treatments for required outcome and ensure adverse salt profile effects are minimized in the finished product	-	-	-	-
PC36. cool and dry cheeses before packing	-	-	-	-
<i>Monitor the parameters required in cheese making</i>	8	5	-	-
PC37. monitor the temperature of acidified milk to ensure it is as per requirements	-	-	-	-
PC38. <ul style="list-style-type: none"> • monitor parameters during curd formation for ensuring required consistency • Parameters: hardening, temperature, cutting, size, texture, pH, curd protein, etc. 	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC39. stir the curd according to cheese type and production goals	-	-	-	-
PC40. analyze whey content for fat and other solids to gauge efficiency of acidification, curd, cutting and yield potential	-	-	-	-
PC41. optimize yield of curd by refining process control parameters	-	-	-	-
PC42. <ul style="list-style-type: none"> • monitor and control different parameters in cheese making process appropriately • Parameters: moisture, fat, texture, flavour, etc. 	-	-	-	-
PC43. transfer cheese into a brine bath to add desired amount of salt depending on the cheese to be produced	-	-	-	-
PC44. maintain the temperature of brine solution to ensure uniformity in the flavour of cheese produced	-	-	-	-
PC45. <ul style="list-style-type: none"> • record information in the logbook after each trial • Information: pH, titratable acidity, temperature, etc. 	-	-	-	-
<i>Ripen artisan cheese</i>	5	7	-	-
PC46. store the cheese appropriately for ageing as per the cheese type	-	-	-	-
PC47. <ul style="list-style-type: none"> • control and monitor the ripening conditions and stored cheese periodically • Conditions: Humidity, temperature, aeration, etc. 	-	-	-	-
PC48. optimize curing and ripening agents by planning for and adjusting the key composition ratios of acid-coagulated soft cheeses	-	-	-	-
PC49. use surface treatments according to cheese type and recipe	-	-	-	-
PC50. turn and rotate cheese to ensure ripening is even	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC51. • extract sample from the lot and perform quality tests during and post production • Quality tests: pH, salt, texture, fat, moisture, water activity, colour, etc.	-	-	-	-
PC52. record necessary information as required in the work process	-	-	-	-
PC53. take necessary actions for defects in cheese at the maturation process and make adjustments to correct it	-	-	-	-
<i>Perform different tests for cheese making</i>	8	8	-	-
PC54. determine sampling points for physical, chemical and microbial properties	-	-	-	-
PC55. determine an appropriate sampling size	-	-	-	-
PC56. prepare samples for testing according to workplace procedures	-	-	-	-
PC57. select and sterilize sampling equipment	-	-	-	-
PC58. establish and review safe work procedures for processes requiring handling of chemicals and microbes, and involving chemical and microbial reactions in cheese making	-	-	-	-
PC59. make observations and record data for yeasts and moulds	-	-	-	-
PC60. carry out sampling and testing for inhibitory substances in milk	-	-	-	-
PC61. evaluate organoleptic properties of final cheese product using sensory testing	-	-	-	-
PC62. interpret test results for information on composition, properties and reactions	-	-	-	-
PC63. implement changes to cheese making process based on test results	-	-	-	-
NOS Total	50	50	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N2028
NOS Name	Carry out artisanal cheese production
Sector	Food Processing
Sub-Sector	Dairy Products
Occupation	Processing-Dairy Products
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/11/2021
Next Review Date	25/11/2024
NSQC Clearance Date	25/11/2021

Qualification Pack

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

Qualification Pack

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)

Qualification Pack

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

Qualification Pack

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	-	-

Qualification Pack

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	-	-

Qualification Pack

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	25/11/2021
Next Review Date	25/11/2024
NSQC Clearance Date	25/11/2021

Qualification Pack

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

Qualification Pack

- 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

Qualification Pack

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	-	-

Qualification Pack

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	25/11/2021
Next Review Date	25/11/2024
NSQC Clearance Date	25/11/2021

Qualification Pack

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:

Qualification Pack

- 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

Qualification Pack

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	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	13	26	-	-

Qualification Pack

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	25/11/2021
Next Review Date	25/11/2024
NSQC Clearance Date	25/11/2021

Qualification Pack

FIC/N2029: Prepare and pack artisan cheese

Description

This NOS talks about presenting, serving and packaging of different types of artisan cheese by following standard operating practices.

Scope

The scope covers the following :

- Pack the cheese produced
- Prepare, handle & present artisan and specialty cheese
- Manage finished goods and post production activities

Elements and Performance Criteria

Pack the cheese produced

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

- PC1.** • ensure the parameters of the packaging material are met as per the specifications
• Parameters: grease/moisture proof, low metallic content, barrier for oxygen, etc.
- PC2.** properly place cheese inside the packaging material for manual packaging while ensuring product safety of products
- PC3.** monitor the process to ascertain suitable packaging for cheese production
- PC4.** record information (manual, ERP, etc.) of finished products details such as name of the product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary and secondary packaging materials for all finished products, storage conditions, etc. according to the FSSAI standards of packaging and labelling
- PC5.** dispose waste and unwanted materials as per SOP

Prepare, handle & present artisan and specialty cheese

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

- PC6.** identify different types/ varieties of cheese and their characteristics
- PC7.** • cut different types of cheeses to specified weight using correct utensils
• Types: small, large, soft, hard, etc.
- PC8.** design a display of a selection of cheeses for a display cabinet
- PC9.** design cheese tasting with an identified theme
- PC10.** bring cheeses to room temperature before serving
- PC11.** cut cheese for customer tasting
- PC12.** present cheese for customer tasting with specified theme, characteristics, provenance and processing techniques of each
- PC13.** store cheeses in appropriate environmental conditions
- PC14.** wrap different cheeses with appropriate wrapping material
- PC15.** make recommendations for post-purchase storage

Manage finished goods and post production activities

Qualification Pack

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

- PC16.** inspect the quality of finished products thoroughly before dispatch
- PC17.** Identify optimal ripening stage and ongoing care requirements for the cheese and communicate these to cheese buyers and sellers
- PC18.** coordinate with vendors for distribution and supply of cheese to individuals and organisations
- PC19.** record information for quality and quantity of goods supplied, vendor details, customer details, material receipts, time of shipment, etc.
- PC20.** monitor stocked material (raw material, processed material and finished goods) for desired quality and quantity as per the purchase order
- PC21.** ensure a clean and tidy workplace and take relevant measures against pest infestations and presence of dust, water, etc.
- PC22.** clean the work area, machineries, equipment and tools using appropriate cleaning agents and sanitizers
- PC23.** repair minor faults in the equipment or machines, if any
- PC24.** manage and control packaging wastage
- PC25.** dispose the waste as per standard operating procedures

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** steps to be performed for packing the cheese appropriately and information to be recorded during packaging
- KU2.** different types of cheese to be presented
- KU3.** applicable standards as laid down in Food Safety and Standards Authority of India (FSSAI) guidelines for production, packaging, labelling, storing, handling raw materials and produced cheese varieties
- KU4.** safe disposal of waste and unwanted materials from the work area
- KU5.** how to inspect the finished product before dispatch
- KU6.** importance of vendor coordination and details to be shared for supply of finished products
- KU7.** packaging and wrapping for different cheese types
- KU8.** methods for maintaining cheese quality from packaging through to retail sale
- KU9.** temperature for storing cheese
- KU10.** method to conduct cheese tasting
- KU11.** presentation required for different cheeses

Generic Skills (GS)

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

- GS1.** write information in standard formats
- GS2.** plan, prioritize and sequence work operations
- GS3.** communicate effectively with the team members and senior/supervisor



Qualification Pack

- GS4.** discuss task lists, schedules, and activities with the senior/supervisor
- GS5.** present different variety of cheese

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Pack the cheese produced</i>	5	5	-	-
PC1. • ensure the parameters of the packaging material are met as per the specifications • Parameters: grease/moisture proof, low metallic content, barrier for oxygen, etc.	-	-	-	-
PC2. properly place cheese inside the packaging material for manual packaging while ensuring product safety of products	-	-	-	-
PC3. monitor the process to ascertain suitable packaging for cheese production	-	-	-	-
PC4. record information (manual, ERP, etc.) of finished products details such as name of the product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary and secondary packaging materials for all finished products, storage conditions, etc. according to the FSSAI standards of packaging and labelling	-	-	-	-
PC5. dispose waste and unwanted materials as per SOP	-	-	-	-
<i>Prepare, handle & present artisan and specialty cheese</i>	15	16	-	-
PC6. identify different types/ varieties of cheese and their characteristics	-	-	-	-
PC7. • cut different types of cheeses to specified weight using correct utensils • Types: small, large, soft, hard, etc.	-	-	-	-
PC8. design a display of a selection of cheeses for a display cabinet	-	-	-	-
PC9. design cheese tasting with an identified theme	-	-	-	-
PC10. bring cheeses to room temperature before serving	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. cut cheese for customer tasting	-	-	-	-
PC12. present cheese for customer tasting with specified theme, characteristics, provenance and processing techniques of each	-	-	-	-
PC13. store cheeses in appropriate environmental conditions	-	-	-	-
PC14. wrap different cheeses with appropriate wrapping material	-	-	-	-
PC15. make recommendations for post-purchase storage	-	-	-	-
<i>Manage finished goods and post production activities</i>	10	10	-	-
PC16. inspect the quality of finished products thoroughly before dispatch	-	-	-	-
PC17. Identify optimal ripening stage and ongoing care requirements for the cheese and communicate these to cheese buyers and sellers	-	-	-	-
PC18. coordinate with vendors for distribution and supply of cheese to individuals and organisations	-	-	-	-
PC19. record information for quality and quantity of goods supplied, vendor details, customer details, material receipts, time of shipment, etc.	-	-	-	-
PC20. monitor stocked material (raw material, processed material and finished goods) for desired quality and quantity as per the purchase order	-	-	-	-
PC21. ensure a clean and tidy workplace and take relevant measures against pest infestations and presence of dust, water, etc.	-	-	-	-
PC22. clean the work area, machineries, equipment and tools using appropriate cleaning agents and sanitizers	-	-	-	-
PC23. repair minor faults in the equipment or machines, if any	-	-	-	-
PC24. manage and control packaging wastage	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. dispose the waste as per standard operating procedures	-	-	-	-
NOS Total	30	31	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	FIC/N2029
NOS Name	Prepare and pack artisan cheese
Sector	Food Processing
Sub-Sector	Dairy Products
Occupation	Processing-Dairy Products
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/11/2021
Next Review Date	25/11/2024
NSQC Clearance Date	25/11/2021

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.

Qualification Pack

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/N2027.Plan for the cheese production	40	40	-	20	100	25
FIC/N2028.Carry out production of cheese	63	63	-	35	161	20
FIC/N9901.Implement health and safety practices at the workplace	30	70	-	-	100	10
FIC/N9902.Work effectively in an organisation	22	39	-	-	61	10
SGJ/N1702.Optimize resource utilization at workplace	13	26	-	-	39	10
FIC/N2029.Prepare and pack artisan cheese	30	31	-	-	61	25
Total	198	269	-	55	522	100

Qualification Pack

Acronyms

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

Qualification Pack

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.

Qualification Pack

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	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.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	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.
Electives	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.
Options	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.