



Seed Processing Worker

QP Code: AGR/Q7102

Version: 3.0

NSQF Level: 3

Agriculture Skill Council of India || 6th Floor, GNG Tower, Plot No. 10, Sector -44, Gurgaon
Haryana-122004 || email: priyanka@asci-india.com

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AGR/Q7102: Seed Processing Worker

Brief Job Description

A Seed Processing Worker performs various activities under supervision in the process of processing seeds such as drying, pre-cleaning, cleaning, grading and seed treatment. The person also packs and labels seeds for the purpose of distribution.

Personal Attributes

The individual must have good eyesight, attention to detail and the ability to work for long durations with concentration. The person must also be able to read, write and work as per the given instructions.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [AGR/N7106: Carry out drying and cleaning of seeds](#)
2. [AGR/N7107: Carry out seed treatment](#)
3. [AGR/N7108: Weigh, pack, label and store the seeds](#)
4. [AGR/N9903: Maintain health and safety at the workplace](#)
5. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Seed Production and Processing
Country	India
NSQF Level	3
Credits	10
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6130.0202

Minimum Educational Qualification & Experience	10th Class OR 8th Class (with two years of (NTC/ NAC) after 8th) OR 8th grade pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 2 Years of experience relevant experience OR 5th grade pass with 5 Years of experience relevant experience OR Previous relevant Qualification of NSQF Level (Level 2) with 1 Year of experience relevant experience OR Previous relevant Qualification of NSQF Level (Level 2.5) with 6 Months of experience relevant experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	NA
Next Review Date	30/12/2024
Deactivation Date	31/12/2024
NSQC Approval Date	30/12/2021
Version	3.0
Reference code on NQR	QG-03-AG-00286-2023-V1.1-ASCI
NQR Version	1.1

AGR/N7106: Carry out drying and cleaning of seeds

Description

This OS unit is about carrying out drying, pre-cleaning and cleaning of seeds under supervision. It also covers relevant waste management practices.

Scope

The scope covers the following :

- Examine the seeds received for processing
- Dry the seeds
- Carry out pre-cleaning
- Carry out cleaning
- Perform waste management

Elements and Performance Criteria

Examine the seeds received for processing

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

- PC1.** examine the seeds for impurities and admixture from other seed lots as per the supervisor's instructions
- PC2.** assist in sorting out the seed lots with broken, diseased, moisture-damaged seeds above the permissible limits
- PC3.** check the moisture level using a moisture meter
- PC4.** select specific seed lot for processing according to the nearest planting season and supervisor's instructions

Dry the seeds

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

- PC5.** select an appropriate method for drying seeds according to the weather, quantity of seeds and the supervisor's instructions
- PC6.** sun-dry/ air-dry seeds under favourable weather conditions
- PC7.** co-ordinate with the supervisor for testing the moisture level of seeds and determine if it is appropriate for further processing
- PC8.** dry the seeds mechanically as directed by the supervisor using static grain dryer/ recirculating grain dryer/ continuous flow dryer when the weather conditions are not conducive for natural drying
- PC9.** check the drying air temperature to avoid heat stress
- PC10.** halt the drying process when the seeds achieve the required level of moisture to avoid over-drying

Carry out pre-cleaning

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

- PC11.** select an appropriate method for pre-cleaning such as winnowing, scalping, de-awning according to the quantity of impurities in the seeds and supervisor's instructions

- PC12.** co-ordinate with supervisor for selecting the appropriate pre-cleaning machinery such as an aspirator or separator
- PC13.** set up the pre-cleaning machinery as per the manufacturer's instructions
- PC14.** operate the pre-cleaning machinery as directed by the supervisor to remove material larger or smaller than the seeds such as leaves, stones, sticks, sand, fine dust etc.
- PC15.** use the relevant Personal Protective Equipment (PPE) while operating the machinery

Carry out cleaning

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

- PC16.** select manual or mechanical method for basic cleaning according to the quantity of seeds to be processed and as per the supervisor's instructions
- PC17.** use a sorting table or sieve to remove damaged grains or other unwanted particles during manual cleaning
- PC18.** use an air-screen cleaner to clean the seeds mechanically
- PC19.** carry out fine cleaning and grading as per the supervisor's instructions to further improve the quality of seeds
- PC20.** segregate the seed lots that have little impurities

Perform waste management

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

- PC21.** segregate waste into different categories as per the supervisor's instructions
- PC22.** dispose non-recyclable waste appropriately as instructed
- PC23.** deposit recyclable and reusable material at the identified location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** applicable health and safety standards
- KU2.** own job responsibilities and limits of authority
- KU3.** the importance of following health, safety and quality standards
- KU4.** correct use of relevant PPE and clothing
- KU5.** relevant measures to be taken to prevent mixing of seeds from different accessions
- KU6.** different types of seeds and their characteristics
- KU7.** different methods of cleaning and drying seeds before processing
- KU8.** the process of natural drying of seeds such as sun drying and air drying
- KU9.** the impact of temperature and humidity on seed processing
- KU10.** appropriate moisture levels in seeds for being processed
- KU11.** use of a moisture meter
- KU12.** the time required for drying different types of oil and non-oil seeds
- KU13.** the causes of seed deterioration and how to avoid it
- KU14.** the correct way of handling different types and varieties of oil and non-oil seeds
- KU15.** the importance and process of pre-cleaning of seeds before processing
- KU16.** different types of pre-cleaning machinery and their Standard Operating Procedure (SOP)
- KU17.** waste management and methods of waste disposal

KU18. the appropriate method of recycling waste material generated during seed processing

KU19. common sources of pollution and ways to minimise it

Generic Skills (GS)

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

GS1. read the relevant guides, manuals and SOPs

GS2. listen carefully to understand the information/ instructions being given by the speaker

GS3. communicate politely and professionally

GS4. plan and schedule tasks to use time effectively

GS5. maintain professional relationships with clients and co-workers

GS6. analyse work processes to identify relevant improvements

GS7. take quick decisions to deal with workplace emergencies/ accidents

GS8. identify possible disruptions to work and take relevant preventive measures

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Examine the seeds received for processing</i>	12	6	-	10
PC1. examine the seeds for impurities and admixture from other seed lots as per the supervisor's instructions	-	-	-	-
PC2. assist in sorting out the seed lots with broken, diseased, moisture-damaged seeds above the permissible limits	-	-	-	-
PC3. check the moisture level using a moisture meter	-	-	-	-
PC4. select specific seed lot for processing according to the nearest planting season and supervisor's instructions	-	-	-	-
<i>Dry the seeds</i>	6	8	-	6
PC5. select an appropriate method for drying seeds according to the weather, quantity of seeds and the supervisor's instructions	-	-	-	-
PC6. sun-dry/ air-dry seeds under favourable weather conditions	-	-	-	-
PC7. co-ordinate with the supervisor for testing the moisture level of seeds and determine if it is appropriate for further processing	-	-	-	-
PC8. dry the seeds mechanically as directed by the supervisor using static grain dryer/ recirculating grain dryer/ continuous flow dryer when the weather conditions are not conducive for natural drying	-	-	-	-
PC9. check the drying air temperature to avoid heat stress	-	-	-	-
PC10. halt the drying process when the seeds achieve the required level of moisture to avoid over-drying	-	-	-	-
<i>Carry out pre-cleaning</i>	4	8	-	4

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. select an appropriate method for pre-cleaning such as winnowing, scalping, de-awning according to the quantity of impurities in the seeds and supervisor's instructions	-	-	-	-
PC12. co-ordinate with supervisor for selecting the appropriate pre-cleaning machinery such as an aspirator or separator	-	-	-	-
PC13. set up the pre-cleaning machinery as per the manufacturer's instructions	-	-	-	-
PC14. operate the pre-cleaning machinery as directed by the supervisor to remove material larger or smaller than the seeds such as leaves, stones, sticks, sand, fine dust etc.	-	-	-	-
PC15. use the relevant Personal Protective Equipment (PPE) while operating the machinery	-	-	-	-
<i>Carry out cleaning</i>	4	12	-	6
PC16. select manual or mechanical method for basic cleaning according to the quantity of seeds to be processed and as per the supervisor's instructions	-	-	-	-
PC17. use a sorting table or sieve to remove damaged grains or other unwanted particles during manual cleaning	-	-	-	-
PC18. use an air-screen cleaner to clean the seeds mechanically	-	-	-	-
PC19. carry out fine cleaning and grading as per the supervisor's instructions to further improve the quality of seeds	-	-	-	-
PC20. segregate the seed lots that have little impurities	-	-	-	-
<i>Perform waste management</i>	4	6	-	4
PC21. segregate waste into different categories as per the supervisor's instructions	-	-	-	-
PC22. dispose non-recyclable waste appropriately as instructed	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC23. deposit recyclable and reusable material at the identified location	-	-	-	-
NOS Total	30	40	-	30

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7106
NOS Name	Carry out drying and cleaning of seeds
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Seed Production and Processing
NSQF Level	3
Credits	2
Version	2.0
Next Review Date	30/12/2024

AGR/N7107: Carry out seed treatment

Description

This OS unit is about treating seeds following different seed treatment methods as per the supervisor's instructions. It also covers resource optimisation.

Scope

The scope covers the following :

- Prepare for seed treatment
- Carry out seed dressing
- Carry out seed coating
- Carry out seed pelleting
- Optimise resource utilisation

Elements and Performance Criteria

Prepare for seed treatment

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

- PC1.** assist in examining the cleaned and dried seeds to identify the appropriate seed treatment needs
- PC2.** select an appropriate seed treatment method such as seed dressing/ seed coating/ seed pelleting as per the supervisor's instructions
- PC3.** assist in selecting the appropriate pesticides/ insecticides/ fungicides as per the variety of seed and treatment needs
- PC4.** co-ordinate with the supervisor in arranging the necessary required pesticides/ insecticides/ fungicides and adhesive/ binder, tools, equipment and PPE
- PC5.** handle the pesticides/ insecticides/ fungicides as per the manufacturer's instructions

Carry out seed dressing

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

- PC6.** install the manual seed dressing drum or relevant seed dressing machinery as per the manufacturer's instructions
- PC7.** prepare a dry formulation as per the supervisor's instructions by mixing pesticides/ insecticides/ fungicides with a slurry or a liquid formulation suitable to the seeds to be dressed
- PC8.** add the relevant fertilizer and growth promoters as directed
- PC9.** fill in the seed dressing drum with the recommended quantity of dressing formulation and seeds
- PC10.** operate the seed dressing drum or relevant seed dressing machinery as per the supervisor's instructions to carry out seed dressing

Carry out seed coating

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

- PC11.** prepare the seed coating machine for operations as per the manufacturer's instructions
- PC12.** assist in selecting the appropriate fungicide and binder/ adhesive for coating seeds

- PC13.** dissolve the recommended quantity of pesticide/ insecticide/ fungicide into water
- PC14.** prepare the pesticide/ insecticide/ fungicide slurry by adding binder/ adhesive in the recommended ratio, using the relevant PPE
- PC15.** apply the slurry uniformly inside the seed coating container
- PC16.** fill in the container with the appropriate quantity of seeds as directed by the supervisor
- PC17.** apply the container seal firmly and shake the container as per the SOP to coat seeds uniformly with the slurry

Carry out seed pelleting

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

- PC18.** install the tumbling drum/ rotary pan/ coating pan as per manufacturer's instructions
- PC19.** co-ordinate with the supervisor for arranging the recommended seed covering material such as talcum powder/ clay, adhesive and an active ingredient to prepare the coating formulation
- PC20.** prepare the coating formulation by mixing the covering material, adhesive and appropriate fungicide/ pesticide/ insecticide in the ratio recommended by the supervisor
- PC21.** fill in the tumbling drum with the recommended quantity of seeds and coating formulation for pelleting
- PC22.** operate tumbling drum/ rotary pan/ coating pan as per the manufacturer's instructions
- PC23.** examine the flower seeds during the operation regularly to ensure seeds achieve the required level of coating and weight
- PC24.** collect the pelleted flower seeds in an appropriate container
- PC25.** dry the seeds under the sun or using a dryer as directed by the supervisor

Optimise resource utilisation

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

- PC26.** use water, electricity and relevant materials optimally in different tasks and processes as per the supervisor's instructions
- PC27.** connect electrical tools and equipment safely and turn them off when not in use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** safe use of various types of fungicides/ insecticides/pesticides used in seed processing
- KU2.** methods of preparing different types of solutions/ slurries used in seed treatment
- KU3.** the importance and correct use of binder/ adhesive in seed treatment
- KU4.** different types of seed treatment methods such as seed dressing, seed coating, seed pelleting, etc.
- KU5.** appropriate seed conditions required before carrying out seed treatment
- KU6.** suitability of pesticides, insecticides and fungicides to different types of seeds
- KU7.** pests, diseases and insects that commonly infest seeds
- KU8.** selective usage of a variety of chemicals in the control of pests, disease control and safe storage
- KU9.** appropriate conditions for the use of two or more compounds for seed treatment
- KU10.** the correct dosage and the rate of application for different types of chemicals during seed treatment

- KU11.** importance of following environmental and ecological best practices to minimise the impact on the environment
- KU12.** benefits of resource optimisation
- KU13.** ways of efficiently managing various materials used in different operations
- KU14.** common practices of conserving electricity

Generic Skills (GS)

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

- GS1.** write work related notes
- GS2.** read the relevant guides and manuals
- GS3.** co-ordinate with the co-workers to achieve the work objectives
- GS4.** plan and schedule tasks to ensure timely completion
- GS5.** communicate politely and professionally
- GS6.** maintain professional relationships with clients and co-workers
- GS7.** listen attentively to comprehend the information/ instructions being shared
- GS8.** identify solutions to work processes through discussion with co-workers and analysis
- GS9.** take quick action to deal with any emergencies/accidents

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for seed treatment</i>	8	10	-	8
PC1. assist in examining the cleaned and dried seeds to identify the appropriate seed treatment needs	-	-	-	-
PC2. select an appropriate seed treatment method such as seed dressing/ seed coating/ seed pelleting as per the supervisor's instructions	-	-	-	-
PC3. assist in selecting the appropriate pesticides/ insecticides/ fungicides as per the variety of seed and treatment needs	-	-	-	-
PC4. co-ordinate with the supervisor in arranging the necessary required pesticides/ insecticides/ fungicides and adhesive/ binder, tools, equipment and PPE	-	-	-	-
PC5. handle the pesticides/ insecticides/ fungicides as per the manufacturer's instructions	-	-	-	-
<i>Carry out seed dressing</i>	8	6	-	6
PC6. install the manual seed dressing drum or relevant seed dressing machinery as per the manufacturer's instructions	-	-	-	-
PC7. prepare a dry formulation as per the supervisor's instructions by mixing pesticides/ insecticides/ fungicides with a slurry or a liquid formulation suitable to the seeds to be dressed	-	-	-	-
PC8. add the relevant fertilizer and growth promoters as directed	-	-	-	-
PC9. fill in the seed dressing drum with the recommended quantity of dressing formulation and seeds	-	-	-	-
PC10. operate the seed dressing drum or relevant seed dressing machinery as per the supervisor's instructions to carry out seed dressing	-	-	-	-
<i>Carry out seed coating</i>	6	8	-	8

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. prepare the seed coating machine for operations as per the manufacturer's instructions	-	-	-	-
PC12. assist in selecting the appropriate fungicide and binder/ adhesive for coating seeds	-	-	-	-
PC13. dissolve the recommended quantity of pesticide/ insecticide/ fungicide into water	-	-	-	-
PC14. prepare the pesticide/ insecticide/ fungicide slurry by adding binder/ adhesive in the recommended ratio, using the relevant PPE	-	-	-	-
PC15. apply the slurry uniformly inside the seed coating container	-	-	-	-
PC16. fill in the container with the appropriate quantity of seeds as directed by the supervisor	-	-	-	-
PC17. apply the container seal firmly and shake the container as per the SOP to coat seeds uniformly with the slurry	-	-	-	-
<i>Carry out seed pelleting</i>	4	8	-	4
PC18. install the tumbling drum/ rotary pan/ coating pan as per manufacturer's instructions	-	-	-	-
PC19. co-ordinate with the supervisor for arranging the recommended seed covering material such as talcum powder/ clay, adhesive and an active ingredient to prepare the coating formulation	-	-	-	-
PC20. prepare the coating formulation by mixing the covering material, adhesive and appropriate fungicide/ pesticide/ insecticide in the ratio recommended by the supervisor	-	-	-	-
PC21. fill in the tumbling drum with the recommended quantity of seeds and coating formulation for pelleting	-	-	-	-
PC22. operate tumbling drum/ rotary pan/ coating pan as per the manufacturer's instructions	-	-	-	-
PC23. examine the flower seeds during the operation regularly to ensure seeds achieve the required level of coating and weight	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC24. collect the pelleted flower seeds in an appropriate container	-	-	-	-
PC25. dry the seeds under the sun or using a dryer as directed by the supervisor	-	-	-	-
<i>Optimise resource utilisation</i>	4	8	-	4
PC26. use water, electricity and relevant materials optimally in different tasks and processes as per the supervisor's instructions	-	-	-	-
PC27. connect electrical tools and equipment safely and turn them off when not in use	-	-	-	-
NOS Total	30	40	-	30

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7107
NOS Name	Carry out seed treatment
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Seed Production and Processing
NSQF Level	3
Credits	2
Version	3.0
Last Reviewed Date	NA
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021

AGR/N7108: Weigh, pack, label and store the seeds

Description

This OS unit is about weighing, packing, labelling and storing the processed seeds as per the supervisor's instructions.

Scope

The scope covers the following :

- Weigh and pack the seeds
- Check and apply seed bag labels
- Prepare the storage area
- Store the seed bags

Elements and Performance Criteria

Weigh and pack the seeds

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

- PC1.** assist the supervisor in selecting the appropriate packing material according to the type of seeds
- PC2.** assist the supervisor in arranging the packing material and checking that it conforms to the applicable regulatory requirements
- PC3.** check the packing material for any damage and request replacement as required
- PC4.** collect the treated seeds for packing
- PC5.** fill in the seed bags with the treated seeds ensuring no damage to seeds
- PC6.** weigh the seed bags to ensure correct weight as printed on the bags
- PC7.** seal the seed bags firmly

Check and apply seed bag labels

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

- PC8.** assist the supervisor in checking the seed bag labels to ensure they have the required information such as the name of the seed processor with company code, seed category, species, variety and quantity, seed treatment, etc.
- PC9.** apply labels on the seed bags as per the supervisor's instructions
- PC10.** maintain the record of seed bags packed and labelled

Prepare the storage area

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

- PC11.** clean the storage area to remove all dust, waste, water and hazardous materials
- PC12.** apply the necessary treatment in the storage area as per the supervisor's instructions to remove any pests, insects and rodents
- PC13.** assist the supervisor in checking the storage area has the required good air circulation, temperature and humidity levels for storing seeds
- PC14.** co-ordinate with the supervisor for organising the appropriate materials for the safe storage of seeds such as wooden platforms, racks and pallets

Store the seed bags

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

- PC15.** check the seed bags for correct sealing, and seal the bags that are not sealed
- PC16.** stack the seed bags in the correct position, ensure that weight pressure does not cause damage to seeds
- PC17.** maintain appropriate spacing between the seed bags
- PC18.** handle and store seeds bags of different seed types separately as per the supervisor's instructions
- PC19.** maintain the record of seed bags stored in the storage area

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the importance of labelling commercial commodities
- KU2.** the correct way of preparing labels for commercial commodities complying with the relevant regulatory requirements
- KU3.** appropriate packing material for different types of seed
- KU4.** the importance of maintaining correct weight in packaging
- KU5.** the correct use of weighing scales
- KU6.** the storage requirements for seeds such as the appropriate temperature and humidity levels
- KU7.** the process of preparing a storage area
- KU8.** risks arising out of improper packing and storage of seeds
- KU9.** the correct way of stacking and storing seeds
- KU10.** the correct way of handling varieties of seeds
- KU11.** basic inventory management and accounting practices

Generic Skills (GS)

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

- GS1.** write work-related notes
- GS2.** read the relevant literature to get updated information about new developments in the field of work
- GS3.** communicate politely and professionally
- GS4.** listen attentively to understand the information or instructions being given
- GS5.** plan and schedule tasks for efficient use of time
- GS6.** find solutions to persistent problems through discussion with co-workers
- GS7.** take quick decisions to deal with any disruptions to work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Weigh and pack the seeds</i>	10	12	-	10
PC1. assist the supervisor in selecting the appropriate packing material according to the type of seeds	-	-	-	-
PC2. assist the supervisor in arranging the packing material and checking that it conforms to the applicable regulatory requirements	-	-	-	-
PC3. check the packing material for any damage and request replacement as required	-	-	-	-
PC4. collect the treated seeds for packing	-	-	-	-
PC5. fill in the seed bags with the treated seeds ensuring no damage to seeds	-	-	-	-
PC6. weigh the seed bags to ensure correct weight as printed on the bags	-	-	-	-
PC7. seal the seed bags firmly	-	-	-	-
<i>Check and apply seed bag labels</i>	6	4	-	6
PC8. assist the supervisor in checking the seed bag labels to ensure they have the required information such as the name of the seed processor with company code, seed category, species, variety and quantity, seed treatment, etc.	-	-	-	-
PC9. apply labels on the seed bags as per the supervisor's instructions	-	-	-	-
PC10. maintain the record of seed bags packed and labelled	-	-	-	-
<i>Prepare the storage area</i>	6	12	-	6
PC11. clean the storage area to remove all dust, waste, water and hazardous materials	-	-	-	-
PC12. apply the necessary treatment in the storage area as per the supervisor's instructions to remove any pests, insects and rodents	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. assist the supervisor in checking the storage area has the required good air circulation, temperature and humidity levels for storing seeds	-	-	-	-
PC14. co-ordinate with the supervisor for organising the appropriate materials for the safe storage of seeds such as wooden platforms, racks and pallets	-	-	-	-
<i>Store the seed bags</i>	8	12	-	8
PC15. check the seed bags for correct sealing, and seal the bags that are not sealed	-	-	-	-
PC16. stack the seed bags in the correct position, ensure that weight pressure does not cause damage to seeds	-	-	-	-
PC17. maintain appropriate spacing between the seed bags	-	-	-	-
PC18. handle and store seeds bags of different seed types separately as per the supervisor's instructions	-	-	-	-
PC19. maintain the record of seed bags stored in the storage area	-	-	-	-
NOS Total	30	40	-	30

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7108
NOS Name	Weigh, pack, label and store the seeds
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Seed Production and Processing
NSQF Level	3
Credits	3
Version	2.0
Next Review Date	30/12/2024

AGR/N9903: Maintain health and safety at the workplace

Description

This OS is about maintaining health and safety of self and other co-workers at the workplace

Scope

The scope covers the following :

- Maintain personal hygiene
- Maintain clean and safe workplace
- Administer appropriate emergency procedures

Elements and Performance Criteria

Maintain personal hygiene

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

- PC1.** wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals
- PC2.** wash the worn clothes with soap and sun dry before use next time
- PC3.** ensure the face is covered with mask or three layers of cloth-piece
- PC4.** follow the workplace sanitization norms including distancing from sick people

Maintain clean and safe workplace

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

- PC5.** carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor
- PC6.** wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy
- PC7.** follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards
- PC8.** assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices
- PC9.** sanitize equipment, tools and machinery before and after use
- PC10.** use equipment and materials safely and correctly and return the same to designated storage after use
- PC11.** dispose waste safely and correctly in the designated area
- PC12.** recognize risks to bystanders and take required action to reduce the risks
- PC13.** work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed
- PC14.** report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger
- PC15.** follow government / workplace advisories incase of outbreak of any disease/disaster

Administer appropriate emergency procedures

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

- PC16.** follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements
- PC17.** use emergency equipment in accordance with manufacturer's specifications and workplace requirements
- PC18.** provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques
- PC19.** recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate
- PC20.** report details of first aid administered in accordance with workplace procedures

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant legislation, standards, policies, and procedures at work
- KU2.** relevant health and safety requirements applicable to the work environment
- KU3.** own job role and responsibilities and sources of information pertaining to work
- KU4.** who to approach for support in order to obtain work related information, clarifications and support
- KU5.** importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business
- KU6.** personal hygiene and fitness requirement
- KU7.** importance of sanitization of the workplace
- KU8.** types of Personal Protective Equipment (PPE) required at the workplace and their importance
- KU9.** the correct and safe way to use materials and equipment required for the work
- KU10.** the importance of good housekeeping at the workplace
- KU11.** safe waste disposal methods
- KU12.** methods for minimizing environmental damage during work
- KU13.** the risks to health and safety including contagious diseases and the measures to be taken to control those risks in the area of work
- KU14.** workplace procedures and requirements for the prevention and treatment of workplace injuries/illnesses.
- KU15.** basic emergency first aid procedure
- KU16.** local emergency services
- KU17.** why accidents, incidents and problems should be reported and the appropriate actions to be taken

Generic Skills (GS)

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

- GS1.** record the data as per the requirement
- GS2.** report problems to the appropriate personnel in a timely manner
- GS3.** read instruction manual for hand tool and equipments

- GS4.** communicate clearly and effectively with co-workers, and other stakeholders
- GS5.** comprehend information shared by senior people and experts
- GS6.** make decisions pertaining to personal hygiene and safety
- GS7.** schedule daily activities and draw up priorities
- GS8.** manage relationships with co-workers, manager and other stakeholders
- GS9.** assess situation and identify appropriate control measures

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain personal hygiene</i>	10	5	-	10
PC1. wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals	-	-	-	-
PC2. wash the worn clothes with soap and sun dry before use next time	-	-	-	-
PC3. ensure the face is covered with mask or three layers of cloth-piece	-	-	-	-
PC4. follow the workplace sanitization norms including distancing from sick people	-	-	-	-
<i>Maintain clean and safe workplace</i>	15	15	-	15
PC5. carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor	-	-	-	-
PC6. wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy	-	-	-	-
PC7. follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards	-	-	-	-
PC8. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices	-	-	-	-
PC9. sanitize equipment, tools and machinery before and after use	-	-	-	-
PC10. use equipment and materials safely and correctly and return the same to designated storage after use	-	-	-	-
PC11. dispose waste safely and correctly in the designated area	-	-	-	-
PC12. recognize risks to bystanders and take required action to reduce the risks	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed	-	-	-	-
PC14. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	-	-	-	-
PC15. follow government / workplace advisories incase of outbreak of any disease/disaster	-	-	-	-
<i>Administer appropriate emergency procedures</i>	15	5	-	10
PC16. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements	-	-	-	-
PC17. use emergency equipment in accordance with manufacturer's specifications and workplace requirements	-	-	-	-
PC18. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques	-	-	-	-
PC19. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	-	-	-	-
PC20. report details of first aid administered in accordance with workplace procedures	-	-	-	-
NOS Total	40	25	-	35

National Occupational Standards (NOS) Parameters

NOS Code	AGR/N9903
NOS Name	Maintain health and safety at the workplace
Sector	Agriculture
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	1
Version	4.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024

DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

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

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values – Citizenship

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

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

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

PC4. speak with others using some basic English phrases or sentences

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

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

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

KU10. how to compute income and expenses

KU11. importance of maintaining safety and security in financial transactions

- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	17/11/2022
Next Review Date	30/06/2025
NSQC Clearance Date	17/11/2022

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) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 50

(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
AGR/N7106.Carry out drying and cleaning of seeds	30	40	-	30	100	30
AGR/N7107.Carry out seed treatment	30	40	-	30	100	25
AGR/N7108.Weigh, pack, label and store the seeds	30	40	-	30	100	30
AGR/N9903.Maintain health and safety at the workplace	40	25	-	35	100	10
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
Total	150	175	-	125	450	100

Acronyms

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

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	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.