

Qualification Pack



Mushroom Grower (Small Unit)

QP Code: AGR/Q7809

Version: 1.0

NSQF Level: 2

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AGR/Q7809: Mushroom Grower (Small Unit)

Brief Job Description

A Mushroom Grower (Small Unit) performs various activities in the process of cultivating mushroom such as preparing mushroom compost, spawning, maintenance, harvesting and post-harvest processing of mushroom.

Personal Attributes

The individual must be physically fit to work for long hours. The person must have attention to detail and problem-solving skills. Ability to read, write and co-ordinate with others are other important attributes required in the job role.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [AGR/N7831: Prepare and pasteurise mushroom compost for a small unit](#)
2. [AGR/N7832: Procure inputs and prepare site for cultivating mushrooms](#)
3. [AGR/N7833: Carry out cultivation of mushroom](#)
4. [AGR/N7834: Maintain, harvest and process mushroom in a small unit](#)
5. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Agri-Entrepreneurship and Rural Enterprises
Country	India
NSQF Level	2
Credits	7
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6113.0602

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Minimum Educational Qualification & Experience	No formal education prescribed
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	29/09/2026
NSQC Approval Date	29/09/2023
Version	1.0
Reference code on NQR	QG-02-AG-01000-2023-V1-ASCI
NQR Version	1.0

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AGR/N7831: Prepare and pasteurise mushroom compost for a small unit

Description

This OS unit is about preparing and pasteurising compost for the purpose of growing mushroom.

Scope

The scope covers the following :

- Arrange various materials to prepare mushroom compost
- Prepare and pasteurise the mushroom compost

Elements and Performance Criteria

Arrange various materials to prepare mushroom compost

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

- PC1.** select the appropriate method for preparing the compost such as long method/ short method according to the budget
- PC2.** arrange the base material required for preparing the compost such as wheat/ paddy straw, calcium ammonium nitrate, urea, etc.
- PC3.** select the appropriate ingredients to rectify mineral deficiencies; stabilise the effect of ammonium content, and ensure adequate aeration
- PC4.** determine different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost
- PC5.** organise the appropriate tools, equipment and Personal Protective Equipment (PPE)

Prepare and pasteurise the mushroom compost

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

- PC6.** prepare a clean concrete floor to prepare the mushroom compost
- PC7.** apply the recommended quantity of water on the base material after spreading it on the floor
- PC8.** maintain the recommended level of moisture in the base material for the recommended duration
- PC9.** prepare a mixture of molasses, wheat bran and fertilizers maintaining the recommended ratio
- PC10.** apply a cover of wet gunny bags on the mixture to maintain the appropriate level of moisture
- PC11.** prepare the mushroom compost by mixing the base material and wet fertilizers
- PC12.** carry out turning of the mushroom compost as per the recommended turning schedule
- PC13.** add the recommended nutrients to the compost such as gypsum during turning
- PC14.** maintain the recommended level of ammonia and moisture in the compost
- PC15.** store the mushroom compost at the recommended temperature
- PC16.** pasteurise the mushroom compost to kill the harmful micro-organisms
- PC17.** arrange for protection of mushroom compost from pathogens or pests
- PC18.** use the relevant PPE and clothing
- PC19.** maintain the record of chemicals used in the preparation of mushroom compost

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Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** use of the relevant tools, equipment and PPE
- KU2.** applicable record-keeping requirements in the job role
- KU3.** the importance, types and function of compost in mushroom cultivation
- KU4.** long and short methods of preparing mushroom and the difference between them
- KU5.** appropriate ingredients to rectify mineral deficiencies, stabilise the effect of ammonium content and ensure adequate aeration during composting
- KU6.** base material required for preparing the compost such as wheat/ paddy straw, calcium ammonium nitrate, urea, etc.
- KU7.** different types of fertilisers used for preparing mushroom compost
- KU8.** the process of preparing mushroom compost
- KU9.** different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost
- KU10.** importance of maintaining the appropriate moisture in the base material
- KU11.** conditions appropriate for the preparation and storage of mushroom compost
- KU12.** the importance and process of pasteurising mushroom compost
- KU13.** the process of compost turning and the turning schedule for mushroom compost
- KU14.** different ways of protecting mushroom compost from pathogens and pests

Generic Skills (GS)

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

- GS1.** write work-related notes and maintain relevant records
- GS2.** read the relevant literature to get latest updates about the field of work
- GS3.** listen attentively to understand the information/ instructions being shared by the speaker
- GS4.** communicate clearly and politely with co-workers and clients
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** evaluate all possible solutions to a problem to select the best one
- GS7.** co-ordinate with co-workers to achieve work objectives
- GS8.** identify possible disruptions to work and take appropriate preventive measures
- GS9.** take quick decisions to deal with workplace emergencies/ accidents

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Arrange various materials to prepare mushroom compost</i>	18	20	-	14
PC1. select the appropriate method for preparing the compost such as long method/ short method according to the budget	-	-	-	-
PC2. arrange the base material required for preparing the compost such as wheat/ paddy straw, calcium ammonium nitrate, urea, etc.	-	-	-	-
PC3. select the appropriate ingredients to rectify mineral deficiencies; stabilise the effect of ammonium content, and ensure adequate aeration	-	-	-	-
PC4. determine different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost	-	-	-	-
PC5. organise the appropriate tools, equipment and Personal Protective Equipment (PPE)	-	-	-	-
<i>Prepare and pasteurise the mushroom compost</i>	12	20	-	16
PC6. prepare a clean concrete floor to prepare the mushroom compost	-	-	-	-
PC7. apply the recommended quantity of water on the base material after spreading it on the floor	-	-	-	-
PC8. maintain the recommended level of moisture in the base material for the recommended duration	-	-	-	-
PC9. prepare a mixture of molasses, wheat bran and fertilizers maintaining the recommended ratio	-	-	-	-
PC10. apply a cover of wet gunny bags on the mixture to maintain the appropriate level of moisture	-	-	-	-
PC11. prepare the mushroom compost by mixing the base material and wet fertilizers	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. carry out turning of the mushroom compost as per the recommended turning schedule	-	-	-	-
PC13. add the recommended nutrients to the compost such as gypsum during turning	-	-	-	-
PC14. maintain the recommended level of ammonia and moisture in the compost	-	-	-	-
PC15. store the mushroom compost at the recommended temperature	-	-	-	-
PC16. pasteurise the mushroom compost to kill the harmful micro-organisms	-	-	-	-
PC17. arrange for protection of mushroom compost from pathogens or pests	-	-	-	-
PC18. use the relevant PPE and clothing	-	-	-	-
PC19. maintain the record of chemicals used in the preparation of mushroom compost	-	-	-	-
NOS Total	30	40	-	30

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7831
NOS Name	Prepare and pasteurise mushroom compost for a small unit
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Agri-Entrepreneurship and Rural Enterprises
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

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AGR/N7832: Procure inputs and prepare site for cultivating mushrooms

Description

This OS unit is about procuring the inputs required for mushroom cultivation along with selecting an appropriate site and establishing a mushroom farm.

Scope

The scope covers the following :

- Procure the inputs for mushroom cultivation
- Prepare the site for mushroom cultivation

Elements and Performance Criteria

Procure the inputs for mushroom cultivation

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

- PC1.** select an appropriate variety of mushroom to grow according to the local climate, market demand and required investment
- PC2.** estimate the requirement of inputs such as mushroom spawn, fertilizer, pesticides, etc.
- PC3.** identify the vendors of the required inputs
- PC4.** select a vendor based on the quality of inputs
- PC5.** purchase the inputs in the required quantity
- PC6.** store the inputs as per the storage requirements

Prepare the site for mushroom cultivation

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

- PC7.** select a site for mushroom cultivation that does not have exposure to sunlight
- PC8.** examine the moisture and temperature levels to ensure favourable conditions for growing mushroom
- PC9.** determine that the site has access to inputs required for mushroom cultivation such as water, electricity and farm labour
- PC10.** check that the site has easy access to the local markets
- PC11.** ensure effective drainage of water from the site of cultivation
- PC12.** prepare a layout of the mushroom farm according to the growing conditions required for the selected variety of mushroom
- PC13.** establish the mushroom farm using the recommended materials such as timber, bamboo frame, synthetic fibre cloth, etc.
- PC14.** build a store room for storing mushroom farming inputs, tools and equipment

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** different varieties of mushroom and the appropriate growing conditions
- KU2.** various inputs required for mushroom cultivation
- KU3.** the characteristics of good-quality mushroom spawn
- KU4.** fertilizers and pesticides appropriate for use in mushroom cultivation
- KU5.** the purpose and process of using mushroom spawns
- KU6.** storage requirements for mushroom spawn, fertilizers and pesticides
- KU7.** appropriate conditions for mushroom cultivation such as temperature and humidity
- KU8.** various material required for setting up a mushroom farm
- KU9.** the process of preparing the layout and establishing a mushroom farm
- KU10.** importance of having an effective drainage system at a mushroom farm

Generic Skills (GS)

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

- GS1.** write work-related notes
- GS2.** communicate politely and professionally
- GS3.** read the relevant literature to learn about new latest developments in the field of work
- GS4.** listen attentively to understand the information/ instructions being shared by the speaker
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** co-ordinate with co-workers to achieve work objectives
- GS7.** evaluate all possible solutions to a problem to select the best one
- GS8.** identify possible disruptions to work and take appropriate preventive measures
- GS9.** take quick decisions to deal with workplace emergencies/ accidents

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Procure the inputs for mushroom cultivation</i>	14	24	-	18
PC1. select an appropriate variety of mushroom to grow according to the local climate, market demand and required investment	-	-	-	-
PC2. estimate the requirement of inputs such as mushroom spawn, fertilizer, pesticides, etc.	-	-	-	-
PC3. identify the vendors of the required inputs	-	-	-	-
PC4. select a vendor based on the quality of inputs	-	-	-	-
PC5. purchase the inputs in the required quantity	-	-	-	-
PC6. store the inputs as per the storage requirements	-	-	-	-
<i>Prepare the site for mushroom cultivation</i>	16	16	-	12
PC7. select a site for mushroom cultivation that does not have exposure to sunlight	-	-	-	-
PC8. examine the moisture and temperature levels to ensure favourable conditions for growing mushroom	-	-	-	-
PC9. determine that the site has access to inputs required for mushroom cultivation such as water, electricity and farm labour	-	-	-	-
PC10. check that the site has easy access to the local markets	-	-	-	-
PC11. ensure effective drainage of water from the site of cultivation	-	-	-	-
PC12. prepare a layout of the mushroom farm according to the growing conditions required for the selected variety of mushroom	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. establish the mushroom farm using the recommended materials such as timber, bamboo frame, synthetic fibre cloth, etc.	-	-	-	-
PC14. build a store room for storing mushroom farming inputs, tools and equipment	-	-	-	-
NOS Total	30	40	-	30

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7832
NOS Name	Procure inputs and prepare site for cultivating mushrooms
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Agri-Entrepreneurship and Rural Enterprises
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

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AGR/N7833: Carry out cultivation of mushroom

Description

This OS unit is about carrying out spawning and preparing casing soil. It also includes practicing resource optimisation at work.

Scope

The scope covers the following :

- Carry out spawning
- Prepare and apply casing soil
- Optimise resource utilisation
- Perform waste management

Elements and Performance Criteria

Carry out spawning

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

- PC1.** select an appropriate method of spawning such as spot spawning, surface spawning and layer spawning
- PC2.** create holes of the recommended depth maintaining appropriate space in case of spot spawning
- PC3.** plant lumps of spawn in the holes
- PC4.** apply a cover of compost on the holes after planting spawns
- PC5.** spread spawn evenly on the top layer of the compost in case of surface spawning
- PC6.** mix spawn in the compost at the recommended depth
- PC7.** apply a thin layer of compost on spawn mixture
- PC8.** prepare a mixture of mushroom spawn and compost maintaining the recommended ratio in the layering method
- PC9.** create further layers of mushroom compost as per the layering method with mushroom spawns applied in the recommended quantity
- PC10.** apply a thin layer of compost on the top layer after mixing spawn and a cover of the recommended material on the compost bed
- PC11.** spread the mixture on racks or fill in polythene bags as planned
- PC12.** apply water in the recommended quantity using a spray pump
- PC13.** maintain the recommended temperature and relative humidity in the cultivation area

Prepare and apply casing soil

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

- PC14.** prepare the casing soil using the recommended material such as ash of the rice husk, calcium carbonate and sterilised soil
- PC15.** pasteurise the compost and casing soil with formalin solution
- PC16.** apply a cover of polythene on the compost after making it wet

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- PC17.** remove the polythene cover after the recommended duration
- PC18.** carry out compost turning to remove the smell of formalin
- PC19.** apply casing mixture when the mushroom mycelium spreads completely
- PC20.** apply water in the recommended quantity using a sprinkler
- PC21.** maintain the recommended temperature, Potential of Hydrogen (pH) and relative humidity
- PC22.** arrange for protection of growing mushroom from dry air

Optimise resource utilisation

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

- PC23.** optimise the usage of various materials, water and other resources in various tasks and processes
- PC24.** plug water leakages to prevent the wastage of water

Perform waste management

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

- PC25.** segregate waste into different categories
- PC26.** dispose the non-recyclable waste appropriately
- PC27.** deposit the recyclable and reusable material at the identified location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different methods of spawning mushroom seeds such as spot spawning, surface spawning, layer spawning
- KU2.** the process of spawning and the necessary materials required for it
- KU3.** water, temperature and relative humidity requirements during the spawning process
- KU4.** the process of preparing casing soil and the required ingredients
- KU5.** how to pasteurise mushroom compost and casing soil
- KU6.** approved chemicals and fertilizers and their safe use
- KU7.** the importance and process of compost turning
- KU8.** the importance and ways of protecting casing soil from dry air
- KU9.** importance of following environmental and ecological best practices to minimise the impact on the environment
- KU10.** benefits of resource optimisation
- KU11.** common practices of conserving electricity
- KU12.** different methods of recycling and disposing waste
- KU13.** common sources of pollution and ways to minimise it

Generic Skills (GS)

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

- GS1.** maintain work-related records

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- GS2.** read the health and safety manual
- GS3.** listen attentively to understand the information/ instructions being shared by the speaker
- GS4.** communicate clearly and politely with co-workers and clients
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** identify possible disruptions to work and take appropriate preventive measures
- GS7.** take quick decisions to deal with workplace emergencies/ accidents
- GS8.** evaluate all possible solutions to a problem to select the best one
- GS9.** co-ordinate with co-workers to achieve work objectives

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out spawning</i>	10	12	-	12
PC1. select an appropriate method of spawning such as spot spawning, surface spawning and layer spawning	-	-	-	-
PC2. create holes of the recommended depth maintaining appropriate space in case of spot spawning	-	-	-	-
PC3. plant lumps of spawn in the holes	-	-	-	-
PC4. apply a cover of compost on the holes after planting spawns	-	-	-	-
PC5. spread spawn evenly on the top layer of the compost in case of surface spawning	-	-	-	-
PC6. mix spawn in the compost at the recommended depth	-	-	-	-
PC7. apply a thin layer of compost on spawn mixture	-	-	-	-
PC8. prepare a mixture of mushroom spawn and compost maintaining the recommended ratio in the layering method	-	-	-	-
PC9. create further layers of mushroom compost as per the layering method with mushroom spawns applied in the recommended quantity	-	-	-	-
PC10. apply a thin layer of compost on the top layer after mixing spawn and a cover of the recommended material on the compost bed	-	-	-	-
PC11. spread the mixture on racks or fill in polythene bags as planned	-	-	-	-
PC12. apply water in the recommended quantity using a spray pump	-	-	-	-
PC13. maintain the recommended temperature and relative humidity in the cultivation area	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare and apply casing soil</i>	8	10	-	8
PC14. prepare the casing soil using the recommended material such as ash of the rice husk, calcium carbonate and sterilised soil	-	-	-	-
PC15. pasteurise the compost and casing soil with formalin solution	-	-	-	-
PC16. apply a cover of polythene on the compost after making it wet	-	-	-	-
PC17. remove the polythene cover after the recommended duration	-	-	-	-
PC18. carry out compost turning to remove the smell of formalin	-	-	-	-
PC19. apply casing mixture when the mushroom mycelium spreads completely	-	-	-	-
PC20. apply water in the recommended quantity using a sprinkler	-	-	-	-
PC21. maintain the recommended temperature, Potential of Hydrogen (pH) and relative humidity	-	-	-	-
PC22. arrange for protection of growing mushroom from dry air	-	-	-	-
<i>Optimise resource utilisation</i>	6	8	-	6
PC23. optimise the usage of various materials, water and other resources in various tasks and processes	-	-	-	-
PC24. plug water leakages to prevent the wastage of water	-	-	-	-
<i>Perform waste management</i>	6	10	-	4
PC25. segregate waste into different categories	-	-	-	-
PC26. dispose the non-recyclable waste appropriately	-	-	-	-
PC27. deposit the recyclable and reusable material at the identified location	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	30	40	-	30

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7833
NOS Name	Carry out cultivation of mushroom
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Agri-Entrepreneurship and Rural Enterprises
NSQF Level	2
Credits	2
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

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AGR/N7834: Maintain, harvest and process mushroom in a small unit

Description

This OS unit is about maintaining mushroom in a controlled environment and carrying out harvest and post-harvest activities.

Scope

The scope covers the following :

- Maintain optimum growth of the mushroom
- Harvest the mushroom
- Store, pack and transport mushroom

Elements and Performance Criteria

Maintain the mushroom's optimum growth

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

- PC1.** inspect the cropping bed for any pests and fungal diseases
- PC2.** apply the recommended pesticides/ insecticides/ fungicides using sterilised PPE as per the manufacturer's instructions
- PC3.** maintain the recommended temperature, relative humidity and air circulation for the optimum growth of mushroom
- PC4.** remove the spent compost from the cultivation area to prevent contamination
- PC5.** use sterilised pots, containers, tools and equipment to control nematodes, mites, insect pests, etc.

Harvest the mushroom

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

- PC6.** examine the mushroom to identify the relevant growth indicators appropriate for harvesting
- PC7.** apply the recommended harvesting techniques to harvest mushroom
- PC8.** use the approved cleaning agents to remove soil particles, compost, and other foreign materials from the harvested mushroom
- PC9.** remove the water content from the mushroom
- PC10.** sort and grade the harvested mushroom on the relevant parameters

Store, pack and transport mushroom

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

- PC11.** prepare the storage area to ensure it is clean, dry and ventilated before storing mushroom
- PC12.** apply the relevant treatment in the storage area to remove any pesticides/ insecticides/ rodents
- PC13.** store the harvested mushroom at the recommended temperature and humidity
- PC14.** arrange for the protection of mushroom from dust, rain, livestock and direct sunlight
- PC15.** select the appropriate packing material considering the distance to the target market and required shelf-life

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- PC16.** pack the mushroom in the packs of appropriate capacity as per the requirement
- PC17.** apply labels on the mushroom packs containing the relevant information as per the regulatory requirements
- PC18.** arrange for appropriate transport to protect mushroom during transit to the market
- PC19.** maintain the record of harvested, packed and transported mushroom

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different varieties of mushroom and their maintenance requirements
- KU2.** common mushroom pests, insects, fungi, diseases and their remedy
- KU3.** safe use of appropriate pesticides/ insecticides/ fungicides
- KU4.** various measures to protect the mushroom cultivation area
- KU5.** optimum temperature and relative humidity requirements for the growth of mushroom
- KU6.** different growth indicators to identify the readiness of mushroom for being harvested
- KU7.** appropriate techniques for harvesting mushroom
- KU8.** safe methods of post-harvest processing of mushroom
- KU9.** various parameters to sort and grade the harvested mushroom
- KU10.** storage requirements for different varieties of mushroom
- KU11.** appropriate packing material and mode of transport for mushroom
- KU12.** different uses of spent mushroom compost
- KU13.** the importance of using sterilised PPE and maintaining cleanliness at a mushroom farm

Generic Skills (GS)

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

- GS1.** maintain work-related records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritise tasks to ensure timely completion
- GS5.** take quick decisions to deal with workplace emergencies/ accidents
- GS6.** listen attentively to understand the information/ instructions being shared by the speaker
- GS7.** identify possible disruptions to work and take appropriate preventive measures
- GS8.** co-ordinate with co-workers to achieve work objectives
- GS9.** evaluate all possible solutions to a problem to select the best one

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain the mushroom's optimum growth</i>	10	16	-	8
PC1. inspect the cropping bed for any pests and fungal diseases	-	-	-	-
PC2. apply the recommended pesticides/ insecticides/ fungicides using sterilised PPE as per the manufacturer's instructions	-	-	-	-
PC3. maintain the recommended temperature, relative humidity and air circulation for the optimum growth of mushroom	-	-	-	-
PC4. remove the spent compost from the cultivation area to prevent contamination	-	-	-	-
PC5. use sterilised pots, containers, tools and equipment to control nematodes, mites, insect pests, etc.	-	-	-	-
<i>Harvest the mushroom</i>	12	14	-	12
PC6. examine the mushroom to identify the relevant growth indicators appropriate for harvesting	-	-	-	-
PC7. apply the recommended harvesting techniques to harvest mushroom	-	-	-	-
PC8. use the approved cleaning agents to remove soil particles, compost, and other foreign materials from the harvested mushroom	-	-	-	-
PC9. remove the water content from the mushroom	-	-	-	-
PC10. sort and grade the harvested mushroom on the relevant parameters	-	-	-	-
<i>Store, pack and transport mushroom</i>	8	10	-	10
PC11. prepare the storage area to ensure it is clean, dry and ventilated before storing mushroom	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. apply the relevant treatment in the storage area to remove any pesticides/ insecticides/ rodents	-	-	-	-
PC13. store the harvested mushroom at the recommended temperature and humidity	-	-	-	-
PC14. arrange for the protection of mushroom from dust, rain, livestock and direct sunlight	-	-	-	-
PC15. select the appropriate packing material considering the distance to the target market and required shelf-life	-	-	-	-
PC16. pack the mushroom in the packs of appropriate capacity as per the requirement	-	-	-	-
PC17. apply labels on the mushroom packs containing the relevant information as per the regulatory requirements	-	-	-	-
PC18. arrange for appropriate transport to protect mushroom during transit to the market	-	-	-	-
PC19. maintain the record of harvested, packed and transported mushroom	-	-	-	-
NOS Total	30	40	-	30

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N7834
NOS Name	Maintain, harvest and process mushroom in a small unit
Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Agri-Entrepreneurship and Rural Enterprises
NSQF Level	2
Credits	2
Version	1.0
Last Reviewed Date	29/09/2023
Next Review Date	29/09/2026
NSQC Clearance Date	29/09/2023

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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

Qualification Pack

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

Qualification Pack

- 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

Qualification Pack

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	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
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	-	-

Qualification Pack

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	18/02/2025
Next Review Date	18/02/2028
NSQC Clearance Date	18/02/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

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.

The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.

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.

In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

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/N7831.Prepare and pasteurise mushroom compost for a small unit	30	40	-	30	100	15
AGR/N7832.Procure inputs and prepare site for cultivating mushrooms	30	40	-	30	100	15
AGR/N7833.Carry out cultivation of mushroom	30	40	-	30	100	35
AGR/N7834.Maintain, harvest and process mushroom in a small unit	30	40	-	30	100	30
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
Total	140	190	-	120	450	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.