

National Occupational Standards



Fundamentals of Aggregation and Post-Harvest Handling of Farm Produce

Unit Code: AGR/N1257

Version: 1.0

NSQF Level: 4

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Description

This OS unit is about practices related to Aggregation and Post-Harvest Handling of Farm Produce

Scope

The scope covers the following :

- Aggregate the produce
- Prepare for implementation of post-harvest operations
- Coordinate the post-harvest work
- Ensure safe disposal of waste

Elements and Performance Criteria

Aggregate the produce

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

- PC1.** identify the appropriate locations for setting up collection points
- PC2.** set up an appropriate number of collection points to facilitate efficient collection of produce
- PC3.** collect the produce from different collection points through effective coordination
- PC4.** ensure correct weighing/counting of the produce with the help of appropriate tools and equipment
- PC5.** collect the stock from the common storage for transportation

Prepare for implementation of post-harvest operations

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

- PC6.** Identify post-harvest operations to be performed and requirements of the program
- PC7.** Select materials, tools, equipment and machinery according to post-harvest operations requirements, and check for safe operation
- PC8.** Identify the Hazard Analysis and Critical Control Points (HACCP) and food safety requirements applicable to crop under cultivation

Coordinate the post-harvest work

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

- PC9.** Identify work team and coordinate tasks
- PC10.** Undertake post-harvest operations according to post harvest program requirements
- PC11.** Follow site quarantine protocols and farm and personal hygiene requirements
- PC12.** ensure appropriate handling of the produce with adherence to the established quality assurance processes
- PC13.** Grade and label produce according to client specifications
- PC14.** Apply post-harvest treatments according to produce requirements
- PC15.** Identify quality parameters of produce and specifications for packaging materials, containers, filling technique and labelling
- PC16.** Weigh and pack the produce in the appropriate packing material, ensuring it is air-tight to prevent the absorption of moisture

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- PC17.** store the produce at the recommended temperature and humidity, ensuring hygienic conditions and good ventilation
- PC18.** Check condition of stored produce at regular intervals, and remove damaged produce and containers from storage facility
- PC19.** Clean storage facility and packing containers
- PC20.** Confirm post-harvest practices meet workplace requirements and minimise damage to produce
- PC21.** Clean, maintain and return tools, equipment and machinery to required location

Ensure safe disposal of waste

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

- PC22.** Review waste disposal requirements and determine operational tasks
- PC23.** Monitor collection and safe disposal of waste according to workplace procedures

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the considerations to be taken for the finalization of the collection points
- KU2.** client specifications and workplace requirements applicable to post-harvest operations
- KU3.** HACCP and applicable food safety requirements
- KU4.** post-harvest practices to be followed for different types of agricultural produce
- KU5.** • principles and practices of post-harvest treatments and processes, including:
- ● the shelf life of different types of agricultural/horticultural produce
 - ● attributes of produce in relation to the desired quality of produce to be presented to the client
 - ● characteristics and procedures for the use of cool rooms
 - ● cool chain principles and practices
 - ● correct storage temperatures for a range of produce
 - ● environmental effects of post-harvest treatments and hazardous waste disposal methodologies, application and purpose
 - ● humidity levels and their effect on the quality of produce
 - ● hygiene issues in the handling and storage of plant produce
 - ● industry standards for packaging
 - ● relationship between the quality attributes of produce and packing techniques and packaging
 - ● the appropriate methods and conditions for the safe storage of for a range of produce
 - ● the importance of maintaining the quality of produce, including handling and cooling requirements.
 - ● appropriate weighing and measurement methods
 - ● quality assurance methods for the produce

Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** read the relevant literature to get the latest updates about the field of work
- GS3.** listen attentively to understand the information being shared

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- GS4.** communicate politely and professionally
- GS5.** plan and prioritize tasks to ensure timely completion
- GS6.** take quick decisions to deal with workplace emergencies/ accidents
- GS7.** identify possible disruptions to work and take appropriate preventive measures

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Aggregate the produce</i>	2	2	-	2
PC1. identify the appropriate locations for setting up collection points	-	-	-	-
PC2. set up an appropriate number of collection points to facilitate efficient collection of produce	-	-	-	-
PC3. collect the produce from different collection points through effective coordination	-	-	-	-
PC4. ensure correct weighing/counting of the produce with the help of appropriate tools and equipment	-	-	-	-
PC5. collect the stock from the common storage for transportation	-	-	-	-
<i>Prepare for implementation of post-harvest operations</i>	4	4	-	4
PC6. Identify post-harvest operations to be performed and requirements of the program	-	-	-	-
PC7. Select materials, tools, equipment and machinery according to post-harvest operations requirements, and check for safe operation	-	-	-	-
PC8. Identify the Hazard Analysis and Critical Control Points (HACCP) and food safety requirements applicable to crop under cultivation	-	-	-	-
<i>Coordinate the post-harvest work</i>	10	10	-	6
PC9. Identify work team and coordinate tasks	-	-	-	-
PC10. Undertake post-harvest operations according to post harvest program requirements	-	-	-	-
PC11. Follow site quarantine protocols and farm and personal hygiene requirements	-	-	-	-
PC12. ensure appropriate handling of the produce with adherence to the established quality assurance processes	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Grade and label produce according to client specifications	-	-	-	-
PC14. Apply post-harvest treatments according to produce requirements	-	-	-	-
PC15. Identify quality parameters of produce and specifications for packaging materials, containers, filling technique and labelling	-	-	-	-
PC16. Weigh and pack the produce in the appropriate packing material, ensuring it is air-tight to prevent the absorption of moisture	-	-	-	-
PC17. store the produce at the recommended temperature and humidity, ensuring hygienic conditions and good ventilation	-	-	-	-
PC18. Check condition of stored produce at regular intervals, and remove damaged produce and containers from storage facility	-	-	-	-
PC19. Clean storage facility and packing containers	-	-	-	-
PC20. Confirm post-harvest practices meet workplace requirements and minimise damage to produce	-	-	-	-
PC21. Clean, maintain and return tools, equipment and machinery to required location	-	-	-	-
<i>Ensure safe disposal of waste</i>	2	2	-	2
PC22. Review waste disposal requirements and determine operational tasks	-	-	-	-
PC23. Monitor collection and safe disposal of waste according to workplace procedures	-	-	-	-
NOS Total	18	18	-	14

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National Occupational Standards (NOS) Parameters

NOS Code	AGR/N1257
NOS Name	Fundamentals of Aggregation and Post-Harvest Handling of Farm Produce
Sector	Agriculture
Sub-Sector	Agriculture Crop Production
Occupation	Farm Management
NSQF Level	4
Credits	1.25
Minimum Job Entry Age	NA
Minimum Educational Qualification & Experience	<p>12th grade Pass (or equivalent) with 1 Year of experience relevant experience in Agriculture and allied sectors OR 10th grade pass (and pursuing continuous schooling (for 2-year program)) OR 10th grade pass with 3 Years of experience relevant experience in Agriculture and allied sectors OR Previous relevant Qualification of NSQF Level (3.5) with 1.5 years of experience relevant experience in Agriculture and allied sectors OR Previous relevant Qualification of NSQF Level (3) with 3 Years of experience relevant experience in Agriculture and allied sectors</p>
Version	1.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024
Reference code on NQR	NG-04-AG-02647-2024-V1-ASCI
NQR Version	1.0
CCN Category	2