

**Assessment Evidence
Guide
For
“Pesticides and Fertiliser
Technology”**

Level-5

**Perform Management of Grain Storage
Houses/Warehouse**

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04A	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Management of Grain Storage Houses/Warehouse Practice Professionalism 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:.....
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>1. Assessment Task 1: Candidate is required to identify store grain pests and apply pesticides according to requirement</p> <p>And complete:</p> <p>2. Knowledge assessment test (Written or Oral)</p> <p>3. Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Select appropriate time for pest inspection</p> <p>Performance Criteria 2: Select appropriate method for pest inspection</p> <p>Performance Criteria 3: Visit the site (warehouse/Gangi) for pest inspection</p> <p>Performance Criteria 4: Assess the severity of pest infestation</p> <p>Performance Criteria 5: Prepare a site inspection report</p> <p>Performance Criteria 6: Perform pre-disinfection methods for microbes</p> <p>Performance Criteria 7: Perform Pest Control Methods, including:</p> <ul style="list-style-type: none"> Sanitation Fumigation Pesticides Traps <p>Performance Criteria 9: Demonstrate Post application tasks</p> <p>Performance Criteria 10: Compile variety of assignments for portfolio</p>

	Performance Criteria 11: Make Professional Portfolio for industry Performance Criteria 12: Develop Digital Portfolio for industry
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to identify store grain pests and apply pesticides according to requirement.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Select appropriate time for pest inspection			
2.	Select appropriate method for pest inspection			
3.	Visit the site (warehouse/Gangi) for pest inspection			
4.	Assess the severity of pest infestation			
5.	Prepare a site inspection report			
6.	Perform pre-disinfection methods for microbes			
7.	Perform Pest Control Methods, including: <ul style="list-style-type: none"> o Sanitation o Fumigation o Pesticides o Traps 			
8.	Demonstrate Post application tasks			
9.	Compile variety of assignments for portfolio			
10.	Make Professional Portfolio for industry			
11.	Develop Digital Portfolio for industry			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04A	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Management of grain storage houses/warehouse Practice Professionalism 	Assessment Date (DD/MM/YY): Assessment Time: 30mins		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Enlist any five store grain pests?	
2. How do you detect pest infestation?	
3. How pest inspection of stored grain pest is performed?	
4. Enlist methods for pest control?	
5. What is the purpose of fumigation?	
6. What is disinfection?	
7. Enlist name of common disinfectants?	

ANSWER KEY

Sr.	Answers
1.	<ul style="list-style-type: none">• Lesser grain borer• Rice weevil• Red flour beetle• Khapra beetle• Angoumois grain moth• Rodents
2.	Pest infestation is detected by physical presence of pests or their dead bodies, fecal matter, damage commodities and food packing.
3.	By checking of exterior and interior of store house for any signs of pest infestation, damage, or areas that are attractive to pests.
4.	<ul style="list-style-type: none">• Biological control• Mechanical control• Physical control• Chemical control
5.	The purpose of fumigation is to kill pests in storage houses through fumigants.
6.	A process to eliminate pathogenic microorganisms from particular surface.
7.	<ul style="list-style-type: none">• Chlorine and chlorine compounds• Alcohol• Formaldehyde• Hydrogen peroxide

Assessment Evidence Guide

For

“Pesticides and Fertiliser Technology”

Level-5

Perform Cultural Practices for Soil Improvement
(Formative Assessment)



National Vocational & Technical
Training Commission

Instruction Sheet for the Candidate

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04B	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Cultural Practices for Soil Improvement Practice Professionalism 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <ol style="list-style-type: none"> Assessment Task 1: Candidate is required to perform cultural practices in assigned area according to the requirement. Assessment Task 2: Candidate is required to apply soil decomposer (PGPR's) in assigned area/field as per soil requirement. <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Perform field visit to evaluate the soil requirements for its health improvement</p> <p>Performance Criteria 2: Perform Cost Benefit Analysis for specific soil</p> <p>Performance Criteria 3: Perform calculation for required material used for soil improvement</p> <p>Performance Criteria 4: Perform application of Cultural practices as per requirement</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Prepare the solution of PGPR's as per protocol</p> <p>Performance Criteria 2: Perform application of PGPR's</p> <p>Performance Criteria 3: Prepare a report on PGPR's activities in soil</p>

	Performance Criteria 4: Compile variety of assignments for portfolio Performance Criteria 5: Make Professional Portfolio for industry Performance Criteria 6: Develop Digital Portfolio for industry
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1	Description of Assessment Task 1 Candidate is required to perform cultural practices in assigned area according to the requirement.		
During the practical assessment, candidate demonstrated the following:	Yes	No	Remarks
1. Perform field visit to evaluate the soil requirements for its health improvement			
2. Perform Cost Benefit Analysis for specific soil			
3. Perform calculation for required material used for soil improvement			
4. Perform application of Cultural practices as per requirement			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	
Each Assessment Task (with performance criteria)			

Assessment Task 2		Description of Assessment Task 2 Candidate is required to apply soil decomposer (PGPR's) in assigned area/field as per soil requirement.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Prepare the solution of PGPR's as per protocol			
2.	Perform application of PGPR's			
3.	Prepare a report on PGPR's activities in soil			
4.	Compile variety of assignments for portfolio			
5.	Make Professional Portfolio for industry			
6.	Develop Digital Portfolio for industry			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04B	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Cultural Practices for Soil Improvement Practice Professionalism 	Assessment Date (DD/MM/YY): Assessment Time: 30mins.		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. How will you improve the soil health?	
2. What are the cultural practices to improve soil health?	
3. What does PGPR's stands for?	
4. Explain the composition of green manure?	
5. What is the function of PGPR's?	

ANSWER KEY

Sr.	Answers
1.	The soil health is improved through addition of organic matter.
2.	<ul style="list-style-type: none">• Crop rotation• Intercropping• Incorporation of crop residues• Tillage practices• Green manuring• Farmyard manure application etc.
3.	PGPR's stands for Plant Growth Promoting Rhizobacteria
4.	<ul style="list-style-type: none">• Crop and plant green residues• Uprooted plants• Cover plants• Leguminous crops etc.
5.	PGPR's are those bacteria, which colonize plant roots and promote the plant growth.

Assessment Evidence Guide

For

“Pesticides and Fertiliser Technology”

Level-5

Manage Nutritional Deficiencies

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04C	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Manage Nutritional Deficiencies Practice Professionalism 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <ol style="list-style-type: none"> Assessment Task 1: Candidate is required to identify nutrient deficiencies in soil and plant samples given by assessor and apply nutrient according to requirement. Assessment Task 2: Candidate is required to apply nutrient according to the sample requirement and also perform post application tasks. <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Perform field visit to collect soil and infected plants samples for nutrient deficiencies</p> <p>Performance Criteria 2: Identify the deficiency symptoms as per standard manual</p> <p>Performance Criteria 3: Prepare a report for Nutrient deficiencies</p> <p>Performance Criteria 4: Calculate and select suitable nutrients according to soil and crop type</p> <p>Performance Criteria 5: Perform application of nutrients as per required standard</p> <p>Performance Criteria 6: Maintain the record after nutrient application</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Perform post application inspection</p> <p>Performance Criteria 2: Compare results of pre- and post-spray changes</p> <p>Performance Criteria 3: Prepare a report of post application tasks</p>

	Performance Criteria 4: Compile variety of assignments for portfolio Performance Criteria 5: Make Professional Portfolio for industry Performance Criteria 6: Develop Digital Portfolio for industry
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Each Assessment Task (with performance criteria)				
Assessment Task		Description of Assessment Task 1 Candidate is required identify symptoms of pesticide poisoning as per instructions given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Perform field visit to collect soil and infected plants samples for nutrient deficiencies			
2.	Identify the deficiency symptoms as per standard manual			
3.	Prepare a report for Nutrient deficiencies			
4.	Calculate and select suitable nutrients according to soil and crop type			
5.	Perform application of nutrients as per required standard			
6.	Maintain the record after nutrient application			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 1		Description of Assessment Task 1 Candidate is required to apply nutrient according to the sample requirement and also perform post application tasks.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Perform post application inspection			
2.	Compare results of pre- and post-spray changes			
3.	Prepare a report of post application tasks			
4.	Compile variety of assignments for portfolio			
5.	Make Professional Portfolio for industry			
6.	Develop Digital Portfolio for industry			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04C	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Manage Nutritional Deficiencies Practice Professionalism 	Assessment Date (DD/MM/YY): Assessment Time: 30mins.		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Difference between macro and micro nutrients?	
2. How nutrient deficiency is diagnosed in plants?	
3. What are the most common nutrient deficiencies in plants?	
4. How does nutrient affect plant health?	
5. Enlist tools and equipment for detection of soil nutrients?	

ANSWER KEY

Sr.	Answers
1.	Macronutrients are elements which plants require in relatively large amounts (N, P, K, Ca etc) Micronutrients are require in much smaller amounts (Zn ,B , Mn etc).
2.	<ul style="list-style-type: none">• Stunted growth• Yellowing of leaves• Shortened internodes• Abnormal coloration• Reduced root growth
3.	<ul style="list-style-type: none">• Nitrogen• Phosphorus• Potassium• Zinc• Iron etc.
4.	<ul style="list-style-type: none">• Cell structures• Cell metabolites• Cell osmotic relations• Turgor-related processes• Energy transfer reactions• Enzyme-catalysed reactions• Plant reproduction
5.	<ul style="list-style-type: none">• Soil Test Kit• Soil analyzer (fertility, pH, temp)• Bluetooth Plant Monitor• Fertometer

Assessment Evidence Guide For “Pesticides and Fertiliser Technology”

Level-4

**Manage Pesticide and Fertilisers Storage
(Formative Assessment)**



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04D	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Manage Pesticide and Fertilisers Storage Practice Professionalism 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>1. Assessment Task 1: Candidate is required to perform storage operations for Pesticides/Fertilisers as per standards, including following tasks:</p> <ul style="list-style-type: none"> Managing Input Receiving, shipping, and storing of Pesticides/Fertilisers Inventory management Packaging Managing loading/offloading tasks <p>And complete:</p> <p>2. Knowledge assessment test (Written or Oral)</p> <p>3. Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Manage the material according to the formulation/recipe provided by chemist</p> <p>Performance Criteria 2: Check the availability of material</p> <p>Performance Criteria 3: Deliver required material to the production plant</p> <p>Performance Criteria 4: Maintain the record</p> <p>Performance Criteria 5: Check the packing equipment/material for shipment</p> <p>Performance Criteria 6: Manage Periodic sampling of product</p> <p>Performance Criteria 7: Manage storage of product in recommended conditions</p> <p>Performance Criteria 8: Compliance with all Safety, Environmental and Operating Standards</p> <p>Performance Criteria 9: Maintain a list for inventory</p>

	<p>Performance Criteria 10: Perform the record checking</p> <p>Performance Criteria 11: Manage the inventory according to the expiry dates</p> <p>Performance Criteria 12: Evaluate Inventory Report</p> <p>Performance Criteria 13: Identify the packaging material as per standards.</p> <p>Performance Criteria 14: Maintain working environment according to the material requirement</p> <p>Performance Criteria 15: Manage packaging operations as per standard</p> <p>Performance Criteria 16: Manage loading operations according to the requirement</p> <p>Performance Criteria 17: Manage offloading operations according to the requirement</p> <p>Performance Criteria 18: Compile variety of assignments for portfolio</p> <p>Performance Criteria 19: Make Professional Portfolio for industry</p> <p>Performance Criteria 20: Develop Digital Portfolio for industry</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1	Description of Assessment Task 1 Candidate is required to perform storage operations for Pesticides/Fertilisers as per standards, including following tasks: <ul style="list-style-type: none"> Managing Input Receiving, shipping, and storing of Pesticides/Fertilisers Inventory management Packaging Managing loading/offloading tasks 																																																																																
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padding: 5px;">17.</td> <td style="padding: 5px;">Manage offloading operations according to the requirement</td> <td style="text-align: center; padding: 5px;"></td> <td style="text-align: center; padding: 5px;"></td> </tr> <tr> <td style="text-align: center; padding: 5px;">18.</td> <td style="padding: 5px;">Compile variety of assignments for portfolio</td> <td style="text-align: center; padding: 5px;"></td> <td style="text-align: center; padding: 5px;"></td> </tr> <tr> <td style="text-align: center; padding: 5px;">19.</td> <td style="padding: 5px;">Make Professional Portfolio for industry</td> <td style="text-align: center; padding: 5px;"></td> <td style="text-align: center; padding: 5px;"></td> </tr> <tr> <td style="text-align: center; padding: 5px;">20.</td> <td style="padding: 5px;">Develop Digital Portfolio for industry</td> <td style="text-align: center; padding: 5px;"></td> <td style="text-align: center; padding: 5px;"></td> </tr> </table>	1.	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Each Assessment Task (with performance criteria)																																																																																	

Knowledge Assessment

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code: 081PF04D	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Manage Pesticide and Fertilisers Storage Practice Professionalism 	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. What are the requirements for chemical storage?	
2. Which chemicals cannot be stored together?	
3. What should you always read before using a chemical?	
4. What is the best practice for storing chemicals in the workplace?	
5. What is the proper method for handling a chemical reagent?	
6. What type of packaging material is used for pesticides and fertilizers?	

ANSWER KEY

Sr.	Answers
1.	<ul style="list-style-type: none">• Stored chemicals separately• Avoid mixing of incompatible chemicals• Outside of the containers should be clean• Storage area should be tidy• Avoid to store liquids above solids• Store corrosives on spill trays
2.	<ul style="list-style-type: none">• Acetic acid• Chlorine dioxide• Nitrates
3.	Always read the label before you plan to use any chemical.
4.	<ul style="list-style-type: none">• Label all chemical containers• Provide a specific storage space• Store volatile toxics chemicals in ventilated cabinets• Store flammable liquids in approved flammable liquid storage cabinets
5.	<ul style="list-style-type: none">• Keep chemical containers closed• Don't use unmarked reagent• Always use septic objects
6.	<ul style="list-style-type: none">• Plastics• Metal• Paper• Card board

**Assessment Evidence
Guide
For
“Pesticides and Fertilizer
Technology”
Level-5
(Summative Assessment)**



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code:	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Management of grain storage houses/warehouse Perform Cultural Practices for Soil Improvement Manage Nutritional deficiencies Manage Pesticide and Fertilisers Storage Practice Professionalism 	Assessment Date (DD/MM/YY): Assessment Time: 5 hours		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <ol style="list-style-type: none"> Assessment Task1: Candidate is required to manage inventory as per instructions, given by assessor. Assessment Task2: Candidate is required to Identify store grain pests and perform pest management practices as per instructions given by assessor. Assessment Task3: Candidate is required to Identify soil condition and perform following tasks: <ul style="list-style-type: none"> Calculation of Cost Benefit Analysis Application of Cultural practices as per requirement Preparation and application of PGPR's Solution <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Check the availability of material</p> <p>Performance Criteria 2: Manage storage of product in recommended conditions</p> <p>Performance Criteria 3: Compliance with all Safety, Environmental and Operating Standards</p>

	<p>Performance Criteria 4: Maintain a list for inventory</p> <p>Performance Criteria 5: Manage the inventory according to the expiry dates</p> <p>Performance Criteria 6: Evaluate Inventory Report.</p> <p>Performance Criteria 7: Identify the packaging material as per standards.</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Select appropriate method for pest inspection</p> <p>Performance Criteria 2: Assess the severity of pest infestation</p> <p>Performance Criteria 3: Prepare a site inspection report</p> <p>Performance Criteria 4: Perform pre-disinfection methods for microbes</p> <p>Performance Criteria 5: Perform Pest Control Methods, including:</p> <ul style="list-style-type: none"> ○ Pesticides ○ Traps <p>Performance Criteria 6: Demonstrate Post application tasks</p>
	<p>Assessment Task 3</p> <p>Performance Criteria 1: Perform Cost Benefit Analysis for specific soil</p> <p>Performance Criteria 2: Perform calculation for required material used for soil improvement</p> <p>Performance Criteria 3: Perform application of Cultural practices as per requirement</p> <p>Performance Criteria 4: Prepare the solution of PGPR's as per protocol</p> <p>Performance Criteria 5: Perform application of PGPR's</p> <p>Performance Criteria 6: Select previous assignments for portfolio</p> <p>Performance Criteria 7: Work on previous selected assignments for portfolio</p> <p>Performance Criteria 8: Compile variety of assignments for portfolio</p> <p>Performance Criteria 9: Make Professional Portfolio for industry</p> <p>Performance Criteria 10: Develop Digital Portfolio for industry</p>

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to manage inventory as per instructions, given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Check the availability of material			
2.	Manage storage of product in recommended conditions			
3.	Compliance with all Safety, Environmental and Operating Standards			
4.	Maintain a list for inventory			
5.	Manage the inventory according to the expiry dates			
6.	Evaluate Inventory Report.			
7.	Identify the packaging material as per standards.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 2		Description of Assessment Task 2 Candidate is required to Identify store grain pests and perform pest management practices as per instructions given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Select appropriate method for pest inspection			
2.	Assess the severity of pest infestation			
3.	Prepare a site inspection report			
4.	Perform pre-disinfection methods for microbes			
5.	Perform Pest Control Methods, including: <ul style="list-style-type: none"> ○ Pesticides ○ Traps 			
6.	Demonstrate Post application tasks			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 3		Description of Assessment Task 3 Candidate is required to Identify soil condition and perform following tasks: <ul style="list-style-type: none"> ○ Calculation of Cost Benefit Analysis ○ Application of Cultural practices as per requirement ○ Preparation and application of PGPR's Solution 		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Perform Cost Benefit Analysis for specific soil			
2.	Perform calculation for required material used for soil improvement			
3.	Perform application of Cultural practices as per requirement			
4.	Prepare the solution of PGPR's as per protocol			
5.	Perform application of PGPR's			
6.	Select previous assignments for portfolio			
7.	Work on previous selected assignments for portfolio			
8.	Compile variety of assignments for portfolio			
9.	Make Professional Portfolio for industry			
10.	Develop Digital Portfolio for industry			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Portfolio			Description of Portfolio Candidate is required to present a portfolio including:		
Current <input type="checkbox"/>	Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>	
Portfolio meet the following performance standards:			Yes	No	Remarks
1.	File/folder of Perform Management of grain storage houses/warehouse				
2.	File/folder of Perform Cultural Practices for Soil Improvement				
3.	File/folder of Manage Nutritional deficiencies				
4.	File/folder of Manage Pesticide and Fertilisers Storage				
5.	File/folder of Internship				
Competent <input type="checkbox"/>			Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Vocational Certificate Level 5 in Pesticide & Fertiliser Technology (Supervisor)	CS Code:	Level: 05	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Management of grain storage houses/warehouse Perform Cultural Practices for Soil Improvement Manage Nutritional deficiencies Manage Pesticide and Fertilisers Storage Practice Professionalism 	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Enlist any five store grain pests?	
2. How do you detect pest infestation?	
3. Enlist methods for pest control?	
4. Enlist name of common disinfectants?	
5. What are the cultural practices to improve soil health?	
6. What does PGPR's stands for?	

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
7. Explain the composition of green manure?	
8. Difference between macro and micro nutrients?	
9. How nutrient deficiency is diagnosed in plants?	
10. What are the requirements for chemical storage?	
11. Which chemicals cannot be stored together?	
12. Enlist tools and equipment for detection of soil nutrients?	
13. What is the proper method for handling a chemical reagent?	
14. What type of packaging material is used for pesticides and fertilizers?	

ANSWER KEY

Sr.	Answers
1.	<ul style="list-style-type: none">• Lesser grain borer• Rice weevil• Red flour beetle• Khapra beetle• Angoumois grain moth• Rodents
2.	Pest infestation is detected by physical presence of pests or their dead bodies, fecal matter, damage commodities and food packing.
3.	<ul style="list-style-type: none">• Biological control• Mechanical control• Physical control• Chemical control
4.	<ul style="list-style-type: none">• Chlorine and chlorine compounds• Alcohol• Formaldehyde• Hydrogen peroxide
5.	<ul style="list-style-type: none">• Crop rotation• Intercropping• Incorporation of crop residues• Tillage practices• Green manuring• Farmyard manure application etc.
6.	PGPR's stands for Plant Growth Promoting Rhizobacteria
7.	<ul style="list-style-type: none">• Crop and plant green residues• Uprooted plants• Cover plants• Leguminous crops etc.
8.	Macronutrients are elements which plants require in relatively large amounts (N, P, K, Ca etc) Micronutrients are require in much smaller amounts (Zn ,B , Mn etc).
9.	<ul style="list-style-type: none">• Stunted growth• Yellowing of leaves• Shortened internodes• Abnormal coloration• Reduced root growth
10.	<ul style="list-style-type: none">• Stored chemicals separately• Avoid mixing of incompatible chemicals• Outside of the containers should be clean• Storage area should be tidy• Avoid to store liquids above solids• Store corrosives on spill trays
11.	<ul style="list-style-type: none">• Acetic acid• Chlorine dioxide• Nitrates
12.	<ul style="list-style-type: none">• Soil Test Kit• Soil analyzer (fertility, pH, temp)• Bluetooth Plant Monitor• Fertometer

13.	<ul style="list-style-type: none"> • Keep chemical containers closed • Don't use unmarked reagent • Always use septic objects
14.	<ul style="list-style-type: none"> • Plastics • Metal • Paper • Card board