



National Competency Standards for “Pesticide & Fertiliser Technology” (Assistant Supervisor)

Level-4



National Vocational and Technical Training Commission
(NAVTTTC) Government of Pakistan



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INTRODUCTION

Fertilisers and Pesticides have extensive application all around the globe including Pakistan, considered as a vital component of modern farming. The main objective of Fertilisers application is to enrich soil with essential nutrients to attain higher crop yield. The application of manure for nutrient was the principal Fertilisers method for quite some time, but in 1940's the chemical-based Fertilisers rapidly gained great attention. Today, Fertilisers are available in many forms and are extensively used to enhance crop growth and production. Pesticides are the chemicals, used to target the weeds and insects which pose threat to crop production both in field and store conditions.

Efficient application of Fertilisers and Pesticides is very crucial for agriculture sector. Government of Pakistan investing millions of rupees by offering subsidies on Fertilisers and Pesticides, but the outcomes are not achieving the set-targets. Knowledge regarding soil chemistry, insect behavior and morphology are the important criteria for dose recommendation. The purpose of this course is to enable the candidate to play his/her vital role to adopt economically feasible and environmentally sustainable approaches. In short, the main objective of this study pack is to minimize the input cost and generates the product in accordance with international standards.

To become more beneficial "Fertiliser and pesticide technician" he/she must be vigilant and smart accordingly, and for the purpose they need to work on the first impression, manipulating procedures to highlight the importance of the product, knowing professional metrics and being responsive etc.

PURPOSE OF THE QUALIFICATION

The competency based NVQ has been developed to train the unskilled men and women of Pakistan on the technical and entrepreneurial skills to be employed / self-employed and inevitably set sustainable impact on their lives by increase in their



livelihood income generation.

The purpose of these qualifications is to set professional standards for Fertiliser and Pesticide technician, who will serve as key elements enhancing quality of Pakistan Agriculture sector. The specific objectives of developing these qualifications are as under:

- Improve the professional competence of Fertiliser and pesticide industry
- Capacitate the local community and trainers in modern CBT trainings, methodologies and processes as envisaged under NVQF
- Provide flexible pathways and progressions in Fertiliser and pesticide industry
- Enable the trainees to perform their duties in efficient manner
- Establish a standardized and sustainable system of training in Fertiliser and pesticide industry in Pakistan

DATE OF VALIDATION

This national vocational qualification (NVQ) has been validated by the Qualifications Development Committee (QDC) in January 2021 and will remain in currency until 2023



CODE OF QUALIFICATIONS

Qualification Title	Code
National Vocational Certificate Level 5, in Pesticide & Fertiliser Technology (Assistant Supervisor)	

ENTRY REQUIREMENTS

- For National Vocational Certificate Level-4 in Pesticide & Fertiliser Technology, the entry requirement is award of National Vocational Certificate Level-3 in Pesticide & Fertiliser Technology.



QUALIFICATIONS DEVELOPMENT COMMITTEE

The following members participated in the qualification development of these qualifications:

Sr. No.	Name	Designation	Organization
1.	M. Asim	Assistant Director, NAVTTC Co-ordinator	NAVTTC HQ, Islamabad
2.	Ms. Mehwish Aisha	DACUM Facilitator	CBT Expert/Certified Assessor
3.	Dr Shah Alam Khan	Chairman Plant Protection	The University of Agriculture, Peshawar
4.	Dr Adnan Zahid	Lecturer	Institute of Agricultural Sciences, University of Punjab
5.	Dr Sumaira Maqsood	Assistant Professor/Entomologist	Institute of Agricultural Sciences, University of Punjab
6.	Mr Saeed Alam Malik	CEO	Pestex, Lahore
7.	MsHina Ashraf	PhD Scholar	Institute of Agricultural Sciences, University of Punjab
8.	Ms Noor Ul Ain	M. Phill Scholar	Institute of Agricultural Sciences, University of Punjab
9.	Mr Abid Hussain Shah	Agronomist	Philip Morris Mardan, Pakistan LTD
10.	Faiz Ur Rehman	CEO	Pest Out, PVT. LTD.
11.	Mr Nisar Hussain	General Manager	R&D Tara Group Pakistan
12.	Mslqra Haider Khan	PhD Scholar	Institute of Agricultural Sciences, University of Punjab
13.	Mr Ch. Athar Amin	Principal Engineer	PCSIR, Lahore
14.	MrKhwaja Junaid	Lecturer	The University of Agriculture, Peshawar
15.	Muzamil Usman Khan	Consultant	Greenlands PVT. Limited



QUALIFICATIONS REVIEW AND VALIDATION COMMITTEE

The following members participated in the qualification development of these qualifications:

Sr. No.	Name	Designation	Organization
1.	M. Asim	Assistant Director, NAVTTC Co-ordinator	NAVTTC HQ, Islamabad
2.	Ms. Mehwish Aisha	DACUM Facilitator	CBT Expert/Certified Assessor
3.	Mr. Shaukat Ali Rana	Controller	PBTE
4.	Engr. Rizwan Ahmed	Assistant Manager	Punjab TEVTA
5.	Mr. Haider Ali	Assistant Manager	Punjab TEVTA
6.	Mr Saeed Alam Malik	CEO	Pestex, Lahore
7.	MissHina Ashraf	PhD Scholar	Institute of Agricultural Sciences, University of Punjab
8.	Mr. Ibrahim Anwar	Lecturer	KP TEVTA
9.	Mr. Abid Hussain Shah	Agronomist	Philip Morris Mardan, Pakistan LTD
10.	Mr. Faiz Ur Rehman	CEO	Pest Out, PVT. LTD.
11.	Mr. Iqra Haider Khan	PhD Scholar	Institute of Agricultural Sciences, University of Punjab
12.	Mr. Ch. Athar Amin	Principal Engineer	PCSIR, Lahore
13.	Muzamil Usman Khan	Consultant	Greenlands PVT. Limited
14.	Mr. Muhammad Asif	Master Trainer	Off Season Vegetable Production Lahore
15.	Mr Nisar Hussain	General Manager	R&D Tara Group Pakistan



SUMMARY OF COMPETENCY STANDARDS

“Pesticide & Fertiliser Assistant Supervisor” (12 Months)								
Code	Competency Standards	Level	Theory		Practical		Total	
			C	Hr.	C	Hr.	C	Hr.
	A. Establish and maintain the occupational Health and safety system	4	1	10	2	20	3	30
	B. Perform Advance communication	4	1	10	2	20	3	30
	C. Analyse Workplace Policies and Procedures	4	1	10	2	20	3	30
	D. Perform preparation of on-farm compost using Organic/inorganic Compounds	4	5	50	21	210	26	260
	E. Apply Biological Control Agents (BCA's)	4	7	70	21	210	31	280
	F. Perform First Aid for Pesticide Poisoning	4	1	10	2	20	3	30
	G. Perform Vermicomposting	4	5	50	21	210	26	260
	H. Perform Urban Pest Management	4	7	70	21	210	31	280
Total			28	280	92	920	120	1200



Competency Standard A: Establish and Maintain the Occupational Health and Safety System - 0414TAM07

Overview: This unit covers how to establish, maintain and evaluate an occupational health and safety system in the work environment. This unit applies to workers who have either a legislated or delegated responsibility to implement OHS systems to meet the organization's policy requirements. These roles require significant role or delegated authority to allow effective implementation and review. While designed for public safety workers, this unit could be applied in a range of industries. This unit does not cover the broader implementation of organisation wide OHS policy.

Competency Units	Performance Criteria
<p>CU1. Organise consultation process</p>	<p>You must be able to:</p> <p>P1. Identify and invite relevant personnel or other representative personnel into the development and maintenance processes.</p> <p>P2. Handle issues raised through consultation according to issue resolution procedures.</p> <p>P3. Verify results from the consultation process and makes it available to relevant personnel.</p>
<p>CU2. Design Occupational Health and Safety framework</p>	<p>You must be able to:</p> <p>P1. Identify hazards and risks correctly and confirm according to occupational health and safety legislation, codes of practice and prevailing trends.</p> <p>P2. Develop procedure for ongoing identification of hazards and risks and integrated within work systems and procedures</p> <p>P3. Develop occupational health and safety policies line with relevant legislation.</p> <p>P4. Incorporate and define occupational health and safety responsibilities and duties into job descriptions/statements.</p> <p>P5. Provide adequate resources in a timely and consistent manner.</p> <p>P6. Develop and implement measures to control assessed risks in accordance with the hierarchy of control, relevant occupational health and safety legislation, codes of practice and trends.</p> <p>P7. Implement interim solutions until a permanent control</p>



	<p>measure.</p> <p>P8. Record details clearly and efficiently according to organisation policy and procedures and relevant legislation</p>
<p>CU3. Design and implement an Occupational Health and Safety awareness training program</p>	<p>You must be able to:</p> <p>P1. Devise educational information on the occupational health and safety system and make it available to all relevant personnel.</p> <p>P2. Provide appropriate training to all relevant personnel to enable the implementation of safety procedures</p>
<p>CU4. Establish, monitor and maintain Occupational Health and safety system</p>	<p>You must be able to:</p> <p>P1. Establish a system for keeping occupational health and safety records in accordance with legislative requirements.</p> <p>P2. Monitor Work activities to ensure that hazard identification and risk assessment and control procedures are effectively adopted.</p> <p>P3. Identify Inadequacies in hazard, risk assessment and established risk control measures in accordance with the hierarchy of control and report to designated personnel.</p> <p>P4. Amendments to procedures are undertaken through appropriate consultation methods</p>
<p>CU5. Establish and maintain a system for accident investigation</p>	<p>You must be able to:</p> <p>P1. Develop a system and implement for reporting and investigation of all accidents/incidents in accordance with the policies and procedures.</p> <p>P2. Provide training to employees responsible for accident investigation for effective implementation of accident investigation policy.</p> <p>P3. Implement Policies and procedures for reporting and investigating all accidents/incidents are reviewed and updated as required</p>
<p>CU6. Evaluate the organization's Occupational Health and Safety system and related policies procedures and programs</p>	<p>You must be able to:</p> <p>P1. Ensure the effectiveness of the occupational health and safety system and related policies, procedures and programs is assessed according to the organization's occupational health and safety policy.</p> <p>P2. Develop occupational health and safety system and implement it.</p> <p>P3. Compliance with occupational health and safety legislation and codes of practice is assessed to ensure that legal</p>



	occupational health and safety standards are maintained
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** State details of all relevant Occupational Health and Safety legislation and its relevance to organisation operations
- K2.** State details of codes of practice and their relevance to organisation operations
- K3.** Explain hierarchy of control (the preferred order of risk control measures from most to least preferred that is:
 - o elimination
 - o substitution
 - o engineering control
 - o administrative controls
 - o and personal protective equipment)
- K4.** Describe literacy levels and communication skills of work group members
- K5.** State knowledge of current principles and practices used to implement and monitor organizational OH&S policies
- K6.** Explain procedures and programs
- K7.** Elaborate suitable communication techniques to address needs of work group members

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to establish and maintain the occupational health and safety system. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

Performance Requirements



This competency is to be assessed using standard and authorized work practices, safety requirements and environmental constraints. Demonstrated evidence is required of the ability to:

1. Demonstrated understanding of principles and practices for Occupational Health and Safety.
2. Demonstrated understanding of the significance of other management systems and procedures for occupational health and safety.

Competency Standard B: Perform Advance Communication - 001100853

Overview: This unit describes the performance outcomes, skills and knowledge required to develop communication skills used professionally. It covers plan and organise work and conduct trainings at workplace, along with demonstrating professional skills independently.

Competency Units	Performance Criteria
CU1. Demonstrate professional skills	You must be able to: P1. Use different modes of communication to communicate <ul style="list-style-type: none">• Speaking• Reading



	<ul style="list-style-type: none"> • Writing • Listening • Presentation • visual representation etc <p>P2. Develop CV Skills according requirements</p> <p>P3. Upgrade professional skills by attending trainings, webinars, conferences etc.</p> <p>P4. Perform Continuous professional development as required at workplace</p> <p>P5. Develop interview skills</p>
CU2. Plan and Organize work	<p>You must be able to:</p> <p>P1. Identify task requirements.</p> <p>P2. Plan steps to complete tasks.</p> <p>P3. Review planning and organizing process.</p> <p>P4. Organize work.</p>
CU3. Provide trainings at workplace	<p>You must be able to:</p> <p>P1. Assess the need for training</p> <p>P2. Prepare trainees for the learning experience</p> <p>P3. Present training session</p> <p>P4. Support trainees in managing their own learning</p> <p>P5. Facilitate group learning</p> <p>P6. Provide opportunity for practice</p> <p>P7. Provide feedback on progress on trainees</p> <p>P8. Review delivery experience</p>

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1.** Explaining the training skills
- K2.** Identification of the professional skills
- K3.** Describing the advanced language skills
- K4.** Understanding of the assessment and trainees feedback methods
- K5.** Direct and indirect communication methods
- K6.** Explaining the need of the training type at the work place



Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

1. Job sheet
2. Office emails and coordination reports
3. Feedback Performa



Competency Standard C: Analyse with Workplace Policy and Procedures - 041700841

Overview: This unit describes the skills and knowledge required to implement a workplace policy & procedures and to modify the policy to suit changed circumstances. It applies to individuals with managerial responsibilities who undertake work developing approaches to create, monitor and improve strategies and policies within workplaces and engage with a range of relevant stakeholders and specialists.

Competency Units	Performance Criteria
CU1. Manage work timeframes	<p>You must be able to:</p> <p>P1. Complete work tasks within deadlines in according to order of priority</p> <p>P2. Supervisors are informed of any delays in work times or projects</p>
CU2. Manage to convene meeting	<p>You must be able to:</p> <p>P1. Develop agenda in line with meeting purpose</p> <p>P2. Select participants and notify them accordingly</p> <p>P3. Carryout meeting arrangements according to the time</p> <p>P4. Record the minutes of the meeting</p>
CU3. Set and meet own work priorities at instant	<p>You must be able to:</p> <p>P1. Take initiative to prioritize and facilitate competing demands to achieve organizational goals and objectives</p> <p>P2. Use technology efficiently and effectively to manage work priorities and commitments</p> <p>P3. Maintain appropriate work-life balance</p>
CU4. Develop and maintain professional competence	<p>You must be able to:</p> <p>P1. Assess personal knowledge and skills against competency</p> <p>P2. Participate in networks to enhance personal knowledge, skills and work relationships</p> <p>P3. Seek feedback from employees, clients and colleagues to develop and improve competence</p>
CU5. Follow and implement work safety requirements	<p>You must be able to:</p> <p>P1. Identify and report emergency incidents</p>



	<p>P2. Practice organizational policy and procedures for responding to emergency incidents</p> <p>P3. Identify and implement workplace procedures and work instructions for controlling risks</p>
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Healthy work life balance
- K2.** Meeting terminologies, structures and arrangements
- K3.** Relevant organizational procedures and policies regarding meetings, chairing and minutes.
- K4.** Barriers to implement policies and procedures in an organization and possible strategies to address them.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

1. A person who demonstrates competency in this unit must be able to provide evidence of the ability to understand workplace policy and procedures. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments



Competency Standard D: Perform preparation of on-farm compost by using Organic/inorganic Compounds - 081PF03A

Overview: This competency standard deal with learning the competencies needed to perform preparation of on-farm compost using Organic/inorganic Compounds. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
<p>CU1. Select Suitable Materials to prepare a compost</p>	<p>You must be able to:</p> <p>P1. Identify on-farm available and suitable organic/inorganic materials</p> <p>P2. Perform the selection of Materials (organic/inorganic) according to the requirement</p> <p>P3. Calculate the proportion of materials based on C/N (Carbon/Nitrogen) ratio</p>
<p>CU2. Perform Mixing of Materials (Composting)</p>	<p>You must be able to:</p> <p>P1. Perform pre-mixing tasks (ditching, mulching, covering, etc.)</p> <p>P2. Perform mixing by incorporation of Effective Microbes (EM) solution/Plant Growth Promoting Rhizobacteria (PGPR)</p> <p>P3. Perform post mixing tasks based on moisture content, temperature, decomposition rate, etc.</p> <p>P4. Perform periodic analysis during composting</p>
<p>CU3. Perform Analysis of compost</p>	<p>You must be able to:</p> <p>P1. Perform compost analysis (Temperature, moisture content, pH etc.) until to get the final compost</p> <p>P2. Perform sampling of compost according to the standard procedure for lab analysis</p> <p>P3. Label the packaging of compost samples</p> <p>P4. Transport compost sample to the lab</p>



CU4. Apply the compost using appropriate method	You must be able to: P1. Calculate the compost quantity, to be added in soil based on Lab analysis reports (compost and soil) P2. Perform compost application in soil by using appropriate method.
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Organic/inorganic Fertilisers
- K2.** C/N (Carbon/Nitrogen) ratio
- K3.** Effective Microbes (EM) solution/Plant Growth Promoting Rhizobacteria (PGPR)
- K4.** Calculations for compost application

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

- 1. Portfolio
- 2. Assignment(s)/Project(s)
- 3. Relevant Certification(s)
- 4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

- 1. Prepare and apply a compost by performing:
 - o Calculations
 - o Formulation



Competency Standard E: Perform Vermicomposting - 081PF03B

Overview: This competency standard deal with learning the competencies needed to perform Vermicomposting. That includes collection of waste, application of Worms in material and application of Vermicompost in soil. It will also allow you to learn colour theory in detail. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Perform collection of farm waste	<p>You must be able to:</p> <p>P1. Visit the farm to make a list of available and suitable waste</p> <p>P2. Perform collection and storage of farm waste appropriately</p>
CU2. Perform Pre-Application tasks	<p>You must be able to:</p> <p>P1. Select suitable site for Vermicomposting</p> <p>P2. Select tools according to the requirement</p> <p>P3. Perform Pre-Application tasks (ditching, ridging, mulching, covering, etc.)</p>
CU3. Perform application of Worms in material	<p>You must be able to:</p> <p>P1. Fulfill the requirements for Worms application by checking:</p> <ul style="list-style-type: none"> ○ Physical state of material (moisture content, temperature, rate of decomposition, etc.) ○ Growth stage of Worm ○ Incubation/Time period ○ Environmental condition, etc. <p>P2. Perform application of Worms</p>
CU4. Perform post management and care of Compost	<p>You must be able to:</p> <p>P1. Perform on-farm analysis (Temperature, moisture content, pH etc.)</p> <p>P2. Perform sampling of compost for lab analysis</p> <p>P3. Perform packing and transportation of compost sample to the lab</p>



CU5. Perform application of Vermicompost in soil	You must be able to: P1. Calculate the Vermicompost quantity, to be added in soil based on Lab analysis reports (compost and soil) P2. Perform Vermicompost application in soil by using appropriate method.
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Classifications and functions of chemicals
- K2.** Biology of Earthworm
- K3.** Vermicomposting

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

1. Portfolio
2. Assignment(s)/Project(s)
3. Relevant Certification(s)
4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

1. Prepare and apply Vermicompost



Competency Standard F: Perform First Aid for Pesticide Poisoning - 081PF03C

Overview: This competency standard deal with learning the competencies needed to perform First Aid for Pesticide Poisoning. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Identify symptoms of Pesticide poisoning	You must be able to: P1. Identify Poison type and dose intake P2. Find out the possible pathway of pesticide poisoning (by mouth, nose, skin, eyes, ears, etc.)
CU2. Perform First Aid accordingly	You must be able to: P1. Move the effected person to the fresh air P2. Hold the effected person in comfortable posture P3. Perform Insufflation accordingly. P4. Take measures to vomit, if required. P5. Seek medical help as soon as possible.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Pesticide poisoning
- K2.** Possible pathway of pesticide poisoning (by mouth, nose, skin, eyes, ears, etc.)
- K3.** Procedure to provide First Aid according to the situation
- K4.** Personal safety measures (PPEs, hygiene, etc.)

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

1. Portfolio
2. Assignment(s)/Project(s)
3. Relevant Certification(s)



4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

1. Demonstrate First Aid in case of oral intake of pesticide
2. Demonstrate First Aid in case of skin contact with pesticide
3. Demonstrate First Aid in case of inhalation of pesticide



Competency Standard G: Apply Biological Control Agents BCA's - 081PF03D

Overview: This competency standard deal with learning the competencies needed to Apply Biological Control Agents. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Select Biological Control Agents	You must be able to: P1. Identify Biological Control Agents (BCA) P2. Mode of Action for Biological Control Agents (BCA) (<i>Trichoderma spp.</i> , <i>Trichogramma spp.</i> and <i>Bacillus thuringiensis</i>) P1. Analyse the types of hazards P2. Perform selection of Bio-control agent P3. Perform rearing of Bio-control agents P4. Maintain natural equilibrium below the economic threshold level (ETL)
CU2. Implement Biological Control Agents	You must be able to: P1. Perform application of Bio-control Agents P2. Check performance of Biological Control Agents P3. Calculate population of BCA's to keep the pest below EIL P4. Perform the assessment of the effects of BCA application. P5. Prepare Datasheet/Reports

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Biological Control Agents (BCA's)
- K2.** Define Pest predators, parasites and Pathogen
- K3.** Explain rearing techniques for BCA's



K4. Explain BCA's application techniques

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

1. Portfolio
2. Assignment(s)/Project(s)
3. Relevant Certification(s)
4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

1. Perform preparation and application of biological Control Agents according to the given instructions



Competency Standard H: Perform Urban Pest Management - 081PF03E

Overview: This unit describes the skills and knowledge required to Perform Urban pest Management. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Conduct preliminary inspection of customer's premises	You must be able to: P1. Conduct the site survey to identify the urban pest problem. P2. Prepare an inspection report
CU2. Prepare the quotation for the customer	You must be able to: P1. Estimate Time, Cost, Supplies & required equipment P2. Compile the information to make the quotation.
CU3. Perform Pesticide Application to the target site	You must be able to: P1. Select and calibrate the tools and equipment. P2. Perform application of pesticide on the target site P3. Perform post spray care (Sign display/ tagging). P4. Prepare a report for supervisor and customer

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Urban Pest Biology and Behaviour
- K2.** Application techniques of Urban Pest Management
- K3.** Explain target sites in buildings and lawns
- K4.** Preparing Quotations and Report writing

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

1. Portfolio
2. Assignment(s)/Project(s)
3. Relevant Certification(s)



4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

1. Conduct preliminary inspection of customer's premises and prepare an inspection report.



COMPLETE LIST OF TOOLS AND EQUIPMENT

SR#	Tools & Equipment	Quantity
1.	Computer Systems	25
2.	Scanner	1
3.	Printer	1
4.	Pen	25
5.	Pencil	25
6.	Eraser	25
7.	Notebooks	25
8.	Chart Papers	25
9.	Board markers	1
10.	File covers	25
11.	Scotch tape	25
12.	Masks	25
13.	Gloves	25
14.	Goggles	25
15.	Fertilisers mixer	5
16.	Motors	5
17.	Measuring cylinders/containers	25
18.	Spade	25
19.	Microscopes	5
20.	Sprayer Tank	10
21.	Air Blast Sprayers	5
22.	Spraying Nozzle Sets	10
23.	Fire Buckets	1



24.	Respiratory Mask	25
25.	First Aid Box	5
26.	Calculator	25
27.	Measuring Tape	25
28.	Measuring Scale	25
29.	Ladder	1
30.	Soil Augars	12
31.	Polyethylene Sheets	100
32.	Sample collection Polyethylene bags	500
33.	Ice Box	5
34.	Magnifying glass/Lens	25
35.	Forceps	25
36.	Gardening Tool Kit	25