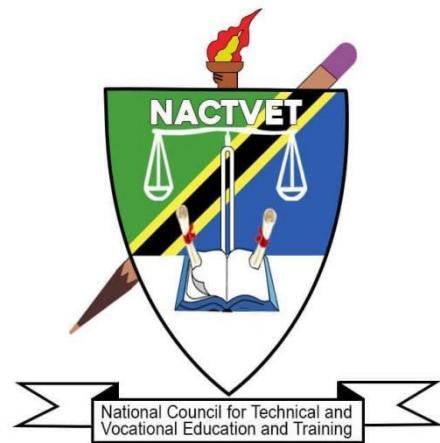


**THE NATIONAL COUNCIL FOR TECHNICAL AND VOCATIONAL EDUCATION AND  
TRAINING**



**OCCUPATIONAL STANDARDS**

**OCCUPATION: TEA PRODUCTION AND PROCESSING TECHNICIAN**

**LEVEL: NTA LEVEL 4**

**FEBRUARY 2024**

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TABLE 1: DACUM CHARTS FOR TEA PRODUCTION AND PROCESSING TECHNICIAN - NTA 4 21

## **ABBREVIATIONS**

<b>B.O.P</b>	Broken Orange Pekoe
<b>B.P</b>	Broken Pekoe
<b>CTC</b>	Crush, Tear, Curl (A method of processing broken black tea with a tea leaf cutter)
<b>F.B.O.P</b>	Flowery Broken Orange Pekoe
<b>F.O.P</b>	Flowery Orange Pekoe
<b>LTP</b>	Laurie Tea Processer
<b>NACTVET</b>	National Council for Technical and Vocational Education and Training
<b>NOS</b>	National Occupational Standards
<b>O.P</b>	Orange Pekoe
<b>OS</b>	Occupational Standards
<b>TET</b>	Technical Education and Training
<b>TVET</b>	Technical and Vocational Education and Training

## **GLOSSARY OF TERMS**

<b>Circumstantial Knowledge:</b>	Detailed knowledge, which allows the decision-making in regard to different circumstances and cross cutting issues.
<b>Competence:</b>	The competence to use knowledge, understanding, practical, and thinking skills to perform effectively to the workplace standards required in employment.
<b>Competency:</b>	A description of the ability one possesses when able to perform a given occupational task effectively and efficiently.
<b>Competency-based Education:</b>	An instructional programme that derives its content from validated tasks and bases assessment on the learner's performance.
<b>Curriculum:</b>	A description or composite of statements about "what is to be learned" by the trainee/student in a particular instructional programme; a product that states the "intended learning outcomes".
<b>Educational/Training Programme:</b>	The complete curriculum and instruction (what and how) that is designed to prepare a person for employment in a job or other particular performance situation.
<b>Occupation:</b>	A specific position requiring the performance of specific tasks - essentially the same tasks are performed by all employees having the same title.
<b>Occupational Area:</b>	This is a broad grouping of related jobs. (Example: catering service).
<b>Occupational Standards:</b>	Specific requirements of competences for personnel in a particular occupational area, including knowledge and relevant attitudes. They also act as performance tools of assessment of the prescribed outcomes.
<b>Occupational/Job Analysis:</b>	A process used to identify the tasks that are important to employees in any given occupation.
<b>Performance Criteria:</b>	Indicate expected end results or outcomes in the form of evaluative statements.
<b>Skills:</b>	The ability to perform occupational tasks with a high degree of proficiency within a given occupation. Skill is conceived of as a

composite of three completely interdependent components: cognitive, affective, and psychomotor.

<b>Standards:</b>	A set of statements, which, if proved true under working conditions, means that an individual is meeting an expected level and type of performance.
<b>Task Analysis:</b>	The process of analysing each task to determine the steps, circumstantial knowledge, attitudes, performance criteria, tools and materials needed, as well as safety concerns required for the employees performing it. Task: A work activity that has a definite beginning and ending, is observable or measurable, consists of two or more definite steps, and leads to products, service, or decisions.
<b>Underpinning Knowledge:</b>	Crucial knowledge that an individual must acquire in order to demonstrate competences that are associated in performing a given task.
<b>Verification Process:</b>	The process of having experts review and confirm the importance of the task (competency) statements identified through occupational analysis. Other questions, such as the degree of task learning difficulty are also frequently asked. This process is also sometimes referred to as validation.
<b>Occupational Competence:</b>	The application of knowledge and skills that consistently meet the standards required by the working conditions.

## 1.0. INTRODUCTION

Technical Education and Training (TET) is one of the most important education sub-sectors in Tanzania, responsible for developing a skilled workforce to support the country's industrialization economic agenda. Tanzania's *Development Vision 2025* intends to raise the country's economy to a middle-income status, with a high level of human development. This requires a skilled workforce that is aligned with the needs of the public and private sectors of the economy. The National Council for Technical and Vocational Education and Training (NACTVET) has begun the job of drafting Occupational Standards (OS) that will eventually be adopted as National Occupational Standards (NOS) for use in the delivery of TET that meets the needs of the labour market and the country's economic agenda.

Occupational Standards (OS) are performance criteria that are matched with labour market demands. Each of them describes the functions, performance standards, and understanding or knowledge underpinning a given occupation. They combine skills, knowledge, and attitudes to describe best practice. They are useful tools for establishing job roles, personnel recruitment, supervision, and appraisal, as well as TET Standards. They are also helpful for benchmarking and harmonizing job qualifications on a national and international level. Standards, in general, provide a solid framework for high-quality TET that is labour market-relevant, current, and consistent in application across all public and private institutions.

However, it must be noted that Occupational Standards are different from Training /Education Standards. Occupational standards are defined in terms of activities performed by a person in a selected occupation (e.g., an electrical engineer designs electrical circuits, performs troubleshooting in electrical circuits, etc.), and are usually defined by Employers following procedures as agreed upon by all the stakeholders. On the other hand, Training and Education Standards are developed from the activities defined in the occupational standards, and they specify learning objectives to ensure that the necessary skills and knowledge are developed by a person to enable him/her to function at an agreed level in an occupation. Training and Education Standards are used to define curricula in training institutions. It is critical, however, to establish a direct link between the occupational standards and the training standards for both of them to respond collaboratively to the demands of the labour market.

For the purpose of TET delivery, Tanzania has adopted the Competence Based Education and Training (CBET) approach. The CBET approach focuses on providing learners with the skills and knowledge required to meet the occupational standards. Occupational standards are thus the starting point for developing competency-based training (CBET) programmes. Therefore, it is quite pertinent for TET institutions to use the relevant occupational standards as a benchmark for formulating their curricula.

Occupational Standards are developed based on a given occupation's current and future demands. As a result, they serve as a means of bridging the gap between the worlds of employment and technical education and training.

The document explains how the occupational standards were developed, as well as the scope, the occupational profile in the form of DACUM charts, and the Occupational Standards.

## **2.0 OCCUPATIONAL STANDARDS DEVELOPMENT PROCESS**

The process of developing these Occupational Standards involved both local and international expertise. The process began with an examination of major documents that guide Tanzanian skills development including the *10-year National Skills Development Strategy (2016-2026)*. NACTVET labour market reports were also used in the literature review to determine the skills demand in the Tanzanian labour market as a whole.

After the literature review, a team of experts in consultation with practitioners developed draft occupational standards. The draft document was used to develop an occupational profile for each occupation (DACUM Chart), which is attached as an **Appendix** to every Occupational Standard.

The occupational standards were validated during the stakeholders' forum held on 22<sup>nd</sup> and 23<sup>rd</sup> February 2024 at Morogoro. The information from the stakeholders' forum provides insight from the workplace, professional bodies, regulatory bodies and sector ministries regarding trends and changes in the profession, including how well graduates are prepared for working in the occupation.

## **3.0. THE SCOPE AND OVERVIEW OF THE OCCUPATIONAL STANDARDS FOR TEA PRODUCTION AND PROCESSING TECHNICIANS**

These standards cover a broad range of duties and tasks that can be performed by a Tea Production and Processing Technician. However, the occupational standards are not meant to replace individual

job descriptions. Instead, they are to be used for guidance in defining skill levels and knowledge for the technician in specific settings or positions. The Tea Production and Processing Technician may perform tasks in a number of key areas of the Occupational Standards, but not necessarily in all areas. For example, in the process of tea quality control, other individuals may be employed or designated to perform specific tasks.

Tea Production and Processing Technicians should be engaged in tea garden production and management, processing fresh tea leaves into primary and refined tea products, tea packaging and storage, tea quality control, tea sales and cost accounting.

Generally, Tea Production and Processing Technician performs the following responsibilities:

- a) Tea bush pruning
- b) Tea plucking and post-harvest handling
- c) Tea processing preparation
- d) Tea garden farming
- e) Tea garden management
- f) Equipment operation and maintenance
- g) Tea packaging and storage
- h) Disease and insect pest control of tea bushes
- i) Working safety in tea gardens
- j) Tea processing technology control
- k) Tea quality control
- l) Tea marketing and cost control

The Occupational Standards have been clustered into NTA qualification levels i.e. NTA level 4, 5 and 6.

#### **4.0. VALIDITY PERIOD**

Due to the rapid development of technology, the validity period of occupational standards is 3-5 years.

The review will proceed in the same manner as the one before it, with new occupational standards being developed based on current trends of the labour market.

## 5.0. OCCUPATIONAL STANDARDS

### 5.1 OCCUPATIONAL STANDARDS FOR TEA PRODUCTION AND PROCESSING TECHNICIAN - NTA – LEVEL 4

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	PERFORM TEA BUSH PRUNING	<b>DUTY NO.</b>	401
<b>TASK TITLE</b>	PERFORM LIGHT PRUNING OF TEA BUSHES	<b>TASK NO.</b>	4011
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to perform the light pruning of tea bushes in accordance with the standards and technical requirements for the light pruning of tea trees.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea gardens/farms under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Tea bush cropper</li> <li>2. Safety and hygiene gear.</li> </ol>		

#### EVIDENCE REQUIREMENT

PRACTICAL PERFORMANCE	UNDERPINNING KNOWLEDGE
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Confirm the cycles and time of the light pruning of tea trees;</li> <li>2. Prepare and test the tea bush cropper;</li> <li>3. Clean up messy branches;</li> <li>4. Adjust the bush shape;</li> <li>5. Promote the growth of new shoots;</li> <li>6. Retain appropriate leaves;</li> <li>7. Provide care after pruning;</li> <li>8. Clean up the pruning debris and residues;</li> <li>9. Monitor growth status</li> <li>10. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Identify and remove dead, crossing and diseased branches;</li> <li>1.2 Correct the tree crown;</li> <li>1.3 Retain new shoots and control branches;</li> <li>1.4 Avoid excessive pruning;</li> <li>1.5 Smear pruning wounds;</li> <li>1.6 Regularly observe the growth of tea trees.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 The principle of the relationship between the light pruning standard of tea trees and the</li> </ol>

	<p>growth and development of tea trees;</p> <p>2.2 The principle of the relationship between the light pruning cycle and time of tea trees and the growth and development of tea trees.</p> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <p>3.1 Cultivation of tea tree crowns;</p> <p>3.2 The relationship between the light pruning shape of tea trees and tea yield.</p> <p><b>4.0 Essential Skills</b></p> <p>4.1 Communication skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Independent thinking skills.</p>
<b>DESCRIPTION OF THE END PRODUCT / SERVICE</b>	The light pruning of tea bushes is completed through independent use of a cropper in accordance with light pruning standards.
<b>CIRCUMSTANTIAL KNOWLEDGE</b>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Use and maintenance of tea tree croppers;</li> <li>3. Climatic conditions;</li> <li>4. Cultivation and maintenance of tea garden soil;</li> <li>5. Pest control.</li> </ol>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	PERFORM TEA BUSH PRUNING	<b>DUTY NO.</b>	401
<b>TASK TITLE</b>	PERFORM STEREOTYPE PRUNING OF TEA BUSHES	<b>TASK NO.</b>	4012
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to perform stereotype pruning in accordance with the standards for tea bush stereotype pruning.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea gardens under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Pruning knives/machines;</li> <li>2. Tea tree cropper;</li> <li>3. Safety and hygiene gear.</li> </ol>		
<b>EVIDENCE REQUIREMENT</b>			
<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>		
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Determine the period and frequency of the stereotype pruning of tea trees;</li> <li>2. Prepare and test pruners or tea tree croppers;</li> <li>3. Determine the standards and methods for stereotype pruning of tea trees;</li> <li>4. Determine the pruning height;</li> <li>5. Use pruning tools to complete the stereotype pruning of tea trees;</li> <li>6. Provide care after pruning;</li> <li>7. Clean up the pruning debris;</li> <li>8. Perform fertilization and watering;</li> <li>9. Monitor the growth of tea trees;</li> <li>10. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Remove dead and diseased branches;</li> <li>1.2 Prune weak and intersecting branches, internal branches, and branches with excessive growth;</li> <li>1.3 Prune the top and trunk;</li> <li>1.4 Smear an appropriate amount of pruning cream to the pruning area;</li> <li>1.5 Clean up the cut branches/prunings.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 The principle of unifying the standards for the stereotype pruning of tea trees with the requirements for high-quality tree crowns;</li> <li>2.2 The principle of unifying the period and frequency of tea tree stereotype pruning with the requirements for high-quality tree crowns.</li> </ol>		

	<p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <p>3.1 The apical dominance of tea tree growth;  3.2 The cultivation of tea tree crowns.</p> <p><b>4.0 Essential Skills</b></p> <p>4.1 Communication skills;  4.2 Teamwork skills;  4.3 Independent thinking skills.</p>
<p><b>DESCRIPTION OF THE END PRODUCT / SERVICE</b></p>	<p>The stereotype pruning of tea bushes is carried out in accordance with the stereotype standard using a pruner and cropper.</p>
<p><b>CIRCUMSTANTIAL KNOWLEDGE</b></p>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Use and maintenance of tea tree croppers;</li> <li>3. Climatic conditions;</li> <li>4. Cultivation and maintenance of tea garden soil;</li> <li>5. Diseases and insect pest control.</li> </ol>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	PERFORM TEA BUSH PRUNING	<b>DUTY NO.</b>	401
<b>TASK TITLE</b>	PERFORM DEEP PRUNING OF TEA BUSHES	<b>TASK NO.</b>	4013
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to perform deep pruning in accordance with approved standards for tea bush deep pruning.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea gardens/plantations under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Tea bush cropper;</li> <li>2. Safety and hygiene gear.</li> </ol>		
<b>EVIDENCE REQUIREMENT</b>			
<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>		
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Determine the deep pruning cycle and standards for tea trees;</li> <li>2. Prepare and test the tea tree cropper;</li> <li>3. Remove dead and weak branches;</li> <li>4. Determine the pruning height;</li> <li>5. Prune the trunk;</li> <li>6. Prune the lateral branches;</li> <li>7. Treat the pruning wound;</li> <li>8. Perform fertilization and watering;</li> <li>9. Organize the pruning waste;</li> <li>10. Monitor the growth process;</li> <li>11. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Determine specific goals for pruning;</li> <li>1.2 Prune the top and lateral branches;</li> <li>1.3 Combine short pruning and long pruning to prune;</li> <li>1.4 Determine the pruning angle;</li> <li>1.5 Clean up the pruning debris;</li> <li>1.6 Perform close monitoring of growth.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 The principle of the relationship between the deep pruning of tea trees and the growth and development of tea trees.</li> </ol> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> <li>3.1 Cultivation of tea tree crowns;</li> <li>3.2 The relationship between the deep pruning of tea trees and tea yield.</li> </ol> <p><b>4.0 Essential Skills</b></p>		

	<p>4.1 Communication skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Independent thinking skills.</p>
<b>DESCRIPTION OF THE END PRODUCT / SERVICE</b>	The deep pruning of tea bushes is completed through independent use of a cropper in accordance with pruning standards.
<b>CIRCUMSTANTIAL KNOWLEDGE</b>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Use and maintenance of tea tree croppers;</li> <li>3. Climatic conditions;</li> <li>4. Cultivation and maintenance of tea garden soil;</li> <li>5. Diseases and insect pest control.</li> </ol>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	UNDERTAKE TEA PLUCKING AND PRESERVATION	<b>DUTY NO.</b>	402
<b>TASK TITLE</b>	UNDERTAKE MANUAL PLUCKING OF TEA LEAVES	<b>TASK NO.</b>	4021
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to manually pick tea leaves in accordance with the picking standards and picking techniques.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea gardens under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Breathable storage and transportation tools such as bamboo baskets and pack baskets;</li> <li>2. Electric tea clippers and other picking and cutting tools;</li> <li>3. Safety and hygiene gear.</li> </ol>		

#### **EVIDENCE REQUIREMENT**

<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Determine the tea picking period and standards;</li> <li>2. Choose tea-picking tools;</li> <li>3. Choose tea leaves;</li> <li>4. Choose manual tea picking methods, such as pinching and picking, and raising hand plucking;</li> <li>5. Using manual tea picking methods for tea picking, such as topping picking, retaining true leaf picking, and retaining fish leaf picking;</li> <li>6. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Prepare electric tea clippers and other picking and cutting tools, as well as breathable storage and transportation tools such as bamboo baskets and pack baskets;</li> <li>1.2 Choose tender leaves and shoot tips;</li> <li>1.3 Choose pinching and picking, and raising hand plucking;</li> <li>1.4 Place tea leaves in containers in a reasonable manner to avoid squeezing.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 The principle of unifying picking standards and quality requirements;</li> <li>2.2 The principle of coordination between picking period and production and processing.</li> </ol> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to</p>

	<p>explain the following:</p> <ul style="list-style-type: none"> <li>3.1 The relationship between different fresh leaf tenderness and tea quality;</li> <li>3.2 The effect of picking methods on the growth and development of tea trees.</li> </ul> <p><b>4.0 Essential Skills</b></p> <ul style="list-style-type: none"> <li>4.1 Communication skills;</li> <li>4.2 Teamwork skills;</li> <li>4.3 Independent thinking skills.</li> </ul>
<b>DESCRIPTION OF THE END PRODUCT / SERVICE</b>	Manual picking of tea leaves is carried out in accordance with approved tea picking standards.
<b>CIRCUMSTANTIAL KNOWLEDGE</b>	<p><b>Detailed knowledge about:</b></p> <ul style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Use and maintenance of picking tools;</li> <li>3. Characteristics of tea storage and transportation tools;</li> <li>4. Climatic conditions.</li> </ul>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	UNDERTAKE TEA PICKING AND PRESERVATION	<b>DUTY NO.</b>	402
<b>TASK TITLE</b>	UNDERTAKE MECHANICAL PICKING OF TEA LEAVES	<b>TASK NO.</b>	4022
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to mechanically pick tea leaves in accordance with the picking standards and picking techniques.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea gardens under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Tea-picking machine;</li> <li>2. Breathable storage and transportation tools such as bamboo baskets, and storage and transportation bags</li> <li>3. Safety and hygiene gear.</li> </ol>		

#### **EVIDENCE REQUIREMENT**

<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Choose tea-picking machinery;</li> <li>2. Conduct equipment debugging and testing;</li> <li>3. Determine the tea picking period;</li> <li>4. Prepare tea gardens;</li> <li>5. Use tea-picking machines for tea picking;</li> <li>6. Carry out regular inspection and maintenance of equipment;</li> <li>7. Record and analyze data;</li> <li>8. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Confirm that the tea-picking machine can operate normally;</li> <li>1.2 Pick in rain or dry season;</li> <li>1.3 Set mechanical parameters;</li> <li>1.4 Carry out mechanical picking.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 The working principle of tea-picking machine.</li> </ol> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> <li>3.1 The relationship between different fresh leaf tenderness and tea component contents;</li> <li>3.2 The relationship between different picking standards and tea quality.</li> </ol> <p><b>4.0 Essential Skills</b></p> <ol style="list-style-type: none"> <li>4.1 Communication skills;</li> </ol>

	<p>4.2 Teamwork skills;</p> <p>4.3 Independent thinking skills.</p>
<b>DESCRIPTION OF THE END PRODUCT / SERVICE</b>	The tea-picking machines are used to pluck tea leaves in accordance with approved plucking standards..
<b>CIRCUMSTANTIAL KNOWLEDGE</b>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Use and maintenance of tea-picking machine;</li> <li>3. Characteristics of tea storage and transportation tools;</li> <li>4. Climatic conditions.</li> </ol>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	UNDERTAKE TEA PICKING AND PRESERVATION	<b>DUTY NO.</b>	402
<b>TASK TITLE</b>	STORE AND PRESERVE FRESH TEA LEAVES	<b>TASK NO.</b>	4023
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to store and transport the picked fresh leaves to the factory while keeping them fresh in accordance with tea processing standards.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea gardens under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Breathable storage and transportation tools such as bamboo baskets, bamboo crates, and mesh bags;</li> <li>2. Transfer vehicles;</li> <li>3. Safety and hygiene gear.</li> </ol>		
<b>EVIDENCE REQUIREMENT</b>			
<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>		
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Determine the freshness of fresh leaves;</li> <li>2. Conduct fresh leaf sorting/bagging;</li> <li>3. Conduct timely transportation of fresh leaves in batches;</li> <li>4. Spread and wither fresh leaves after entering the factory;</li> <li>5. Clean the storage environment;</li> <li>6. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Determine the storage temperature of fresh tea leaves;</li> <li>1.2 Determine the storage humidity of fresh tea leaves;</li> <li>1.3 Determine the thickness of fresh tea leaves stored and spread;</li> <li>1.4 Avoid mechanical damage to fresh leaves.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 Principles for quality control of fresh tea.</li> </ol> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> <li>3.1 Postharvest fresh leaf respiration;</li> <li>3.2 Factors affecting the quality of fresh leaves after harvest.</li> </ol>		

	<p><b>4.0 Essential Skills</b></p> <p>4.1 Communication skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Independent thinking skills.</p>
<p><b>DESCRIPTION OF THE END PRODUCT / SERVICE</b></p>	<p>The harvested tea leaves are independently selected, stored, transported and kept fresh in suitable utensils in accordance with approved tea processing standards.</p>
<p><b>CIRCUMSTANTIAL KNOWLEDGE</b></p>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Vehicle driving and maintenance;</li> <li>3. Characteristics of tea storage and transportation tools;</li> <li>4. Climatic conditions.</li> </ol>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	MAKE PREPARATIONS FOR TEA PROCESSING	<b>DUTY NO.</b>	403
<b>TASK TITLE</b>	PREPARE RAW MATERIALS OF FRESH TEA LEAVES	<b>TASK NO.</b>	4031
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to prepare raw materials of fresh tea leaves in accordance with processing requirements.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the fresh leaf reception and withering section under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Record book;</li> <li>2. Weighing equipment;</li> <li>3. Fresh leaf storage equipment;</li> <li>4. Temperature and humidity control equipment;</li> <li>5. Fresh leaf graders and fresh leaf dehydrators</li> <li>6. Safety and hygiene gear.</li> </ol>		

#### **EVIDENCE REQUIREMENT**

<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Weigh and record fresh tea leaves;</li> <li>2. Complete the pre-inspection and grading of fresh leaf raw materials;</li> <li>3. Remove deteriorated fresh leaves and non-tea debris;</li> <li>4. Spread and dry fresh leaves;</li> <li>5. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Accurately record the quality of fresh leaves;</li> <li>1.2 Complete the pre-inspection and grading of fresh leaves;</li> <li>1.3 Remove deteriorated fresh leaves and non-tea debris;</li> <li>1.4 Determine the thickness, temperature, humidity, time, and other conditions for spreading fresh leaves.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 Water loss characteristics of fresh leaves.</li> </ol> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> <li>3.1 The relationship between water loss and quality of fresh leaves;</li> </ol>

	<p>3.2 The standard for moderately spreading fresh leaves.</p> <p><b>4.0 Essential Skills</b></p> <p>4.1 Communication skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Independent thinking skills.</p>
<b>DESCRIPTION OF THE END PRODUCT / SERVICE</b>	The fresh tea leaves raw materials are prepared in accordance with the tea processing requirements before processing.
<b>CIRCUMSTANTIAL KNOWLEDGE</b>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Use and debugging of weighing equipment;</li> <li>3. Operating procedures for fresh leaf graders and fresh leaf dehydrators;</li> <li>4. Quality control of fresh leaves.</li> </ol>

<b>OCCUPATION</b>	TEA PRODUCTION AND PROCESSING TECHNICIAN	<b>OCCUPATION CODE</b>	
<b>DUTY TITLE</b>	MAKE PREPARATIONS FOR TEA PROCESSING	<b>DUTY NO.</b>	403
<b>TASK TITLE</b>	PREPARE TOOLS, EQUIPMENT AND SITES	<b>TASK NO.</b>	4032
<b>PERFORMANCE CRITERIA</b>	The person performing this task must be able to prepare tools, equipment and sites for tea processing in accordance with the tea processing requirements.		
<b>RANGE STATEMENT</b>	<p>The task can be performed in the tea processing workshops under the supervision of the Senior Tea Production and Processing Technician. The tools and equipment to be used include:</p> <ol style="list-style-type: none"> <li>1. Cleaning tools;</li> <li>2. Tea making auxiliary tools;</li> <li>3. Equipment debugging tools</li> <li>4. Safety and hygiene gear.</li> </ol>		
<b>EVIDENCE REQUIREMENT</b>			
<b>PRACTICAL PERFORMANCE</b>	<b>UNDERPINNING KNOWLEDGE</b>		
<p>The person performing this task must be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Clean the processing site;</li> <li>2. Clean and arrange equipment and auxiliary tools;</li> <li>3. Check the power supply, switches, speed control devices, etc. of mechanical equipment;</li> <li>4. Observe health, occupational and environmental safety rules and regulations.</li> </ol>	<p><b>Detailed knowledge about:</b></p> <p><b>1.0 Methods</b></p> <p>The person performing this task must be able to explain how to:</p> <ol style="list-style-type: none"> <li>1.1 Clean the processing site;</li> <li>1.2 Arrange equipment and auxiliary tools;</li> <li>1.3 Check the power supply, switches, speed control devices, etc. of mechanical equipment to ensure that the processing site has sufficient electricity and water sources.</li> </ol> <p><b>2.0 Principles</b></p> <p>The person performing this task must be able to explain the following principles:</p> <ol style="list-style-type: none"> <li>2.1 The safety production principle of tea;</li> <li>2.2 The working principle of tea processing equipment.</li> </ol> <p><b>3.0 Theories</b></p> <p>The person performing this task must be able to explain the following:</p> <ol style="list-style-type: none"> <li>3.1 Tea processing process flow;</li> <li>3.2 Equipment usage and operation specifications;</li> </ol>		

	<p>3.3 Requirements for the use of tea-making tools.</p> <p><b>4.0 Essential Skills</b></p> <p>4.1 Communication skills;</p> <p>4.2 Teamwork skills;</p> <p>4.3 Independent thinking skills.</p>
<b>DESCRIPTION OF THE END PRODUCT / SERVICE</b>	Tea processing tools, equipment and sites are prepared in advance in accordance with the tea processing requirements.
<b>CIRCUMSTANTIAL KNOWLEDGE</b>	<p><b>Detailed knowledge about:</b></p> <ol style="list-style-type: none"> <li>1. Occupational safety and health;</li> <li>2. Environmental and equipment hygiene requirements for tea processing;</li> <li>3. The role of tea-making auxiliary tools and materials;</li> <li>4. Basic knowledge of electrical safety.</li> </ol>

**APPENDIX 1: DACUM CHARTS FOR TEA PRODUCTION AND PROCESSING**  
**TECHNICIAN - NTA LEVEL 4**

DUTIES	TASKS	ENABLERS
1.0 Perform tea bush pruning	<p>1.1 Perform light pruning of tea bushes.</p> <p>1.2 Perform stereotype pruning of tea bushes.</p> <p>1.3 Perform deep pruning of tea bushes.</p>	<p><b>General skills and knowledge</b></p> <ul style="list-style-type: none"> <li>Characteristics of tea tree growth and development</li> <li>Types of tea tree pruning</li> <li>Standards and techniques of tea tree pruning</li> </ul> <p><b>Tools and equipment</b></p> <ul style="list-style-type: none"> <li>Tea tree croppers</li> <li>Pruners</li> </ul> <p><b>Materials</b></p> <ul style="list-style-type: none"> <li>Safety production equipment such as gloves, safety shoes, and masks</li> <li>Lubricating oil</li> <li>Gasoline</li> </ul> <p><b>Requirements for employees</b></p> <ul style="list-style-type: none"> <li>Teamwork spirit, communication, and independent thinking</li> </ul>
2.0 Undertake tea picking and preservation	<p>2.1 Undertake manual picking of tea leaves.</p> <p>2.2 Undertake mechanical picking of tea leaves.</p> <p>2.3 Store and preserve fresh tea leaves.</p>	<p><b>General skills and knowledge</b></p> <ul style="list-style-type: none"> <li>Characteristics of tea tree growth and development</li> <li>Determination of tea tenderness</li> <li>Types of tea picking</li> <li>Standards and methods for tea picking</li> <li>Postharvest fresh leaf respiration</li> <li>Quality control of fresh leaves</li> </ul> <p><b>Tools and equipment</b></p> <ul style="list-style-type: none"> <li>Tea-picking machines</li> <li>Electric tea clippers and other picking and cutting tools</li> </ul>

		<ul style="list-style-type: none"> <li>· Breathable storage and transportation tools such as bamboo baskets and pack baskets</li> <li>· Transfer vehicles</li> </ul> <p><b>Materials</b></p> <ul style="list-style-type: none"> <li>· Safety production equipment such as gloves and protective shoes</li> <li>· Gasoline</li> <li>· Lubricating oil</li> <li>· Bamboo and bags</li> </ul> <p><b>Requirements for employees</b></p> <ul style="list-style-type: none"> <li>· Teamwork spirit, communication, and independent thinking</li> </ul>
3.0 Make preparations for tea processing	<p>3.1 Prepare raw materials of fresh leaves.</p> <p>3.2 Prepare tools, equipment and sites.</p>	<p><b>General skills and knowledge</b></p> <ul style="list-style-type: none"> <li>· Requirements for spreading fresh tea leaves</li> <li>· Tea processing process flow</li> <li>· Preparation of tea processing tools, equipment and sites</li> </ul> <p><b>Tools and equipment</b></p> <ul style="list-style-type: none"> <li>· Record book</li> <li>· Weighing equipment</li> <li>· Fresh leaf storage equipment and utensils</li> <li>· Temperature and humidity control equipment</li> <li>· Fresh leaf graders and fresh leaf dehydrators</li> <li>· Cleaning tools</li> <li>· Tea making auxiliary tools</li> <li>· Equipment testing tools</li> </ul> <p><b>Materials</b></p> <ul style="list-style-type: none"> <li>· Clean production equipment such as shoe covers, masks and hats</li> <li>· Raw materials of fresh tea leaves</li> <li>· Tea processing equipment</li> </ul>

		<p><b>Requirements for employees</b></p> <ul style="list-style-type: none"><li>• Teamwork spirit, communication, and independent thinking</li></ul>
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