

COMPETENCY STANDARDS

COCONUT PRODUCTION LEVEL II



AGRICULTURE, FORESTRY AND FISHERY SECTOR

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY
TESDA Complex East Service Road, South Luzon Expressway (SLEX),
Fort Bonifacio, Taguig City

*Technical Education and Skills Development Act of 1994
(Republic Act No. 7796)*

Section 22, "Establishment and Administration of the National Trade Skills Standards" of the RA 7796 known as the TESDA Act mandates TESDA to establish national occupational skill standards. The Authority shall develop and implement a certification and accreditation program in which private industry group and trade associations are accredited to conduct approved trade tests, and the local government units to promote such trade testing activities in their respective areas in accordance with the guidelines to be set by the Authority.

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AGRICULTURE, FORESTRY AND FISHERY SECTOR

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COMPETENCY STANDARDS FOR COCONUT PRODUCTION LEVEL II

Section 1 COCONUT PRODUCTION LEVEL II QUALIFICATION

The **COCONUT PRODUCTION LEVEL II** Qualification consists of competencies that a person must achieve to select mother palms, plant and produce quality coconut seedlings, grow and maintain coconut palms, harvest fruits and sap, conduct post-harvest handling, and market coconut farm produce.

This Qualification is packaged from the competency map of the Agriculture, Forestry and Fishery Sector as shown in Annex A.

The units of competency comprising this qualification include the following:

CODE NO.	BASIC COMPETENCIES
400311210	Participate in workplace communication
400311211	Work in team environment
400311212	Solve/address general workplace problems
400311213	Develop career and life decisions
400311214	Contribute to workplace innovation
400311215	Present relevant information
400311216	Practice occupational safety and health policies and procedures
400311217	Exercise efficient and effective sustainable practices in the workplace
400311218	Practice entrepreneurial skills in the workplace

CODE NO.	COMMON COMPETENCIES
AFF321201	Apply safety measures in farm operations
AFF321202	Use farm tools and equipment
AFF321203	Perform estimation and basic calculation

CODE NO.	CORE COMPETENCIES
CS-AFF631301	Select coconut
CS-AFF631302	Establish nursery
CS-AFF631303	Establish farm
CS-AFF631304	Harvest young and mature coconuts
CS-AFF631305	Harvest coco sap
CS-AFF631306	Market coconut farm produce

A person who has achieved this Qualification is competent to be:

- Farm worker
- Harvester
- Farmer Entrepreneur
- Farmer Marketer
- Coconut Farmer
- Tapper (Mananggete)

SECTION 2 COMPETENCY STANDARDS

These guidelines are set to provide the Technical Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for **COCONUT PRODUCTION LEVEL II**.

BASIC COMPETENCIES

UNIT OF COMPETENCY : **PARTICIPATE IN WORKPLACE COMMUNICATION**

UNIT CODE : **400311210**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from appropriate sources . 1.2 Effective questioning, active listening and speaking skills are used to gather and convey information. 1.3 Appropriate medium is used to transfer information and ideas. 1.4 Appropriate non-verbal communication is used. 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed. 1.6 Defined workplace procedures for the location and storage of	1.1 Effective verbal and nonverbal communication 1.2 Different modes of communication 1.3 Medium of communication in the workplace 1.4 Organizational policies 1.5 Communication procedures and systems 1.6 Lines of Communication 1.7 Technology relevant to the enterprise and the individual's work responsibilities 1.8 Workplace etiquette	1.1 Following simple spoken language 1.2 Performing routine workplace duties following simple written notices 1.3 Participating in workplace meetings and discussions 1.4 Preparing work-related documents 1.5 Estimating, calculating and recording routine workplace measures 1.6 Relating/ Interacting with people of various levels in the workplace 1.7 Gathering and providing basic information in response to

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>information are used.</p> <p>1.7 Personal interaction is carried out clearly and concisely.</p>		<p>workplace requirements</p> <p>1.8 Basic business writing skills</p> <p>1.9 Interpersonal skills in the workplace</p> <p>1.10 Active-listening skills</p>
<p>2. Perform duties following workplace instructions</p>	<p>2.1 Written notices and instructions are read and interpreted in accordance with organizational guidelines.</p> <p>2.2 Routine written instruction are followed based on established procedures.</p> <p>2.3 Feedback is given to workplace supervisor based instructions/ information received.</p> <p>2.4 Workplace interactions are conducted in a courteous manner.</p> <p>2.5 Where necessary, clarifications about routine workplace procedures and matters concerning conditions of employment are sought and asked from appropriate sources.</p> <p>2.6 Meetings outcomes are interpreted and implemented.</p>	<p>2.1 Effective verbal and non-verbal communication</p> <p>2.2 Different modes of communication</p> <p>2.3 Medium of communication in the workplace</p> <p>2.4 Organizational/ Workplace policies</p> <p>2.5 Communication procedures and systems</p> <p>2.6 Lines of communication</p> <p>2.7 Technology relevant to the enterprise and the individual's work responsibilities</p> <p>2.8 Effective questioning techniques (clarifying and probing)</p> <p>2.9 Workplace etiquette</p>	<p>2.1 Following simple spoken instructions</p> <p>2.2 Performing routine workplace duties following simple written notices</p> <p>2.3 Participating in workplace meetings and discussions</p> <p>2.4 Completing work- related documents</p> <p>2.5 Estimating, calculating and recording routine workplace measures</p> <p>2.6 Relating/ Responding to people of various levels in the workplace</p> <p>2.7 Gathering and providing information in response to workplace requirements</p> <p>2.8 Basic questioning/ querying</p> <p>2.9 Skills in reading for information</p> <p>2.10 Skills in locating</p>
<p>3. Complete relevant work-related documents</p>	<p>3.1 Range of forms relating to conditions of</p>	<p>3.1 Effective verbal and non-verbal communication</p>	<p>3.1 Completing work-related documents</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>employment are completed accurately and legibly.</p> <p>3.2 Workplace data is recorded on standard workplace forms and documents.</p> <p>3.3 Errors in recording information on forms/ documents are identified and acted upon.</p> <p>3.4 Reporting requirements to supervisor are completed according to organizational guidelines.</p>	<p>3.2 Different modes of communication</p> <p>3.3 Workplace forms and documents</p> <p>3.4 Organizational/ Workplace policies</p> <p>3.5 Communication procedures and systems</p> <p>3.6 Technology relevant to the enterprise and the individual's work responsibilities</p>	<p>3.2 Applying operations of addition, subtraction, division and multiplication</p> <p>3.3 Gathering and providing information in response to workplace requirements</p> <p>3.4 Effective record keeping skills</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Appropriate sources	May include: 1.1 Team members 1.2 Supervisor/Department Head 1.3 Suppliers 1.4 Trade personnel 1.5 Local government 1.6 Industry bodies
2. Medium	May include: 2.1 Memorandum 2.2 Circular 2.3 Notice 2.4 Information dissemination 2.5 Follow-up or verbal instructions 2.6 Face-to-face communication 2.7 Electronic media (disk files, cyberspace)
3. Storage	May include: 3.1 Manual filing system 3.2 Computer-based filing system
4. Workplace interactions	May include: 4.1 Face-to-face 4.2 Telephone 4.3 Electronic and two-way radio 4.4 Written including electronic means, memos, instruction and forms 4.5 Non-verbal including gestures, signals, signs and diagrams
5. Forms	May include: 5.1 HR/Personnel forms, telephone message forms, safety reports

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Prepared written communication following standard format of the organization</p> <p>1.2 Accessed information using workplace communication equipment/systems</p> <p>1.3 Made use of relevant terms as an aid to transfer information effectively</p> <p>1.4 Conveyed information effectively adopting formal or informal communication</p>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <p>2.1 Fax machine</p> <p>2.2 Telephone</p> <p>2.3 Notebook</p> <p>2.4 Writing materials</p> <p>2.5 Computer with Internet connection</p>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <p>3.1 Demonstration with oral questioning</p> <p>3.2 Interview</p> <p>3.3 Written test</p> <p>3.4 Third-party report</p>
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or through an accredited institution</p>

UNIT OF COMPETENCY : WORK IN TEAM ENVIRONMENT

UNIT CODE : 400311211

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes to identify one's roles and responsibilities as a member of a team.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Describe team role and scope	1.1 The <i>role and objective of the team</i> is identified from available <i>sources of information</i> . 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.	1.1 Group structure 1.2 Group development 1.3 Sources of information	1.1 Communicating with others, appropriately consistent with the culture of the workplace 1.2 Developing ways in improving work structure and performing respective roles in the group or organization
2. Identify one's role and responsibility within a team	2.1 Individual roles and responsibilities within the team environment are identified. 2.2 Roles and objectives of the team is identified from available <i>sources of information</i> . 2.3 Team parameters, reporting relationships and responsibilities are identified based on team discussions and appropriate external sources.	2.1 Team roles and objectives 2.2 Team structure and parameters 2.3 Team development 2.4 Sources of information	2.1 Communicating with others, appropriately consistent with the culture of the workplace 2.2 Developing ways in improving work structure and performing respective roles in the group or organization
3. Work as a team member	3.1 Effective and appropriate forms of communications are used and interactions undertaken with team members	3.1 Communication Process 3.2 Workplace communication protocol	3.1 Communicating appropriately, consistent with the culture of the workplace

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>based on company practices.</p> <p>3.2 Effective and appropriate contributions made to complement team activities and objectives, based on workplace context.</p> <p>3.3 Protocols in reporting are observed based on standard company practices.</p> <p>3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives.</p>	<p>3.3 Team planning and decision making</p> <p>3.4 Team thinking</p> <p>3.5 Team roles</p> <p>3.6 Process of team development</p> <p>3.7 Workplace context</p>	<p>3.2 Interacting effectively with others</p> <p>3.3 Deciding as an individual and as a group using group think strategies and techniques</p> <p>3.4 Contributing to Resolution of issues and concerns</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	May include: 1.1 Work activities in a team environment with enterprise or specific sector 1.2 Limited discretion, initiative and judgement maybe demonstrated on the job, either individually or in a team environment
2. Sources of information	May include: 2.1 Standard operating and/or other workplace procedures 2.2 Job procedures 2.3 Machine/equipment manufacturer's specifications and instructions 2.4 Organizational or external personnel 2.5 Client/supplier instructions 2.6 Quality standards 2.7 OHS and environmental standards
3. Workplace context	May include: 3.1 Work procedures and practices 3.2 Conditions of work environments 3.3 Legislation and industrial agreements 3.4 Standard work practice including the storage, safe handling and disposal of chemicals 3.5 Safety, environmental, housekeeping and quality guidelines

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Worked in a team to complete workplace activity 1.2 Worked effectively with others 1.3 Conveyed information in written or oral form 1.4 Selected and used appropriate workplace language 1.5 Followed designated work plan for the job
2. Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 2.2 Materials relevant to the proposed activity or tasks
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Role play involving the participation of individual member to the attainment of organizational goal 3.2 Case studies and scenarios as a basis for discussion of issues and strategies in teamwork 3.3 Socio-drama and socio-metric methods 3.4 Sensitivity techniques 3.5 Written Test
4. Context for Assessment	<ul style="list-style-type: none"> 4.1 Competency may be assessed in workplace or in a simulated workplace setting 4.2 Assessment shall be observed while task are being undertaken whether individually or in group

UNIT OF COMPETENCY : SOLVE/ADDRESS GENERAL WORKPLACE PROBLEMS

UNIT CODE : 400311212

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to apply problem-solving techniques to determine the origin of problems and plan for their resolution. It also includes addressing procedural problems through documentation, and referral.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify routine problems	1.1 Routine problems or procedural problem areas are identified. 1.2 Problems to be investigated are defined and determined. 1.3 Current conditions of the problem are identified and documented.	1.1 Current industry hardware and software products and services 1.2 Industry maintenance, service and helpdesk practices, processes and procedures 1.3 Industry standard diagnostic tools 1.4 Malfunctions and resolutions	1.1 Identifying current industry hardware and software products and services 1.2 Identifying current industry maintenance, services and helpdesk practices, processes and procedures. 1.3 Identifying current industry standard diagnostic tools 1.4 Describing common malfunctions and resolutions. 1.5 Determining the root cause of a routine malfunction
2. Look for solutions to routine problems	2.1 Potential solutions to problem are identified. 2.2 Recommendations about possible solutions are developed, documented , ranked and presented to appropriate	2.1 Current industry hardware and software products and services 2.2 Industry service and helpdesk practices, processes and procedures 2.3 Operating systems	2.1 Identifying current industry hardware and software products and services 2.2 Identifying services and helpdesk practices,

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<i>person</i> for decision.	2.4 Industry standard diagnostic tools 2.5 Malfunctions and resolutions. 2.6 Root cause analysis	processes and procedures. 2.3 Identifying operating system 2.4 Identifying current industry standard diagnostic tools 2.5 Describing common malfunctions and resolutions. 2.6 Determining the root cause of a routine malfunction
3. Recommend solutions to problems	3.1 Implementation of solutions are planned . 3.2 Evaluation of implemented solutions are planned. 3.3 Recommended solutions are documented and submit to appropriate person for confirmation.	3.1 Standard procedures 3.2 Documentation produce	3.1 Producing documentation that recommends solutions to problems 3.2 Following established procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Problems/Procedural Problem	May include: 1.1 Routine/non – routine processes and quality problems 1.2 Equipment selection, availability and failure 1.3 Teamwork and work allocation problem 1.4 Safety and emergency situations and incidents 1.5 Work-related problems outside of own work area
2. Appropriate person	May include: 2.1 Supervisor or manager 2.2 Peers/work colleagues 2.3 Other members of the organization
3. Document	May include: 3.1 Electronic mail 3.2 Briefing notes 3.3 Written report 3.4 Evaluation report
4. Plan	May include: 4.1 Priority requirements 4.2 Co-ordination and feedback requirements 4.3 Safety requirements 4.4 Risk assessment 4.5 Environmental requirements

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Determined the root cause of a routine problem 1.2 Identified solutions to procedural problems. 1.3 Produced documentation that recommends solutions to problems. 1.4 Followed established procedures. 1.5 Referred unresolved problems to support persons.
2. Resource Implications	2.1 Assessment will require access to a workplace over an extended period, or a suitable method of gathering evidence of operating ability over a range of situations.
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Case Formulation 3.2 Life Narrative Inquiry 3.3 Standardized test <p>The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.</p>
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.

UNIT OF COMPETENCY : DEVELOP CAREER AND LIFE DECISIONS

UNIT CODE : 400311213

UNIT DESCRIPTOR : This unit covers the knowledge, skills, and attitudes in managing one’s emotions, developing reflective practice, and boosting self-confidence and developing self-regulation.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Manage one’s emotion	1.1 Self-management strategies are identified. 1.2 Skills to work independently and to show initiative, to be conscientious, and persevering in the face of setbacks and frustrations are developed. 1.3 Techniques for effectively handling negative emotions and unpleasant situation in the workplace are examined.	1.1 Self-management strategies that assist in regulating behavior and achieving personal and learning goals (e.g. Nine self-management strategies according to Robert Kelley) 1.2 Enablers and barriers in achieving personal and career goals 1.3 Techniques in handling negative emotions and unpleasant situation in the workplace such as frustration, anger, worry, anxiety, etc.	1.1 Managing properly one’s emotions and recognizing situations that cannot be changed and accept them and remain professional 1.2 Developing self-discipline, working independently and showing initiative to achieve personal and career goals 1.3 Showing confidence, and resilience in the face of setbacks and frustrations and other negative emotions and unpleasant situations in the workplace
2. Develop reflective practice	2.1 Personal strengths and achievements, based on self-assessment strategies and teacher feedback are contemplated. 2.2 Progress when seeking and responding to	2.1 Basic SWOT analysis 2.2 Strategies to improve one’s attitude in the workplace 2.3 Gibbs’ Reflective Cycle/Model (Description, Feelings,	2.1 Using the basic SWOT analysis as self-assessment strategy 2.2 Developing reflective practice through realization of limitations, likes/

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>feedback from teachers to assist them in consolidating strengths, addressing weaknesses and fulfilling their potential are monitored.</p> <p>2.3 Outcomes of personal and academic challenges by reflecting on previous problem solving and decision making strategies and feedback from peers and teachers are predicted.</p>	<p>Evaluation, Analysis, Conclusion, and Action plan)</p>	<p>dislikes; through showing of self-confidence</p> <p>2.3 Demonstrating self-acceptance and being able to accept challenges</p>
<p>3. Boost self-confidence and develop self-regulation</p>	<p>3.1 Efforts for continuous self-improvement are demonstrated.</p> <p>3.2 Counter-productive tendencies at work are eliminated.</p> <p>3.3 Positive outlook in life are maintained.</p>	<p>3.1 Four components of self-regulation based on Self-Regulation Theory (SRT)</p> <p>3.2 Personality development concepts</p> <p>3.3 Self-help concepts (e. g., 7 Habits by Stephen Covey, transactional analysis, psycho-spiritual concepts)</p>	<p>3.1 Performing effective communication skills – reading, writing, conversing skills</p> <p>3.2 Showing affective skills – flexibility, adaptability, etc.</p> <p>3.3 Self-assessment for determining one’s strengths and weaknesses</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Self-management strategies	May include: 1.1 Seeking assistance in the form of job coaching or mentoring 1.2 Continuing dialogue to tackle workplace grievances 1.3 Collective negotiation/bargaining for better working conditions 1.4 Share your goals to improve with a trusted co-worker or supervisor 1.5 Make a negativity log of every instance when you catch yourself complaining to others 1.6 Make lists and schedules for necessary activities
2. Unpleasant situation	May include: 2.1 Job burn-out 2.2 Drug dependence 2.3 Sulking

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Express emotions appropriately 1.2 Work independently and show initiative 1.3 Consistently demonstrate self-confidence and self-discipline
2. Resource Implications	The following resources should be provided: 2.1 Access to workplace and resources 2.2 Case studies
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Demonstration or simulation with oral questioning 3.2 Case problems involving work improvement and sustainability issues 3.3 Third-party report
4. Context for Assessment	4.1 Competency assessment may occur in workplace or any appropriately simulated environment

UNIT OF COMPETENCY : CONTRIBUTE TO WORKPLACE INNOVATION

UNIT CODE : 400311214

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to make a pro-active and positive contribution to workplace innovation.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify opportunities to do things better	1.1 Opportunities for improvement are identified proactively in own area of work. 1.2 Information are gathered and reviewed which may be relevant to ideas and which might assist in gaining support for idea.	1.1 Roles of individuals in suggesting and making improvements. 1.2 Positive impacts and challenges in innovation. 1.3 Types of changes and responsibility. 1.4 Seven habits of highly effective people.	1.1 Identifying opportunities to improve and to do things better. Involvement 1.2 Identifying the positive impacts and the challenges of change and innovation 1.3 Identifying examples of the types of changes that are within and outside own scope of responsibility
2. Discuss and develop ideas with others	2.1 People who could provide input to ideas for improvements are identified. 2.2 Ways of approaching people to begin sharing ideas are selected. 2.3 Meeting is set with relevant people. 2.4 Ideas for follow up are review and selected based on feedback. 2.5 Critical inquiry method is used to discuss and develop ideas with others.	2.1 Roles of individuals in suggesting and making improvements 2.2 Positive impacts and challenges in innovation 2.3 Types of changes and responsibility. 2.4 Seven habits of highly effective people	2.1 Identifying opportunities to improve and to do things better. Involvement 2.2 Identifying the positive impacts and the challenges of change and innovation 2.3 Providing examples of the types of changes that are within and outside own scope of responsibility 2.4 Communicating ideas for change through small group

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
			discussions and meetings
3. Integrate ideas for change in the workplace	<p>3.1 Critical inquiry method is used to integrate different ideas for change of key people.</p> <p>3.2 Summarizing, analyzing and generalizing skills are used to extract salient points in the pool of ideas.</p> <p>3.3 Reporting skills are likewise used to communicate results.</p> <p>3.4 Current Issues and concerns on the systems, processes and procedures, as well as the need for simple innovative practices are identified.</p>	<p>3.1 Roles of individuals in suggesting and making improvements</p> <p>3.2 Positive impacts and challenges in innovation</p> <p>3.3 Types of changes and responsibility</p> <p>3.4 Seven habits of highly effective people</p> <p>3.5 Basic research skills</p>	<p>3.1 Identifying opportunities to improve and to do things better. Involvement</p> <p>3.2 Identifying the positive impacts and the challenges of change and innovation</p> <p>3.3 Providing examples of the types of changes that are within and outside own scope of responsibility</p> <p>3.4 Communicating ideas for change through small group discussions and meetings</p> <p>3.5 Demonstrating skills in analysis and interpretation of data</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Opportunities for improvement	May include: 1.1 Systems 1.2 Processes 1.3 Procedures 1.4 Protocols 1.5 Codes 1.6 Practices
2. Information	May include: 2.1 Workplace communication problems 2.2 Performance evaluation results 2.3 Team dynamics issues and concerns 2.4 Challenges on return of investment 2.5 New tools, processes and procedures 2.6 New people in the organization
3. People who could provide input	May include: 3.1 Leaders 3.2 Managers 3.3 Specialists 3.4 Associates 3.5 Researchers 3.6 Supervisors 3.7 Staff 3.8 Consultants (external) 3.9 People outside the organization in the same field or similar expertise/industry 3.10 Clients
4. Critical inquiry method	May include: 4.1 Preparation 4.2 Discussion 4.3 Clarification of goals 4.4 Negotiate towards a Win-Win outcome 4.5 Agreement 4.6 Implementation of a course of action 4.7 Effective verbal communication. See our pages: Verbal Communication and Effective Speaking 4.8 Listening 4.9 Reducing misunderstandings is a key part of effective negotiation 4.10 Rapport Building 4.11 Problem Solving 4.12 Decision Making 4.13 Assertiveness 4.14 Dealing with Difficult Situations
5. Reporting skills	May include: 5.1 Data management 5.2 Coding 5.3 Data analysis and interpretation

VARIABLE	RANGE
	5.4 Coherent writing 5.5 Speaking

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified opportunities to do things better. 1.2 Discussed and developed ideas with others on how to contribute to workplace innovation. 1.3 Integrated ideas for change in the workplace. 1.4 Analyzed and reported rooms for innovation and learning in the workplace.
2. Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Pens, papers and writing implements 2.2 Cartolina 2.3 Manila papers
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Psychological and behavioral Interviews 3.2 Performance Evaluation 3.3 Life Narrative Inquiry 3.4 Review of portfolios of evidence and third-party workplace reports of on-the-job performance 3.5 Sensitivity analysis 3.6 Organizational analysis 3.7 Standardized assessment of character strengths and virtues applied
4. Context for Assessment	<ul style="list-style-type: none"> 4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.

UNIT OF COMPETENCY : PRESENT RELEVANT INFORMATION

UNIT CODE : 400311215

UNIT DESCRIPTOR : This unit of covers the knowledge, skills and attitudes required to present data/information appropriately.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Gather data/ information	1.1 Evidence, facts and information are collected. 1.2 Evaluation, terms of reference and conditions are reviewed to determine whether data/information falls within project scope.	1.1 Organisational protocols 1.2 Confidentiality 1.3 Accuracy 1.4 Business mathematics and statistics 1.5 Data analysis techniques/procedures 1.6 Reporting requirements to a range of audiences 1.7 Legislation, policy and procedures relating to the conduct of evaluations 1.8 Organisational values, ethics and codes of conduct	1.1 Describing organisational protocols relating to client liaison 1.2 Protecting confidentiality 1.3 Describing accuracy 1.4 Computing business mathematics and statistics 1.5 Describing data analysis techniques/procedures 1.6 Reporting requirements to a range of audiences 1.7 Stating legislation, policy and procedures relating to the conduct of evaluations 1.8 Stating organisational values, ethics and codes of conduct
2. Assess gathered data/ information	2.1 Validity of data/ information is assessed. 2.2 Analysis techniques are applied to assess data/ information.	2.1 Business mathematics and statistics 2.2 Data analysis techniques/procedures 2.3 Reporting requirements to a	2.1 Computing business mathematics and statistics 2.2 Describing data analysis techniques/procedures

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	2.3 Trends and anomalies are identified. 2.4 Data analysis techniques and procedures are documented. 2.5 Recommendations are made on areas of possible improvement.	range of audiences 2.4 Legislation, policy and procedures relating to the conduct of evaluations 2.5 Organisational values, ethics and codes of conduct	2.3 Reporting requirements to a range of audiences 2.4 Stating legislation, policy and procedures relating to the conduct of evaluations 2.5 Stating organisational values, ethics and codes of conduct
3. Record and present information	3.1 Studied data/information are recorded. 3.2 Recommendations are analysed for action to ensure they are compatible with the project's scope and terms of reference. 3.3 Interim and final reports are analysed and outcomes are compared to the criteria established at the outset. 3.4 Findings are presented to stakeholders.	3.1 Data analysis techniques/procedures 3.2 Reporting requirements to a range of audiences 3.3 Legislation, policy and procedures relating to the conduct of evaluations 3.4 Organisational values, ethics and codes of conduct	3.1 Describing data analysis techniques/procedures 3.2 Reporting requirements to a range of audiences 3.3 Stating legislation, policy and procedures relating to the conduct of evaluations 3.4 Stating organisational values, ethics and codes of conduct practices

RANGE OF VARIABLES

VARIABLE	RANGE
1. Data analysis techniques	May include: 1.1 Domain analysis 1.2 Content analysis 1.3 Comparison technique

EVIDENCE GUIDE

1. Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Determine data / information 1.2 Studied and applied gathered data/information 1.3 Recorded and studied data/information</p> <p>These aspects may be best assessed using a range of scenarios what ifs as a stimulus with a walk through forming part of the response. These assessment activities should include a range of problems, including new, unusual and improbable situations that may have happened.</p>
2. Resource Implications	<p>Specific resources for assessment</p> <p>2.1 Evidence of competent performance should be obtained by observing an individual in an information management role within the workplace or operational or simulated environment.</p>
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <p>3.1 Written Test 3.2 Interview 3.3 Portfolio</p> <p>The unit will be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual workplace and will include walk through of the relevant competency components.</p>
4. Context for Assessment	<p>4.1 In all workplace, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.</p>

UNIT OF COMPETENCY : PRACTICE OCCUPATIONAL SAFETY AND HEALTH POLICIES AND PROCEDURES

UNIT CODE : 400311216

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to identify OSH compliance requirements, prepare OSH requirements for compliance, perform tasks in accordance with relevant OSH policies and procedures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify OSH compliance requirements	1.1 Relevant OSH requirements, regulations, policies and procedures are identified in accordance with workplace policies and procedures. 1.2 OSH activity non-conformities are conveyed to appropriate personnel . 1.3 OSH preventive and control requirements are identified in accordance with OSH work policies and procedures.	1.1 OSH preventive and control requirements 1.2 Hierarchy of Controls 1.3 Hazard Prevention and Control 1.4 General OSH principles 1.5 Work standards and procedures 1.6 Safe handling procedures of tools, equipment and materials 1.7 Standard emergency plan and procedures in the workplace	1.1 Communication skills 1.2 Interpersonal skills 1.3 Critical thinking skills 1.4 Observation skills
2. Prepare OSH requirements for compliance	2.1 OSH work activity material, tools and equipment requirements are identified in accordance with workplace policies and procedures. 2.2 Required OSH materials, tools and equipment are acquired in accordance with workplace policies and procedures.	2.1 Resources necessary to execute hierarchy of controls 2.2 General OSH principles 2.3 Work standards and procedures 2.4 Safe handling procedures of tools, equipment and materials 2.5 Different OSH control measures	2.1 Communication skills 2.2 Estimation skills 2.3 Interpersonal skills 2.4 Critical thinking skills 2.5 Observation skills 2.6 Material, tool and equipment identification skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	2.3 Required OSH materials, tools and equipment are arranged/ placed in accordance with OSH work standards.		
3. Perform tasks in accordance with relevant OSH policies and procedures	3.1 Relevant OSH work procedures are identified in accordance with workplace policies and procedures. 3.2 Work Activities are executed in accordance with OSH work standards. 3.3 Non-compliance work activities are reported to <i>appropriate personnel</i> .	3.1 OSH work standards 3.2 Industry related work activities 3.3 General OSH principles 3.4 OSH Violations Non-compliance work activities	3.1 Communication skills 3.2 Interpersonal skills 3.3 Troubleshooting skills 3.4 Critical thinking skills 3.5 Observation skills

RANGE OF VARIABLES

VARIABLE	RANGE
1. OSH Requirements, Regulations, Policies and Procedures	May include: 1.1 Clean Air Act 1.2 Building code 1.3 National Electrical and Fire Safety Codes 1.4 Waste management statutes and rules 1.5 Permit to Operate 1.6 Philippine Occupational Safety and Health Standards 1.7 Department Order No. 13 (Construction Safety and Health) 1.8 ECC regulations
2. Appropriate Personnel	May include: 2.1 Manager 2.2 Safety Officer 2.3 EHS Offices 2.4 Supervisors 2.5 Team Leaders 2.6 Administrators 2.7 Stakeholders 2.8 Government Official 2.9 Key Personnel 2.10 Specialists 2.11 Himself
3. OSH Preventive and Control Requirements	May include: 3.1 Resources needed for removing hazard effectively 3.2 Resources needed for substitution or replacement 3.3 Resources needed to establishing engineering controls 3.4 Resources needed for enforcing administrative controls 3.5 Personal Protective equipment
4. Non OSH-Compliance Work Activities	May include non-compliance or observance of the following safety measures: 4.1 Violations that may lead to serious physical harm or death 4.2 Fall Protection 4.3 Hazard Communication 4.4 Respiratory Protection 4.5 Power Industrial Trucks 4.6 Lockout/Tag-out 4.7 Working at heights (use of ladder, scaffolding) 4.8 Electrical Wiring Methods 4.9 Machine Guarding 4.10 Electrical General Requirements 4.11 Asbestos work requirements 4.12 Excavations work requirements

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Convey OSH work non-conformities to appropriate personnel</p> <p>1.2 Identify OSH preventive and control requirements in accordance with OSH work policies and procedures</p> <p>1.3 Identify OSH work activity material, tools and equipment requirements in accordance with workplace policies and procedures</p> <p>1.4 Arrange/Place required OSH materials, tools and equipment in accordance with OSH work standards</p> <p>1.5 Execute work activities in accordance with OSH work standards</p> <p>1.6 Report OSH activity non-compliance work activities to appropriate personnel</p>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <p>2.1 Facilities, materials tools and equipment necessary for the activity</p>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <p>3.1 Observation/Demonstration with oral questioning</p> <p>3.2 Third party report</p>
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed in the work place or in a simulated work place setting</p>

UNIT OF COMPETENCY : EXERCISE EFFICIENT AND EFFECTIVE SUSTAINABLE PRACTICES IN THE WORKPLACE

UNIT CODE : 400311217

UNIT DESCRIPTOR : This unit covers knowledge, skills and attitude to identify the efficiency and effectiveness of resource utilization, determine causes of inefficiency and/or ineffectiveness of resource utilization and Convey inefficient and ineffective environmental practices.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify the efficiency and effectiveness of resource utilization	1.1 Required resource utilization in the workplace is measured using appropriate techniques. 1.2 Data are recorded in accordance with workplace protocol. 1.3 Recorded data are compared to determine the efficiency and effectiveness of resource utilization according to established environmental work procedures.	1.1 Importance of Environmental Literacy 1.2 Environmental Work Procedures 1.3 Waste Minimization 1.4 Efficient Energy Consumptions	1.1 Recording Skills 1.2 Writing Skills 1.3 Innovation Skills
2. Determine causes of inefficiency and/or ineffectiveness of resource utilization	2.1 Potential causes of inefficiency and/or ineffectiveness are listed. 2.2 Causes of inefficiency and/or ineffectiveness are identified through deductive reasoning. 2.3 Identified causes of inefficiency and/or ineffectiveness are validated thru established environmental procedures.	2.1 Causes of environmental inefficiencies and ineffective-ness	2.1 Deductive Reasoning Skills 2.2 Critical thinking 2.3 Problem Solving 2.4 Observation Skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
3. Convey inefficient and ineffective environmental practices	3.1 Efficiency and effectiveness of resource utilization are reported to <i>appropriate personnel</i> . 3.2 Concerns related resource utilization are discussed with appropriate personnel. 3.3 Feedback on information/ concerns raised are clarified with appropriate personnel.	3.1 Appropriate Personnel to address the environmental hazards 3.2 Environmental corrective actions	3.1 Written and Oral Communication Skills 3.2 Critical thinking 3.3 Problem Solving 3.4 Observation Skills 3.5 Practice Environmental Awareness

RANGE OF VARIABLES

VARIABLE	RANGE
1. Environmental Work Procedures	May include: 1.1 Utilization of Energy, Water, Fuel Procedures 1.2 Waster Segregation Procedures 1.3 Waste Disposal and Reuse Procedures 1.4 Waste Collection Procedures 1.5 Usage of Hazardous Materials Procedures 1.6 Chemical Application Procedures 1.7 Labeling Procedures
2. Appropriate Personnel	May include: 2.1 Manager 2.2 Safety Officer 2.3 EHS Offices 2.4 Supervisors 2.5 Team Leaders 2.6 Administrators 2.7 Stakeholders 2.8 Government Official 2.9 Key Personnel 2.10 Specialists 2.11 Himself

EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Measured required resource utilization in the workplace using appropriate techniques 1.2 Recorded data in accordance with workplace protocol 1.3 Identified causes of inefficiency and/or ineffectiveness through deductive reasoning 1.4 Validate the identified causes of inefficiency and/or ineffectiveness thru established environmental procedures 1.5 Report efficiency and effectiveness of resource utilization to appropriate personnel 1.6 Clarify feedback on information/concerns raised with appropriate personnel
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Workplace 2.2 Tools, materials and equipment relevant to the tasks 2.3 PPE 2.4 Manuals and references
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Demonstration 3.2 Oral questioning 3.3 Written examination
<p>4. Context for Assessment</p>	<ul style="list-style-type: none"> 4.1 Competency assessment may occur in workplace or any appropriately simulated environment 4.2 Assessment shall be observed while task are being undertaken whether individually or in-group

UNIT OF COMPETENCY : **PRACTICE ENTREPRENEURIAL SKILLS IN THE WORKPLACE**

UNIT CODE : **400311218**

UNIT DESCRIPTOR : This unit covers the outcomes required to apply entrepreneurial workplace best practices and implement cost-effective operations.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Apply entrepreneurial workplace best practices	<p>1.1 Good practices relating to workplace operations are observed and selected following workplace policy.</p> <p>1.2 Quality procedures and practices are complied with according to workplace requirements.</p> <p>1.3 Cost-conscious habits in resource utilization are applied based on industry standards.</p>	<p>1.1 Workplace best practices, policies and criteria</p> <p>1.2 Resource utilization</p> <p>1.3 Ways in fostering entrepreneurial attitudes: <ul style="list-style-type: none"> • Patience • Honesty • Quality-consciousness • Safety-consciousness • Resourcefulness </p>	<p>1.1 Communication skills</p> <p>1.2 Complying with quality procedures</p>
2. Communicate entrepreneurial workplace best practices	<p>2.1 Observed good practices relating to workplace operations are communicated to appropriate person.</p> <p>2.2 Observed quality procedures and practices are communicated to appropriate person.</p> <p>2.3 Cost-conscious habits in resource utilization are communicated based on industry standards.</p>	<p>2.1 Workplace best practices, policies and criteria</p> <p>2.2 Resource utilization</p> <p>2.3 Ways in fostering entrepreneurial attitudes: <ul style="list-style-type: none"> • Patience • Honesty • Quality-consciousness • Safety-consciousness • Resourcefulness </p>	<p>2.1 Communication skills</p> <p>2.2 Complying with quality procedures</p> <p>2.3 Following workplace communication protocol</p>
3. Implement cost-effective operations	<p>3.1 Preservation and optimization of workplace</p>	<p>3.1 Optimization of workplace resources</p>	<p>3.1 Implementing preservation and optimizing</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>resources is implemented in accordance with enterprise policy.</p> <p>3.2 Judicious use of workplace tools, equipment and materials are observed according to manual and work requirements.</p> <p>3.3 Constructive contributions to office operations are made according to enterprise requirements.</p> <p>3.4 Ability to work within one's allotted time and finances is sustained.</p>	<p>3.2 5S procedures and concepts</p> <p>3.3 Criteria for cost-effectiveness</p> <p>3.4 Workplace productivity</p> <p>3.5 Impact of entrepreneurial mindset to workplace productivity</p> <p>3.6 Ways in fostering entrepreneurial attitudes:</p> <ul style="list-style-type: none"> • Quality-consciousness • Safety-consciousness 	<p>workplace resources</p> <p>3.2 Observing judicious use of workplace tools, equipment and materials</p> <p>3.3 Making constructive contributions to office operations</p> <p>3.4 Sustaining ability to work within allotted time and finances</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Good practices	May include: 1.1 Economy in use of resources 1.2 Documentation of quality practices
2. Resources utilization	May include: 2.1 Consumption/ use of consumables 2.2 Use/Maintenance of assigned equipment and furniture 2.3 Optimum use of allotted /available time

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Demonstrated ability to identify and sustain cost-effective activities in the workplace 1.2 Demonstrated ability to practice entrepreneurial knowledge, skills and attitudes in the workplace.
2. Resource Implications	The following resources should be provided: 2.1 Simulated or actual workplace 2.2 Tools, materials and supplies needed to demonstrate the required tasks 2.3 References and manuals 2.3.1 Enterprise procedures manuals 2.3.2 Company quality policy
3. Methods of Assessment	Competency in this unit should be assessed through: 3.1 Interview 3.2 Third-party report
4. Context for Assessment	4.1 Competency may be assessed in workplace or in a simulated workplace setting 4.2 Assessment shall be observed while tasks are being undertaken whether individually or in-group

COMMON COMPETENCIES

UNIT OF COMPETENCY : **APPLY SAFETY MEASURES IN FARM OPERATIONS**

UNIT CODE : **AFF321201**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to perform safety measures effectively and efficiently. It includes identifying areas, tools, materials, time and place in performing safety measures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Determine areas of concern for safety measures	<p>1.1 Work tasks are identified in line with farm operations.</p> <p>1.2 Place for safety measures are determined in line with farm operations.</p> <p>1.3 Time for safety measures are determined in line with farm operations.</p> <p>1.4 Appropriate tools, materials and outfits are prepared in line with job requirements.</p>	<p>1.1 Different work tasks in farm operations</p> <p>1.2 Place and time for implementation of safety measures</p> <p>1.3 Different hazards in the workplace</p> <p>1.4 Types of tools, materials and outfits</p> <p>1.5 Preparation of tools, materials and outfits</p>	<p>1.1 Identifying work tasks in farm operations</p> <p>1.2 Determining place and time for implementation of safety measures</p> <p>1.3 Reading labels, manuals and other basic safety information</p> <p>1.4 Identifying effective/functional tools, materials and outfit</p> <p>1.5 Preparing tools, materials and outfits</p> <p>1.6 Discarding defective tools, and materials</p>
2. Apply appropriate safety measures	<p>2.1 Tools and materials are used according to specifications and procedures.</p> <p>2.2 Outfits are worn according to farm requirements.</p> <p>2.3 Effectivity/shelf life/expiration of</p>	<p>2.1 Uses and functions of tools</p> <p>2.2 Outfits and how to wear it</p> <p>2.3 Expiration/shelf life of materials</p> <p>2.4 Proper disposal of expired materials</p>	<p>2.1 Using tools and materials in the workplace</p> <p>2.2 Wearing of outfits</p> <p>2.3 Observing expiration/shelf life of materials</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>materials are strictly observed.</p> <p>2.4 Emergency procedures are known and followed to ensure a safework requirement.</p> <p>2.5 Hazards in the workplace are identified and reported in line with farm guidelines.</p>	<p>2.5 Environmental rules and regulations</p> <p>2.6 Emergency procedures</p> <p>2.7 Hazards identification and reporting</p> <p>2.8 Communication skills</p> <p>2.9 OSHS</p>	<p>2.4 Disposing of expired materials</p> <p>2.5 Following emergency procedures</p> <p>2.6 Identifying and reporting of hazards in workplace area</p>
3. Safekeep /dispose tools, materials and outfit	<p>3.1 Used tools and outfit are cleaned after use and stored in designated areas.</p> <p>3.2 Unused materials are properly labeled and stored according to manufacturer's recommendation and farm requirements.</p> <p>3.3 Waste materials are disposed according to manufacturers, government and farm requirements.</p>	<p>3.1 Procedures of cleaning used tools and outfits</p> <p>3.2 Label and storage unused materials</p> <p>3.3 Disposal of wastes materials</p> <p>3.4 Manufacturers' recommendation on keeping materials</p> <p>3.5 Environmental rules and regulations</p>	<p>3.1 Cleaning used tools and outfit</p> <p>3.2 Labeling and storing unused materials</p> <p>3.3 Disposing waste materials</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Work tasks	Work task may be selected from any of the subsectors: 1.1 Crop Production 1.2 Post-harvest 1.3 Agri-marketing 1.4 Farm Equipment
2. Place	2.1 Stock room/storage areas/warehouse 2.2 Field/farm/orchard
3. Time	3.1 Fertilizer and pesticides application 3.2 Feed mixing and feeding 3.3 Harvesting and hauling
4. Tools, materials and outfits	4.1 Tools 4.1.1 Wrenches 4.1.2 Screw driver 4.1.3 Pliers 4.2 Outfit 4.2.1 Masks 4.2.2 Gloves 4.2.3 Boots 4.2.4 Overall coats 4.2.5 Hat 4.2.6 Eye goggles
5. Emergency procedures	5.1 Location of first aid kit 5.2 Evacuation 5.3 Agencies contract 5.4 Farm emergency procedures
6. Hazards	6.1 Chemical 6.2 Electrical 6.3 Falls

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Determined areas of concern for safety measures 1.2 Applied appropriate safety measures according to industry requirements 1.3 Prepared tools, materials and outfit needed 1.4 Performed proper disposal of used materials 1.5 Cleaned and stored tools, materials and outfit in designated facilities
2. Resource Implications	The following resources should be provided: 2.1 Farm location 2.2 Tools, equipment and outfits appropriate in applying safety measures
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Practical demonstration 3.2 Third Party Report
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.

UNIT OF COMPETENCY : USE FARM TOOLS AND EQUIPMENT

UNIT CODE : AFF321202

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to use farm tools and equipment. It includes selection, operation and preventive maintenance of farm tools and equipment.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Select and use farm tools	1.1 Appropriate farm tools are identified according to requirement/use. 1.2 Farm tools are checked for faults and defective tools reported in accordance with farm procedures. 1.3 Appropriate tools are safely used according to job requirements and manufacturers conditions.	1.1 Types and uses of farm tools 1.2 Characteristics of functional tools 1.3 Checking tools for defects/faults 1.4 Segregation and reporting defective tools 1.5 Uses of tools	1.1 Identifying farm tools for the work 1.2 Checking the conditions of tools 1.3 Reporting defective tools 1.4 Using tools
2. Select and operate farm equipment	2.1 Identify appropriate <i>farm equipment</i> . 2.2 Instructional manual of the farm tools and equipment are carefully read prior to operation. 2.3 Pre-operation check-up is conducted in line with manufacturers manual. 2.4 Faults in farm equipment are identified and reported in line with farm procedures. 2.5 Farm equipment is used according to its function. 2.6 Safety procedures are followed.	2.1 Types and operations of farm equipment 2.2 Standards operating procedures of farm equipment 2.3 Instructional manual of equipment 2.4 Pre-operation check-up 2.5 Equipment Specification 2.6 Procedures in calibrating and use of equipment 2.7 Equipment faults identification and reporting 2.8 Operation of equipment	2.1 Identifying appropriate farm equipment for the work 2.2 Reading instructional manual 2.3 Conducting pre-operation check-up 2.4 Identifying faults/defects of farm equipment 2.5 Reporting on defective farm equipment 2.6 Operating farm equipment 2.7 Following safety procedures

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		2.9 Codes and Regulations on environmental protection 2.10 Safety and keeping of equipment every after use 2.11 Safety measures	
3. Perform preventive maintenance	3.1 Tools and equipment are cleaned immediately after use in line with farm procedures. 3.2 Routine check-up and maintenance are performed. 3.3 Tools and equipment are stored in designated areas in line with farm procedures.	3.1 Cleaning procedures of tools and equipment 3.2 Maintenance procedures of farm equipment 3.3 Storage of tools and equipment 3.4 Designated storage areas	3.1 Cleaning tools and equipment 3.2 Performing routinely check-up of tools and equipment 3.3 Maintaining farm equipment 3.4 Storing tools and equipment

RANGE OF VARIABLES

VARIABLE	RANGE
1. Farm equipment	May include: 1.1 Engine 1.2 Pumps 1.3 Generators 1.4 Sprayers
2. Farm tools	May include: 2.1 Sickle 2.2 Cutters 2.3 Weighing scales 2.4 Hand tools 2.5 Measuring tools 2.6 Garden tools
3. Pre-operation check-up	May include: 3.1 Tires 3.2 Brake fluid 3.3 Fuel 3.4 Water 3.5 Oil 3.6 Lubricants 3.7 Battery

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Correctly identified appropriate farm tools and equipment 1.2 Operated farm equipment according to manual specification 1.3 Performed preventive maintenance
2. Resource Implications	The following resources should be provided: 2.1 Service/operational manual of farm tools and equipment 2.2 Tools and equipment 2.3 Farm implements
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Direct observation 3.2 Practical demonstration 3.3 Third Party Report
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.

UNIT OF COMPETENCY : PERFORM ESTIMATION AND BASIC CALCULATION

UNIT CODE : AFF321203

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to perform basic workplace calculations.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Perform estimation	1.1 Job requirements are identified from written or oral communications. 1.2 Quantities of materials and resources required to complete a work task are estimated. 1.3 The time needed to complete a work activity is estimated. 1.4 Accurate estimate for work completion are made. 1.5 Estimate of materials and resources are reported to appropriate person.	1.1 Job requirements/ labor needs 1.2 Calculation of quantities of materials and resources required 1.3 Calculation of time for job completion 1.4 Preparation of estimate report 1.5 Basic mathematical operations 1.6 Percentage and ratios 1.7 Unit Conversion	1.1 Identifying job requirements/ labor 1.2 Estimating quantities of materials and resources required 1.3 Estimating time for job completion 1.4 Performing basic calculation 1.5 Compute percentage 1.6 Convert English to metric systems of measurement 1.7 Preparing estimate report
2. Perform basic workplace calculation	1.1 System and units of measurement to be followed are ascertained. 1.2 Calculation needed to complete work tasks are performed using the four basic mathematical operation . 1.3 Calculate whole fraction, percentage and mixed when are used to complete the instructions.	2.1 Four basic mathematical operation 2.2 System and units of measurement 2.3 Fraction, percentage and ratio 2.4 Material take-off 2.5 Materials costing	2.1 Compute bill of materials 2.2 Compute project cost

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	1.4 Number computed is checked following work requirements		

RANGE OF VARIABLES

VARIABLE	RANGE
1. Four basic mathematical operation	Includes: 1.1 Addition 1.2 Subtraction 1.3 Multiplication 1.4 Division
2. System of measurement	Includes: 2.1 English 2.2 Metric
3. Units of measurement	Includes: 3.1 Area 3.2 Volume 3.3 Weight 3.4 Length

EVIDENCE GUIDE

1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1 Performed estimation 1.2 Performed basic workplace calculation 1.3 Applied corrective measures as maybe necessary
2. Resource Implications	The following resources should be provided: 2.1 Relevant tools and equipment for basic calculation 2.2 Recommended data
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Practical demonstration 3.2 Written examination
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions.

CORE COMPETENCIES

UNIT OF COMPETENCY : **SELECT COCONUT**

UNIT CODE : **CS-AFF631301**

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to select plantation block, identify coconut varieties and select coconut seednuts.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Select plantation block	1.1 Plantation is inspected based on <i>Good Agricultural Practices (GAP)</i> . 1.2 Yield estimate protocol is performed following Good Agricultural Practices (GAP). 1.3 Area is divided into blocks following Good Agricultural Practices (GAP). 1.4 Mother palm is selected following Good Agricultural Practices (GAP). 1.5 Safety practices following OSHS 1.6 <i>PPEs</i> are worn following safety procedures.	TECHNOLOGY 1.1 Plantation management 1.2 Yield estimate protocol 1.3 Setting-up of plantation block 1.4 Personal Protective Equipment (PPEs) ENVIRONMENT AND OTHER RELATED LAWS 1.5 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut 1.6 Occupational Safety and Health Standards (OSHS) MATHEMATICS 1.7 Basic arithmetic	1.1 Inspection skills 1.2 Performing yield estimation 1.3 Calculation skills 1.4 Applying skills practices
2. Identify coconut varieties	2.1 Crown and bole shape is determined according to descriptor for coconut. 2.2 <i>Leaf description</i> is determined according to	TECHNOLOGY 2.1 Personal Protective Equipment (PPEs)	2.1 Determining crown shape 2.2 Determining leaf description 2.3 Determining inflorescence 2.4 Determining male flower and female flower

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>descriptor for coconut.</p> <p>2.3 Inflorescence determined according to descriptor for coconut.</p> <p>2.4 Male flower and female flower are determined according to descriptor for coconut.</p> <p>2.5 PPEs are worn following safety procedures.</p> <p>2.6 Tools are used following manufacturer's manual.</p> <p>2.7 Documentation is performed using the required forms from industry standards.</p>	<p>SCIENCE</p> <p>2.2 Morphological characteristics of coconut varieties</p> <p>2.2.1 Tall variety</p> <p>2.2.2 Dwarf variety</p> <p>2.3 Descriptor for coconut</p> <p>ENVIRONMENTAL AND OTHER RELATED LAWS</p> <p>2.4 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut</p> <p>2.5 Occupational Safety and Health Standards (OSHS)</p> <p>MATHEMATICS</p> <p>2.6 Basic computation</p> <p>COMMUNICATION</p> <p>2.7 Documentation</p> <p>2.8 Recording</p> <p>2.9 Reporting</p> <p>2.10 Photo documentation</p> <p>ATTITUDE</p> <p>2.11 Patient</p> <p>2.12 Participative</p> <p>2.13 Cooperative</p> <p>2.14 Responsive</p> <p>2.15 Open-minded</p>	<p>2.5 Wearing PPEs</p> <p>2.6 Using tools</p> <p>2.7 Performing documentation</p>
3. Select seednuts	<p>3.1 Pest and disease-free seednuts are selected according to industry standards.</p> <p>3.2 Undamaged seednuts are selected according</p>	<p>SCIENCE</p> <p>3.1 Basic Principles of Seednuts selection</p> <p>COMMUNICATION</p> <p>3.2 Documentation</p> <p>3.3 Recording</p>	<p>3.1 Selecting pest and disease-free seednuts</p> <p>3.2 Selecting undamaged seednuts</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>Good Agricultural Practices (GAP).</p> <p>3.3 <i>Physiologically mature seednuts</i> are selected according to Good Agricultural Practices (GAP).</p> <p>3.4 Water-sloshing sound is observed according to industry standards.</p> <p>3.5 <i>Documentation</i> is performed using the required forms from Good Agricultural Practices (GAP).</p> <p>3.6 Area is disinfected following industry standards.</p>	<p>3.4 Reporting</p> <p>3.5 Photo documentation</p> <p>MATHEMATICS</p> <p>3.6 Basic arithmetic</p> <p>3.7 Weighing</p> <p>ENVIRONMENTAL AND OTHER RELATED LAWS</p> <p>3.8 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut</p> <p>3.9 Occupational Safety and Health Standards (OSHS)</p> <p>3.10 PNS 329:2022 – Mature Coconut – Product Standard – Grading and Classification</p> <p>3.11 Awareness on BPI Quarantine Administrative Orders No. 01 S. 1981 - Rules and Regulations to Implement Presidential Decree No. 1433, Entitled “Promulgating the Plant Quarantine Law of 1978, thereby revising and consolidating existing plant quarantine laws to further improve and strengthen the plant quarantine service of the</p>	<p>3.3 Selecting physiologically mature seednuts</p> <p>3.4 Observing water-sloshing sound</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>bureau of plant industry”</p> <p>3.12 Awareness on BPI Quarantine Administrative Orders No. 13 S. 2004</p> <p>3.13 Awareness on BPI Special Quarantine Orders No. 39 S. 1923 – Rules and Regulations Further Modifying BPI Administrative Order No. 15 Series of 1988 entitled “Declaring the Cadang-cadang a Manageable Disease and Providing for a Containment and Quarantine Control Program in Affected Areas</p> <p>3.14 Awareness on Executive Order No. 664. Series of 2007 or the “Establishing Emergency Measures to Control and Eradicate the Spread and Damage of Brontispa in the Philippine Coconut Industry and Designating the Philippine Coconut Authority as the Lead Agency for the Purpose”</p>	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Good Agricultural Practices (GAP)	Good Agricultural Practices (GAP) may include: 1.1 Cultural management employed 1.2 Integrated pest management
2. PPEs	PPEs may include: 2.1 Hard hat 2.2 Hand gloves 2.3 Boots
3. Leaf description	Leaf description may include 3.1 Shape 3.2 Color 3.3 Thickness
4. Tools	Tools may include: 4.1 Pruning sheer 4.2 Bolo 4.3 Scythe 4.4 Harvesting pole 4.5 Weighing scale
5. Documentation	Documentation may include: 5.1 Pictures 5.2 Recording 5.3 Accomplished forms
6. Pest and disease-free	Pest and disease-free seednuts may include: 6.1 Clear and smooth surface 6.2 Clean
7. Undamaged seednuts	Undamaged seednuts may include: 7.1 No holes 7.2 No cracks 7.3 No deep punctures or cuts
8. Physiologically mature seednuts	Physiologically mature seednuts may include: 8.1 Nut color 8.2 Age

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Selected plantation block.</p> <p>1.1.1 Performed yield estimate protocol.</p> <p>1.1.2 Selected mother palm.</p> <p>1.2 Identified coconut variety.</p> <p>1.2.1 Determined crown and bole shape.</p> <p>1.2.2 Determined leaf description.</p> <p>1.2.3 Determined inflorescence.</p> <p>1.2.4 Determined male flower and female flower.</p> <p>1.3 Selected seednuts.</p> <p>1.3.1 Selected pest and disease-free seednuts.</p> <p>1.3.2 Selected undamaged seednuts.</p> <p>1.3.3 Selected physiologically mature seednuts.</p> <p>1.3.4 Observed water-sloshing sound.</p>
<p>2. Resource Implications</p>	<p>The following resources MUST be provided:</p> <p>2.1 Actual or simulated workplace</p> <p>2.2 Tools and equipment required to perform the required task</p> <p>2.3 Manuals and references, forms and plans</p> <p>2.4 PPEs</p>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <p>3.1 Direct observation</p> <p>3.2 Demonstration and oral questioning</p> <p>3.3 Written test</p>
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions</p>

UNIT OF COMPETENCY : ESTABLISH NURSERY

UNIT CODE : CS-AFF631302

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to establish and maintain a fully operational nursery. This includes competency in selecting nursery site, performing land preparation, sowing of seednuts and maintaining of nursery.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Select Nursery Site	1.1 Access to transportation is determined based on Good Agricultural Practices (GAP). 1.2 Drainage is inspected based on Good Agricultural Practices (GAP). 1.3 Pests and diseases are determined based on Good Agricultural Practices (GAP). 1.4 Soil texture is determined based on Good Agricultural Practices (GAP). 1.5 Source of water is determined based on Good Agricultural Practices (GAP). 1.6 Climatic variables are determined based on Good Agricultural Practices (GAP). 1.7 Soil samples are collected based on industry procedure. 1.8 Soil sample is analyzed using soil test kit based on manufacturer's manual.	TECHNOLOGY 1.1 Nursery site selection 1.2 Site inspection and validation 1.2.1 Farm map 1.3 Measurement of site 1.4 Clearing operation 1.5 Soil sample collection 1.6 Analyze soil sample using soil test kit 1.7 Soil nutrient deficiency 1.7.1 Kinds of fertilizer 1.7.2 Recommended rates of fertilizer ENVIRONMENT AND OTHER RELATED LAWS 1.8 Awareness on RA 8048: Coconut Preservation Act of 1995 as amended by RA 10593 1.9 Department of Agriculture (DA) color-coded suitability map 1.10 Occupational Safety and Health	1.1 Conducting site inspection and validation 1.2 Determining suitability of area 1.3 Obtaining updates and information on climatic condition 1.4 Collecting soil sample 1.5 Analyzing soil sample using soil test kit 1.6 Applying safety practices

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>1.9 Safety practices are applied following OSHS.</p> <p>1.10 PPEs are worn following safety procedures.</p> <p>1.11 Tools are used following manufacturer's manual.</p> <p>1.12 Documentation is performed using the required forms in accordance with industry standards.</p>	<p>Standards (OSHS)</p> <p>1.11 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut</p> <p>1.12 Awareness on Republic Act No. 11068, as amended by Republic Act No. 11511 or the “Organic Agriculture Act of 2010”</p> <p>1.13 Awareness on Republic Act No. 9147 An Act Providing for The Conservation and Protection Of Wildlife Resources and Their Habitats, Appropriating Funds Therefor And For Other Purposes</p> <p>1.14 Awareness on DENR Administrative Order No.2021-11 Guidelines in the Processing and Issuing of Permits for the Cutting, Removal and Relocation of Naturally Growing Trees</p>	
2. Perform land preparation	<p>2.1 Clearing operation is performed following industry standards.</p> <p>2.2 Field nursery layout is performed based on Good</p>	<p>TECHNOLOGY</p> <p>2.1 Lay-outting procedure</p> <p>2.2 Seedbed preparation</p> <p>2.3 Dimensions of Seedbed</p>	<p>2.1 Performing clearing operation</p> <p>2.2 Lay-outting nursery</p> <p>2.3 Preparing seedbed</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>Agricultural Practices.</p> <p>2.3 Seedbed are prepared following established industry standards.</p> <p>2.4 Drainage canal is established based on industry standards.</p> <p>2.5 Area is secured through fencing following established farm practices.</p> <p>2.6 Polybag nursery layout is performed based on Good Agricultural Practices (GAP).</p> <p>2.7 Safety practices are applied following OSHS.</p> <p>2.8 PPEs are worn following safety procedures.</p> <p>2.9 Tools and materials are used following manufacturer's manual.</p>	<p>2.4 Guide in establishing canal drainage</p> <p>MATHEMATICS</p> <p>2.5 Area measurement</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>2.6 Occupational Safety and Health Standards (OSHS)</p> <p>2.7 Awareness on RA 8048 – Coconut Preservation Act of 1995 as amended by RA 10593</p> <p>2.8 Awareness on Republic Act No. 11068, as amended by Republic Act No. 11511 or the “Organic Agriculture Act of 2010”</p>	<p>2.4 Establishing drainage canal</p> <p>2.5 Securing area</p> <p>2.6 Applying safety practices</p> <p>2.7 Calculation and measurement skills</p>
3. Perform sowing of seednuts	<p>3.1 Seednuts are selected following Good Agricultural Practices (GAP).</p> <p>3.2 Seednuts are sown following established industry standards.</p> <p>3.3 Shading is established following established industry standards.</p> <p>3.4 Pricking of seedlings is performed following Good Agricultural Practices (GAP).</p>	<p>SCIENCE</p> <p>3.1 Seednuts selection</p> <p>3.2 Seedling selection</p> <p>3.3 Shading requirement</p> <p>TECHNOLOGY</p> <p>3.4 Seednut sowing procedure</p> <p>3.4.1 Field Nursery</p> <p>3.4.2 Polybag Nursery</p> <p>3.4.3 Awareness on eco-friendly technology</p>	<p>3.1 Selecting good quality seednuts</p> <p>3.2 Performing skills practices</p> <p>3.3 Calculation and measurement skills</p> <p>3.4 Establishing of shade</p> <p>3.5 Performing documentation</p> <p>3.6 Wearing of PPEs</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>3.5 Documentation is performed following established industry standards.</p> <p>3.6 Safety practices are applied following OSHS.</p> <p>3.7 PPEs are worn following safety procedures.</p> <p>3.8 Tools are used following manufacturer's manual.</p> <p>3.9 Wastes are disposed following industry standards.</p>	<p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>3.5 Occupational Safety and Health Standards (OSHS)</p> <p>3.6 Awareness on RA 9003: Ecological Solid Waste Management Act of 2000</p> <p>3.7 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut</p> <p>3.8 Awareness on Republic Act No. 11068, as amended by Republic Act No. 11511 or the "Organic Agriculture Act of 2010"</p> <p>MATHEMATICS</p> <p>3.9 Basic arithmetic</p> <p>COMMUNICATION</p> <p>3.10 Labeling</p> <p>3.11 Recordkeeping</p>	
4. Maintain Nursery	<p>4.1 Watering is performed following prescribed method and schedule.</p> <p>4.2 Weeding is performed based on industry standards.</p> <p>4.3 Fertilizer and soil amendments are applied based on Good Agricultural Practices (GAP).</p> <p>4.4 Pest and disease management is</p>	<p>SCIENCE</p> <p>4.1 Stages of seednut germination</p> <p>4.2 Stages of pricking</p> <p>TECHNOLOGY</p> <p>4.3 Water requirement</p> <p>4.4 Integrated Pest Management</p> <p>4.4.1 Pest management</p> <p>4.4.2 Disease management</p>	<p>4.1 Watering nursery</p> <p>4.2 Performing pest and disease management</p> <p>4.3 Weeding</p> <p>4.4 Applying fertilizer pricking</p> <p>4.5 Performing record keeping</p> <p>4.6 Preparing tools and materials</p> <p>4.7 Applying safety practices</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>performed based on Good Agricultural Practices (GAP).</p> <p>4.5 Pricking is performed following Good Agricultural Practices (GAP).</p> <p>4.6 Documentation is performed based on Good Agricultural Practices (GAP).</p> <p>4.7 Reporting is performed based on Good Agricultural Practices (GAP).</p> <p>4.8 Tools and materials are prepared following industry standards.</p> <p>4.9 Safety practices are applied following OSHS.</p> <p>4.10 PPEs are worn following safety procedures.</p>	<p>4.4.3 Weed management</p> <p>4.5 Types and rates of Fertilizer</p> <p>4.6 Calibration of weights equivalent</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>4.7 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut</p> <p>4.8 Occupational Safety and Health Standards (OSHS)</p> <p>4.9 Republic Act No. 11068, as amended by Republic Act No. 11511 or the “Organic Agriculture Act of 2010”</p> <p>MATHEMATICS</p> <p>4.10 Basic Arithmetic</p> <p>4.11 Estimation</p> <p>COMMUNICATION</p> <p>4.12 Documentation</p> <p>4.13 Calendar of activities</p> <p>4.14 Farm Record</p>	<p>4.8 Calibrating weights equivalent</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. Drainage	Drainage includes: 1.1 Open 1.2 Level 1.3 Well-drained
2. Soil texture	Soil texture includes: 2.1 Light 2.2 Loose
3. Source of water	Source of water includes: 3.1 Well 3.2 Tank 3.3 Open source 3.3.1 River 3.3.2 Pond 3.4 Water district
4. Climatic variables	Climatic variables include: 4.1 Rainfall 4.2 Wind 4.3 Temperature 4.4 Sunlight
5. PPEs	PPEs may include: 5.1 Hand gloves 5.2 Boots 5.3 Raincoat 5.4 Long sleeves
6. Tools	Tools may include: 6.1 For Site selection: 6.1.1 Shovel 6.1.2 Bolo 6.1.3 Pail 6.2 For Land preparation: 6.2.1 Slasher 6.2.2 Shovel 6.2.3 Bolo 6.2.4 Garden hoe 6.2.5 Digging bar 6.2.6 Garden rake 6.2.7 Pruning shear 6.2.8 Measuring tape 6.2.9 Hammer 6.2.10 Saw 6.2.11 Nails 6.2.12 Wheelbarrow

VARIABLE	RANGE
	<p>6.3 For Sowing of seednuts 6.3.1 Shovel 6.3.2 Bolo</p> <p>6.4 For Maintenance of nursery: 6.4.1 Sprinkler 6.4.2 Hose 6.4.3 Knapsack sprayer 6.4.4 Weighing scale 6.4.5 Shovel 6.4.6 Bolo 6.4.7 Pail 6.4.8 Pruning shear</p>
7. Documentation	Documentation includes: 7.1 Recording 7.2 Accomplished form 7.3 Photo documentation 7.4 Video documentation
8. Clearing operation	Clearing operation may include: 8.1 Clearing of existing vegetation 8.2 Uprooting and removal of stump 8.3 Removal of debris
9. Materials	Materials may include: 9.1 Land preparation: 9.1.1 Stake (bamboo, cacao, etc.) 9.1.2 Wire 9.1.3 Twine 9.2 Sowing seednuts: 9.2.1 Coconut fronds 9.2.2 Fish net 9.2.3 Polybag 9.3 Maintenance of nursery 9.3.1 Herbicide 9.3.2 Pesticide 9.3.3 Fertilizer 9.3.4 Containers 9.3.5 Polybag/Seed bag: 9.3.5.1 Polybag for small coconut 9.3.5.2 Polybag for big coconut
10. Wastes	Wastes may include: 10.1 Plastic 10.2 Cellophane 10.3 Polyethylene 10.4 Culled seednuts

VARIABLE	RANGE
11. Pest and disease management	Pest and disease management includes: 11.1 Cultural 11.2 Biological 11.3 Physical 11.4 Mechanical 11.5 Chemical

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Selected nursery site.</p> <p>1.1.1 Determined access to transportation.</p> <p>1.1.2 Inspected drainage.</p> <p>1.1.3 Determined pests and diseases.</p> <p>1.1.4 Determined soil texture.</p> <p>1.1.5 Determined source of water.</p> <p>1.1.6 Collected soil samples.</p> <p>1.1.7 Performed documentation.</p> <p>1.2 Performed land preparation.</p> <p>1.2.1 Performed field nursery layout.</p> <p>1.2.2 Prepared seedbed.</p> <p>1.2.3 Performed polybag nursery layout.</p> <p>1.2.4 Worn PPEs.</p> <p>1.3 Performed sowing of seednuts.</p> <p>1.3.1 Selected seednuts.</p> <p>1.3.2 Sown seednuts.</p> <p>1.3.3 Performed pricking of seedlings.</p> <p>1.3.4 Performed documentation.</p> <p>1.3.5 Applied safety practices.</p> <p>1.3.6 Disposed wastes.</p> <p>1.4 Maintained nursery.</p> <p>1.4.1 Performed watering.</p> <p>1.4.2 Performed weeding.</p> <p>1.4.3 Applied fertilizer and soil amendments.</p> <p>1.4.4 Performed pest and disease management.</p> <p>1.4.5 Performed pricking.</p> <p>1.4.6 Performed documentation.</p> <p>1.4.7 Performed reporting.</p> <p>1.4.8 Applied safety practices.</p>
<p>2. Resource Implications</p>	<p>The following resources MUST be provided:</p> <p>2.1 Actual or simulated workplace</p> <p>2.2 Tools and equipment required to perform the required task</p> <p>2.3 Manuals and references, forms and plans</p> <p>2.4 PPEs</p>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <p>3.1 Direct observation</p> <p>3.2 Demonstration and oral questioning</p> <p>3.3 Written test</p>
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions</p>

UNIT OF COMPETENCY : ESTABLISH FARM

UNIT CODE : CS-AFF631303

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to prepare farm establishment, select planting site, perform land preparation, conduct site lay-outing, staking, and holing, plant seedling and perform maintenance activities.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Prepare farm establishment	<p>1.1 Tools, materials and supplies are prepared according to work requirement and plan.</p> <p>1.2 PPEs are prepared following manufacturer's manual.</p> <p>1.3 Quality seedlings are selected based on Good Agricultural Practices (GAP).</p>	<p>TECHNOLOGY</p> <p>1.1 Types and uses of tools, materials and supplies for farm establishment</p> <p>1.2 Seedling selection</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>1.3 Occupational Safety and Health Standards (OSHS)</p> <p>1.4 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut</p>	<p>1.1 Preparing tools, materials, and supplies</p> <p>1.2 Preparing PPEs</p> <p>1.3 Selecting quality seedlings</p>
2. Select planting site	<p>2.1 Site inspection is conducted following Good Agricultural Practices on Coconut.</p> <p>2.2 Suitability of the site is determined following color coded suitability map.</p> <p>2.3 Climatic variables are determined based on Good Agricultural Practices.</p> <p>2.4 Soil samples are collected based on industry procedure.</p>	<p>TECHNOLOGY</p> <p>2.1 Site selection</p> <p>2.2 Site inspection and validation</p> <p>2.2.1 Farm map</p> <p>2.3 Measurement of site</p> <p>2.4 Clearing operation</p> <p>2.5 Soil sample collection</p> <p>2.6 Analyze soil sample using soil test kit</p> <p>2.7 Soil nutrient deficiency</p> <p>2.7.1 Kinds of fertilizer</p>	<p>2.1 Conducting site inspection and validation</p> <p>2.2 Determining suitability of area</p> <p>2.3 Obtaining updates and information on climatic condition</p> <p>2.4 Collecting soil sample</p> <p>2.5 Analyzing soil sample using soil test kits</p> <p>2.6 Applying safety practices</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>2.5 Soil sample is analyzed using soil test kit based on manufacturer's manual.</p> <p>2.6 Safety practices are applied following OSHS.</p> <p>2.7 PPEs are worn following safety procedures.</p> <p>2.8 Tools are used following manufacturer's manual.</p> <p>2.9 Documentation is performed using the required forms from Good Agricultural Practices (GAP).</p>	<p>2.7.2 Recommended rates of fertilizer</p> <p>2.8. Determination of water source</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>2.9 Awareness on RA 8048 Philippine Coconut Authority (PCA)</p> <p>2.10 Department of Agriculture (DA) color-coded suitability map</p> <p>2.11 Occupational Safety and Health Standards (OSHS)</p> <p>2.12 Awareness on Republic Act No. 9147 An Act Providing for The Conservation and Protection of Wildlife Resources and Their Habitats, Appropriating Funds Therefor And For Other Purposes</p> <p>2.13 Awareness on DENR Administrative Order No.2021-11 Guidelines in the Processing and Issuing of Permits for the Cutting, Removal and Relocation of Naturally Growing Trees</p>	
3. Perform land preparation	3.1 Clearing operation is performed	<p>TECHNOLOGY</p> <p>3.1 Importance of drainage canal</p>	3.1 Performing clearing operation

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>following industry standards.</p> <p>3.2 Drainage canal is established based on industry standards.</p> <p>3.3 Area is secured through fencing following established farm practices.</p> <p>3.4 Safety practices are applied following OSHS.</p> <p>3.5 PPEs are worn following safety procedures.</p> <p>3.6 Tools are used following manufacturer's manual.</p>	<p>MATHEMATICS</p> <p>3.2 Area measurement</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>3.3 Occupational Safety and Health Standards (OSHS)</p> <p>3.4 Awareness on RA 8048: Coconut Preservation Act of 1995 as amended by RA 1059</p>	<p>3.2 Establishing drainage canal</p> <p>3.3 Securing area</p> <p>3.4 Applying safety practices</p> <p>3.5 Calculation and measurement skills</p>
4. Conduct layouting and staking	<p>4.1 Line staking are used for establishing baseline according to Good Agricultural Practices (GAP).</p> <p>4.2 Measurement, staking and adjustments are performed based on plan.</p> <p>4.3 Planting systems are applied based on Good Agricultural Practices (GAP).</p> <p>4.4 Safety practices are applied following OSHS.</p> <p>4.5 Tools, materials and supplies are used according to work requirement and plan.</p>	<p>SCIENCE</p> <p>4.1 Types and uses of tools, materials and supplies for layouting</p> <p>4.2 Line staking procedure</p> <p>TECHNOLOGY</p> <p>4.3 Types of coconut planting systems</p> <p>4.4 Types of coconut planting distance</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>4.5 Occupational Safety and Health Standards (OSHS)</p> <p>4.6 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut</p>	<p>4.1 Using tools, materials and supplies</p> <p>4.2 Perform line staking for baseline establishment</p> <p>4.3 Calibrating skills</p> <p>4.4 Performing measurement and staking</p> <p>4.5 Organizational skills</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>MATHEMATICS 4.7 Geometry 4.8 Area measurement</p> <p>COMMUNICATION 4.9 Farm Plan 4.10 Recordkeeping</p> <p>ATTITUDE 4.11 Patient 4.12 Workplace communication 4.13 Teamwork 4.14 Organized 4.15 Resourcefulness 4.16 Initiative</p>	
5. Perform planting of seedling	<p>5.1 Hole is dug following Good Agricultural Practices (GAP). 5.2 Seedlings are transferred according to Good Agricultural Practices (GAP). 5.3 Basal fertilizer is applied following crop requirements. 5.4 Levelling and compacting hole base is done according to industry standards. 5.5 Planting technique is applied based on industry standards. 5.6 Safety practices are applied following OSHS. 5.7 Tools, materials and supplies are used according to work requirements.</p>	<p>SCIENCE 5.1 Selection of seedling 5.2 Types and uses of tools, materials and supplies for holing</p> <p>TECHNOLOGY 5.3 Handling of seedling 5.4 Levelling and compacting of hole base 5.5 Placing of seedling 5.6 Backfilling with top soil 5.7 Fertilizer application 5.8 Planting procedures of seedling 5.9 Safety measures in planting procedures 5.10 Planting guide 5.11 Holing procedure 5.12 Soil withering procedure</p>	<p>5.1 Selecting good quality coconut seedling 5.2 Handling coconut seedling 5.3 Levelling and compacting hole 5.4 Placing coconut seedling 5.5 Backfilling top soil 5.6 Applying fertilizer 5.7 Applying planting procedure 5.8 Applying safety measures 5.9 Performing farm record keeping 5.10 Digging hole</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		ENVIRONMENT AND OTHER RELATED LAWS 5.13 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut 5.14 Occupational Safety and Health Standards (OSHS) MATHEMATICS 5.15 Basic arithmetic 5.16 Weighing 5.17 Dimension COMMUNICATION 5.18 Farm record 5.19 Record keeping	
6. Perform routine farm maintenance	6.1 Watering is performed following prescribed method and schedule. 6.2 Pest and disease management is performed based on Good Agricultural Practices (GAP). 6.3 Weeding is performed based on industry standards. 6.4 Application of fertilizer is performed based Good Agricultural Practices (GAP). 6.5 Replanting is performed following Good Agricultural Practices on Coconut. 6.6 Documentation is performed based on Good	SCIENCE 6.1 Stages of seednut germination 6.2 Identification of germinating and non-germinating seedlings 6.3 Stages of pricking TECHNOLOGY 6.4 Water requirement 6.5 Integrated Pest Management 6.5.1 Pest management 6.5.2 Disease management 6.5.3 Weed management 6.6 Types and rates of Fertilizer 6.7 Cultural management practices 6.7.1 Cover cropping 6.7.2 Intercropping	6.1 Watering seedlings 6.2 Performing pest and disease management 6.3 Weeding 6.4 Performing fertilizer application 6.5 Performing cultural management 6.6 Replanting seedling 6.7 Performing record keeping 6.8 Using tools and materials 6.9 Applying safety practices 6.10 Replanting of missing hills 6.11 Performing field culling and resupplying

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>Agricultural Practices (GAP).</p> <p>6.7 Tools and materials are used following industry standards.</p> <p>6.8 Safety practices following OSHS.</p> <p>6.9 PPEs are worn following safety procedures.</p>	<p>6.8 Field culling and replanting</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>6.9 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut</p> <p>6.10 Occupational Safety and Health Standards (OSHS)</p> <p>MATHEMATICS</p> <p>6.11 Basic Arithmetic</p> <p>6.12 Estimation</p> <p>COMMUNICATION</p> <p>6.13 Record keeping</p> <p>6.14 Calendar of activities</p> <p>6.15 Farm Record</p>	
7. Conduct post-farm maintenance activities	<p>7.1 Wastes are segregated following waste management.</p> <p>7.2 Maintenance and safekeeping of tools and materials are done according to workplace procedure.</p> <p>7.3 Recording and reporting of daily activities are carried out following Good Agricultural Practices (GAP).</p> <p>7.4 Inventory of supplies and materials are done based on standard operating procedures.</p>	<p>TECHNOLOGY</p> <p>7.1 Waste management</p> <p>7.2 Maintenance and safekeeping of tools, materials, and equipment</p> <p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>7.3 PNS/BAFPS 238:2018 Code of Good Agricultural Practices (GAP) for Coconut</p> <p>7.4 Occupational Safety and Health Standards (OSHS)</p> <p>MATHEMATICS</p> <p>7.5 Basic Arithmetic</p> <p>7.6 Counting</p>	<p>7.1 Conducting waste management</p> <p>7.2 Maintaining and safe keeping of tools, materials, and equipment</p> <p>7.3 Recording and reporting daily activities</p> <p>7.4 Conducting inventory supplies and materials</p> <p>7.5 Mathematical skills</p> <p>7.6 Practicing safety practices</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	7.5 Safety practices are applied following OSHS.	COMMUNICATION 7.7 Record keeping and reporting of daily activities 7.8 Calendar of activities 7.9 Farm Record 7.10 Inventory of supplies and materials	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Tools	Tools may include: 1.1 Slasher 1.2 Grass cutter 1.3 Sprinkler 1.4 Shovel 1.5 Hose 1.6 Bolo 1.7 Garden hoe 1.8 Knapsack sprayer 1.9 Measuring tape 1.10 Digging bar 1.11 Garden rake 1.12 Pruning shear 1.13 Weighing scale 1.14 Compass
2. Materials	Materials may include: 2.1 Pail and Containers 2.2 Measuring cup 2.3 Ready to plant seedlings 2.4 Cutter 2.5 Cover for compost 2.6 Soil thermometer
3. Supplies	Supplies may include: 3.1 Rope 3.2 Bamboo stick for staking 3.3 Herbicide 3.4 Pesticide 3.5 Fertilizer
4. PPEs	PPEs may include: 4.1 Hand gloves 4.2 Boots 4.3 Raincoat 4.4 Long sleeves
5. Climatic variables	Climatic variables include: 5.1 Rainfall 5.2 Wind 5.3 Temperature 5.4 Sunlight
6. Documentation	Documentation includes: 6.1 Recording 6.2 Accomplished form 6.3 Photo documentation 6.4 Video documentation
7. Clearing operation	Clearing operation may include: 7.1 Clearing of vegetation 7.2 Uprooting and removal of stumps 7.3 Removal of debris

VARIABLE	RANGE
8. Planting systems	Planting systems includes: 8.1 Rectangular 8.2 Square 8.3 Triangular 8.4 Quincunx
9. Wastes	Wastes may include: 9.1 Plastics 9.2 Cellophane 9.3 Polyethylene bag 9.4 Chemicals

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Prepared farm establishment. <ul style="list-style-type: none"> 1.1.1 Selected quality seedlings. 1.1.2 Prepared tool, materials, and supplies. 1.1.3 Prepared PPEs. 1.2 Selected planting site. <ul style="list-style-type: none"> 1.2.1 Performed site inspection. 1.2.2 Collected soil sample. 1.2.3 Analyzed soil sample using soil test kit. 1.3 Performed land preparation. <ul style="list-style-type: none"> 1.3.1 Performed clearing operation. 1.3.2 Established drainage canal. 1.4 Conducted layouting and staking. <ul style="list-style-type: none"> 1.4.1 Performed line staking for baseline establishment. 1.4.2 Performed measurement, staking and adjustments. 1.5 Performed planting of seedling. <ul style="list-style-type: none"> 1.5.1 Performed digging hole. 1.5.2 Applied planting technique. 1.5.3 Applied basal fertilizer. 1.6 Performed routine farm maintenance. <ul style="list-style-type: none"> 1.6.1 Performed documentation. 1.6.2 Performed weeding. 1.6.3 Performed fertilizer application. 1.7 Conducted post-farm maintenance activities. <ul style="list-style-type: none"> 1.7.1 Segregated wastes. 1.7.2 Performed maintenance and safekeeping of tools and materials. 1.7.3 Carried out recording and reporting of daily activities. 1.7.4 Conducted inventory of supplies and materials.
<p>2. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools and equipment required to perform the required task 2.3 Manuals and references, forms and plans 2.4 PPEs
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Direct observation 3.2 Demonstration and oral questioning 3.3 Written test

4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions
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UNIT OF COMPETENCY : HARVEST YOUNG AND MATURE COCONUTS

UNIT CODE : CS-AFF631304

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to prepare for harvesting, to select young and mature coconuts, to harvest produce and to perform post-harvest activities.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Prepare for harvesting	1.1 Farm tools , hauling tools , and PPEs are selected according to farm activities . 1.2 Functionality of farm and hauling tools are checked according to industry standards. 1.3 Defective tools are reported in accordance with industry standards. 1.4 Farm record is checked following industry standards.	SCIENCE 1.1 Functionality of farm and hauling tools TECHNOLOGY 1.2 Industry practices 1.3 Procedure in identifying defective tools ENVIRONMENT AND OTHER RELATED LAWS 1.4 Personal Protective Equipment (PPEs) 1.5 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut MATHEMATICS 1.6 Basic arithmetic COMMUNICATION 1.7 Reporting 1.8 Farm records	1.1 Organizing skills 1.2 Communication skills 1.3 Computation skills 1.4 Initiative skills 1.5 Selecting tools, wheelbarrow and PPEs 1.6 Checking functionality of farm tools and wheelbarrow 1.7 Reporting defective tools 1.8 Checking farm record
2. Select young and mature coconuts	2.1 Young and mature coconuts are determined by leaf rank following industry standards. 2.2 Young and mature coconuts are determined by	SCIENCE 2.1 Leaf rank 2.2 Maturity criteria 2.3 Age of young and mature coconuts 2.4 Varietal identification	2.1 Organizing skills 2.2 Communication skills 2.3 Computation skills 2.4 Initiative skills

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>maturity criteria following industry standards.</p> <p>2.3 Young and mature coconuts are determined by age following industry standards.</p>	<p>TECHNOLOGY 2.5 Leaf rank method</p> <p>ENVIRONMENT AND OTHER RELATED LAWS 2.6 PNS 329:2022 – Mature Coconut — Product Standard — Grading and Classification 2.7 PNS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut</p> <p>MATHEMATICS 2.8 Counting number of days</p> <p>COMMUNICATION: 2.9 Record keeping 2.10 Documentation 2.11 Farm record</p>	<p>2.5 Determining young and mature coconuts</p>
3. Harvest produce	<p>3.1 Area for harvesting is determined following harvesting schedule.</p> <p>3.2 Climbing is performed following industry standards.</p> <p>3.3 Coconuts of small stature palm are harvested following industry standards.</p> <p>3.4 Mature coconuts are harvested using pole following industry standards.</p> <p>3.5 Young coconuts are harvested by tying and lowering down the bunches to the ground following industry standards.</p>	<p>SCIENCE 3.1 Maturity indices 3.2 Site specific variability 3.3 Varietal identification</p> <p>TECHNOLOGY 3.4 Methods of harvesting coconuts 3.4.1 Using pole 3.4.2 Palm climbing 3.4.3 Hand picking 3.4.4 Using ladder 3.5 Classifying areas to be harvested 3.5.1 Young coconuts 3.5.2 Mature coconuts</p>	<p>3.1 Climbing skills 3.2 Organizing skills 3.3 Communication skills 3.4 Computation skills 3.5 Initiative skills 3.6 Dividing area for harvesting 3.7 Harvesting skills 3.8 Applying precautionary measures</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	3.6 Precautionary measures are applied based on OSHS.	<p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>3.6 PNS 329:2022 (Mature Coconut — Product Standard — Grading and Classification)</p> <p>3.7 PNS 238:2018 (Code of Good Agricultural Practices (GAP) for Coconut)</p> <p>3.8 Occupational Safety and Health Standards (OSHS)</p> <p>3.8.1 PPEs</p> <p>MATHEMATICS</p> <p>3.9 Counting of coconuts</p> <p>COMMUNICATION</p> <p>3.10 Workplace communication</p> <p>3.11 Team work</p>	
4. Perform post-harvest activities	<p>4.1 Harvested coconuts are loaded to container following industry standards.</p> <p>4.2 Harvested coconuts are transferred to the holding area following industry standards.</p> <p>4.3 Harvested coconuts are cleaned according to industry standards.</p> <p>4.4 Harvested coconuts are sorted according to industry standards.</p> <p>4.5 Record keeping is performed according to Good</p>	<p>SCIENCE</p> <p>4.1 Post-harvest handling</p> <p>4.1.1 Young coconuts bruises</p> <p>4.2 Sterilization</p> <p>4.3 Sanitation</p> <p>4.3.1 Pest and diseases</p> <p>TECHNOLOGY</p> <p>4.4 Proper handling of coconuts during hauling</p> <p>4.5 Collection techniques</p> <p>4.5.1 Segregation of coconuts</p>	<p>4.1 Organizing skills</p> <p>4.2 Communication skills</p> <p>4.3 Computation skills</p> <p>4.4 Initiative skills</p> <p>4.5 Applying safety practices</p> <p>4.6 Hauling skills</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>Agricultural Practices (GAP).</p> <p>4.6 <i>Farm and hauling tools</i>, and holding area are cleaned and sanitized following Good Agricultural Practices (GAP).</p> <p>4.7 Safety practices are applied following OSHS.</p>	<p>ENVIRONMENT AND OTHER RELATED LAWS</p> <p>4.6 PNS 329:2022 (Mature Coconut — Product Standard — Grading and Classification</p> <p>4.7 PNS/BAFPS 65:2008 – Fresh Tender Coconut or ‘Buko’</p> <p>4.8 Occupational Safety and Health Standards (OSHS)</p> <p>4.9 Awareness on BPI No. 01 series of 2007 re: Special Quarantine Order pertains to the Coconut Leaf Beetle (<i>Brontispa longissima</i>), which is declared an injurious and invasive pest of coconut.</p> <p>MATHEMATICS</p> <p>4.10 Counting of coconuts</p> <p>4.11 Computation of percent active ingredient of sterilizing agent</p> <p>COMMUNICATION</p> <p>4.12 Record keeping</p>	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Farm tools	Farm tools may include: 1.1 Rope 1.2 Scythe 1.3 Pole 1.4 Bolo 1.5 Ladder 1.6 Bolo holder
2. Hauling tools	Hauling tools may include: 2.1 Wheelbarrow 2.2 Wood cart 2.3 Basket made of natural materials
3. PPEs	PPEs may include: 3.1 Harness 3.2 Gloves 3.3 Hard hat 3.4 Mask 3.5 Rubber boots 3.6 Rain coat (jacket)
4. Farm activities	Farm activities may include: 4.1 harvesting 4.2 hauling
5. Farm record	Farm record may include: 5.1 Harvesting plan 5.1.1 Age of nut 5.1.2 Physical appearance 5.1.3 Number of days from the last harvest 5.2 Harvesting history
6. Leaf rank	Leaf rank may include: 6.1 Biggest unopened spathe 6.2 Fist-sized coconuts 6.3 Tender or young coconuts (buko) 6.4 Harvestable bunches or “mature coconuts”
7. Maturity criteria	Maturity criteria may include: 7.1 Color break 7.2 Sloshing
8. Age	Age may include: 8.1 For young 8.1.1 Nine (9) months or less from the flower opening 8.2 For mature coconuts 8.2.1 10-12 months from flower opening
9. Harvesting schedule	Harvesting schedule may include: 9.1 For young 9.1.1 30 days from the last harvest time

VARIABLE	RANGE
	9.2 For mature coconuts 9.2.1 30-60 days from the harvesting interval
10. Record keeping	Record keeping may include: 10.1 Damage and defect 10.2 Date of harvest 10.3 Volume of harvest 10.4 Farm record

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Prepared for harvesting. <ul style="list-style-type: none"> 1.1.1 Selected farm tools, hauling tools and PPEs. 1.1.2 Checked functionality of farm and hauling tools. 1.1.3 Reported defective tools. 1.1.4 Checked farm record 1.2 Selected young and mature coconuts. <ul style="list-style-type: none"> 1.2.1 Determined young and mature coconuts by leaf rank. 1.2.2 Determined young and mature coconuts by maturity criteria. 1.2.3 Determined young and mature coconuts by age. 1.3 Harvested produce. <ul style="list-style-type: none"> 1.3.1 Determined area for harvesting. 1.3.2 Performed climbing for young and mature coconuts. 1.3.3 Harvested coconuts of small stature palm. 1.3.4 Harvested mature coconuts using pole. 1.3.5 Harvested young coconuts by tying and lowering down the bunches to the ground. 1.3.6 Applied precautionary and safety measures. 1.4 Performed post-harvest activities. <ul style="list-style-type: none"> 1.4.1 Loaded harvested coconuts to container. 1.4.2 Transferred harvested coconuts to holding area. 1.4.3 Cleaned harvested coconuts. 1.4.4 Sorted harvested coconuts. 1.4.5 Performed record keeping. 1.4.6 Cleaned and sanitized farm and hauling tools and holding area. 1.4.7 Applied safety practices.
<p>2. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools and equipment required to perform the required task 2.3 Manuals and references, forms and plans 2.4 PPEs
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Direct observation 3.2 Demonstration and oral questioning 3.3 Written test
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions</p>

UNIT OF COMPETENCY : HARVEST COCO SAP

UNIT CODE : CS-AFF631305

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to apply best practice in selecting of bearing palms with healthy unopened inflorescence considering also the height of the palms. The technique in tying and bending the inflorescence. Preparation of harvesting materials which also includes quantifying, cleaning and sanitizing and conducting post production activities.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Select Coconut Palm	1.1 Bearing palms with healthy large unopened inflorescence are marked according to Good Agricultural Practices (GAP). 1.2 Healthy unopened inflorescence is tied and gently bended downwards in accordance with the industry standards. 1.3 Inflorescence is sliced following Good Agricultural Practices (GAP). 1.4 Presence of sap flow is observed according to Good Agricultural Practices (GAP). 1.5 Height of the palm is determined for climbing according to industry standards. 1.6 Harvesting tools are prepared according to industry standards.	SCIENCE 1.1 Classification of coconut palm 1.2 Characteristics of ready to tap coconut palm 1.3 Harvesting tools TECHNOLOGY 1.4 Slicing procedure 1.5 Bending and tying unopened inflorescence ENVIRONMENTAL AND OTHER RELATED LAW 1.6 Occupational Safety and Health Standard (OSHS) 1.7 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut MATHEMATICS 1.8 Basic arithmetic ATTITUDE 1.9 Tender 1.10 Loving 1.11 Caring 1.12 Focused	1.1 Inspection Skills 1.2 Logical Skills 1.3 Craftsmanship skills 1.4 Preparing harvesting tools

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Prepare for harvesting sap	2.1 Harvesting materials are inspected according to food grade quality . 2.2 Quantity of harvesting materials is determined according to palms identified for harvest. 2.3 Cleaning, sanitizing, and sharpening of scythe is performed following Good Agricultural Practices (GAP). 2.4 Strainer is installed to bigger container following industry standards. 2.5 Availability of ladder are checked based on industry standards. 2.6 PPEs are prepared according to OSHS.	SCIENCE 2.1 Tools and materials used in harvesting TECHNOLOGY 2.2 Cleaning, sanitizing and sharpening of tools 2.3 Awareness on assembling and build safe to use coconut ladder 2.4 Installation of strainer ENVIRONMENTAL AND OTHER RELATED LAW 2.5 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut 2.6 Occupational Safety and Health Standard (OSHS) 2.6.1 Personal Protective Equipment (PPE) MATHEMATICS 2.7 Basic arithmetic	2.1 Calculating Skills 2.2 Cleaning, sanitizing, and sharpening of scythe 2.3 Installing strainer 2.4 Applying safety practices
3. Harvest Coconut Sap	3.1 Unopened coconut inflorescence is sliced following industry standards. 3.2 Container is closely fitted to the inflorescence for sap collection following industry standards. 3.3 Schedule of collecting sap is	TECHNOLOGY 3.1 Schedule of tapping 3.2 Bending of unopened coconut inflorescence 3.3 Slicing of unopened coconut inflorescence 3.4 Proper transferring of	3.1 Tying and bending of unopened coconut inflorescence 3.2 Cutting of unopened coconut inflorescence 3.3 Transfer properly the collected coconut sap

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>observed based on <i>intended use</i>.</p> <p>3.4 Collected sap is transferred to bigger container following industry standards.</p> <p>3.5 Minor repair of ladder is performed following industry standards.</p>	<p>collected coconut sap</p> <p>ENVIRONMENTAL AND OTHER RELATED LAW</p> <p>3.5 Occupational Safety and Health Standard (OSHS)</p> <p>3.6 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut</p> <p>ATTITUDE</p> <p>3.7 Disciplined</p> <p>3.8 Initiative</p> <p>3.9 Patience</p> <p>3.10 Persistent</p>	<p>3.4 Skills on climbing coconut palm</p> <p>3.5 Initiative skills</p> <p>3.6 Craftsmanship skills</p>
4. Conduct post-activities	<p>4.1 Workplace is cleaned following good housekeeping.</p> <p>4.2 Farm record is accomplished following industry practice.</p> <p>4.3 Scythe is cleaned and sanitized according to industry standards.</p> <p>4.4 Wastes are disposed following Good Agricultural Practices (GAP).</p> <p>4.5 Materials are stored in designated area following industry standards.</p>	<p>TECHNOLOGY</p> <p>4.1 Handling</p> <p>4.2 Storing</p> <p>4.3 Cleaning and sanitizing</p> <p>ENVIRONMENTAL AND OTHER RELATED LAW</p> <p>4.4 Occupational Safety and Health Standard (OSHS)</p> <p>4.5 PNS/BAFPS 238:2018 – Code of Good Agricultural Practices (GAP) for Coconut</p> <p>4.6 Awareness on PNS/BAFS 167:2015 Code of Hygienic Practice</p> <p>MATHEMATICS</p> <p>4.7 Basic arithmetic</p> <p>COMMUNICATION</p> <p>4.8 Record keeping</p>	<p>4.1 Initiative skills</p> <p>4.2 Communication skills</p> <p>4.3 Measuring skills</p> <p>4.4 Decision-making skills</p> <p>4.5 Following instruction</p> <p>4.6 Applying safety practices</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		4.9 Reporting ATTITUDE 4.10 Disciplined 4.11 Initiative	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Harvesting tools	Harvesting tools may include: 1.1 Scythe 1.2 Head light
2. Harvesting materials	Harvesting materials may include: 2.1 Tying materials 2.1.1 Plastic Twine 2.1.2 Brown Packing Tape 2.2 Container 2.2.1 Plastic container 2.2.2 Bamboo container 2.3 Light Colored Carbouy 2.4 Cheesecloth / Nylon 2.5 Filter (Mesh 80 up) 2.6 Leaf Sheath 2.7 Sharpening stone
3. Food grade quality	Food grade quality may include: 3.1 Light colored material 3.2 Smooth and easy to clean 3.3 Recycled but intended for food or beverage use only
4. Ladder	Ladders may include: 4.1 Bamboo 4.2 Hardwood
5. PPEs	PPEs may include: 5.1 Rope harness 5.2 Hard Hat 5.3 Mask 5.4 Rubber Boots 5.5 Long sleeve
6. Intended use	Intended use may include: 6.1 Vinegar and toddy 6.2 Sweetener and by-products
7. Farm records	Farm records may include: 7.1 Total number of tapped palms 7.2 Total of number of sap collected per container

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Selected Coconut Palms <ul style="list-style-type: none"> 1.1.1 Tied and gently bent downwards healthy unopened inflorescence. 1.1.2 Sliced inflorescence. 1.1.3 Observed presence of sap flow. 1.1.4 Prepared harvesting tools. 1.2 Prepared for harvesting sap. <ul style="list-style-type: none"> 1.2.1 Determined quantity of harvesting materials. 1.2.2 Performed cleaning, sanitizing, and sharpening of scythe. 1.2.3 Installed strainer into the bigger container. 1.2.4 Prepared PPE's. 1.3 Harvested coconut sap. <ul style="list-style-type: none"> 1.3.1 Sliced unopened coconut inflorescence. 1.3.2 Fitted harvesting container to the inflorescence for sap collection. 1.3.3 Observed schedule of collecting sap. 1.3.4 Transferred collected sap to a bigger container. 1.3.5 Performed minor repair of ladder. 1.4 Conducted post activities. <ul style="list-style-type: none"> 1.4.1 Accomplished farm record. 1.4.2 Cleaned and sanitized scythe. 1.4.3 Disposed waste. 1.4.4 Stored materials in designated area.
<p>2. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools and equipment required to perform the required task 2.3 Manuals and references, forms and plans 2.4 PPEs
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Direct observation 3.2 Demonstration and oral questioning 3.3 Written test
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions</p>

UNIT OF COMPETENCY : MARKET COCONUT FARM PRODUCE

UNIT CODE : CS-AFF631306

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in performing simple market scanning, estimation of costs and profits, and selling of coconut farm produce (seedling, mature and young coconut, and coconut sap).

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Perform simple market scanning	1.1 Specific product and relevant market information are gathered from sources according to industry standards. 1.2 Market information is monitored according to industry standards. 1.3 Gathered market information is classified according to potential products to be sold. 1.4 Buyer's requirements are identified based on industry standards. 1.5 Potential coconut farm produce for sale is recorded according to industry standards.	TECHNOLOGY 1.1 Product specification / market or buyer or government requirement 1.2 Coconut traders / buyers 1.3 Buying prices 1.4 Knowledge on appropriate recording 1.5 Effective questioning or conduct of either interview or simple survey 1.6 Capturing, classification, processing and validation of information 1.7 Product costing and profit estimation 1.8 Selling price ENVIRONMENTAL AND OTHER RELATED LAWS 1.9 Awareness on Republic Act No. 10611 or the "Food Safety Act of 2013" 1.10 PNS/BAFPS 238-2018: GAP for Coconut	1.1 Initiative skills 1.2 Critical thinking skills 1.3 Communication skills 1.4 Participating in marketing-related seminars 1.5 Gathering and providing basic information in response to product and market requirements 1.6 Relating / interacting with people of various levels in the marketplace 1.7 Interpersonal skills in the marketplace 1.8 Active-listening skills on clients / customers / buyers 1.9 Computer literacy 1.10 Price negotiation / sales management (quotation-making, sales analysis)

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		1.11 PNS/BAFPS 329:2022: Mature Coconut - Product Standard - Grading Classification 1.12 PNS/BAFPS 65-2008: Fresh tender coconut or Buko MATHEMATICS 1.13 Basic arithmetic 1.14 Yield estimate COMMUNICATION 1.15 Preparation of letter and email correspondences ATTITUDE 1.16 Eagerness 1.17 Attention to details 1.18 Self-control 1.19 Resourcefulness 1.20 Positive thinking 1.21 Approachable 1.22 Visionary 1.23 Creative	
2. Perform costs and profits projection	2.1 Sales are projected according to market information and buyer's requirements . 2.2 Simple marketing plan is prepared according to farm produce classification and best scenario sales projection.	TECHNOLOGY 2.1 Basic marketing / selling 2.2 Preparation of basic financial statements (profit and loss statement) 2.3 Electronic device-based analytics, forecasting and decision-making 2.4 Simplified technical writing ENVIRONMENTAL AND OTHER RELATED LAWS	2.1 Communication skills 2.2 Analytical thinking skills 2.3 Critical thinking 2.4 Identifying job requirements / market 2.5 Estimating quantities of materials and resources required for the market 2.6 Estimating time for market study completion 2.7 Performing basic calculation

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>2.5 Awareness on Republic Act No. 9520 or the “Philippine Cooperative Code of 2008”</p> <p>2.6 Awareness on Republic Act No. 9178 as amended by Republic Act No. 10644 or the “The Barangay Micro Business Enterprises (BMBEs) Act of 2002”</p> <p>2.7 Awareness on PCA Administrative Order No. 02, Series of 2010 and Administrative Order No. 01, Series of 2012 or the “Implementing Rules and Regulations on PCA Registration of Persons and Entities Engaged in Business Involving Coconut and other Palm Oil Products and By-Products”</p> <p>2.8 Awareness on Implementing Rules and Regulations of Executive Order No. 1016, Series of 1985 or the “Withdrawing the Inspection, Commodity and Export Clearance Requirements on</p>	<p>2.8 Compute percentage and ratios, and price and cost differences</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>Philippine Exports”</p> <p>2.9 Awareness on Department of Agriculture (DA) Quarantine Administrative Circular No. 01-14 or the “Guidelines for Categorization of Commodities of Plant Origin”</p> <p>2.10 Awareness on Republic Act No. 8424 or the “National Internal Revenue Code of 1997”</p> <p>MATHEMATICS</p> <p>2.11 Averaging</p> <p>2.12 Basic arithmetic</p> <p>2.13 Ratio and proportion</p> <p>2.14 Market and price trends</p> <p>2.15 Estimation</p> <p>COMMUNICATION</p> <p>2.16 Coordination</p>	
3. Sell coconut farm produce	<p>3.1 Certificate of registration from authorities is secured based on industry standards.</p> <p>3.2 Relevant marketing and promotion activities are participated according to industry standards.</p> <p>3.3 Products are presented to buyers according to industry standards.</p>	<p>TECHNOLOGY</p> <p>3.1 Simplified record</p> <p>3.2 Preparation of farm produce</p> <p>3.3 Process and requirements in the handling, delivery, transport and shipping of products</p> <p>3.4 Simple product promotion</p> <p>3.5 Sales and deal management</p> <p>3.6 Process of business registration with</p>	<p>3.1 Calculation skills</p> <p>3.2 Creativity skills</p> <p>3.3 Analytical skills</p> <p>3.4 Initiative skills</p> <p>3.5 Resourcefulness</p> <p>3.6 Communication skills</p> <p>3.7 Negotiation skills</p> <p>3.8 Decision making skills</p> <p>3.9 Compliance to legal and market requirements skills</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>3.4 Agreements are secured following industry standards.</p> <p>3.5 Farm produce are prepared based on simple marketing plan.</p> <p>3.6 Product sales are recorded following industry standards.</p> <p>3.7 Business transactions are reviewed and recorded following industry standards.</p>	<p>different authorities</p> <p>3.7 Awareness on Process of trademark development and registration</p> <p>3.8 Preparation of agreements to contain sales terms and conditions</p> <p>3.9 Awareness on Billing and collection systems</p> <p>3.10 Transport and shipping</p> <p>3.11 Entrepreneurship</p> <p>3.12 Compliance to product and business requirements</p> <p>3.13 Promotional Activities</p> <p>3.13.1 Social Media platform (DIY)</p> <p>3.13.2 Basic photography and videography</p> <p>ENVIRONMENTAL AND OTHER RELATED LAWS</p> <p>3.14 Awareness on Republic Act No. 7394 or the “Consumer Act of the Philippines”</p> <p>3.15 Awareness on Republic Act No. 10611 or the “Food Safety Act of 2013” and its Implementing</p>	

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>Rules and Regulations</p> <p>3.16 Awareness on Republic Act No. 8293 or the “Intellectual Property Code of the Philippines”</p> <p>3.17 Awareness on Republic Act No. 11524 or the “Coconut Farmers and Industry Trust Fund Act”</p> <p>3.18 Awareness on Bureau of Food and Drugs (BFAD) Bureau Circular No. 2006-016 or the “Updated List of Food Additives” (for the use of sodium metabisulfite to maintain the fresh color of buko after shaving)</p> <p>3.19 Awareness on PH-China Protocol on Exportation of Fresh Young Coconuts</p> <p>3.20 Awareness on Executive Order No. 664. Series of 2007 or the “Establishing Emergency Measures to Control and Eradicate the Spread and Damage of Brontispa in the Philippine Coconut Industry and Designating</p>	

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		<p>the Philippine Coconut Authority as the Lead Agency for the Purpose”</p> <p>3.21 Awareness on Bureau of Plant Industry (BPI) Quarantine Administrative Order No. 1 Series of 1981 or the “Rules and Regulations to Implement Presidential Decree No. 1433, Entitled “Promulgating the Plant Quarantine Law of 1978, Thereby Revising and Consolidating Existing Plant Quarantine Laws to Further Improve and Strengthen the Plant Quarantine Service of the Bureau of Plant Industry”</p> <p>3.22 Awareness on Memorandum Circular from the authorities such as DA (Promotion and Consumption of Fresh Coconut Juice and other Local Fruit Juices)</p> <p>MATHEMATICS 3.23 Basic arithmetic 3.24 Estimation</p> <p>COMMUNICATIONS 3.25 Negotiation</p>	

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
		3.26 Business pitching 3.27 Recording 3.28 Documentation 3.29 Presentation of trademark ATTITUDE 3.30 Honesty 3.31 Integrity 3.32 Trustworthy 3.33 Creative. 3.34 Patient. 3.35 Persuasive	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Sources	Sources may include: 1.1 Local Government Units 1.2 Potential buyers' requirements 1.3 National Government Agencies 1.3.1 Department of Agriculture (DA) 1.3.2 Department of Trade and Industry (DTI) 1.3.3 Philippine Coconut Authority (PCA) 1.3.4 Cooperative Development Authority (CDA)
2. Market information	Market information may include: 2.1 Prices (Buying and Selling) 2.2 Product specification 2.3 Trade volume and value 2.4 Proper product handling 2.5 Documentation requirement 2.6 Logistics 2.7 Payment terms 2.8 Supply and demand situation 2.9 Buyers
3. Gathering of market information	Gathering of market information may include: 3.1 Interview 3.1.1 Face to face 3.1.2 Phone call 3.2 Written messages. 3.2.1 Facebook / Messenger 3.2.2 Short Message/Messaging Service
4. Buyer's requirements	Buyer's requirements may include: 4.1 Type of farm produce 4.1.1 Seedling 4.1.2 Fresh young coconut 4.1.3 Mature coconut 4.1.4 Sap 4.1.5 Combination 4.2 Quantity of produce 4.3 Product form 4.3.1 Form 4.3.2 Shape 4.3.3 Treatment 4.3.4 Details of packaging and labeling 4.3.5 Handling and delivery arrangement 4.4 Pricing factors
5. Record of product sales	Record of product sales may include: 5.1 Size 5.2 Form 5.3 Quantity 5.4 Weight 5.5 Volume

VARIABLE	RANGE
6. Record of business transactions	Record of business transactions may include: 6.1 Profit and loss statement 6.2 Packing list 6.3 Purchase order
7. Authorities	Authorities may include: 7.1 Local Government Unit 7.2 National Government Agencies 7.2.1 Philippine Coconut Authority (PCA) 7.2.2 Department of Trade and Industry (DTI) 7.2.3 Department of Agriculture - Bureau of Plant Industry (DA-BPI)
8. Marketing and promotion activities	Marketing and promotion activities may include: 8.1 Trade fair 8.1.1 Product demonstration 8.2 Trading post 8.2.1 Product demonstration 8.3 Government intervention 8.3.1 Kadiwa ni Ani at Kita 8.3.2 Bagsakan Centers 8.4 Exposition 8.5 Business to business matching 8.6 Investment forum 8.7 Direct selling
9. Agreements	Agreements may include: 9.1 Price 9.2 Delivery arrangement 9.3 Volume 9.4 Payment terms 9.5 Product specification 9.6 Other trade / buyer requirements

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Performed simple market scanning. <ul style="list-style-type: none"> 1.1.1 Gathered specific product and relevant market information. 1.1.2 Monitored market information. 1.1.3 Classified gathered market information. 1.1.4 Identified buyer's requirements. 1.1.5 Recorded potential coconut farm produce for sale. 1.2 Performed costs and profits projection. <ul style="list-style-type: none"> 1.2.1 Projected sales. 1.2.2 Prepared simple marketing plan. 1.3 Sold coconut farm produce. <ul style="list-style-type: none"> 1.3.1 Secured certificate of registration with authorities. 1.3.2 Participated relevant marketing and promotion activities. 1.3.3 Presented products to buyers. 1.3.4 Secured agreements. 1.3.5 Prepared farm produce. 1.3.6 Reviewed and recorded business transactions.
<p>2. Resource Implications</p>	<p>The following resources MUST be provided:</p> <ul style="list-style-type: none"> 2.1 Actual or simulated workplace 2.2 Tools and equipment required to perform the required task 2.3 Manuals and references, forms and plans 2.4 PPEs
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Direct observation 3.2 Demonstration and oral questioning 3.3 Written test
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment in TESDA accredited institutions</p>

GLOSSARY OF TERMS

1) COCONUT	<p>refers exclusively to the palm, <i>Cocos nucifera</i> L. or its components, including its fruit or drupe, which contains a unique range of oils, proteins, carbohydrates, dietary fiber, minerals and water, and the aqueous effusion from the inflorescence</p> <p><i>source: PNS/BAFS 329: 2022</i></p>
2) COCONUT FARMER ENTREPRENEUR	<p>refers to a coconut farmer engaged in a coconut-based business activity or enterprise regardless of the total asset value (definition of MSME modified)</p>
3) COCONUT FARM PRODUCE	<p>refers to the products harvested from coconut palms in the form of raw materials such as seedling, young coconut, mature coconut, and coconut sap.</p>
4) FARM PRODUCE	<p>refers to crops and other agricultural products sold by farmers</p> <p><i>(Oxford Dictionary)</i></p>
5) FIELD NURSERY	<p>is a portion of land or area conducive to sowing of seednuts for seedling production</p>
6) INFLORESCENCE	<p>refers to the flowering structure that are formed in the axils of every leaf of a bearing palm.</p> <p>the complete flower head of a plant including stems, stalks, bracts, and flowers</p>
7) LABEL	<p>means a display of written, printed or graphic matter upon the immediate container of any article and a requirement made by or under authority of existing law that any word, statement or other information appearing on the label shall not be considered to be complied with unless such word, statement or other information also appears on the outside container or wrapper of the retail package of such article or is easily legible through the outside container or wrapper</p> <p><i>(DOH Administrative Order No. 2014-0030)</i></p>
8) LEAF RANK	<p>refers to the vertical row along an axis. As with leaves, it appears there as rows of leaves, either opposite or alternate, the branch is ranked accordingly</p>
9) LINE STAKING	<p>the use of stakes or other materials to mark where the coconut seedlings will be planted at a specific distance from each other.</p>
10) MICRO, SMALL AND MEDIUM ENTERPRISES (MSMES)	<p>is any business activity or enterprise engaged in industry, agribusiness and/or services, whether single proprietorship, cooperative, partnership or corporation whose total assets, inclusive of those arising from loans but exclusive of the land on which the particular business entity's office, plant and equipment are situated, must have value falling under the following categories:</p>

	<p>micro - not more than P3,000,000; small - P3,000,001 - P15,000,000; and medium - P15,000,001 - P100,000,000</p> <p><i>(RA 9501 "Magna Carta for MSMEs)</i></p>
11) PLANTING GUIDE	improvised wooden tool measuring 1 meter in length with a marking guide in the center to re-locate the point where the seedling should be located.
12) POLYBAG NURSERY	the site wherein polybagged seedlings are properly grown or managed prior to field transplanting
13) PRODUCT MIX	refers to the number, variety, and combination of products to be offered for sale.
14) PROTOTYPING	aka sample product
15) REPLANTING	the act of planting again.
16) SEEDLING BAG	aka polybag, ecobag a container for seedling germination.
17) SEEDNUTS	refers to a coconut fruit harvested 11 to 12 months from spathe opening to be used as planting material
18) SIMPLE MARKETING PLAN	refers to a document that outlines the value of the products or services to offer, the specific target market (buyer), and the best ways to promote and deliver the offer profitably
19) STAKING	the use of stakes
20) TAPPING	also refers to the harvesting or collection of coconut sap
21) YIELD ESTIMATE PROTOCOL	a technique on counting the coconuts of the three oldest harvestable bunches to determine annual coconut productivity

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THE TECHNICAL EXPERT PANEL (TEP)

MS. MARJORIE M. ATIENZA Philippine Coconut Authority Quezon City	MS. GERALYN HOBRERO Cocowild Inc./ Zhuk Fruits & Vegetables Trading Brgy. Sulit, Polomok, South Cotabato
MS. JAY R. BERNALDEZ BHMC Bionatural Products Riverside, Bilar, Bohol	MS. SALVACION J. LEGASPI Capiz State University Roxas City, Capiz
MR. PAUL ANGELO D. BUSTAMANTE SOX Food Products Manufacturing Brgy. Palian, Tupi, South Cotabato	MR. JIMBO M. MALLARI Philippine Coconut Authority Quezon City
MS. JENNEL C. CAMACHO Philippine Coconut Authority Quezon City	MR. ALEN A. OMBAO Philippine Coconut Authority Quezon City
MS. LIBERTY H. CANJA Philippine Coconut Authority Quezon City	MR. ROEL M. ROSALES Philippine Coconut Authority Quezon City
MR. ARIES D. CUALES ADC Farm Calizo, Balete, Aklan	MR. FRANCISCO P. RUBIO Greenlife Coconut Products Philippines Inc. Tayabas City, Quezon Province
MR. JOSE H. FELIZCO, JR. Mega Greenlife, OPC Brgy. Wakas, Tayabas City	MR. ARNEL P. TORAJA Philippine Coconut Authority Aroman Carmen, Cotabato
MS. DJOANA EVE R. GALANG Philippine Coconut Authority Quezon City	MS. ROSELLA B. VILLARUEL Philippine Coconut Authority Quezon City

The PARTICIPANTS in the National Validation of this Competency Standards

<p>MARJULYN ATOP Magata Integrated Farm Hinunangan, Region VIII</p>	<p>KIM G. LANTICSE Rainforest Agriventures, Inc. Makilala, North Cotabato, Region XII</p>
<p>PEDRO P. AQUINO, JR. Philippine Coconut Authority Tacloban, Region VIII</p>	<p>MAXIMO T. LOCOO MUFDA Farm Maasin, District 2, Region VIII</p>
<p>ELIZABETH C. BENEMERITO Del Mar MPC/ IMA Integrated Farm Laoag City, Region I</p>	<p>LEO A. LOREDO Provincial Federation of Small Coconut Farmers' Organizations Province of N. Cotabato, Region XII</p>
<p>ROSE ANNE R. CABALOAN Philippine Coconut Authority Laoag City, Region I</p>	<p>JEANMAY E. MAGLANGIT Philippine Coconut Authority Dumaguete City, Region VII</p>
<p>JACKQUILYN T. CALAMBA Philippine Coconut Authority -CVCSPC District 2, Region VII</p>	<p>SANDY S. MATUNOG SSM Integrated Farm School Hinunangan, Region VIII</p>
<p>ALFONSO M. CARTAGO TESDA-ANAS Arteche, Eastern Samar, Region VIII</p>	<p>ALBERT T. MEJOS Two A and K Agricultural Nursery Digos City, Region XI</p>
<p>MARGORIE D. COLIAO Colimargo Integrated Farm Hinunangan, Region VIII</p>	<p>JAZPHER, V. MILLAN Millan Integrated Farm Macrohon, Region VIII</p>
<p>ERNALYN E. COLON Philippine Coconut Authority Butuan City, CARAGA</p>	<p>CONCEPCION T. OBCENA TESDA -LLDA PTC Calauan Laguna, Region IV-A</p>
<p>MARGORIE D. DAGCUTAN Colimargo Integrated Farm Hinunangan, District 2, Region VIII</p>	<p>EMY FE P. PALMARES TESDA ROD, Region VIII</p>
<p>CONRADO M. DEJARME, JR. SSM Integrated Farm School Hinunangan, District 2, Region VIII</p>	<p>NORIZA R. PANTAS Philippine Coconut Authority Palo, Leyte, Region VIII</p>
<p>YOLANDA R. DIZON Negros Oriental United Coconut Farmers Association Amlan, Negros Oriental, Region VII</p>	<p>ENRICO B. QUIMPAN Banawe Integrated Farm District II, Region VIII</p>

<p>JUDITH A. ELJERA Eastern Samar State University – Borongan Borongon City, Region VIII</p>	<p>PINKY I. RAMOS Philippine Coconut Authority Isulan, District I, Sultan Kudarat, Region XII</p>
<p>JEFFREY A. ESPINAZO Canaan Hill Farms Region VIII</p>	<p>RHOIELIZA E. RECLA Philippine Coconut Authority Davao City, Region XI</p>
<p>LESLEE O. ESTORIALA La Caridad Farm Sogod, Southern Leyte, Region VIII</p>	<p>ARNALDO B. SALEM A. I Integrated Farm Libagon, District II, Region VIII</p>
<p>ROGELIO R. FLORES JR. Philippine Coconut Authority Zamboanga City, Region IX</p>	<p>IMIE A. SALEM A.I Integrated Farm Libagon, Region VIII</p>
<p>RAMON N. FLORESTA Rainforest Agriventures, Inc. Makilala, North Cotabato, Region XII</p>	<p>EDWARD RIZ JR A. SAURO SSM Integrated Farm School Hinunangan, Region VIII</p>
<p>ELISA O. GABI Philippine Coconut Authority General Santos City, Region XII</p>	<p>FE T. SOMBISE SofTea Garden Lone District of Biliran, Region VIII</p>
<p>CRISPIN O. GAMBOA Philippine Coconut Authority Cagayan de Oro City Region X</p>	<p>NICANOR F. TAHUP Nickjoy Integrated Farm Tomas Oppus, Region VIII</p>
<p>MA. RENERIA C. GERONA La Caridad Farm Sogod, Southern Leyte, Region VIII</p>	<p>NICKLE BRYAN TAHUP Nickjoy Intengrated Farm Tomas Oppus, Region VIII</p>
<p>RONNIE JAY C. HURAÑO TESDA- Quezon National Agricultural School Pagbilao, Quezon, Region IV-A</p>	