

# COMPETENCY STANDARDS

## ABACA FIBER CLASSIFYING AND GRADING 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 skills standards. The Authority shall develop and implement a certification and accreditation program in which private industry groups 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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# COMPETENCY STANDARD FOR ABACA FIBER CLASSIFYING AND GRADING LEVEL II

## SECTION 1 DEFINITION

The **ABACA FIBER CLASSIFYING AND GRADING LEVEL II** qualification consists of competencies that a person must achieve in order to perform abaca harvesting, sort abaca fiber, and perform abaca fiber classifying and grading.

The units of competency comprising this qualification include the following:

<b>Unit Code</b>	<b>BASIC COMPETENCIES</b>
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
<b>Unit Code</b>	<b>COMMON COMPETENCIES</b>
AGR321201	Apply safety measures in farm operations
AGR321202	Use farm tools and equipment
AGR321203	Perform estimation and basic calculation
<b>Unit Code</b>	<b>CORE COMPETENCIES</b>
AB-AFF0600409611301	Perform Abaca Harvesting
AB-AFF0600409611302	Sort Abaca Fiber
AB-AFF0600409611303	Perform Abaca Fiber Classifying and Grading

**A person who has achieved this qualification is competent to be:**

- Abaca Fiber Stripper and Classifier

## SECTION 2      COMPETENCY STANDARDS

This section gives the details of the contents of the units of competency required in **ABACA FIBER CLASSIFYING AND GRADING 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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from <b>appropriate sources</b> 1.2 Effective questioning, active listening and speaking skills are used to gather and convey information. 1.3 Appropriate <b>medium</b> 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 <b>storage</b> of information are used 1.7 Personal interaction is carried out clearly and concisely	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 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 workplace responsibilities etiquette
2. Perform duties following	2.1 Written notices and instructions are read and interpreted in accordance	2.1 Effective verbal and non-verbal communication	2.1 Following simple spoken instructions

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
workplace instructions	<p>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 <b>Workplace interactions</b> 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 <b>appropriate sources</b></p> <p>2.6 Meetings outcomes are interpreted and implemented</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>2.2 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/quer ying</p> <p>2.9 Skills in reading for information</p> <p>2.10 Skills in locating</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Complete relevant work-related documents	3.1 Range of <b>forms</b> relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents 3.3 Errors in recording information on forms/ documents are identified and acted upon 3.3 Reporting requirements to supervisor are completed according to organizational guidelines	3.1 Effective verbal and non-verbal communication 3.2 Different modes of communication 3.3 Workplace forms and documents 3.4 Organizational/ Workplace policies 3.5 Communication procedures and systems 3.6 Technology relevant to the enterprise and the individual's work responsibilities	3.1 Completing work- related documents 3.2 Applying operations of addition, subtraction, division and multiplication 3.3 Gathering and providing information in response to workplace requirements 3.4 Effective record keeping skills

## RANGE OF VARIABLES

<b>VARIABLE</b>	<b>RANGE</b>
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

<b>VARIABLE</b>	<b>RANGE</b>
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**

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



**UNIT OF COMPETENCY : WORK IN A 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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Describe team role and scope	1.1 The <b><i>role and objective of the team</i></b> is identified from available <b><i>sources of information</i></b> 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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
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 <b><i>sources of information</i></b> 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 Team roles and objectives 2.2 Team structure and parameters 2.3 Team development 2.4 Sources of information Instructional planning and delivery skills 2.5 Monitoring and evaluation skills 2.6 Mentoring and coaching skills
3. Work as a team member	3.1 Effective and appropriate forms of communications are used and interactions undertaken with team members based on company practices. 3.2 Effective and appropriate contributions made to complement team activities and objectives, based on workplace context 3.3 Protocols in reporting are observed based on standard company practices. 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives	3.1 Types and levels of learning evaluation 3.2 Learning styles and strategies 3.3 Training and development approaches 3.4 Communication Process 3.5 Workplace communication protocol 3.6 Team planning and decision making 3.7 Team thinking 3.8 Team roles 3.9 Process of team development 3.10 Workplace context	3.1 Communicating appropriately, consistent with the culture of the workplace 3.2 Interacting effectively with others 3.3 Deciding as an individual and as a group using group think strategies and techniques 3.4 Contributing to Resolution of issues and concerns

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	May include: <ul style="list-style-type: none"> <li>1.1 Work activities in a team environment with enterprise or specific sector</li> <li>1.2 Limited discretion, initiative and judgment maybe demonstrated on the job, either individually or in a team environment</li> </ul>
2. Sources of information	May include: <ul style="list-style-type: none"> <li>2.1 Standard operating and/or other workplace procedures</li> <li>2.2 Job procedures</li> <li>2.3 Machine/equipment manufacturer’s specifications and instructions</li> <li>2.4 Organizational or external personnel</li> <li>2.5 Client/supplier instructions</li> <li>2.6 Quality standards</li> <li>2.7 OHS and environmental standards</li> </ul>
3. Workplace context	May include: <ul style="list-style-type: none"> <li>3.1 Work procedures and practices</li> <li>3.2 Conditions of work environments</li> <li>3.3 Legislation and industrial agreements</li> <li>3.4 Standard work practice including the storage, safe handling and disposal of chemicals</li> <li>3.5 Safety, environmental, housekeeping and quality guidelines</li> </ul>

## EVIDENCE GUIDE

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

**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.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify routine problems	1.1 Routine <b><i>problems or procedural problem</i></b> 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 help desk 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. Foster the habit of critical inquiry and curiosity in the workplace.	2.1 Issues and situations are reflected on and wondered about. 2.2 Issues and problems in the workplace particularly in the policies, procedures and protocols are discussed and evaluated between and among teams.	2.1 Different methods of critical and appreciative inquiry and their relevance to different situations. 2.2 Techniques to assist in forming the habit of	2.1 Using range of analytical techniques (e.g., planning, attention, simultaneous and successive processing of information). 2.2 Communicating to actively listen

	<p>2.3 Evaluation of efficiency and effectiveness of workplace policies, procedures and protocols are documented, communicated and agreed upon between and among teams.</p> <p>2.4 Growth mindset and positive relationship and communication is applied in the context of <b>curiosity and critical inquiry</b> in the workplace.</p>	<p>asking questions and taking responsibility for answers.</p> <p>2.3 Why questions are important and the benefits of asking good questions for individuals, businesses and communities (the importance of critical thinking).</p> <p>2.4 Growth mindset and positive communication and relationship strategies and techniques.</p>	<p>and to ask questions of others in a constructive way.</p> <p>2.3 Using critical thinking pathway to formulate and ask relevant questions and come up with appropriate answers.</p> <p>2.4 Performing assimilation and accommodation skills to interpret and distil key information of relevance to a given situation.</p> <p>2.5 Assessing and measuring the extent of effectiveness and efficiency of the systems, processes and procedures in the workplace.</p> <p>2.6 Communicating insights on workplace effectiveness and efficiency.</p>
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## 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

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Determined the root cause of a routine problem</li> <li>1.2 Identified solutions to procedural problems.</li> <li>1.3 Produced documentation that recommends solutions to problems.</li> <li>1.4 Followed established procedures.</li> <li>1.5 Referred unresolved problems to support persons.</li> </ul>
<p>2. Resource Implications</p>	<p>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.</p>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Case Formulation</li> <li>3.2 Life Narrative Inquiry</li> <li>3.3 Standardized test</li> </ul> <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>
<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 : 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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Manage one’s emotion	1.1 <b>Self-management strategies</b> 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 <b>unpleasant situation</b> 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 situations 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 goal 1.3 Showing confidence, and resilience in the face of setbacks and frustrations and other negative emotions and unpleasant situations in the workplace

<p>2. Develop reflective practice</p>	<p>2.1 Personal strengths and achievements, based on self- assessment strategies and teacher feedback are contemplated</p> <p>2.2 Progress when seeking and responding to 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>2.1 Basic SWOT analysis</p> <p>2.2 Strategies to improve one's attitude in the workplace</p> <p>2.3 Gibbs' Reflective Cycle/Model (Description, Feelings, Evaluation, Analysis, Conclusion, and Action plan)</p>	<p>2.1 Using the basic SWOT analysis as self-assessment strategy</p> <p>2.2 Developing reflective practice through realization of limitations, likes/ 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 resource s 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.

<b>ELEMENTS</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify opportunities to do things better	1.1 <b>Opportunities for improvement</b> are identified proactively in their own area of work. 1.2 <b>Information</b> is 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 <b>People who could provide input</b> 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.	2.1 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	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

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	2.5 <b><i>Critical inquiry method</i></b> is used to discuss and develop ideas with others.	effective people.	the types of changes that are within and outside own scope of responsibility 2.4 Communicating ideas for change through small group discussions and meetings.

### 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.

<p>3. People who could provide input</p>	<p>May include:</p> <ul style="list-style-type: none"> <li>3.1 Leaders.</li> <li>3.2 Managers.</li> <li>3.3 Specialists.</li> <li>3.4 Associates.</li> <li>3.5 Researchers.</li> <li>3.6 Supervisors.</li> <li>3.7 Staff.</li> <li>3.8 Consultants (external)</li> <li>3.9 People outside the organization in the same field or similar expertise/industry.</li> <li>3.10 Clients</li> </ul>
<p>4. Critical inquiry method</p>	<p>May include:</p> <ul style="list-style-type: none"> <li>4.1 Preparation.</li> <li>4.2 Discussion.</li> <li>4.3 Clarification of goals.</li> <li>4.4 Negotiate towards a Win-Win outcome.</li> <li>4.5 Agreement.</li> <li>4.6 Implementation of a course of action.</li> <li>4.7 Effective verbal communication. See our pages: Verbal Communication and Effective Speaking.</li> <li>4.8 Listening.</li> <li>4.9 Reducing misunderstandings is a key part of effective negotiation.</li> <li>4.10 Rapport Building.</li> <li>4.11 Problem Solving.</li> <li>4.12 Decision Making.</li> <li>4.13 Assertiveness.</li> <li>4.14 Dealing with Difficult Situations.</li> </ul>

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Demonstrated ability and attitude to keep oneself updated of relevant issues/trends</li> <li>1.2 Demonstrated ability to think and act based on one's principles and values</li> <li>1.3 Demonstrated a holistic/global outlook on internal and external events in the workplace</li> </ul>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Access to workplace and resources</li> <li>2.2 Case studies</li> </ul>

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 global and local 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 : PRESENT RELEVANT INFORMATION**

**UNIT CODE : 400311215**

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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
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 Organizational 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 Organizational values, ethics and codes of conduct	1.1 Describing organizational 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 organizational values, ethics and codes of conduct



<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
2. Assess gathered data/ information	2.1 Validity of data/ information is assessed. 2.2 Analysis techniques are applied to assess data/ information. 2.3 Trends and anomalies are identified. 2.4 <b>Data analysis techniques</b> and procedures are documented. 2.5 Recommendations are made on areas of possible improvement.	2.1 Business Mathematics and statistics 2.2 Data analysis techniques/ procedures 2.3 Reporting requirements to a range of audiences 2.4 Legislation, policy and procedures relating to the conduct of evaluations 2.5 Organizational values, ethics and codes of conduct	2.1 Computing business mathematics and statistics 2.2 Describing data analysis techniques/ procedures 2.3 Reporting requirements to a range of audience 2.4 Stating legislation, policy and procedures relating to the conduct of evaluations 2.5 Stating organizational values, ethics and codes of conduct
3. Record and present information	3.1 Studied data/information are recorded. 3.2 Recommendations are analyzed for action to ensure they are compatible with the project's scope and terms of reference. 3.3 Interim and final reports are analyzed 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 Organizational 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 organizational 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> <ol style="list-style-type: none"> <li>1.1 Determine data / information</li> <li>1.2 Studied and applied gathered data/information</li> <li>1.3 Recorded and studied data/information</li> </ol> <p>These aspects may be best assessed using a range of scenarios 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> <ol style="list-style-type: none"> <li>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.</li> </ol>
3. Methods of Assessment	<p>Competency in this unit may be assessed through:</p> <ol style="list-style-type: none"> <li>3.1. Written Test</li> <li>3.2. Interview</li> <li>3.3. Portfolio</li> </ol> <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.</p> <p>Simulation should be based on the actual workplace and will include walk-throughs of the relevant competency components.</p>
4. Context for Assessment	<ol style="list-style-type: none"> <li>4.1. In all workplace, it may be appropriate to assess this unit concurrently with relevant teamwork or operation units.</li> </ol>

**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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Identify OSH compliance requirements	1.1 Relevant <b>OSH requirements, regulations, policies and procedures</b> are identified in accordance with workplace policies and procedures. 1.2 OSH activity non-conformities are conveyed to <b>appropriate personnel</b> . 1.3 <b>OSH preventive and control requirements</b> 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 1.4 Prevention and Control 1.5 General OSH principles 1.6 Work standards and procedures 1.7 Safe handling procedures of tools, equipment and materials 1.8 Standard 1.9 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. 2.3 Required OSH materials, tools and equipment are arranged/ placed in	2.1 Resources necessary to execute hierarchy of controls 2.2 General OSH principle 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
	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 <b><i>Non-compliance work activities</i></b> 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

VARIABLE	RANGE
3. OSH Preventive and Control Requirements	May include: <ul style="list-style-type: none"> <li>3.1 Resources needed for removing hazard effectively</li> <li>3.2 Resources needed for substitution or replacement</li> <li>3.3 Resources needed to establishing engineering controls</li> <li>3.4 Resources needed for enforcing administrative controls</li> <li>3.5 Personal Protective equipment</li> </ul>
4. Non OSH-Compliance Work Activities	May include non-compliance or observance of the following safety measures: <ul style="list-style-type: none"> <li>4.1 Violations that may lead to serious physical harm or death</li> <li>4.2 Fall Protection</li> <li>4.3 Hazard Communication</li> <li>4.4 Respiratory Protection</li> <li>4.5 Power Industrial Trucks</li> <li>4.6 Lockout/Tag-out</li> <li>4.7 Working at heights (use of ladder, scaffolding)</li> <li>4.8 Electrical Wiring Methods</li> <li>4.9 Machine Guarding</li> <li>4.10 Electrical General Requirements</li> <li>4.11 Asbestos work requirements</li> <li>4.12 Excavations work requirements</li> </ul>

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ol style="list-style-type: none"> <li>1.1. Convey OSH work non-conformities to appropriate personnel</li> <li>1.2. Identify OSH preventive and control requirements in accordance with OSH work policies and procedures</li> <li>1.3. Identify OSH work activity material, tools and equipment requirements in accordance with workplace policies and procedures</li> <li>1.4. Arrange/Place required OSH materials, tools and equipment in accordance with OSH work standards</li> <li>1.5. Execute work activities in accordance with OSH work standards</li> <li>1.6. Report OSH activity non-compliance work activities to appropriate personnel</li> </ol>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ol style="list-style-type: none"> <li>2.1 Facilities, materials tools and equipment necessary for the activity</li> </ol>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ol style="list-style-type: none"> <li>3.1 Observation/Demonstration with oral questioning</li> <li>3.2 Third party report</li> </ol>
<p>4. Context for Assessment</p>	<ol style="list-style-type: none"> <li>4.1 Competency may be assessed in the workplace or in a simulated workplace setting</li> </ol>

**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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
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 <b><i>environmental work procedures.</i></b>	1.1 Importance of Environmental Literacy 1.2 Environmental Work Procedure 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 ineffectiveness	2.1 Deductive Reasoning Skills 2.2 Reasoning Skills 2.3 Critical thinking 2.4 Problem Solving 2.5 Observation Skills

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
3. Convey inefficient and ineffective environmental practices	3.1 Efficiency and effectiveness of resource utilization are reported to <b>appropriate personnel</b> . 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 3.6 Environmental Awareness

### RANGE OF VARIABLES

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

**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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Apply entrepreneurial workplace best practices	<p>1.1 <b>Good practices</b> 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 <b>resource utilization</b> 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:            1.3.1 Patience            1.3.2 Honesty            1.3.3 Quality-consciousness            1.3.4 Safety-consciousness            1.3.5 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 <b>appropriate person</b>.</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:            2.3.1 Patience            2.3.2 Honesty            2.3.3 Quality-consciousness            2.3.4 Safety-consciousness            2.3.5 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 resources is implemented in accordance with enterprise policy.</p>	<p>3.1 Optimization of workplace resources</p> <p>3.2 5S procedures and concepts</p> <p>3.3 Criteria for cost-effectiveness</p>	<p>3.1 Implementing preservation and optimizing workplace resources</p> <p>3.2 Observing judicious use of</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
	3.2 Judicious use of workplace tools, equipment and materials are observed according to manual and work requirements. 3.3 Constructive contributions to office operations are made according to enterprise requirements. 3.4 Ability to work within one's allotted time and finances is sustained.	3.4 Workplace Productivity 3.5 Impact of entrepreneurial mindset to workplace productivity 3.6 Ways in fostering entrepreneurial attitudes: 3.6.1 Quality-consciousness 3.6.2 Safety-consciousness	workplace tools, equipment and materials 3.3 Making constructive contributions to office operations 3.4 Sustaining ability to work within allotted time and finances

### RANGE OF VARIABLES

<b>VARIABLE</b>	<b>RANGE</b>
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	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Demonstrated ability to identify and sustain cost-effective activities in the workplace</li> <li>1.2 Demonstrated ability to practice entrepreneurial knowledge, skills and attitudes in the workplace.</li> </ul>
2. Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Simulated or actual workplace</li> <li>2.2 Tools, materials and supplies needed to demonstrate the required tasks</li> <li>2.3 References and manuals               <ul style="list-style-type: none"> <li>2.3.1 Enterprise procedures manuals</li> <li>2.3.2 Company quality policy</li> </ul> </li> </ul>
3. Methods of Assessment	<p>Competency in this unit should be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Interview</li> <li>3.2 Third-party report</li> </ul>
4.Context of Assessment	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed in workplace or in a simulated workplace setting</li> <li>4.2 Assessment shall be observed while tasks are being undertaken whether individually or in-group</li> </ul>

## COMMON COMPETENCIES

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

**UNIT CODE :** AGR321201

**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 Italicized terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Determine areas of concern for safety measures	1.1 <b>Work tasks</b> are identified in line with farm operations. 1.2 <b>Place</b> for safety measures are determined in line with farm operations. 1.3 <b>Time</b> for safety measures are determined in line with farm operations. 1.4 Appropriate <b>tools, materials and outfits</b> are prepared in line with job requirements.	1.1 Different work tasks in farm operations 1.2 Place and time for implementation of safety measures 1.3 Different hazard in the workplace 1.4 Types of tools, materials and outfits 1.5 Preparation of tools, materials and outfits	1.1 Identifying work tasks in farm operations 1.2 Determining place and time for implementation of safety measures 1.3 Reading labels, manuals and other basic safety information 1.4 Identifying effective/ functional tools, materials and outfit 1.5 Preparing tools, materials and outfits 1.6 Discarding defective tools, and materials

ELEMENT	<b>PERFORMANCE CRITERIA</b> Italicized terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Apply appropriate safety measures	2.1 Tools and materials are used according to specifications and procedures. 2.2 Outfits are worn according to farm requirements. 2.3 Effectivity/shelf life/expiration of materials are strictly observed. 2.4 <b>Emergency procedures</b> are known and followed to ensure a safe work requirement. 2.5 <b>Hazards</b> in the workplace are identified and reported in line with farm guidelines.	2.1 Uses and functions of tools 2.2 Outfits and how to wear it 2.3 Expiration/shelf life of materials 2.4 Proper disposal of expired materials 2.5 Environmental rules and regulations 2.6 Emergency procedures 2.7 Hazards identification and reporting 2.8 Communication skills 2.9 OSHS	2.1 Using tools and materials in the workplace 2.2 Wearing of outfits 2.3 Observing expiration/shelf life of materials 2.4 Disposing of expired materials 2.5 Following emergency procedures 2.6 Identifying and reporting of hazards in workplace area

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> Italicized terms are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
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 Screwdriver 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

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Determined areas of concern for safety measures</li> <li>1.2 Applied appropriate safety measures according to industry requirements</li> <li>1.3 Prepared tools, materials and outfit needed</li> <li>1.4 Performed proper disposal of used materials</li> <li>1.5 Cleaned and stored tools, materials and outfit in designated facilities</li> </ul>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Farm location</li> <li>2.2 Tools, equipment and outfits appropriate in applying safety measures</li> </ul>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Practical demonstration</li> <li>3.2 Third Party Report</li> </ul>
<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** : **USE FARM TOOLS AND EQUIPMENT**

**UNIT CODE** : **AGR321202**

**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.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> Italicized terms are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Select and use farm tools	1.1 Appropriate farm tools are identified according to requirement/ use. 1.2 <b>Farm tools</b> 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

ELEMENT	PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Select and operate farm equipment	<p>2.1 Identify appropriate <b><i>Farm equipment</i></b>.</p> <p>2.2 Instructional manuals of the farm tools and equipment are carefully read prior to operation.</p> <p><b><i>2.3 Pre-operation check-up</i></b> is conducted in line with the manufacturer's manual.</p> <p>2.4 Faults in farm equipment are identified and reported in line with farm procedures.</p> <p>2.5 Farm equipment is used according to its function.</p> <p>2.6 Safety procedures are followed.</p>	<p>2.1 Types and operations of farm equipment</p> <p>2.3 Standards Operating procedures of farm equipment</p> <p>2.4 Instructional manual of equipment</p> <p>2.5 Pre-operation check-up</p> <p>2.6 Equipment Specification</p> <p>2.7 Procedures in calibrating and use of equipment</p> <p>2.8 Equipment faults identification and reporting</p> <p>2.9 Operation of equipment</p> <p>2.10 Codes and Regulations on environmental protection</p> <p>2.11 Safety and keeping of equipment every after use</p> <p>2.12 Safety measures</p>	<p>2.1 Identifying appropriate farm equipment for the work</p> <p>2.3 Reading instructional manual</p> <p>2.4 Conducting pre-operation check-up</p> <p>2.5 Identifying faults/defects of farm equipment</p> <p>2.6 Reporting on defective farm equipment</p> <p>2.6 Operating farm equipment</p> <p>2.7 Following safety procedures</p>
3. Perform preventive maintenance	<p>3.1 Tools and equipment is cleaned immediately after use in line with farm procedures.</p> <p>3.2 Routine check-up and maintenance are performed.</p> <p>3.3 Tools and equipment are stored in designated areas in line with farm procedures.</p>	<p>3.1 Cleaning procedures of tools and equipment</p> <p>3.2 Maintenance procedures of farm equipment</p> <p>3.3 Storage of tools and equipment</p> <p>3.4 Designated storage areas</p>	<p>3.1 Cleaning tools and equipment</p> <p>3.2 Performing routinely check-up of tools and equipment</p> <p>3.3 Maintaining farm equipment</p> <p>3.4 Storing tools and equipment</p>

## 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 : AGR321203**

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

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> Italicized terms are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
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 the 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	2.1 Number computed is checked following work requirements	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

## 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 : PERFORM ABACA HARVESTING**

**UNIT CODE : AB-AFF0600409611301**

**UNIT DESCRIPTOR :** This unit is designed to cover the knowledge, skills, and attitude required to perform abaca harvesting which includes identifying the maturity of harvestable abaca and pre-classifying of abaca fiber.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
1. Identify maturity indices of harvestable abaca	1.1 Maturity indices are identified in accordance with established industry standards. 1.2 <b>Harvestable abaca</b> is selected in line with industry specific guidelines and criteria based on Philippine National Standard (PNS) for Abaca - Code of Good Agricultural Practices (GAP). 1.3 Harvestable abaca is <b>tagged</b> in accordance with industry practices. 1.4 Tasks are performed in line with established industry practices and <b>occupational safety and health procedures</b> .	<b>Science</b> 1.1 Varieties of abaca 1.2 Stages of abaca plant development 1.3 Maturity indices of Abaca plant 1.4 Identifying of Abaca flag leaf 1.5 OSH Guidelines <b>Technology</b> 1.6 PhilFIDA PNS established procedures	1.1 Applying OSH practices 1.2 Harvesting techniques



ELEMENT	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Set-up abaca stripping device	2.1 <b><i>Tools and materials</i></b> for abaca stripping device are prepared in line with established industry practices. 2.2 Abaca stripping device are installed in line with established industry practices. 2.3 Tasks are performed in line with established industry practices and occupational safety and health procedures.	<b>Science</b> 2.1 Concept of stripping device 2.2 Serration of stripping knives 2.3 OSH Guidelines <b>Technology</b> 2.4 Steps in installing abaca stripping device <b>Mathematics</b> 2.5 Scale of serration	2.1 Setting-up stripping device 2.2 Applying Mathematical skills 2.3 Applying OSH practices
3. Perform abaca harvesting	3.1 Abaca mats are cleaned/ under brushed in line with industry practice. 3.2 Tagged abaca stalks are topped and tumbled in accordance with industry standards. 3.3 Abaca harvesting is performed in accordance with established industry standards. 3.4 Record keeping is performed in accordance with industry practice. 3.5 Appropriate <b><i>PPE</i></b> is used according to job requirements and safety regulations.	<b>Science</b> 3.1 Abaca Pest Management 3.2 Procedures in cleaning/ under brushing 3.3 Procedures in topping and tumbling 3.4 Physical characteristics and qualities of abaca fiber 3.5 OSH Guidelines <b>Communication</b> 3.6 Record keeping	3.1 Demonstrating cleaning/ under brushing 3.2 Demonstrating topping and tumbling 3.3 Recording of harvested abaca

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Harvestable abaca	May include: <ul style="list-style-type: none"> <li>1.1 Maturity age of Abaca plant               <ul style="list-style-type: none"> <li>1.1.1 Appearance of flag leaf</li> <li>1.1.2 Flowering and fruiting stage</li> </ul> </li> <li>1.2 Characteristics of harvestable abaca</li> </ul>
2. Tagged	May include: <ul style="list-style-type: none"> <li>2.1 Age of maturity</li> <li>2.2 Tagging materials (ribbons or any bright colored cloth/plastic straw lace)</li> </ul>
3. Occupational Safety and Health (OSH) Practices	May include: <ul style="list-style-type: none"> <li>3.1 Proper Workplace Ventilation</li> <li>3.2 Identifying Hazards and risks</li> </ul>
4. Tools and materials for stripping	May include: <ul style="list-style-type: none"> <li>4.1 Tools               <ul style="list-style-type: none"> <li>4.1.1 Stripping knives</li> <li>4.1.2 Stripping stick</li> <li>4.1.3 Stripping block</li> <li>4.1.4 Digging bars</li> <li>4.1.5 Bolo</li> <li>4.1.6 Hammer</li> <li>4.1.7 Saw</li> <li>4.1.8 Shovel</li> </ul> </li> <li>4.2 Materials               <ul style="list-style-type: none"> <li>4.2.1 bamboo pole</li> <li>4.2.2 log</li> <li>4.2.3 coconut fronds/banana/abaca leaves/trapal (temporary shed)</li> <li>4.2.4 nails</li> <li>4.2.5 cord/plastic twine</li> </ul> </li> </ul>
5. Personal Protective Equipment (PPE)	May include: <ul style="list-style-type: none"> <li>5.1 Long sleeve</li> <li>5.2 Rubber boots</li> <li>5.3 Gloves</li> <li>5.4 Hat</li> </ul>

## EVIDENCE GUIDE

<p>1. Critical aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Identified maturity indices of harvestable abaca</li> <li>1.2 Set-up abaca stripping device</li> <li>1.3 Performed abaca harvesting</li> </ul>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Supplies, tools and materials</li> <li>2.2 Equipment related to tasks to be performed</li> <li>2.3 Actual or simulated workplace</li> <li>2.4 Supplementary reading materials</li> <li>2.5 PPEs</li> </ul>
<p>3. Methods of Assessment</p>	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Demonstration/ Observation with Oral questioning</li> <li>3.2 Written test</li> <li>3.3 Interview</li> </ul>
<p>4. Context for Assessment</p>	<p>4.1 Competency may be assessed individually in the actual workplace or simulation environment by the institution with TESDA registered program</p>

**UNIT OF COMPETENCY : SORT ABACA FIBER**

**UNIT CODE : AB-AFF0600409611302**

**UNIT DESCRIPTOR :** This unit covers the knowledge, skills and attitudes required to sort abaca fiber used in various abaca industry sectors.

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Perform tuxying abaca leaf sheaths	1.1 <b>Tools and materials for abaca tuxying</b> are prepared in line with industry practices. 1.2 Unusable outer layers of abaca leaf sheaths are removed and recycled for composting in line with industry practice*. 1.3 Tuxying is performed and tuxies are segregated according to <b>leaf sheath origin</b> in line with industry practice*. 1.4 Inner layer of leaf sheaths are collected and recycled for composting in line with industry practice. 1.5 Appropriate <b>PPE</b> is used according to job requirements and safety regulations. * 1.6 Safety practices are applied following <b>OSH procedures and practices</b> *.	<b>Science</b> 1.1 Characteristics of leaf sheath origin 1.2 Abaca Grades <b>Technology</b> 1.3 Proper use of tools and materials in tuxying <b>Environment</b> 1.4 OSH procedures and practices 1.5 Waste Management 1.6 5S of Good Housekeeping 1.7 Ecological Solid Waste Management Act No. 9003 of 2000	1.1 Demonstrating systematic procedures in tuxying 1.2 Applying safety practices
2. Perform manual stripping of abaca fiber	2.1 <b>Tools and materials for abaca stripping</b> are prepared in accordance with established industry practice.* 2.2 Abaca tuxies are <b>stripped</b> according to leaf sheath origin	<b>Science</b> 2.1 Abaca fiber characteristics and its properties 2.2 Methods of stripping <b>Technology</b> 2.3 Bamboo/ Wooden Tensioner and	2.1 Performing hand stripping of abaca fiber 2.2 Adjusting the tensioner accordingly 2.3 Practicing safety and

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	<p>(inner to outer) in line with industry practice.*</p> <p>2.3 Appropriate <b>PPE</b> is used according to job requirements and safety regulations.</p> <p>2.4 Safety practices are applied following OSH procedures and practice.</p>	<p>stripping block adjustment</p> <p><b>Environment</b></p> <p>2.4 OSH Procedures and practices</p>	<p>health standards</p>
<p>3. Perform drying of abaca fiber</p>	<p>3.1 <b>Tools, materials and drying</b> area are prepared in line with industry practice*.</p> <p>3.2 Sorted abaca fibers are dried (<math>\leq 15\%</math> moisture content) in accordance with Philippine National Standard (PNS) for Abaca - Code of Good Agricultural Practices (GAP)*.</p> <p>3.3 Dried abaca fibers are hanked for bundling in line with Philippine National Standard (PNS) for Abaca - Code of Good Agricultural Practices (GAP)*.</p> <p>3.4 Appropriate <b>PPE</b> is used according to job requirements and safety regulations.</p> <p>3.5 Safety practices are applied following OSH procedures and practice*.</p>	<p><b>Science</b></p> <p>3.1 Significance of Proper Drying</p> <p>3.2 Techniques in drying</p> <p>3.3 PNS standard moisture content</p> <p><b>Technology</b></p> <p>3.4 Drying Process</p> <p>3.5 Handling Techniques of abaca fiber</p> <p><b>Environment</b></p> <p>3.6 OSH Procedures and practices</p> <p>3.7 Environmental Factors on Drying Duration and Fiber Quality</p> <p><b>Mathematics</b></p> <p>3.8 Duration of abaca fiber drying</p> <p>3.9 Standard Measurement of abaca fiber hanks</p> <p>3.10 Determination of moisture content</p>	<p>3.1 Demonstrating proper drying of abaca fiber</p> <p>3.2 Performing proper handling of abaca fiber</p>

## RANGE OF VARIABLES

VARIABLE	RANGE
1. Tools and Materials for Tuxying	May include: 1.1 Tools 1.1.1 Tuxying knife 1.1.2 Bolo 1.2 Materials 1.2.1 Bamboo pole
2. Leaf sheath Origin	May include: 2.1 Outer Layer 2.2 Next to Outer 2.3 Middle Layer 2.4 Inner Layer
3. Personal Protective Equipment (PPE) for tuxying	May include: 3.1 Plastic/rubber apron 3.2 Rubber boots
4. OSH procedures and practices	May include: 4.1 Proper workplace 4.2 Identifying hazards and risks
5. Tools and Materials for Manual Stripping	May include: 5.1 Tools 5.1.1 Stripping knives 5.1.2 Hammer 5.1.3 Stripping block 5.1.4 Stripping stick 5.2 Materials 5.2.1 Bamboo pole 5.2.2 Nails 5.2.3 String 5.2.4 Wooden pole
6. Stripped	May include: 6.1 Hand stripped 6.2 Spindle stripped 6.3 Decorticated
7. Personal Protective Equipment (PPE) for stripping	May include: 7.1 Long sleeve shirt 7.2 Plastic/rubber apron

<b>VARIABLE</b>	<b>RANGE</b>
8. Tools and Materials for Drying	May include: <ul style="list-style-type: none"> <li>8.1 Tools               <ul style="list-style-type: none"> <li>8.1.1 Bolo</li> <li>8.1.2 Hammer</li> <li>8.1.3 Digging bars</li> </ul> </li> <li>8.2 Material               <ul style="list-style-type: none"> <li>8.2.1 Bamboo pole</li> <li>8.2.2 String/Wire/Twine</li> </ul> </li> </ul>
9. Personal Protective Equipment (PPE) for drying	May include: <ul style="list-style-type: none"> <li>9.1 Long sleeve shirt</li> <li>9.2 Hat</li> </ul>

### **EVIDENCE GUIDE**

1. Critical aspects of competency	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> <li>1.1 Performed tuxying abaca leaf sheaths</li> <li>1.2 Performed manual stripping of abaca fiber</li> <li>1.3 Performed drying of abaca fiber</li> </ul>
2. Resource Implications	The following resources <b>MUST</b> be provided: <ul style="list-style-type: none"> <li>2.1 Equipment related to tasks to be performed</li> <li>2.2 Tools, devices and materials</li> <li>2.3 Actual or simulated workplace.</li> <li>2.4 Supplementary reading materials</li> <li>2.5 PPEs</li> </ul>
3. Methods of Assessment	Competency in this unit may be assessed through: <ul style="list-style-type: none"> <li>3.1 Demonstration/observation with oral questioning</li> <li>3.2 Written exam</li> <li>3.3 Interview</li> </ul>
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment by the institution with TESDA registered program

**UNIT OF COMPETENCY : PERFORM ABACA FIBER CLASSIFYING AND GRADING**

**UNIT CODE : AB-AFF0600409611303**

**UNIT DESCRIPTOR : This unit describes the skills, knowledge, and attitude required to perform abaca fiber classifying and grading.**

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> <i>Italicized terms</i> are elaborated in the Range of Variables	<b>REQUIRED KNOWLEDGE</b>	<b>REQUIRED SKILLS</b>
1. Classify abaca fiber	1.1 Sorted fibers are prepared and arranged according to established industry practice. 1.2 Abaca fibers are classified based on tensile strength, diameter, color, texture and length in accordance with Philippine National Standard (PNS) for Abaca - Code of Good Agricultural Practices (GAP)*. 1.3 Residual grades and wide strips abaca fibers are separated in accordance with Philippine National Standard (PNS) for Abaca - Code of Good Agricultural Practices (GAP)*. 1.4 Appropriate <b>PPE</b> is used according to job requirements and safety regulations*. 1.5 Tasks are performed using <b>OSHS procedures and practices</b> .	<b>Science</b> 1.1 Abaca fiber grades 1.2 Characteristics of normal, residual and wide strips grade fibers 1.3 Uses of each abaca fiber grades 1.4 Factors affecting fiber quality 1.5 Guidelines in testing tensile strength <b>Technology</b> 1.6 Sorting Process of abaca fibers 1.7 Use of abaca fiber size scale device <b>Environment</b> 1.8 OSHS 1.9 5S of Good Housekeeping	1.1 Sorting fiber for classification 1.2 Classifying abaca fiber grades 1.3 Demonstrating OSHS practices



ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
2. Grade abaca fiber	<p>2.1 Classified fibers are prepared for grading in accordance with the established industry practice*.</p> <p>2.2 Classified fibers are graded according to PhilFIDA Philippine National Standards (PNS) <b>grading scheme</b>*.</p> <p>2.3 Record keeping is performed in line with established industry practice.</p> <p>2.4 Appropriate PPE is used according to job requirements and safety regulations.</p> <p>2.5 Tasks are performed using OSHS procedures and practices.</p>	<p><b>Science</b></p> <p>2.1 Factors determining abaca fiber grading</p> <p>2.2 Local and International grading standards</p> <p><b>Technology</b></p> <p>2.3 Grading scheme</p> <p>2.4 PhilFIDA PNS</p> <p><b>Environment</b></p> <p>2.5 OSHS practices</p> <p><b>Communication</b></p> <p>2.6 Record keeping</p>	<p>2.1 Applying grading scheme/system</p> <p>2.2 Performing fiber grading</p> <p>2.3 Performing record keeping</p>
3. Perform marking and tagging graded fiber	<p>3.1 Required <b>marking and tagging materials</b> are prepared in accordance with the established industry practice*.</p> <p>3.2 Marking and tagging of graded fiber is done in accordance with industry practice.*</p> <p>3.3 <b>Data recording</b> is performed in line with industry practice*</p> <p>3.4 Appropriate PPE is used according to job requirements and safety regulations*.</p> <p>3.5 Tasks are performed using OSHS</p>	<p><b>Science</b></p> <p>3.1 Marking and tagging materials</p> <p>3.2 Information on marking and tagging based on PNS</p> <p><b>Technology</b></p> <p>3.3 Marking and tagging procedures based on PhilFIDA</p> <p><b>Environment</b></p> <p>3.4 OSHS practices</p> <p>3.5 Legal requirements and standards on marking and tagging</p> <p><b>Communication</b></p>	<p>3.1 Performing marking and tagging</p> <p>3.2 Perform record keeping</p>

ELEMENT	PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables	REQUIRED KNOWLEDGE	REQUIRED SKILLS
	procedures and practices.	3.6 Record keeping	

### RANGE OF VARIABLES

VARIABLE	RANGE
1. Personal Protective Equipment	May include: 1.1 Face Mask 1.2 Apron 1.3 Close shoes
2. Marking and Tagging Materials	May include: 2.1 Long cloth tag 2.2 Square tag 2.3 Raw tag 2.4 Bowline knot 2.5 Marking pen
3. Grading Scheme	May include: 3.1 Qualities that determine grade 3.2 Normal 3.2.1 Hand stripped EF, S2, S3, I, G, H, JK, M1 3.2.2 Spindle stripped S - EF, S-S2, S-S3, S-I, S-G, S-H, S-JK, S-M1 3.2.3 Decorticated AD - 1, AD - 2, AD - 3, AD - 4. AD - R 3.3 Residual 3.3.1 Hand stripped Y1, Y2, O, T 3.3.2 Spindle stripped S-Y1, S-Y2, S-O, S - T 3.3.3 Decorticated AD - R 3.4 Wide Stripped WS, S-WS

<b>VARIABLE</b>	<b>RANGE</b>
4. Data recording	May include: <ul style="list-style-type: none"> <li>4.1 Grade of abaca fibers</li> <li>4.2 Volume of abaca fibers per grade</li> <li>4.3 District of production</li> </ul>
5. OSH procedures and practices	May include: <ul style="list-style-type: none"> <li>5.1 Proper Workplace Ventilation</li> <li>5.2 Identifying Hazards and risks</li> </ul>

## EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Classified abaca fiber 1.2 Graded abaca fiber 1.3 Performed marking and tagging graded abaca fiber
2. Resource Implications	The following resources MUST be provided: 2.1 Equipment related to tasks to be performed 2.2 Tools, devices and materials 2.3 Actual or simulated workplace 2.4 Supplementary reading materials 2.5 PPEs
3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Demonstration/ observation with oral questioning 3.2 Written exam 3.3 Interview
4. Context for Assessment	4.1 Competency may be assessed individually in the actual workplace or simulation environment by the institution with TESDA registered program

## GLOSSARY OF TERMS

<b>1. ABACA</b>	A plant scientifically known as <i>Musa textilis</i> Nee of the family Musaceae, is endemic in the Philippines, resembling banana plant but with slenderer stalk; narrower pointed and smaller leaves; and many-seeded fruit
<b>2. ABACA FIBER</b>	Filament extracted and obtained from the stalks of abaca plant. It is internationally known as Manila hemp used in the production of pulp for industrial use, cordage, fiber craft and fabrics
<b>3. ABACA STALK</b>	Refers to a trunk of abaca plant
<b>4. CLEANING</b>	Refers to the thickness of a single strand of fiber and categorized into excellent, good and fair.
<b>5. COLOR</b>	Influenced by the layer of leaf sheaths or the variety from which the fiber is extracted, extent of stripping, oxidation, care taken in drying the fiber, and attack of microorganism on the fiber as a result of poor post-harvest management
<b>6. DECORTICATION</b>	Mechanized process of extracting abaca fiber where leaf sheaths are scraped by means of revolving wheels with blades
<b>7. DRYING</b>	Removal of excess water from the fiber which is done either by sun drying or air drying the abaca fiber before storage
<b>8. FLAG LEAF</b>	Last leaf appearing after planting which indicates maturity or readiness of abaca for harvesting
<b>9. GRADE</b>	Shall refer to the fiber quality as designated by an alphanumeric code generally described as normal, residual and wide strips fiber.
<b>10. HAND STRIPPING</b>	A manual method of extracting fiber by manually pulling the tuxy placed between a block and serrated or non-serrated stripping knife
<b>11. HANK</b>	Refers to bundles of skins of abaca.

<b>12. LEAF SHEATH</b>	The overlapping sheaths that form the stalk (pseudostem) of the abaca plant where the fiber is obtained.
<b>13. LEAF SHEATH ORIGIN</b>	Depends on which leaf sheath position it belongs to (a. outer; b. next to outer; c. middle and; d. inner)
<b>14. LENGTH</b>	Attribute of abaca fiber that varies according to the growth and development of the plant
<b>15. MAT</b>	A group of abaca sucker; can also be called a hill
<b>16. NORMAL GRADE</b>	Fibers with tensile strength ranging from 35-55 kgf/gm, length not less than 60 cm, not discolored, soiled or stained
<b>17. RESIDUAL GRADE</b>	Fiber with less than 35 kgf/gm tensile strength, less than 60 cm in length, soiled, stained, discolored, or excessively strippy
<b>18. SPINDLE STRIPPING</b>	Mechanized method of extracting the fiber where the tuxy is wound around tapered-shape spindle rotated by motor or engine
<b>19. STRIPPING</b>	Process of extracting the fiber from the outer layer of the leaf sheath that contains the primary fibers (aka tuxy) using a knife either in a hand stripping or spindle/machine stripping apparatus
<b>20. STRIPPING DEVICE</b>	A device used for manual stripping of abaca fiber. It consists of a stripping knife, stripping block and wood tensioner
<b>21. STRIPPING KNIFE</b>	A metal shape like a long wooden handle used for hand stripping which may or may not have serrations
<b>22. TAGGED</b>	The act of putting a mark on the harvestable abaca plant
<b>23. TENSILE STRENGTH</b>	Basic quality for all the normal grades, the fiber which must possess the average strength considered normal for the grade in which it is included and measurable by a device called tensile strength tester

<b>24. TEXTURE</b>	Attribute of abaca fiber influenced by the size of the fiber strand and categorized as soft, medium soft and medium
<b>25. TOPPING</b>	Cutting of leaves of stalks prior to tumbling
<b>26. TUMBLING</b>	Cutting of the abaca stalk at the base
<b>27. TUXY</b>	Outer layer of abaca leaf sheath which contains the abaca fiber ( <i>source: Philippine National Standards (PNS)</i> )
<b>28. TUXYING</b>	The process of extracting the outer layer of the leaf sheath using tuxying knife where incision made between the outer and the rest of the layer of the leaf sheath ( <i>source: Philippine National Standards (PNS)</i> )
<b>29. WIDE STRIP</b>	Abaca fiber of very irregular cleaning, too strippy and woody to fit in any of the normal and residual grades

## ACKNOWLEDGEMENTS

The Technical Education and Skills Development Authority (TESDA) would like to recognize the commitment of industry stakeholders who provided their time and expertise to develop these Competency Standards.

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