

PROCESS FARM PRODUCTS

UNIT CODE: AGR/OS/EXT/CR/04/6/A

UNIT DESCRIPTION

This unit specifies competencies required to process farm products (Agro-processing) / (value addition). It involves identification of products for value addition, determine technology/machines and equipment to use, process products to flour and flour products, process vegetables into juice and vegetable products, process fruit into juice, wine and products, process herbal products, process animal products (milk, pork, beef, chicken, fish, rabbit and bee products), process animal products (milk, pork, beef, chicken, fish, rabbit and bee products) and Package processed products.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range.</i>
1. Identify products for value addition	1.1 Products for value additions <i>are</i> chosen as per perishability and customer preference 1.2 Products for value addition are sourced as per product value requirement
2. Determine technology/machines and equipment to use	2.1 Products to be processed are identified as per client requirement 2.2 <i>Technology used</i> is determined as per product type 2.3 The machines or equipment used are determined as per technology of value addition used.
3. Process products to flour and flour products	3.1 Products are milled into flour in accordance to miller's association guidelines and KEBS specifications. 3.2 <i>Flour products</i> are prepared as per recipe manual
4. Process vegetables into juice and vegetable products	4.1 Vegetables to process into juice are identified as per horticulture technical manual 4.2 vegetables are processed into <i>juice</i> and products as per juice making recipes manual 4.3 Vegetables are dried and grounded into powder as per value addition manual
5. Process fruit into juice, wine and products	5.1 Fruits to process into juice are identified as per horticulture technical manual 5.2 Fruits are processed into juice and products as per juice making recipes manual 5.3 Fruits are made into slices and dried as per value addition manual 5.4 Fruits are processed and fermented into wine as per SOPs
6. Process Herbal	6.1 Herbs are identified as per small scale horticultural development

products	programme manual 6.2 herbs are processed into herbal products
7. Process animal products	7.1 Animal products are identified as per livestock production manual 7.2 Animal products are processed as per livestock products value addition manual 7.3 Processed products are packaged and labeled as per standardization requirement.

RANGE OF VARIABLES

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

RANGE	VARIABLE May include but not limited to:
1. Products may include but not limited to:	<ul style="list-style-type: none"> • Bananas • Millet • Wheat • Moringa • Stinging nettle • Amaranths • Macadamia
2. Technology used may include but not limited to:	<ul style="list-style-type: none"> • Milling • Grinding • Solar drying • Blending • Hulling
3. Flour products may include but not limited to:	<ul style="list-style-type: none"> • Bread • Biscuits • Cakes • Soap
4. Juices may include but not limited to:	<ul style="list-style-type: none"> • Wine • Fruit juice • Vegetable juice
5. Animal products may include but not limited to:	<ul style="list-style-type: none"> • Yoghurt • Mala • Cheese • Butter • Sausage • Leather

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required Skills

The individual needs to demonstrate the following skills:

- Value adding
- Machine use

Required knowledge

The individual needs to demonstrate knowledge of:

- Value addition technologies
- Type of machines and equipment for value addition
- Human nutrition
- Milling process
- Types of flour and flour products
- waste disposal
- Types of vegetables (local and exotic)
- vegetable processing methods
- Vegetable drying procedures
- handling value addition equipment
- Personal hygiene
- Climate change
- crisps making
- Waste disposal
- Types of fruits (local and exotic)
- Fruits processing methods
- Fruits drying procedures
- handling value addition equipment
- Personal hygiene
- Climate change
- wine making procedures
- Types of herbs
- Herbal products
- Herbs processing technologies and procedures
- Types of animal products to be processed
- Yoghurt, mala, cheese, butter, ice cream, UHT, and sweetened milk making
- Pork, beef, chicken, fish and rabbit value addition
- honey and wax processing
- Packaging methods
- packaging machines
- Packaging materials
- Personal hygiene

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical aspects of competency	Assessment requires evidence that the candidate: Demonstrated: 1.1 Understanding of the types of products use 1.2 Understanding the type of technology to be used 1.3 Understanding product quality control products 1.4 Understanding of occupational health standards 1.5 Ability to use the technology 1.6 Ability to make a product
2. Resource implication	The following resources should be provided: 2.1 Raw materials 2.2 Tools and equipment 2.3 Recipes
3. Method of assessment	Competency in this unit may be assessed through: 3.1 Projects 3.2 Observation 3.3 Written tests 3.4 Questionnaires 3.5 Oral questioning 3.6 Demonstration
4. Context of assessment	4.1 Competency elements must be assessed in a safe working environment 4.2 Assessment may be conducted in a workplace or simulated environment 4.3 During industrial attachment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.