

PASSION FRUIT PROCESSING

ISCED UNIT CODE:0811 251 03A

TVETCDACC UNIT CODE:AG/CU/PF/CR/03/3/MA

Relationship to Occupational Standards

This unit addresses the unit of competency: Process passion fruits.

Duration of Unit: 30 hours

Unit Description

This unit specifies the competencies required to process passion fruits. It involves preparing the passion fruit processing unit, sourcing passion fruits, preparing the fruits for processing, preparing passion fruit products, packaging the products, maintaining the quality of the passion fruit products, and, management of passion fruit processing wastes

Summary of Learning Outcomes

SNO	Learning Outcome	Duration (hours)
1.	Prepare passion fruit processing unit	3
2.	Source passion fruits	4
3.	Prepare passion fruits for processing	4
4.	Prepare passion fruit products	5
5.	Package passion fruit products	5
6.	Maintain passion fruit product quality	5
7.	Manage processing wastes	4

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Prepare passion fruit processing unit	1.1 Processing unit 1.1.1 Requirements 1.1.2 Setting up	<ul style="list-style-type: none">• Observation• Practical test• Portfolio of

	<ul style="list-style-type: none"> ▪ Cleaning ▪ Arrangement <p>1.2 Processing tools and equipment</p> <p> 1.2.1 Types</p> <p> 1.2.2 Assembling</p>	<p>evidence</p> <ul style="list-style-type: none"> • Oral questioning • Third party report • Written tests • Assignments
2. Source passion fruits	<p>2.1 Qualities of passion fruit for processing</p> <p>2.2 Bulking strategies for passion fruits</p> <p> 2.2.1 Supplier contracting</p> <p> 2.2.2 Cooperatives</p> <p> 2.2.3 Farmer groups</p> <p>2.3 Receiving procedures</p>	<ul style="list-style-type: none"> • Observation • Practical test • Portfolio of evidence • Oral questioning • Third party report • Written tests • Assignments
3. Prepare passion fruits for processing	<p>3.1 Definition of terms:</p> <p> 3.1.1 OSHS</p> <p> 3.1.2 PPEs</p> <p>3.2 Personnel safety requirement in passion processing facility</p> <p>3.3 Grading and sorting</p> <p> 3.3.1 Sorting procedures</p> <p> 3.3.2 Cleaning options</p> <p> 3.3.3 Grading parameters</p> <p> 3.3.4 Brix testing</p>	<ul style="list-style-type: none"> • Observation • Practical test • Portfolio of evidence • Term project • Oral questioning • Third party report • Written tests • Assignments
4. Prepare passion fruit products	<p>4.1 Processing of passion fruit products</p> <p> 4.1.1 Types of passion fruit products</p> <p> 4.1.2 Processing tools, equipment and materials</p> <p> 4.1.3 Processing procedures</p> <p> 4.1.4 Mixing ratios of passion fruit</p>	<ul style="list-style-type: none"> • Observation • Practical test • Portfolio of evidence • Oral questioning • Third party report • Written tests

	<p>products</p> <p>4.1.5 Preservation</p> <p>4.2 Processing wastes management</p>	<ul style="list-style-type: none"> • Assignments
5. Package passion fruit products	<p>5.1 Labelling and branding</p> <p>5.1.1 Required information on labels</p> <p>5.1.2 Traceability measures</p> <p>5.1.3 Packaging</p> <p>5.1.4 Types and quality requirements of packaging material</p> <p>5.1.5 Importance of packaging</p> <p>5.1.6 Packaging procedures</p> <p>5.2 Storage options, facilities and techniques for various passion fruit products</p>	<ul style="list-style-type: none"> • Observation • Practical test • Portfolio of evidence • Term project • Oral questioning • Third party report • Written tests • Assignments
6. Maintain passion fruit product quality	<p>6.1 Cleaning, handling and safety standards for processing tools and equipment</p> <p>6.2 Personal and general hygiene requirements</p> <p>6.3 Sampling techniques for products and raw materials</p> <p>6.4 Quality test results interpretation</p> <p>6.5 Batching and coding</p> <p>6.5.1 Importance</p> <p>6.5.2 Techniques</p> <p>6.6 Regulations and standards of fresh fruit and products packaging in Kenya</p> <p>6.6.1 Hygiene standards</p> <p>6.6.2 Safety standards</p> <p>6.6.3 Standardization procedures</p>	<ul style="list-style-type: none"> • Observation • Practical test • Portfolio of evidence • Oral questioning • Written tests • Assignments

7. Manage processing wastes	7.1 Definition of terms 7.2 Waste management regulations 7.3 Types of wastes <ul style="list-style-type: none"> 7.3.1 Peels/crust 7.3.2 Seed 7.3.3 Water 7.3.4 Waste pulp / juice 7.3.5 Packaging materials 7.4 Handling of wastes <ul style="list-style-type: none"> 7.4.1 Collection 7.4.2 Separation 7.4.3 Reducing 7.4.4 Recycling 7.4.5 Reusing 7.4.6 Safe disposal 	<ul style="list-style-type: none"> • Observation • Practical test • Portfolio of evidence • Oral questioning • Written tests • Assignments
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Suggested Methods of Instruction

- Demonstration by trainer
- Direct instruction by trainer
- Practice by the trainee
- Role play
- Simulation
- Field trips / site visits
- Group discussions
- Computer aided learning
- Viewing relevant videos
- Guest speakers
- assignments

Recommended Resources for 25 Trainees

- 10 Boilers

- Assorted Bottles
- Sample Branding labels and certificates
- 10 Buckets
- Clean Water
- 5 Computers
- 10 Cooker or stove
- 10 Crates, cartons and pallets
- 25 Jugs/jars
- 5 Juice blending and packing machines
- 2 Ladders
- 5 LCD projectors
- 1 Pack-house
- 2 Pasteurizers
- 25 sets of PPEs
- 1 Processing unit
- 2 Pulping machines
- 25 Sieves
- 10 Sorting or grading tables
- 10 Weighing scales