

APIARY ESTABLISHMENT

UNIT CODE: 0811 341 01 A

TVET CDACC UNIT CODE: AGR/CU/API/CR/01/4/MA

UNIT DURATION: 150 Hours

Relationship to Occupational Standard

This unit addresses the Unit of Competency: Carry out apiary establishment

Unit Description

This unit covers the competencies required to carry out apiary establishment. It involves selecting apiary site, preparing apiary site, constructing bee house, installing bee hives and stocking bee hives.

Summary of learning outcomes

By the end of this unit of learning, the trainee should be able to:

S/No	Learning Outcomes	Duration (Hours)
1.	Select Apiary Site	30
2.	Prepare Apiary Site	30
3.	Construct Bee house	30
4.	Install bee hives	30
5.	Stock bee hives	30
Total		150

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Select apiary site	1.1 PPEs <ul style="list-style-type: none"> 1.1.1 Types <ul style="list-style-type: none"> ✓ Gumboot ✓ Gloves ✓ Overall ✓ Dust coats ✓ Bee suit 1.1.2 Uses 1.1.3 Maintenance 1.1.4 Importance 1.2 farm layout design 1.3 apiary sight identification 1.4 Site selection records	<ul style="list-style-type: none"> • Practical • Project • Written tests • Third party report • Portfolio of evidence • Oral questions
2. Prepare apiary site	2.1 PPEs 2.2 Apiary site preparation Tools, equipment and materials <ul style="list-style-type: none"> 2.2.1 Jembe 2.2.2 Monkey strainer 2.2.3 Hammer 2.2.4 Tape measure 2.2.5 Slasher 2.2.6 Rake 2.2.7 Hand saw 2.3 Apiary site clearing 2.4 Apiary site levelling 2.5 Apiary site demarcation	<ul style="list-style-type: none"> • Practical • Project • Written tests • Third party report • Portfolio of evidence • Oral questions

	<p>2.6 Site preparation records</p> <p>2.7 Management of farm waste</p>	
3. Construct bee house	<p>3.1 PPEs</p> <p>3.2 Tools, equipment and materials used</p> <p>3.3 bee house layout</p> <p>3.3.1 Factors affecting size of bee house</p> <ul style="list-style-type: none"> ✓ Size of land ✓ Materials available ✓ Availability of capital <p>3.4 Bee house construction</p> <p>3.5 bee house construction records</p> <p>3.6 bee house waste management</p>	<ul style="list-style-type: none"> • Practical • Project • Written tests • Third party report • Portfolio of evidence • Oral questions
4. Install bee hives	<p>4.1 PPEs</p> <p>4.2 Tools, equipment and materials</p> <ul style="list-style-type: none"> 4.2.1 Monkey strainer 4.2.2 Hammer 4.2.3 Tape measure 4.2.4 Hand saw 4.2.5 Chain link 4.2.6 Barbed wire 4.2.7 Poles 4.2.8 Nails <p>4.3 Types of Bee hives</p> <ul style="list-style-type: none"> 4.3.1 Langstroth bee hive 4.3.2 Kenya Top Bar Hive (KTBH) 4.3.3 Log hive <p>4.4. Bee hives cleaning</p> <p>4.5 Bee hives labelling</p> <p>4.6 Bee hives baiting</p>	<ul style="list-style-type: none"> • Practical • Project • Written tests • Third party report • Portfolio of evidence • Oral questions

	<p>4.7 Bee hives stand fixing</p> <p>4.8 Bee hives suspension</p> <p>4.9 Bee hives installation records</p> <p>4.10 Waste management</p>	
5. Stock bee hives	<p>5.1 PPEs</p> <p>5.2 Tools, equipment and materials</p> <p> 5.2.1 Beehive components</p> <p> 5.2.2 Protective Gear</p> <p> 5.2.3 Hive tool</p> <p> 5.2.4 Smoker</p> <p> 5.2.5 Bee brush</p> <p> 5.2.6 Feeding equipment</p> <p>5.3 Trapping a bee swarm</p> <p>5.4 Bee lures and attractants</p> <p> 5.4.1 Pheromones</p> <p> 5.4.2 Old comb and wax</p> <p> 5.4.3 Honey or sugar water</p> <p> 5.4.4 Floral scents</p> <p> 5.4.5 Bee colonies</p> <p> 5.4.5.1 Queen</p> <p> 5.4.5.2 Worker bees</p> <p> 5.4.5.3 Drones</p> <p>5.5 Colony divisions</p> <p>5.6 Stoking records</p> <p>5.7 Waste management</p>	<ul style="list-style-type: none"> • Practical • Project • Written tests • Third party report • Portfolio of evidence • Oral questions

Suggested Methods of Instruction

- Practical
- Direct instruction
- Group discussion

- Demonstrations
- Project-Based Learning (PBL)

Recommended Resources for 25 Trainees

S/no	Tools and Equipment	Specification	Quantity	Ratio
1.	Tape measure		15	1:2
2.	Level		15	1:2
3.	Hive tool		15	1:2
4.	Smoker		15	1:2
5.	Bee brush		15	1:2
6.	Feeding equipment		25	1:1
7.	Timber			
8.	Nails			
9.	Hammer		25	1:1
10.	Tape measure		15	1:2
11.	Hand saw		15	1:2
12.	Chain link			
13.	Barbed wire			
14.	Beehive components			
15.	sweep nets		15	1:2
16.	Feeders			
17.	Water source			
18.	Sugar, syrup, honey			