

PRODUCTION OF FISH FEEDS

UNIT CODE: 0831 341 04A

TVET CDACC UNIT CODE: AQ/CU/AM/CR/02/4/MA

UNIT DURATION: 150 HOURS

RELATIONSHIP TO OCCUPATIONAL STANDARDS

This unit addresses the unit of competency: produce fish feeds

UNIT DESCRIPTION

This unit specifies the competencies required to produce fish feeds. It involves culturing live feed; preparing formulated fish feed; administering live fish feeds and administer formulated fish feeds.

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.	Culture natural fish feeds	50
2.	Produce on-farm formulated fish feeds	30
3.	Package and store fish feeds	20
4.	Keep records	50
Total		150

LEARNING OUTCOMES, CONTENT AND SUGGESTED ASSESSMENT METHODS

LEARNING OUTCOMES	CONTENT	SUGGESTED ASSESSMENT METHODS
1. Culture natural fish feeds	<p>1.1 PPEs</p> <ul style="list-style-type: none"> 1.1.1 Gumboots, 1.1.2 Helmets, 1.1.3 Gloves, 1.1.4 Overalls, First aid kits <p>1.2 Tools and equipment selection.</p> <ul style="list-style-type: none"> 1.2.1 Feed mixer 1.2.2 Feed extruder 1.2.3 Tanks 1.2.4 Assorted Sieves <p>1.3 Cleaning, liming, drying and flooding pond with water</p> <p>1.4 Natural productivity of pond</p> <p>1.5 Inoculation of live fish feeds</p> <ul style="list-style-type: none"> 1.5.1 Daphnia 1.5.2 Rotifera 1.5.3 Artemia 	<ul style="list-style-type: none"> • Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning

	<p style="text-align: center;">1.5.4 Moina</p> <p style="text-align: center;">1.5.5 Copepods</p>	
2. Produce on-farm formulated fish feeds	<p>2.1 On-farm feed production materials and equipment</p> <p>2.2 Formulation of feed composition</p> <p>2.3 Treatments of feed ingredients</p> <p>2.4 Milling of feed ingredients</p> <p>2.5 Adding of Feed additives</p> <p>2.5.1 Feed binders</p> <p>2.5.2 Antioxidants</p> <p>2.5.3 Antibiotics</p> <p>2.5.4 Chemo-attractants</p> <p>2.5.5 Anabolic agents</p> <p>2.5.6 Feed stimulants</p> <p>Pigments</p> <p>2.6 Weighing and mixing of formulated feeds</p> <p>2.7 Pelleting of feed mixture</p> <p>2.8 Carry out preparation of formulated fish feeds</p>	<ul style="list-style-type: none"> • Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning

3. Package and store fish feeds	3.1 Weighing and packaging of fish feeds 3.2 Storing of dry fish feeds 3.3 Refrigeration of moist fish feeds	<ul style="list-style-type: none"> • Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning
4. Keep records	4.1 Record of feed ingredients <ul style="list-style-type: none"> 4.1.1 Types 4.1.2 Date procured 4.1.3 Store quantities 4.2 Preparation of feeds record 4.3 Records of food safety parameters maintenance 4.4 Feeding of produced feeds 4.5 Monitoring of fish growth rate 4.6 Record keeping of fish growth rate	<ul style="list-style-type: none"> • Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning

Suggested Methods of Instruction

- Project
- Demonstration

- Practical
- Discussions
- Direct instruction

Recommended resources for 25 trainees.

S/NO	Category/Item	Description/specification	Qty	Recommended ratio (item: trainee)
	Projector	EPSOM	1	1:25
	Whiteboard/smartboard	2.5 By 1.5.M	1	1:25
	Desktop/computer		1	1:25
	Classroom	Well-lit with 25 seats	1	1:25
	Feed analysis laboratory	Well equipped	1	1:25
	Feed quality Journals	easyvet.com	5	1:5
	Sets of Writing materials		25	1:25
	Video clips		5	1:25
	Human resource	Trainer and Technician	2	1:25
	Library	Equipped with animal nutrition books and E-section	1	1:25