083105T4AQC
AQUACULTURE MANAGEMENT LEVEL 5
AQ/OS/AT/CR/02/5/A
Produce Fish Feeds
March/April 2025



## TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

easytheticom

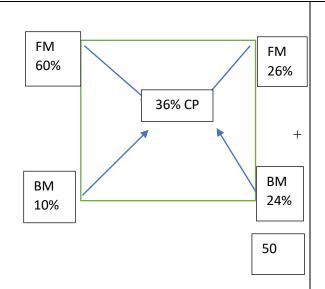
## PRACTICAL ASSESSMENT

## INSTRUCTIONS TO ASSESSOR

- 1. Assess the candidate as the practical progresses observing the critical areas
- 2. You are required to mark the practical as the candidate perform the tasks
- 3. You are required to take video clips at critical points
- 4. Ensure the candidate has a name tag and registration code at the back and front

## **OBSERVATION CHECKLIST**

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: Please award marks as	Marks	Marks	Comments
appropriate. Give a brief comment on your observation.	Available	Obtained	
Task 1: Perform feed formulation			
Wore appropriate attire.			T
<ul><li>Glove</li></ul>	1		
<ul> <li>Gumboots</li> </ul>	1		
Headgear/hairnet	1		
<ul> <li>Apron/dustcoat</li> </ul>	1		
<ul> <li>Mouth piece/ face mask</li> </ul>	Bri		
(The above PPEs must be worn during these tasks)			
2. Cleaned and organized the work area			
• Cleaned/wiped the work area.	1		
<ul> <li>Organized/assembled all the tools and</li> </ul>			
materials on the working bench	2		
(Award full marks only if all the materials in the			
candidate instruction tool have been assembled			
and that none is collected after the start of the			
practical)			
<ol> <li>Formulated the fish feed using Pearson square method</li> </ol>			
The candidate should show computation as follows:			



- Drawn Pearson square.
- Indicated fish meal on the left corner.
- Indicated broken maize on the left corner.
- Indicated CP (36%) in the middle.
- Subtracted broken maize from 36% CP, getting 26% and indication on the right corner of the Pearson square.
- Subtracted fish meal from 36% CP, getting 24% and indication on the right corner of the Pearson square.
- Added 26% to 24% to get 50% and indicating the total below the table.
- % of fish meal in the whole feed =  $\frac{26\%}{50\%}$  x 100% = 52% of the total feed.
- % of broken maize in the whole feed =  $\frac{24\%}{50\%}$  x 100% = 48% of the total feed.

(Award full marks or zero)

1

1

1

a di

2

2

2

2

2

Quantity of fish meal in the feed = \$2		
• Quantity of broken maize in the feed = 48%/ <sub>100%</sub> x 1000g = 480g/0.48kg   26  Sub-Total 1  Task 2: Produce the feed (For this task, give marks based on the process of feed production even if the candidate missed the feed formulation marks on the task above)  4. Weighing  • Weighed 520 grams of fish meal. (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize. (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin	• Quantity of fish meal in the feed =	2
Sub-Total 1  Task 2: Produce the feed (For this task, give marks based on the process of feed production even if the candidate missed the feed formulation marks on the task above)  4. Weighing  • Weighed 520 grams of fish meal.  (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize.  (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin	$\frac{52\%}{10\%}$ x $1000$ g = $520$ g/0.52kg	
Task 2: Produce the feed (For this task, give marks based on the process of feed production even if the candidate missed the feed formulation marks on the task above)  4. Weighing  • Weighed 520 grams of fish meal. (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize. (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin	• Quantity of broken maize in the feed =	2
Task 2: Produce the feed (For this task, give marks based on the process of feed production even if the candidate missed the feed formulation marks on the task above)  4. Weighing  • Weighed 520 grams of fish meal. (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize. (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin	$48\%/_{100\%} \times 1000g = 480g/0.48kg$	
Task 2: Produce the feed (For this task, give marks based on the process of feed production even if the candidate missed the feed formulation marks on the task above)  4. Weighing  • Weighed 520 grams of fish meal.  (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize.  (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin		
4. Weighing  • Weighed 520 grams of fish meal.  (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize.  (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin	Sub-Total 1	26
4. Weighing  • Weighed 520 grams of fish meal.  (Award 2 marks for weighing and 1 mark for accuracy)  • Weighed 480 grams of broken maize.  (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling  • Connected the blender to a power source  • Added fish meal to the blender  • Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender  • Powered the blender and ground broken maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin	Task 2: Produce the feed (For this task, give man	rks based on the process of feed production even
<ul> <li>Weighed 520 grams of fish meal. (Award 2 marks for weighing and 1 mark for accuracy) <ul> <li>Weighed 480 grams of broken maize.</li> </ul> (Award 2 marks for weighing and 1 mark for accuracy) </li> <li>Milling <ul> <li>Connected the blender to a power source</li> <li>Added fish meal to the blender</li> <li>Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating) <ul> <li>Added broken maize to the blender</li> <li>Powered the blender and ground broken maize to fine particles</li> </ul> </li> <li>Mixing <ul> <li>Transferred fish meal powder to the wide basin</li> </ul> </li> </ul> </li> </ul>	if the candidate missed the feed formulation marks	s on the task above)
Weighed 480 grams of broken maize.  (Award 2 marks for weighing and 1 mark for accuracy)  5. Milling     Connected the blender to a power source     Added fish meal to the blender     Connected the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender     Powered the blender and ground broken maize to fine particles  6. Mixing     Transferred fish meal powder to the wide basin		3
<ul> <li>Weighed 480 grams of broken maize. (Award 2 marks for weighing and 1 mark for accuracy)</li> <li>Milling</li> <li>Connected the blender to a power source</li> <li>Added fish meal to the blender</li> <li>Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)</li> <li>Added broken maize to the blender</li> <li>Powered the blender and ground broken maize to fine particles</li> <li>Mixing</li> <li>Transferred fish meal powder to the wide basin</li> </ul>		
5. Milling Connected the blender to a power source Added fish meal to the blender Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  Added broken maize to the blender Powered the blender and ground broken maize to fine particles  Mixing Transferred fish meal powder to the wide basin	Weighed 480 grams of broken maize.	3
<ul> <li>Connected the blender to a power source</li> <li>Added fish meal to the blender</li> <li>Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)</li> <li>Added broken maize to the blender</li> <li>Powered the blender and ground broken maize to fine particles</li> <li>Mixing</li> <li>Transferred fish meal powder to the wide basin</li> </ul>		com
<ul> <li>Added fish meal to the blender</li> <li>Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)</li> <li>Added broken maize to the blender</li> <li>Powered the blender and ground broken maize to fine particles</li> <li>Mixing</li> <li>Transferred fish meal powder to the wide basin</li> </ul>	5. Milling	
<ul> <li>Connected the blender to the power source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  <ul> <li>Added broken maize to the blender</li> <li>Powered the blender and ground broken maize to fine particles</li> </ul> </li> <li>Mixing  <ul> <li>Transferred fish meal powder to the wide basin</li> </ul> </li> </ul>	Connected the blender to a power source	1
source, powered the blender and ground fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender • Powered the blender and ground broken maize to fine particles  6. Mixing • Transferred fish meal powder to the wide basin		1
fish meal to more fine particles  (Award 1 mark for each; plugging, powering, operating)  • Added broken maize to the blender • Powered the blender and ground broken maize to fine particles  6. Mixing • Transferred fish meal powder to the wide basin	_	3
<ul> <li>Powering, operating)</li> <li>Added broken maize to the blender</li> <li>Powered the blender and ground broken maize to fine particles</li> <li>Mixing</li> <li>Transferred fish meal powder to the wide basin</li> </ul>	-	
<ul> <li>Powered the blender and ground broken maize to fine particles</li> <li>Mixing</li> <li>Transferred fish meal powder to the wide basin</li> </ul>		
maize to fine particles  6. Mixing  • Transferred fish meal powder to the wide basin  2	Added broken maize to the blender	1
• Transferred fish meal powder to the wide basin 2	1	2
(Award 2 marks for using the wide basin	Transferred fish meal powder to the wide	2
	(Award 2 marks for using the wide basin	

<ul> <li>or 1 mark for using the small basins in mixing)</li> <li>Transferred the ground maize to the wide basin</li> <li>Mixed the fish feeds         <ul> <li>(Award 2 marks for manual mixing or zero)</li> </ul> </li> <li>Achieved a homogeneous mixture where the two ingredients cannot be separated.</li> <li>(Award 2 marks for a homogeneous mixture or 1)</li> </ul>	2 2 2
7. Collected, cleaned and dried the tools, work area and equipment used  (Award 1 mark each)	3
8. Sorted and stored all the used tools, materials and equipment in appropriate storage areas.  (Award 1 mark for sorting and 1 for storing the tools in respective storage areas)	
<ul> <li>Waste management</li> <li>Collected, sorted the wastes into biodegradable and non-recyclable wastes and disposed of the wastes based on the categories.</li> </ul> (Award 1 mark for collection, 2	5
marks for sorting the wastes and 2 marks for proper disposal)	
Sub-Total 2	32
GRAND TOTAL	

	58				
ASSESSMENT OUTCOME					
The candidate was found to be:					
(Please tick as appropriate)	Not ye	et Competent			
(The candidate is competent if the candidate obtain	(The candidate is competent if the candidate obtains at least 50%)				
Feedback from the Candidate:					
Feedback to the Candidate:					
Candidate Signature		ate:			
Assessor's Signature	D	ate			