

071604T4AME

AGRICULTURAL MACHINERY AND EQUIPMENT LEVEL 4

ENG/OS/AME/CR/02/4/A

Calibrate Field Equipment

March/April 2025



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

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: <i>Please award marks as appropriate. Give a brief comment on your observation.</i>	Marks Available	Marks Obtained	Comments
1. Wore PPEs: • Overall/ dustcoat • Safety boots <i>(Award 1 mark each or Zero)</i>	2		
TASK 1: Mounting the seed drill/precision planter on a tractor			
2. Mounted the implement on the tractor • Used the hydraulic lever to lower the bottom link to the same level hitch points of the implement • Attached one of the bottom link • Attached the top link • Attached the other bottom link <i>(Award 2 mark each correct step or Zero)</i>	2 2 2 2		
Sub-Total 1	10		
TASK 2: Calibrate seed drill/precision planter by field calibration method.			
3. Determined the nominal width (W) of the seed drill. • Measured the furrow opener spacing using a tape measure • Calculated the width of the planter ($W=N \times S$) N= Number of furrow	2 2		

S = Furrow spacing (Award 2 mark each correct step or Zero)			
4. Identified the reference area - Measured 10m distance - Marked the distance with two easily identifiable markers (Award 2 mark each correct step or Zero)	2 2		
5. Determined the seed population per hectare - Loaded the seeds into the seed hoppers - Removed the rubber seed pipe from the seed boots so that the seeds can be on placed on the soil surface and easily seen - Ran the planter and the tractor as normal planting over the (10 m) - Collected the seeds dropped over the distance (10 m) - Weighed the seeds collected and recorded in as y Kg - Calculated the plant population Plant population per ha = $\frac{10000y}{10 \times s \times N}$ (Award 2 mark each correct step or Zero)	2 2 2 2 2 2		
6. Repeated the process by suitable adjusting the rate control till desired rate of seed drop was obtained. (Award 2 mark or zero)	2		
7. Unmounted the implement Lowered the implement using the hydraulic lever	2		

- Removed the remaining seeds from the hopper - Removed the attaching pin <i>(Award 2 mark each correct step or Zero)</i>	2		
8. Cleaned the working area, tools and equipment <i>(Award 1 mark or zero)</i>	2		
Sub-Total 2	30		
GRAND TOTAL	40		
ASSESSMENT OUTCOME			
The candidate was found to be: Competent ☐ Not yet Competent ☐ <i>(Please tick as appropriate)</i> <i>(The candidate is competent if the candidate obtains at least 50%)</i>			
Feedback from the Candidate:			
Feedback to the Candidate:			
Candidate Signature		Date:	
_____		_____	
Assessor's Signature		Date	
_____		_____	