

2017-2018

Primary Industries

Cluster E

Machinery

Assessment Task



Units of Competency:

AHCMOM202	Operate tractors
AHCNSY203	Undertake propagation activities
AHCSOL202	Assist with soil or growing media sampling and testing

Student Name: _____

Date of Issue: 14-06-2018

Due Date: 29-06-2018

Teachers: The completed student assessment task and the Evidence and Answer Guide must be securely retained on QMS for six months after the completion of the course. Also retain any other evidence that demonstrated how the student was deemed competent e.g. written tasks, photographs, videos.

STUDENT ASSESSMENT TASK

STUDENT NAME: _____

Date of Issue: 14-06-2018

Name of Task	Cluster E: Machinery
Name of VET Course	Primary Industries
Qualification Code and Name	AHC20116 Certificate II in Agriculture
Assessor Name(s):	[Insert teacher name]
Units of Competency Assessed	AHCMOM202 - Operate tractors AHCNSY203 - Undertake propagation activities AHCSOL201 - Assist with soil or growing media sampling and testing
Pre-requisite units	Nil
Assessment Conditions	Skills must be demonstrated on the school farm. Assessment must be completed by an individual. The assessment involves operating a tractor, answering questions on tractor safety, growing a suitable horticultural crop and testing the soil.
Resources and equipment required for Assessment	Students must provide the following for this assessment: Tractor and basic maintenance equipment, flower, vegetable or annual crops, fertilisers, PPE, appropriate planting equipment, soil/media testing equipment and monitoring equipment

Students must complete knowledge and skills development activities which prepare for and may contribute to assessment of competence.

Assessment Method	Units of Competency	Duration (indicated hours)	Due Date
Part A: Written	AHCMOM202 Operate tractors	1 hour	The completed cluster assessment task is to be submitted to the assessor – Dr. A. O. Ajuyah, following school procedures by: 29-06-2018 • In class on the due date
Part B: Practical and Written	AHCMOM202 Operate tractors	1 Hour	
Part C: Written	AHCNSY203 Undertake propagation activities	1 Hour	
Part D: Practical and Written	AHCNSY203 Undertake propagation activities	Progressively over time of propagation	
Part E: Written and Practical	AHCSOL201 - Assist with soil or growing media sampling and testing	30 minutes	

Foundation Skills incorporating language, literacy, numeracy and employment skills required for competent performance are embedded in the units of competency.

Additional Requirements

I have special needs and require adjustments to undertake this task. YES NO

Describe here how the task was modified for special needs and/or EAL/D e.g.

- Altering/simplifying the language used _____
- Providing support staff _____
- Providing tutorial sessions _____
- Providing additional time to complete the task _____
- Altering assessment methods used _____

Please note, when altering an assessment method such as use of verbal questioning instead of written response teacher must indicate alteration on the task (e.g. **V** written next to question)

Student Acknowledgement (To be completed before student is assessed)

I understand:

- The requirements of the assessment task and assessment methods.
- What is being assessed and can perform the tasks described in this assessment.
- I can apply for Recognition of Prior Learning (RPL), or Credit Transfer
- All work submitted must be my own and must not be copied from another person or source.
- The assessment appeals process.

Name Student's Signature: Date:

Part A: Written – Tractor Safety

Instructions to students:

- You must attempt and complete **ALL** questions satisfactorily.
- Answer all questions in the space provided.

1. Identify the various hazards associated with tractor usage and complete a safety audit.

Safety Audit

Task / Activity	Hazard Identification Type/Cause	Risk Assessment Use matrix	Elimination or Control Measures
Example: Driving the tractor	Tractor Roll Over	1, 2	Use the hierarchy of controls * Wear seat belt * ensure ROPS are fitted.
1			
2			
3			
4			
5			

2. Devise safe operating procedures (SOP) for any 3 of the identified hazards from question 1.

SOP – Standard Operating Procedure

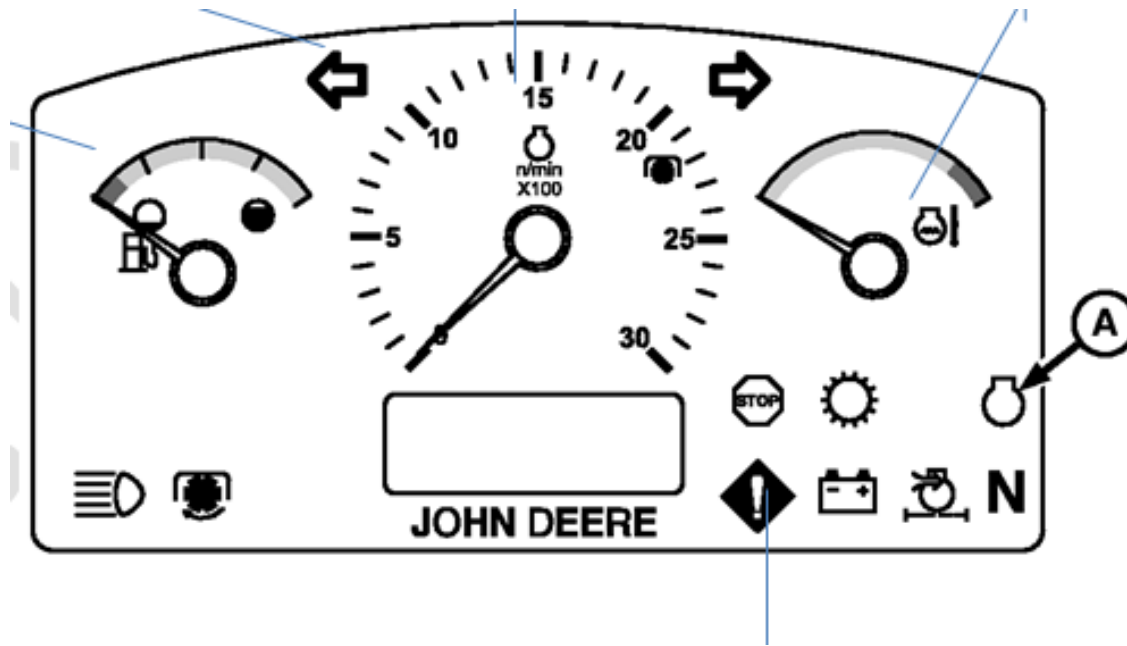
Task	PPE / Equipment	Procedure

3. Answer True or False to each question	True/ False
1. According to the <i>Work Health and Safety Act 2011 (NSW)</i> , it is the employee's responsibility to take reasonable care for the health and safety of others on the work site	
2. It is the responsibility of a PCBU (person conducting a business or undertaking) to check that workers always have their PPE on.	
3. Use of machinery and implements on farms falls under <i>The Plant Code of Practice (2005)</i>	
4. According to the Work Health and Safety ACT 2011 (NSW), a responsibility of a PCBU is to provide and maintain systems of work and work environments that are safe and without risks to health, provide training and consult with others	
5. If you do not fully understand some of the instructions given to you during on-the-job training for tractor operations, you should seek clarification by questioning your instructor	
6. If you are instructed by your supervisor to operate a piece of machinery that is missing a safety guard, you should notify the supervisor of the faulty equipment	
7. You should refer to the tractor manual to find out the load limits for the tractor you are operating	
8. You need a Conditional License to drive on a public road	
9. On a safety decal the most serious safety messages are usually coloured blue and white	
10. An employee arrives at work to find an item of equipment with a safety tag attached. The tag states 'DO NOT OPERATE'. The employee should Leave the tag in place and look for alternative equipment to do the job.	

4. Label the parts of the tractor and the instrument panel on the diagrams below. There are 5 important parts to label on this tractor.



Ultimo RTO 90072



Draw arrows and label the 5 features of the instrument pane

Student Feedback - Part A: Written – Tractor Safety	<input type="checkbox"/> Satisfactory
Student competently answers questions about:	<input type="checkbox"/> More Evidence Required
Identify various hazards related to tractor operation.	
Devise appropriate safe work practices for the identified hazards.	
Student identifies parts of the tractor and instrument panel	
Assessor Signature:	Date:

Part B: Tractor practical

Instructions to students:

- Work in a safe and appropriate manner at all times.
- Follow all verbal and written instructions provided by your teacher and communicate effectively with others.
- Your teacher must observe as you complete this part of the task. The teacher will complete an observation checklist and provide verbal and written feedback.
- You may complete this task in person, or where appropriate you may negotiate with your teacher to film or record your performance (NB this must be negotiated with your teacher in advance and photographic and video evidence must be submitted with your task.)
- Your performance will be assessed on how you:
 - Perform pre operational checks on the tractor
 - Drive the tractor and complete post operations tasks
- Your teacher may ask oral questions to clarify your understanding during the practical demonstration of your skills. Your teacher will record your responses to oral questions on the observation checklist.

1. Participate in the practical activities to demonstrate the following:

- a. Pre-operational checks
- b. Drive the tractor without an implement to the agreed plan across different terrain, concrete, gravel and paddock
- c. Drive the tractor with implement attached
- d. Implement shutdown procedures
- e. Complete post operational checks, cleaning and storage
- f. Complete operational reports / records (on the table on page)

a. Tractor Pre Operational checks. List what you should check prior to operating a tractor. The number of things you need to check is indicated against each check.

Check	What did you check
e.g. Tractor for defects	1. Obvious fluid leaks 2. No Roll Over Protection 3. Clean floor space, tools mud, oil.
Attachments for defects	1. 2.
Wheels and tyres	1. 2.
Air Cleaner	1.

Lights, switches, gauges, signals	1. 2. 3. 4.
Fluid Levels	1. 2. 3.
Greasing points, nipples	1. 2.
Guards	1. 2.

b. Tractor and Equipment Usage

Complete this table for the dates you used the tractor

Date	Activity based on "agreed plan" e.g. ploughing	Equipment used	Time spent on activity	Report any faults or damage	Details of any cleaning done to equipment	Supervisors initial

Completed by: _____ Date: _____

Satisfactory Not satisfactory (state reason):

Assessor: _____ Date: _____

Student Feedback - Part B: Tractor Practical work	<input type="checkbox"/> Satisfactory <input type="checkbox"/> More Evidence Required
Student competently demonstrated:	
Conduct the pre-operational checks on the tractor and equipment.	
Drive the tractor in a field situation	
Attach the appropriate implements to tractor	
Complete post operational checks and cleaning	
Complete operational reports / records	
Solve the fuel usage calculations	
Assessor Signature:	Date:

Part C: Plant Propagation-Written

Instructions to students:

- You must attempt and complete **ALL** questions satisfactorily.
- Answer all questions in the space provided.

1. Identify the hazards associated with certain propagation tasks and list the required PPE to safely carry out propagation

Task / Activity	Hazard Identification <small>Type/Cause</small>	Risk Assessment <small>Use matrix</small>	Elimination or Control Measures	Required PPE
Example: Potting Mix	Microbe inhalation	4	Use the hierarchy of controls	What should you wear or use
1				
2				
3				

Satisfactory Not satisfactory (state reason):

Assessor: _____ Date: _____

2. Label the parts of this plant by drawing arrows. Use the following terms.

- Bud Leaf Tap root Lateral root Stem Petiole Node Fruit Flower



3. Below is a label from a bag of Potting Mix. List three (3) safety measures to be taken to reduce the risk of Legionnaire's disease.

HAZARDOUS
COMPOSTS, POTTING MIXES AND OTHER ORGANIC GARDENING MATERIALS
This product is made from organic materials, including pine bark, and contains living micro-organisms, including bacteria, fungi and protozoa.
May also contain mineral and fertiliser additives.

Risk
Inhalation of dust and/or liquid mists may irritate, inflame or sensitise the nose, throat and lungs resulting in illnesses ranging from hayfever or asthma, to pneumonia (e.g. Legionnaire's disease) or pneumonia-like illnesses. Direct contact with this material or its dust and/or liquid mists (bioaerosols) may cause skin irritation (dermatitis), and skin or eye infection or irritation. People particularly at risk are those suffering from asthma or allergies, and those whose immune defense systems are compromised.

Safety
Avoid contact with eyes and skin. Avoid breathing dust and/or liquid mists (bioaerosols). Wear suitable protective clothing and standard duty gloves (AS2161). If exposed to dust and/or liquid mists also wear dust resistant eye protection (AS/NZS 1336) and particulate respirator (AS/NZS 1715 and 1716). Wash hands thoroughly after handling. Wash work clothes regularly. Clean up by wet sweeping or vacuuming. Store this product in a cool location.

First Aid
Irrigate eyes with plenty of water for 10 minutes. Wash skin with soap and water. Seek medical attention for any persistent skin, eye or respiratory symptoms.

Disposal
Follow above precautions and collect in containers for disposal as trade waste in accordance with local authority guidelines.

1. _____








2. _____

3. _____

4. Fill in the table below that relates to common problems that occur with plant propagation.

Common problem	Cause and symptoms	Treatment or Remedy
Damage of leaves (e.g. yellowing, dark spots, insect damage)		
Failure to germinate		
Long, thin weak stems		
Weeds in pots		

Identify the tools and equipment required to carry out propagation and soil testing.

Tool/Equipment	Diagram	Use	PPE
			
			
			
			
			
			
			

Student Feedback - Part C: Plant Propagation	<input type="checkbox"/> Satisfactory
Student provided satisfactory evidence of:	<input type="checkbox"/> More Evidence Required
Identify the hazards.	
List the tools and equipment needed.	
Design and complete a planting plan for the selected vegetable from seed.	
Design and complete a planting plan for the selected plant material for cuttings.	
Research tissue culture	
Identify propagation equipment and tool correctly, identify use and PPE required	
Assessor Signature:	Date:

Part D: Plant Practical

Instructions to students:

- Work in a team to plan and conduct propagation of plants
- Complete the two tables below individually
- Part b

a. Propagation Method Follow the instructions provided by your supervisor to carry out these propagation activities.

Method	Description (What did you do?) (include preparation and any pre-treatment of cuttings (e.g. smoke treatment of native seeds, removing leaves from stem sections). This could include photos as evidence.	What plant types can be propagated in this way?	What PPE is required?	What hygiene practices did you use for this method?	How did you clean maintain and store equipment used for this method? E.g. vegetative matter, tools and hormones, growing media, pots, paper
Planting Seed					
Cutting (stem or leaf)					
Division (e.g.crown, bulb, rhizomes)					

Satisfactory

Not satisfactory (state reason):

Assessor: _____

Date: _____

- b. **Plant propagation record.** This table should be completed by each student and completed progressively as you complete the tasks to ensure your propagation is successful. You will be required to water and observe your propagation over time.

Propagation method	Label completed (includes date, plant type and initials)	Where and why have you placed the propagated plants (e.g. glasshouse to control temperature)	Watering and fertiliser (on various dates)				Plant Health Observed on various dates (Y/N).				Comments – what was done with any plants showing signs of ill-health?
Planting seed											
Cuttings (leaf or stem)											
Division (e.g. crowns, bulbs, rhizome)											

Satisfactory

Not satisfactory (state reason):

Assessor: _____

Date: _____

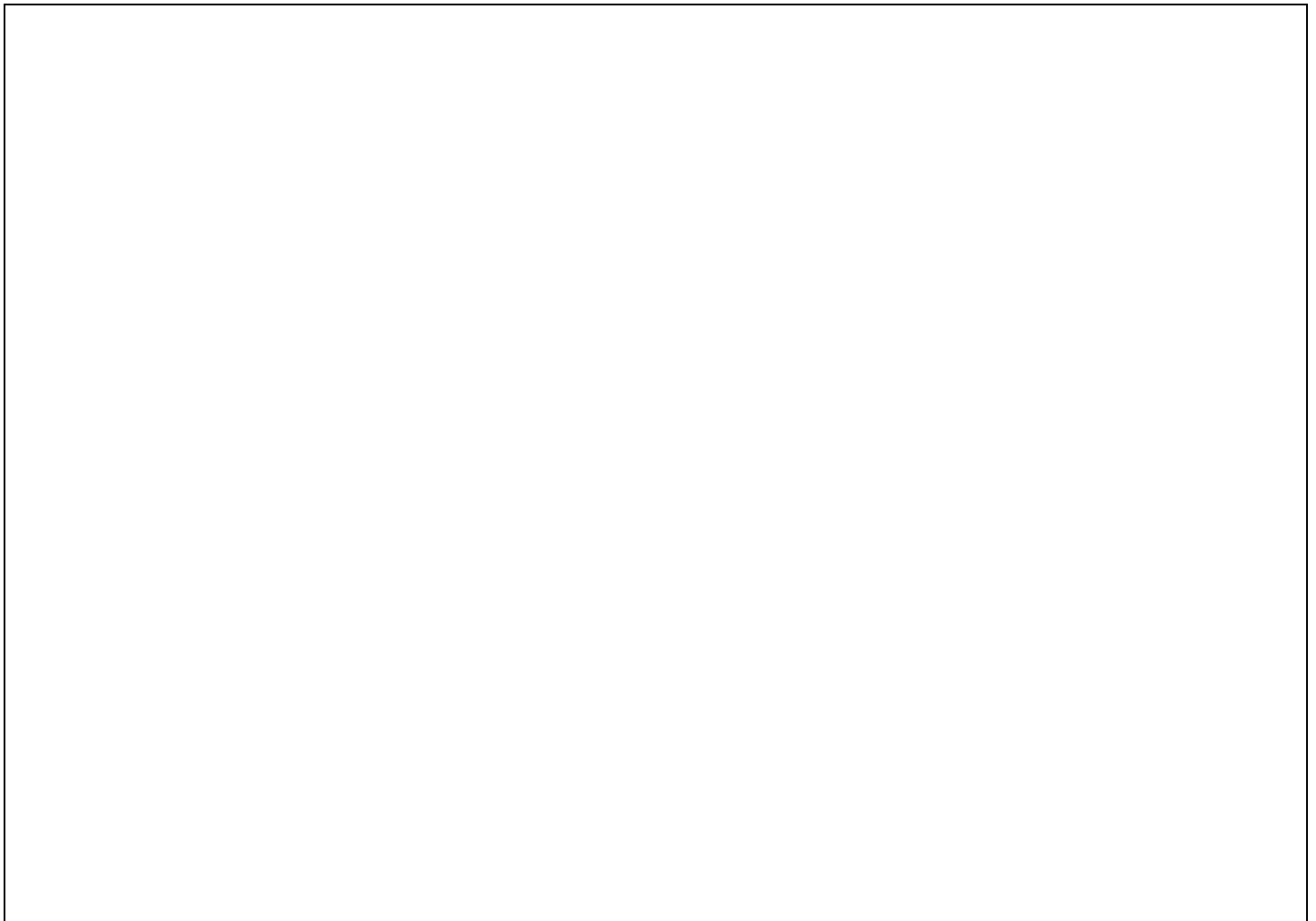
Student Feedback - Part D: Working in a team, propagate a plant and analyse the results	<input type="checkbox"/> Satisfactory <input type="checkbox"/> More Evidence Required
Student provided satisfactory evidence of:	
Identify the tools and equipment	
Carry out propagation of suitable plants, incorporating plant hygiene techniques.	
Successfully transplant the propagated plants according to recommended growing procedures	
Conduct soil or growing media analysis	
Clean-up site, and store equipment appropriately.	
Record the progress of propagated plants.	
Assessor Signature:	Date:

PART E – Written - Assist with soil or growing media sampling and testing

1. Identify the physical and chemical characteristics of a soil or growing media and relate it to plant growth

Property	Physical (P) or Chemical (C)	Definition	Effect on plant growth
pH			
Texture			
Salinity			

2. Draw and label a soil profile that you have examined.



PART E Practical - Assist with soil or growing media sampling and testing

Conduct soil tests on either soil sample or growing media sample and record results in the table below

Test	Test method	Soil or Growing Media	Assessor signature
Texture			
Salinity			
pH			

Student Feedback - Part E: Written and Practical Working in a team, propagate a plant and analyse the results	<input type="checkbox"/> Satisfactory <input type="checkbox"/> More Evidence Required
	Student provided satisfactory evidence of: Identify the physical and chemical characteristics of soil or growing media Draw and label soil profile. Conduct soil or growing media analysis
Assessor Signature:	Date:

Additional Evidence

List below if supplementary evidence was required to determine competence: e.g. verbal questioning; third party evidence (e.g. work placement employer report, photographs), school events, videos etc. and upload to QMS

Unit of Competency	Evidence description
AHCMOM202A Operate tractors	
AHCNSY203A Undertake propagation activities	
AHCSOL201A Determine basic properties for soil and/or growing media	

Assessment Outcome:

AHCMOM202A Operate tractors	<input type="checkbox"/> Competent	<input type="checkbox"/> Not yet competent
AHCNSY203A Undertake propagation activities	<input type="checkbox"/> Competent	<input type="checkbox"/> Not yet competent
AHCSOL201A Determine basic properties for Soil and/or growing	<input type="checkbox"/> Competent	<input type="checkbox"/> Not yet competent

media		
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If you have been deemed NOT YET COMPETENT for any unit of competency:

- Refer to the feedback located within the task and make necessary corrections or adjustments and resubmit the task.
- Additional attempt/s are allowed to demonstrate competence. The teacher will record the outcome of additional attempts in the table below:

Unit of Competency	Insert Date of reassessment			Teacher signature
	Outcome: C/NYC	Outcome: C/NYC	Outcome: C/NYC	
AHCMOM202A Operate Tractors				
AHCNSY203A Undertake Propagation Activities				
AHCSOL201A Determine Basic Properties for Soil and/or Growing Media				

Teacher's General Comment

.....

I declare that I have conducted a fair, valid, reliable and flexible assessment with this student and I have provided appropriate feedback

Teacher's Signature.....

Date:

Student Feedback

Please provide feedback to your teacher regarding this assessment task	Yes	No	Unsure
Did the class work and activities help you to complete this competency task?			
Were the instructions in this task clear?			
Did this task help you to gain a better understanding of the unit of competency being studied and assessed?			
Did you find the task challenging? If yes, why?			
Could this task be improved? If yes, how?			

If you do not agree with the assessment outcome, please ask your teacher about the appeals process.

Student's Signature:

Date: