LACHLAN ACCESS PROGRAM

ASSESSMENT TASK NOTIFICATION

Subject: Preliminary Agriculture	**Task Number: 1**
Type of Task: Research Assignment	**Coordinating Teacher: Katrina Thomas** **Cooperating Teacher:**
Date Issued: Week 7, Term 1 2024	**Date Due: Week 11, Term 1 Monday 8th April 2024**
Total Marks: 35	**Weighting: 30%**
Submission Instructions: *Students are to submit all assessment tasks through the Assessment Submissions Tab on the MS Team prior to 9.00am on Monday 8th April 2024.*	

Task Context:

In this topic you have learnt about the production and management of plants for commercial purposes and the interactions with resources and microbes/ pests that exist in farm environments.

In this task you will use your knowledge to research and report on various factors that can affect plant production.

Syllabus Outcomes:

P2.1 describes the biological and physical resources and applies the processes that cause changes in plant production systems
P3.1 explains the role of decision-making in management and marketing of agricultural products in response to consumer and market requirements
P5.1 investigates the role of associated technologies and technological innovation in producing and marketing agricultural products

Task Description:

You are required to prepare a report to answer the following questions:

Microbes and invertebrates (5 marks)

- Identify a range of beneficial organisms for plant production
- Choose one beneficial organism and describe the benefits to plant growth and/or development.

Pests and diseases (10 marks)

- Describe the effects of a named pest or disease on a named plant.
- Evaluate two methods to control or prevent the pest or disease from above

Sustainable production (10 marks)

- Explain why crop rotation and minimum tillage are sustainable practices to use on a farm.

ASSESSMENT TASK NOTIFICATION

- Describe the benefits a current technology used in plant production has on business and environmental sustainability.

Soils and plant nutrition (10 marks)

- Identify a macro-nutrient required for plant growth and describe the symptoms shown by a plant deficient in the identified macro-nutrient.
- Describe the process of determining soil texture and pH
- Explain how the texture of a soil influences its water holding capacity.

Criteria for Assessing Learning

You will be assessed on your ability to:

- *Describe beneficial microbes/ invertebrates for plant production.*
- *Describe how plant pests/ disease affect production and evaluate management methods.*
- *Explains sustainable production practices and technologies in farming.*
- *Explain soil conditions and nutrition for ideal plant growth*

HSC Key Verbs

Identify – recognise and name
Describe – provide characteristics and features
Explain – relate cause and effect; make the relationship between things evident; provide why and/ or how
Evaluate – make a judgement based on criteria; determine the value of

NESA "All My Own Work"

By signing for this assessment task and having completed the NESA course "All My Own Work" I confirm that this assessment task will be free from plagiarism and reflective of my own work. I understand that if I am found to have plagiarised or engaged in malpractice, I will be referred to the HT Access to engage the LAP Malpractice process.

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Marking Guidelines:

Microbes and Invertebrates

Description	Marks
• Identifies beneficial organisms and provides a detailed description of the benefits of one named organism to plant growth and development	5
• Identifies beneficial organisms and provides a description of the benefits of one named organism to plant growth and development	4-3
• Identifies an organism and provides an outline of effects on plant growth and development	2-1

Pests and Diseases

Description	Marks
• Provides a detailed description of the effects of a named plant pest/ disease on a named plant • Provides advantages and disadvantages for two methods to control or prevent the named pest or disease • Makes an informed judgement on the benefits of the control methods.	10-9
• Provides a detailed description of the effects of a named plant pest/ disease on a named plant • Provides advantages and disadvantages for two methods to control or prevent the named pest or disease, with some judgement.	8-7
• Provides a description of the effects of a named plant pest/ disease on a named plant • Provides advantages or disadvantages for two methods to control or prevent the named pest or disease.	6-5
• Describes the effects of a named plant pest/ disease on a named plant • Provides advantages or disadvantages of one method to control or prevent a pest or disease	4-3
• Outlines a named plant pest/ disease of a named plant • Provides advantages or disadvantages of one method to control or prevent a pest or disease	2-1

Sustainable production

Description	Marks
• Thorough explanation of crop rotation AND stubble retention, explicitly linking to how they are sustainable plant production practices. • Identifies a current technology used in plant production and provides a detailed description of how this technology benefits both the farm business and environmental sustainability.	10-9
• Explanation of crop rotation AND stubble retention, linking to how they are sustainable plant production practices. • Identifies a current technology used in plant production and provides a description of how this technology benefits both the farm business and environmental sustainability.	8-7
• Explanation of crop rotation AND stubble retention, with some links to how they are sustainable plant production practices. • Identifies a current technology used in plant production and provides a limited description of how this technology benefits the farm business or environmental sustainability.	6-5
• Description of crop rotation AND stubble retention.	4-3

• Identifies a current technology used in plant production and provides a description of the technology	
• Outlines crop rotation or stubble retention. • Identifies a current technology used in plant production and provides an outline of the technology	2-1

Soils and plant nutrition

Description	Marks
• Correctly identifies a macro-nutrient for plant production with a thorough description of the symptoms of the nutrient deficiency • Provides a thorough description the process used to measure soil texture and soil pH. • Provides a wide range of links between soil texture and water retention properties.	10-9
• Correctly identifies a macro-nutrient for plant production with a description of the symptoms of the nutrient deficiency • Provides a description the process used to measure soil texture and soil pH. • Provides a range of links between soil texture and water retention properties.	8-7
• Correctly identifies a macro-nutrient for plant production with a limited description of the symptoms of the nutrient deficiency • Provides a limited description the process used to measure soil texture and soil pH. • Provides some links between soil texture and water retention properties.	6-5
• Identifies a macro-nutrient for plant production with an outline of the symptoms of the nutrient deficiency • Provides an outline of the process used to measure soil texture and/ or soil pH. • Provides basic links between soil texture and water retention properties.	4-3
• Identifies a nutrient for plant production with an outline of the symptoms of the nutrient deficiency • Provides an outline of the process used to measure soil texture or soil pH. • Provides limited links between soil texture and water retention properties.	2-1