

Disease in Agriculture — Plants

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____
Date _____
Class _____

1. Key Ideas

Myrtle rust arrived in Australia in 2010 and began killing species that had evolved for 65 million years with no exposure to it. Plant disease does not just threaten farms — it can permanently reshape entire ecosystems.

- The main types of plant pathogens: fungal, bacterial, viral, nematode
- Why introduced pathogens can be especially devastating

2. Success Criteria

By the end, you should be able to:

- The main types of plant pathogens: fungal, bacterial, viral, nematode
- Named examples of each causing agricultural disease
- The economic and ecological effects of plant disease

3. Key Terms

Explain why biosecurity measures

critical for plant disease control

Immunological memory

specific; the body remembers previously encountered antigens, not all pathogens

diseases caused by pathogens

responsible for approximately 10–16% of global crop losses each year — representing hundreds of billions of dollars in l

plant disease

one of the most significant and ongoing threats to both production and export markets

what myrtle rust

doing to Myrtaceae family plants across Australia — can trigger cascading ecological consequences: loss of habitat for d

and an ecological one

often just geography

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "The main types of plant pathogens: fungal, bacterial, viral, nematode". Use one specific example from the lesson.

BAND 3 **2 MARKS**

2. Apply this idea to a new example: "Named examples of each causing agricultural disease". Show your reasoning clearly.

BAND 4 **3 MARKS**

3. Analyse why this idea matters for understanding Disease in Agriculture — Plants: "The economic and ecological effects of plant disease".

BAND 5 **4 MARKS**

6. Extend: Apply the Idea

BAND 5/6

5 MARKS

A student gives a memorised answer about Disease in Agriculture — Plants but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Disease in Agriculture — Plants?

- A. Identify the key concept being tested
- B. Write every fact from memory
- C. Ignore the command word
- D. Skip examples and evidence

2. Which answer would show stronger understanding of Disease in Agriculture — Plants?

- A. An answer with accurate terms and reasoning
- B. A copied definition only
- C. A single-word response
- D. An answer with no example

3. What should you do if a question asks you to explain?

- A. Link the idea to a reason or cause
- B. List unrelated facts
- C. Only draw a diagram
- D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: The main types of plant pathogens: fungal, bacterial, viral, nematode

BAND 3 **2 MARKS**

SUCCESS CRITERION 2

Prove that you can: Named examples of each causing agricultural disease

BAND 4 **3 MARKS**

SUCCESS CRITERION 3

Prove that you can: The economic and ecological effects of plant disease

BAND 5 **4 MARKS**

One thing I still need help with:
