AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Detecting Plant Diseases
Answers

Name:

MME
Mathsmadeeasy.co.uk

Total Marks: /20

Q1: Give an example of a plant pest acting as a vector for disease.

A= Aphid

(1 mark)

Q2: How is an aphid attack damaging to a plant?

A= Accept any 3 of the following:

- Sharp mouths penetrate phloem
- Large number
- Feed on phloem sap
- Deprive plant of photosynthesis products

(3 marks)

Q3: Give an example of a non-communicable plant disease type.

A= Mineral deficiency

(1 mark)

Q4: Explain the effect a nitrate deficiency will have on a plant.

A= Accept one of the following:
- Limits protein synthesis
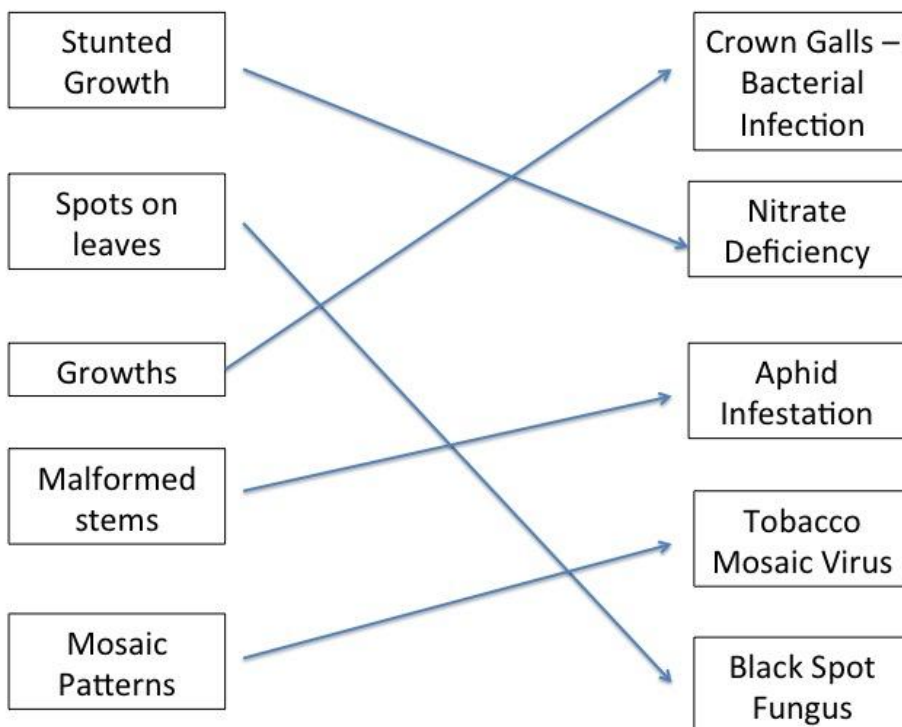- Stunts plant growth

(1 mark)

Q5: A plant shows yellowing leaves. Explain why and how the yellowing has occurred.

A= 1 mark for each point
- Magnesium ion deficiency
- Can't make chlorophyll
- Can't fully photosynthesise

(3 marks)

Q6: Connect the following symptoms of disease to the correct cause.

Stunted Growth		Crown Galls – Bacterial Infection
Spots on leaves		Nitrate Deficiency
Growths		Aphid Infestation
Malformed stems		Tobacco Mosaic Virus
Mosaic Patterns		Black Spot Fungus

A= 1 mark each correct line.

(5 marks)

Q7: Give 2 ways a plant disease can be treated.

A= Accept any 2 of the following:
- Pesticides
- Antifungals
- Mineral additions

(2 marks)

Q8: How can DNA analysis help save a farmers diseased crop?

A= 1 mark for each of the following points:

- ID the causing disease
- Treat more efficiently

(2 marks)

Q9: How can plant cells communicate with each other to inform of diseases.

A= Signalling system

(1 mark)

Q10: Why is it important for gardeners to remove diseased plants if they cannot be treated?

A= Prevents spreading.

(1 mark)