
Overview

This standard covers the ability to recognise disease symptoms, evaluate disease problems and choose appropriate control measures.

Performance criteria

You must be able to:

- P1 accurately identify crop diseases
- P2 identify the significance of disease damage and appropriate methods of assessment and evaluation
- P3 identify the major causal agents of disease
- P4 identify methods available for disease control, reduction and prevention
- P5 identify the major diseases of specific crops and select and integrate suitable control measures

Knowledge and understanding

You need to know and understand:

- K1 the nature of major types of plant damage in horticultural crops
- K2 how to interpret the significance of types of damage to crop growth and storage
- K3 how to carry out disease assessments on plants
- K4 how to assess and record disease damage within crops
- K5 the importance of evaluating the economic significance of disease damage
- K6 the significant characteristics of mycoplasma and viral, bacterial and fungal pathogens
- K7 how to relate conditions influencing the survival, build-up and dispersal of pathogens to disease development
- K8 environmental influences on infection and the development of diseases within crops
- K9 how to use knowledge of the factors influencing infection and disease development to forecast and predict disease risks
- K10 major legislation relating to plant disease
- K11 the significance of particular cultural practices to disease control
- K12 how to identify varieties of crop plants resistant to diseases
- K13 the availability of physical and chemical control measures
- K14 how to classify the main types of chemical control measures and major groups of chemicals
- K15 the importance of justifying the choice of methods for the control of particular types of diseases
- K16 the methods of producing disease-free vegetative propagation material by heat treatment, tip culture, or growing in isolation and the role of certification and nuclear stock schemes
- K17 major diseases in particular crops according to region
- K18 how to evaluate disease risks to particular crops
- K19 how to carry out examinations of crops and compile crop records
- K20 how to select and justify appropriate control measures
- K21 how to calculate appropriate dose rates for particular fungicides, and justify the timing and methods of application for specific disease problems
- K22 disease control strategies for future cropping programmes
- K23 the main types of visible changes to plants and plant produce caused by mycoplasma, and viral bacterial and fungal infection
- K24 the development of symptoms at different stages of crop growth and storage
- K25 major varietal effects and the influence of growing and storage conditions on symptom expression

Knowledge and
understanding

K26 the distribution pattern of symptom development within a crop

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Advise on the control of crop diseases



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