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## Overview

This standard is for those who prepare and apply plant protection products to control weeds, pests, diseases or disorders, in accordance with the relevant legislation, instructions and specifications.

When working with machinery, equipment or chemicals you should be trained, and hold the relevant certification where required, in accordance with the relevant legislation.

When carrying out your work you must consider the impact it will have on the environment, and work towards preserving and improving habitats and biodiversity and responding to and mitigating the effects of climate change.

This standard is suitable for a skilled spray operative responsible for the preparation and application of plant protection products to control weeds, pests, diseases or disorders.

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## Performance criteria

### You must be able to:

1. assess the risks associated with the activity to be carried out
2. wear suitable clothing and personal protective equipment (PPE)
3. select, prepare, use, maintain and store the required machinery and equipment safely and correctly, in accordance with the relevant legislation and manufacturer's requirements
4. store and transport plant protection products and containers, in accordance with the relevant legislation, instructions and specifications
5. confirm that the selected plant protection product is suitable for the work to be carried out, and in accordance with instructions and specifications
6. calculate the minimum application rate to achieve the desired level of control of weeds, pests diseases or disorders
7. select a suitable area for preparation of the plant protection product and follow procedures, in accordance with instructions and specifications
8. confirm that the environmental conditions are suitable for the application of plant protection products
9. apply the plant protection products to control weeds, pests, diseases or disorders, in accordance with the relevant legislative requirements, instructions and specifications
10. minimise the risks to non-target species, the environment and the surrounding area by observing buffer zones
11. maintain communication with colleagues and all those involved in, or affected by, your work
12. maintain the safety and security of machinery and equipment when on site
13. maintain hygiene and bio-security, in accordance with organisational requirements
14. dispose of empty containers and surplus or unusable product, safely and correctly, in accordance with the relevant legal requirements, codes of practice and manufacturer's requirements
15. clean, decontaminate, store and, if necessary, dispose of application equipment and personal protective equipment (PPE) in accordance with the relevant legislation and organisational requirements
16. follow the relevant environmental and ecological best practice to help minimise the impact of your work on the environment
17. carry out your work in accordance with the relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and organisational policies
18. complete records as required by the relevant legislation and the

LANCS31

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organisation

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## Knowledge and understanding

### You need to know and understand:

1. the health and safety risks when using plant protection products in the control of weeds, pests, diseases or disorders, and the importance of risk assessment
2. the type of clothing and personal protective equipment (PPE) suitable for the preparation and application of plant protection products
3. the current national legislation controlling the use of plant protection products for the control of weeds, pests, diseases and disorders
4. the environmental risks when using plant protection products in the control of weeds, pests, diseases or disorders, including the importance of buffer zones
5. the safe handling and use of plant protection products
6. the types of plant protection products used to control weeds, pests, diseases or disorders and what they are used for
7. the significance of the information contained in product labels and product data sheets
8. the specific equipment used for the application of different plant protection products and the correct operator training required to carry out the work
9. how to maintain, set up and calibrate equipment
10. how to transport and store plant protection products and containers, according to the relevant legislation, instructions and specifications
11. how to calculate the amount of chemical required and the procedures for preparation
12. the use of spill trays and spill kits when handling undiluted plant protection products
13. the environmental conditions that are required for the work to be carried out and the effect that these conditions have on the operation
14. the necessary growth stage of the plants for application of the chemical to deliver optimum results
15. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
16. the problems that may occur with the application of plant protection products and the action to take
17. the ways in which surplus product and washings must be dealt with, and the licences required for the disposal of pesticides
18. how to dispose of, or clean and decontaminate, application equipment and personal protective equipment (PPE)
19. why it is important to maintain the safety and security of machinery and equipment when on site
20. the importance of maintaining hygiene and bio-security and the

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- methods for achieving this
21. your responsibilities under the relevant environmental and health and safety legislation, codes of practice and organisational policies
  22. the records that need to be kept and the importance of completing them

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## Scope/range

A. Obtain, set up and use the following equipment:

1. application equipment
2. ancillary equipment
3. personal protective equipment

B. Check that the following procedures have been put in place:

1. transportation
2. storage
3. disposal
4. emergency
5. incident reporting

C. Explain how to deal with the following problems in an effective way:

1. spillage
2. contamination of equipment and non-target areas
3. malfunction of equipment
4. adverse effects on non-target species
5. changes in conditions that reflect on the relevance of the planned work
6. an emergency

D. Treat the following with a suitable plant protection product:

1. weeds
2. pests
3. diseases
4. disorders

E. Maintain and store the following equipment:

1. application equipment
2. ancillary equipment
3. personal protective equipment

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## Glossary

### Instructions and specifications:

- drawings/plans
- schedules
- method statements
- Standard Operating Procedures (SOPs)
- manufacturer's guidelines (labels, instructions, data sheets)
- customer requirements
- quality assurance requirements
- crop requirements
- verbal instructions

### Personal Protective Equipment (PPE):

- gloves
- face shields
- appropriate boots
- overalls and disposable items
- Respiratory Protective Equipment (RPE) for the application of some pesticides/products

### Problems that may occur:

- spillage
- contamination of equipment and non-target areas
- malfunction of equipment
- adverse effects on non-target species
- changes in conditions that affect the relevance of the planned work
- an emergency

LANCS31

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