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## Overview

This standard covers preparing and applying chemicals to control weeds, pests, diseases and disorders in accordance with relevant legislation, instructions and specifications.

When working with machinery, equipment or chemicals you should be trained and hold current certification, where required.

When carrying out your work you must consider the impact it will have on the environment.

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

## 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 required machinery and equipment safely and correctly
4. store and transport chemicals and containers, in accordance with relevant legislation, **instructions and specifications**
5. confirm that the selected 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
7. select a suitable area for preparation of the chemical and follow procedures in accordance with **instructions and specifications**
8. confirm that the environmental conditions are suitable for the application of chemicals to be carried out
9. apply the chemical to control weeds, pests, diseases and disorders in accordance with 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 others 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 organisation requirements
14. dispose of surplus product and containers safely and correctly, in accordance with relevant legal requirements, codes of practice and organisation requirements
15. clean, decontaminate, store and, where necessary, dispose of application and personal protective equipment (PPE) in accordance with relevant legislation and organisation requirements
16. follow industry and organisation guidance to minimise environmental damage
17. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements,

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- codes of practice and organisation policies
18. complete records as required by relevant legislation and the organisation

## Knowledge and understanding

*You need to know and understand:*

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

- machinery and equipment when on site
19. the importance of maintaining hygiene and bio-security and the methods for achieving this
  20. your responsibilities under relevant environmental and health and safety legislation, codes of practice and organisation policies
  21. the records that need to be kept and the importance of completing them

## Glossary

### Instructions and specifications:

- drawings/plans
- schedules
- method statements
- Standard Operating Procedures (SOPs)
- Manufacturer's guidelines (labels, instructions, data sheets)
- customer 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 work plan
- an emergency

LANCS31

Prepare and apply chemicals to control weeds, pests, diseases and disorders



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**Originating Organisation** Lantra

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**Relevant Occupations** Arboriculture and forestry; General Farm Worker; Tractor Driver; Gardener; Nursery Worker; Park Ranger; Estate Worker

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**Suite** Agricultural Crop Production; Livestock Production; Horticulture; Environmental Conservation; Treework

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**Keywords** pests; disease; disorder; weeds; site; plant; crop

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