

## Implement the application of nutrients to crops

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### Overview

This standard covers implementing the application of nutrients to crops.

You will require knowledge of the principles of crop growth and development as well as crop health.

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 operative with responsibility for implementing the application of nutrients to crops.

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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 and maintain the required machinery and equipment, safely and correctly
4. store, transport and prepare **nutrients** in accordance with relevant legislation and business practices
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 result
7. confirm that the environmental conditions are appropriate for the application of **nutrients** to be carried out
8. implement the application of **nutrients** to the crop, in accordance with **instructions and specifications**
9. maintain the safety and security of machinery and equipment when on site
10. confirm that hygiene and bio-security are maintained, in accordance with business practices
11. maintain communication with colleagues and others involved in, or affected by, your work
12. follow industry and business guidance to minimise environmental damage
13. dispose of surplus product and containers safely and correctly, in accordance with relevant legal requirements, codes of practice and business practices
14. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and business policies
15. confirm that records are maintained and stored as required by relevant legislation and the business

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### Knowledge and understanding

*You need to know and understand:*

1. how to identify hazards and assess risks
2. the type of clothing and personal protective equipment (PPE) suitable for the activity
3. the types of machinery and equipment required for implementing the application of **nutrients** to crops and how to prepare, use, maintain and store these safely and correctly
4. the stages of crop development for the application of **nutrients**
5. the requirements, advantages and disadvantages of different crop production systems
6. the principles of **sustainable agriculture** and Integrated Crop Management (ICM)
7. how to transport and store fertiliser and containers according to relevant legislation, **instructions and specifications**
8. the application requirements for different types of **nutrients** including organic and inorganic
9. how to calculate the amount of nutrient required and how it should be prepared
10. the environmental conditions that are required for the application of nutrients to crops and the effect that these conditions have on the operations
11. the sort of problems that may occur when implementing the application of **nutrients** to crops and the action to take
12. why it is important to maintain the safety and security of machinery and equipment when on site
13. the importance of maintaining hygiene and bio-security and the methods for achieving this
14. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
15. the potential impact that your activities could have on the environment and how this can be minimised, including NVZ (Nitrate Vulnerable Zone) considerations, water pollution and the impacts of overdosing on plant health
16. how to handle, transport, store and dispose of waste in accordance with relevant legal requirements and business practices
17. your responsibilities under relevant environmental and health and safety legislation, codes of practice and business policies

18. 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
- customer requirements
- crop requirements
- verbal instructions

### Nutrients:

- organic sources (e.g. manures, slurries and bio-solids)
- inorganic sources

**Sustainable agriculture:** Meeting the requirements for food production while maintaining profitability and preserving the environment.

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**Relevant Occupations** Farmer; General Farm Worker; Tractor Driver

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**Suite** Agricultural Crop Production

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