



**NPTC**

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**LEVEL 2  
CERTIFICATE OF COMPETENCE  
IN  
GRANULAR FERTILISER APPLICATION  
  
ASSESSMENT SCHEDULE**

## NPTC Level 2 Certificate of Competence in Granular Fertiliser Application

### Candidate Information

#### Introduction

The scheme will be administered by NPTC

NPTC will:

- Publish
  - Scheme regulations
  - Assessment schedule
  - Assessment material

Approve centres to co-ordinate and administer the scheme

Set standards for the training of Verifiers and Assessors

Recruit, train and deploy Verifiers

Manage verification

Issue certificates to successful Candidates

#### The Certificate of Competence

Certificates of competence will be awarded to Candidates who achieve the required level of competence in the Units to which their Certificate relates.

#### Instruction

Attendance at a course of instruction is not a pre-requisite for an application for an assessment but potential Candidates are strongly advised to ensure that they are up to the standards that will be expected of them when they are assessed.

NPTC does not hold a register of instructors; however instruction will normally be available from recognised training providers and/or centres of further or higher education active in the areas covered by this certificate. Further information on training may be obtained from the local Assessment Centre.

#### Access to Assessment

Assessment Centres will be responsible for arranging assessment on behalf of a Candidate. Assessment may only be carried out by an Assessor approved by NPTC for that scheme. Under no circumstances can either instructors involved in the preparation of candidates, or the candidates work place supervisors, or anyone else who might have a vested interest in the outcome, carry out the assessment.

The minimum age limit for Candidates taking certificates of competence is 16 years. There is no upper age limit.

#### Assessment

Assessment is a process by which it is confirmed that the Candidate is competent in the Units within the award to which the assessment relates. It is a process of collecting evidence about his/her capabilities and judging whether that evidence is sufficient to attribute competence.

The candidate must be registered through an NPTC approved Assessment Centre for this qualification prior to assessment.

The result of the assessment will be recorded on the assessment report form.

The schedule of assessment contains the criteria relating to:

- Observation of practical performance
- Assessment of knowledge and understanding

#### Performance Evaluation

The result of each assessment activity is evaluated against the following criteria:

- 4 = Meets or exceeds the assessment criteria by displaying a level of practical performance and/or underpinning knowledge, with no 'minor' or 'critical' faults. (Competent).
- 3 = Meets the requirements of the assessment criteria for both the practical performance and the underpinning knowledge, with some 'minor' faults but no 'critical' faults. (Competent).
- 2 = Does not fully satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or being deficient in underpinning knowledge leading to the recording of minor faults. (Not yet competent).
- 1 = Does not satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or safely or being deficient in underpinning knowledge leading to the recording of a critical fault. (Not yet competent).

A list of registered Assessment Centres is available from NPTC. ([www.nptc.org.uk](http://www.nptc.org.uk))

#### Verification

Verification is a process of monitoring assessment; it is an essential check to confirm that the assessment procedures are being carried out in the way that NPTC has laid down. The overall aim of verification is to establish a system of quality assurance that is acceptable in terms of both credibility and cost effectiveness.

Approved Assessors will be subject to a regular visit by the verifier at a time when assessments are being undertaken.

A selection of assessment reports completed by the assessor will be evaluated by an NPTC approved verifier.

Compliance with the verification requirements is a pre-requisite for Assessors remaining on NPTC's list of approved assessors.

## Complaints and Appeals

NPTC and its Assessment Centres have a formal Complaints and Appeals procedure. In the event of any dissatisfaction with the arrangements and conditions of assessment, the candidate should first contact the Assessment Centre through whom the assessment was arranged and submit the complaint in writing.

For further information on NPTC's Equal Opportunities Policy and Complaints and Appeals Procedures, please refer to [www.nptc.org.uk](http://www.nptc.org.uk)

## Learning Outcomes

The candidate will be able to:

- Understand how application will affect the environment
- Show what precautions need to be considered when applying granular fertiliser using different methods of application
- Set up and calibrate a granular fertiliser applicator
- Accurately apply fertiliser to a given area with due regard to the environment
- Demonstrate procedures to maintain the applicator with due regard to safety of themselves, others and the environment.
- Complete an application record accurately
- State the required underpinning knowledge

## Guidance Notes for Candidates and Assessors

### Guidance Notes for Assessors

The assessment is divided into two compulsory units:

Unit 1 – Safety and the Environment for Fertiliser Application

Unit 2 – Apply Granular Fertiliser

Candidates must successfully achieve all assessment activities in both units

Certificates will be endorsed according to the type of machine used for the assessment.

Either: a) Mounted or Trailed Spreader

Or: b) Pedestrian Controlled Spreader

### Safe Practice:

Appropriate Personal Protective Equipment (PPE) must be worn at all times.

Any equipment used must be operated in such a way that the Candidate, Assessor, other persons or equipment are not endangered.

All ancillary equipment (where appropriate), when detached must be safely parked.

**Failure to operate safely and comply with these requirements will result in the Candidate not meeting the required standard.**

It is recommended that suitable barrier creams or disposable gloves are used when necessary.

### Validation of Equipment:

A Manufacturer's instruction book or other operators' manual should be available.

All equipment being used for this assessment must comply with the relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.

Vehicles must comply with Department of Transport and Road Traffic Acts where relevant.

Any appropriate item of granular fertiliser spreading equipment complying with legal requirements is acceptable for the assessment, provided it is suitably equipped for all assessment activities to be carried out.

### Additional Information:

May be sought from the relevant manufacturers' operator manuals or any other appropriate training or safety publication.

<b>Candidate's Name:</b>	<b>Date:</b>	<b>Start Time:</b>	<b>Duration:</b>	<b>hrs</b>
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<b>UNIT 1 SAFETY AND THE ENVIRONMENT FOR FERTILISER APPLICATION</b>	
<b>ASSESSMENT ACTIVITIES</b>	<b>ASSESSMENT CRITERIA</b>
1. Identify any hazards specific to the site, task and machine.	<ul style="list-style-type: none"> <li>- Walk the site and remove or mark hazards</li> <li>- Confirm that the condition of the site as acceptable for the operation to take place</li> <li>- Report to the appropriate person if the site condition is unsuitable</li> <li>- Set out warning signs and barriers (if appropriate) <ul style="list-style-type: none"> <li>• Advising public of hazards</li> <li>• Exclude public/animals</li> </ul> </li> <li>• Implement suitable controls to protect operator</li> </ul> <p>Unless otherwise stated in manufacturers handbook, PPE should include:</p> <ul style="list-style-type: none"> <li>- Safety boots (free from mud and oil)</li> <li>- Ear defenders</li> <li>- Face/eye protection</li> <li>- Suitable gloves for maintenance and handling fertiliser</li> <li>- Other protection as highlighted by the Risk Assessment</li> </ul> <ul style="list-style-type: none"> <li>- Avoid manual handling where possible</li> <li>- Use mechanical aids</li> <li>- Use safe lifting techniques (bend knees and keep back straight)</li> </ul>
<p>2. Demonstrate knowledge of legal and safety requirements relating to the application of granular fertiliser in the context of:</p> <p>Transporting fertiliser on a public highway</p> <p>The Road Traffic (Carriage of Dangerous Goods in Packages, etc.) Regulations 1996.</p> <p>The Road Traffic (Training of Drivers of Vehicles Carrying Dangerous Goods) Regulations 1992</p> <p>Storage of fertiliser</p>	<ul style="list-style-type: none"> <li>- Vehicles used to transport 500 kg. or more of Ammonium Nitrate must carry the appropriate warning placards, fire extinguishers and written hazard information</li> <li>- The driver of a vehicle carrying Ammonium Nitrate on a vehicle having a permissible maximum weight exceeding 3.5 tonnes, must hold a vocational training certificate</li> </ul> <p>Fertiliser bags should not be stored outdoors within 10 metres of a watercourse or field drain</p> <ul style="list-style-type: none"> <li>- Locate away from sources of heat, fire or explosion</li> <li>- Keep away from combustible materials</li> <li>- Keep away from chemical substances, diesel, oil, other flammable substances</li> <li>- Do not permit smoking or the use of naked lights in the storage area</li> </ul>
<p>3. Demonstrate knowledge of how inorganic fertilisers can have a detrimental effect on the environment</p> <p>Demonstrate knowledge of the causes and effects of water pollution (eutrophication)</p>	<p>By applying at the incorrect:</p> <ul style="list-style-type: none"> <li>- Rate</li> <li>- Time</li> <li>- When the ground is waterlogged, frozen or flooded</li> <li>- When surface run off is excessive</li> <li>- Soil temperature too low</li> <li>- Plant growth activity is low</li> <li>- Excess nitrates</li> <li>- Excess phosphates</li> </ul> <p>Provision of ideal conditions for algae</p>
<p>4. Carry out an environmental risk assessment of the application site</p> <p>Identify areas of risk</p> <p>Identify and implement control measures</p>	<ul style="list-style-type: none"> <li>- Pollution of surface water</li> <li>- Pollution of groundwater</li> <li>- Run-off from sloping ground into waterways</li> <li>- Sloping ground causing inaccurate application</li> <li>- Waterlogged ground will lead to run-off</li> <li>- Damage to hedgerows</li> </ul> <ul style="list-style-type: none"> <li>- Buffer zones</li> <li>- Conservation strips</li> <li>- Adjustments to spreader to deflect, or change the balance of spread</li> <li>- Spillage containment and recovery</li> </ul>

<b>UNIT 1 SAFETY AND THE ENVIRONMENT FOR FERTILISER APPLICATION (continued)</b>	
<b>ASSESSMENT ACTIVITIES</b>	<b>ASSESSMENT CRITERIA</b>
5. Demonstrate knowledge of safety considerations when applying fertiliser on sloping ground	<ul style="list-style-type: none"> <li>- Vehicle and equipment sliding</li> <li>- Equipment overturning</li> <li>- Hard ground causing applicator to bounce</li>   <li>- Using a wider wheel track on the vehicle enhances stability by providing a lower centre of gravity when turning on slopes</li>   <li>- Select 4 wheel drive wherever possible</li> <li>- Ensure that vehicle and applicator are compatible</li> <li>- Ensure that engine power is sufficient for the application site</li> <li>- Carrying capacity is sufficient</li> <li>- Use suitable wheel weights</li> </ul>

<b>UNIT 2 APPLY GRANULAR FERTILISER</b>	
<b>ASSESSMENT ACTIVITIES</b>	<b>ASSESSMENT CRITERIA</b>
1. Either; Prepare the vehicle prior to applying granular fertiliser  Or  Prepare a pedestrian controlled machine for work	<ul style="list-style-type: none"> <li>- Ensure that the vehicle is compatible with the applicator</li> <li>- Ensure that the tyre pressures are correct for the conditions</li> <li>- Ensure that the applicator controls are accessible</li> <li>- Ensure that any mechanical, hydraulic, pneumatic or electrical interfaces are connected correctly</li> <li>- Check that the applicator is correctly attached to the vehicle               <ul style="list-style-type: none"> <li>• correct height</li> <li>• level both ways</li> <li>• hydraulic arms stabilised</li> </ul> </li> <li>- Ensure handles are safe and at the correct height</li> <li>- Check wheels and tyres</li> </ul>
2. Prepare the applicator for work	<ul style="list-style-type: none"> <li>- Ensure that guards are fitted and serviceable</li> <li>- Ensure that all appropriate parts are free moving before power is applied or material is added to the hopper</li> <li>- Check drive system</li> <li>- Check any additional equipment or devices fitted to the applicator               <ul style="list-style-type: none"> <li>• Headland discs</li> <li>• Adjustable discs</li> <li>• Calibration aids</li> <li>• Air supply</li> <li>• Boom suspension</li> </ul> </li> </ul>
3. Load granular fertiliser or simulation material into the applicator  Demonstrate knowledge of refilling procedures	Load the applicator, observe safe working practice <ul style="list-style-type: none"> <li>- Observe safe lifting and handling practices (if applicable)</li> <li>- Ensure no foreign bodies enter the hopper</li> <li>- Ensure there are no spillage's</li>   <li>- Supplies sited conveniently</li> <li>- Lift and handle safely</li> <li>- Raise fertiliser bags on stillage or trailer</li> <li>- Handle fertiliser bags with two people</li> <li>- Handle in bulk</li> </ul>
4. Check the balance of spread of the applicator  Demonstrate knowledge of factors which could affect the balance of spread of the applicator	Check the balance of spread in a safe and environmentally sensitive manner <ul style="list-style-type: none"> <li>- Ensure minimal ground deposits if carried out in field/site field</li> <li>- Collect and recycle fertiliser if carried out in a yard or building</li> <li>- Accurately assess</li>   <li>- Ensure that applicator is level, both ways</li> <li>- Check that distribution mechanism is not damaged</li> <li>- Aperture could be blocked</li> </ul>

<b>UNIT 2 APPLY GRANULAR FERTILISER (cont.)</b>	
<b>ASSESSMENT ACTIVITIES</b>	<b>ASSESSMENT CRITERIA</b>
5. Demonstrate knowledge of factors affecting the application rate and operation methods	<p>Application rate affected by:</p> <ul style="list-style-type: none"> <li>- Forward speed</li> <li>- Height</li> <li>- Disc speed</li> <li>- Aperture</li> <li>- Weather conditions</li> <li>- Condition of material</li> <li>- Ground conditions</li> </ul> <p>Factors that could affect method of application</p> <ul style="list-style-type: none"> <li>- Shape of field/site</li> <li>- Slopes</li> <li>- Tramlines</li> <li>- Obstructions e.g. poles/pylons</li> </ul>
6. Calibrate the applicator to apply fertiliser to a specified site	<ul style="list-style-type: none"> <li>- Select an acceptable speed</li> <li>- Accurate speed check</li> <li>- Calculate required output (kgs/min.)</li> <li>- Set the applicator to the required output according to the manufacturer's handbook</li> <li>- Measure the output of the applicator in a safe manner</li> <li>- Adjust the applicator to achieve the required output</li> </ul>
7. Apply fertiliser to a given area.	<ul style="list-style-type: none"> <li>- Use an accurate marking system, appropriate to the site</li> <li>- Apply fertiliser at the selected application rate, uniformly and accurately to an area appropriate to the candidate's normal employment</li> <li>- Avoid contamination of non-target areas and hedges</li> <li>- Avoid possible pollution of waterways</li> </ul>
8. Demonstrate knowledge of maintenance of the applicator	<ul style="list-style-type: none"> <li>- Appropriate cleaning and lubrication procedures for the applicator according to the manufacturer's handbook</li> <li>- Area where washings will not contaminate ground or surface water</li> <li>- Level, hard site</li> <li>- Clean thoroughly</li> <li>- Treat with suitable preservative</li> <li>- Lubricate all moving parts</li> <li>- Store under cover</li> </ul>
9. Complete a fertiliser application record for the area of land used	<p>Record:</p> <ul style="list-style-type: none"> <li>- Fertiliser used</li> <li>- Application rate</li> <li>- Quantity used</li> <li>- Weather conditions</li> <li>- Date</li> <li>- Name of operator</li> </ul>