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**NPTC LEVEL 2 AWARD  
IN THE  
SAFE USE OF PESTICIDES (QCF)**

**UNIT PA11 - SEED TREATMENT EQUIPMENT**

**ASSESSMENT SCHEDULE**

**Objective -Candidates will be able to:-**

1. Prepare seed treating equipment for work, calibrate it to an approved calibration procedure and operate it to achieve accurate even application with minimal risk to other people and the environment.
2. Use the information detailed on product labels to determine the approved uses for the product and its potential hazards to human safety, non-target areas and the environment in general.
3. Handle and label treated seed packages safely.
4. Understand the procedure for dealing with spillage of pesticide and treated grain
5. Complete necessary records
6. Understand the appropriate clean down procedure.

**Qualification and Credit Framework (QCF) – credit value**

PA1 has a credit value of 2 credits on the QCF.

**Safe Practice**

The candidate must follow safe procedures at all times. Operating the equipment in such a way as to put the candidate, assessor, equipment or the environment at risk will cause the candidate to be declared not yet competent.

The connection of the equipment to any electrical supply must be safe.

The assessment will not be permitted to continue if electrical equipment is defective.

The equipment must be of the standard required under current Health and Safety legislation.

Candidates must wear personal protective equipment (PPE) appropriate to the product label/COSHH risk assessment whenever carrying out work to the application equipment or handling the pesticide or treated product.

**Pre-requisites**

The foundation unit (PA1) is required by candidates before being assessed for this application unit.

**Validation of Equipment**

Any seed treating applicator which applies pesticide to cereal grains, pulses and other small seeds is acceptable for this assessment provided it meets the above criteria for all test items to be carried out.

There is a wide variety of equipment used in this particular sector of the industry and the assessment should be carried out using equipment with which the candidate is familiar.

Operator's instruction book and calibration charts/calculators should be available for use by the candidate throughout the assessment. Any other relevant literature may also be used.

Candidates who undertake this assessment and are judged 'competent' are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use

**Site**

Work site, which complies with current environmental best practice and a suitable quantity of seed to be treated.

**Suggested facilities and equipment required to run the assessment:**

Appropriate seed treating equipment.

First Aid kit, which complies with the Health & Safety (First Aid) Regulations 1981.

Appropriate containers with simulated pesticide.

**Clean** product labels or label duplicates appropriate to the candidate.

Containers and labels for treated seed.

Instruction books for equipment used.

Washing facilities.

Personal Protective Equipment to comply with pesticide label/COSHH risk assessment

Additional safety equipment including suitable absorbent material and appropriate fire extinguisher.

Suitable tools.

Clean water supply.

Appropriate Application record sheets.

Scales.

Assessment Activity	Assessment Criteria
<b>Preparation</b>	
1. Demonstrate knowledge of siting of mobile plant (if applicable)	<ul style="list-style-type: none"> <li>- Machine level</li> <li>- Ground conditions</li> <li>- Access &amp; environmental factors</li> </ul>
2. Identify & state the purpose of the seed treatment plant controls & components  Demonstrate knowledge of liquid flow	<ul style="list-style-type: none"> <li>- Pesticide containers</li> <li>- Pumps</li> <li>- Control panel</li> <li>- Metering device</li> <li>- Batch/flow control</li> <li>- Mixer/incorporation system</li> <li>- Engineering controls to minimise contamination</li> </ul> <ul style="list-style-type: none"> <li>- Candidate to explain liquid flow of the machine being used</li> </ul>
3. Demonstrate a working knowledge of the functions of the control panel  Demonstrate knowledge of action to be taken if system fails.	<ul style="list-style-type: none"> <li>- Function of all switches/isolators</li> <li>- Significance of warning lights</li> <li>- Test mode switching</li> </ul> <ul style="list-style-type: none"> <li>- Stop pesticide application</li> <li>- Convert to manual if possible</li> <li>- Ensure quality of output</li> </ul>
4. Demonstrate knowledge of legal requirements and safety regulations	<ul style="list-style-type: none"> <li>- Awareness of any safety implications imposed by the Risk Assessment on the plant or the operation</li> <li>- Awareness of guarding requirements on both the plant &amp; the site</li> <li>- Comply with the Code of Practice</li> </ul>
5. Read and interpret product label. (as supplied or approved by the assessor)	<ul style="list-style-type: none"> <li>- Field of use</li> <li>- Seed or crop type</li> <li>- PPE requirements</li> <li>- Specific product precautions</li> <li>- Appropriate for type of plant</li> <li>- Appropriate for crop/variety</li> <li>- Restrictions on use</li> <li>- Dose rate</li> <li>- Volume rate (if applicable)</li> </ul>
6. Carry out an environmental risk assessment of the seed treatment site	<ul style="list-style-type: none"> <li>- Water courses</li> <li>- Drains</li> <li>- Wildlife/Livestock/Domestic animals</li> <li>- Public/Co-workers</li> <li>- Housing</li> <li>- Wind speed &amp; direction</li> </ul>

Assessment Activity	Assessment Criteria
<b>Calibration</b>	
<p>7. Calibrate treatment plant</p> <p>Demonstrate knowledge of factors determining when a check of pesticide application rate is required</p>	<ul style="list-style-type: none"> <li>- Method will be determined by type of equipment &amp; product used</li> <li>- Set dose rate</li> <li>- Set batch rate/flow rate</li> <li>- Calculate pesticide dose</li> <li>- Set/adjust controls to achieve correct dose</li> <li>- Test run to prove correct dose.</li>   <li>- Change of seed</li> <li>- Change of pesticide</li> <li>- Request for different application rate</li> <li>- Viscosity change due to temperature variation</li> </ul>
<b>Operate Seed Treatment Plant</b>	
<p>8. Operate seed treatment plant &amp; monitor seed treatment</p>	<ul style="list-style-type: none"> <li>- Correct PPE (possibly RPE)</li> <li>- Visual inspection of treated seed</li> <li>- Safe handling of treated seed</li> <li>- Reasons for incorrect treatment</li> <li>- Avoidance of spillage</li> <li>- Correct labelling</li> </ul>
<p>9. Demonstrate knowledge of procedure when changing pesticide container &amp; when changing to different pesticide</p>	<ul style="list-style-type: none"> <li>- Correct PPE</li> <li>- Next container prepared</li> <li>- Pipework purged/washed</li> <li>- Washings contained</li> <li>- Changeover technique</li> <li>- System priming</li> <li>- Technique for decanting near empty containers (if appropriate)</li> <li>- Dealing with spillages</li> </ul>
<b>Post Operation Activities</b>	
<p>10. Demonstrate knowledge of:</p> <p>a) cleaning &amp; decontamination of the applicator</p> <p>b) the procedure to protect the environment and the operator before undertaking repairs or replacement of parts</p>	<ul style="list-style-type: none"> <li>- frequency of cleaning</li> <li>- Applicator and area cleaned up</li> <li>- Method of decontamination</li> <li>- Contaminated cleanings suitably packaged and labelled</li> <li>- Risk of personal contamination</li> <li>- Faults noted</li> <li>- All pesticide and ancillary equipment safely stored for transport (if appropriate)</li>   <li>- Ensure adequate containment available</li> <li>- Ensure applicator is made mechanically safe</li> <li>- Ensure plant is isolated electrically</li> <li>- Thorough decontamination of part or section to be repaired/replaced</li> </ul>
<p>11. Complete a pesticide application record</p>	<ul style="list-style-type: none"> <li>- Variety/quantity of seed treated</li> <li>- Pesticide used</li> <li>- Quantity of pesticide used</li> <li>- Other information required by client</li> </ul>