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**NPTC LEVEL 2 AWARD  
IN THE  
SAFE USE OF PESTICIDES**

**MODULE PA12  
APPLICATION OF PESTICIDES TO MATERIAL AS A CONTINUOUS  
PROCESS VIA CONVEYOR, ROLLER TABLE OR OTHER EQUIPMENT.**

**ASSESSMENT SCHEDULE**

**Module PA 12**  
**APPLICATION OF PESTICIDES TO MATERIAL AS A CONTINUOUS**  
**PROCESS VIA CONVEYOR, ROLLER TABLE OR OTHER MOVING**  
**EQUIPMENT**

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

1. Prepare equipment and work area for use following an accepted procedure, add pesticides and work to a safe method without risk to themselves, 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. Carry out regular checks of equipment and quantity of diluted and undiluted pesticides.
4. Follow procedure for safe disposal of tank/hopper contents.
5. Carry out correct procedure for cleaning personal protective equipment and application equipment which may have been contaminated with pesticide.

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

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

**Safe Practice**

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.

All equipment used must be of the standard required under current Health & Safety Legislation.

Candidates must wear personal protective equipment (PPE) appropriate to the product label/COSHH risk assessment whenever carrying out work on or with the equipment e.g. checking filters, replacing nozzles etc.

There are a number of methods of calibration that the candidates may use provided that it produces the correct end result.

**Pre-requisites**

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

**Validation of equipment**

Any pesticide application equipment, attached to, suspended above or a part of a conveyor, roller table or other moving equipment.

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.
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**Site:** Work site with suitable applicator filling/washing facilities which comply with current environmental best practice and a product to be treated.

NB

If the equipment is fitted with electrostatically charged heads, candidates must also complete assessment activities PA2D (see PA\PA2\9-2005) as appropriate.

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

Equipment appropriate to the application technique selected by the candidate.

Appropriate work site.

Material to be treated.

Personal protective equipment appropriate to the product label/COSHH risk assessment.

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

Manufacturer's operator's instruction book.

Washing facilities.

**Clean** product labels or label duplicates.

Pocket calculator.

Appropriate containers of pesticide or simulated pesticide.

Spare parts appropriate to type of equipment being used.

Measuring cylinder/Accurate and suitable measuring jug.

Appropriate Application Record Sheets

Assessment Activity	Assessment Criteria
<b>Preparation</b>	
1. 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>
2. 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 machine and the operation</li> <li>- Awareness of any guarding requirements</li> <li>- Comply with the Code of practice</li> </ul>
3. Read and interpret product label (as supplied or approved by the Assessor)	<p>Candidate to determine from the label:</p> <ul style="list-style-type: none"> <li>- Field of use</li> <li>- PPE requirements</li> <li>- Product being used</li> <li>- Crop/target on which product may be used</li> <li>- Specific product precautions</li> <li>- Appropriate for type of applicator</li> <li>- Dose rate</li> <li>- Timing</li> <li>- Additional label information</li> <li>- Restrictions on use</li> <li>- Use of adjuvants</li> <li>- Mixing requirements</li> </ul>
<p>4. Check and prepare treatment area and equipment</p> <p>Demonstrate knowledge of liquid flow, action of applicator in filling, application and circulation modes</p> <p>Remove, clean and replace a filter.</p> <p>Demonstrate knowledge of nozzles</p>	<ul style="list-style-type: none"> <li>- Clear floor space</li> <li>- Material feed system</li> <li>- Engineering controls to minimise contamination</li> <li>- Access to controls</li> <li>- Suitability of tank</li> <li>- Condition of pipe work/filling devices</li> <li>- Free movement of valves and correctly positioned</li> <li>- Condition of filters</li> <li>- Candidate to explain liquid flow of the machine being used</li> <li>- Suitable procedure</li> <li>- Contain spillage</li> <li>- Check for defects</li> <li>- Types of nozzle <ul style="list-style-type: none"> <li>● Flat fan</li> <li>● Rotary atomiser</li> <li>● Air inclusion</li> <li>● Cone</li> </ul> </li> </ul>

Assessment Activity	Assessment Criteria
5. Select and fit appropriate nozzle.  Set and check application rate	<ul style="list-style-type: none"> <li>- Orifice size, type and purpose</li> <li>- Metering device</li> <li>- Method of use</li>   <li>- Suitable pressure</li> <li>- Correct pesticide output appropriate to material flow rate and pesticide</li> </ul>
6. Calibrate applicator	<ul style="list-style-type: none"> <li>- Material throughput area/weight</li> <li>- Required volume/quantity of pesticide</li> <li>- Calculate correct pesticide quantities for different water volumes (if appropriate)</li> <li>- Running time on full tank/hopper</li> </ul>
7. Calculate, measure and mix pesticide(s), if applicable  Demonstrate knowledge of the preparation and use of suspensions and emulsions	<ul style="list-style-type: none"> <li>- Ascertain quantity to be treated</li> <li>- Correct dose rate</li> <li>- Availability and correct use of water supply.</li> <li>- Observance of pesticide manufacturer's instructions for mixing, agitation, tank mixes.</li> <li>- Calculate quantities for full and part tank</li> <li>- Accurate measurement of pesticide.</li> <li>- Rinsing and storage of empty pesticide containers</li> <li>- Correct filling procedure</li> <li>- Use of filling device where available</li> <li>- Avoidance of spillage</li> <li>- Safe storage of unused concentrated pesticide</li> <li>- Security of pesticide packs in transit and on site</li>   <li>- Shake container thoroughly before use</li> <li>- Agitate thoroughly while mixing</li> <li>- Agitate thoroughly during application</li> </ul>
8. Operate the equipment to apply pesticide.	<ul style="list-style-type: none"> <li>- Continuous flow of material</li> <li>- Distribution of pesticide relative to material</li> <li>- Avoid splashing/contamination</li> <li>- Maintain temperature (if appropriate)</li> </ul>
9. Remove and store treated material	<ul style="list-style-type: none"> <li>- Avoid splashing/contamination</li> <li>- Safe lifting procedure</li> <li>- Suitable draining area</li> <li>- Correct draining time</li> <li>- Suitable storage site</li> <li>- Labelling of treated material (if appropriate)</li> </ul>

Assessment Activity	Assessment Criteria
<b>POST OPERATION</b>	
<p>10. Demonstrate knowledge of:</p> <p>a) cleaning and decontamination of the applicator</p> <p>b) procedures to protect the environment and the operator before undertaking repairs or replacement of parts</p> <p>c) preparation of applicator for storage</p>	<ul style="list-style-type: none"> <li>- Appropriate site.</li> <li>- Thorough washing with water and suitable additive if recommended.</li> <li>- Internal and external surfaces.</li> <li>- Use of in-built systems when provided.</li> <li>- Safe disposal of tank washings by approved methods.</li> <li>- Thorough flushing of systems.</li> <li>- When cleaning should take place.</li> <li>- Safe procedures followed.</li> <li>- Safe disposal of surplus dilute pesticide</li> </ul> <ul style="list-style-type: none"> <li>- Select an appropriate containment site and possible containers for contaminated material.</li> <li>- Ensure that the applicator is made safe Safely isolate,</li> <li>- Drain and thoroughly decontaminate area or part to be replaced or repaired</li> </ul> <ul style="list-style-type: none"> <li>- Ensure the applicator is clean and dry.</li> <li>- Inspect for wear and/or damage,</li> <li>- Replace any worn or damaged parts.</li> <li>- Ensure system is drained and all valves left in appropriate positions</li> <li>- If appropriate, draw antifreeze through system, particularly the pump.</li> <li>- Remove filters and nozzles and store appropriately.</li> <li>- Lubricate as required</li> <li>- Store under cover and out of direct sunlight</li> <li>- Store in a secure area</li> </ul>
<p>11. Complete application record</p>	<ul style="list-style-type: none"> <li>- Records completed</li> <li>- Accurate recording</li> </ul>