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

MODULE PA9 FOGGING, MISTING AND SMOKES

ASSESSMENT SCHEDULE

March 2011

Module PA9 FOGGING, MISTING AND SMOKES (INCLUDING FORMALDEHYDE)

Objective - learner will be able to:

1. Prepare **one type of equipment** for work, calibrate it by means of an appropriate procedure and operate it to ensure the correct application rate without risks 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 routine maintenance of the equipment
4. Carry out daily and routine operating procedures for the equipment used.
5. Carry out routine procedure for cleaning personal protective equipment and any equipment used.

(There are a number of methods of calibration which the learner may use provided that it produces the correct end result.)

Qualification and Credit Framework (QCF) – credit value

PA9 has a credit value of 2 credits on the QCF.

Safe Practice

Operating the equipment in such a way as to put the environment, learner, assessor or the equipment at risk will cause the learner to be declared not yet competent.

All equipment must be of the standard required under current Health and Safety legislation. Additionally, the equipment used may have been required to pass the relevant NSTS test.

Learners must wear Personal Protective Equipment (PPE) appropriate to the risk whenever carrying out work on the applicator e.g. checking filters, replacing nozzles etc.

It is assumed that treatments by fogs, mists or smokes are made to enclosed premises. However, hot fogging operations to potato stores are carried out by operating the machine outside the building to be fogged. Additionally, some misting operations are performed outdoors. Learners must therefore demonstrate to the assessor their knowledge of the environmental safety precautions required.

The Assessment may be conducted using either pesticide or simulated pesticide

Pre-requisites

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

Qualification endorsement

Certificates will be endorsed either fogging, misting or smokes

Validation of equipment

Any equipment designed to produce a hot or cold fog, mist, or smoke.

Mists and Fogs are particulate clouds having a particle size range of less than 100 microns VMD.

When using electrically driven equipment unless an 110v system is available, the system must incorporate a residual current device (RCD). Where no such device is incorporated into the system, a plug in type **must** be used.

Operator's instruction books should be available and may be used by the candidate during the assessment. Any other relevant literature may also be used.

The assessment should be conducted in the context of the work situation.

Candidates undertaking potato fogging applications need to be aware of the relevant Best Practice Guides relating to store design, planning, filling and loading.

Site: Work site with suitable applicator filling/washing facilities (if appropriate) which comply with current environmental best practice and an area or building to be treated

Learners 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.

Suggested facilities and equipment required to run the assessment:

Equipment appropriate to the application technique

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

Instruction book

Washing facilities

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

Spare parts appropriate to the type of equipment being used.

Tape measure

Suitable tools

Clean product labels or label duplicates appropriate to the candidate.

Clean water supply and/or suitable solvents for cleaning application equipment.

Appropriate containers with simulated pesticide
Pocket calculator
Wind speed gauge
Measuring jugs and/or scales
Fire extinguisher
Absorbent granules for any spills
Warning signs
Appropriate Application record sheets
Warning signs.
Appropriate Application record sheets.
Scales

Assessment Activity	Assessment Criteria
Preparation	
1. Check applicator (if appropriate) Demonstrate knowledge of legal requirements and safety regulations	<ul style="list-style-type: none"> - Read instructions - Identify components including safety devices - Condition of power source - Security of packaging/canisters - Ignition paper dry - Contamination safety status - Remedial action if appropriate - Awareness of any safety implications imposed by the Risk Assessment on the apparatus used and the operation - Awareness of regulations when in operation - HSE Approved Code of Practice on Fumigation - Comply with the Code of Practice
2. Evaluate crop to be treated (potato applications only)	<ul style="list-style-type: none"> - Dry tuber surfaces - Minimal signs of sprouting - Even crop temperature - Proposed end use - Previous treatments (quantity & timing) - Clearance interval before consumption - Maximum Residue Levels
3. Evaluate store set-up (potato applications only)	<ul style="list-style-type: none"> - Box stacking patterns - Box plenums - Duct and lateral covers - Low speed recirculation fans - Operation of store control system - Inverters - Even distribution
4. Carry out an environmental risk assessment of the application site	<p>May include:</p> <ul style="list-style-type: none"> - Ground conditions - Water courses - LERAPS/Buffer zones - Drains - Livestock Wildlife - Flowering plants - Public access - Seed Tubers - Seed crops in adjacent stores - Sensitive crops/areas - Hedgerows - Housing - Factors particular to the site - Visible signs or wind speed gauge at suitable height - Wind direction - Check and maintain application rate - Check integrity of building - Comply with environmental assessment - Appropriate timing of applications - Use appropriate pesticide - Notification of neighbours

Assessment Activity	Assessment Criteria
5. Prepare the site a) Check structure b) Post warning signs c) Check for obstructions d) Ensure all non-targets are protected or removed	<ul style="list-style-type: none"> - Ventilation closed/isolated - No obvious routes of pesticide escape - Temperature requirements - Target or crop not under stress - Tubers dry & cured - Set recirculation fans/inverters to give even air distribution - Suitable positioning of signs - Leave signs posted for adequate time after release of pesticide - Ensure security of doors and entry points - Fixed or immovable objects - Water pipes or irrigation lines - Ensure way out is clear - Clear route of fog flow - Correct stacking of potato boxes to ensure even distribution of CIPC - Other people - Livestock in the area to be treated or in adjacent buildings - Non target plants, crops or equipment
6. Demonstrate knowledge of appropriate PPE/RPE	<ul style="list-style-type: none"> - PPE/RPE according to product label and COSHH assessment - Correct fit - RPE inspection checks and records
7. Demonstrate knowledge of potential fire risk	<ul style="list-style-type: none"> - Position hot/ pyrotechnic devices away from sources of combustion - Ensure that entry port for potato stores is well insulated - Placement and type of fire extinguishers - Risk of entering a building in the event of fire - Risk of burns from hot equipment
8. Read and interpret product label	<ul style="list-style-type: none"> - Correct product for intended treatment - Hazard symbol - Treatment intervals - Dose rate appropriate to target/crop - Appropriate for type of applicator - Restrictions on use - WELs (if applicable) - Reduced volumes (if applicable) - Ventilation precautions/interval (if applicable)
Calculation	
9. Preparing to apply a) Select application rate and correct dilution (if applicable) b) Measure and calculate surface area/ volume/ quantity to be treated c) Calculate the quantity and placement of pesticide required	<ul style="list-style-type: none"> - Dose rate from label or canister - Volume of diluents (If appropriate) - Accurate measurement - Accurate calculation - Correct quantity calculated - Correct placement determined

Assessment Activity	Assessment Criteria
Application	
10. Carry out application using selected equipment or process	<ul style="list-style-type: none"> - Comply with environmental Risk Assessment - Measure or weigh required quantity of pesticide - Method of releasing the pesticide - Direction of operator travel - Avoid operator contact with contaminated target
Post-operation	
11. Demonstrate knowledge of post application operations	<ul style="list-style-type: none"> - Ventilate area prior to entry - Re-entry time - Removal of warning signs - Removal of spent containers/devices - Decontamination of non-target areas - Manufacturers procedures followed - Withholding period before sale or consumption
12. Demonstrate knowledge of cleaning and storage of equipment	<ul style="list-style-type: none"> - Dry area - In storage cabinet if required - Not on the ground (if appropriate) - Danger from flammable solvents
13. Demonstrate knowledge of road transport considerations for applicator and pesticide (if appropriate)	<ul style="list-style-type: none"> - Hazard symbols displayed - Minimal pesticide quantities on board - Allow applicator to cool before loading - Manual handling issues - Secure restraint of applicator
14. Complete an application record	<ul style="list-style-type: none"> - Records completed - Accurate recording