

Registered Charity No. 1096429

BUILD 500, ABBEY PARK, STARETON, WARWICKSHIRE CV8 2LY Tel: 024 7685 7300 Fax: 024 7669 6128 Email: information@nptc.org.uk

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

MODULE PA4S PESTICIDE SLUG PELLET APPLICATOR

ASSESSMENT SCHEDULE

Module PA 4S PESTICIDE SLUG PELLET APPLICATOR

Mounted or Trailed (excluding pedestrian controlled machines or hand held equipment).

Candidates undertaking assessment will need to complete all assessment activities appropriate to the applicator they use. Assessors will conduct the assessment in the context of the equipment available and intended for use during the assessment.

There are a number of methods of calibration for a slug pellet applicator and candidates may use any method provided that it produces the correct end result.

Objective - Candidates will be able to:-

- 1. Prepare a pesticide slug pellet applicator for work, calibrate and operate it to ensure correct application rate 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 daily and routine maintenance of the applicator.
- 4. Carry out the correct procedure for clearing personal protective equipment and application equipment which may have been contaminated with pesticide.

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

Qualification and Credit Framework (QCF) - credit value

PA4S has a credit value of 2 credits on the QCF

Safe Practice

Operating the prime mover and/or 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 must be of the standard required under current Health & Safety legislation.

Candidates must wear personal protective equipment (PPE) appropriate to the risk whenever carrying out work on the applicator e.g. checking metering devices.

Contaminated PPE should never be taken into an enclosed cab.

In addition, before entering a cab, any PPE not required by legislation (other than coveralls and wellington boots) should be removed and placed in a suitable tractor locker or enclosed container outside the cab.

Candidates must be especially careful to avoid personal contamination when operating uncabbed or partially cabbed prime movers and be aware of the effect that changing circumstances have on the stability of the equipment.

Pre-requisites

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

Validation of Equipment

Any type of full width broadcast or placement pesticide slug pellet applicator eg. Spinning disc, pendulum or pneumatic type.

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.

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

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 with area to allow calibration and an area where field operation can be undertaken.

Special Note The PA4S award applies **only** to the application of slug pellets.

Suggested facilities and equipment required to run the assessment:

Slug pellet applicator and additional equipment appropriate to the candidate. First Aid kit which complies with the Health & Safety (First Aid) Regulations 1981 Prime mover matched to slug pellet applicator. Instruction books for prime mover and slug pellet applicator. Washing facilities. Personal Protective Equipment to comply with pesticide label/COSHH risk assessment Tape measure/Measuring wheel to measure 100m run. Wind speed gauge. Suitable tools. Appropriate containers with pesticide or simulated pesticide slug pellets. Clean product labels or label duplicates appropriate to the candidate. Containers for collecting product during any static calibration. Accurate scales. Field markers. Site for practical work. Pocket calculator.

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Tyre pressure gauge. Suitable lubricants. Appropriate site for cleaning applicator. Appropriate Treatment Record Sheets.

	Assessment Activity	Assessment Criteria
Pre	paration	_1
1.	Identify applicator controls and components	 On/off control Metering mechanism Bias mechanism (if applicable) Hopper, agitator, disc speed control, fan and/or other items specific to the applicator Boom isolators (if applicable)
2.	Demonstrate knowledge of preparation of prime mover and applicator	 Fit carbon filter Use in-cab controls Ensure ventilation system is working correctly Close all windows Pellet shield Compatibility of prime mover and applicator Wheel track width Appropriate additional weighting Tyre pressures correct and tyres in good condition Guarding of moving components Applicator levelled as recommended by manufacturer Applicator at correct height Fitting of spread width limiter plates Be aware of any safety implications imposed by Risk Assessment on the machine and the operation and comply with their requirements Ensure that all required guards are in place and in good
	Demonstrate knowledge of legal requirements and safety regulations	 Comply with all relevant <i>road traffic</i> regulations when equipment is using the public highway Comply with the Pesticides Code of Practice
3.	Demonstrate knowledge of safe driving	 Assess conditions Desirability of 4-wheel drive Appropriate speed Suitable gear selection Applicator correctly attached Effect of changing load on stability Use of weights to stabilise the prime mover Monitoring of tyre pressures Correct turning procedure Keep centre of gravity as low as possible Independent brakes coupled together when on a public highway Travelling at high speed makes vehicle unstable
4.	Check applicator for cleanliness and mechanical/electrical defects	 Hopper, metering and delivery systems checked – free and undamaged Seized, worn or damaged components Drive systems Condition and tension of belts Method of belt adjustment Guards serviceable and fitted Sound electrical connections Satisfactory cable routing Fan blades Fan deflector plates Air supply unimpeded Boom suspension/break back-devices (if appropriate)
	Check security of attachment of application mechanisms	 Bolts/clamps tight Straps adjusted Sub frames/carriers secure All linkage secure Side sway restricted
	Demonstrate knowledge of lubrication of components	 Identify all lubrication points by using the instruction book Components that should not be lubricated

Assessment Activity	Assessment Criteria
 Read and interpret product label (as supplied or approved by the Assessor) 	 Field of use Hazard symbol Active ingredient PPE requirements Product being used Specific product precautions Appropriate for type of applicator Dose rate Maximum number of treatments Timing 'No Spread' zone Baiting recommendations Additional label information Restrictions on use
6 Part fill Applicator	 Suitable site selected Fill by usual on-site method following approved safe procedures Manual handling considerations Optimum positioning for efficiency Security of pesticide on site Safe storage of empty containers Facility for dealing with/containing spillage
Calibrate the Applicator	
7. Select and calculate speed (if applicable)	- Trial run on typical ground to establish acceptable slug pellet applicator performance
Calculate required output	 Accurate measurement of 100 m Time in seconds to cover 100 m using gear and rpm established Correct use of formula
8. Set applicator to achieve required application rate	 Use of manufacturers handbook/application charts Safe procedures followed
Carry out check of application rate	 NB Method used will depend on type of machine, calibration method chosen and recommendations given in manufacturers operators handbook Run applicator for specific period of time or distance Accurate weighing of output
Adjust applicator to achieve the correct application rate	 Compare with target rates Repeat until target rate achieved Care to avoid moving parts Use of manufacturers handbook
 Demonstrate knowledge of factors affecting uniformity of spread. 	 Applicator levelled according to manufacturer's recommendations Applicator at correct height Correct settings of spreading mechanism (aperture, bias etc) Bulk density of pellets Relative humidity considerations Factors affecting distribution pattern Wind Slope Forward speed
10. Assess the applicator for uniformity of spread	 Visual assessment of uniformity of spread using any appropriate and safe method -
11. Demonstrate knowledge of calibration data to be recorded	 Applicator settings used Product used for calibration Application rate achieved Spreading width Registration no. of prime mover Vehicle gear selected Engine speed (rpm) Vehicle forward speed Vehicle wheel sizes and tyre pressures

Assessment Activity	Assessment Criteria
Site Work	1
12. Carry out an environmental risk assessment of the application site 13. Calculate, weigh and add slug pellets to the hopper.	May include: Ground conditions Adjacent water courses 'No spread' zones Field drains Wildlife Public access Hedgerows Housing Factors particular to the site Check and maintain application rate Erect warning signs Other environmental margins Warn neighbours Use an appropriate pesticide Adopt stewardship recommendations relating to individual/maximum doses of active ingredient Careful timing of application Comply with environmental assessment Wind speed gauge at suitable height or visible signs Wind direction Awareness of likely effects and implications of product entering watercourses Possible effects on wildlife/domestic pets Effect of direction of travel Maintaining accuracy of application Avoid contamination of 'no spread zone', hedgerows/other field margins & water courses. Ensure approved techniques are followed with due regard to safe practice as determined by label/COSHH assessment. Determine size of area to be treated Correct application rate
14. Demonstrate knowledge of accurate application procedures on site	 Calculation of total product required Accurate weighing of slug pellets Methods of marking may include: Tramlines Row crops. Blob markers
	 Marker poles Carefully avoid contact with the contaminated area, Mark the spot at which the hopper emptied, either by a marker in a row or tramline or by turning 90 degrees, as long as the wheelings are clearly visible. Continue applying by accurately matching at the appropriate point
15. Apply slug pellets to a given area in a safe and appropriate manner	 Avoid operator contact Operate controls to start and finish applying accurately at beginning and end of each bout Maintain correct forward speed Accurate matching of bouts/use of driving aids Awareness of techniques to counteract unbalanced applicator performance Correct height of applicator Coping with obstacles e.g. electricity poles All area treated, minimising overlaps or misses. Awareness of changes in wind speed and direction. Maintenance of 'no spread zone'

Assessment Activity	Assessment Criteria			
Post Operation				
16. Demonstrate knowledge of:				
a) cleaning and decontamination of the applicator	 Select appropriate site Follow manufacturer's cleaning procedures Risk of contamination Containment/disposal of pellets or contaminated soil arising from cleaning operation Frequency of cleaning 			
b) the procedure prior to any repair or replacement of parts	 Select an appropriate containment site and possible containers for contaminated material. Ensure that the applicator is made safe (engine stopped, supports if appropriate). Ensure that section to be repaired/replaced is safely isolated Applicator decontaminated 			
c) preparation of applicator for storage	 Refer to manufacturer's handbook for guidance Ensure applicator is clean and decontaminated Carry out lubrication procedures Danger of personal contamination Store under cover and out of direct sunlight Store in a secure area 			
17. Complete treatment record	 Appropriate record completed Accurate recording of information 			