

# Technical Evaluation Record v2 Aug19

<b>QUALIFICATION:</b>	Pesticides – PA3B Variable Geometry Boom Sprayer with Air Assistance	<b>Qualification Code:</b>	0216-51 (Ind)				
		<b>Units:</b>	122				
<b>Assessor Name:</b>		<b>Technical Verifier Name:</b>					
<b>Assessor No:</b> <b>NEW? DOB:</b>		<b>Technical Verifier No:</b>					
<b>Assessor Email:</b>		<b>Start Time:</b>					
<b>Invoice To:</b> (Include Centre name if applicable)		<b>End Time:</b>					
<b>CRITERIA: (Please refer to the following pages and current Qualification Guidance)</b>		<b>PERFORMANCE EVALUATION (Circle):</b>			<b>JUSTIFICATION:</b>		
M/C test paper to check PA1 knowledge and specific industry best practice <i>(new assessors only)</i>		1	2	3	4	5	1 = 12 or less/20    2 = 14/20 3 = 16/20    4 = 18/20    5 = 20/20
Knowledge of H&S regulations and industry best practice. Carry out SSRA, COSHH and environmental assessment		1	2	3	4	5	
Knowledge of range of applicators (including pump types, liquid/air flow, controls, components, induction systems)		1	2	3	4	5	
Knowledge of machine preparation and safe driving considerations		1	2	3	4	5	
Knowledge of operator protection, sealed cab/open platform and PPE requirements and standards		1	2	3	4	5	
Knowledge of a range of nozzles appropriate to applicator and relevant nozzle chart interpretation		1	2	3	4	5	
Knowledge of nozzle body and fan adjustments, including advantages and possible risks to crop/target		1	2	3	4	5	
Interpretation of two appropriate product labels		1	2	3	4	5	
Calibrate the applicator (without use of calibration sheet/aids). Complete calibration test paper		1	2	3	4	5	
Complete calibration test paper		1				5	
Knowledge of drift reduction methods		1	2	3	4	5	
Measure, mix and fill applicator. Carry out an application. Knowledge of site marking options		1	2	3	4	5	
Knowledge of cleaning/decontamination/disposals. Complete a treatment record		1	2	3	4	5	
Assessment techniques <i>(new assessors only)</i>		1	2	3	4	5	
<b>PERFORMANCE EVALUATION COLUMN TOTALS:</b>							<b>= TOTAL SCORE:</b>
<b>Result of Technical Evaluation (tick):</b>	<b>MET</b>	<b>TOTAL SCORE REQUIRED TO ACHIEVE ASSESSOR STATUS:</b>					<b>56</b>
	<b>NOT MET</b>	<b>(NB. ACHIEVED IN PERFORMANCE EVALUATION COLUMNS 4 &amp; 5 ONLY)</b> <i>If an existing PA Assessor then please adjust total score required to 48</i>					
<b>ACTION PLAN FOR ASSESSOR:</b>							
<i>Please continue on reverse if necessary</i>							
<b>ASSESSOR COMMENTS:</b>							
<i>Please continue on reverse if necessary</i>							
<b>TECHNICAL VERIFIER SIGNATURE:</b>					<b>COST:</b> £200 Half Day £300 Full Day		<b>DATE:</b>
<b>ASSESSOR SIGNATURE:</b>							

## **TECHNICAL EVALUATION RECORD**

**0216-51** L2 Award in the Safe Application of Pesticides Using Variable Geometry Boom or Broadcast Sprayers (PA3)

**Unit 122** Operating a Variable Geometry Boom Sprayer with Air Assistance (PA3B)

### **M/C test paper to check PA1 knowledge and specific industry best practice**

- Minimum score of 18/20 achieved.  
*(Please note: this paper only needs to be completed by new PA assessors).*

### **Knowledge of H&S regulations and industry best practice**

Key principles and practical relevance:

- Health and Safety at Work etc. Act 1974 (HASAWA)
- Management of Health and Safety at Work Regulations 1999 (MHSWR)
- Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Personal Protective Equipment at Work Regulations 1992 (PPE Regs)
- Control Of Substances Hazardous to Health Regulations (COSHH)
- The Health and Safety (First Aid) Regulations 1992
- Reporting of Injuries Diseases Dangerous Occurrence Regulations (RIDDOR)
- Wildlife and Countryside Act 1981
- Countryside and Rights of Way Act 2000
  
- Sustainable Use (PPP) regulations
- Pesticides Code of Practice
- 2 sources of industry best practice
- Operator certification
- Risk assessments
- Condition and guarding of equipment

### **Carry out COSHH assessment**

- Using template provided or an approved template

### **Carry out SSRA**

- Assessor to complete a Site Specific Risk Assessment, using provided template.
- Header and footer.
- Hazards and controls relative to site, task and equipment.

### **Carry out environmental assessment**

- Environmental risks to site identified
- Methods to minimise risks explained.
- Additional risks not identified on site, (that may occur in typical assessment situations) to be discussed.

### **Knowledge of a range of applicators (including pump types, liquid/air flow, controls, components, induction systems)**

Applicable to equipment used for the TE and questioning to cover knowledge of variations:

- Operating controls
- Applicator components
- Common pump types (must include Diaphragm and Piston)
- Liquid flow
- Air flow (if applicable)
- Operating differences between fixed forward speed and variable forward speed (rate controller) applicators

### **Knowledge of machine preparation and safe driving considerations**

- Pre-use checks to prime mover
- Compatibility and security
- Safe driving
- Contact with obstacles (e.g. overhead power lines)

### **Knowledge of operator protection, sealed cab/open platform and PPE requirements and standards**

- Operator protection – sealed cab
- Operator protection – open cab/canopy/platform
- CE and EN markings-relevance
- Overall specifications –Type 4/5/6
- Glove specification
- Face shield
- Boot specification
- RPE – types and reasons

### **Knowledge of a range of nozzles appropriate to applicator and relevant nozzle chart interpretation**

- Hollow cone
- Hollow cone air inclusion
- Flat fan
- TV to explain the 'rule of 4' in relation to calculating nozzle output (if unknown)  
(Please note: Assessor to identify nozzle, explain when it would be used and interpret the markings. Additional detail can be obtained / interpreted from an appropriate nozzle chart.

### **Knowledge of nozzle body and fan adjustments, including advantages and possible risks to crop/target**

- Nozzle body adjustments according to overall height of target or foliage density
- Fan pitch – larger volumes of air at lower fan speeds
- Large volumes of air can assist with spray penetrating canopy
- Low volumes of air may not allow for full coverage/penetration of canopy
- Large volumes of air have potential to cause excessive drift
- Large volumes of air could damage delicate fruit/berries.

### Interpretation of two appropriate product labels

- Product label 1
- Product label 2

### Calibrate the applicator (without use of calibration sheet/aids).

- Calibration method (carried out):
  - Application volume
  - Amount of water for area
  - Amount of pesticide for area
  - Amount of pesticide for full tank

### Complete calibration test paper

- Calibration test paper successfully completed  
*Note to TV: The assessor is expected to correctly complete all of the calibration test paper exercises. A marking sheet range has been produced to allow for variations in methods used and rounding up/down.*

### Knowledge of drift reduction methods

- Weather conditions
- Canopy density
- Presence of natural/living windbreaks
- Direction of spraying
- Nozzle type and size
- Boom geometry
- Pressure
- Forward speed
- Fan speed
- Fan pitch
- Air flow direction

### Carry out measuring and mixing.

- Suitable site selected.
- Correct PPE used
- Safe use of water supply
- Accurate measurement of water (allowing for pesticide volume) and pesticide.
- Read a range of different measuring vessels (to be read in millilitres and litres)
  - Large jug (water)
  - Small jug (chemical)
  - Cylinder
  - Knowledge of how to accurately measure powders/granules
- Correct cleaning procedure of pesticide measuring vessel.
- Avoidance of spillage. Drip tray used.

### Carry out an application. Knowledge of site marking options

- Site marking options (to ensure accurate application)
- Safe and accurate application carried out
- Procedure for blocked nozzle during application
- Procedure for refilling during application

### Knowledge of cleaning/decontamination/disposals

- Surplus dilute, disposal
- Washing procedure explained
- Washings, disposal
- Empty container/packaging, washing, storage and disposal (Crop Protection Association Best Practice Guide 'Container Cleaning' 2012)

### Complete a treatment record

- Treatment record correctly completed

### Assessment techniques

- Clear and concise questions/instructions
- Question/instruction relative to unit.  
*(Please note: this section only needs to be completed by new PA assessors).*

**Note:** *If an existing PA assessor is adding this as a new unit, the M/C test paper and assessment technique sections do not need to be completed.*

**Total score required (on front sheet) can be adjusted to 48.**

The calibration test paper must be completed by all potential assessors.