

SQC Sprayer Maintenance and Self Assessment form

Owner:	Operator:	Make:
Model:	PA Cert no:	Reg No:
Date:	NRoSO no:	

Key:	Checked/Completed <input checked="" type="checkbox"/>	Needs Attention <input checked="" type="checkbox"/>	
	Adjusted <input type="checkbox"/>	Not Applicable <input type="checkbox"/>	

Regularly

Mechanical

Is the attachment to tractor secure?

Is the chassis and structure free of cracks and rust?

Are the wheels and tyres in good condition?

Are guards, inc. PTO shaft guard, secure and undamaged?

Hydraulic system, inc. tracking system if fitted.

Are they free from leaks under pressure?

Are the hoses and connections worn or cracked?

Electrical system

Is the wiring undamaged & are all connections properly insulated?

Do all the lights work properly?

Pneumatic system

Is the system free from leaks when under working under operating pressures?

Sprayer tank

Are the tank/chassis fasteners secure?

Free from leaks?

Does the lid fit securely and free from leaks?

Is the contents gauge clearly legible?

Boom

Is it properly latched when folded for transport?

When unfolded, is it straight and level?

Does the height adjustment and suspension work properly?

Does the boom return to level when displaced to left and right?

Are the break-backs functioning freely?

Are the mountings and linkages secure and not worn?

'Spray lines'

Are they free from leaks under pressure?

No hoses and connectors worn or cracked?

Are all valves and filters in good condition?

Nozzles

Are all fittings and turrets in good condition?

Are all nozzles correctly orientated?

Are all check valves working properly?

Is the spray/distribution pattern visually correct?

Regularly (cont)

Controls and valves

Are the master on/off switches working correctly?

Are all boom section switches functioning?

Can you read the pressure gauges easily?

Are all labels appropriate and legible?

Is the pressure adjustment/stable?

Pressure gauge reading zero?

Chemical induction system

Are the system and controls working properly?

Is it free from leaks under pressure?

Are all labels appropriate and readable?

Is the rinse system and container wash system working properly?

Tank rinse system

Is the system functioning properly?

External washdown

Is the system functioning properly?

Personal

Water supply tank filled?

Is the clothing locker clean and contents complete?

Periodical

Jug test all nozzle outputs

Date Completed

Formally complete and file check sheet

Independent test due (if applicable).....

Maintenance Required/Completed/Specific items requiring attention

Calibration Record**Calibration**

Must be carried out regularly at the beginning of each spray season, (spring and autumn) and regularly during the season and always after changing tractor, tractor wheels, nozzles or replacing any part of the spray delivery system.

When calibrating the sprayer, wear a minimum of a coverall, gloves and boots.

		Enter Values
Read the LABEL	Spray VOLUME Spray DOSE Spray QUALITY	
Measure TIME per 100m	Measure time in seconds over land similar to that to be sprayed	
Calculate SPEED	Speed = $360 \div \text{Time (seconds)}$	
Measure nozzle SPACING on boom	(normally 0.5m)	
Calculate nozzle OUTPUT	Output = $\frac{\text{Volume} \times \text{speed} \times \text{space}}{600}$ (Litres/min) (litres/ha) (km/h) (metre)	
Select NOZZLE	Refer to nozzle manufacturers chart and select size and type of nozzle that will produce the calculated OUTPUT and required spray QUALITY	

Now check the calibration of the sprayer:

Check Nozzle OUTPUT	Using water, check output of 4 or more nozzles using a calibration jug or flow meter.	
Calibrate SPRAYER	Volume = $\frac{\text{output} \times 600}{\text{space} \times \text{speed}}$ (Litres/ha) (litres/min) (metre) (km/h)	

Record Details**Date Completed:** _____

Nozzles fitted		Tractor used	
Spray volume		Tractor gear	
Spray pressure		Tractor wheels	
Spray quality		Tractor revs	
Forward speed			

Further forms can be downloaded from the SQC Website www.sqcrops.co.uk or obtained by telephoning the FIA office: 0131 609 0558