



Hand-held Sprayer (Knapsack & Pressure Sprayers) Routine Check List

1. DETAILS	
Company/Owner name	
Address	
Operator Name & NPTC/Lantra No.	
Sprayer make & model	
Identification/serial number	
Inspected by (add NPTC/Lantra No. if different from above)	
Inspection date	

WEAR SUITABLE PPE BEFORE COMMENCING THE INSPECTION

2. GENERAL CONDITION	PASS	FAIL	REPAIR	ACTION
Clean, empty & depressurized Follow manufacturer's instructions				
Check lid – seal & vent present & in good condition				
Tank strainer clean & undamaged				
Check tank for damage – any cracks or holes				
Check straps & fixing points are undamaged, clean & secure				
Inspect all hoses for damage – are they still flexible				
Check trigger & lance – are there signs of damage & leakage				
Check all filters fitted (in trigger & behind nozzle) –are they clean and in good condition				
Check nozzle – is it fitted/aligned correctly and has no signs of damage				
Check pump (piston or diaphragm) – are there signs of damage or leakage				
Electric sprayers - check condition of battery and charger – take extra care with lithium-ion batteries				

**DO NOT PROCEED TO 3 IF THERE IS CHEMICAL RESIDUE OR SIGNS OF DAMAGE/LEAKAGE.
DECONTAMINATE BY INTRODUCING WATER/DETERGENT MIX OR PROPRIETRY CLEANING
CHEMICAL EQUIVALENT TO 10% OF THE TANK VOLUME. AGITATE, PRESSURISE & SPRAY UNTIL AIR
COMES FROM NOZZLE. REPEAT X 2. REPAIR AND/OR REPLACE PARTS AS REQUIRED.**



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3. FUNCTION CHECKS	PASS	FAIL	REPAIR	ACTION
Using a vessel of a known liquid volume, introduce clean water into the sprayer in stages until full – are the graduations on the tank visible & accurate				
Check that the straps will take the weight of the full sprayer TAKE CARE				
Is the sprayer stable on the ground when full – USE DRIP TRAY				
Check for leaks with the sprayer upright and at an angle (max. 45°)				
Pressurise the sprayer – Does the pump work smoothly				
Check pressure relief valve is working correctly				
Spray into an appropriate container – does the on/off mechanism & also any anti-drip/flow management valves function correctly				
Check for leaks whilst spraying				
Stop spraying and check for leaks				
Check the spray pattern of the nozzle for uniformity. Spray onto a dry surface e.g. concrete and check drying evenness				
Spray out all liquid until air only comes from the nozzle				

4. PREPARE TO STORE	PASS	FAIL	REPAIR	ACTION
Ensure the sprayer is completely empty & depressurized. Follow manufacturer's instructions				
Ensure all external parts of the sprayer (including straps) are clean and dry				
Clean spray nozzles & filters in a water/detergent mix using a soft brush (Do not use sharp objects to unblock nozzles)				
Lubricate any moving parts, such as plunger cups or O rings with an appropriate lubricant/grease – Follow manufacturer's instructions				
Store securely in a frost-free place away from direct sunlight				

**ALWAYS FOLLOW CORRECT DISPOSAL PROCEDURES FOR ALL RINSINGS & ENSURE THAT NO
CONTAMINATED LIQUIDS ENTER DRAINS OR WATERCOURSES**



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Sprayer Calibration Sheet

ACTION	EXAMPLE	DETAIL	WORK SPACE
1. Read the product label	Application rate Chemical dose rate Spray quality needed from spray nozzle	75 to 100 l/hectare 5 l/hectare Medium	
2. Select nozzle & type of equipment	As above. Consider using a pressure sprayer for small areas or spot treatment	372022 Blue Polijet	
3. Set pressure (if applicable)	If there is a pressure regulator, limiter or pressure control valve, select the pressure required to deliver the application rate and spray quality required – refer to nozzle manufacturers chart	Low 1 bar setting on CP Classic sprayer	
4. Measure spray width	Hold trigger & lance at comfortable height above target, spray onto dry concrete and measure the band applied in metres	1.5 m	
5. Walk & spray 100m strip and record time	Replicate the real condition as much as possible by wearing PPE and carrying a full sprayer. Repeat and take the average of the two measurements	68 secs.	
6. Spray into a measuring cylinder for the 100m time	Using a steady pumping action, spray into the vessel for the time it took to walk & spray 100m. Repeat and record the average of the two measurements	1.3 litres	
7. Calculate walking speed KPH	$360 \div$ by time in secs for 100m = KPH (360 is a constant used in all such metric calculations)	$360 \div 68 = 5.3$ kph	
8. Calculate the spray volume l/hectare	Volume collected in cylinder in litres x 100 \div spray width = l/hectare (100 is a constant used in all such metric calculations)	$1.3 \times 100 \div 1.5 = 86.66$ l/hectare	
9. Make adjustments to reach desired application rate l/hectare	If necessary, change the nozzle or alter spray width or walking speed to obtain the correct application rate. Many spray product labels give an acceptable range of application i.e. 75 to 100 l/hectare	86.66 l/hectare OK if range of 75-100 l/hectare recommended	
10. Calculate the area to spray	Measure the length and width in metres (L x W = Area to be sprayed)	Length 10m x Width 6m = 60m ²	
11. Calculate total water required for area to be sprayed	Volume collected in cylinder in litres x area to be sprayed \div 100 \div spray width (m) = Water required for the area to be sprayed in litres (100 is a constant used in all such metric calculations)	$1.3 \times 60 \div 100 \div 1.5 = 0.52$ litres	
12. Calculate chemical required for area to be sprayed	Water required for area to be sprayed in litres x chemical rate in l/hectare from label \div calculated spray volume (from 8 above) x 1000 = chemical required for the area to be sprayed in millilitres (ml) (1000 is a constant used in all such metric calculations)	$0.52 \times 5 \div 86.66 \times 1000 = 30$ ml	
13. Calculate chemical required for full or part tank	Capacity of sprayer tank (or part fill) x chemical rate in l/hectare from label \div calculated spray volume from (8 above) x 1000 = chemical required in ml (1000 is a constant used in all such metric calculations)	$15 \times 5 \div 86.66 \times 1000 = 865$ ml	
14. Record data	Keep a spray record detailing all of the above	As above	