

Spray calibration

Pressure tester

Calibrating the spray boom regularly ensures chemicals are applied evenly and at the right rate, reducing costs and preventing crop and environmental damage.

Operating at the right spray boom pressure ensures proper droplet size, coverage, and flow rate. This makes the spray operation cost-effective, safe, and consistent while reducing drift by preventing smaller droplets.

The pressure of the spray boom is controlled by the pump and is set by the means of a pressure regulator or bypass flow control. It is monitored using the pressure gauge or sensor positioned on the spray boom. However, if there are blockages or leaks within the hoses, the pressure at the nozzle may be different to what the gauge or sensor is reading.

A handheld pressure tester can be used to test the actual pressure being released at the nozzles of the spray boom.



Have a go:

The pressure tester is a handheld electronic device which contains a digital display screen and quick cap connectors, which connect to

KEY POINTS:

- Electronic handheld tester to monitor the pressure being released at the nozzle of the spray boom
- Ensure accuracy of the spray boom's pressure sensor or gauge and find blockages in the hoses or boom
- Simple gauge which takes 5 to 10 seconds per nozzle
- Use at the start of the spraying season annually to ensure sprayer pressure sensor or gauge is calibrated correctly

the nozzle body on the boom. When the water flows through the tester, the pressure of the water moving through is measured in pressure, expressed as pound per square inch (PSI), bars or kPa.

Before you start

Prior to testing, the spray boom must be cleaned and filled with water. The pressure on the spray boom must be set to the necessary level as determined by the sprayer and chemical rate requirements. Maintain a constant pressure throughout the testing process.

Using the pressure tester

Gloves should be used to remove the nozzle on the spray boom. The nozzle can then be fitted to the pressure tester and turned on.

With the spray boom running, the tester is connected to the area where the nozzle was removed.

Water will flow from the boom hoses into the pressure tester and out through the nozzle, measuring the pressure, which will be shown on the screen.

Once the reading is stable, after approximately 5 to 10 seconds, the pressure can be recorded.

The tester can then be removed, the nozzle replaced, and the subsequent nozzles measured.

Check your results

If the tester indicates the pressure to be higher or lower than the spray boom gauge or sensor, then further investigation is required to determine the problems.

This could include blockages in the sprayline in the form of kinks, twists, splits or cracks in the hoses - or problems with the pressure sensor or gauge.

Once the problem is identified and fixed, the pressure tester can be used again to ensure that there are no further issues that will impair the spray boom.

More information

Spray calibration fact sheets

- Flow meter
- Pressure tester

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