

How to Set up your Sprayer to target Whitefly

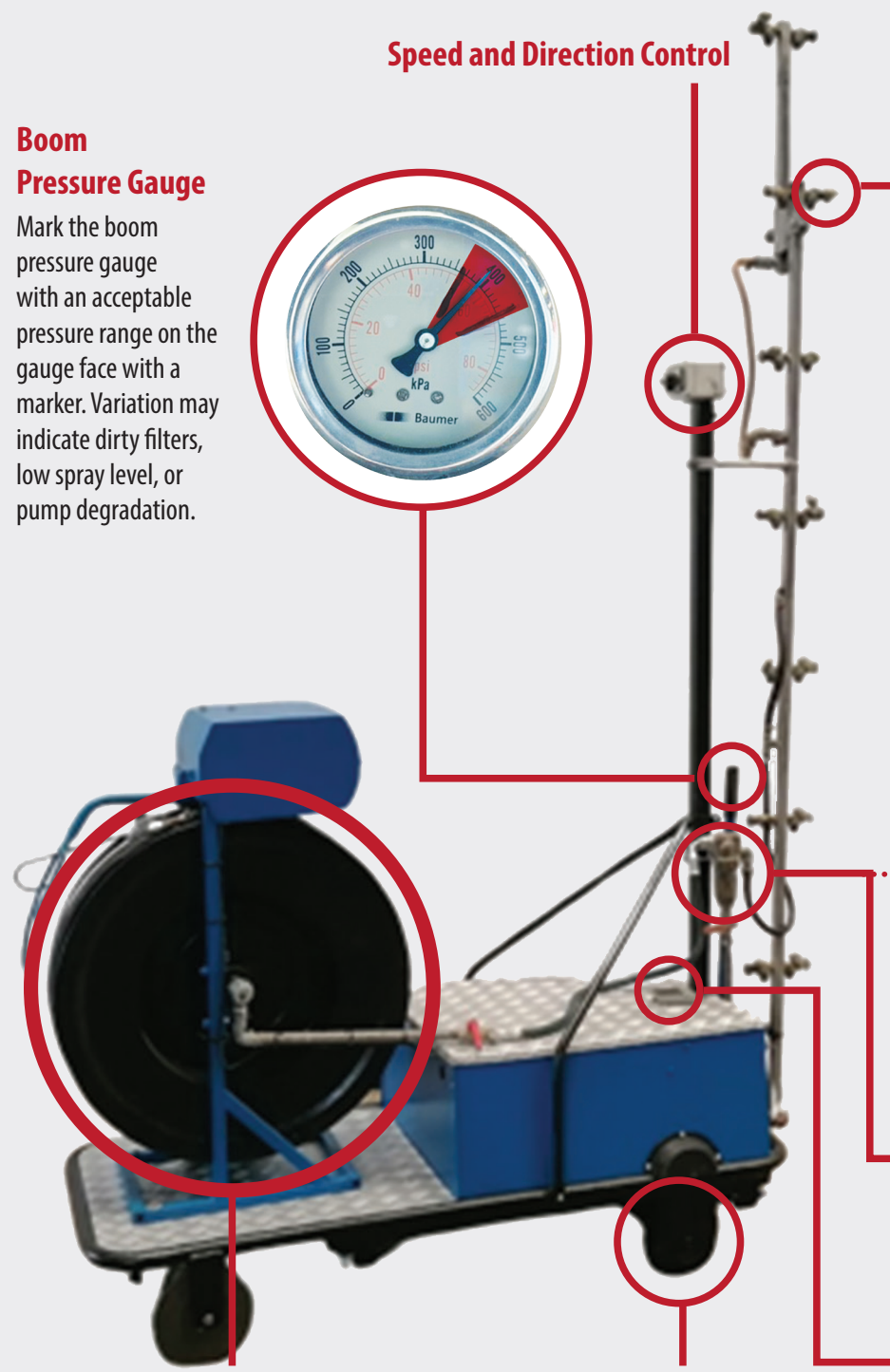
WITH A PHYSICAL MODE OF ACTION SPRAY

Boom Pressure Gauge

Mark the boom pressure gauge with an acceptable pressure range on the gauge face with a marker. Variation may indicate dirty filters, low spray level, or pump degradation.



Speed and Direction Control



Driven Hose Reel

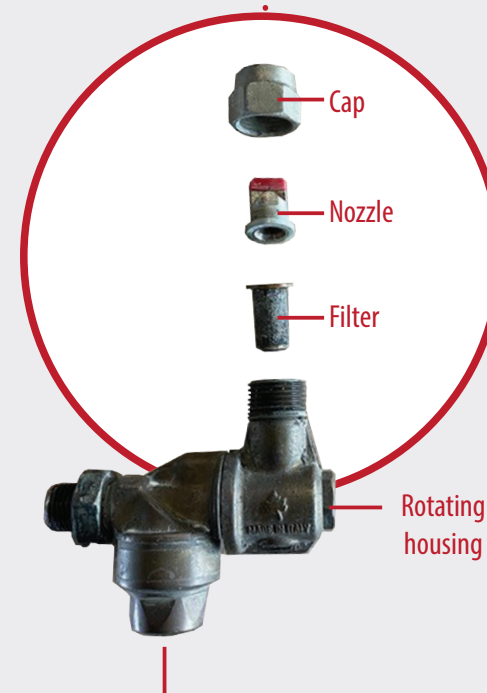
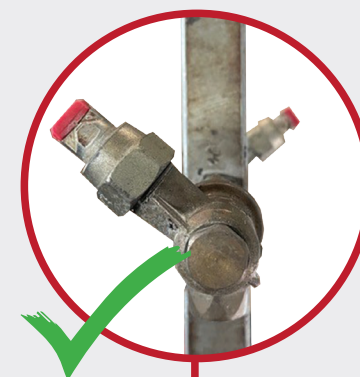
Driven Wheels

Primary Filter

All spray passes through this filter as it gets to the spray trolley. A pressure drop at the boom will occur if this is clogged.

Start/Stop Pedal

Photo credit (trolley): <https://berghortimotive.com/en>



Anti drip diaphragm valve

Note: Blockage of this filter (pictured above) will result in a drop of nozzle performance but an increase in boom pressure.



Spray Gun

If you are simply spraying with a hand gun (turbo gun) coverage is best achieved by spraying the plant from bottom to top while holding the hand gun pointed at an uphill angle.

All points regarding coverage, volume and target are still relevant.

Photo credit (Spray Gun): <https://croplands.com/nz/>

Nozzle

Nozzle selection can be complicated, seek advice from your supplier who will be able to talk to you about getting the best coverage with your set up.

Nozzles must be set at a 45 degree uphill angle so spray covers the bottom of the leaves.

It is important to regularly check the calibration of your spray nozzles. Put simply, you need to clean all of your filters and run your sprayer at normal spray pressure. Then measure that the volume delivered by each nozzle over a set time is the same. If it is not replace the spray nozzles.

Target

Generally we target the new leaves at the top part of the plant as they are most appealing to pests. This results in using 3 pairs of nozzles that align with this part of the plant.

All juvenile whitefly lifecycle stages inhabit the underside of the leaf. It is critical to your successful spray application that the bottom of the leaf is coated. We recommend testing your sprayer set up by examining the bottom of the leaves for coverage. If in doubt you can use water sensitive paper to confirm this.

For best coverage we apply spray to the point of run off. For full height plants we would target approximately 2500L/ha..

Spray Application:

- Drive into a row and spray on the way out
- Pay attention, are the leaves lifting up? Does the spray mist look good? Does the spray blast through the row and hit the next one?
- Calculate the volume required per row (total volume/number of rows sprayed). Measure volume applied per row (litre counter/marked dip-stick). Adjust speed/pressure to fine tune application rate.
- We recommend using a hand gun for any row ends or difficult to reach areas.
- For a spray calculator, please see www.tomatoesnz.co.nz

Standard practice to prevent chemical contamination and corrosion is to clean the sprayer, tank, all filters and hose with clean water after every use

DISCLAIMER: Every effort has been taken to provide accurate information in this resource but TNZ disclaim all liability in relation to the information it contains. For more information about your equipment or spraying in general, please consult your horticulture supplier.

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