



## **Calibrating a Boom Spray Unit**

Your final calibration result will rely on three factors:

- Speed of Travel
  - Operating pressure
  - Nozzle Size
1. When you have arrived at a comfortable travel speed, taking into consideration the area you will be spraying, time how long it takes to cover 100 metres (let us say 40 seconds).
  2. Select a set of nozzles and pump pressure (most modern day spray units have guidelines for both in accompanying handbooks).
  3. With clean water, run the spray boom with the selected nozzles and measure the width of the sprayed area (let us say 4 metres).
  4. While the boom is running, slip a measuring jug under a nozzle and hold it there for the amount of time it took you to travel the 100 metres (40 seconds is our example). Do this with all the nozzles on the boom and record the respective volumes in litres. This will show up any variation in flow from nozzle-to-nozzle. By adding the volumes together, you will obtain the overall total volume of water used in that time.

E.g.	Nozzle 1	1.18 L
	Nozzle 2	1.20 L
	Nozzle 3	1.22 L
	Nozzle 4	1.22 L
	Nozzle 5	<u>1.18 L</u>
	Total:	6.00 Litres

There should not be much variation in water from each of the nozzles. If there is, check the filters, hoses and nozzles for blockages. Also, check for wear in the nozzles.

Multiply the total volume of water by 100, divide it by the effective spray width to obtain the rate per hectare.

E.g.

$$\frac{6 \times 100}{4}$$

= 150 litres per hectare

Thus, to spray 1 hectare at our designated speed, pressure and nozzle selection, we need 150 litres of spray mixture.

If your area to spray is smaller, or larger, multiply the spray rate by the area factor:

E.g.	(a)	(b)
	½ hectare	2½ hectare
	150 x 0.5	150 x 2.5
	= 75 Litres	= 375 Litres

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