



Calibrating a Small Sprayer

The spray volume that a backpack or handheld sprayer will apply per acre can be determined by field testing the sprayer on a portion of an acre. The size of the test area commonly used is 1/100 of an acre. It is important that the test area surface is similar to the surface to be sprayed, so the walking speed will remain the same.

Steps:

1. Establish a test run distance to spray 1/100 acre (40.5m²) according to the swath width of the sprayer.

Swath width	Test run length
0.5 metres	81.0 metres
1.0 metres	40.5 metres
1.5 metres	27.0 metres
2.0 metres	20.2 metres

2. At a comfortable walking speed, spray the test area and measure the volume of water used (repeat 2-3 times to obtain an average). This is the amount applied to 1/100 acre.

Example: 2 litres

3. Multiply the figure arrived at in Step 2 by 100 to get the spray volume per acre.

Example: $2 \times 100 = 200 \text{ l /ac}$

4. Determine the amount of pesticide to add per tank load. Divide the volume applied per acre by tank capacity to determine the number of fills required to spray an acre.

Example: $200 \text{ l /ac} \div 10 \text{ fills} = 0.1 \text{ l /tank}$

Divide the chemical rate per acre by the number of tank loads required to spray an acre to determine the amount of product to add per tank load.

Example $1 \text{ l/ac} \div 10 \text{ fills} = 0.1 \text{ l /tank}$