

# Calibration Guide

Q: How long will it take to spray 1 hectare?

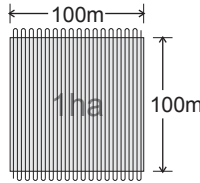
Assuming the row spacing is 3 meters and the tractor speed is 5 km/h...

First, find the total length of the rows you have to cover.

$$1 \text{ hectare} = 10,000 \text{ m}^2$$

$$\frac{10,000 \text{ m}^2}{3\text{m}} = \frac{10,000 \text{ m} \times \cancel{m}}{3\cancel{m}}$$

$$= 3333.33 \text{ m}$$



If the tractor goes 5 km/h, how many minutes will it take to travel 3333.33 meters?

Set up the ratio:

$$\frac{5000}{60} = \frac{3333.33}{x}$$

$$(5000)(x) = (3333.33)(60)$$

$$5000x = 200,000$$

(Well, actually it's 199,999.9, but let's round up to make the math easier...)

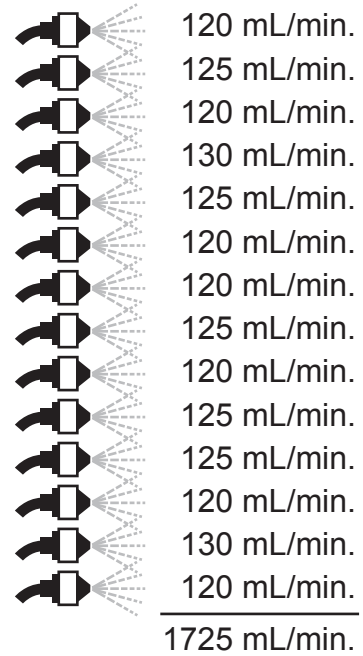
$$x = 40$$



It will take 40 minutes to spray 1 hectare at 5 km/h.

Q: How many liters will it take to spray 1 hectare?

Determine your sprayer's rate of liquid flow by measuring the output of all 14 nozzles.



Your sprayer's total output is 1725 mL/min.

If it takes 40 minutes to spray 1 hectare, then

$$40 \text{ min.} \times 1725 \text{ mL} = 69,000 \text{ milliliters}$$

$$= 69 \text{ liters}$$

It will take 69 liters to spray 1 hectare.

Q: How much can I spray in 8 hours?

In 8 hours of uninterrupted spraying, you could spray 12 hectares.

$$\frac{8 \text{ hours} \times 60 \text{ minutes}}{40 \text{ minutes}} = 12 \text{ hectares}$$

Q: How many hectares can I spray with one tank?

Your sprayer's main tank is 150 gallons (or 567.75 L) and it takes 69 liters to spray 1 hectare.

$$\frac{567.75 \text{ L}}{69 \text{ L/ha}} = 8.23$$

You can spray 8.23 hectares per tank.

Q: How long can I spray with one tank?

If it takes 40 minutes to spray 1 hectare, then

$$8.23 \text{ ha} \times 40 \text{ min.} = 329.2 \text{ minutes}$$

or, in hours

$$\frac{329.2}{60} = 5.49$$

five hours and 30 minutes

### Conversion Table

1 Gal = 3.785 L	1000 mL = 1 L
1 Acre = 43560 ft <sup>2</sup>	
1 mph = 1.61 km/h	