

FORWARD SPEED CALCULATIONS

Calculate the forward speed of your tractor and sprayer in field conditions encountered during spraying. If you change tires, tire pressures, or tire lugs wear significantly, speeds will change. Also speeds will change between dry and very wet field conditions.

1. Mark out a test strip at least 60 m or 200 *ft* long.
2. Fill the tank about half full with water and move to the test strip.
3. Choose the tractor gear and throttle for the forward speed you want. Gear _____
Throttle _____ rpm. Use the same throttle RPM when measuring nozzle output (Step 7).
4. Measure the time in seconds required to pass through the test strip on four runs. Reach the desired speed *before* entering the test strip, and hold that speed constant throughout the test run.
1st run _____ + 2nd run _____ + 3rd run _____ + 4th run _____ = _____ seconds total time.
5. Calculate total distance travelled. Multiply test strip length (Step 1) by the number of runs.
Your strip was _____ m(*ft*) long x _____ runs = _____ m(*ft*) total distance.

6. Calculate forward speed using the formula in the box at right.

$$\text{total distance} \div \text{total time} \times \text{constant} = \text{forward speed}$$

m	÷	sec	x	3.6	=	km/h
<i>ft</i>	÷	sec	x	0.68	=	<i>mph</i>

Tractor #1 _____ Tire Size _____ Tire Pressure _____

Gear					
Throttle	rpm				
Time	sec				
Total distance	in (<i>ft</i>)				
Forward speed	km/h (<i>mph</i>)				

Tractor #2 _____ Tire Size _____ Tire Pressure _____

Gear					
Throttle	rpm				
Time	sec				
Total distance	in (<i>ft</i>)				
Forward speed	km/h (<i>mph</i>)				

SPRAYER SETUP SUMMARY

Date: _____

Sprayer Setup #
Measured (calculated) Delivery Rate _____ L/acre _____ US gal/acre
Tank Volume _____ L _____ US gal
Area Sprayed by a Full Tank _____ acre
Tractor Gear _____ throttle _____ rpm
Forward Speed _____ mph _____ km/hr
of Nozzles _____ swath width _____ ft
Nozzle (size/type) _____
Pressure @ Regulator _____ @ nozzles _____

Sprayer Setup #
Measured (calculated) Delivery Rate _____ L/acre _____ US gal/acre
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Tractor Gear _____ throttle _____ rpm
Forward Speed _____ mph _____ km/hr
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