Useful formula for determining gallons per minute:

$$\text{GPM} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5.940}$$

(per nozzle)

GPM = Gallons Per Minute

GPA = Gallons Per Acre

MPH = Miles Per Hour

The width is measured between the spray nozzles in inches. Or, you can measure the length of the entire boom and divide it by the number of nozzles.

W = Nozzle spacing (in inches) for broadcast spraying

= Spray width (in inches) for single nozzle, band spraying or boomless spraying

= Row spacing (in inches) divided by the number of nozzles per row for directed spraying

Measuring Travel Speed

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 mph, respectively. Determine the time required to travel the test course. To help insure accuracy, conduct the speed check with a partially loaded (about half full) sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation or the table below to determine ground speed.

$$\text{Speed (MPH)} = \frac{\text{Distance (ft)} \times 60}{\text{Time (seconds)} \times 88}$$