

Sprayer Calibration

Method #1

By Calculation: See T-Jet Catalog pgs. 14-15

$$\begin{array}{l} \text{GPM} \\ \text{(Per Nozzle)} \end{array} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5,940} \quad \text{W= Nozzle spacing in inches}$$

$$\text{GPA} = \frac{5,940 \times \text{GPM}}{\text{MPH} \times \text{W}}$$

Method #2

Pre-Application: In-Road Test

- Measure and flag a course of 102 feet.
- Drive tractor the length of the course at anticipated application speed and record the time in seconds. Be sure to note tractor rpm and gear selection.
- With water in spray tank only, turn on sprayer, and set the tractor at the application RPM. Collect from any nozzle the number of ounces for the number seconds recorded for the course length.
- Ounces collected directly corresponds to the GPA as follows:
 - For 40 inch nozzle spacing 1.0 X ounces = GPA
 - For 30 inch nozzle spacing 1.33 X ounces = GPA
 - For 20 inch nozzle spacing 2.0 X ounces = GPA

Method #3

Pre-Application: In Field Trial Application

- Accurately Measure and Mark a 1-acre area in field.
- Fill sprayer with water and record the level to the nearest gallon in tank.
- Spray Field at the noted application tractor RPM, PSI, and gear selection.
- Measure number of gallons required to spray the 1-acre = GPA.

Note: When chemicals and fertilizers are added to the spray solution the specific density increases. The increase is also reflected as a pressure increase. Make a note of the higher pressure; however do not adjust the pressure downward. Typically the intended volume will remain the same at the higher pressure.

R. David Myers
Winter 2002

Educating People to Help Themselves

Local Governments • U.S. Department of Agriculture