SPRAYER CALIBRATION PROCEDURES

NOTE: To avoid wind drift, use lower pressure and higher spray volume.

Guidelines For Sprayer Calibration

Before calibrating your sprayer, first determine whether each nozzle is delivering at a uniform rate. Place quart jars under all nozzles and watch as they fill up. The level should rise uniformly and take the same time (within 10%) for all nozzles to fill the jars. Replace any nozzle showing a discharge rate different from the others.

Calibrating the Sprayer

1. Mark off 660 feet (1/8 mile).
2. Fill the tank with water.
3. Set the sprayer to your desired operating pressure.
4. Turn the sprayer on and drive at the constant speed you will be spraying. Calibration on a road or unplowed field will give different results than on soft cultivated ground. **Note** tachometer reading so same speed can be maintained later.
5. Measure the amount of water it takes to refill the tank completely.
6. Calculate the amount applied:

$$\frac{\text{Number of gallons used x 66 (factor)}}{\text{Spray Swath in Feet}} = \text{Gallons applied per acre}$$

Example: If 10 gallons are used in 660 feet and the spray swath is 28 feet, spraying rate is 23.57 gallons per acre.

$$\frac{10 \times 66}{28} = \frac{660}{28}$$ or 23.57 gallons per acre

7. To calculate the amount of chemical to put in the tank:

$$\frac{\text{Sprayer Tank Size}}{\text{Desired GPA}} = \text{Acres covered}$$ then;

$$\text{Recom. amount of chemical per acre} \times \text{Acres covered} = \text{Amt. of chemical per tankful}$$

Example: If a 300 gallon tank is used and 23.57 gallons per acre are applied, one tank will cover 12.72 acres. If three pounds of chemical are required per acre, then 38.1 pounds of chemical are required per tankful.

$$\frac{300}{23.57} = 12.72$$ acres covered then;

3 lbs. (gal.) x 12.72 = 38.1 lbs. (gal.) per tankful

To determine GPA at other nominal speeds.

Sprayer Speed	Multiply by Speed Factor
4 mph	1.25
5 mph	1.00
6 mph	.83
7.5 mph	.67
10 mph	.50