

Part XVII.

Calibration of Sprayers

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Be sure to calibrate your sprayer properly. Using too much pesticide can injure your crop; using too little can result in little or no pest control. Apply all pesticides at the recommended rate. Never exceed the labeled rate. Pressure, nozzle size, spacing of nozzles, and speed of the application all affect the application rate.

Large-Area Method of Calibration

1. Adjust tractor speed, pressure, and orifice size according to manufacturer's directions.
2. Measure and stake off 1 acre (43,560 square feet) in the field to be treated.
3. Fill tank on sprayer with water.
4. Maintain constant pressure and speed in spraying the acre. Mark pressure, throttle, and gear settings.
5. Remember: The amount of water necessary to refill the tank is equal to gallons per acre.
6. Make up the spray solution with the correct amount of chemical in the amount of water applied per acre.
7. Make the application at pressure, throttle, and gear settings used in calibrating.

Short-Course Method of Calibration

1. Measure off a course of 163 1/3 feet in the field to be treated.
2. Adjust tractor speed, pressure, and orifice size according to manufacturer's directions.
3. Spray over the measured course, catching the discharge from one nozzle.
4. Measure discharge with a standard measuring cup.
5.
$$\frac{\text{Number of cups} \times 200}{\text{Nozzle spacing in inches}} = \text{gallons/A}$$
6. Make up spray solution with the correct amount of chemical in the amount of water that will be applied to each acre.
7. This procedure may also be used when calibrating for band treatments. For band applications, substitute bandwidth for nozzle spraying.

Table 1. Calibration Tables and Information - Travel Speed Chart- Time Required in Seconds to Travel

Miles per Hour	100 ft	200 ft	300 ft
1	68	136	205
2	34	68	102
3	23	46	68
4	17	34	51
5	14	27	41
6	11	23	34
7	10	20	29
8	9	17	26
9	8	15	23
10	7	14	21

1 mph = 88 feet per minute

1 mph = 1.466 feet per second

Speed in mph = No. 35 inch steps per minute/30



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