

# Calibration of Cotton Insecticide Sprayers

Based on 60 GPA

Gallons Per Acre									
MPH	X3 Hollow Cone Nozzles Nozzles Per Row			X4 Hollow Cone Nozzles Nozzles Per Row			X6 Hollow Cone Nozzles Nozzles Per Row		
	1	2	3	1	2	3	1	2	3
3.0	3.1	6.2	9.3	4.0	8.0		6.0		
3.5	2.7	5.4	8.1	3.5	7.0	10.5	5.2	10.4	
4.0	2.3	4.6	6.9	3.0	6.0	9.0	4.5	9.1	
4.5	2.1	4.2	6.3	2.7	5.4	8.1	4.0	8.2	
5.0	1.8	3.6	5.4	2.4	4.8	7.2	3.6	7.3	
5.5		3.2	4.8	2.2	4.4	6.6	3.3	6.6	9.9
6.0		2.8	4.2	2.0	4.0	6.0	3.0	5.9	8.9
6.5		2.7	4.0	1.8	3.6	5.4	2.7	5.5	8.2
7.0		2.6	3.9		3.4	5.1	2.5	5.1	7.6
10.0		1.8	2.7		2.4	3.5	1.8	3.7	5.5

- Step I. **Determine approximate speed:** Measure distance in feet the sprayer will travel in 20 seconds and divide by 30.  
**Example:** 120 feet in 20 seconds                       $120/30 = 4$  mph
- Step II. **Use chart:** Read to the right of mph on the above chart.  
**Example:** Rate of application of 2 x 3 nozzles per row at 4 mph is 4.6 gallons per acre.
- Step III. **Insert correct nozzle size in boom.**
- Step IV. **Adjust pressure regulator** for 60 pounds with boom valve open.
- Step V. **Add insecticides to tank.** To determine the acres per tankful, divide tank capacity by rate of application per acre.  
**Example:** 100-gallon tank will cover 20 acres when you apply 5 gallons per acre; or 100 divided by 5 equals 20 acres per tankful; add insecticides for 20 acres.
- Step VI. **Adjust boom height** to give even coverage of the cotton plant. On 40-inch rows using 2 nozzles per row, adjust boom approximately 16 inches above cotton; on 50-inch rows using 3 nozzles per row, adjust boom approximately 10 inches above cotton.

(See suggested nozzle arrangement for cotton insect sprayers.)