LIVE

Sprayer Calibration Worksheet
Air Blast Sprayers

Tractor Speed in ft/min.
Pressure in psi
Rate gal/acre
Row spacing
Number of nozzles each side

$$\frac{\text{Tractor Speed (ft/min) X Spray Volume (gal/acre) X Row width (ft)}}{43{,}560\ ft^2/acre} = \text{Total gal/min.}$$

To determine tractor speed measure a set course in the vineyard say one row.
Example: 400 ft.
With spray take full and fan operating time to travel 400 ft.
91 sec.

Tractor speed in feet per minute would be $\frac{400ft\ X\ 60\ sec/min}{91\ sec} = 263$ ft/min.
263 ft/min is approximately equal to 3 mph recommended maximum speed for spray applications.

Spray volume 50-gal/ acre from the label recommendations.

9 ft between row spacing.

For the above example we have.

$$\frac{\text{Tractor Speed (263 ft/min) X Spray Volume (50 gal/acre) X Row width (9ft)}}{43{,}560\ ft^2/acre}$$

$$\frac{263\ ft/min\ X\ 50\ gal/acre\ X\ 9\ ft}{43{,}560\ ft^2/acre} = 2.72 \text{ Total Gal/min.}$$

Vineyard Name_____ Date_____Sprayer model _____

Tractor Speed _____Feet per minute Spray Volume _____Gallon per acre

Row Width _____Feet

$$\frac{\text{(Tractor Speed) X (Spray Volume) X (Row Width)}}{43{,}560\ ft^2/acre} = \text{\_\_\_\_\_ (Total Gal/min)}$$

No. nozzles each side and rated output with from disc and core chart.

1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____-
5. _____	5. _____

gal/min _____ + gal/min _____ = Total gal/min (should be the same as above)

LIVE

Air Blast Test Run Results

This is the most important part of the sprayer calibration procedure and requires only a few minutes to perform.

1. With the chosen disc and cores installed fill the spray tank with water and park on level ground if possible and mark on the sight gauge the water level.
2. Using the tractor speed, pressure, disc and core, and test row information from the previous page make a test run on your chosen row with the sprayer fully operating. (fan engaged if so equipped)
3. Return to the exact same spot that you marked the sight gauge and using a calibrated container measure the amount of water required to fill to the mark on the sight gauge.
4. The formula for test gallons per acre is as follows.

$$\frac{43{,}560 \text{ sq ft}^2 \times \text{Gal (Test Gal Applied)}}{\text{Ft (distance between rows)} \times \text{Ft (length of test row)}} = \_ \text{ (Actual Gal./Acre)}$$

5. Compare actual gal/acre _____
   Desired Gal/acre from worksheet _____

6. If the difference is less than 10% sprayer is properly calibrated. If more than 10% check disc and cores for wear, pressure gauge, or errors in calculations. Then repeat the test run until the difference is less than 10%.

Example $\frac{43{,}560 \text{ sq ft}^2 \times \text{gal (amount need to refill tank)}}{\text{9ft (distance between rows)} \times \text{400ft (length of test row)}} = 48.4$ actual Gal/Acre

Actual Gal/acre 48.4
Desired Gal/Acre 50

Difference 3% sprayer is properly calibrated.