Calibration Worksheet

Record numbers in the spaces below as a record for your calibration spreadsheet or software.

1. Tractor speed measurements

Tractor RPM _____ Tractor Gear _____ Pump Pressure (psi)_____

Measured Distance (feet) _____
Time (seconds) Trip 1 _____ Trip 2 _____ Average _____

2. Sprayer Output

Starting volume in gallons of water _____
Duration needed to spray measured volume in minutes: _____
Ending volume in gallons of water _____ (if not sprayed to empty)

3. Nozzle Output

Test duration in minutes _____
Unit of volume (fluid ounces, mL, grams or ounces) _____

Left side*			Right side		
Nozzle #	Output		Nozzle #	Output	Nozzle size
12		upper	12		
11			11		
10			10		
9			9		
8			8		
7			7		
6			6		
5			5		
4			4		
3			3		
2			2		
1		lower	1		
total			total		

* left side when looking from behind the sprayer.
The number of nozzles will vary among different sprayers.

4. **Calculate the linear row-feet per acre (LRFA) and the time it takes to spray one acre**

$$LRFA = \frac{43{,}560}{row\ spacing} = \_\_\_\_\_$$

$$minutes\ per\ acre = \frac{LRFA}{travel\ speed\ in\ ft.per\ min.} = \_\_\_\_\_$$

5. Calculate the sprayer output in gallons per acre (GPA)

$$GPA = gal.per\ min.\ x\ travel\ speed\ in\ min.per\ acre = \_\_\_\_\_$$

6. Tree-Row-Volume Measurements

$$TRV = \frac{(tree\ height\ x\ tree\ width\ x\ shape\ factor\ x\ 43{,}560)}{row\ spacing\ x\ 1000} = \_\_\_\_\_$$

Block Name	Tree Height (ft.)	Tree Width (ft.)	Row Spacing (ft.)	Tree Shape Factor*	TRV (gal. per acre)

*0.75 when upper canopy is noticeably more narrow than the lower canopy
0.9 when upper canopy is almost as wide as lower canopy
1.0 for fruiting wall and when upper canopy is as wide as the lower canopy.

7. Determine the concentration factor

$$\frac{TRV}{Actual\ gallons\ per\ acre} = \_\_\_\_\_$$