



---

## Mixing Order for chemical formulations – W(D).A.L.E.S method

Fill tank ½ full of water. **W/D** – Dry formulations. (Wettable powders, water dispersible granules, water soluble packets, dry flowable. Make sure they are thoroughly dissolved prior to adding the other products. **A** – Agitation continuous. **L** – Add liquid, flowable, soluble concentrate next. **E** – Emulsifiable concentrates. **S** – Add your surfactants and other adjuvants last.

### Useful Measurements:

#### Lengths

Mile = 5280 feet

#### Area

1 acre = 43,560 sq. ft.

1 sq. mile = 640 acres

#### Weight

1lb. = 16 oz. = 454 g.

#### Volume

1fluid oz. = 2 Tbs. = 6tsp

## Calibrations

### The 1/128th method

For hand gun - Mark out a square section of flat ground with the dimensions 20'x17'. This is a 340 sq. ft. area. Next use your spray gun and have some one time you. Cover the squared area with water from the gun, like you would if you were spraying a weed area. Then using the time that took, fill up a bucket with measurements on the side to see how many OUNCES you output. Change that number straight to gallons. (Example: you get 45 ounces = 45 gallons.) This happens because 128 ounces = 1 gallon so however many ounces you get per 1/128th of an acre is the same as how many gallons per acre.

Boom – Measure in inches the distance between nozzles on the spray boom. Then decide on test course distance in feet. **6 in – 681 ft. / 8 in. – 510 ft. / 10 in. – 408 ft. / 12 in. – 340 ft. / 14 in. – 292 ft. / 16 in. – 255 ft. / 18 in. – 227 ft. / 20 in. – 204 ft. / 22 in. – 186 ft. / 24 in. – 170 ft. / 26 in. – 157 ft. / 28 in. – 146 ft. / 30 in. – 136 ft.** Make sure the output on both nozzles is within 10% of each other. Mark the distance of the course with flags, then drive the course at the average speed you would when out spraying. Record the time it took. Now collect the water sprayed from the nozzles at the same time it took to do the course. The amount of water collected in ounces will equal the amount of gallons per acre. Your GPA!

