

Section 4**Exercises on Calibration by the Refill Method**

[NOTE – Formulas for these calculations are in the Appendix, and will be provided on quizzes and exams]

Problem One

You need to spray a 50 acre field with a broadcast sprayer you have already set up. The sprayer has 17 nozzles on a 45 foot boom, and was driven over a 120 foot course at 4.25 mph. The tank was filled to exactly 10 gallons. After the run was made, the tank still held 7.7 gallons. What was the GPA the sprayer was applying? Show your calculations.

Problem Two

You need to spray a 20 acre field with a broadcast sprayer you have already set up. The sprayer has 11 nozzles on a 18 foot boom, and was driven over a 110 foot course at 3.8 mph. The tank was filled to exactly 10 gallons. After the run was made, the tank still held 7.85 gallons. What was the GPA the sprayer was applying? Show your calculations.

Problem Three

Your broadcast sprayer sprayed 2.15 gallons when run over a 150ft course. The sprayer has five nozzles, with an overall pattern 22.5 feet wide. What is the GPA? Show your calculations.

Refill Method –

Problem Four

You need to spray a 44 acre field with a broadcast sprayer you have already set up. The sprayer has 12 nozzles on an 18 foot boom, and was driven over a 120 foot course at 4.5 mph. The tank was filled to exactly 10 gallons. After the run was made, the tank still held 8.9 gallons. What was the GPA the sprayer was applying? Show your calculations.

Problem with Banding Sprayer

Your banding sprayer sprayed 3.5 gallons when run over a 295ft course. The sprayer has five bands, each 1.5 feet wide. What is the GPA? Show your calculations.