Your neighbor wants to calibrate his sprayer. He drove the rig 150 ft and it took him 20 seconds. Back at the shop, he caught 25 oz/nozzle in 20 seconds. If the sprayer has 20 nozzles on 20 in. spacing

1. What is the output of the sprayer? 0.59GPM
2. What is the speed of the rig? 5.11MPH
3. If the rig has a 200-gal tank, how many acres can he spray with one fill-up? 5.87 Acres

Butch wants to reduce the number of trips to the barn for water. The nozzles currently in use are 8005 Teejets set at 30 PSI. If Butch has a 24 acre field, a 250 gal spray tank, has a target speed of 4-6 mph, and wants to fill the spray tank only one time. Assume 20 in spacing and 20 nozzle on the boom. You will need to look up the TeeJet tables online to answer this question.

1. What nozzles, pressure and speed would you recommend? There may be more than one tip that could meet the requirements. Based on the problem the maximum GPA he can have is 10.41 to only fill the tank once. I chose a Visiflow 80015 tip traveling 4 MPH at 30-35 PSI. This should get him in range to fill only once.
2. To make sure the sprayer is correctly calibrated, how many mLs should be caught per nozzle over a 200 ft course? 289.55 mL If you chose a different set of tips, your number may be slightly different.

A farmer checks his sprayer and finds that the nozzles are delivering 0.2 gpm at 30 PSI. He determines that his sprayer will be traveling at 4.0 mph. His sprayer has a 60 ft boom with 20 in nozzle spacing and a 200-gal tank.

1. What application rate should this system deliver? 14.85 GPA
2. If he reduced his travel speed to 3.2 mph, what would the application rate be? 18.56 GPA

A sprayer is equipped with a 1000-gal tank and a 40-ft boom. You wish to apply 1.5 lb of 2,4-D (LV 4E) a.i./acre. In a calibration pass of 544.5 ft, 12.5 gal of solution are applied.

1. What is the application rate (gpa) of the sprayer? 25 GPA

1. How much 2,4-D needs to be added per tank? 15 gallons of 2,4-D LV 4E

How many seconds should it take to travel 100 feet at a speed of 6 mph? 11.36 sec

You wish to apply atrazine preplant to corn at a rate of 2.25 lb. ai/acre. You buy a product call Aatrex 80W. Your 300 gallon sprayer is calibrated to deliver 25 g/acre driving 4 mph at 40 psi.

1. How much product do you need to add to one tankful? 33.75 lb Aatrex 80W
2. How many acres will one tankful spray? 12 acres
3. How much Aatrex will you have to purchase for 160 acres? 450 lb
4. What is the nozzle delivery rate in ml/minute if the nozzle spacing is 15 inches. 238.95 mL