

**Sprayer Calibration**  
*Dr. Gary Bates, Director*  
*UT Beef and Forage Center*

Before you can accurately apply the right amount of herbicide to a field, you have to know how much volume the sprayer is applying to each acre. Sprayer calibration is not difficult, but it can be challenging if you have never seen it done before. Here are two simple methods of spraying calibration:

**Spray and acre method:** In this method, you fill the tank with water, spray an acre, then see how much water it takes to refill the tank. Pretty simple, but takes a little time. You also have to be exact on the land area measurement.

**1/128<sup>th</sup> method:** this is a relatively fast and accurate method.

1. Select a course length based on nozzle spacing (from chart below)

Nozzle spacing (inches)	10	12	14	16	18	20	22	24
Course length (feet)	408	340	292	255	226	204	185	170

Nozzle spacing (inches)	26	28	30	32	34	36	38	40
Course length (feet)	157	146	136	127	120	113	107	102

2. Measure out course in field to be sprayed.
3. Measure time to drive course. Use a comfortable gear and speed. Take the average of three trips.
4. Park tractor and catch the output from one nozzle for the time found in step 3.
5. Measure in ounces. This will equal the gallons per acre output.

**Example:** You have a pasture that is 5.4 acres large. You would like to spray 1.6 pints of GrazonNext HL per acre. How much herbicide do you need to add in each tank? You have a sprayer that holds 100 gallons with nozzles spaced 20 inches apart.

**Answer:**

- You need to measure a course 204 feet in length.
- You drive it three times and average 46 seconds to drive the 204 feet.

- You park the tractor and catch the spray from one nozzle for 46 seconds . Measures 18.5 ounces. You are applying 18.5 gallons per acre.
- The sprayer holds 100 gallons, so  $100 \text{ gallons} \div 18.5 \text{ gal/acre} = 5.4 \text{ acres}$  can be covered with each tank.
- 1.6 pints per acre GrazonNext x 5.4 acres =

**8.6 pints GrazonNext needs to be added to each tank.**