



## Boomless Sprayer Calibration

This is an instructional guideline to calibrate any type of Yellowhead County ASB boomless sprayer:

### Steps:

1. Determine the speed that you will be able to travel in your field. This varies based on the vehicle you are using (tractor or pickup) and how rough your field is.
2. Fill the spray tank with **water only** so that you know how much is in the tank. On the 300 ga sprayers put in 200 ga based on the marking at the front of the tank. For the 50 ga sprayers, fill it full knowing that you have 50 ga of water in the tank.
3. Pull the tank with water onto a municipal road and start the motor. Get comfortable with how it works and its selector valves or valve system so that when you have herbicide in the tank you will be able to spray without misapplication.
4. Determine spray pattern. If you can get the sprayer to spray 16 feet on either side of the tank (determined by the grey pressure valve near the motor) and if you travel 800 meters (or one half mile) you will have sprayed 2 acres.
5. If you travel those 800 meters, spraying approximately 32 total feet, at the speed that you had previously determined, you will then determine how much water you are applying on 2 acres.
6. For example: if you spray this 800 m distance and you use 40 ga of water, your water application rate is:
  - :  $40\text{ga} \times 4.54 \text{ litres (1 imperial gallon)} = 181 \text{ litres divided by 2 acres}$
  - :  $181 \text{ litres divided by 2 acres} = 90.5 \text{ litres per acre.}$
7. For most range and pasture herbicides (Grazon 60-80litres per acre, Restore min 80 litres per acre, and MCPA 100+ litres per acre) if you can get around 70-110 litres per acre this is perfect to kill your weeds.

8. Once you know how much water you are applying, at a certain speed over an acre of land then you can add the herbicide based on the application rate on the label of the herbicide jug.
9. For Example: if you are wanting to apply Grazon at 2.5 litres per acre and you know you have 40 acres you want to spray then you will need to purchase 100 litres of Grazon.
10. If you are using the 300 gallon boomless sprayer and you are applying pre determined 90.5 litres of water / acre
  - : 300gallons x 4.54 litres (1 imperial gallon) = 1362 litres per tank
  - : 1362 litres divided by 90.5 litres per acre = 15acres
11. So for one full tank you can do 15 acres and at 2.5 litres per acre
  - : 15 acres x 2.5 litres per acres = 37.5 litres of herbicide is to be added to a full tank of water (1362 litres)

**Some points:**

1. Once you have determined your speed, you can not slow down or speed up because it will affect you application rate.
2. Once you have determined your boom width, stay with this because if you go wider or narrower it will affect your application rate.
3. **You must figure this out yourself; this is just a guide because your application will be based on your own speed, your width and the amount of herbicide you are applying per acre.**