Easy Approach to Calibrating Your Broadcast Sprayer

One ounce is 1/128th of a gallon. If you know the number of ounces sprayed in 1/128th of an acre, then gallons per acre are immediately known without the use of a formula. A table is used to find a nozzle spacing and a calibration distance equal to 1/128th of an acre. Follow these steps for a quick and easy calibration procedure.

1. **Make sure there is no more than a 10% variation** of spray volume across the boom.
2. **Use the chart** for distance to drive in the field.
3. **Set throttle for spraying and operate all equipment.** Note seconds required to drive measured distance.
4. **Catch spray for the noted time in Step 3 at the same RPMs and pressure.** Use a container marked in ounces (a calibrated bottle or measuring cup). Catch spray from one nozzle during noted time.
5. **Nozzle output in ounces equals gallons per acre actually applied.**
6. **Divide the capacity of your tank by the gallons applied per acre** as determined in Step 5 to find the number of acres you can treat per tank of spray.
7. **To determine how much chemical to add to the tank, multiply the rate per acre recommended by the number of acres your tank will cover** as determined in Step 6.

### Example:
- Horizontal boom – One nozzle per 20”; travels 204 ft. course in 19 seconds at 4 mph.
- Output per nozzle at 20” spacing is 15 ounces in 19 seconds.
- 15 ounces = 15 gallons/acre
- 20 acres to be sprayed.
- 20 X 15 = 300 gallons to be sprayed.
- Chemical application rate on label is 1 pt/acre.
- 20 X 1 pt. = 20 pts (2.5 gallons) chemical added to 300 gallons of water in the spray tank.

**Desired spray volume for most chemicals is 15-20 gallons per acre (10 GPA for glyphosate); Keep your pressure below 40 psi.**

For more information contact your local University of Missouri Extension Center

For Your Figures
- Tractor Make & Model
- Tractor RPM
- Tractor Gear
- Sprayer Pressure
- Determined Spray Volume: _______ Gallons Per Acre

At the above settings add _______ (oz / pts / qts / gal.) of _______ pesticide to _______ gallons of water to treat _______ acres.