Calibrating Boomless Sprayers

1. Determine overall swath width.
2. Use the chart for distance to drive in the field.
3. Set throttle for spraying and operate equipment. Note seconds required to drive measured distance.
4. Keep the sprayer going and get off the tractor.
5. Catch spray for the noted time in Step 3 at the same RPMs and pressure. Use a container marked in pints (a calibrated bottle or measuring cup). Catch spray from one nozzle during noted time.
6. Nozzle output in pints equals gallons per acre actually applied.
7. Divide the capacity of your tank by the gallons applied per acre as determined in Step 6 to find the number of acres you can treat per tank of spray.
8. 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 7.

If the swath width on your boomless sprayer is different than the options shown, divide 5460 (1/8 of an acre = 5460 square feet) by your swath width in feet.

Desired spray volume for most chemicals is 15-20 gallons per acre (10 GPA for glyphosate); Try to keep your pressure below 40 psi. Boomless sprayers are at higher risk for spray drift.

<table>
<thead>
<tr>
<th>Swath Width (Feet)</th>
<th>Distance (Feet)</th>
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<tbody>
<tr>
<td>25</td>
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<td>50</td>
<td>109</td>
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</table>

Useful Formula for Choosing Nozzles for Broadcast Sprayers

\[
GPM = \frac{GPA \times mph \times W}{5940}
\]

GPM = Gallons Per Minute
GPA = Gallons Per Acre Spray Volume
MPH = Miles Per Hour Speed
W = Nozzle Spacing Width