

## **Extension Notes**

Personal Column for May 25, 2010

By Gary Hall, Iowa State University Regional Extension Education Director

### **Spraying Time**

Working in five counties has its advantages. While driving you can evaluate the fields of corn and soybeans, wave at friendly people and observe field activities. During one windy day I noticed a spray rig in a field and I wondered if the applicator was hitting his target. It made me think about the importance of sprayer calibration.

The first step in sprayer calibration is to determine that the spray pressure is equal throughout the spray boom. Uneven pressure in the sprayer boom can mean uneven application.

Be sure to check pressure along the boom. You want to find any problem that may create uneven pressure. If the pressure is not even through the boom, you'll be wasting your time trying to calibrate the sprayer.

Check and compare pressure gauge in the cab with boom pressure. If there's a difference, make note on the cab's pressure gauge how much higher or lower the boom pressure is so you will know the exact operating pressure of the sprayer.

Three basic things affect the number of gallons applied per acre. These include:

**Speed.** If you run the tractor twice as fast, you'll apply half the rate, if nothing else is changed.

**Nozzle Spacing.** The typical nozzle spacing is 20 inches, but 30-inch nozzle spacing is just as effective if 110-degree nozzles are used. Another reason for 30-inch nozzle spacing is that most farmers are still planting 30-inch rows.

**Nozzle Flow Rate.** This is determined by the nozzle orifice size, pressure, and solution density. Remember that anything heavier than water will come out more slowly than water and anything lighter than water may come out faster. Adjust your sprayer accordingly.

Sprayer calibration provides the information you need to determine the amount of spray solution (both pesticide and carrier) being applied per acre. Take some time to consider this important practice to avoid putting on too much expensive product or not putting on enough to do the job you intended.

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