New Sprayer Calibration Fact Sheet Available

URBANA, ILL.

Using the correct amount of chemical during pesticide application is critical to achieving the best results from a pest control product. Proper calibration of the sprayer is essential to ensure it is applying the correct amount of chemical evenly over a given area. Improper calibration can cause plant injury, result in pollution, and waste money.

A new fact sheet, titled Calibrating Boom Sprayers, has been written by Robert Wolf and Scott Bretthauer, Extension specialists at Kansas State University and University of Illinois, respectively. To download a free copy of the fact sheet, see the following web page: http://web.extension.uiuc.edu/psep/facts/calibration/mf2894.pdf

The fact sheet first explains all of the variables that determine the application rate (gallons per acre) for a sprayer, including nozzle flow rate, ground speed, and the width sprayed per nozzle. For each of these three variables, the fact sheet provides details on the factors that affect these variables, how the variables impact the application rate, and how an applicator can best change these variables to adjust or maintain the desired application rate.

The process for determining the required nozzle flow rate to make an application at a specific gallons-per-acre, ground speed, and sprayed width is given in a series of detailed steps. Next, a pre-calibration test is described to prepare the sprayer for calibration and to check for uniform spray pattern, worn or plugged nozzles, and proper overlap. Following this, the actual calibration process is described in a step-by-step process. The fact sheet provides all equations required for calibrating a sprayer, as well as a few sample problems that help illustrate the process.

Even with the widespread use of electronics to monitor and control the pesticide application, a thorough sprayer calibration procedure is essential to avoid misapplication.

Pesticide safety and application information is available at the University of Illinois Extension pesticide safety education program web site: http://web.extension.illinois.edu/psep/ . Δ