

SPRAYER SCHOOL: A REGIONAL APPROACH TO STRENGTHENING PESTICIDE STEWARDSHIP

Valerie Clingerman, Purdue Extension-Knox County, clingerman@purdue.edu
 Sarah Brackney, Purdue Extension-Daviess County, sbrackne@purdue.edu

NEED

- ▶ In 2024, advisory councils for Agriculture and Natural Resource Educators across southwest Indiana identified the need to train spray applicators.
- ▶ Recommended training areas included drift management and equipment safety on public roadways.
- ▶ Needs identification was strengthened by the increase in spray drift complaints filed with the Office of the Indiana State Chemist (OISC)*, primarily involving over-the-top soybean dicamba applications. Equipment accidents were also reported publicly during this time.

RESPONSE

- ▶ Extension Educators in southwest Indiana formed a team to offer the sprayer school and it has been offered since 2024.
- ▶ Educators partnered with:
 - Purdue Specialists/OISC
 - An implement dealer
 - A community college
 - Chemical retailers
 - Other local experts.
- ▶ Surveys have been administered each year
 - Program topics have been updated based off responses (Figure 1)
 - In '25 and '26 return participants were surveyed on adoption of practices.

GOALS

- ▶ Provide applicators knowledge in:
 - Drift management practices
 - Sprayer safety
- ▶ Provide applicators credits for pesticide licenses
- ▶ Applicator adoption of recommended practices
- ▶ Applicator adoption of practices that increase value/profits
- ▶ Applicator adoption of practices that improve environmental or economic conditions.

TOPICS

- ▶ **Drift management practices**
 - Pesticide mixing / compatibility
 - Adjuvants
 - Nozzle selection / pressure
 - Equipment calibration
 - Pesticide calculations
 - Sprayer clean out, maintenance, and winterization
 - Regulations and requirements
- ▶ **Safety**
 - Sprayer safety
 - Sprayers on roadways
 - Overhead hazards
 - Railroad crossings
 - Personal Protective Equipment
- ▶ **Weed Identification (Figure 2)**
- ▶ **Troubleshooting (Figure 3)**
- ▶ **Sprayer Drones**

RESULTS

- ▶ This program has averaged 80 participants every year
- ▶ 156 applicators and advisers earned credits towards renewing their licenses (Private, Commercial, and Certified Crop Adviser).
- ▶ 168 surveys have been collected over the last three years
- ▶ Participants were asked to rank their knowledge before and after the program using a 1-5 Likert scale (1=limited, 5=expert). Across all topics average reported knowledge increased from 3.1 to 4.2. (Table 1)
- ▶ **In 2025 and 2026 returning participants (n=24) were surveyed on adoption of practices:**
 - 91% adopted or changed a practice from what they learned
 - 96% reported an increase in their service's value/profits
 - 96% reported having improved environmental or economic conditions.
 - 100% benefited from attending a past program
- ▶ **Testimonials**
 - "Was a great school. Very informative for both newer sprayer operators and older operators"
 - "Everyone that sprays should know how and why this is done"
 - "Educational and the ever-changing industry information updates are necessary"
 - "Learned quite a bit from the school, can use what I learned at my job"
- ▶ Over 93% gave good to excellent ratings in presentation of information, time spent per topic, demonstrations, encouragement of discussion, and building connections to resources.

Collaborators: Abigail Paul, Kenneth Eck, Nicholas Held, Kloe Bromm (Purdue Extension- Gibson, Dubois, Spencer, and Pike Counties)

*Reference: https://oisc.purdue.edu/pesticide/iprb/iprb_179_drift_data.pdf

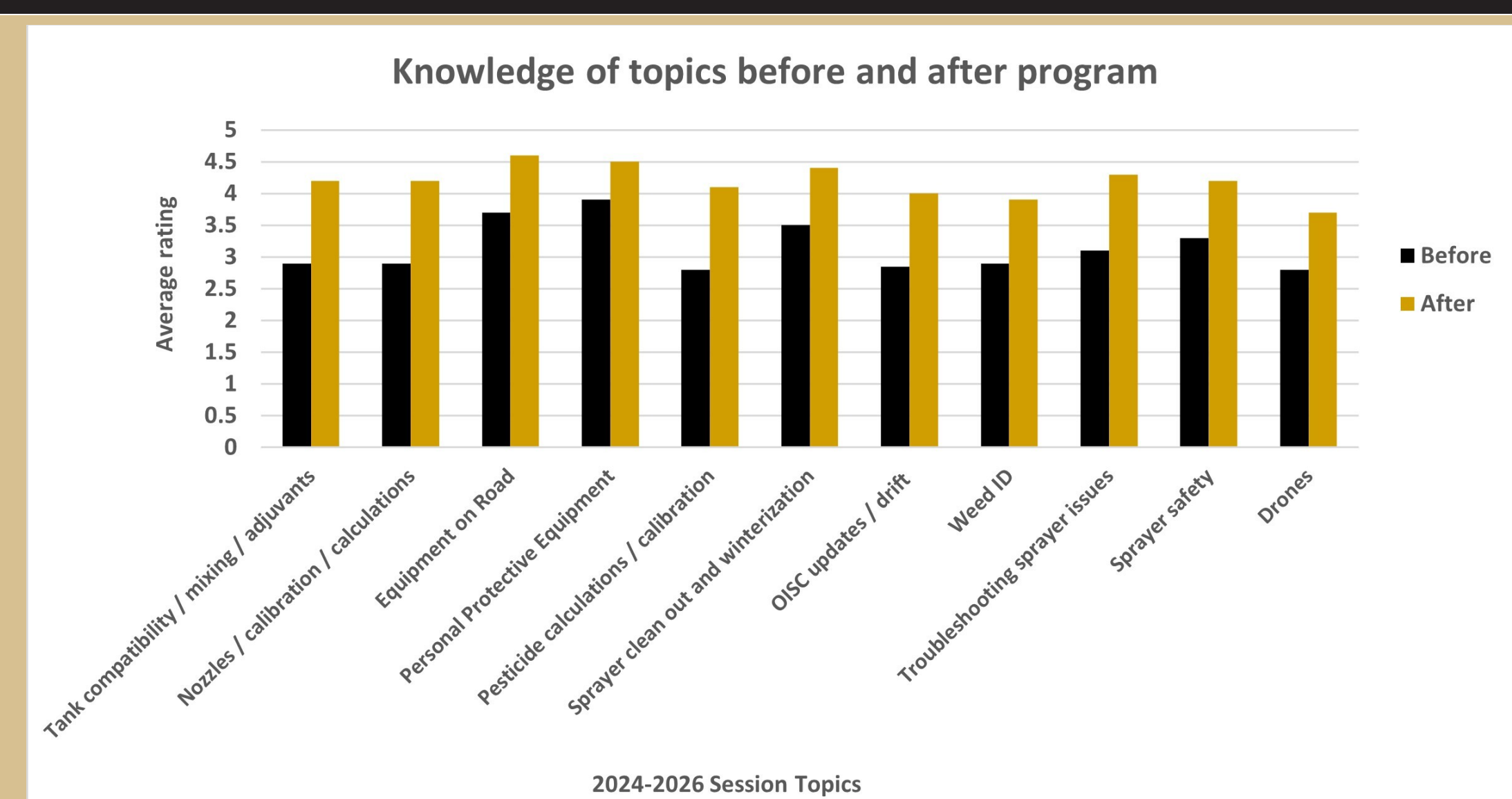


TABLE 1: Participants were asked to rank their knowledge before and after the program. (1=limited, 5=expert) for each session offered. from 2024-2026. Every topic showed increased knowledge after the program.

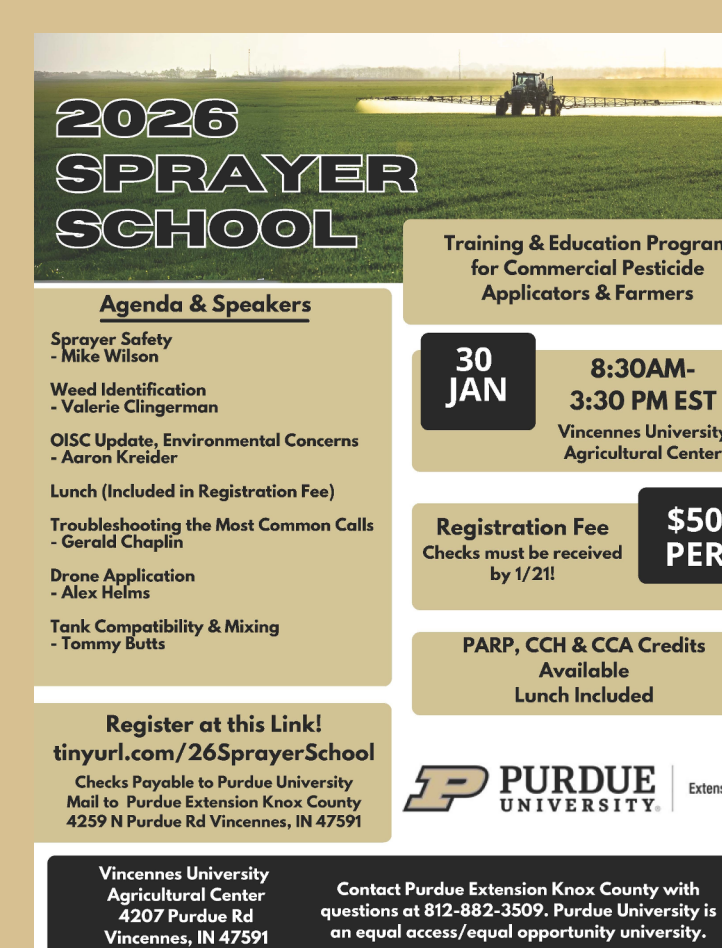


FIGURE 1: Example program flyer from the 2026 Sprayer School.



FIGURE 2: Participants got an hands-on opportunity to identify weeds.



FIGURE 3: Participants learning sprayer clean out protocols and troubleshooting issues.