

**NATIONAL RAILROAD CONTRACTOR'S ASSOCIATION  
WEED CONTROL SEMINAR  
January 27 – 30, 2025**



**Horizon Convention Center  
401 South High Street  
Muncie, IN 47305**

**Sponsored By:  
Purdue University & National Railroad  
Contractors Association**

## 2025 NRCA WEED CONTROL SEMINAR

### Session I: Initial Certification

All meals held in Interurban Hall

All meetings held in Delaware 2

#### Monday, January 27

7:00-8:30 am	<u>Breakfast for Session I</u>	(Interurban Hall)
8:00-10:30 am	Registration	(Main lobby)
9:30-10:15	Introduction, Railroads and Weed Management Issues (Reid Smeda)	
10:15-10:45	Right-of-way Herbicides and Application Methods (Reid Smeda)	
10:45-11:00	<b>BREAK</b>	
11:00-11:45	Basic Herbicide Terminology (Reid Smeda)	
11:45-1:00 pm	<u>Lunch: Session I</u>	(Interurban Hall)
1:00-1:30	Application Equipment: Use and Maintenance (Reid Smeda)	
1:30-2:30	Herbicide Applicator Safety (Reid Smeda)	
2:30-2:45	<b>BREAK</b>	
2:45-3:45	Plant Biology and Weed Identification (Reid Smeda)	
3:45-4:00	<b>BREAK</b>	
4:00-5:00	Herbicides in the Environment; Storage, Transportation, & Disposal (Cheri Janssen)	
5:00-5:30	Review and Discussion (Reid Smeda)	
5:30-6:30	<u>Dinner: Session I</u>	(Interurban Hall)
6:30-7:15	Supplemental Exam study session (Reid Smeda)	

#### Tuesday, January 28

7:00-8:30 am	<u>Breakfast for Session I</u>	(Interurban Hall)
7:30-8:30	Registration	(Main lobby)
8:30-9:00	Review and Discussion (Reid Smeda)	
9:00-9:45	Federal and State Pesticide Laws and Regulations (Cheri Janssen)	
9:45-10:00	<b>BREAK</b>	

10:00-11:00	Herbicide Formulations (Cheri Janssen)	
11:00-11:30	Accurate Application of Herbicides – Off-target Movement (Reid Smeda)	
11:30-12:45 pm	<u>Lunch: Session I</u>	(Interurban Hall)
12:45-1:30	Understanding Herbicide Labels (worksheets) (Cheri Janssen)	
1:30-2:00	Weed ID Review (Reid Smeda)	
2:00-2:15	<b>BREAK</b>	
2:15-3:00	Application Equipment: Calibration ( <u>bring calculators</u> ) (worksheet) (Reid Smeda)	
3:00-3:45	Study Hall and Pre-test (bring calculators) (Reid Smeda)	
3:45-4:00	<b>BREAK</b>	
4:00-4:15	Review and Discussion (Reid Smeda)	
4:15-5:45	Supplemental Exams (Reid Smeda, Rita McKenzie, Mindy Shoults)	
5:45-6:45	<u>Dinner: Session I</u>	(Interurban Hall)

**Wednesday, January 29**

6:30-8:00 am	<u>Breakfast for Session I and II</u>	(Interurban Hall)
7:30-7:45	Meet in lobby for walk to Ivy Tech (all IN Core and ROW exam takers)	
8:00-4:30	Indiana Certification Exams at Ivy Tech (Reid Smeda to accompany)	
11:30 am-2:00 pm	<u>Lunch for Session I and II</u>	(Interurban Hall)

## 2025 NRCA WEED CONTROL SEMINAR

### Session II: Continuing Certification

All meetings held in Delaware 2

#### Tuesday, January 28

4:00-5:00 pm      **Certification and Recertification Status (Mindy Shoults)**      (TBD)

#### Wednesday, January 29

6:30-8:00 am      Breakfast for Session I and II      (Interurban Hall)

10:00 am-2:00 pm      Registration      (Main lobby)

11:30 am-2:00      Lunch for Session I and II      (Interurban Hall)

Moderator:      (Delaware 2)

4:45-5:00 pm      **Opening Address.** NRCA President, Mr. Chris Wilburn

5:00-5:50 pm      **Understanding the importance of spray nozzles for pesticide application.**

Dr. Travis Legleiter, University of Kentucky, Princeton.

Uniform application of herbicides is a key for effective weed control and proper selection of spray nozzles determine application. Spray nozzle selection is also important to avoid off-target movement and damage to adjacent crops.

6:00      Buffet dinner and evening activities      (Interurban Hall)

#### Thursday, January 30

7:00-8:00 am      Breakfast      (Interurban Hall)

Moderator:      (Delaware 2)

8:00-8:50 am      **Making herbicides better and safer – use adjuvants?**

Dr. Fred Whitford, Purdue University, West Lafayette, IN

Adjuvants are compounds that stabilize herbicide formulations, improve uptake into plants by modifying the plant leaf surface, and reduce the potential for off-target movement and damage to other vegetation and the environment.

8:50-9:40 am      **Use of precision agriculture to improve weed control.**

Dr. Tommy Butts, Purdue University, W. Lafayette, IN

Advances in technology have created new opportunities for improving spray application using existing equipment, but also new equipment (drones). This presentation will explore opportunities and limitations of precision equipment.

9:40-9:55      **BREAK**

- 9:55-10:45      **Herbicide resistance and how it has changed our approach to weed control.**  
 Dr. Aaron Hager, University of Illinois, Champaign.  
 Herbicide resistance has fundamentally changed our ability to continuously depend upon the same herbicide tools. Identification of resistance and integrating other weed management practices can slow the progression of resistance.
- 10:45-11:35 am      **Update on pesticide safety, laws and regulations.**  
 Leo Reed, Office of the Indiana State Chemist, West Lafayette, IN  
 Updates on Federal Regulations regarding pesticide use will be provided with implications for applicators in IVM. Increased emphasis on the Endangered Species Act new requirements for handlers and applicators of restricted use pesticides will also be discussed.
- 11:45-12:45      Lunch (Interurban Hall)
- 1:00-1:50 pm      **Pesticide use: proper record keeping, storage, and maintaining an inventory.**  
 Dr. Brett Bultemeier, University of Florida, Gainesville  
 Managing stored herbicides, tracking herbicide usage patterns and maintaining up-to-date inventories is important in efficient use of pesticides. This presentation will provide effective methods for herbicide record keeping and storage.
- 1:50-2:40 pm      **Integrated weed management: utilizing weed biology knowledge to develop control practices.**  
 Dr. Reid Smeda, University of Missouri, Columbia.  
 Managing weeds using single techniques results in selection of species tolerant or resistant to that practice. Identification of weak points in the life cycle of weeds enables adoption of multiple management practices for timely control.
- 2:40-3:00 pm      Break
- 3:00-3:50 pm      **Establishing a safe and effective management program for aquatic weeds.**  
 Dr. Brett Bultemeier, University of Florida, Gainesville  
 Weeds in aquatic habitats can spread quickly and options for control are limited to mechanical and chemical practices. Proper identification of aquatic species is a key to designing an effective management plan with minimal environmental impact.
- 3:50-4:25 pm      CCH paperwork; adjourn
- 4:40-5:40 pm      NRCA Board of Directors business meeting (TBD)  
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