

**NATIONAL RAILROAD CONTRACTOR'S ASSOCIATION  
WEED CONTROL SEMINAR  
January 22 – 25, 2024**



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

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

## 2024 NRCA WEED CONTROL SEMINAR

### Session I: Initial Certification

All meals held in Interurban Hall

All meetings held in Delaware 2

#### Monday, January 22

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 23

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 24**

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)	
8:00-2:00	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)

## 2024 NRCA WEED CONTROL SEMINAR

### Session II: Continuing Certification

All meetings held in Delaware 2

#### Tuesday, January 23

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

#### Wednesday, January 24

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

10:00 am-1:00 pm      Registration      (Main lobby)

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

Moderator:      (Delaware 2)

2:15-2:30      **Opening Address.** NRCA President, Mr. Tim Lawyer

2:30-3:20      **Pesticide registration: the process and role of the EPA.**

Dr. Brett Bultemeier, University of Florida, Gainesville

Pesticide registration is a time and resource intensive process which is guided by FIFRA. The role of the EPA from the type of testing necessary to putting together the label will be discussed.

3:20-3:30      **BREAK**

3:30-4:20      **Factors that contribute to the success and spread of weed species.**

Dr. Erin Burns, Michigan State University, East Lansing.

The ability of weeds to spread via natural methods (wind, water, animals) depends on both the structure of the weed and the shape of the fruit/seed. Understanding factors contributing to weed spread are important to limiting future infestations.

4:20-5:10      **Minimizing pesticide exposure during mixing and application.**

Dr. Brett Bultemeier, University of Florida, Gainesville

Users of pesticides must follow label requirements for PPE to minimize exposure. However, awareness of the types of pesticides being mixed and environmental conditions when spraying can further reduce pesticide exposure.

5:10-5:20      **BREAK**

5:20-6:10      **Endangered species and pesticides; what is the connection?**

Dr. Reid Smeda, University of Missouri, Columbia

The Endangered Species Act (ESA) protects identified species from risks that could lead to extinction. Herbicides threaten endangered species and registration/re-registration of current and future herbicides must consider the ESA. This presentation will consider recent ESA impacts on IVM herbicides.

6:10 Buffet dinner and evening activities (Interurban Hall)

### **Thursday, January 25**

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

Moderator: (Delaware 2)

8:00-8:50 am **Straps and chains; their importance in safely moving equipment.**

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

Moving agricultural equipment often involves transport on trailers. The proper use of tie-down straps and chains will be demonstrated to ensure their safe use.

8:50-9:40 **Importance of weed size for optimizing herbicide activity.**

Bill Johnson, Purdue University, West Lafayette, IN

Under optimum conditions weeds can grow up to 2 inches per day. Timely applications of some herbicides are necessary to prevent weeds from regrowing following treatment. Understanding contact versus systemic herbicides is a key to effective weed control.

9:40-9:55 **BREAK**

9:55-10:45 **Herbicide mode of action and the synergy of herbicide mixtures.**

Dr. Dean Riechers, University of Illinois, Urbana

Herbicides that target photosynthesis and pigment synthesis in plants are especially effective on germinating weeds. When some herbicides are mixed before application, their effectiveness is greater than that for each herbicide alone. This synergy will be explained with examples provided.

10:45-11:35 am **Update on pesticide laws and regulations.**

David Scott, 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. Recent emphasis on the Endangered Species Act

will be covered and implications for herbicide applicators in IN and adjoining states.  
An update on dicamba and 2,4-D will also be provided.

11:35-12:00 pm CCH paperwork; adjourn

12:00-1:00 pm Lunch (Interurban Hall)

12:45-2:15 pm NRCA Board of Directors business meeting (TBD)

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