



NATIONAL RAILROAD CONTRACTORS ASSOCIATION

WEED CONTROL SEMINAR

January 30 – February 2, 2017

Indianapolis Marriott East

7202 East 21st Street

Indianapolis, Indiana 46219

Sponsored By:

**Purdue University & National Railroad
Contractors Association**



2017 NRCA WEED CONTROL SEMINAR

Session I: Initial Certification
Meals: held in Liberty Hall
Meetings: held in Salons 5-8

Monday, January 30

11:00 am-1:00 pm Registration (Liberty Hall)
1:00-1:45 Introduction, Railroads and Weed Management Issues (Reid Smeda)
1:45-2:45 Plant Biology and Weed Identification (Reid Smeda)
2:45-3:00 **BREAK**
3:00-3:30 Basic Herbicide Terminology (Reid Smeda)
3:30-3:45 **BREAK**
3:45-4:45 Right-of-way Herbicides and Application Methods (Matt Kraushar)
4:45-5:15 Review and Discussion (Reid Smeda)
5:15-6:15 Dinner: Session I
6:15-7:00 Application Equipment: Use and Maintenance (Reid Smeda and Matt Kraushar)

Tuesday, January 31

7:00-8:30 am Breakfast for Session I
8:30-9:00 Review and Discussion (Reid Smeda)
9:00-9:45 Herbicide Applicator Safety (Matt Kraushar)
9:45-10:00 **BREAK**
10:00-11:00 Herbicide Formulations (Andrew Martin)
11:00-11:15 **BREAK**
11:15-11:45 Weed ID review (Reid Smeda)
11:45- 1:00 pm Lunch: Session I
1:00-2:15 Understanding Herbicide Labels (worksheet) (Andrew Martin)
2:15-2:30 **BREAK**
2:30-3:15 Herbicides in the Railroad Environment (Matt Kraushar)
3:15-4:15 Application Equipment: Calibration (bring calculators) (worksheet) (Andrew Martin)
4:15-4:30 **BREAK**
4:30-5:00 Federal and State Pesticide Laws and Regulations (Andrew Martin)
5:00-5:15 Review and Discussion (Reid Smeda)
5:15-6:15 Dinner: Session I
6:15-7:00 Study Hall and Pre-test (bring calculators) (Reid Smeda)
7:00-7:45 Supplemental Exam study session (Reid Smeda)

Wednesday, February 1

7:00-8:00 am Breakfast for Session I and II
8:00-8:35 Review and Discussion (Reid Smeda)
8:35-12:00 pm Indiana Certification Exams (Leo Reed)
11:30 am-1:00 pm Lunch for Session I and II
12:30-2:00 Supplemental Exams (Reid Smeda, Rita McKenzie, Mindy Shoults)

Thursday, February 2

1:00-4:00 pm **Illinois certification exam** (Rooms C-E)

2017 NRCA WEED CONTROL SEMINAR

Session II: Continuing Certification

Tuesday, January 31

4:00-5:00 pm **Certification and Recertification Status** (Patriot Board Room)
Mindy Shoults

Wednesday, February 1

7:00-8:30 am Breakfast for Session I and II (Liberty Hall)
10:00 am-1:00 pm Registration (Liberty Hall)
11:30 am-1:00 pm Lunch for Session I and II (Liberty Hall)

Moderator: Asplundh (Salon 5-8)
2:15-2:25 **Opening Address.** Jason Rumble, NRCA president, Ferrosafe LLC

2:25-3:15 **Mechanisms and effects of invasion by non-native plants: implications for management of non-crop lands.** Dr. Michael Jenkins, Purdue University, W. Lafayette, IN.
The identification, biology, and habitat characteristics that promote the dominance of invasive species will be discussed. Endangerment of native plants by invasive species is also addressed.

3:15-3:25 BREAK

3:25-4:15 **Weed biology and herbicide demonstration.** Dr. Reid Smeda, University of Missouri, Columbia
Dr. Smeda will discuss the importance of plant growth stage to herbicide effectiveness and demonstrate efficacy of PRE and POST herbicides on commonly encountered weeds in railroad environments. Herbicide resistant weeds will also be demonstrated and control practices to combat resistance presented.

4:15-4:25 BREAK

4:25-5:15 **Herbicides: application equipment and techniques from mixing to clean up.** Matt Kraushar, Wichita State University, Wichita, KS
Mr. Kraushar identifies the proper techniques for calibration and use of pesticide equipment. New developments will focus on minimizing pesticide impact on groundwater and other non-target areas. Effective steps to clean up spray equipment and dispose of rinsate are also covered.

5:15-5:25 BREAK

5:25-6:15 **Pesticide safety and personal protection.** Dr. Bryan Young, Purdue University, W. Lafayette, IN
Dr. Young will summarize toxicity and poisoning classification as well as PPE to reduce detrimental effects of pesticides. Worker Protection Standards and proper pesticide handling are also covered.

6:15 Buffet dinner (Liberty Hall)

Thursday, February 2

7:00-8:15 am	Breakfast	(Liberty Hall)
Moderator: 8:15-9:05 am	RAW Transporting pesticides safely and what to do if there is an accident. Dr. Fred Whitford, Purdue University, West Lafayette, IN Road transportation of spray application equipment and pesticides occasionally results in accidents. Proper maintenance of trucks and trailers is crucial to reduce accidents and confine pesticide spills. In the event of accidents, the what and why of one's actions are crucial to maintain a safe environment.	(Salon 5-8)
9:05-9:15	BREAK	
9:15-10:05	Pollinators and Pesticides: preventing impacts on non-target organisms. Dr. Raymond Cloyd, Kansas State University, Manhattan, KS Dr. Cloyd will discuss how pesticides (insecticides, miticides, fungicides, and herbicides) can directly and indirectly harm non-target organisms such as pollinators (bees and butterflies), and the measures that can be implemented to prevent non-target damage.	
10:05-10:15	BREAK	
10:15-11:05	Impact of herbicide formulation and adjuvants on optimizing activity on target organisms. Dr. Richard Zollinger, North Dakota State University, Fargo, ND. Dr. Zollinger will discuss adjuvant classification, effective adjuvant active ingredients, active ingredient and relationship to mode of action, adjuvant selection based on herbicide use, water quality, and overcoming herbicide antagonism from minerals in spray water.	
11:05-11:35 am	Update on Pesticide Regulations. David Scott, Office of the Indiana State Chemist, West Lafayette, IN Changes in regulations regarding pesticide are inevitable. Modifications in labels of major herbicides used in the railroad industry will be presented as well as an update on current legislation pertaining to herbicides and pesticide application safety.	
11:35-12:00 pm	CCH paperwork; adjourn	
12:00-1:00 pm	Lunch	(Liberty Hall)
12:30-2:00 pm	NRCA Board of Directors business meeting	(Harrison Room)

This program is a continuing education activity of Purdue University, an Equal Access/Equal Opportunity University.