

NATIONAL RAILROAD CONTRACTORS ASSOCIATION

WEED CONTROL SEMINAR

January 29 – February 1, 2018

**Indianapolis Marriott East
7202 East 21st Street
Indianapolis, IN 46219**



2018 NRCA WEED CONTROL SEMINAR

Session I: Initial Certification

Meals: held in Freedom Hall

Meetings: held in Salons 5-8

Monday, January 29

11:00 am-1:00 pm	Registration	(Outside Salon 4)
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	<u>Dinner: Session I</u>	
6:15-7:00	Application Equipment: Use and Maintenance (Reid Smeda and Matt Kraushar)	

Tuesday, January 30

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

Wednesday, January 31

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

Thursday, February 1

12:30- 4:00 pm	Illinois certification exam	(Salons A-C)
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2018 NRCA WEED CONTROL SEMINAR

Session II: Continuing Certification

Tuesday, January 30

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

Wednesday, January 31

7:00-8:30 am Breakfast for Session I and II (Freedom Hall)

10:00 am-1:00 pm Registration

11:30 am-1:00 pm Lunch for Session I and II (Freedom Hall)

Moderator: (Salon 5-8)

2:15-2:25 **Opening Address.** Joe Hage, NRCA President, RWC

2:25-3:15 **Nozzle technology and POST herbicides; changes to improve efficacy and safety**
Dr. Robert Wolf, Wolf Consulting & Research, Mahomet, IL.
Deposition of herbicides on target areas is a key to proper weed control and minimizing off-target movement. The latest innovations in nozzle technology will be discussed.

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 **Understanding the process of drift to non-target areas.**
Dr. Dennis Gardisser, WRK of Arkansas
After release of herbicides from spray equipment, physical and environmental factors impact herbicide spray droplets. Dr. Gardisser will describe these factors for safe use of herbicides.

5:15-5:25 BREAK

5:25-6:15 **Endangered species and pollinators: integrating herbicides for IVM habitats.**
Matt Kraushar, Indiana Dept. of Transportation, Indianapolis, IN.
There is increased concern for pollinator species (bees and butterflies) and the plants they use as a food source. Mr. Kraushar will summarize the latest research to ensure safe herbicide use.

6:15 Buffet dinner (Freedom Hall)

Thursday, February 1

- 7:00-8:15 am Breakfast (Freedom Hall)
- Moderator: (Salon 5-8)
- 8:15-9:05 am **GMO crops: they result from and contribute to herbicide resistance.**
Dr. Bill Johnson, Purdue University, West Lafayette, IN
Agriculture in the US depends on herbicides for weed control. Many of the same herbicides are used on IVM. Use of herbicides on GMO crops leads to selection of resistant weeds that become problematic on Industrial right-of-ways.
- 9:05-9:15 BREAK
- 9:15-10:05 **Management of invasive species begins with identification.**
Dr. Mark Renz, University of Wisconsin, Madison, WI.
Dr. Renz will use his extensive knowledge regarding invasive species in the Midwest to discuss the latest social media and on-line resources as well as pictorial guides for accurate identification and control of invasive plants.
- 10:05-10:15 BREAK
- 10:15-11:05 **Factors impacting the residual activity and off-target movement of soil applied herbicides.**
Dr. Robert Kremer, University of Missouri, Columbia, MO.
Dr. Kremer will discuss the interactions between soil colloids and herbicides (adsorption/desorption, absorption), herbicide biodegradation, herbicide components available for uptake into plants and microorganisms, off-target by leaching and run-off.
- 11:05-11:35 am **Update on Pesticide Regulations.**
David Scott, Office of the Indiana State Chemist, West Lafayette, IN
Changes in regulations regarding pesticides are inevitable. The adoption of growth regulator crops and widening use of herbicides to control resistant weeds has led to widespread damage on unintended vegetation. Discussion of restricted use pesticides and proper use will be discussed.
- 11:35-12:00 pm CCH paperwork; adjourn
- 12:00-1:00 pm Lunch (Freedom Hall)
- 12:30-2:00 pm NRCA Board of Directors business meeting (Harrison Room)

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