



Northeastern Weed Science Society

Noxious and Invasive Vegetation Management Short Course



September 15, 16, 17 and 18th 2008
PRE- REGISTRATION
Early Bird Pre-Registration Opens April 1st and Closes When Full

FEATURED LECTURES (1/2 hour to 40 min)

Ecology of the Invasion: Lecture will highlight the adaptive mechanisms that enable invasive vegetation to thrive under different conditions, such as the relationship between invasive vegetation and their environments and the interaction of human activities and natural areas colonized by invasive plants.

Introduction to the Problem: An introduction to the biology of invasive vegetation focusing on 33 of the most problematic terrestrial species and/or 29 of the most problematic aquatic species.

Resources in the Northeast – Keynote Speaker: This block of time is reserved for a keynote speaker from the Northeastern Region of the United States or elsewhere on a subject matter of current interest to the registrants.

The Decision Making Process for Implementing Management: Students will learn how to evaluate their situation in terms of risk assessment, and inventory and monitoring, in order to choose the correct management approach to an invasive vegetation problem.

Herbicides in the Environment: Lecture and demonstration on factors that effect herbicide movement in the soil and water, herbicide persistence in the environment, how herbicides dissipate and degrade, the decision making process, and how applicators can reduce environmental risk.

FEATURED WORKSHOPS (1/2 hour to 40 min)

Inventory and Mapping: Instructors will demonstrate the proper use of traditional and technological based mapping, founded on the question – “What is it you are trying to accomplish?” Data collection and methodology for accurate record keeping will be included in this session.

Herbicide Mode of Action: The herbicide mode of action session will teach students about how herbicides kill or injure susceptible plants based on their mode and mechanism of action. This will include a review of the key herbicide families based on mode of action such as the plant growth regulators, photosynthetic inhibitors, amino acid synthesis inhibitors and other important groups. Included in this session will be a discussion and demonstration of herbicide injury symptomology associated with each class and the importance of managing herbicide resistance.

Herbicide Absorption/Translocation: Students will learn how herbicides are absorbed by plants and plant parts and how herbicides move within the plants.

Herbicide Formulations and Adjuvants: This session will demonstrate the different types of herbicide formulations and their uses. This will include active ingredient vs. inert material, suspensions, water soluble formulations, emulsifiable concentrates, wettable powders, dry flowables, and granular formulations. A discussion about herbicide labels, compatibility, and using adjuvants will also be included.

Basic Math Calculations: Every day calculations necessary to determine the amount of herbicide to use and mix, amount of adjuvants, and other ingredients to include in both terrestrial (non-cropland) and aquatic (riparian and open water) situations.

Tools and Methods Used in Non Herbicidal Weed Control: Instructors will highlight non-chemical methods (cultural and biological) available today for managing terrestrial and aquatic invasive vegetation.

Species Specific Management Scenarios: Participants and Instructors will be asked to bring with them real life terrestrial and aquatic management situations they have been involved with in their line of work. Instructors will review and discuss the best management approach to solving the scenario.

FEATURED HANDS-ON CLINICS (40 min to 2 hours)

Weed Identification/Weed Walks: Instructors will teach students how to identify terrestrial species and/or aquatic species using live plant and herbarium specimens. Students will also have the opportunity to see some of these species in their natural habitat during the “Weed Walks”.

Types of Herbicide Application: Demonstrations of the various types of application in terrestrial and aquatic situations and how to determine which technique is the best approach.

Herbicide Sprayer Operation and Calibration: Presentation and individual training on the basics of sprayer mixing, sprayer calibration, sprayer operation, and the different types of application equipment available and is designed to allow for student hands-on participation.