



YALE NATIONAL INITIATIVE

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Curriculum Units by Fellows of the National Initiative
2009 Volume V: Green Chemistry

Reducing the Environmental Impact of the Green Industry with Green Chemistry

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This two week unit is designed to empower high school students enrolled in any horticulture related Agriscience pathway with the skills to protect the environment during chemical applications. Through this unit, students explore the different classes of landscape chemicals and how these chemicals should be managed. Students gain insight into the deleterious effects the different classes of chemicals possess due to their mode of action. Students also gain an appreciation for how powerful landscape management chemicals are and the need for proper application procedures and personal protection use. Understanding how to determine all the pertinent information about a chemical from its label is critical to make informed decisions on chemical usage. Students utilize their knowledge gained from the labels to scientifically determine the best pesticide to use for a particular pest on particular sites in order to reduce the environmental impact every time they apply a pesticide to the landscape. Students will come away from this unit with a much better understanding of the impact these chemicals can have on humans and the environment and how they, as green industry professionals, can do their part to lessen the environmental impact of managing the landscape.

(Developed for Environmental Landscape Technology, grade 12; recommended for Plant Science, Horticulture, Landscaping, and Vocational Agriculture, grade 12)

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