

A Laboratory Exercise for Teaching Depth of Weed Emergence Concepts¹

LANCE GIBSON and MATT LIEBMAN²

Abstract: The influence of weed seed burial depth on seedling emergence is a common and important topic in undergraduate weed science courses. A laboratory exercise was developed at Iowa State University to actively demonstrate changes in weed seedling emergence with increased seed-burial depth. Twenty-five ivyleaf morningglory and wild mustard seeds were sown in pots in monoculture, and the number of emerging seedlings was counted for 3 wk. The results from two semesters were analyzed to determine whether the experiment was successful in meeting its intended outcomes. Assessment of student perceptions and attitudes indicated that the activity increased students' understanding of weed biology; improved students' critical thinking, reading, and writing skills; and improved students' ability to make scientific observations, interpret graphical information, and analyze and summarize research data.