

HOW DOES YOUR GARDEN GROW? FERTILIZER: FRIEND OR FOE?
Teaching elementary students fundamentals of site-specific management

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Abstract

Geo-spatial technologies are becoming common place in commercial agriculture and hands-on exercises using these concepts and technologies fulfill many state K-12 education standards. The activity topics covered crop nutrients (nitrogen, phosphorus and potassium), global positioning systems (GPS), geographic information systems (GIS), types of agricultural field equipment, soil types and crop identification.

Students developed and implemented plant growth experiments to test nutrient application hypotheses. A "hands on" GPS unit was developed to provide students with the experience of using current GPS technology. Students attended a local "Ag Day" event to see electronically equipped field equipment. GIS software, soil types and crop identification were a presented to students in lecture/discussion forum using software images and other visuals, soil profiles and potted plants. Finally, students participated in a variable rate candy application to better convey the concept of changing application rates for different locations. By providing a series of hands-on activities, the students were able to understand the overall concept of site-specific management.

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