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**William E. Larson and Raymond R. Allmaras**

# **Emerging Issues in Soil and Water**

**Lecture**



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# **The Role of Ecology in Modern Agriculture**

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2:00-4:30 PM  
335 Borlaug Hall  
University of Minnesota

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## **Abstract**

Modern agriculture owes much of its success to the development and application of technologies that divorce agronomic production from ecology. Fertilizers have relaxed the dependence of crops on nutrient cycles based on soil organic matter, pesticides have removed much of the need to understand predator-prey relationships and plant competition in order to control crop pests, and most management is applied at the field rather than the landscape scale. While less true today than 20 years ago, there remains a reluctance today to fully integrate ecological approaches into modern practices. Many of the barriers are social. With the emerging development of cellulosic biofuels, the potential for farmers to participate in greenhouse gas markets, and a new understanding and appreciation for the ecosystem services that agricultural landscapes can provide, there are new opportunities and needs for incorporating ecological knowledge and practice in intensively managed, high productivity cropping systems.