

DIVERSE CROP ROTATIONS AND WEED MANAGEMENT. Karen A. Renner and Christy L. Sprague, Professor and Associate Professor, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824-1325.

Crop rotations are essential to all farming systems to manage nutrients and pests, control soil erosion, increase soil organic matter, and improve soil quality. Complex crop rotations that include a variety of crops and planting dates usually improve weed management. When cultural practices are varied in a crop rotation, weed species are less likely to establish in the ever-changing niches. Many experiments have provided evidence that a complex crop rotation reduces weed populations compared with continuous production of one crop. This discussion period will examine the crop rotations of several field crop and vegetable farmers in Michigan and the surrounding states. Tillage, cover crop, and nutrient management practices provide insight into why these rotations work on these farms. Audience members will be encouraged to share their experiences with the effect of crop rotations on weed management.