

WEED MANAGEMENT SYSTEMS IN CONVENTIONAL AND ORGANIC TOMATO PRODUCTION. David Hillger and Kevin Gibson, Purdue Univ., West Lafayette, IN

The use of on-farm studies provides a view at how management systems impact the weed communities in various farming systems. Clustering farm units into groups with similar management practices allows for the replication of management systems in an on-farm study. The objective of this study is to objectively classify farming units into management systems based on the answers provided in detailed questionnaires. Twenty-four tomato growers provided information about their management practices from 1999 to 2004. Variables derived from the questionnaires are used to describe the management history, nutrient input, herbicide input and tillage of each farm unit. These variables are used in statistical classification techniques to group the farming units into like management systems. The greatest differences in management systems are between the organic fresh market and processing tomato systems.