# Analysis of the Representation of Soil Map Units using a Common Apparent Electrical Conductivity Sampling Scheme for the Mapping of Soil Properties

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The introduction of new technologies such as GIS and GPS has led to demands for more detailed and accurate soils information than is available in traditional soil surveys. One of the common ways this more detailed soils information has been pursued is through apparent electrical conductivity (ECa) surveys conducted by slowly pulling ECa equipment through fields along transects and collecting georeferenced ECa data. This study investigated how well the data collected from these transect surveys represents soil map units (SMUs) established by Order 1 soil surveys. On the whole, the transect surveys did a good job of representing the field SMUs. However, SMUs that were only present in a small percentage (<5% by area) of the fields studied tended to be represented fairly poorly. SMUs that were present over more than 5% of the field area tended to be represented well by the transect surveys.