Mapping vegetation types and soil properties of alkali grasslands by adjusting resolution to local variability

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Abstract

Correlation between semi-natural vegetation and soil properties of solonetzic grasslands can be utilized in soil mapping since the description of the vegetation is much cheaper and faster than chemical or physical measurements of soil samples. In the study presented we designed a sampling scheme using satellite imagery, and compared some methods predicting soil properties. The mean sample groups calculated by vegetation are better predictors of soil properties than grouping by elevation or interpolations applying kriging techniques.