
AGRICULTURE BARE SOIL SURFACE EVALUATION USING STEREOPHOTOGRAMMETRY

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The article deals with the development of agriculture bare soil surface using the stereophotogrammetric method. It describes and compares the development of selected soil characteristics investigated on four types of field cultivation. It evaluates changes in the characteristics of terrain with an emphasis on surface roughness and consolidation under natural conditions.

Five experimental plots for each type of cultivation were created in the region of Central Bohemia near to village Červený Újezd. Experiments run in two repetitions in autumn and spring 2015/2016. The main goal was to cover months when bare soil is found in arable land. Results show strong dependence of soil roughness and consolidation on extreme rainfall events which occurred in October 2015 and mainly in May and June 2016. The highest changes in soil characteristics were measured on experimental plots cultivated by plough which had highest roughness and depth of cultivation at the beginning of experiments.