

## **Abstract**

There are some authors who claim that the soil is one of the nonrenewable resources, because pedogenesis is thousand-years-long process. Unfortunately, natural features of soil are often degraded – the mechanism of this is describe below in this work. The thesis focuses on one of the soil degradation processes – pedocompaction in context of intensive agriculture. It is much better to prevent the soil compaction then to try to fix it afterwards; the price is high and the soil after land development is still not as good as it originally was. In this work we used a model area in Kleneč in an attempt to examine the relationship between a colored mosaic seen on the ortophoto with data on profile depth gained from terrain measuring using cone penetrometer. The results were analyzed statistically using Spearman correlation coefficient and regression analysis. Their results are somewhat contradictory: the correlation is 37,6 % with p-value 0,44 and the regression is 6,55 % with p-value 0,18. The reason could be that the relationship between the phenomena is non-linear. For clearer conclusion, it would be better to do more analysis on the field and in the laboratory as well.

**Key words:** soil degradation, soil compaction, pedocompaction, penetrometer