



## **Selected soil profile representing the unique soil-landscape-vineyard constellation in the Tokaj Historical Wine Region**

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Our poster shows a typical soil profile which was excavated in 2014 during a detailed field survey carried in the Tokaj Historical Wine Region for the mapping of the state of vineyards. The high resolution picture of the profile itself is accompanied by proper images representing the hilly landscape and the vineyards, where the singular wines of Tokaj are produced. Tokaj is a historical region for botritized dessert wine making, the famed Tokaji wine region has the distinction of being Europe's first classified wine region. Very recently the sustainable quality wine production in the region was targeted, which requires detailed and "terroir-based approach" characterization of viticultural land.

Tokaj Wine Region includes 27 settlements and is located in Northeast-Hungary, at Hegyalja in Tokaj Mountains, which were formed mostly by Miocene volcanic activity; andesite and rhyolite lavas and tuffs are characteristic. The Kopasz-hegy near Tokaj is covered by loess. Hegyalja is a pediment surface which dissected by erosional and derasional valleys and basins. The various morphology of this area results diversity in soil types and soil properties as well.

Soil plays dominant role determining the viticultural potential, so specific information on soil properties was surveyed and mapped to satisfy these requirements. Soil sampling was carried out in 200 sampling points. The sampling strategy was designed to be as representative as possible taking the existing constraints into consideration based on spatial simulated annealing technique. Sampling points were assigned to represent the combinations of three basic parameters (slope, aspect and geology) which have high influence on main soil properties. The data collection consisted of field description and tests as well as laboratory measurements of the collected soil and geological samples. The 22 most representative locations were more deeply surveyed by excavating soil profiles. One of the most nice-looking profile has been selected for demonstration to share our soil-landscape-vineyard-wine experiences with the audience.

### **Acknowledgement:**

The authors are grateful to the Tokaj Kereskedőház Ltd. and to András Tombor, Head of the Supervisory Board of Tokaj Kereskedőház Ltd. who has been supporting the project for the survey of the state of vineyards.