

## **Abstract**

The aim of this bachelor thesis is to resume existing knowledge regarding the contamination of vineyard soils with copper, which is mainly caused by a long-term application of Cu-based fungicides used to control wine downy mildew (*Plasmopara viticola*). The role of Cu as a trace element in the natural environment is discussed, as well as natural Cu contents in soils and in the Earth's crust.

This manuscript is based on international scientific articles focusing on the above mentioned subject. The thesis discusses the problems of contamination of vineyard soils by Cu, deposition of Cu compounds into the soils, interaction of Cu with soil components and possible formation of mobile or immobile Cu soil forms, their behavior and factors influencing this behavior and possible environmental risks e.g. phytotoxicity, contamination of water bodies or contamination of fluvial sediments. Additionally, average Cu contents in agricultural soils in Europe and worldwide were compared with European and international guidelines and limits. Total Cu contents in some of the vineyards soils exceed legislative regulations and in case of further utilization of such soils, an additional analysis would be necessary.

**Key words:** contamination, copper, vineyard soils, heavy metals