

ABSTRACT

This thesis performed at 49 pages, it includes 3 applications and a list of references to the sources used, containing 14 items. The paper shows 11 figures and 8 tables.

The aim of this work is to develop mathematical and software systems, automated model building soil microbiota vulnerability to climate change.

The paper describes basic methods of statistical data. The analysis was chosen regression analysis.

As a result of the work program was set up automated model building based on measurements of temperature, rainfall and biomass content in the soil.

During testing, the model was observed that model the interaction of temperature and rainfall more accurately describes the dependence of biomass content in the soil than the model without interaction.

Keywords: soil, biomass, precipitation, temperature, regression analysis, interaction.