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Changes in temperature of ground water during rainfall-runoff events

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Evaluation of rainfall-runoff relationships in the catchment is described using different methods and mathematical models. One of the possible new approaches is the assessment of changes in temperature or water temperature in the soil profile during rainfall. Here, with a certain time lag to changes in water temperature measured at different horizons. These changes depend on the intensity of rainfall, the water saturation in the soil profile and many other factors affecting water infiltration into the soil. Evaluated results suggest the possibility of using temperature measurements to determine the rate of water infiltration into the soil and determination pathways draining water from the soil profile. This article is based on results of grant of Ministry of Agriculture QI111C034 Effect of livestock grazing on soil properties, water quality and biodiversity in the landscape.