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SWRC response of vegetated soils under seasonal vegetation and climatic conditions

Objective

Previous research has demonstrated that vegetation can significantly alter hydrological patterns and water retention capabilities in soil, predominantly via the effects exerted by root systems. In our forthcoming study, we aim to leverage these insights to advance our understanding of mitigating urban flooding issues. Our research objective is to examine the Soil Water Retention Curve (SWRC) behavior of clay soils subjected to long-term vegetated soil, To compare the SWRC attributes across various plant species, distinguishing based on root morphology and seasonal growth patterns. Furthermore, we will assess the SWRC behavior of clay soils cultivated with a single crop, dual crops, and triple crops, respectively.

Expect Result

The expected result is that we will be able to see how much the type of crop and planting characteristics affect the Soil Water Retention Curve (SWRC) of vegetated soil in the long term. To be used to predict water absorption capacity to effectively reduce flooding.