



Quality control of station-based soil moisture observations over Turkey

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Soil moisture is an essential variable in many hydrological applications like climate, drought, water and energy balance, weather prediction through its critical role in water and energy balance estimation. Soil moisture can be obtained using several different methods, like remote sensing-, station observation-, direct sampling-based. Station-based observations are widely used to validate satellite-based soil moisture products, making these observations to have very critical role in soil moisture estimation studies. Soil moisture observations are collected every 10 minutes since 2007 at 149 stations located over Turkey between 25.9°E - 41.8°E and 25.9°N - 41.8°N. These observation time-series are analyzed for the first time in this study for their consistency and reliability by classifying as “not reliable” and “reliable” after performing initially temperature correction and then quality control of the data.