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Relationship between soil surface microtopography, cumulative natural rainfall and structural stability for different soil tillage systems in Southern Brazil

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This abstract will be updated later:

Soil surface microtopography has been assessed using different indices such as random roughness, tortuosity and limiting difference, all of them calculated after trend removal and is known to be influenced by soil tillage system and soil physical degradation. The relationship between soil microtopography, cumulative rainfall and aggregate stability was studied during two successive years in a Typic Inceptidol. The experimental setup consisted on the following treatments without replication: moldboard plowing + two harrowing (PC), minimum tillage (CM) and direct drilling (SD), both under maize and oats. Soil tillage in all of the study treatments was performed parallel to slope.