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Rainfall simulation experiments with a small portable rainfall simulator: research on runoff generation and soil erosion

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The results of more than 500 rainfall simulations with a small portable rainfall simulator at various locations in West and North Africa and South and Central Europe will be presented. The analysis of this comprehensive database offers results concerning different research objectives:

- erodibility of local soils regarding different vegetation cover, stone cover and land uses
- runoff generation in gully catchments
- process oriented experiments on the influence of sealing and crusting
- trail erosion caused by goat- or sheep-trampling
- recent erosion on geomorphological forms

Runoff coefficients range from 0 to 100 % and eroded material from 0 to 500 g m̂-2 during 30 min experiments with a rainfall intensity of 40 mm ĥ-1.