

LITE-NET: Influence of Geotextiles as water storage medium on the plant growing success on vegetated slopes

The goal of the field experiment was to determine the influence of different geotextiles on the plant growth on vegetated slopes. Particular focus was given on the comparison of LITE-NET nonwoven geotextile) and conventional coir mats.

Test Performance

On a test slope a coir mat, a LITE-NET and different combination mats (consisting of LITE-NET with integrated biological superabsorbant, substrate and fertilizer) were applied and partly covered with top soil. After a period of three months under extreme dry climatic conditions were compared.



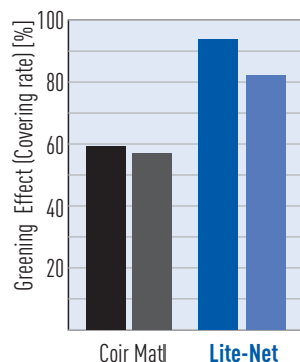
Test slope after application of hydro-seeding

Test Results (Extract)

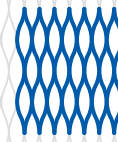
- After 24 hours, the LITE-NET showed an approx. **6 times higher water storage capacity** per kg as the coir mat
- The flexible nonwoven net **adjusted better to the unevenness of the surface**, thereby offering a higher erosion protection
- The uncovered nonwoven net had a significantly higher vegetative effect **on the growth of the plants** rate 93% vs. 59%) compared to core mats covering



Vegetation on coir mat (left) and LITE-NET (right) after 3 months of extreme drought



Total greening effect of the variants



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Summary

The vegetative effect of nonwoven nets (Lite-Net) is by approx. 50% higher than that of coir mat.



Lite-Net



Coir mat

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