Soil stabilization with natural rubber latex emulsion - an anti-soil erosion measure for exposed soil surfaces.

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Experimental investigations have shown that NR latex emulsion sprayed onto exposed soil surfaces gave effective protection against soil erosion. On highly erodible soils, like Serdang and Sungei Buloh series, application of emulsions containing 10 - 15% dry rubber and 2 - 8% aromatic oil reduced soil losses by 70 - 87% when compared with the control. Within a period of five months, soil losses equivalent to 288.6 tonnes per hectare were obtained on untreated soil surfaces, whereas those soils treated with emulsions had losses in the range of 36.7 - 86.6 tonnes per hectare. Treatment with latexoil emulsions also resulted in reduced runoff and increased infiltration of water. When NR latex emulsion and grass cover were used together, soil losses through erosion were almost completely checked.

The technique is being used commercially as an anti-erosion measure for the three major highways in Sabah. It will also be adopted for establishing landfills in the construction of the proposed Kuala Lipis - Gua Musang Highway in Peninsular Malaysia.