



Field evaluation of support practice (P-factor) for stone walls to control soil erosion in an arid area (Northern Jordan)

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Stone walls have been adopted for long time to control water erosion in many Mediterranean countries. In soil erosion equations, the support practice factor (P-factor) for stone walls has not been fully studied or rarely taken into account especially in semi-arid and arid regions. Field studies were conducted to evaluate the efficiency of traditional stone walls and to quantify soil erosion in six sites in north and northeastern Jordan. Initial estimates using the Universal Soil Loss Equation (USLE) showed that rainfall erosion was reduced by 65% in areas where stone walls are present. Annual soil loss ranged from 5 to 15 t yr⁻¹. The mean annual soil loss in the absence of stone walls ranged from 10-60 t ha⁻¹ with an average value of 35 t ha⁻¹. Interpolating the slope of thickness of A horizon provided an average initial estimate of 0.3 for P value.