Czech Academy of Agricultural Sciences

Open Access Agricultural Journals

Soil and Water Research

home **page** about **us** contact **us**

Table of Contents

Soil and Water Research

Estimated flows of suspended solids by the statistical analysis of outfall drainage basin of Tafna (Algeria)

Bouchelkia H., Belarbi F., Remini B.:

[fulltext]

The solids transport is a complex phenomenon; the intensity of these phenomena varies greatly with the general environment: geology, degree of rock alteration, hydrology, vegetation, climate, etc. The extent of the phenomenon is out of proportion in semi-arid areas or areas with temperate climates. So Algeria is one of the countries most affected by this phenomenon and its consequences. To enable a rapid response to demands from engineers for the quantification of bed load transport at the outlet of a catchment area, a simple tool easy to implement has been developed. The principle adopted is based on hydrometric data from gauging stations, and seasonal and annual analyses have defined an appropriate method for estimating the sediment yield. The study was conducted by analysis of average flows. The Pierre de Chat Station at the outlet of the Tafna watershed was used for application. The results obtained were quite satisfactory because the correlation coefficients of the model: $Q_S =$

f (*Q*) are between 87 and 96%. This method once refined can be generalized to all the watersheds of northern Algeria.

Keywords:

catchment; erosion; sediment transport; statistics; suspension; Tafna

[fulltext]

XHTML1.1 VALID   CSS VALID