

عنوان مقاله:

(Considering the effect of soil characteristics on water quality of stream crossing (Case study: Darabkola forest

محل انتشار:

اولین کنگره بین المللی در مسیر توسعه علوم کشاورزی و منابع طبیعی (سال: 1394)

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خلاصه مقاله:

The world wide water and soil quality deterioration are primarily contributable to growing human populations and economic development. The aim of this study was to test the correlation of soil texture (percentage of soil particles), percentage of soil organic carbon with water quality of stream crossings within forest. The study area is located in the district one of Darabkola forest. The sampling season was spring of 2014. At each station, a transect ran parallel to the direction of water flow. Along each transect, soil samples were collected. Water samples were taken, labeled, immediately preserved in an icebox, and carried out to the laboratory for pH, NO₃⁻, PO₄³⁻ and TSS analysis. Data collected were subjected to regression analysis using linear regression and then curve response to test whether percentage of soil organic carbon and percentage of soil particles had any significant relationship with pH, NO₃⁻, PO₄³⁻ and TSS. The Pearson correlation coefficients were calculated to examine the significance of the correlation among soil and water parameters. Results showed that there was a significant and negative correlation between percentage of loam and stream water pH. Further analysis was done using response curves; the results showed that there were significant relationships between percentage of loam, pH and percentage of clay, pH. It could be concluded that water pH is affected by numerous factors, especially the component of soils. Also, soil aggregates and organic carbon can be treated as an effective factor that prevents non-point pollution of surface waters in forest areas.

کلمات کلیدی:

Nutrient, Soil, Stream, Water quality

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