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RESEARCH ARTICLE

Physico-chemical properties of soils of Muzaffarnagar district as influence by the discharge of paper mill and distillery effluents

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SUMMARY

The influence of effluents of paper mill and distillery present work is based on the physico- chemical analysis of effluents released from sugar factory, distillery paper mills and fertilizers industry. It was found that different industries the consume huge amount of water and throw back almost an equal amount of effluents containing highly toxic materials in solids and dissolved form. The colour of the effluent from sugar mills, paper mills and other effluent was dark brownish with unpleasant smell, the temperature of untreated effluent was recorded 43^0C. The temperature of the discharge should not exceed 35^0C. The high temperature *i.e.* 43^0C of the untreated effluent has adversely affected the process, pH range from (6.8 to 9.0), EC (0.39 to 5.82 dSm^{-1}) mean value 1.28, total cat ion range from 79.0 to 1226.0 mean value 260.6 and total anions range from 249.8 to 3137.4 mean value 715.0 whereas back ground of physico-chemical properties of soil profile data showed in Table 2. According to the permissible levels suggested by APHA standard all the water quality parameters in the sugar effluents have been found to be very high and well above the permissible limits.

Key Words : Effluents from sugar factory, Paper mills, Fertilizers industry, Soil profile

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