



Research Article

Effect of post methanated distillery spentwash in test crops on ground water quality using piezometer study

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Received : 28.12.2012; Revised : 13.02.2013; Accepted : 16.03.2013

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Summary

The piezometers were installed in the experimental field at the depth of 1m in lowest dose (0.25 lakh litres ha⁻¹), highest dose (1.0 lakh litres ha⁻¹) and control treatment plots. The leachates collected were analyzed for various parameters like pH, EC, water soluble cations and anions and thereby the SAR, RSC, SSP and PS were calculated. The study revealed that the EC of the leachate was found to decrease with increase in the number of leachings and it got reduced from 2.81 to 1.56 dS m⁻¹, 2.96 to 1.93 dS m⁻¹ and 1.75 to 1.35 dS m⁻¹ in turmeric, sugarcane and cassava, respectively field experiments where the distillery, application of distillery spentwash resulted in build up of considerable amounts of cations like Ca, Mg, Na and K in the leachate. However, there was a marked decrease in the levels of cations with increasing number of leachings. The SAR values of the leachate were within the safer limits of <3. The RSC values of the leachate collected in all the leachings were found to be negative indicating that the application of spentwash would not induce sodium hazard in the groundwater.

Key words : Piezometer, Leachate, Cations, Anions, Distillery spentwash

How to cite this article : Janaki, D. and Velu, V. (2013). Effect of post methanated distillery spentwash in test crops on ground water quality using piezometer study. *Asian J. Soil Sci.*, 8(1): 40-44.