

were made to select the best of the models used in the study.

860. Agnihotri, Y. 1993. A study on occurrence of wet/dry spells and weather cycles at Chandigarh using Markov Chain Model. *Indian J. Soil Conserv.*, 21(1): 71-79.

In this study, analysis of occurrence of wet/dry spells and weather cycles at Chandigarh has been made using daily rainfall data (from 1958 to 1989) with the help of Markov

Chain Model.  $X^2$ -tests for appropriateness of Markov Chain model of order I (MC I) against that of order II (MC II) and independence suggested that i) MC I was significantly different than MC II at 1% level of significance. Conditional probabilities worked out during different months of a year showed that values of P were the highest (0.5) during July and August and was the lowest during November (0.17) and successively followed during October (0.19). Expected frequencies of wet/dry spells and weather cycles worked out through application of MC I were intercompared with the corresponding observed frequencies by  $X^2$ -test. The test revealed that i) two sets of frequencies of wet spells were non-significantly different from each other at 5% level of significance for all the months, ii) two sets of dry spell (except for May and December) could not be regarded as different at 5% level of significance, and iii) the weather cycle could be predicted with the help of MC I for 8 months only during a year (except January, May, June and July).