

Statistical Applications in Environmental Botany

* Alkama G Faqih, * Nitesh C Joshi and **Ambika N Joshi

Abstract

Mumbai, capital of Indian State of Maharashtra, is one of the most populated and polluted cities in the country. Current study is a statistical analysis of primary data of foliage dust collected from 75 plant species growing along road dividers. The dust was collected in the dry periods from October to May. The data was tested for normality using Tukey-kramer test and Analysis of Variance was applied to determine significant differences between the plant species. Bougainvillea spectabilis Willd., Ficus benjamina L. var. nuda (Miq.) M. F. Barrett, Nerium odorum Aiton. and Pedilanthus tithymaloides Poit. were found to be the best dust absorbers from 75 plant species on the basis of statistical analysis. SPSS software version 11 was used and the final data represented in the form of Box plots. The leaves of these four species were collected from 10 out of 81 sites. Summer season was more dusty than winter and the dustiest month was May-12. Nerium odorum Aiton. was found to be the best dust capturer. Borivali, Western Express highway was found to be the dustiest. Box plots were used to represent the data.

Keywords: Box and whisker plots, Tukey Kramer Test and ANOVA.

* Dept. of Botany, Rizvi College of Arts, Science & Commerce, Mumbai, alkamafaqih@gmail.com

* Dept. of Botany, Rizvi College of Arts, Science & Commerce, Mumbai niteshejoshi@gmail.com

**Dept. of Botany, Jai Hind College, Mumbai, ambikapuri@gmail.com