ABSTRACT

On the basis of air pollution tolerance index and heavy metal accumulation index some more tolerant pant species could predict to grow in urban climate to mitigate hazardous environmental pollutants, reclamation of urban forest cover and act as carbon sink without any negative influence on environment in the city of Lahore. For this purpose, seven most busiest roads of Lahore city with heavy traffic density determined in present research work and fifteen most abundant plant species selected on the basis of floristic composition of selected seven roads. Leaf area and dust content of collected leaf samples of selected plants were determined to find out dust capturing potential of leaves. APTI results predicted by using four biological parameters; ascorbic acid content, total chlorophyll content, relative water content and pH of leaf extract and compared them with APTI of same species from control (Botanic Garden of Government College University, Lahore). Results shows that *syzigium cumini* has highest dust capturing potential and other species are in following order that can capture dust from air; *Syzigium cumini* > *Ficus benghalensis* > *Ficus benjamina* > *Mimusops elangi* > *Alstonia scholaris* > *Ficus religiosa*. On the basis of APTI *Mengifera indica* was most tolerant plant specie with APTI value 17.88 and all species arranged in following order; *Mengifera indica* > *Ficus benghalensis* > *Hibiscus rosa-sinensis* > *Azadirachta indica* > *Euphorbia milii* > *Alstonia scholaris* > *Mimusops elangi* > *Morus alba* > *Polyalthia longifolia* > *Ficus benjamina* > *Syzigium cumini* > *Ficus religiosa* > *Conocarpous erectus* > *Bougainvillea spectabilis* > *Eucalyptus citriodora*. Metal accumulation index as well as soil pollution index was estimated by measuring amount of heavy metals in the digested samples of leaf and soil of sampled plant sites. Zn and Mn was more accumulated in the soil than the plants. Moreover Pb was also accumulated in soil above its limit value. Among selected plants highest metal accumulation index was of *A. indica* and highest soil pollution index was of *M. alba* soil.