ABSTRACT

Traffic density and the vehicular exhaust have negative impacts on plants growth. Vegetation found near traffic dense areas often subjected to have effected morphological, physiological and biochemical attributes of selected plant species. Current research work was conducted to investigate the effect of traffic density and automobile exhaust on road side plantation of some busiest roads of Lahore city. The experiment was executed by general vegetation analysis and selection of common plant species along the selected five roads. Physiological attributes of selected replicates of each plant were studied by using leaf area index meter. The dust count, fresh and dry weight was calculated to study the impact of automobile exhaust on plants. Maximum dust deposits were observed on Datadarbar road and least on Jail road. Variation in biochemical attributes were observed along selected roads. Biochemical attributes studied were total chlorophyll count, relative water content, pH, total ascorbic acid and total carotenoid content in selected plants. The values of biochemical attributes were later compared with those of control samples. By using these biochemical attributes aie pollution tolerance index (APTI) of plants was calculated. Tolerance ability among three selected plant species was as *Alstonia scholaris* > *Ficus religiosa* > *Mimusops elengi.* Traffic density on selected five roads was calculated by following manual method of recording. By comparing traffic density data of past and present it was concluded that number of vehicles will increase by the approximately 4% in 2025. The results showed indirect relation between traffic density and physiological and biochemical attributes of selected plants. Tolerant plants specie like *Alstonia scholaris* should be planted on different roadsides to overcome the alarming rate of pollution caused by vehicles.