ABSTRACT

Automobile utilization has increased along with the population, which has led to an increase in pollution from vehicle emissions. The initial targets of these vehicular pollutants are the vegetation around roads and on highways. Based on numerous biochemical and physiochemical characteristics including photosynthetic rate and stomatal conductance, some more tolerant plant species might forecast to thrive in a dangerous environment in the city of Lahore. Seven of Lahore's busiest roads with high traffic densities were chosen for this purpose, and twelve of the most common plant species were chosen based on the floristic composition of the seven roads. Selected pant species are *Alstonia scholaris, Bougainvillea glabra, Dalbergia sissoo, Eucalyptus globulus, Ficus benjamina, Ficus religiosa, Ficus benjamina, Morus alba, Murraya paniculata, Polyalthia longifolia, Putranjiva roxburghii* and *Rubia tinctorum*. Amount of dust (g), Leaf area (mm^2), Petiole length (mm), Photosynthetic rate ($\mu Mm^{-2}S^{-1}$), Transpiration rate ($\mu Mm^{-2}S^{-1}$), Stomatal conductance ($\mu Mm^{-2}S^{-1}$), and Total chlorophyll content, Total carotenoids content are estimated to monitor air pollution impact on the plants. Stomatal index together with stomatal clogging capacity were calculated for the analysis of anatomical features. To determine the potential of the leaves of a few different plant species, the physiochemical characteristics were evaluated. The results of both the biochemical and physiochemical parameters were compared to Cont. sites. The amount of dust at Cont. site is lower than the polluted sites, showed that less pollution in Cont. sites and reduction in physiochemical and biochemical parameters at polluted road sites revealed that there is higher pollution rate at polluted sites.