

# Air Pollution Tolerance Index of Some Plants Growing in Industrial Areas of Thane City, Maharashtra, India

Aasawari A. Tak and \*Umesh B. Kakde

Department of Botany, The Institute of Science, 15,  
Madame Cama Road, Fort, Mumbai – 400032, Maharashtra, India  
E-mail: aasawaritak@gmail.com, \*drumeshkakde@gmail.com

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**Abstract**—As pollution is becoming a serious issue, in the present study an endeavor has been made to select the appropriate plant species for the abatement of air pollution around the industrial area of Thane city. As plants play an important role in mitigating air pollution and can be serving as sinks for air pollutants. The variation in the leaves by air pollutants like sulphur dioxide, nitrogen oxides, ozone alters the biochemical parameters of plant species. So in this study three industrial areas were studied by calculating physiological and biochemical parameters viz. Leaf Relative Water Content (RWC), Ascorbic Acid content (AA), Total leaf Chlorophyll (TCh) and Leaf extract pH were used for the analysis of the Air Pollution Tolerance Index (APTI) of some plant species. Ten commonly available plant species were identified for the investigation from Wagle Industrial Area, Kolshet Industrial Area and Balkum Industrial Area. The plant species showing higher APTI value can be selected for green belt development in industrial areas, so as to mitigate the effects of air pollution on plants and to make environment clean and healthy.

**Keywords:** Industrial Areas, APTI, plant species, Air Pollution Tolerance Index, Chlorophyll, Ascorbic acid, Bio-chemical parameters.