



**Air Pollution Tolerance Index of various plants species found in
F.M. University Campus, Balasore, Odisha, India**

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ABSTRACT

Rapid industrialisation and Automobile exhaust has led to different facets of pollution. Vegetation can absorb particulate and other gaseous pollutants into their system, but they also have some limitation and tend to show symptoms of damage after prolonged exposure. Based on the absorbing power and tolerance limit, vegetation can be classified as highly tolerant, moderately tolerant, sensitive and very sensitive. This has been incorporated by scientist into a quantitative value of Air Pollution Tolerance Index (APTI), depending on the score of the plant physiology indicators viz., Leaf Extract pH, Relative Water Content (RWC), Ascorbic Acid and Chlorophyll Content. The vegetation monitoring in terms of its APTI acts as a 'Bio-Indicator' of air pollution and can be incorporated into assessment studies. APTI was calculated for various plant species growing inside the F.M. University campus in Balasore district. The leaf samples were collected from 16 number of tree species in F.M. University campus of Balasore to determine APTI. In the present study, APTI value indicates that majority of plants are sensitive to air pollution and only four plants like Mangifera indica, Ficus religiosa, Anacardium occidentale and Zizipus spp. are intermediately tolerant. Thus these tree species could act as the bio indicators for pollutants and could be utilized as tolerant species towards combating air pollution.

Keywords: APTI, Bio-Indicator, Intermediately Tolerant, Sensitive, F.M. University.
