

Environmental Impact Assessment of Ambient Particle Industrial Complex Upon Vegetation Near Settling at El-Fatyah,Libya

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Abstract : The present study was undertaken to evaluate the impact of ambient particles emitted from an industrial complex located at El-Fatyah on growth, phytomass partitioning and accumulation, pigment content and nutrient uptake of two economically important crop species; barley (*Hordeum vulgare* L.Family: Poaceae) and broad bean (*Vicia faba* L. Family: Fabaceae) growing in the region. It was obvious from the present investigation that chlorophyll and carotenoid content showed significant responses to the industrial dust. Generally, the total pigment content of the two investigated crops in the two locations continually increased till the plant age reached 70 days after sowing then begins to decrease till the end of the growing season..The total uptake of N, P and K in the two studied species decreased in response to industrial dust in the study area compared to control location. In conclusion, barley and broad bean are very sensitive to air pollutants, and may consider as bioindicators for atmospheric pollution. Pollutants caused damage of their leaves, impair plant growth, hindered nutrient uptake and consequently limit primary productivity.

Keywords : Effect of Industrial Complex on barley and broad bean

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