

AMBIENT OZONE POLLUTION ON GROWTH AND PRODUCTIVITY ON TWO CULTIVARS OF MUNG BEAN BY USING ETHYLENEDIUREA

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AMBIENT OZONE POLLUTION EFFECT ON GROWTH AND PRODUCTIVITY OF TWO CULTIVARS OF MUNGBEAN BY USING ETHYLENEDIUREA

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ABSTRACT

An experiment was conducted at Institute of Agricultural Sciences (IAGS), University of the Punjab, Lahore, Pakistan, to determine the effect of ambient ozone pollution on growth and yield of crop. Soil drench method of application of Ethylenediurea (EDU) on two cultivars of mung bean (*Vigna radiata* L. cv. NIAB-2006 and AZRI-2006) and its improving results against ambient ozone stress was checked on growth and productivity features of crop. Monthly mean O₃ concentration changed between 79.4 ppb and 105.2 ppb during the experimental period. Mungbean plants were treated with EDU by making concentrations such as 0, 200, 300, 400 and 500 ppm after 10-days break as soil drench during the whole growth period. EDU treatments affected plant growth and productivity with varying effects on cultivar, age, and EDU concentration. In this study growth and productivity was improved for NIAB-2006 and AZRI-2006 at 400 ppm EDU. Overall results on mungbean crop by applying EDU looks like a very useful to evaluating the ambient ozone consequences in Pakistan.

Key Words: Mungbean, Ethylenediurea, productivity, Ambient, Yield