

GROWTH RESPONSE OF *HELIANTHUS ANNUUS* CV. SINGLE MINIATURE TO SULPHUR DIOXIDE POLLUTION

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Abstract: Sulphur dioxide (SO₂) is one of the principal contributor to air pollution. In the gaseous form it is called as primary pollutant but when it binds moisture from the air and forms aerosols of sulphuric- and sulphurous acid which are deposited as acid rain, it acts as secondary pollutant. Plants after exposure to SO₂ show altered growth patterns. The ornamental cultivar cv. Single Miniature of *Helianthus annuus* L.(family Asteraceae) on fumigation with four cumulative doses 2612, 3265, 3918 and 4571 μg m⁻³ of SO₂ manifested a decline in the length, fresh weight and dry weight of shoot, root and whole plant respectively. These growth attributes were studied at 30th, 50th, 70th and 90th day of the fumigated cultivar along with a control set. The concentration of pollutant and duration of exposure measure the severity of injury in the fumigated plants. The present investigation reveal that sulphur dioxide acts as a kind of stress to plants.

Keywords: Aerosols, Growth, *Helianthus*, Pollutant, SO₂

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