EFFECT OF AUXIN AND SIMULATED ACID RAIN ON THE SULPHUR CONTENT IN THE LEAVES OF *CAPSICUM FRUTESCENS* VAR. *SWEET MAGIC*

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Abstract: Sulphur compounds of plant as well as of animal origin are of immense medicinal interest as they cure a number of ailments. For instance , thiazoles are antibiotic (e.g. Penicillin) , anti-microbial (e.g. Sulphathiazoles). They are vitality factors (for instance, Vitamin – B_1) & act on central nervous system besides other functions. Compounds of plant origin are safer in comparison to synthetic compounds. Therefore, we planned to enhance sulphur contents in the plants of Capsicum. For this purpose *Capsicum frutescens* var. *sweet magic* was treated with simulated acid rain of the pH 3.0 , 4.0 & 5.0 ; auxin (indole acetic acid) solutions of 1.0 x 10^{-5} , 1.0 x 10^{-6} & 1.0 x 10^{-7} M concentrations as well as interactive effects of pH – auxin binary solutions of different combinations (3.0 + 1.0 x 10^{-5} M , 3.0 + 1.0 x 10^{-6} M , 3.0 + 1.0 $^{-7}$ M ; 4.0 + 1.0 x 10^{-5} M , 4.0 + 1.0 x 10^{-6} M , 4.0 + 1.0 x 10^{-7} M & 5.0 + 1.0 x 10^{-5} M , 5.0 + 1.0 x 10^{-6} M , 5.0 + 1.0 x 10^{-7} M) & their effect on the sulphur contents of leaves of *Capsicum frutescens* var. sweet magic were studied . Best pH for sulphur content is 3.0 [sulphur content at 60th day = 155.86 % of control] & best auxin concentration is 1.0 x 10^{-5} M[sulphur content = 141.77 % of control at 45th day] . Best combination of pH & auxin is 3.0 + 1.0 x 10^{-6} M [sulphur content = 198.85 % of control at 60th day] . Moreover , acid rain & auxin assist each other towards enhancement of sulphur content in leaves.

Keywords: *Capsicum Frutescens* var. *sweet magic*, Simulated acid rain (SAR), Auxin (indole acetic acid)

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