

# EFFECT OF SUCROSE AND PHENYLALANINE IN THE PRODUCTION OF SOME MEDICAL COMPOUNDS FROM COLEOPTILES INDUCED CALLUS OF *CATHARANTHUS ROSEUS* L.GON IN VITRO

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## ABSTRACT

An experiment on the effect of Sucrose and Phenylalanine on coleoptiles induced callus of *Catharanthus roseus* on the production of Some medical compounds from *Catharanthus roseus* callus induction was achieved by culturing coleoptiles of the plant on Murashing and Skoog (MS) medium supplemented with 0.5 mg.l<sup>-1</sup> and 2.0 mg.l<sup>-1</sup> NAA the best medium to maintain callus when different levels were added to MS medium for each .sucrose ,30, 40,60,80 g.l<sup>-1</sup> and Phenylalanine ,0,5,10,20,30,45 mg.l<sup>-1</sup> alone experiments the results showed the medium supplemented with 80 g.l<sup>-1</sup> of sucrose gave the highest quantity of Vindoline , Catharanthine and Vincristine reached 220.33,269.6 and 147.12 ug. mg<sup>-1</sup> fresh weight of callus. Murashing and Skoog(MS) medium content at the concentration 60 g.l<sup>-1</sup> of Sucrose gave the highest level of Vinblastine recording 169.28 ug. mg<sup>-1</sup> fresh weight of callus . Murashing and Skoog (MS) medium content at the concentration 10 mg.l<sup>-1</sup> Phenylalanine gave the highest quantity of Catharanthine , Vincristine and Vinblastine amounted 319.5, 159.27 and 646.0 ug. mg<sup>-1</sup> fresh weight of callus .while MS medium the supplemented with 20 mg.l<sup>-1</sup> of Phenylalanine gave the highest quantity of Vindoline 213.0 ug.mg<sup>-1</sup> fresh weight of callus

**Key Word :Catharanthus roseus ,Sucrose , Phenylalanine, medical compounds**

- \*Part of M.Sc.Thesis first researcher