



IN VITRO MULTIPLICATION AND ROSMARINIC ACID ACCUMULATION OF THYMUS LEUCOTRICHUS HAL.

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The objective of this study was to develop a rapid regeneration system of an important medicinal plant of *Thymus leucotrichus* Hal. (Labiatae). Initially in vitro grown seedling were exposed to Murashige and Skoog, (MS) medium, Gamborg (GB-5) medium, Linsmaer and Skoog (LS) medium and Shake Hildebrandt (SH) medium. Then, for root proliferation, indole-3-acetic acid (IAA), indole-3-butyric acid (IBA) and 1-naphthaleacetic acid (NAA) with four different concentration, were tested for their ability to multiply *T. leucotrichus*. Maximum number of shoots ($56,66 \pm 6,67$ %) was observed on the MS medium. 0,1 IBA was the best auxine concentration with the $66,66 \pm 2,6$ % rooting value. Methanol extracts from plantlets were individually prepared and rosmarinic acid content was determined by using HPLC. Of all thirteen lines were examined, the highest rosmarinic acid (RA) production was obtained from those being grown on MS Basal Medium supplemented with 0.1 NAA with a value of 16,18 mg/ g dry biomass, while the control group (MS medium with no auxine) produced only 6,85 mg/g RA.

Keywords: *T. leucotrichus*, in vitro, auxine, HPLC, rosmarinic acid.