PERTUMBUHAN DAN KANDUNGAN POLIFENOL TANAMAN KALE PADA MEDIA TANAM DENGAN PENAMBAHAN ASAM HUMAT

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Abstract	Kale (Brassica oleracea) contains some nutritional values like: vitamin C, pro vitamin A (carotenoids), and some compound belong to polyphenol are flavonoids that benefit to its consumer for the growth and health of the body. Polyphenols are bioactive molecules which play an essential role in plants response to ultraviolet irradiation, and high temperature. Flavonoids comprise the most studied group of polyphenols. This group has a common basic structure consisting of two aromatic rings bound together by three carbon atoms that form an oxygenated heterocycle. In order to support growth and increase itÃ¢Â€Â™s productivity, cultivation of Kale supposed to be done in good planting media. The addition of organic subtances like humic acid in planting media has proven to increase plant growth and increase productivity in several plants. The objectives of this research were to know the influence of the influence of humic acid on the growth of plant varieties and polyphenol content and to determine the best concentration of humic acid in increasing growth and polyphenol content. The current research method was carried out experimentally a completely randomize design in a split plot method. The main plot was plantÃ¢Â€Â™s varieties in 2 levels: V1: Kale Nero toscana (Brassica oleracea var. palmifolia), V2: Siberian dwarf Kale (Brassica oleracea Var. Sabellica). while the sub plot was the HA concentrations in 4 levels i.e 0 g.kg-1, 4 g.kg-1, 8 g.kg-1, and 12 g.kg-1 of planting medium, The parameters used in this study are fresh and dry weight. These data were obtained by weighing the roots and shoots; rootÃ¢Â€Â™s length, chlorophyll content, and polyphenol content in kale. The data of polyphenol content was obtained by extracting the plant material following a maceration method then calculated using the Folin ciochalteau spectrophotometric. The data of plantÃ¢Â€Â™s growth and polyphenol content obtained was analyzed using (F test) with standard deviation rate of 5% and 1%. The results of the analysis of variance which has a significant different, followed by the least significant difference test (LSD). And for the result is the treatment of humic acid increase the growth and polyphenol content of Kale Nero (B. oleracea var. Palmifolia) and Siberian dwarf kale (B. oleracea Var. Sabellica).
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