

[P2] Farming System

Thu. Sep 9, 2021 12:15 PM - 2:00 PM Room 2 (Poster) (Farming System)

12:15 PM - 1:00 PM

[P2-19]Effect of Different Types of Mulching on Soil Temperature, Growth and Rhizome Yield of Lycopi Herba (*Lycopus lucidus* Turcz.)

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The Lycopi Herba (*Lycopus lucidus* turcz.) is a perennial herbaceous plant of the Lamiaceae family, and geophyte plant in the ground. Objective of study is : to investigate the effects of mulching material during the growth and development of harvest in Lycopi Herba.

The study was conducted at the experimental site of Chungnam National University (latitude:36°36", Longitude: 127°35"). For experiment, we applied four types of treatment to find the appropriate mulching material which were: Non-mulched, Black-PE, Green-PE, and Clear-PE. Plant spacing was performed by the randomized block design with three replications at plant density of 60cm× 30cm. The seedling date was April 10th, 2019 and the rhizome were harvested at the end of November,2019. In plant height, Clear-PE was the highest at 107.2 cm, followed by Green-PE 102.6 cm, Non-mulched 99.1 cm and Black-PE 96.6 cm, respectively, and for the LAI, highest was Clear-PE with 13.2, and the lowest was Non-mulched at 8.3. The SPAD index, found between 30 and 45 on average. The Black-PE the SPAD index was highest until the August comparing than the other treatments. The photosynthesis was highest under Black-PE and followed by Clear-PE, Non-mulched and Green-PE. The dry weight was highest with 2774.2g of Clear-PE, and the dry weight of rhizome, the Black-PE was highest with 680.0 g. The highest number of the rhizome was occurred in Black-PE. As the final results showing that highest number and weight of rhizome was observed in Black-PE treatment which is showing the most suitable mulching material.