

The Effect of Combination of Organic Materials and Inorganic Fertilizers on the Agronomic Character of Kasturi Tobacco (*Nicotiana glauca* L.)

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ABSTRACT

Tobacco is a plantation crop that has high economic value as a contributor to foreign exchange in Indonesia. The continuous use of inorganic fertilizers in tobacco cultivation has a negative impact on the soil, as a result, decreasing soil fertility which can adversely affect the agronomic character of tobacco. This research was conducted to determine the best combination of organic tobacco stem compost (KBT) and inorganic fertilizers (ZA, NPK) which can affect the agronomic character of the musk tobacco. This research method used a randomized block design (RBD), with a combination of treatments to be tested, namely: P0 (without fertilizer), P1 (ZA fertilizer 20 gr / plant), P2 (NPK fertilizer 28 gr / plant), P3 (KBT fertilizer 362 gr / plant), P4 (KBT Fertilizer 181 gr + ZA Fertilizer 10 gr / plant), P5 (KBT Fertilizer 241 g + ZA Fertilizer 7 g / plant), P6 (KBT Fertilizer 302 gr + ZA Fertilizer 3 gr / plant), P7 (KBT Fertilizer 181 gr + NPK Fertilizer 14 gr / plant), P8 (KBT Fertilizer 241 g + NPK Fertilizer 9 g / plant), P9 (KBT Fertilizer 302 g + NPK Fertilizer 5 g / plant). The variables observed were plant height, number of leaves, stem diameter, leaf length, leaf width, wet weight, and dry weight. The results showed that the combination treatment of organic matter and inorganic fertilizers had a significant effect on the parameters of wet weight and leaf dry weight. The largest average wet weight of tobacco leaves was in treatment P8 (KBT 241 grams and NPK 9 grams), while treatment P1 (ZA 20 grams) gave the largest average value of dry weight of tobacco leaves.

Keywords: Kasturi Tobacco, Agronomic Characteristics, Combinations, Organic Materials, Inorganic Fertilizers