THE EFFECT OF *TRICHODERMA* APPLICATION ON THE PRELIMINARY YIELD TEST SOME SWEET CORN GENOTYPES (*Zea mays* L. *saccharata* Sturt)

By : Nihan Ayu Shabrina Gupitasari
Supervised by : Ami Suryawati *and* Endah Wahyurini

ABSTRACT

Sweet corn is a staple commodity whose consumer demand increases every year, while productivity levels are still not comparable. Application of Trichoderma sp. *can have a positive impact on plant productivity because it acts as a growth stimulator to a biological agent. A yield test is one of the steps in plant breeding that needs to be done to determine the yield potential before it is cultivated. This study aims to determine the yield of sweet corn genotypes by application Trichoderma sp. The study used a randomized complete block design (RCBD) with 2 factors and 3 replications. The first factor was sweet corn genotypes, namely TLT 2-9, SBD 2-23, TLSB 3-3, and CMP 3-63, with the comparison genotypes Talenta and Sweet Boy. The second factor was Trichoderma* sp. *doses with various doses, namely 20 tons/acre; 25 tons/acre; and 30 tons/acre. The results showed that there was no interaction between genotypes and Trichoderma dosage, genotype TLT 2-9 showed the best results among the tested genotypes, and there were optimal doses of Trichoderma i.e., 25.9 tons/acre for increased plant height 3 WAP ; 25.8 ton/acre for increased number of leaves ; 22.6 ton/acre for suppressing the disease occurrence of downy mildew ; 23.7 ton/acre for increased antehesis blooming ; and 25.8 ton/acre for increased the weight of cob with cornhusk.*

***Keywords**: Trichoderma, sweet corn genotypes, preliminary yield test.*