

## **ABSTRACT**

*Earthworms are an important driver of the substrate process to change biological activity which has several ingredients that can be utilized. In earthworm production activities, each of these stages requires several factors that are not fully capable of providing optimal quality. This study uses the fuzzy DEMATEL method to determine the factors that affect the quality of earthworms. These results will then be used in the preparation of the proposed quality strategy recommendations. Quality is the totality of the characteristics of a product that indicate the product's ability to provide the satisfaction of a specific requirement. The questionnaire survey and interviews were started by determining the number of samples using purposive sampling technique and distributing 10 questionnaires to 's earthworm workers. The survey results that have been collected and declared valid are then processed using the DEMATEL fuzzy method. The results showed that the cause group consisted of vegetable waste, lumbricus rubellus worm, lumbricus terrestris worm, lumbricus festivus worm, and labor. Meanwhile, the effect groups are temperature, pH, humidity, soil density, production yield, maintenance period, cow dung waste.*

**Keywords:** *The earthworm, Fuzzy DEMATEL, Quality*