Sistem Pakar Analisis Kesesuaian Lahan Untuk Tanaman Perkebunan Menggunakan Metode *Fuzzy Inference System Mamdani.*
Expert System for Land Suitability Analysis for Sugar Cane Using the Mamdani Fuzzy Inference System Method.

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ABSTRACT

Land suitability is in accordance with the land parcel for a particular use. Land classification which involves comparison (matching) between land quality and desired land use needs. The purpose of this research is to create an expert system to be able to determine the accuracy of plantation land based on rainfall, soil pH and soil depth. So that it can maximize yields for farmers. Expert systems are artificial intelligence programs that combine basic with inference systems, and the development of innovative innovations in knowledge gathering. Fuzzy logic has great potential to effectively solve uncertainty about uncertainty. Fuzzy inference is a mapping process from a given input to an output using fuzzy logic. Mapping then becomes the basis for decision making. FIS (Fuzzy Inference System) Mamdani is one of the most frequently used reasoning methods (inference) for fuzzy logic control problems. The Mamdani Fuzzy Inference System is more like a human mindset because these functions are equally consistent in the Mamdani fuzzy set - FIS in computing to get the expected output.

Keywords: *Land Suitability, Fuzzy Inference System Mamdani, Expert System.*