

(Decision Support System for Selecting Types of Crops Using the Analytical Hierarchy Process (AHP) and Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS): A Case Study in Jabung Sisir Village)

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ABSTRACT

The agricultural sector is crucial to Indonesia's economy, but poor crop selection often reduces productivity. This study developed a web-based Decision Support System (DSS) using the Analytical Hierarchy Process (AHP) to determine criterion weights, and TOPSIS to rank crop alternatives based on land conditions and planting history. Built with Laravel 11, Tailwind CSS, and MySQL, the system was tested using Black Box and User Acceptance Testing (UAT), resulting in a 91.3% satisfaction rate. The system helps farmers make objective, efficient crop selection decisions.

Keywords: *Decision Support System, AHP, TOPSIS, Crop Recommendation, Agriculture.*