

ABSTRACT

DECISION SUPPORT SYSTEM OF LAND FITNESS RECOMMENDATIONS FOR PORANG PLANT USING THE WEB-BASED TOPSIS METHOD

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A decision support system is a system that is able to provide problem solving in semi-structured and unstructured conditions. The porang plant has many benefits for body health, resulting in soaring demand for the export market. However, there is still very little literature that explores selecting the best land for cultivating porang plants. This research aims to design a Decision Support System (DSS) to determine the best land for planting porang plants using the TOPSIS method with calculation stages starting with weighting, determining a normalized matrix, determining positive and negative ideal solutions, determining the distance of alternative weighted values from the positive and ideal solutions. negative, calculate preference and ranking values. The research method is conducting literature studies and observations as well as interviews with the Kudus Regency Agriculture Service and Porang Farmers. The results of the research produced SPK recommendations for the best land for cultivating porang plants using the TOPSIS method and showed that land in Kedungsari Village, Gebog District is the best land for cultivating porang plants with a value of 0.900. The conclusion of the research is that based on testing using the Blackbox method, the results obtained are appropriate, namely the system runs well without any errors so that the decision support system is able to provide recommendations for the best land suitability for porang plants.

Keywords: Plants, Porang, Land, SPK, TOPSIS