UNIVERSITI TEKNOLOGI MARA

SOIL SUITABILITY ANALYSIS FOR HARUM MANIS MANGO CULTIVATION IN UITM ARAU, PERLIS

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Thesis submitted in fulfillment
of the requirements for the degree of
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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Perlis is one of the largest mango producers in Malaysia cultivating Sala, Harum Manis, Thong Dam, Thong Dam Burma, and Melele. The variety that becomes chosen is Harum Manis because of its aroma, texture, and sweetness. In addition, the production of quality Harum Manis mango depends on intensive care that is needed by the plant such as soil suitability, weather and temperature. The soil suitability is an important role as a nutrient source by plant in maximizing plant growth. The aim of this study is to determine the suitability of soil for the Harum Manis Mango Cultivation in UiTM Arau, Perlis using AHP method. To achieve the aim of this study, there are three objectives that will be performed which is to identify bulk density, soil pH, and organic matter content value using Inverse Distance Weight (IDW) interpolation method, to determine criteria weight of parameter using Analytic Hierarchy Process (AHP) method, and to determine soil suitability for Harum Manis Mango cultivation in UiTM Arau, Perlis. The results of this study will show the potential of soil suitability for Harum Manis cultivation area based on a combination of three criteria weight values, which is bulk density, soil pH and organic matter content.

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