

RICHFIANSYAH IRHAM, STUDY OF LAND SUITABILITY FOR SOME PLANTS IN IYA VULCANOS AREA, ENDE REGENCY, EAST NUSA TENGGARA.

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ABSTRACT

The area of Iya volcanos around has potentially for cultivate some plants. The present study was conducted to determine the land suitability of some plants. Survey method was used on this study and purposive was used to determined the sampling points. The sampling point was determined based on their altitude, such as Iya 1 (100-200 mdpl), Iya 2 (200-300 mdpl), Iya 3 (300-400 mdpl), Roja 1 (100-200 mdpl), Roja 2 (200-300 mdpl), Iya 4 (400-500 mdpl) and Iya 5 (500-600 mdpl). The parameters which were analyzed were temperature, water availability, oxygen availability, rooting medium, nutrient retention, toxicity, erosion hazardous, floods and land preparation. The result showed that the actual land suitability classification for coconut palms (*Cocos nucifera*) and cocoa (*Theobroma cacao*) are N2 (Permanently Not Suitable) with restriction factor water availability. The actual land suitability classification for sorghum (*Sorghum bicolor*) and mango (*Mangifera indica* L.) are S3 (Marginal Suitable) in almost location.

Key words: land suitability, coconut palms, cocoa, sorghum, mango, Iya volcanos