UNIVERSITAS GADJAH MADA
PENGARUH TEKNIK PEMANGKASAN TERHADAP KEMAMPUAN BERTUNAS TANAMAN KAYU PUTIH DAN PRODUKSI JAGUNG PADA SISTEM AGROFORESTRI KAYU PUTIH-JAGUNG (STUDI KASUS DI RPH GROGOL, BDH PALIYAN, KPH YOGYAKARTA)
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THE EFFECT OF HARVESTING TECHNIQUES ON KAYU PUTIH SHOOTS GROWTH AND MAIZE PRODUCTIONS IN KAYU PUTIH – MAIZE AGROFORESTRY SYSTEM (STUDY IN RPH GROGOL, BDH PALIYAN, KPH YOGYAKARTA)

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ABSTRACT

Melaleuca cajuputi is one of the essential oil - producing species that have a great demand in Indonesia. It is necessary to apply the appropriate silvicultural techniques to increase kayu putih productivities. This study aims to see the effect of kayu putih harvesting techniques on shoots growth and maize productions in the agroforestry system.

The research was conducted in KPH Yogyakarta land with three measuring plots of 15 m x 20 m with three sub - plots measuring of 5 m x 20 m. The harvesting techniques used were pangkas cabang, klacir, and rimbas. Maize were planted at a spacing of 75 cm x 20 cm and a distance of 50 cm from the kayu putih tree. The growth of kayu putih shoots was observed for six months. Maize productions were measured based on weight of maize grain and weight of other biomass. Data were analyzed using time series analysis and ANOVA test followed by Tukey HSD test.

Pangkas cabang technique showed the best response on shoot growth with average number of shoots (106 shoots per tree), length (36.1 cm), diameter (0.40 cm), number of leaves (46 leaves per shoot), and the number of twigs (7 twigs per shoot). In general, the application of those three harvesting techniques did not have a significant effect on maize grain production, but did significant affect on other biomass production. Maize grain production ± 8,64 – 9,23 tonnes per hectare (SD = 0,594; F = 1,107; P value > 0,05) and other biomass production ± 7,02 – 7,57 tonnes per hectare (SD = 0,336; F = 6,465; P value < 0,01).

Key word: agroforestry, harvesting, kayu putih, shoot, maize

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