

Performance of intercropping corn on mature oil palm plantations on dry land

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ABSTRACT

The intercropping area (IC) is around 0.5 ha from one hectare of mature oil palm (YH). The research aimed to observe the growth and yield of corn from the Bisi 16 variety in oil palm plantations from the SJ 5 variety and the effect of corn as IC on oil palm. The research location was in Mesuji Raya Sub-district, Ogan Komering Ilir, South Sumatra, from April 2024 to July 2024. The interspace number of oil palm of 1 ha were 12 and it was six interspaces as the object research was as frond staking. The research method used was non-experimental. Each of front staking had two sample plots of corn (3×3 m), and samples selected for each plot were 15 crops. For oil palm (8×8×8 m) two samples of crops were beside the corn plot. The total of oil palm samples was 24 crops from oil palm IC, and compared to 24 crops from monoculture. The research results showed that the growth of IC corn was lower for plant height (16%), and the reduction in corn yield (26%) from one ha compared to the description. The total yield from corn IC was approximately 2.09 tons of corn shells, which were lower from monoculture description. The growth and yield of oil palm IC were better than monoculture, with an increase a number of fruit bunches (9%) and FFB weight (11%). Corn is an intercrop/polyculture crop in oil palm plantations after one or two years of production.

Keywords: food crops, frond staking, path, plantation crops, polyculture

INTRODUCTION

The area for oil palm cultivation includes wetlands and drylands because various new varieties have been discovered that are adaptive and high-yielding on both lands. In 2023, there will be approximately 15.4 million hectares of oil palm cultivation areas in Indonesia (BPS, 2024). The use of the surjan system in oil palm cultivation and continuous air flooding, and polyculture planting with food crops in swampy areas are challenges in oil palm polyculture (Namanji et al., 2021). Oil palm cultivation on dry land was relatively easier to implement overlapping, especially for replanting, which was expected to reach 480,000 ha in 2023 (BPDPKS, 2023). Since 2017, oil palm replanting in South

Sumatra had reached 70,000 ha (Disbun Sumsel, 2023). Oil palm cultivation on dry land is relatively easier to implement overlapping, especially for replanting, which was expected to reach 480,000 ha in 2023 (BPDPKS, 2023). Since 2017, oil palm replanting in South Sumatra had reached 70,000 ha (Disbun Sumsel, 2023). Since 2017, oil palm replanting in South Sumatra had reached 70,000 ha (Disbun Sumsel, 2023). To optimize the productivity of oil palm replanting, the Ministry of Agriculture had directed this land to be polycultured or intercropped with food crops such as upland rice and corn. Meanwhile, for oil palm that is more than 10 years old, it can be mixed with red ginger (Edvanido et al., 2023). Farmers or oil palm companies often cultivate corn plants as a



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Accepted Letter

2 pesan

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Dear. Mr./Mrs.,
Muhammad Umar Harun
Department of Agonomi, Faculty of Agriculture, Universitas Sriwijaya

we would like to inform you that based on the result of peer review on the following article:

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Thank you for your attention and cooperation.

With kind regards,
Chief Editor
Jurnal Lahan Suboptimal : Journal of Suboptimal Lands
Prof. Siti Herlinda

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ok..thanks Prof. Linda...

[Kutipan teks disembunyikan]