



INTISARI

Sawah surjan adalah sawah yang memiliki ledokan dan guludan, ledokan digunakan untuk budidaya padi sedangkan guludan untuk budidaya palawija dan hortikultura, namun penggunaan pupuk di sawah surjan ini melebihi dosis pupuk yang dianjurkan, hal ini tentu akan berdampak buruk terhadap keberlanjutan agroekosistem surjan, sehingga perlu adanya kajian tentang bagaimana mengoptimalkan produksi padi di ledokan sawah surjan dengan memanfaatkan limpasan pupuk dari guludan yang ditanami palawija dan hortikultura secara polikultur. Tujuan dari penelitian ini adalah mengetahui kombinasi polikultur di guludan yang mampu memberikan pertumbuhan dan hasil terbaik pada padi di ledokan sawah surjan. Penelitian ini dilakukan di lahan sawah surjan Desa Tayuban, Kecamatan Panjatan, Kabupaten Kulon progo dengan menggunakan rancangan *strip plot* dengan dua faktor yaitu kombinasi polikultur di guludan meliputi polikultur bawang merah dengan cabai polikultur jagung dengan kedelai, dan polikultur jagung dengan sawi, serta dosis pupuk padi di ledokan yaitu 50% kebiasaan petani dan 100% kebiasaan petani. Hasil penelitian menunjukkan bahwa ada interaksi antara perlakuan kombinasi polukultur di guludan dan dosis pupuk di ledokan sawah surjan pada beberapa variabel yaitu luas permukaan akar, kadar P, serapan P, sekapan cahaya 8 mst, berat segar daun 4 mst, dan berat kering batang 4 mst. Perlakuan kombinasi polikultur di guludan memberikan pengaruh yang tidak berbeda terhadap pertumbuhan dan hasil padi di ledokan sawah surjan. Penurunan dosis pupuk dari 100% menjadi 50% kebiasaan petani meskipun menurunkan pertumbuhan tetapi tidak menurunkan hasil padi di ledokan

Kata kunci : surjan, padi, polikultur, dosis pupuk

ABSTRACT

Surjan rice fields are rice fields that have ledges and mounds, ledges are used for rice cultivation while mounds are for secondary crops and horticulture. However, the use of fertilizer in this surjan rice field exceeds the recommended dose of fertilizer, this will certainly have a negative impact on the sustainability of the surjan agroecosystem. So it is necessary to study how to optimize rice production in surjan rice fields by utilizing fertilizer runoff from mounds planted with secondary crops and horticulture in a polyculture manner. The purpose of this study was to determine the combination of polyculture in the rised-bed that can provide the best growth and yield on rice in the sunken-bed of surjan rice fields. This research was conducted in the surjan rice field of Tayuban Village, Panjatan Subdistrict, Kulon progo Regency using a strip plot design with two factors, namely a combination of polyculture in the mound including polyculture of shallots with chili, polyculture of corn with soybeans, and polyculture of corn with mustard, as well as the dose of rice fertilizer in the ledge, namely 50% of farmers' habits and 100% of farmers' habits. The results showed that there was interaction between the combined treatment of polyculture in the mounds and the dose of fertilizer in the ledge of surjan rice fields on several variables, namely root surface area, P content, P uptake, light absorption 8 wap, fresh weight of leaves 4 wap, and dry weight of stems 4 wap. The combined treatment of polyculture in the raised-bed gives no different effect on the growth and yield of rice in sunken-bed of surjan rice fields. Decreasing the fertilizer dose from 100% to 50% of the farmer's habit although it reduces growth but does not reduce the yield of rice in the sunken-bed of surjan rice field.

Keywords: surjan, rice, polyculture, fertilizer dose