

ABSTRACT

EFFECT OF CROPPING PATTERN AND FERTILIZER DOSE APPLIED IN RAISED-BED ON THE GROWTH AND YIELD OF RICE (*Oryza sativa* L.) IN SUNKEN-BED OF THE SURJAN RICE FIELD

DAMAR SURYANINGNDARI
15/388557/PPN/3952

*Surjan system (alternating bed system) is an agricultural system that combines dry and wet bedding system. It integrates food crop culture in the sunken-bed and annual crops in the raised-bed of the rainfed rice field. In Bantul, farmers commonly apply Surjan system in rice field by growing shallot (*Allium cepa* L. aggregatum group) and chili (*Capsicum annuum* L.) in the raised-bed, whereas no crop is grown in the sunken-bed. The purpose of this research was to study the growth and yield of rice grown in sunken-bed of the Surjan rice field by utilizing fertilizer runoff from raised-bed with different cropping pattern and fertilizer dose. All treatments were laid out in a split plot design where the cropping pattern, namely shallot monoculture and intercropping shallot with chili, occupying the main plot and the fertilizer dose applied in raised-bed, namely 100% farmer's habit; 50% farmer's habit; and 25% farmers' habit, occupying the sub plot. The results showed that there was no interaction between cropping pattern and fertilizer dose applied in raised-bed of the Surjan rice field on the growth and yield of rice in sunken-bed. The growth and yield of rice in sunken-bed of the Surjan rice field were same although used fertilizer runoff from raised-bed with different cropping pattern and fertilizer dose. The used of fertilizer dose according to farmer's habit or reduction of the fertilizer dose from farmer's habit on raised-bed of the Surjan rice field with different cropping pattern get the same growth and yield of rice in sunken-bed.*

Keywords: rice cultivation in sunken-bed, Surjan rice field, land intensification

INTISARI

PENGARUH POLA TANAM DAN TAKARAN PUPUK DI GULUDAN TERHADAP PERTUMBUHAN DAN HASIL PADI (*Oryza sativa* L.) DI LEDOKAN SAWAH SURJAN

DAMAR SURYANINGNDARI
15/388557/PPN/3952

Sistem surjan merupakan sistem pertanian yang memadukan sistem sawah yang bersifat basah dan sistem tegalan yang bersifat kering. Kedua bidang tanam tersebut dapat ditanami jenis tanaman yang berbeda. Di Kabupaten Bantul, petani menerapkan sistem surjan di lahan sawah untuk budidaya tanaman bawang merah (*Allium cepa* L. *aggregatum* group) dan cabai (*Capsicum annuum* L.) di bagian guludan, sedangkan di bagian ledokan belum digunakan untuk kegiatan budidaya. Tujuan penelitian ini adalah mempelajari pertumbuhan dan hasil padi di ledokan sawah surjan yang memanfaatkan limpasan pupuk dari guludan dengan pola tanam dan takaran pupuk berbeda. Penelitian ini menggunakan rancangan petak terbagi (*split plot*). Petak utama percobaan adalah pola tanam di guludan, yaitu monokultur bawang merah dan tumpangsari bawang merah dengan cabai. Anak petak percobaan adalah takaran pupuk di guludan, yaitu 100% kebiasaan petani; 50% kebiasaan petani dan 25% kebiasaan petani. Hasil penelitian menunjukkan bahwa tidak terjadi interaksi antara pola tanam dengan takaran pupuk di guludan sawah surjan terhadap pertumbuhan dan hasil padi di ledokan. Pertumbuhan dan hasil padi di ledokan sawah surjan sama meskipun memanfaatkan limpasan pupuk dari guludan dengan pola tanam dan takaran pupuk berbeda. Penggunaan takaran pupuk sesuai kebiasaan petani ataupun pengurangan takaran pupuk dari kebiasaan petani di guludan sawah surjan dengan pola tanam berbeda mendapatkan pertumbuhan dan hasil padi yang sama di ledokan.

Kata kunci: budidaya padi di ledokan, sawah surjan, intensifikasi lahan