

**UJI TEKNIS KINERJA ALAT TANAM BIJIAN DENGAN PENGGERAK
TRAKTOR TANGAN PADA BERBAGAI VARIASI KARAKTERISTIK
BENIH**

INTISARI

OLEH:

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Penggunaan alat tanam tipe dorong cenderung kurang efisien dalam hal waktu, tenaga, dan akurasi penanaman biji-bijian. Oleh karena itu, dilakukan uji kinerja alat tanam bijian dengan penggerak traktor tangan untuk mengatasi kendala ini. Dengan harapan mampu meningkatkan produktivitas alat tanam biji-bijian. Penelitian bertujuan mengamati kinerja alat tanam yang dimodifikasi dengan penggerak traktor tangan. Fokus pengamatan yaitu kapasitas lapang alat, hasil keluaran benih, kesesuaian penakar benih, dan permasalahan teknis. Metode penelitian melibatkan pengamatan langsung dan pengolahan data untuk mengukur efisiensi lapang alat. Efisiensi lapang alat dari tiap pengujian benih yaitu, benih jagung hibrida sebesar 89,64%, benih edamame 90,60%, dan benih kacang panjang 89,51%. Keluaran benih tunggal terbanyak adalah benih jagung hibrida dan edamame, mencapai 62,50%. Namun, benih edamame dan kacang panjang memiliki keluaran benih kosong yang tidak sesuai dengan Standar Nasional Indonesia (SNI) alat penanam biji-bijian yaitu benih edamame 2,78% dan benih kacang panjang 3,47%. Saran penelitian mencakup pengembangan rancangan kerangka alat agar sesuai dengan kontur lahan, perbaikan pengolahan lahan, dan penyesuaian untuk meningkatkan keseragaman benih yang akan diuji.

Kata kunci: Kinerja alat, traktor tangan, alat tanam bijian

EVALUATION OF THE PERFORMANCE ON GRAINS SEEDER BY HAND TRACTOR DRIVER WITH VARIOUS SEED CHARACTERISTICS

ABSTRACT

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The use of push-type planting tools is relatively less efficient in terms of time, labor, and accuracy of grain planting. Therefore, a performance test of a grains seeder by hand tractor driver was conducted to overcome this obstacle. With the hope of increasing the productivity of grain seeders. The research aims to observe the performance of modified planting tools with hand tractor drives. The focus of observation was on the field capacity of the tool, seed output, suitability of the seed metering device, and technical problems. The research method involved direct observation and data processing to measure the tool's field efficiency. The field efficiency of the tool from each seed test is 89.64% for hybrid corn seeds, 90.60% for edamame seeds, and 89.51% for long bean seeds. The highest single seed output was hybrid corn and edamame seeds, reaching 62.50%. However, edamame and long bean seeds had empty seed output that did not comply with the Indonesian National Standard (SNI) for grain planter tools, namely edamame seeds at 2.78% and long bean seeds at 3.47%. Research suggestions include developing the design of the tool frame to fit the contours of the land, improving land management, and making adjustments to improve the uniformity of the seeds to be tested.

Keywords: *hand tractor, device performance, grains seeder*