

**EFEKTIVITAS KEBUTUHAN BENIH TERHADAP
PERTUMBUHAN DAN HASIL GANDUM (*Triticum aestivum* L.)
PADA VARIETAS GURI 5 AGRITAN DAN GURI 6 UNAND DI
ALAHAN PANJANG**

SKRIPSI



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EFEKTIVITAS KEBUTUHAN BENIH TERHADAP PERTUMBUHAN DAN HASIL GANDUM (*Triticum aestivum* L.) PADA VARIETAS GURI 5 AGRITAN DAN GURI 6 UNAND DI ALAHAN PANJANG

Abstrak

Gandum merupakan komoditas pangan yang kebutuhan nasional didominasi impor karena produksi dalam negeri belum mampu memenuhinya. Pengembangan budidaya gandum di dataran tinggi tropis menjadi upaya meningkatkan produksi dalam negeri. Penentuan kebutuhan benih berperan dalam mengatur kerapatan populasi dan kompetisi antar tanaman sehingga memengaruhi pertumbuhan dan hasil gandum. Penelitian ini bertujuan mengetahui interaksi antara varietas dan kebutuhan benih serta pengaruh masing-masing faktor terhadap pertumbuhan dan hasil gandum. Penelitian dilaksanakan dari Oktober 2025 sampai Februari 2026 menggunakan Rancangan Acak Kelompok (RAK) faktorial dengan dua faktor, yaitu varietas (GURI 5 AGRITAN dan GURI 6 UNAND) dan kebutuhan benih (50, 75, 100, dan 125 kg ha⁻¹), dengan tiga ulangan. Data dianalisis dengan uji F taraf 5% dan dilanjutkan DNMRT taraf nyata 5%. Hasil menunjukkan adanya interaksi antara varietas dan kebutuhan benih pada bobot 1000 butir. Varietas GURI 6 UNAND menghasilkan anakan produktif, hasil per petak dan hasil per hektar lebih tinggi dibandingkan GURI 5 AGRITAN. Kebutuhan benih 100 kg ha⁻¹ menghasilkan anakan produktif, panjang malai, jumlah biji per malai, jumlah biji bernas per malai, hasil per petak dan hasil per hektar. Berdasarkan penelitian kebutuhan benih 100 kg ha⁻¹ pada varietas GURI 6 UNAND direkomendasikan untuk pengembangan budidaya gandum di dataran tinggi Alahan Panjang.

Kata kunci: Gandum, Interaksi, Kebutuhan Benih, Kerapatan Populasi, Varietas.

EFFECTIVENESS OF SEED REQUIREMENT ON THE GROWTH AND YIELD OF WHEAT (*Triticum aestivum* L.) IN THE GURI 5 AGRITAN AND GURI 6 UNAND VARIETIES IN ALAHAN PANJANG

Abstract

Wheat is a food crop whose national demand is still largely met through imports because domestic production has not yet been able to satisfy it. The development of wheat cultivation in tropical highlands is an effort to increase domestic production. Determining the appropriate seed rate plays an important role in regulating plant population density and interplant competition, thereby affecting wheat growth and yield. This study aimed to determine the interaction between variety and seed rate, as well as the effect of each factor on wheat growth and yield. The experiment was conducted from October 2025 to February 2026 using a factorial Randomized Complete Block Design (RCBD) with two factors: wheat varieties (GURI 5 AGRITAN and GURI 6 UNAND) and seed rates (50, 75, 100, and 125 kg ha⁻¹), with three replications. Data were analyzed using analysis of variance (F-test) at the 5% significance level, followed by Duncan's New Multiple Range Test (DNMRT) at the 5% significance level. The results showed a significant interaction between variety and seed rate on 1,000-grain weight. GURI 6 UNAND produced a higher number of productive tillers, plot yield, and hectare yield than GURI 5 AGRITAN. A seed rate of 100 kg ha⁻¹ resulted in the highest number of productive tillers, spike length, number of grains per spike, number of filled grains per spike, plot yield, and hectare yield. Based on the results of this study, a seed rate of 100 kg ha⁻¹ for the GURI 6 UNAND variety is recommended for wheat cultivation in the Alahan Panjang highlands.

Keywords: Interaction, Plant population, Seed rate, Variety, Wheat, Yield.