

INTISARI

Produktivitas kacang panjang selama beberapa tahun terakhir menurun. Akselerasi Awal Pembungaan Kacang Panjang (*Vigna unguiculata* subsp. *sesquipedalis*) melalui Pembatasan Tumbuh Akar dan Induksi Cekaman Kekeringan Ringan dapat digunakan sebagai metode *Rapid Generation Advance*. Penelitian ini bertujuan untuk mengetahui respon kacang panjang baik pertumbuhan maupun waktu berbunga terhadap cekaman kekeringan dan pembatasan tumbuh akar. Penelitian ini dilakukan di rumah kaca Fakultas Pertanian, Universitas Gadjah Mada pada bulan Oktober 2020 – Desember 2021. Percobaan disusun dengan Rancangan Acak Kelompok Lengkap Faktorial dengan 3 blok sebagai ulangan dan 6 varietas. Faktor pertama yakni periode penyiraman 2 hari, 5 hari dan 10 hari. Faktor kedua volume tanah 2 kg, 4 kg, dan 6 kg. Varietas yang diuji yakni ‘Katon Tavi’, ‘Parade Tavi’, ‘Pertiwi’, ‘Persada 35’, ‘OR Hijau Shine’ dan ‘Black Seed’. Hasil penelitian memberikan informasi bahwa respon tanaman kacang panjang terhadap cekaman kekeringan berbeda – beda. Pemberian cekaman kekeringan ringan dan pembatasan tumbuh akar mampu mempersingkat waktu berbunga kacang panjang varietas ‘Persada 35’. Kombinasi perlakuan periode penyiraman 5 hari dan volume tanah 4 kg memberikan efek waktu berbunga pertama 35 hari. Kombinasi perlakuan periode penyiraman 2 hari dan volume tanah 6 kg memberikan efek waktu berbunga pertama 40 hari.

Kata Kunci : cekaman kekeringan, kacang panjang, pembatasan tumbuh akar, varietas

ABSTRACT

Long bean are a vegetable commodity that in great demand by Indonesian. Long beans have an abundant source of nutrition, taste delicious and easy to process. Long bean productivity has declined over the last few years. *Accerelation of Long Beans (Vigna unguiculata subsp. sesquipedalis) Flowering Initiation through Root Growth Restriction and Induction of Mild Drought Stress* can be used as an RGA method. This research aims to determine the response of long beans, both growth and flowering time, to drought stress and root growth restrictions. This research was conducted in the greenhouse of the Faculty of Agriculture, Gadjah Mada University in October 2020 – December 2021. The experiment was arranged using a Randomized Factorial Complete Group Design with 3 blocks as replications and 6 varieties used. The first factor is the watering period of 2 days, 5 days and 10 days. The second factor is soil volume 2 kg, 4 kg, and 6 kg. The varieties tested were 'Katon Tavi', 'Parade Tavi', 'Pertiwi', 'Persada 35', 'OR Hijau Shine' and 'Black Seed'. The results of the research provide information that the response of long bean plants to drought stress varies. Providing mild drought stress and limiting root growth was able to shorten the flowering date of the long bean variety 'Persada 35'. The combination of treatment with a watering period of 5 days and a soil volume 4 kg gave an effect of a first flowering time 35 days. Combination of treatment with a watering period 2 days and soil volume 6 kg gave an effect of a first flowering time 40 days.

Keywords: drought stress, long beans, root growth limitation, varieties