

Intisari

Penelitian bertujuan untuk mengetahui pengaruh naungan terhadap pertumbuhan dan hasil tiga kultivar kedelai, menentukan kultivar kedelai paling toleran terhadap naungan diantara tiga kultivar yang diuji, dan menentukan waktu naungan kritis terbaik dalam pemilihan kultivar kedelai toleran naungan. Penelitian lapangan dilaksanakan pada 12 Juli – 9 Oktober 2015 di lahan pasir pantai, Desa Bugel, Kecamatan Panjatan, Kabupaten Kulon Progo, Provinsi Daerah Istimewa Yogyakarta.

Penelitian terdiri atas dua faktor yaitu naungan dan kultivar dengan menggunakan Rancangan Petak Terbagi (RPT) dengan tiga ulangan. Faktor utama sebagai petak utama adalah naungan yang terdiri dari tiga taraf, yaitu 0%, 25%, dan 50% sedangkan anak petak adalah kultivar kedelai Dena 1, Anjasmoro, dan Grobogan. Data yang diperoleh dianalisis varian (ANOVA) pada taraf signifikansi (α) 5% dan dilanjutkan dengan Uji Jarak Berganda Duncan apabila terdapat beda nyata antar perlakuan. Naungan kritis ditentukan menggunakan persamaan regresi antara intensitas naungan dengan berat kering biologis.

Hasil penelitian menunjukkan bahwa pertumbuhan tanaman tiga kultivar kedelai tidak berbeda secara signifikan. Naungan 25% (53.700 *lux*) tidak menurunkan pertumbuhan tanaman kedelai namun naungan 50% (26.663 *lux*) menurunkan pertumbuhan tanaman kedelai secara signifikan. Naungan 25% dan 50% mengakibatkan penurunan hasil biji taksiran kedelai Dena 1 sebesar 17,41% dan 34,38%, Anjasmoro 22,87% dan 45,74%, serta Grobogan 12,33% dan 23,79%. Berdasarkan tingkat naungan kritisnya maka kultivar Grobogan merupakan kultivar paling toleran terhadap naungan daripada kultivar Dena 1 dan Anjasmoro serta berat kering biologis pada umur 4 mst dapat digunakan untuk menentukan kultivar kedelai toleran naungan.

Kata kunci : kedelai, naungan, naungan kritis, toleran, kultivar

Abstract

The objectives of this research are: (1) to know the effect of shade to the growth and result of three soybean cultivars; (2) to find out the most tolerant soybean cultivar towards the shade among those three tested cultivars; and (3) to find out the best critical time for the shade in finding out the most tolerant soybean cultivar towards the shade. The field experiment was conducted on July 12 – October 19, 2015 at the land of coastal sand at Bugel region, Panjatan subdistrict, Kulon Progo district, Daerah Istimewa Yogyakarta province.

The research consists of two factors, shade and cultivar. The experiment was arranged in a Split Plot Design in three times repetition. The main factor as the main plot is the shade consisting of three levels: 0%, 25%, and 50%. In addition, the sub plot is the soybean cultivars such as Dena 1, Anjasmoro, and Grobogan. The resulted data was analyzed statistically using ANOVA with the significant level (α) 5% and continued with Duncan's multiple range test if there is a significant difference among the treatments. The critical shade was found out by regression equation between the shade intensity and biological dry weight.

The result of the research shows that the growth of three soybean cultivars is not significantly different. Shade 25% (53.700 *lux*) does not drop off the soybean growth. However, shade 50% (26.663 *lux*) drops off the soybean growth significantly. Shade 25% and 50% impacts on the drop of yields estimated for Dena 1 as in 17,41% and 34,38%, for Anjasmoro 22,87% and 45,74%, as well as Grobogan 12,33% and 23,79%. Based on the level of critical shade it is found out that Grobogan cultivar is most tolerant towards the shade than Dena 1 cultivar and Anjasmoro cultivar. In addition, the biological dry weight of the 4-week soybeans can be used to find out the soybean cultivar that is tolerant towards the shade.

Key words: soybean, shade, critical shade, tolerant, cultivar