PUTRI RAIHAN KAOTJIL. 04311811003. UJI VIABILITAS POLEN BEBERAPA AKSESI BUNGA TELANG (*Clitoria ternatea* L.)
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RINGKASAN

Polen atau serbuk sari adalah organ jantan pada tumbuhan yang berperan penting dalam proses evolusi tumbuhan. Ketersediaan polen dengan viabilitas yang tinggi merupakan salah satu komponen yang menentukan keberhasilan persilangan tanaman. Viabilitas polen juga dapat mempengaruhi viabilitas benih yang dihasilkan. Viabilitas polen dapat diketahui dengan mengecambahkan polen pada media yang sesuai. Penelitian tentang uji viabilitas polen beberapa aksesi bunga telang dilakukan untuk mengetahui viabilitas polen dan kualitas biji pada beberapa aksesi telang berbeda di Kota Ternate.

Penelitian ini terdiri atas 2 percobaan yaitu penelitian lapangan yang dilaksanakan pada 5 lokasi aksesi bunga telang di Kota Ternate dan penelitian laboratorium yang dilaksanakan di Laboratorium Agroteknologi, Universitas Khairun. Penelitian lapangan dilakukan dengan Rancangan Acak Kelompok (RAK) yang terdiri dari 5 kelompok dan penelitian laboratorium dilakukan dengan Rancangan Acak Lengkap (RAL) yang terdiri dari 5 ulangan. Masing-masing rancangan terdiri atas 5 perlakuan berupa, A1 = aksesi telang fitu, A2 = aksesi telang bastiong, A3 = aksesi telang dufa-dufa, A4 = aksesi telang tubo dan aksesi telang tafure. Setiap percobaan terdiri dari 25 unit percobaan. Parameter pengamatan pada percobaan 1 yaitu pembuahan (%), jumlah biji per polong, biji bernas (%), biji rudimenter (%) dan pada percobaan 2 yaitu viabilitas polen, kecambah normal (%), kecambah abnormal (%), polen tidak berkecambah (%). Data yang didapatkan di analisis dengan analisis ragam (uji F) taraf 5%, bila menunjukkan pengaruh nyata dilanjutkan dengan uji BNT dengan taraf 5%.

Hasil penelitian menunjukkan bahwa (1) Polen dengan viabilitas tertinggi dan memiliki kecambah polen normal tertinggi dijumpai pada perlakuan A2, dengan rata-rata persentase viabilitas 70,37% dan persentase kecambah polen normal 30,96%. (2) jumlah pembuahan tertinggi dijumpai pada perlakuan A4 dengan rata-rata persentase 14,40%, jumlah biji per polong tertinggi dijumpai pada perlakuan A3 dengan rata-rata persentase 9,40%, kualitas biji terbaik dijumpai pada perlakuan A1 dengan rata-rata persentase biji bernas 94,31%.

Kata kunci: bunga telang (*Clitoria ternatea* L.), polen, viabilitas, kualitas biji

PUTRI RAIHAN KAOTJIL. 04311811003. POLLEN VIABILITY TEST OF SEVERAL ACCESSIONS OF TELANG FLOWERS (*Clitoria ternatea* L.)

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ABSTRACT

Pollen is a male organ in plants that plays an important role in the process of plant evolution. The availability of pollen with high viability is one of the components that determine the success of plant crosses. Pollen viability can also affect the viability of the seeds produced. Pollen viability can be determined by germinating pollen on a suitable medium. Research on pollen viability test of several accessions of telang flower was conducted to determine the viability of pollen and quality of seeds in several different accessions of telang in Ternate City.

This study consisted of 2 experiments, namely field research conducted at 5 locations of telang flower accessions in Ternate City and laboratory research carried out at the Agrotechnology Laboratory, Khairun University. Field research was conducted using a Randomized Block Design (RBD) consisting of 5 groups and laboratory research was conducted using a Completely Randomized Design (CRD) consisting of 5 replications. Each design consisted of 5 treatments, A1 = accession of telang fitu, A2 = accession of telang bastiong, A3 = accession of telang dufa-dufa, A4 = accession of telang tubo and accession of telang tafure. Each experiment consisted of 25 experimental units. Parameters observed in experiment 1 were fertilization (%), number of seeds per pod, pithy seeds (%), rudimentary seeds (%) and in experiment 2, pollen viability, normal germination (%), abnormal germination (%), pollen did not germinate. (%). The data obtained were analyzed by analysis of variance (F test) with a level of 5%, if it showed a significant effect, it was continued with the LSD test with a level of 5%.

The results showed that (1) Pollen with the highest viability and having the highest normal pollen germination was found in treatment A2, with an average viability percentage of 70.37% and a percentage of normal pollen germination of 30.96%. (2) the highest number of fertilization was found in treatment A4 with an average percentage of 14.40%, the highest number of seeds per pod was found in treatment A3 with an average percentage of 9.40%, the best seed quality was found in treatment A1 with an average the percentage of pithy seeds is 94.31%.

Key words: telang flower (*Clitoria ternatea* L.), pollen, viability, seed quality