ABSTRAK

DILA, 2021. **PENGARUH PEMBERIAN HORMON BAP (6-BENZYL AMINO PURINE) TERHADAP PERTUMBUHAN TUNAS AKSILAR KENTANG (Solanum tuberosum L.) SECARA IN VITRO.** Jurusan Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi, Tasikmalaya.

Pertumbuhan planlet kentang pada proses subkultur in vitro ditentukan oleh banyak faktor, salah satu diantaranya yaitu pemberian zat pengatur tumbuh dan konsentrasi zat pengatur tumbuh. Penelitian ini bertujuan agar memicu pertumbuhan planlet kentang sehingga pertumbuhannya optimal. Metode yang digunakan adalah metode kuantitatif *true eksperimental* dengan desain Rancangan Acak Lengkap (RAL) satu faktor yaitu variasi konsentrasi BAP yang terdiri dari 5 perlakuan dengan ulangan sebanyak 5 kali. Teknik pengumpulan data melalui observasi atau pengamatan. Parameter yang diamati ialah jumlah tunas, jumlah daun, jumlah akar, dan tinggi planlet. Teknik analisis data yang digunakan yaitu uji *one way* anova dan untuk perbedaan rata-rata antar perlakuan digunakan Uji HSD (*Honestly significant Difference*) taraf 5%. Berdasarkan hasil penelitian diketahui ada pengaruh pemberian hormon BAP (*6-Benzyl Amino Purine*) terhadap pertumbuhan tunas aksilar kentang (*Solanum tuberosum* L.) secara *in vtiro.* Hasil penelitian menunjukan adanya pengaruh signifikan pada parameter jumlah tunas (P=0,007) dengan rata-rata 1,64 buah, jumlah daun (P=0,002) dengan rata-rata 1,42 buah, jumlah akar (P=0,000) dengan rata-rata 1,70 buah, dan tinggi planlet (P=0,000) dengan rata-rata 2,65 cm. Sehingga disimpulkan bahwa perlakuan D (1,5 ppm BAP) merupakan perlakuan terbaik dalam meningkatkan pertumbuhan planlet kentang.

Kata Kunci: *Kultur in vitro, tunas aksilar kentang, hormon BAP*

ABSTRACT

DILA. 2021. ***THE EFFECT OF THE ADMINISTRATION OF THE HORMONE BAP (6-BENZYL AMINO PURINE) ON THE GROWTH OF POTATO AXILLARY SHOOTS (Solanum tuberosum L.) IN VITRO***. *Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya.*

The growth of potato plantlets in the in vitro subculture process is determined by many factors, one of which is the administration of growth regulators and the concentration of growth regulators. This study aims to trigger the growth of potato plantlets so that their growth is optimal. The method used is a true experimental quantitative method with a one-factor Completely Randomized Design (CRD) design, namely variations in BAP concentration consisting of 5 treatments with 5 replications. Data collection techniques through observation or observation. Parameters observed were number of shoots, number of leaves, number of roots, and plantlet height. The data analysis technique used is the one way ANOVA test and for the average difference between treatments, the HSD (Honestly Significant Difference) test at 5% level is used. Based on the results of the study, it was known that there was an effect of giving the hormone BAP (6-Benzyl Amino Purine) on the growth of potato axillary shoots (Solanum tuberosum L.) in vitro. The results showed that there was a significant effect on the number of shoots (P=0.007) with an average of 1.64 pieces, the number of leaves (P=0.002) with an average of 1.42 pieces, the number of roots (P=0.000) with an average of 1. an average of 1.70 pieces, and plantlet height (P=0.000) with an average of 2.65 cm. So it was concluded that treatment D (1.5 ppm BAP) was the best treatment in increasing the growth of potato plantlets.

Keywords*: In vitro culture, potato axillary shoots, BAP hormone*