RESPONS POTONGAN JARINGAN TANAMAN EDELWEISS (*Anaphalis javanica*) pada MEDIUM MURASHIGE-SKOOG DENGAN PENAMBAHAN ZAT PENGATUR TUMBUH

ABSTRAK

Eksploitasi yang dilakukan terus menerus pada tumbuhan dapat menyebabkan kepunahan terhadap jenis-jenis tumbuhan contohnya *Anaphalis javanica* . Tujuan dari penelitian ini untuk mengetahui respons *A. javanica* yang ditanam dalam medium Murashige-Skoog (MS) dengan penambahan zat pengatur tumbuh (ZPT). Potongan jaringan yang digunakan dalam penelitian ini yaitu daun, buku dan pucuk. Zat pengatur tumbuh yang digunakan yaitu Benzyl-amino-purine (BAP), Napthalene-acetic-acid (NAA), 2,4-Dichlorophenoxyacetic acid (2,4-D), kinetin dan Indole-3-butyric acid (IBA). Setelah tiga minggu, potongan jaringan dipindahkan ke medium subkultur. Medium subkultur digunakan untuk multiplikasi tunas, pemanjangan tunas, organogenesis dan perakaran. Hasil penelitian ini menunjukan respons berupa kalus dan tunas. Respons tunas diperoleh dari potongan jaringan buku dan pucuk Respons kalus diperoleh dari potongan jaringan daun. Tunas dari potongan jaringan buku berasal dari konsentrasi BAP 2,5mg/L dan NAA 0 mg/L (B). Tunas dari potongan jaringan pucuk berasal dari konsentrasi BAP 0,75mg/L dan kinetin 0,3 mg/L (U), BAP 1 mg/L dan kinetin 0,3 mg/L (X). Kalus dari potongan jaringan daun berasal dari konsentrasi 2,4-D 2 mg/L dan kinetin 0 mg/L(M), 2,4-D 2,25 mg/L dan kinetin 0 mg/L (N). Konsentrasi B, U, X merupakan konsentrasi terbaik yang dapat bertahan pada medium perakaran, meskipun konsentrasi tersebut tidak merespons tumbuhnya akar. Kesimpulan penelitian ini menunjukan bahwa potongan jaringan dari *Anaphalis javanica* pada Medium Murashige-Skoog memberikan respons berupa kalus dan tunas pada hari ke enam dan delapan.

Kata kunci **:** *Anaphalis javanica*, Medium Murashige-Skoog, Zat Pengatur Tumbuh (ZPT).

RESPONSE EXPLANT OF EDELWEISS (*Anaphalis javanica*) ON MURASHIGE-SKOOG MEDIUM WITH AN ADDITION OF GROWING REGULATION

ABSTRACT

Plant exploitation which is done continuously can cause extinction of that plant, sample Anaphalis javanica. The purpose of this research is to find out a response by tissue culture A. javanica was planted in the medium Murashige-Skoog (MS) by the addition of growth regulator. The explants that is used in this research were leaves , books and rates. The growth regulator that be used consist of Benzyl-amino-purine (BAP), Napthalene-acetic-acid (NAA), 2,4-Dichlorophenoxyacetic acid (2,4-D), kinetin and indole-3-butyric acid (IBA). Shoots and callus were grown for three weeks and then subcultured. Subculture was used as a medium to shoots multiplication, shoots elongation, organogenesis of callus and root. The results showed a response, it was callus and shoots. Shoots were grown from explant of node and the bud, while response of callus were grown from a part of leaves. Shoots that were growing from node got from combination concentration on BAP 2,5mg/L and NAA 0 mg/L (B). Shoots that were growing from bud got from combination concentration on BAP 0,75mg/L and kinetin 0,3 mg/L (U), BAP 1 mg/L and kinetin 0,3 mg/L (X). Moreover callus were growing from leaves got from combination concentration on 2,4-D 2 mg/L and kinetin 0 mg/L(M), 2,4-D 2,25 mg/L and kinetin 0 mg/L (N). The concentration combinations (B, U, X) were best the concentration that able to continue the next step, there were on the rooting medium for three weeks, although the result from this step was not response to grow the roots. Therefore, based on these studies showed that the explant from Anaphalis javanica on Murashige-Skoog medium could be grow the callus and shoots. Callus and shoots was growing up start from 6^{th} and 8^{th} of the day.

Keywords: Anaphalis javanica, Murashige-Skoog medium, Growth Regulator