

EFFECT OF SALINITY ON GROWTH AND
CHLOROPHYLL CONTENT OF *Homalomonera* sp.
CULTURES

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EFFECT OF SALINITY ON GROWTH AND CHLOROHYLL CONTENT OF
Homalomena sp. cultures.

By

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LIST OF ABBREVIATIONS

APX	-	Ascorbate peroxidase
°C	-	Celcius
CAT	-	Catalase
cm	-	Centimeter
CO ₂	-	Carbon dioxide
DHAR	-	Dehydroascorbate reductase
Fwt	-	Fresh weight
g	-	Gram
GR	-	Glutathione reductase
GSH	-	Glutathione
H ₂ O ₂	-	Hydrogen peroxide
MDHAR	-	Monodehydroascorbate reductase
mg	-	Miligram
mM	-	Mili Molar
NaCl	-	Sodium chloride
O ₃	-	Ozone
¹ O ₂	-	Singlet oxygen
O ₂ ⁻	-	Superoxide radical
OH [·]	-	Hydroxyl radical
ROS	-	Reactive oxygen species
rpm	-	Revolution per minute

SOD	-	Superoxide dismutase
V	-	Volume

ABSTRACT

Salinity is the major environment factor limiting plant growth and productivity. Effect of high salinity on plants can be observed at the whole plant level as the death of plants and or decrease in productivity. The objectives of the study were to investigate the effect of different concentrations of NaCl on growth and chlorophyll content of *Homalomena* sp. cultures. The species were treated with 0, 25, 50 and 100 mM NaCl for 28 days in Murashige and Skoog (MS) solid medium. Results indicated that NaCl treatments did not significantly ($p > 0.05$) affected the growth parameter and chlorophyll content of *Homalomena* sp. cultures except stem height and chlorophyll content in cultures treated under 100 mM NaCl.

KESAN SALINITI TERHADAP PERTUMBUHAN DAN KANDUNGAN KLOOROFIL PADA KULTUR *Homalomena sp.*

ABSTRAK

Saliniti merupakan faktor persekitaran yang utama dalam menghadkan pertumbuhan dan produktiviti tumbuhan. Kesan aras saliniti yang tinggi ke atas tumbuhan dapat diperhatikan melalui keseluruhan keadaan pokok tersebut terutamanya kematian pokok atau penurunan produktiviti. Tujuan kajian ini ialah untuk mengetahui kesan saliniti terhadap pertumbuhan dan kandungan klorofil bagi kultur *Homalomena sp.* Spesies ini dirawat dengan 0, 25, 50 dan 100 mM NaCl selama 28 hari di dalam media pepejal Murashige and Skoog (MS). Keputusan menunjukkan kepekatan NaCl tidak mempengaruhi pertumbuhan dan kandungan klorofil kultur *Homalomena sp.* kecuali bagi tinggi batang dan kandungan klorofil bagi kultur yang dirawat dengan 100 mM NaCl.