

IN VITRO SCREENING OF SALT TOLERANT OF
Citrus satifera L.

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IN VITRO SCREENING OF SALT TOLERANT OF
Oryza sativa L.

By

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**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: *IN VITRO* SCREENING OF SALT TOLERANT OF *Oryza sativa* L. oleh MUHAMMAD AZHAR BIN ZULKFFLE No. Matrik UK 6458 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains, Sains Biologi, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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ABBREVIATIONS

cm	centimeter
g/L	gram
mg	milligram
mg/mL	milligram per milliliter
mg/L	milligram per liter
mL	milliliter
mm	millimeter
MS	Murashige and Skoog culture media
NaCl	Sodium Chloride/ Sodium chloride
⁰ C	Degree Celsius
2,4-D	Dichlorophenoxyacetic acid

ABSTRACT

An attempt was made to select the salt tolerant of seedlings and callus on seven varieties of *Oryza sativa* L rice i.e. MR 219, MR 211 300GY, MR 84, MR 211, MR 219 300GY, MR 220, MR 211 400GY. Seedlings were treated using MS medium added with different concentration of NaCl at 0, 0.5, 1, 1.5, 2 or 2.5%. The seedling of MR 220 variety shown a significant tolerant to salinity up to 1.5% of NaCl. All variety were died of when cultivated in higher concentration of NaCl (1.5%). No significant different on the length of roots were detected for all varieties in all treatment. Callus of MR 211 300GY and MR 211 400GY were shown a significant tolerant towards salinity up to 1% until five days of cultivation.

PENGUJIAN SECARA *IN VITRO* TERHADAP KETAHANAN GARAM BAGI *Oryza sativa* L.

ABSTRAK

Usaha telah dilakukan bagi memilih variasi anak benih dan kalus padi yang mempunyai ketahanan terhadap garam daripada keseluruhan tujuh variasi iaitu MR 219, MR 211 300GY, MR 84, MR 211, MR 219 300GY, MR 220, MR 211 400GY. Kesemua anak benih telah diuji menggunakan medium MS yang ditambah dengan pelbagai kepekatan NaCl (0, 0.5, 1, 1.5, 2 atau 2.5%). Anak benih bagi variasi MR 220 telah menunjukkan ketahanan garam bererti sehingga 1.5% NaCl. Tiada perbezaan bererti dikesan bagi panjang akar. Kesemua anak benih dari semua variasi telah mati apabila dikultur di dalam kepekatan NaCl lebih dari 1.5%. Kalus bagi MR 211 300GY dan MR 211 400GY telah menunjukkan ketahanan garam yang ketara sehingga 1% NaCl selepas 5 hari rawatan.