

## APPENDIX I

### Formulations of MS media (Murashige and Skoog, 1962)

<b>(a) Macronutrient:</b>	<b>Content</b>
<b>(mg/l)</b>	
MgSO <sub>4</sub> .7H <sub>2</sub> O	370
KH <sub>2</sub> PO <sub>4</sub>	170
KNO <sub>3</sub>	1900
NH <sub>4</sub> NO <sub>3</sub>	1650
CaCl <sub>2</sub> .2H <sub>2</sub> O	440
<b>(b) Micronutrient:</b>	
H <sub>3</sub> BO <sub>3</sub>	6.2
MNSO <sub>4</sub> .H <sub>2</sub> O	15.6
ZnSO <sub>4</sub> .7H <sub>2</sub> O	8.6
NaMoO <sub>4</sub> .2H <sub>2</sub> O	0.25
CuSO <sub>4</sub> .5H <sub>2</sub> O	0.025
CoCl <sub>1.6</sub> H <sub>2</sub> O	0.025
KI	0.83
<b>(c) Iron:</b>	
FeSO <sub>4</sub> .7H <sub>2</sub> O	27.8
Na <sub>2</sub> EDTA	37.3
<b>(d) Vitamin:</b>	
Thiamine HCL	0.5
Pyridoxine HCL	0.5
Nicotinic acid	0.05
Myo-inositol	100
<b>(e) Sucrose</b>	30 000
<b>(f) Agar</b>	8 000
<b>(g) pH</b>	5.8

## APPENDIX II

### RESEARCH ARTICLE SUBMITTED / PUBLISHED

**Mahmad, N.**, Wafa, S.N.A., Taha, R.M. , Othman, R. , Aroff, A.K.. (2010). Studies of Carotenoid Extraction From Stamen of Lotus (*Nelumbo nucifera* Gaertn.), as Natural Pigment in Coating Production. *Materials Research and Innovatives (MRI)*.

**Mahmad, N.**, F.A. Rahiman, Taha,R.M. (2011). *In vitro* Plant Regeneration from Juvenile Shoots of *Nelumbo nucifera* Gaertn. ssp. *nucifera* (Chinese / Asian Lotus), a Commercially and Medicinally Water Plant Species. *VegSea Hort*.

Abdullah,S, **Mahmad,N.**, Taha,R.M. (2011). *In vitro* Regeneration from 'Curd' of *Brassica oleracea* var. *botrytis*, a Commercially Vegetable Species. *VegSea Hort*.

Nor A. Hasbullah, Rosna M. Taha, Azani Salleh, **Noraini Ahmad**. Irradiation Effect on *in vitro* organogenesis, callus growth and platlet development of *Gerbera*. VersÃ£oCorrigidaAutor2011-11-08. *Hortbras*.

### **APPENDIX III**

#### **PAPERS PRESENTED / SEMINARS ATTENDED**

**Mahmad, N.,** Taha,R.M. (2010). Natural Paint Production from Anthocyanin Extract of *Nelumbo nucifera* Gaertn.. 3rd International Conference on Functional Materials and Devices (ICFMD 2010). Kuala Terengganu, Terengganu. 14th-17th June 2010

**Mahmad, N.,** F.A. Rahiman, Taha, R.M. (2011). *In vitro* Plant Regeneration from Juvenile Shoots of *Nelumbo nucifera* Gaertn. ssp. *nucifera* (Chinese / Asian Lotus), a Commercially and Medicinally Water Plant Species. International ISHS Symposium Sustainable Vegetable Production in South East Asia (VegSEA2011). Salatiga, Java, Indonesia. 14th-17th March 2011.

Abdullah, S, **Mahmad, N.,** Taha, R.M. (2011). *In vitro* Regeneration from 'Curd' of *Brassica oleracea* var. *botrytis*, a Commercially Vegetable Species. International ISHS Symposium Sustainable Vegetable Production in South East Asia (VegSEA2011). Salatiga, Java, Indonesia. 14th-17th March 2011.

## **APPENDIX IV**

### **AWARDS**

#### **GOLD MEDAL**

Mass Production of Aromatic Rice (*Oryza sativa* cv. MRQ 74) Using Artificial Propagules. Innovation and Creativity Expo 2010, University of Malaya. 1-3 April 2010.