

CONTENTS

	PAGE
Opening Address	xi
RICE	
Regulatory mechanism of shoot formation in rice callus – Eizo Maeda, M Inoue and M H Chen	1
Tissue culture studies in rice improvement – G M Reddy	7
LEGUMES	
Legume cell and tissue culture – Peter Gresshoff and S S Mohapatra	
Induction of genetic variability in grain-legumes through tissue culture – Y P S Bajaj and S S Gosal	25
Tissue culture and prospects for improvement of <i>Arachis hypogaea</i> and other oil seed crops – D C Sastri, M S Nalini and J P Moss	42
The winged bean (<i>Psophocarpus tetragonolobus</i>): control of direct organ formation using the thin cell layer concept – Henrietta Lie-Schricke and Tran Thanh Van	58
Studies in the tissue culture of the winged bean – A Kovoov, A Brunel, C Landre and C Chardard	63
Tissue and protoplast culture and plantlet regeneration in legumes – H Y Mohan Ram, Usha Mehta and I V Ramanuja Rao	66
SUGARCANE AND SUGARBEET	
Sugarcane improvement through tissue culture and review of progress – T Krishnamurthi	
Utilisation of tissue culture techniques for the propagation, improvement of sugar contents and induction of salt tolerance in <i>Beta vulgaris</i> – Ihsan Ilahi	78
TARO, YAM, GINGER, SPICE PLANTS AND CUCURBITS	
Tissue culture of taro – Joseph Arditti	83
Cytological and developmental aspects of callus in <i>Costus speciosus</i> – Amita Pal and A K Sharma	85
Propagation of yam – <i>Dioscorea composita</i> through tissue culture – S K Datta and K Datta	90
A brief account of <i>in vitro</i> studies on Umbelliferous spices – Timir Baran Jha, S Chandra Roy and G Chandra Mitra	94
Morphogenesis in some plant species of the family Cucurbitaceae – Tapati Halder and V N Gadgil	98
BEVERAGE PLANTS	
A review on the tissue culture of tea plants and on the utilisation of callus-derived plantlets – Chen-tau Wu, T K Huang, G R Chen and S Y Chen	104
Callus growth and organogenesis in cocoa – Lee Sing Kong and A N Rao	107
FRUIT TREES AND FRUITS	
Fruit tree propagation <i>in vitro</i> – James F Hutchinson	113
Vegetative propagation, tissue culture and the Malaysian pineapple industry – Wee Yeow Chin	121
Cotyledon tissue culture of some tropical fruits – A N Rao, M S Yeow, Nancy Kothagoda and James F Hutchinson	124
PALMS	
Tissue culture of palms – a review – Wooi Kheng Choo, Wong Choong Yew and R H V Corley	138
Culture of coconut palm tissues with a view to vegetative propagation – Jennet Blake and C J Eeuwens	145

Regeneration of callus from coconut protoplasts – T K Haibou and A Kovoov	149
RUBBER, JUTE AND MEDICINAL PLANTS	
Recent developments in tissue culture of <i>Hevea</i> – Wan Abdul Rahaman, H Ghandimathi, Rohani Othman and K Paranjothy	152
Experiments to produce jute plants of desirable types through tissue culture – A S Islam	159
✓ The role of tissue culture in the development of medicinal plants and spices – Narong Chomchalow and O Sahavacharin	162
Aseptic micropropagation of <i>Cinchona</i> : prospects and problems – Abraham D Krikorian, Madhav Sihgh and Carol E Quinn*	167
TREE PROPAGATION	
Propagation of trees by tissue culture – A F Mascarenhas, P K Gupta, V M Kulkarni, U Mehta, R S Iyer, S S Khuspe and V Jegannathan	175
Tissue culture of <i>Eucalyptus</i> species – Lakshmi Sita	180
<i>In vitro</i> plantlet production of some tropical tree species – Lee Sing Kong and A N Rao	185
Vegetative propagation of mature trees – J M Bonga*	191
Clonal propagation of forest tree species – Stefania Biondi and Trevor A Thorpe*	197
ORCHIDS	
Development of orchid tissue culture in S E Asian countries – Goh Chong Jin	205
The use of air flow system in plant tissue and organ culture – Y W Cheng and S E Chua	210
CELL GENETICS, GERMPLASM AND GENEPOOL CONSERVATION	
Genepool conservation through tissue work – K K Kartha	213
Embryo and tissue culture for crop improvement, especially of perennials, germplasm conservation and exchange – relevance to developing countries – R D Iyer	219
Recent progress of plant somatic cell genetics in China – Hu Han	231
Evaluation of three genotypes of tomato (<i>Lycopersicon esculentum</i> Mill.) for <i>in vitro</i> regeneration of chlorophyll chimeras – S Seeni and A Gnanam	237
Genetic conservation and tissue culture – R B Singh	240
Tissue culture, genetic transformation and plant improvement – Kamla Kant Pandey*	243
The technology of genetic characters transfer <i>in vivo</i> – Otto J Crocomo and Neftali Ochoa-Alejo*	250
Prospects of somatic cell genetic method in crop plant improvement – Oluf L Gamborg*	259
POLLEN EMBRYOGENESIS AND NUCELLUS	
Pollen embryogenesis in <i>Hyoscyamus niger</i> : a review – V Raghavan*	262
Nucellus as an experimental system in basic and applied tissue culture research – N S Rangaswamy*	269
COUNTRY REPORTS	
✓ Tissue culture of economic crops in Thailand – Thavorn Vajrabhaya	287
Tissue culture work at Bandung , Indonesia – E Noerhadi	290
The status of plant tissue culture in the Philippines – Aurora G del Rosario and E V de Guzman	293
Tissue culture of local orchid hybrids at the Singapore Botanic Gardens – Lim-Ho Chee Len	295