

# Table of Contents

Foreword from the Chairman of the Organizing Committee.....	v
Welcoming Address from the President of SABRAO.....	vii
Table of Contents.....	ix
Schedule of the Conference.....	xiii
The Organizing Committee .....	xv
List of Participants.....	xvii
Oral Presentation Title List.....	xxvii
Poster Presentation Title list .....	xxxiii

## List of Papers

### Functional Genomic and Molecular Based Breeding

Analysis of Partial DNA Sequences of *Linamarase* Gene on Roti and Menggalo Cassavas  
(*Manihot esculenta* Crantz.)

Dewi Indriyani Roslim, Nur Ocvania, and Herman ..... 1

### Genetic Diversity and Sustainable Use of Genetic Resources

Probing Into the Misconception about the Reproduction System of Bali Salak Cultivars

GG Hambali and A Natawijaya ..... 11

Exploration and Collection of *Saccharum* Germplasm in Papua

Bambang Heliyanto, Budi Santoso, Parnidi, M. Mahfud, Abdurrahman,  
Afrizal Malik, and Rully Hamidah..... 15

Germplasm Exploration and Collection of Mango Adaptable to High Rainfall Season  
from Sumatera

Fitmawati and Nery Sofianti..... 25

A Preliminary Study of *Garcinia malaccensis* Collection in Taman Buah Mekarsari,  
Cileungsi, Bogor, Indonesia

GG Hambali and A Natawijaya ..... 31

A Decade of Durian Breeding at Indonesian Tropical Fruits Research Institution

Panca Jarot Santoso, Ni Luh Putu Indriyani, and Mizu Istianto..... 37

Morphological Variability of Rice Germplasm in Indonesia and the Associated SNP  
Markers

Puji Lestari, Dwinita Wikan Utami, and Ida Rosdianti..... 51



## Table of Contents

Genetic Diversity Analysis of Wheat Germplasm Collection of Indonesian Cereals Research Institute Using SSR Markers Aviv Andriani, Reflinur, and Marcia B Pabendon.....	71
Genetic Diversity in Indonesian Waxy Corn Inbred Lines Using SSR Markers Sigit Budi Santoso, Syafaruddin, and Marcia B Pabendon .....	87
Phenotype Performance Evaluation on Mutation Induced Stevia ( <i>Stevia rebaudiana</i> Bertoni) by Gamma Irradiation and Ethyl Methane Sulphonate Suseno Amien and Muhammad Iqbal.....	97
Genetic Diversity Analysis of Mungbean ( <i>Vigna radiata</i> L.) from Riau Province based on Morphological and Agronomic Characters Herman, Rahma Dewi, Dewi Indriyani Roslim, and Aslim Rasyad .....	105
Evaluation of Cocoa Beans Quality Derived from Kolaka, Southeast Sulawesi Nur Kholilatul Izzah, Indah Sulistiyorini, and Rubiyo .....	117

### **Genetic Improvement for Adaptation to Biotic and Abiotic Stress**

Heat Stress Tolerance in Seeds of Japonica Rice Cultivar Under Treatment of Hot Water Disinfection Method Hadian Permana, Megumi Kashiwagi, Kazumasa Murata, Kiyonori Nakaoka, Tetsuya Yamada, and Motoki Kanekatsu .....	127
Search for Tomato Hybrids Suited for High Temperature Stress Condition Kartikeya Srivastava, Sunil Kumar, HR Bhandari, and A Vaishampayan .....	137
QTL Identification for Reproductive-Stage Salinity Tolerance in Rice ( <i>Oryza sativa</i> L.) Cecilia Diana O Calapit-Palao, Celia B de la Viña, Michael J Thomson, and Rakesh Kumar Singh .....	151
Developing Bruchid Resistant Mungbean Varieties RM Nair, M-R Yan, R Srinivasan, and R Schaffleitner .....	175
Improvement of Tolerance to Heat Stress in Rice Seeds Under Hot Water Disinfection by Reducing Their Water Contents Megumi Kashiwagi, Senri Ohishi, Kazumasa Murata, Kiyonori Nakaoka, Kenji Fujita, Hidenobu Ozaki, Hadian Permana, Tetsuya Yamada, and Motoki Kanekatsu.....	181
Establishment Numbers of Salinity Tolerant Rice Varieties Ciherang, Inpari 13 and Inpara 3 by Induced Mutation and <i>In Vitro</i> Selection Rossa Yunita, Nurul Khumaida, Didy Sopandie, and Ika Mariska .....	185

**Genetic Improvement for Productivity and Quality**

Stability Analysis of Putative Mutant Soybean Lines ( <i>Glycine max</i> (L.) Merr) in Four Environments	
Nita Ekana'ul, Yudiwanti Wahyu, Desta Wirnas, and Evi Toding Tondok .....	191
Combining Ability of Some Commercial Dura and Pisifera Oil Parents at Immature Stage in Thailand	
P Pengruang, P Tanya, P Taeprayoon, A Limsrivilai, S H Lee, and P Srinives .....	201
Estimation of Combining Ability and Heterosis for Yield Component in Half Diallel of Local Tomatoes in Lowland	
Gumelar RMR, Sutjahjo SH, Wirnas D, Herison C, Sulastri I, Nindita A, and Marwiyah S .....	213
Challenges Facing Genetically Improving Underutilised Crops: Progress in Bambara Groundnut	
Aryo B Feldman, Sean Mayes, Presidor Kendabie, Ho Wai Kuan, Razlim A Halimi, Festo Massawe, and Sayed Azam-Ali .....	223
Current Status on Oil Palm Breeding in Indonesia	
Edy Suprianto, Nanang Supena, Yurna Yenni, Sri Wening, and Abdul Razak Purba.....	231
Pedigree Selection of Red Rice ( <i>Oryza sativa</i> L.) Offspring for New Plant Ideotype and High Protein Content	
Etti Swasti, Andrianto, Nurwanita Fkasari Putri, and Aswaldi Anwar .....	241
Characteristic Stability Analysis of Eggplant ( <i>Solanum melongena</i> L.) Genotypes Using Parametric and Non Parametric Approaches	
Faradila Danasworo Putri, Sobir, Muhamad Syukur, and Awang Maharijaya .....	249
Participatory Selection of Sweet Potato Based on Farmers Preferences in Banjar City, West Java, Indonesia	
Haris Maulana, M Divo Nugroho, Lucyana Trimio, and Agung Karuniawan .....	265
Genotype X Environment Interaction and Stability for Grain Yield in Hybrids Rice Adapted to Different Environment in Indonesia	
Satoto, Y Widyastuti, IA Rumanti, and BP Wibowo.....	273
The Use of Embryo Culture for Amylose Breeding of Rice <i>Oryza sativa</i> L.	
Taryono, Didi Hardjanto, and Nasrullah .....	283
Genotypes X Environments Interaction of Rice Genotypes at Different Altitude	
Trias Sitaresmi, Nafisah, Cucu Gunarsih, Buang Abdullah, and Aan A Daradjat.....	291

## Table of Contents

Controlling Genetic Factors to Soybean Seed Storability Under Room Temperature Conditions Eny Widajati, Desta Wirnas, and Kade Ari Oktaviani.....	299
Heritability of Rust Disease Resistance in $F_3$ - $F_4$ Soybean Populations Using Variance Component Analysis and Parent-Offspring Regression Method Apri Sulistyono and Sumartini.....	309
Detection of Traits and Genes Related to the Promotion of Root System Development in the Rice by Inoculation of Biofertilizer Shungo Higuma, Motoki Kanekatsu, Tetsuya Yamada, and Tadashi Yokoyama.....	317
Zn Content of Ultra Early Maturing Elite Rice Lines in Indonesia Untung Susanto, Wage R Rohaeni, and Ali Jamil.....	321
<b>Others (Information Technology, Animal Breeding, Forest and Tree Breeding)</b>	
CTAB's Modification: High-Quality Plant DNA Extraction of Tomato for PCR with Heat Shock Treatment Eka Jan Virgin Haquarsum, Surjono Hadi Sutjahjo, Catur Herison, Rustikawati, Yudiansyah, and Siti Marwiyah.....	327
Characterization of Programmed Cell Death in Hybrid Tobacco Cells Expressing Hybrid Lethality Naoya Ueno, Saori Nihei, Naoto Miyakawa, Motoki Kanekatsu, Wataru Marubashi, Wouter G van Doorn, and Tetsuya Yamada .....	333
The Response of Three New Varieties of Red Pepper to Biofertilizer Treatments Neni Rostini, Farida Damayanti, Ade Ismail, Sudardjat, Reginawanti Hindersah, Arviandra Rizky Yoputro, Geusan WBN, and Rio Fernando .....	339
Isolation and Characterization of Peat Soils Phosphate Solvent Bacteria in Giam Siak Kecil Biosphere Conservation-Bukit Batu, Bengkalis, Riau Hapsoh, Gusmawartati, and Di Ajeng Prameswari.....	345

