



Guide Book of
International
Conference
on Biodiversity
for Sustainable Industries
2015

Guide Book

International Conference

“Biodiversity for Sustainable Industries”

Solo, 5 – 6th November 2015



ICBSI 2015

International Conference on Biodiversity
for Sustainable Industry 2015

Secretariat and Contact

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SCHEDULE
International Conference
“Biodiversity for Sustainable Industries”
 Solo, 5, 6th November 2015

Date and time	05 November 2015
06.30-08.00	Registration
08.00-08.45	Opening ceremony Welcome speech
PLENARY SESSION	
08.45-09.15	Prof. Sutarno, M.Sc., Ph.D (Sebelas Maret University, Surakarta, Indonesia)
09.15-09.30	Coffee break
09.30-10.15	Prof. Jean Yong, B. Sc. (Hons)., M. Sc., Ph.D (Applied Biology and Industry SUTD University, Singapore)
10.15-11.00	Matieu Mergans (France) and Dr. Sutanto, DEA (ICT and Bio-entrepreneur Sebelas Maret University of Surakarta, Indonesia)
11.00-11.30	Discussion
11.30-12.30	Lunch Break and Poster Session
12.30-13.15	Prof. Mitsunaga Tohru (Land Chemistry, GIFU University, Japan)
13.15-14.00	Xu Jianlong, Ph.D. (Agricultural Genomics Institute at Shenzhen (AGIS), Chinese Academy of Agricultural Sciences (CAAS), Shenzhen, China)
14.00-14.30	Anita he (Director of Indonesia- China Assosiation)
14.30-15.00	Discussion
15.00-15.15	Lunch Break and Poster Session
15.15-15.30	Closing
GALA-DINNER	
19.00-19.30	Opening and Welcome speech
19.30-19.45	Traditional Dance Performance
19.45- 21.00	Gala dinner with Siteran Performance
Date and time	06 November 2015
06.30-07.30	Registration
07.30-08.15	Oral Presentation session 1
08.15-09.00	Oral Presentation session 2
09.00-09.45	Oral Presentation session 3
09.45-10.30	Oral Presentation session 4
10.30-11.15	Lunch Break
11.15-11.30	Closing

30	09.45 - 10.30	B	Riani Resianingrum	F-14	Saraswati Prabawardani, Irmada A.F. Djuana, Fenny Asyarem, Alexander Yaku, Graham Lyons	University of Papua	MORPHOLOGICAL DIVERSITY AND THE CULTIVATION PRACTICE OF AIBIKA/GEDI (<i>Abelmoschus manihot</i> L. Medlik) IN WEST PAPUA, INDONESIA
31				F-15	Sugihardjo	Sebelas Maret University (UNS)	IMPACT OF CLIMATE CHANGE ON RICE VARIETIES AND FOOD SECURITY (CASE OF FARMERS IN WATERSHED (DAS) CEMORO, CENTRAL JAVA)
32				F-16	Suranto, Sri Mulyani, Meysri Sulastri, Suwamo	Sebelas Maret University	CHARACTERIZATION OF LOCAL CORN OF NUSA TENGGARA TIMUR (NTT) INDONESIA BASED ON DNA AND PROTEIN FINGER PRINTING IN ORDER TO FULLFIL NATIONAL FOOD SECURITY
33				T-1	Fitri Fatma Wardani, Frisca Danayanti, Sri Rahayu	Indonesia Institute of Sciences	INITIATION OF LIPSTICK SOEDJANA KASAN (SOEKA) FLOWERING WITH GA3, PACLOBUTRAZOL, AND ETHEPHON
34				T-2	Marina Silalahi	Lecturer	HERBS FOR MATERIAL OF TRADITIONAL SAUNA BY ETHNIC BATAK IN NORTH SUMATRA, INDONESIA
35	07.30 - 08.15	C	Fitri Fatma Wardani	T-3	Suharsono	Indonesia Institute of Sciences	MANAGING CORAL TRANSPLANTATIO FOR SUSTAINABLE RESOURCES AND TRADE INDUSTRY
36				T-4	Teguh Husodo, Dewi Sulastringsih, Erri Noviar Megantara, Mohamad Nurzaman, Ruhyat Paktasasmita, Paktasasmita Teguh Husodo, Richard Marino Sirait, Budhi Gunawan, Mohamad Nurzaman, Ruhyat Paktasasmita	Padjadjaran University	AN ASSESMENT OF ENVIRONMENTAL CARRYING CAPACITY OF TOURISM ACTIVITIES IN BANTIMURUNG BULUSARAUNG NATIONAL PARK
37				T-5	Marino Sirait, Budhi Gunawan, Mohamad Nurzaman, Ruhyat Paktasasmita	Universitas Padjadjaran	ASSESMENT OF ENVIRONMENTAL CARRYING CAPACITY OF MARINE TOURISM IN RESORT AREA MANAGEMENT HARAPAN ISLAND, KEPULAUAN SERIBU NATIONAL PARK

	RICE BREEDING BASED ON A FARMER FRIENDLY TECHNOLOGY FOR FOOD SECURITY ENHANCEMENT THE CASE OF DRYLAND FARMERS IN DISRICT OF WONOGIRI, CENTRAL OF JAVA, INDONESIA	Widiyanti	
F-13	CHARACTERIZATION OF CASSAVA STARCH-BASED EDIBLE FILM ENRICHED WITH LEMONGRASS (<i>Cymbopogon citratus</i>) OIL.	Riani Resianingrum, Windi Atmaka, Lia Umi Khasanah, Kawiji, Rohula Utami, Danar Praseptiangga	16
F-14	MORPHOLOGICAL DIVERSITY AND THE CULTIVATION PRACTICE OF AIBIKA/GEDI (<i>Abelmoschus manihot</i> L. Medik) IN WEST PAPUA, INDONESIA	Saraswati Prabawardani, Irnanda A.F. Djuuna, Fenny Asyerem, Alexander Yaku, Graham Lyons	17
F-15	IMPACT OF CLIMATE CHANGE ON RICE VIRIETIES AND FOOD SECURITY (CASE OF FAMERS IN WATERSHED (DAS) CEMORO. CENTRAL JAVA)	Sugihardjo	17
F-16	CHARACTERIZATION OF LOCAL CORN OF NUSA TENGGARA TIMUR (NTT) INDONESIA BASED ON DNA AND PROTEIN FINGER PRINTING IN ORDER TO FULLFIL NATIONAL FOOD SECURITY	Suranto, Sri Mulyani, Meysri Sulastri, Suwarno	18
F-17	THE EFFECT OF ADDING POTATO BISCUIT IN THE FEED ON DIGESTIBILITY AND FEED EFFICIENCY OF SUMATRAN AND JAVAN SLOW LORIS	Wartika Rosa Farida, Andri Permata Sari, Wulansih Dwi Astuti	18
Biodiversity for Tourism and Creative Industry			
T-1	INITIATION OF LIPSTICK SOEDJANA KASAN (SOEKA) FLOWERING WITH GA3, PACLOBUTRAZOL, AND ETHEPHON	Fitri Fatma Wardani, Frisca Damayanti, Sri Rahayu	19
T-2	HERBS FOR MATERIAL OF TRADITIONAL SAUNA BY ETHNIC BATAK IN NORTH SUMATRA, INDONESIA	Marina Silalahi	19
T-3	MANAGING CORAL TRANSPLANTATIO FOR SUSTAINABLE RESOURCES AND TRADE INDUSTRY	Suharsono	19
T-4	AN ASSESMENT OF ENVIRONMENTAL CARRYING CAPACITY OF TOURISM ACTIVITIES IN BANTIMURUNG BULUSARAUNG NATIONAL PARK	Teguh Husodo, Dewi Sulastriningsih, Erri Noviar Megantara, Mohamad Nurzaman, Ruhyat Partasasmita, Parikesit	20
T-5	ASSESSMENT OF ENVIRONMENTAL CARRYING CAPACITY OF MARINE TOURISM IN RESORT AREA MANAGEMENT HARAPAN ISLAND, KEPULAUAN SERIBU NATIONAL PARK	Teguh Husodo, Richard Marino Sirait, Budhi Gunawan, Mohamad Nurzaman, Ruhyat Partasasmita	20

packaging. The addition of essential oils can be used as an alternative to improve the antimicrobial properties of edible film. Lemongrass oil consist of active compounds that showed antimicrobial activity. Therefore, the characteristics of cassava starch -based edible film incorporated with lemongrass oil were investigated. Concentration of lemongrass oils varied at 0%, 0.25%, 0.5%, 0.75% and 1%. The analyzed edible film characteristics include thickness, water vapor transmission rate, tensile strength, elongation and antimicrobial activity. The results showed that the addition of lemongrass oil increased the thickness, tensile strength and antimicrobial activity and decreased elongation of edible films. The water vapor transmission rate of edible films were not affected by the addition of lemongrass oil.

Keywords : cassava-starch, edible film, essential oil, lemongrass

F-14

MORPHOLOGICAL DIVERSITY AND THE CULTIVATION PRACTICE OF AIBIKA / GEDI (*Abelmoschus manihot* L. MEDIK) IN WEST PAPUA, INDONESIA

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ABSTRACT

Aibika (*Abelmoschus manihot* L. Medik), a local green leafy vegetable, plays an important nutritional role for most Papuan people. In Indonesia, it is commonly called "Gedi". This plant is widely cultivated in the lowland of Papua and other parts of eastern Indonesia. Gedi is reported to be high in nutrients, especially protein, Fe, K, Mg, Ca, folic acid and flavonoid compounds. Papua is considered to be the second diversity centre of this plant: however, its diversity is declining, due to habitat destruction for regional development or land fragmentation, and hence gedi preservation is a priority. This study aimed to assess the status of gedi diversity by collecting,

preserving, conducting gedi morphological characterization and preliminary assessment of its cultivation technique. Diverse germplasm can then be used to improve Gedi. The study was conducted between April and June 2015 in Mandopi, Warmare Prafi of Manokwari Regency and in Minyambouw of Arfak Mountain Regency. Descriptive method was used in this study, and the relationships among cultivars were analyzed according to Cluster Analysis using Excel Stat. The phenotypic characters, comprising 29 morphological characters, were recorded for cluster analysis. There were 39 gedi cultivars collected from 4 regions of West Papua. The cluster analysis revealed 4 different cultivar groups. Gedi cultivars from the same area tended to cluster together, except group 1, which showed a similarity index of 43 % with other groups. In Papua, gedi is cultivated in a traditional mixed-cropping system, without appropriate planting distance, no fertilizer and pesticide application. This has resulted in suboptimal growth and high susceptibility to pests.

Keywords : *Abelmoschus manihot* L. Medik, gedi, leafy vegetable, morphology, diversity

F-15

IMPACT OF CLIMATE CHANGE ON RICE VIRIETIES AND FOOD SECURITY (CASE OF FAMERS IN WATERSHED (DAS) CEMORO, CENTRAL JAVA)

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ABSTRACT

The climate change has an impact in planting seasons change. Experts have introduced several new rice varieties to anticipate this condition. In order to adapting the climate change, farmer as a farming manager, can selected these new varieties which are resistant to drought or flooding. This study aims to assess the impact of climate change on a wide variety of rice grown by farmers as a form of adaptation. The study was conducted in Watershed (DAS) Cemoro Central Java with a total sample of 240 farmers. The results showed that the diversity of rice varieties grown in the Watershed (DAS) Cemoro are IR 64, Ciherang, Situbagendit, and Mikonga, for both irrigated and rainfed land. Farmers hasn't pay much attention in the impact of climate change' issue in