



Udayana University

NDSU NORTH DAKOTA
STATE UNIVERSITY

ABSTRACT BOOK

**The International
Conference on Biosciences 2016**

**“Advancing Biodiversity
for Sustainable Food Security”**

July 26 - 27, 2016

**3rd Floor Postgraduate Building , Udayana University,
Jl. PB Sudirman, Denpasar-Bali, Indonesia**

held by
Faculty of Mathematics and Natural Sciences,
Postgraduate Study Program of Biology,
and School of Biology, Udayana University, Bali
in collaboration with
North Dakota State University, USA

RAL PRESENTATION TIME SCHEDULE

Session Date Time	No.	A Ecology and Environmental Biology		B Physiology and Developmental Biology		C Biotechnology, Genetics and Molecular Biology		D Health and Microbiology		E Food and Agriculture	
		Moderator	Drs. Deny SY, MSc.St.	Moderator	Dra. Inna Narayani MSc	Moderator	Dr. Pande Sasmita J	Moderator	Dr. Retno Kawuri	Moderator	Dr. Ni Luh Arpiwi
(60') /07/16 10.00 -17.00	1	Muhdi, Diana Sofia Hanafiah, Evan Satria Saragih, Frans Rinaldo Sipayung, Frits Melky Sedek Situmorang	T.G. Belawa Yadnya	The effect of fermented purple sweet potato (<i>Ipomoea batatas</i> L.) in diets of egg production and egg lipid profile of Bali duck	I Putu Studiarta, Trisna Agung Phabiola, I Gusti Putu Eka Saputra, I Dewa Nyoman Nyana and Gede Suastika	Ketut Widyan Astuti, Ni Putu Ayu Dewi Wijayanti	Antibacterial against <i>Staphylococcus aureus</i> from methanol extract of Mangosteen rind (<i>Garcinia mangostana</i> L.)	Zurriyatun Solihah, I Made Sudantha, M. Taufik Fauzi	Utilization f biomol and tea compost solution fermented by the Fungus <i>Trichoderma</i> spp. on the growth of Soybean (<i>Glycine max</i> (L.) Merr.)	Moderator	Dr. Ni Luh Arpiwi
	2	Buya Azmedia Istiqlal, I Wayan Kasa, Deny Suhermawan Yusup	I Ketut Berata and I Made Kardena	Investigation of heavy metal Plumbum (Pb) and Cadmium (Cd) in the tissues of cattle maintained in landfill, Denpasar	Ayu Saka Laksmita, I Ketut Junitha, Ni Luh Watiniashih	Putu Agastyia Satryana, Gek Marlathasia Aswania, Ni Nengah Dwi Fatmawati	Antagonistic activity of <i>Salacca Zalacca</i> peel against <i>Staphylococcus aureus</i> ATCC 25923 and Methicillin-resistance <i>Staphylococcus aureus</i> ATCC 333591	Sardian, I Made Sudantha, Suwardji	Effect of application dosage bio-compos and biochar fermentation results of <i>Trichoderma</i> spp. and fumigation on the growth and results	Mochammad Junus	The potential of honeycomb from wild bee
	3	Henderina J. Keiluhu and Aditya Krishar Karim	I Wayan Kasa	Effect of heat exposure on dead sperm and pyriform cell in male New Zealand White (NZW) rabbits	Lollie Agustina P. Putri, M. Basyuni, Eva S. Bayu, dan Dian Arvita	DNA profile of oil palm clones based on SSR markers	Wildlife use of Lapua Community, Kaureh, Papua	Saiiful Kamal, I Made Sudantha, Suwardji	Roles of bioactivator & biochar app. methods contain <i>Trichoderma</i> spp. to growth & biomass production of Soybean influencing in entis) Lombok Barat		

BIOTECNOLOGY, GENETICS AND MOLECULAR BIOLOGY		
1	Detection of Mungbean Yellow Mosaic Virus (MYMV) using Polymerase Chain Reaction (PCR) in Yard Long Bean (<i>Vigna sinensis</i> L.) and Weeds I Putu Sudarta, Trisna Agung Phabiola , I Gusti Putu Eka Saputra, I Dewa Nyoman Nyana and Gede Suastika	25
2	Five Loci Mutation Event of Three Balinese Generations Based on Autosomal Mikrosatellite DNA Marker Ayu Saka Laksmita, I Ketut Junitha, Ni Luh Watiniashih	26
3	DNA Profile of Oil Plam Clones Based on SSRMarkers Lollie Agustina P. Putri , M. Basyuni, Eva S. Bayu, and Dian Arvita	26
4	Sequences Analysis of a Gene Encoding Extracellular Xylanase in <i>Streptomyces costaricanus</i> 45I-3 Sipriyadi, Aris Tri Wahyudi, Maggy Thenawidjaja Suhartono, and Anja Meryandini	27
5	Expression of OsbZIP72 Gene in Bali Local Rice Under Drought Stress Made Pharmawati, Ni Nyoman Wirasiti, IGA SugiWahyuni	28
6	COCs Expansion in Medium Supplemented Follicular Fluid from Different Sized Follicles Sri Rahayu, Ali Haris, Gatot Ciptadi, and Aris Soewondo	28
7	Infection And Distribution Of <i>Anisakis spp.</i> Larvae On Sword Fish (<i>Trichiurus lepturus</i>) In Kedonganan Waters Nyoman Adi Suratma, I Wayan Yustisia Semarariana, Ida Bagus Made Oka, and Hapsari Mahatmi	29
8	Sugar Biosynthesis in <i>Vanilla planifolia</i> Plants and Phalaenopsis Seedlings after Application of Fertilizers I Gede Ketut Adiputra	29
9	Utilization Waste Industry of Tofu and Baker Yeast to Make Pollen Substitute for Honeybee RetnoWidowati and Harini Nurcahya Mariandayani	30
10	The Phytochemistry Profile of Raru (<i>Vaticapauci flora</i> Blume and <i>Cotylelobium melanoxylon</i> Pierre) and Its Potensial as Drugs of Diabetes Mellitus Marina Silalahi	31
11	Production of Xylitol from Agricultural Residues: A review Efri Mardawati	31
12	Comparative Studies on Antibacterial Activities of Fruit and Leaf Extract of <i>Ficus lyrata</i> WARB Dwi WahyudhaWira, EfriMardawati, Mohammad Djali, and Roostita L. Balia	32
13	HMG-CoA Reductase Inhibitor Activity of Anthocyanin from Purple Sweet Potato (<i>Ipomoea batatas</i> L.) Ni Made Pitri Susanti, Ni Putu Linda Laksmiani, I Made Agus Gelgel Wirasuta, Ni Kadek Ayu Sandra Dewi, Mitsue Oka, Wayan Eka Heltyani, and I Gde Pande Anindhita Putra Wicaksana	32

ACAGCCTTCTACCCGAT-3'). This research was focused on three activities, 1) Determining the morphological symptom of *Mungbean Yellow Mosaic Virus* (MYMV) disease on yard long bean and weeds; 2) Sampling of plants infected by MYMV; 3) Detection of MYMV in sample plants with polymerase chain reaction (PCR) method. The Research result showed the plant and weeds were predicted infected by MYMV base on the morphological symptom, to reconfirm the plants were actually infected by MYMV the PCR analysis was conducted. Finally after detected by PCR, some plants were positive infected by MYMV. The band of DNA of MYMV was appear with length 238 bp according with specific primers used.

Keywords : *yard long bean, mungbean yellow mosaic virus, weed, PCR*

FIVE LOCI MUTATION EVENT OF THREE BALINESE GENERATIONS BASED ON AUTOSOMAL MIKROSATELLITE DNA MARKER

Ayu Saka Laksmita¹, I Ketut Junitha^{1,2}, Ni Luh Watiniyah¹

¹ Program Studi Magister Biologi, Pogram Pascasarjana, Universitas Udayana, Bali

² UPT Serologi dan Molekuler Forensik Universitas Udayana Bukit Jimbaran, Bali

*Email: sakalaksmita@rocketmail.com

ABSTRACT

Mutation event could change the repetition of base nucleotides replication. It might happen during meiosis. Thus, Mutation event can lead confusion when determining a relationship between parent and the child. A research was conducted to detect the mutation event in five common microsatellite loci have been used for paternity testing, namely FGA, D18S51, D2S1338, TPOX, and D16S539. DNA samples were taken from oral epithelium cell of 25 Balinese families consisting three generation (two grandfathers, two grandmothers, father, mother, and child). DNA was extracted using Phenol-Chloroform, amplified by PCR technique, and visualized in 10% PAGE with silver nitrate staining. The single mutation events were observed in all five loci, where the most was observed in locus TPOX (6 families), followed by D18S51, D16S539 (both 2 families), FGA and D2S1338 (both 1 family). The double mutation events were observed in locus TPOX and D16S539.

Keywords: *mutation, DNA Microsatellite, three generation*

DNA PROFILE OF OIL PLAM CLONES BASED ON SSR MARKERS

Lollie Agustina P. Putri¹, M. Basyuni², Eva S. Bayu¹, and Dian Arvita³

¹ Faculty of Agriculture, Department of Agroecotechnology, University of Sumatera Utara;

² Faculty of Forestry, University of Sumatera Utara

³ Student of Department of Agroecotechnology, Faculty of Agriculture
Prof. A.Sofyan no 3 Street, USU Campus, Universitas of Sumatera Utara, Medan-Indonesia

*Email: lollie_agustina@yahoo.com

ABSTRACT

The oil palm, an economically important tree in Indonesia, has been one of the world's major sources of edible oil and a significant precursor of biodiesel fuel. The objectives of this study were to know DNA profile of oil palm trees derived ramets of tenera palm collections originated from Lame. A total of 15 ramets of Tenera were used for analysis.