



CENTER OF TUBER AND ROOT CROPS



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Certificate

This is to certify that,

KUKUK YUDIONO

has attended

the International Conference on Root and Tuber Crops for Food Sustainability (ICRTC)

held in UB Guest House - Malang, October 10-11, 2017 as

PRESENTER

Head of Center of Tuber & Root Crops

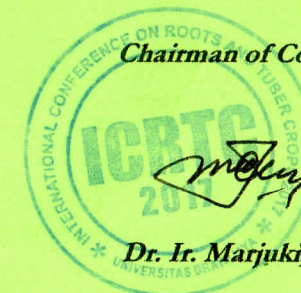
Prof. Dr. Ir. Titiek Islami, MS.



Dr. Ir. Joko Sasilo Utomo, MS.

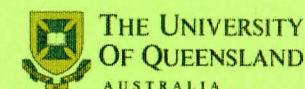
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BOOK OF ABSTRACTS

International Conference on Root and Tuber Crops for Food Sustainability

UNIVERSITY OF BRAWIJAYA
MALANG, INDONESIA

OCTOBER, 10-11th 2017

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TABLE OF CONTENT

LIST PARTICIPANTS	viii
WELCOME SPEECH FROM CHAIRMAN	xxiv
SCHEDULE OF INTERNATIONAL CONFERENCE ON ROOT AND TUBER CROPS FOR FOOD SUSTAINABILITY	xxvi
SCHEDULE OF PARALEL SESSIONS	xxvii
PROSPECT OF CASSAVA AS THE FEEDSTOCK FOR FUEL ETHANOL PRODUCTION IN INDONESIA	xxxv
O - 01. DOWN-REGULATION OF SCOPOLETIN- GLUCOSYLTRANSFERASE REDUCES SCOPOLETIN AND SCOPOLIN ACCUMULATION AND EXTENDS CASSAVA ROOT SHELF-LIFE	2
O - 02. GENETIC PARAMETERS AND YIELD STABILITIES OF CILEMBU SWEET POTATO CLONES	4
O - 03. VARIABILITY OF MORPHOLOGICAL AND AGRONOMIC CHARACTERS OF EIGHT F1 POPULATIONS OF CASSAVA	5
O - 04. ISOLATION AND CHARACTERIZATION OF SUCROSE SYNTHASE ENCODING GENE FROM CASSAVA GENOTYPES VARIED IN THEIR STARCH CONTENT	9
O - 05. GROUPING CASSAVA CLONES BASED ON SPECIFIC CHARACTERS AS A BASIC SELECTION	11
O - 06. MORPHOLOGICAL CHARACTER VARIATIONS OF UWI (<i>Dioscorea alata</i> L.) IN TUBAN AND MALANG	12

O - 07. THE NUTRITIONAL VALUE, SENSORY PROPERTIES AND MICROBIOLOGICAL TEST OF TARO MACARONI AND TARO NOODLE	13
O - 08. FLOWER GROWTH AND SEED PRODUCTION OF AMORPHOPHALLUS MUELLERI BLUME UNDER DIFFERENT WATER REGIMES AND GROWING MEDIA.....	14
O - 09. THE PHYSICO-CHEMICAL PROPERTIES OF TARO TUBER FLOUR WITH SEVERAL PROCESSING METHODS.....	15
O - 10. EFFECT OF STORAGE TEMPERATURE TO ANTHOCYANIN RENDEMENT OF PURPLE SWEET POTATO	20
O - 11. PRODUCTION OF FRIABLE EMBRYOGENIC CALLUS FROM VIETNAMESE CASSAVA VARIETY - KM140.....	22
O - 12. PHYSICO-CHEMICAL PROPERTIES OF INSTANT NOODLE MADE FROM TANNIA COCOYAM (<i>Xanthosoma sagittifolium</i>) AND ELEPHANT FOOT YAM (<i>Amorphophallus campanulatus</i> Bl) MODIFIED FLOUR COMBINED WITH WAXY CORN	23
O - 13. THE EFFECT OF WASHING TREATMENTS AND NATURAL ABSORBENT APPLICATION TO THE QUALITY OF FRESH CASSAVA (<i>Manihot utilisima</i>)	24
O - 14. CHALLENGES AND POTENTIALS OF ROOT AND TUBER CROPS FOR FOOD SUSTAINABILITY IN	

NO.	CODE	AUTHORS	TITTLE	INSTITUTION
8.	O - 08.	Darmawan Saptadi, Nimas Ayu Kinasih, Lita Soetopo	MORPHOLOGICAL CHARACTER VARIATIONS OF UWI (<i>Dioscorea alata</i> L.) IN TUBAN AND MALANG	Faculty of Agriculture, Universitas Brawijaya
9.	O - 09.	Yeyen Frestyaning Wanita ¹ , and Retno Utami Hatmi ²¹	THE PHYSICOCHEMICAL PROPERTIES OF TARO TUBER FLOUR WITH SEVERAL PROCESSING METHODS	^{1,2} Assesment Institute of Agriculture Technology (AIAT) of Yogyakarta
10.	O - 10.	Kukuk Yudiono ¹	EFFECT OF STORAGE TEMPERATURE TO ANTHOCYANIN RENDEMENT OF PURPLE SWEET POTATO	¹ Department of Agricultural Product Technology, Faculty of Agriculture, Widya Karya Catholic University, Malang 65115, East Java, Indonesia
11.	O - 11.	Ludji Pantja Astuti ¹ and M. Bayu Mario ²	A REVIEW OF SEVERAL INDONESIAN SWEET POTATO (<i>Ipomoea batatas</i> (L.) Lam.) RESISTANCE TO SWEET POTATO WEEVIL (<i>Cylas formicarius</i> (F.))	¹ Department of Plant Pests and Diseases, Faculty of Agriculture, University of Brawijaya ² Postgraduate Student of Faculty of Agriculture, University of Brawijaya

O - 10. EFFECT OF STORAGE TEMPERATURE TO ANTHOCYANIN
RENDEMENT OF PURPLE SWEET POTATO

Kukuk Yudiono¹

¹Department of Agricultural Product Technology, Faculty of Agriculture, Widya
Karya Catholic University, Malang 65115, East Java, Indonesia

E-mail: kukuk@widyakarya.ac.id

ABSTRACT

Purple sweet potato is one commodity that has an important compound that is anthocyanin. Anthocyanin is a natural pigment which in the food industry can be used as a functional material, among others, as a natural dye. The purple sweet potato is a perishable commodity and is not available at all times so as to maintain the availability of purple sweet potato especially the anthocyanin pigment, an appropriate storage method is required. This study aims to determine the effect of temperature storage and storage time of purple sweet potato anthocyanin rendement. According to Ayala-Zavala (2004) a good condition for storage is in cold conditions that will have a positive effect on the content of antioxidants contained in fruits. Phenolic compounds including anthocyanins are strongly associated with antioxidant activity, antioxidants will increase when the levels of polyphenol compounds increase. This increase in phenolic compounds is associated with an increase in the enzyme phenylalanine ammonia-lyase (PAL) which is one of the important enzymes in the synthesis of phenolic compounds (Padda and Picha, 2008). Anthocyanins are not always synthesized under normal growth conditions. They are able to respond to environmental stress, such as light, nutrient depletion, and low temperature. Low temperature stress is an important factor in increasing anthocyanin production (Zhang *et al.*, 2012). In addition, the anthocyanin accumulation in the purple kale is strongly induced by the low temperature stress. The total anthocyanin contents in the purple kale under low temperature were about 50 times higher than the plants grown in the green house. Research in *Arabidopsis* seedlings showed that significant Anthocyanin accumulation was induced by low temperature treatment through the up-regulation of CHS (chalcone