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# CERTIFICATE

Awarded to

*Rachmatin Farida Agustina*

As

**Oral Presenter**

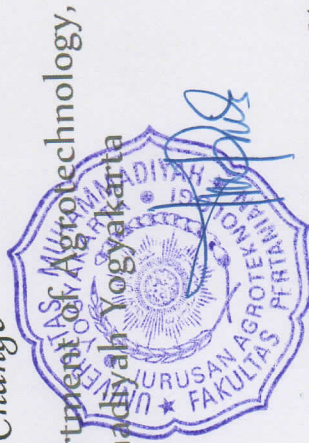
In recognition of His/Her Valuable Participation In  
*International Conference on Sustainable Agriculture*  
"Eco-farming in Managing Global Change"

Yogyakarta, 17-18<sup>th</sup> January 2017 Organized by Department of Agrotechnology,  
Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta

International Conference  
on Sustainable Agriculture  
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*Dina Wahyu T., SP., M.Agr., PhD.*  
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*Dr. Innaka A. R., S.P., M.P.*  
Head of Department





FAKULTAS PERTANIAN  
UNIVERSITAS MUHAMMADIYAH GRESIK

## SURAT TUGAS

Nomor : 062/TGS/II.3.UMG/FPerta/A/2016

Bismillahirrahmanirrahim.

Yang bertanda tangan dibawah ini :

Nama : Ir. Rahmad Jumadi, M.Kes  
N.I.P : 196605291993031002  
Jabatan : Dekan Fakultas Pertanian  
Universitas Muhammadiyah Gresik

Memberikan Tugas kepada :

Nama : Rohmatin Agustina, SP., MP.

Jabatan : Dosen Fakultas Pertanian  
Universitas Muhammadiyah Gresik

Tujuan : Universitas Muhammadiyah Yogyakarta

Keperluan : sebagai Pemakalah pada Conference Internasional Conference on Sustainable Agriculture (ICOSA) dengan tema "Eco – farming in Managing Global Change"

Waktu : 17 – 18 Januari 2017

Demikian Surat Tugas ini disampaikan untuk dilaksanakan dengan penuh tanggung jawab. Setelah menyelesaikan Tugas ini, diharapkan untuk membuat laporan dan menunjukkan bukti kehadiran \*) dibawah ini, selambat – lambatnya satu minggu setelah tanggal pelaksanaan.

Gresik, 6 Desember 2016

Dekan,



Ir. Rahmad Jumadi, M.Kes.

Tembusan :

1. Arsip

\*) Tanda Tangan dan Stempel Penyelenggara





Department of Agrotechnology  
Faculty of Agriculture  
Universitas Muhammadiyah Yogyakarta



# PROGRAM & ABSTRACT BOOK



“Eco-farming in Managing Global Change”

Yogyakarta (Indonesia), January 17-18, 2017



Code No.	Author	Presentation Title	Time
WM-0-001	Azhar	Solid Waste Management Policy in Indonesia	14.50 - 15.00
WM-0-002	Shampazuraini Samsuri	Utilization of Agricultural Wastes for the Growth Performance of Oil Palm ( <i>Elaeis guineensis</i> ) Seedlings in Pre-Nursery Stage	15.00 - 15.10
WM-0-003	Chira Buzeeam	The Relationship between Economic Growth and Municipal Solid Waste in Thailand: Environmental Kuznets Curve Hypothesis Analysis	15.10 - 15.20
WM-0-004	Nenny Nurlaeny	Palm Oil Mill Effluent Effects on Nutrients Availability, Uptake and Growth of Palm Oil Seedlings ( <i>Elaeis guineensis</i> Jac.)	15.20 - 15.30
WM-0-005	Made Deviani Duaja	Palm Oil Waste (Solid) Utilization to Substitute Chemical Fertilizer and it's Effect on Paddy Yield	15.30 - 15.40
WM-0-006	Rochmatin Farida Agustina	Effect of Fresh and Composted organic waste as Fertilizer to Growth and Yield of Okra	15.50 - 16.00
		Panel Discussion	16.00 - 16.10
WM-0-007	Trisha A. Toop	Challenges to the Use of Macroalgae as Sustainable Bioenergy Feedstock	16.10 - 16.20
WM-0-008	Ratih Restiani	Characterization of Crude Bromelain from Pineapple Core ( <i>Ananas comosus</i> )	16.20 - 16.30
WM-0-009	Muhamad Yazid	Households' food waste and its affecting factors: A preliminary analysis in Palembang	16.30 - 16.40
WM-0-010	Dharell Bandarlilpe Siano	Processing and Economic Analysis of Rain Tree ( <i>Samanea saman</i> ) Pods for Village Level Hydrous Bioethanol Production	16.40 - 16.50
WM-0-011	Enggar Apriyanto	The Litterfall Production and Decomposition on Three Types of Land Use in Bengkulu Protection Forest	16.50 - 17.00
WM-0-012	Sandi Gunawan	Implementation of Sugarcane Trash Management on Ratoon Cane at Jengkol Sugarcane Plantation, Pesantren Baru Sugar Mill	17.00 - 17.10
		Panel Discussion	17.10 - 17.20

#### ABSTRACT

One effort to strike a balance between low production and spending on chemical fertilizers on paddy by applying biological fertilizer by utilizing palm oil mills waste (solid), treated biologically with compost into compost solid for substituting chemical fertilizers. The aim of this paper is to examine the effect of biology fertilizer on paddy production. The study was conducted in Batang Asam District. It is used a randomized complete block design with one factor of combination of chemical fertilizers + solid compost based on 4 replications: The treatments of Chemical fertilizers NPK 100% (control dosage recommendation), solid compost 15 ton/ha, solid compost 20 ton/ha, solid compost 15 ton/ha + 75% NPK (dosage recommendation), solid compost 20 ton/ha + 75% NPK (dosage recommendation), solid compost 15 ton/ha + 50% NPK (dosage recommendation), 20 ton/ha + 50% NPK (dosage recommendation). Result showed that grain yield is significantly increased where the maximum grain was found in combination of 20 ton/ha solid compost + 50% NPK dosage. Grain yield increase at the above treatment was mentioned may due to increase of 1000 seed weight, panicle number, number of fertile tiller, flag leaf length, number of spikelet per panicle.

Keywords: Compost, Decanter solid, Oil palm, Rice

**WM-O-006**

#### Effect of Fresh and Composted Organic Waste as Fertilizer to Growth and Yield of Okra

Rochmatin Farida Agustina

Department of Agrotechnology, Faculty of Agriculture, University of Muhammadiyah Gresik

Jl. Sumatra 101 GKB, Gresik, 61112, Indonesia

E-mail: rochmatin@uamg.ac.id

#### ABSTRACT

Processing of home organic waste at city waste area that usually held is by composting firstly in a container. Disadvantages of this technique is needing space area, composting process costs, and labor. Other alternative as a solution is by directly sinking organic waste into soil. The purpose of this research is to study okra plant growth and yield using organic waste as fertilizer in fresh and composted forms. The research was conducted at the Green House, from April to October 2008, using complete Random Block Design. Data was analyzed by F test 0.05 if there is a real difference then continue with Duncan test %. The results showing N mineralization age 60 days after planting were significantly different among all treatments, in order from highest to lowest, inorganic fresh Organic Waste (OW) composted OW + manure fresh OW + biofertilizer composted OW composted OW + manure + biofertilizer fresh OW + manure + biofertilizer composted OW + biofertilizer. Observation of the leaf area, plant dry weight and fresh weight of pods per hectare was not significantly different among all treatments, concluding that sinking organic waste to soil is an efficient alternative.

Keywords: Organic waste, Compost, Okra

Abstract