



ICWEST 15

AUSTRALIA 2011
ADELAIDE 19-22 JULY

Leadership, Innovation, Sustainability

The 15th International Conference of
Women Engineers and Scientists

Adelaide Convention Centre

Adelaide, South Australia

Final Program and Abstract Book



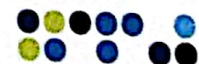
www.icwes15.org

Conference hosts:



Thursday, 21 July 2011

15.30 - 17.00	Hall C	Hall D	Meeting Rooms 1&2	Meeting Room 10	Meeting Room 11
	Gender Equity / Diversity Facilitator: Ms Bernie Hobbs	Agricultural Science Co-Chair: Dr Sally Plush, Australia Dr Tara Pukala, Australia	AGM	Workshop: Women in Local Government. Local Government Session Presenters: Jillian Kilby, Engineers Australia, Australia Gabrielle Cusack, Regional Development Australia - Orana NSW, Australia	Workshop: Making Change Stick! - Systems for Sustaining Change: 524 Presenter: Ms Alexandra L Meldrum, UNSW - AGSM., Australia
15.30	Improving Gender Equity and Diversity in the Science Profession: A New Zealand Perspective: 444 Dr Di McCarthy, The Royal Society of New Zealand, New Zealand	Effectivity of Entomopathogenic Fungus Beauveria Bassiana to Control White Grub Lepidota SP: 449 Dr R.R Rukmowati Brotodjojo, Dept. of Agrotechnology Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia	INWES Annual General Meeting		
15.45		Study of Integrated Pest Management (IPM) Application to Increase Yield, Quality and Income of the Cocoa Farmers in Kulon Progo, Yogyakarta, Indonesia: 450 Ms Dwi A Puspitaningrum, Dept. of Agribusiness Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia			
16.00	Perceptions and Experiences of the Workplace among Canadian Computer Science and Engineering Students - A Gender Analysis: 445 Valerie J Davidson, University of Guelph, Canada	Production of Biogas from Cowdung and Food Waste by Countinous Feed Process: 451 Olayinka A Abdul, Lagos State Development and Property Corporation, Nigeria			
16.15	Can Labour Saving Technologies Help Rural Women in Uganda? The Case of the Manual Forage Chopper for Smallholder Dairy Farmers: 446 Florence B Lubwama Kiyimba, National Agricultural Research Organization, Uganda	The Production of Biodiesel from Oils and Fats: 452 Ji-Yeon Park, Korea Institute of Energy Research, Korea			
16.30	Women Engineering Career: The Case of Nigeria: 447 Dr Christianah Olakitan Ijagbemi, Mechanical Engineering Department, Federal University of Technology, Akure, Nigeria, Nigeria	Structure, Hydrogeology, and the Geothermal System of Mount Ungaran Area, Central Java, Indonesia: 531 Prof Dr Sari B Kusumayudha, University of Pembangunan Nasional (UPN), Indonesia			
16.45	Facilitated Discussion				
19:00-23:00	Gala Dinner				Hall F



mL water and the fungal solution was poured on the soil. The results showed that the mortality of treated grubs was not significantly different from those untreated grubs. However, the weight of fresh root, fresh plant and dry plant of plant treated directly with 1.5 g cultured fungus/100 g soil was significantly higher than those of other treated plants and untreated plant. The direct application of 1.5 g cultured fungus/100 g soil was resulted in higher number of seeds per plant than that of other applications. In conclusion, this fungus can be used to control *Lepidota* sp., although higher dose may be needed.

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Study of Integrated Pest Management (IPM) Application to Increase Yield, Quality and Income of the Cocoa Farmers in Kulon Progo, Yogyakarta, Indonesia

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Sri Wuryani, Dept. of Agrotechnology, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia

RR Rukmowati Brotodjojo, Dept. of Agrotechnology, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia

This study was aimed to assess the success of Integrated Pest Management (IPM) Technology application on cocoa farmer in Kalibawang Kulon Progo, Yogyakarta, Indonesia. This technology consisted of 5 (five) activities. i.e. frequent harvesting, pruning, fertilizing, sanitation, and pod sleeving. The first program was to socialize the IPM program that will be implemented on the field. With Proportional Random sampling method, 35 farmers were chosen from cocoa farmer population in Kalibawang Kulon Progo. Selected farmers were those who had been trained in Integrated Pest Management (IPM) Course previously. The result of the study showed that application IPM Technology increased yield of cocoa product up to 69.80%. Furthermore, IPM Technology also improved the income of cocoa farmers up to 69.6%. In addition, post harvest losses decreased for 7.75 %, whereas the overall quality showed no significant difference between before and after application of IPM Technology.

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Production of Biogas from Cowdung and Food Waste by Countinous Feed Process

Olayinka A Abdul, Lagos State Development and Property Corporation, Nigeria

James O Akanmu, University of Lagos , Akoka, Nigeria

Anthony A Kwemesi, University of Lagos , Akoka, Nigeria

Adebowale O Kosoko, Lagos State Government, Nigeria

Biogas is a bye-product of the breakdown process from biodegradable waste such as waste food, cow dung, cassava peels, pigs and poultry waste also a renewable energy source.

This research project intends to address the issue of the production of biogas from food waste and cow dung, which can produce biogas through the process called 'anaerobic digestion'.

Recently, developed countries have been making increasing use in biogas treatment systems for municipal waste. The project has as its main thrusts to; design a process of converting food waste and cow dung into biogas; study the process of converting food waste and cow dung to biogas using continuous feeding process method; and determine if methane is produced / constituent of gas produced under hydraulic retention period of 14 days.

The digestion process produces the principal acids which are processed by methanogenic bacteria to produce methane.

Conditions necessary for the optimum production of biogas are: pH value and temperature as well as a continuous feed digester. The biogas production plant comprises of - the digester, the scrubber, the gas holder; the gas mains.

Biogas containing methane could be efficiently produced from food waste and cow dung slurry in a continuous feeding process digester.

KEY WORDS

Bio-gas, digester, scrubber, pH, temperature, cow dung and food waste.

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The Production of Biodiesel from Oils and Fats

Ji-Yeon Park, Korea Institute of Energy Research, Korea, Democratic People's Rep

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You-Kwan Oh, Korea Institute of Energy Research, Korea, Democratic People's Rep

Deog-Keun Kim, Korea Institute of Energy Research, Korea, Democratic People's Rep

There has been an increased interest in the use of the biodiesel produced from triglycerides as an alternative fuel for diesel engines, due both to the instability in the price of petroleum and to environmental concerns related to the air pollution generated by vehicles. The biodiesel production has typically focused on edible oils such as soybean oil, rapeseed oil, and palm oil. Recently, waste oils and fats such as used frying oil, trap grease, soapstock, acid oil, and tallow has been proposed and used as biodiesel resources. As the supply of biodiesel increases, the interest in the use of non-edible oils such as jatropha oil, tung oil, and algal oil as an alternative feedstock for the production of biodiesel has grown. The alkali process for biodiesel production can achieve high purity and yield of biodiesel in a short time. However, oils and fats that are high in free fatty acids result in the production of soap and the loss of catalyst in the alkali process. To overcome this, the free fatty acids should be removed before the transesterification reaction. The free fatty acids react with alcohol under an acid catalyst, producing ester and water. To ensure that a uniform quality of biodiesel is produced from the vegetable oils or animal fats, the European Commission mandated the European Committee for Standardization. It developed standard specifications for the minimum requirements and testing methods for biodiesel to be used as fuel for biodiesel engines and for heating purposes. There are Korean Biodiesel Standards in Korea. Palm oil, soybean oil, and used frying oil are typically used as biodiesel resources in Korea. The production of biodiesel from algal oil is being investigated by our research team.



YAYASAN KESEJAHTERAAN PENDIDIKAN DAN PERUMAHAN
BADAN PENYELENGGARA PENDIDIKAN

SURAT IJIN
NOMOR : SI/ 35 /DIK/YKPP/VI/2011

Dasar : 1. Surat Keputusan Ketua Pengurus YKPP Nomor : Skep/31/YKPP/XI/2008 tanggal 25 November 2008, tentang Petunjuk Teknis Pembinaan Pegawai Yayasan Kesejahteraan Pendidikan dan Perumahan.
2. Surat Rektor UPN "Veteran" Yogyakarta Nomor : B/356-0/UPNVY/VI/2011 tanggal 15 Juni 2011, perihal Permohonan ijin ke Luar Negeri.

Pertimbangan : Bahwa perlu menyetujui permohonan tersebut.

DI IJINKAN

Kepada : Dwi Aulia Puspitaningrum, SP, MP Penata Tk-I III/d
Dosen Fakultas Pertanian UPN "Veteran" Yogyakarta

Pengikut : -

Untuk : Pergi : ke Australia

Keperluan : Mengikuti dan mempresentasikan makalah 15th International Conference for Women Engineer and Scientist.

Waktu : ± 4 (empat) hari.

Catatan : 1. Biaya perjalanan dinas Yogyakarta – Denpasar ditanggung UPNV Yogyakarta.

2. Berangkat / kembali tanggal 19-22 Juli 2011.

Dikeluarkan di : Jakarta
Pada tanggal : 20 Juni 2011

a.n. KEPALA BP PENDIDIKAN
SEKRETARIS

ADI SURANTO

Tembusan Yth :

1. Pengurus YKPP
2. Kepala BP Pendidikan
3. Rektor UPN "Veteran" Yogyakarta
4. Ketua BPH UPN "Veteran" Yogyakarta.