

RESPONSE OF CROP YIELD AND YIELD COMPONENTS OF TOMATO TO
DIFFERENT TILLAGE METHODS IN THE ARID LANDS OF VARAMIN, IRAN

M. Rashidi^{1*} and B. G. Khabbaz²

¹Department of Agricultural Machinery, Faculty of Agriculture, Islamic Azad University, Takestan Branch, Iran; ²Faculty of Engineering and Surveying, University of Southern Queensland, Australia; *Corresponding author's e-mails: majidrashidi81@yahoo.com; m.rashidi@aeri.ir

ABSTRACT

A field experiment was conducted at the Research Site of Varamin Agricultural Research Center, Varamin, Iran on sandy loam soils to study the response of tomato (*Lycopersicon esculentum*) to different tillage methods during 2007 and 2008. Tillage treatments in the study included were conventional tillage (CT; moldboard plowing + two passes of disk harrowing), minimum tillage (MT; one pass of disk harrowing) and no-tillage (NT). Crop yield, yield components (plant population density, PPD; number of fruits per plant, NFPP; fruit weight, FW; fruit length, FL; fruit diameter, FD) and a fruit quality parameter (total soluble solids, TSS) were determined for all treatments. Results indicated that tillage methods significantly ($P \leq 0.05$) influenced crop yield, yield components and TSS. Results also showed that PPD and NFPP are the most important yield components explaining crop yield difference under different tillage methods. The maximum PPD (10025 plants ha^{-1}), NFPP (19.1) and as a result crop yield (12.2 $t ha^{-1}$) were observed with CT, while maximum values of FW (71.2 g), FL (70.0 mm), FD (59.2 mm) and TSS (7.27%) were noted NT plots. On the other hand, minimum PPD (5117 plants ha^{-1}), NFPP (10.2) and hence crop yield (3.70 $t ha^{-1}$) were obtained with NT, while the minimum values of FW (63.6 g), FL (61.0 mm), FD (59.6 mm) and TSS (5.81%) were noted in case of CT treatment. Therefore, one pass of moldboard plow followed by two passes of disk harrow was found to be more appropriate and profitable tillage method in improving crop yield of tomato in the arid lands of Iran.

NOTES

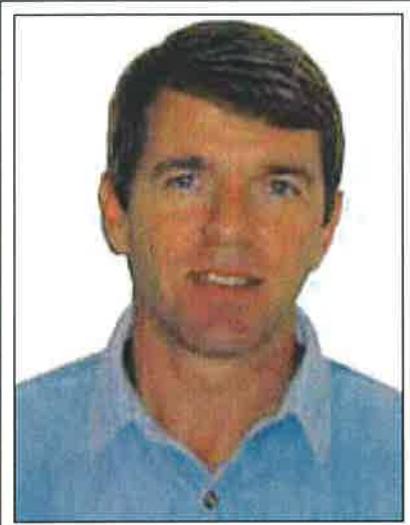


LEADING EDGE

Leading Edge, supported by the Society for Engineering in Agriculture and the Australian Centre for Precision Agriculture, provides a local and worldwide window on engineering and PA research.

SEAg 2009 - Agricultural Technology in a Changing Climate

Noted overseas and local agricultural engineers will present practical solutions to many of the emerging issues associated with climate-challenged sustainable food production at the



NCEA Director Erik Schmidt.



SEAg president Dr Thomas Banhazi.

2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture.

The three-day event to be held at the Chifley at Lennons in Brisbane on September 13–16, 2009 has already attracted Belgian, South African and South Korean speakers who will address the theme: *Agricultural Technology in a Changing Climate*.

Symposium co-convenors are NCEA Director Erik Schmidt and SEAg president Dr Thomas Banhazi. The co-hosts are SEAg and Engineers Australia with the International Commission of Agricultural Engineering (CIGR) as co-sponsor.

The scientific program will include plenary sessions, parallel oral sessions and poster sessions. Topics will include:

- Irrigation, water and environmental management;
- Post-harvest technologies and processing;
- Structures, equipment and environment;
- Power and machinery;
- Precision agriculture and livestock management;
- Plant production and handling; and,
- Information management.

...44▷

MOREE PICKER PARTS For new quality JD & Case IH parts COMPETITIVE PRICES GUARANTEED!

Full workshop backup with satisfied customers Australia wide.

BHC
Agricultural Implements & Machinery



All of our parts are subject to strict ISO 9000 factory quality control

Ph: 02 6753 3712

Fax: 02 6752 3681 — Email: pickerag@tpg.com.au

<43...SEAg 2009

Erik sees this symposium as an ideal forum for ag engineers, service companies and primary producers to meet and exchange views.

"We live in challenging times and adapting to change is essential for all sectors of the world economy," Erik said.

"Agriculture in particular is under enormous pressure from a changing climate both in terms of weather, labour and resource availability and the economy.

"Research, development and adoption of new agricultural technologies provide real opportunities to ensure sustainable agricultural production systems," he said.

As well, a number of associated meetings will be held in conjunction with the main symposium, including a focused workshop designed to explore opportunities for closer regional collaboration between SE Asian/Australian Agricultural Engineering societies.

Thomas is based at the South Australian Research and Development Institute and heads the symposium scientific committee of 30 distinguished researchers from 17 countries.

He believes strongly Australians can show the way on how to adapt to more variable climates.

"This is a country of great diversity with

extreme agricultural challenges. Innovation has always been a prerequisite for the agricultural sector," Thomas said.

"This symposium provides a unique forum for local and international delegates to share ideas and opportunities," he said.

A short two-day post congress tour after the symposium will take local delegates and international visitors on a tour of agricultural production and processing facilities in the south-eastern corner of Queensland.

The tour departs on the morning of September 16 and returns late afternoon September 17.

Attendees will get an overview of local agricultural industries including horticulture, intensive livestock production, viticulture, broadacre cotton, grain production and associated processing.

The tour will depart Brisbane and travel through the rich farm land areas of the Lockyer Valley and Darling Downs and will include an overnight stay on the edge of the Western Downs with the return trip through the scenic Cunningham's Gap to Brisbane.

Every symposium needs industry sponsors and this event is no different, Symposium Secretariat Event Manager Suellen Holland said.

"The exhibition and poster display will be a focus of the symposium," Suellen said.

"Our daily program has been structured to maximise the opportunity for participants to visit the exhibition. Refreshment breaks, including morning and afternoon teas, will be held within the exhibition area.

As well, the exhibition area adjoins the scientific program auditorium, thus guaranteeing a high level of delegate visitation," she said.

The Conference Organising Committee has produced a 10-page symposium website which features comprehensive information and interactive links to enable early bird registration, abstract lodgement, short farm tour bookings and sponsorship site reservations.

Visit www.seag2009.com.au



Society for Engineering in Agriculture

The society contributes to the development of a strong engineering involvement in agriculture to aid economic growth and environmental sustainability for the entire Australian community.

Who can join SEAg?

Membership is open to anyone interested in the application of engineering to agriculture and related industries. This includes scientists, farmers, surveyors, technical officers, engineers, manufacturers, distributors and processors.

SEAg NATIONAL COMMITTEE MEMBER POSITIONS

Tim Andrew – Chair

E: Andrew.Tim@johndeere.com Ph: +61 414 247 927

Dr Thomas Banhazi – Deputy Chair

E: banhazi.thomas@saugov.sa.gov.au Ph: +618 8303 7781

Dr Chris Saunders – Hon Secretary

E: chris.saunders@unisa.edu.au Ph: +618 8302 3664

Darren Bartels – Treasurer

E: aba94626@bigpond.net.au Ph: +61 404 449 199

Erik Schmidt – Training

E: schmidte@usq.edu.au Ph: +617 4631 1347

Dr Guannan Chen – Publications

E: chengn@usq.edu.au Ph: +617 4631 2518

or www.ncea.org.au/seag/seag.htm

SUBMIT YOUR ABSTRACT NOW AND PARTICIPATE IN SEAG 2009

Authors are invited to submit abstracts (maximum 200 words) for presentation at the 2009 SEAg Symposium and for inclusion in the conference proceedings.

Each abstract will be reviewed by the scientific committee before inviting the authors to submit the full article.

Please follow the instructions carefully to ensure that the submitted abstract will be assessed properly.

The full conference papers will be submitted to a 'light review' process to ensure scientific integrity and compliance with formatting requirements.

Conference participants will be invited to submit an updated version of the conference papers as a Journal article to be published in the *Australian Journal of Multi-disciplinary Engineering* published by Engineering Australia.

Our experienced 'scientific committee' will ensure the high scientific standard of the conference.

The closing date for abstract submission will not be extended and abstracts will only be accepted if the author has registered for the 2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture.

All inquiries regarding abstracts for the 2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture should be emailed to seag2009@icmsaustralasia.com

Deadline for submission of abstracts: February 15, 2009.

Notification of abstract acceptance: March 1, 2009.

Deadline paper submission: May 1, 2009.

Feedback review scientific committee: June 15, 2009.

Deadline final paper submission: July 15, 2009.

Agricultural Technologies in a Changing Climate

13-16th September 2009

The 2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture
The Chifley at Lennons, Brisbane, Queensland, Australia

Conference Committee

SEAG National Committee
Member PositionsConference Sponsors
and Support

Foreword

Papers

 Abstract Book available to download (.pdf format)

 Please note: Acrobat PDF files are contained throughout this CD Rom. The majority of text is linked to PDF documents which require Adobe Acrobat Reader to view. If you do not have this application and/or would like to download a free up to date version, click here to be taken to the Adobe website.

[Invited Speakers](#) | [Oral Presentations](#) | [Poster Session](#)

Invited Speakers

Senior Author

Title

Berckmans, D.	PERSPECTIVES OF PRECISION LIVESTOCK FARMING
Hartung, J.	ENVIRONMENTAL IMPACT OF AIRBORNE EMISSIONS FROM LIVESTOCK PRODUCTION
Smithers, J.C.	TECHNOLOGY IN FOOD AND ENERGY PRODUCTION SYSTEMS: ACHIEVEMENTS AND CHALLENGES

Oral Presentations



Co-hosts



Senior Author	Title
Aamink, A.J.A.	OPTIONS FOR DUST REDUCTION FROM POULTRY HOUSES
Al-Mallahi, A.A.	A MECHANISM FOR GUIDING THE FLOW OF POTATO TUBERS AND CLODS ON THE HARVESTER USING MACHINE VISION-
Althaus, K.J.	EFFECT OF IRRIGATION MANAGEMENT ON NITRATE MOVEMENT UNDER A DRIP IRRIGATED LETTUCE CROP
Banhazi, T.M.	USING IMAGE ANALYSIS AND STATISTICAL MODELLING TO ACHIEVE IMPROVED PIG WEIGHT PREDICTIONS
Billingsley, J.	AUTOMATION AND THE FARMER
Bitog, J.P.	SIMULATION OF AN ARRAY OF FENCES IN SAEMANGEUM RECLAIMED LAND USING CFD TECHNOLOGY
Casey, K.D.	ESTABLISHMENT AND OPERATION OF THE NATIONAL AIR EMISSION MONITORING STUDY SITE AT PIG BREEDER FACILITY IN OKLAHOMA
Davis , R.J.	AN INVESTIGATION OF LOT-FED CATTLE DRINKING WATER CONSUMPTION UNDER AUSTRALIAN CONDITIONS
Davis , R.J.	A REVIEW OF CANE HARVESTER PERFORMANCE RESEARCH IN THE AUSTRALIAN SUGAR INDUSTRY
Davis , R.J.	PRECISION AGRICULTURE TECHNOLOGIES - RELEVANCE AND APPLICATION TO SUGARCANE PRODUCTION
Fayose, F.T.	COMPARISON OF SYSTEM PARAMETERS RESPONSE OF A LOCALLY DEVELOPED EXTRUDER TO CASSAVA AND CEREAL PROCESSING
Filas da Cruz, V.	A REGIONAL SURVEY OF EMERGING HOT CLIMATE CONDITIONS IN PORTUGAL AND THE NEW CHALLENGE TO ANIMAL HOUSING
Fraser, M.J.	DESIGN AND MODELLING OF THE STRUCTURAL INTEGRITY OF A UNIVERSAL TOOLBAR FOR A TWO WHEELED POWER TILLER
Gallego Elvira, B.	REDUCING EVAPORATION LOSSES FROM AGRICULTURAL RESERVOIRS BY MEANS OF SHADE CLOTH COVERS UNDER A SEMIARID CLIMATE
Gholizadeh, A.	THE EFFECT OF WATER STRESS AND NATURAL ZEOLITE ON PHYSIOMORPHOLOGICAL CHARACTERISTICS OF MOLDAVIAN BALM (DRACOCEPHALUM MOLDAVICUM)
Hancock , N.H.	TOWARDS A BIOPHYSICAL UNDERSTANDING OF OBSERVED PERFORMANCE OF EVAPORATION SUPPRESSANT FILMS APPLIED TO AGRICULTURAL WATER STORAGES – FIRST ANALYSES
Hussain, A.	THE ECONOMICS OF SPRINKLER IRRIGATION UNIFORMITY FOR LETTUCE PRODUCTION WITH 1N-SEASON RAINFALL
Ismail, S.A.	EVALUATION OF ENERGY USAGE FOR COTTON GINNING PROCESSES
Jang, T.I.	RICE YIELDS ASSESSMENT OF RECLAIMED WASTEWATER IRRIGATION BY THE FERTILIZER CHANGES IN PADDY FIELDS
Javadi, A.	A HORIZONTAL SENSOR FOR MEASURING SOIL MECHANICAL RESISTANCE ON-THE-GO DURING TILLAGE OPERATION
Jensen, T	THE USE OF A UAV AS A REMOTE SENSING PLATFORM IN AGRICULTURE
Khosravani Goshla, A.	A REVIEW OF SOIL TOOL ADHESION PRINCIPLES AND APPROACHES TO REDUCING LIMITATIONS OF DISC SEEDERS
Kim, H.J.	SIMULTANEOUS DETERMINATION OF CADMIUM AND LEAD IN RICE BY ANODIC STRIPPING VOLTAAMMETRY WITH A BISMUTH-FILM GLASSY CARBON ELECTRODE
Kim, H.K.	ASSESSMENT OF RECLAIMED WASTEWATER IRRIGATION EFFECTS ON HEAVY METAL CONTAMINATION IN SOIL AND VEGETABLES
Lee, J.	A NUMERICAL EVALUATION MODEL BASED ON INFORMATION THEORY FOR MONITORING OF RURAL ENVIRONMENT
	AN APPLICATION OF SELF ORGANISING MAP SCHEME OF NEURAL NETWORK ON PLANT

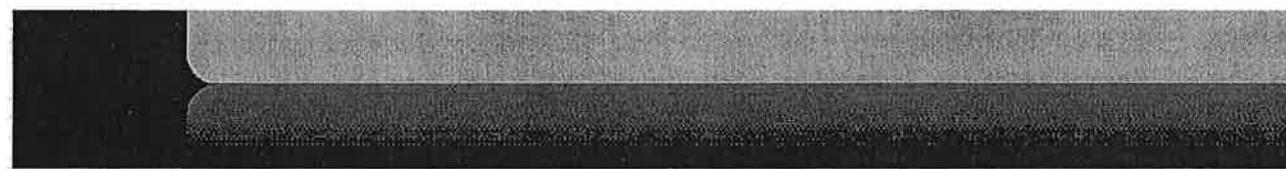
Poster Author	Title
Banhaazi, A.	REDUCING THE CONCENTRATIONS OF AIRBORNE PARTICLES IN EDED LIVESTOCK BUILDINGS.
Banhaazi, T.M.	EVALUATING LASER SCANNING AS A POTENTIAL TECHNOLOGY FOR MEASUREMENT OF LIVESTOCK BODY DIMENSIONS
Bank, G.N.	DEVELOPMENT OF A SMART MONOLAYER APPLICATION SYSTEM FOR REDUCING EVAPORATION FROM FARM DAMS - INTRODUCTORY PAPER
Boli, A.	THE USE OF CLOUDS AND CLOUD SEEDING RESEARCH PROGRAM
Craig, I.	ENERGY USAGE OF INDIVIDUAL ACTIVITIES WITHIN AUSTRALIAN CATTLE FEEDELOTS
Davies, R.J.	WATER USAGE OF INDIVIDUAL ACTIVITIES WITHIN AUSTRALIAN CATTLE FEEDELOTS
Davies, R.J.	BEHAVIORAL AND HYGIENIC ASPECTS OF THE GERMAN SMALL COWRY KEEPING SYSTEM FOR DAIRY HERDS
Dee, Z.B.	EFFECTS OF NEOPRENE MAT ON DAIRYHERA, MORTALITY AND FORELGE ABRAISION OF PRE-MEANING PIGLETS
Hartung, J.	LAVING HERDS

Poster Sessions

Zhang, N.	A FREQUENCY-RESPONSE PERMITTIVITY SENSOR FOR GROWING MICROALGAE USING CFD SIMULATION
Yang, Z.	DEVELOPMENT STRATEGY OF AGRICULTURAL MACHINERY BASED ON ENERGY-SAVING IN CHINA
Yaoji, G.	STUDIES ON THE PREPARING OF THE CAVENDISH CULTIVARS OF BANANA (Musa sp.) IN THE WHY NOT INTEGRATE FEEDLOT GREENHOUSE GAS EMISSIONS MODELING INTO MELT
Watts, P.J.	DEVELOPMENT OF WIRELESS SENSOR NETWORK FOR PRECISION AGRICULTURE APPLICATIONS
Wang, N.	MULTI-SPECTRAL SYNTHETIC DATA
Vincent, M.	ESTIMATING LEAF CHLOROPHYLL CONCENTRATION OF ERICOTHILE CROPS CANOPIES FROM UTILIZATION OF ANIMAL WASTE AS FERTILIZER FOR PADDY FIELD IN THE ASIAN MONSOON REGION
Suzuki, Y.	SPATIAL DISTRIBUTION OF PASTURE HERBACEOUS MASS BY HYPERFECTRAL IMAGING
Song, S.	IMPACT OF THE FAN FREQUENCY ON DROPLET TRANSMISSION OF AIR BLAST SPRAYER
Sommer, S.G.	INCINERATION OF SOLIDS
Soltou, A.A.	EFFECS OF DEEP TILLAGE AND IRIGATION REGIMES ON SUGARBEET YIELD IN IRAN
Seo, H.H.	ACCORDING TO VENTILATION SYSTEM
Seo, H.H.	NUMERICAL INVESTIGATION OF THE PIG HOUSE TO PREVENT PIG RESPIRATORY DISEASE
Rellimuller, G.	IMPROVING DIESEL FUEL EFFICIENCY ON FARMS IN WESTERN AUSTRALIA
Rees, S.J.	PLANT IDENTIFICATION TECHNOLOGY
Rashidi, M.	RESPONSE OF CROP YIELD AND YIELD COMPONENTS OF TOMATO TO DIFFERENT TILLAGE METHODS IN THE ARID LANDS OF IRAN
Ramirez, A.	A METHODLOGY TO ASSESS LANDSCAPE FROM RURAL ROADS
Rahmani, M.H.	EFFECT OF TILLAGE PRACTICES ON SOYBEAN YIELD DURING DRY SEASON IN NORTH OF IRAN
Poursaberi, A.	THE BEHAVIOR OF TURKEYS IN TRANSPORT CAGES BASED ON ELIMINE FITTING AUTOMATIC MONITORING OF TRUCKS : A VISION-BASED APPROACH TO DETECT AND ANALYSE DETECTION IN DAIRY CATTLE
Pulk, A.	SYNCHRONIZED PRESSURE DISTRIBUTION AND IMAGE RECORDING FOR AUTOMATIC LAMENESS
Oz, H.H.	THE SWINE MANURE WITH ORGANIC BYPRODUCT
Nelsen, W.M.	CAN GIS BE USED TO CHOOSE SITES FOR INTENSIVE LIVESTOCK FACILITIES?
Nath, S.	STUDIES ON THE PREPARING OF BANANA (Musa sp.) IN THE NUMERICAL PREDICTIONS OF AIR TEMPERATURE AND VELOCITY DISTRIBUTION TO ASSIST IN THE DESIGN OF FREE VENTILATION PIGRIES
D.	MOHAMMAD ZAMANI, GENARATION DIGITAL MANAGEMENT MAP FOR HERBICIDE APPLICATION IN VRA SPRAYING BY USING GPS
McCarthy, A.C.	IMPLEMENTATION OF DATA REQUIREMENTS FOR ADAPTIVE CONTROL OF IRRIGATION SCHEDULING
Macmillan, R.H.	TRAJECTORY PLOTTING SYSTEM
Nielson, W.M.	ANIMAL WASTE MANAGEMENT IN KOREA AND ANEROBIC CO-FERMENTATION PROCESS USING LOWLANDS OF PAPUA NEW GUINEA.
Page 2	Agricultural Technologies in a Changing Climate

Hong, S.W.	CFD MODELING OF LIVESTOCK ODOR DIFFUSION ON COMPLEX TOPOGRAPHY
Hwang, H.S.	MONITORING OF FUGITIVE DUST EMISSION IN SAEMANGU姆 RECLAIMED LAND
Jang, T.I.	RICE YIELDS ASSESSMENT OF RECLAIMED WASTEWATER IRRIGATION BY THE FERTILIZER CHANGES IN PADDY FIELDS
Kim, H.K.	ASSESSMENT OF RECLAIMED WASTEWATER IRRIGATION EFFECTS ON HEAVY METAL CONTAMINATION IN SOIL AND VEGETABLES
Kwon, K.S.	DEVELOPEMENT OF ANALYZING VENTILATION EFFICIENCY USING CFD TECHNOLOGY BASED ON LMA & LMR THEORY
Kwon, S.H.	STUDY ON VENTILATION EFFICIENCIES OF NATURALLY-VENTILATED MULTISPAN GREENHOUSES IN KOREA
Lee, H	ANALYSIS OF THE DIFFUSION ROUTE OF AVIAN INFLUENZA WITH NETWORK THEORY IN KIMJE, JEOLLABUK-DO, KOREA
Maestre Valero, J.F.	EFFECTS OF SUSPENDED SHADE CLOTH COVERS ON THE WATER QUALITY OF AGRICULTURAL WATER RESERVOIRS FOR IRRIGATION
Neale, T	RTK CORS NETWORKS – THE FUTURE OF AGRICULTURAL MACHINE GUIDANCE
Rhee, S	THE OBSERVATION OF TEMPERATURE AND RELATIVE HUMIDITY IN A DIRT-WALLED STOREHOUSE
Saglam, C.	EFFECTS OF OLIVE HARVESTING METHODS ON OIL QUALITY
Saunders, C	REDUCING THE CONCENTRATIONS OF AIRBORNE PARTICLES IN BEDDED LIVESTOCK BUILDINGS: DEVELOPMENT OF A TESTING EQUIPMENT
Shield, S.E.	MANAGING WATER SUPPLY FOR IRRIGATION: A MODULAR APPROACH
Solhjou, A.A.	REVIEW OF FACTORS INFLUENCING SOIL MOVEMENT INDUCED BY GROUND OPENERS
Tang, W.	DEVELOPMENT OF AN AUTOMATIC MARBLING SCORING SYSTEM USING DIGITAL IMAGE PROCESSING
Yoo, J.I.	DESIGN OF A BUBBLE-COLUMN PHOTOBIOREACTOR FOR GROWING MICROALGAE USING cFD SIMULATION
Youn, D	THE FAILURE PROBABILITY USING BY CONVOLUTION WITH NON-NORMALIZED DISTRIBUTION FOR RELIABILITY ANALYSIS OF AGRICULTURAL STRUCTURES

Top of the page



Borzoo Ghareei Khabbaz

From: Erik Schmidt
Sent: Tuesday, 6 October 2009 12:19 PM
To: Borzoo Ghareei Khabbaz
Subject: RE: Seag 2009 Symposium - Paper Reviews

Borzoo

Suggest you send them an email and refer them to the SEAG web site that refers to the review process. Alternative is to send the review email you originally got from ICCMS (see below)

Erik

From: Borzoo Ghareei Khabbaz
Sent: Tuesday, 6 October 2009 12:08 PM
To: Erik Schmidt
Subject: FW: Seag 2009 Symposium - Paper Reviews
Importance: High

Hi Erik!

I deposited my 3 papers from Brisbane Symposium to USQ eprint and for further applications they need an e-mail indicated that those papers are Refereed? Would you please inform me, how can I get this e-mail?

Regards,
Borzoo Ghareei Khabbaz
MENG Candidate
NCEA (National Centre for Engineering in Agriculture)
Faculty of Engineering and Surveying
University of Southern Queensland, Toowoomba, Australia
phone: (07) 46312633
Mobile: 0425 821 467



PLEASE CONSIDER THE ENVIRONMENT BEFORE YOU PRINT THIS E-MAIL

From: Suellen Holland [mailto:SuellenH@icmsaust.com.au]
Sent: Friday, 7 August 2009 12:46 PM
To: Borzoo Ghareei Khabbaz
Cc: Erik Schmidt
Subject: Seag 2009 Symposium - Paper Reviews
Importance: High

Dear Borzoo

I understand from Erik that you have indicated you have not received your reviews? These were sent by my colleague Michael on the 14th July?

Thereafter, we have received your returned papers as your final submissions.

Would you please re-check that these are the final papers for the program.

Best regards
Suellen

Suellen Holland
Executive Manager
ICMS Australasia
72 Merivale Street
South Brisbane QLD 4101
(PO Box 3599, South Brisbane QLD 4101)
AUSTRALIA
T: 07 3255 1002
F: 07 3255 1004
E: suellenh@icmsaust.com.au
www.icmsaust.com.au
"Leaders in the management of conferences, exhibitions, corporate communications and special events."

 PLEASE CONSIDER THE ENVIRONMENT BEFORE YOU PRINT THIS E-MAIL

From: Michael Blower
Sent: Tuesday, 14 July 2009 11:54 AM
To: 'khabbaz@usq.edu.au'
Subject: SEAg 2009 Symposium - Paper Reviews

Dear SEAg 2009 Paper Submitter,

Please find attached the light review of your full paper for the upcoming SEAg 2009 Symposium. We ask that you please make the suggested adjustments to your paper and re-submit to myself at michaelb@icmsaust.com.au as soon as possible to ensure inclusion in the Symposium scientific program.

Kind Regards,
Michael

Michael Blower
Conference & Exhibition Coordinator
ICMS Australasia Pty Ltd
72 Merivale St
South Brisbane QLD 4101
(PO Box 3599, South Brisbane QLD 4101)
AUSTRALIA
T: (+61 7) 3255 1002
F: (+61 7) 3255 1004
E: michaelb@icmsaust.com.au
www.icmsaust.com.au

"Leaders in the management of conferences, exhibitions, corporate communications and special events."

 PLEASE CONSIDER THE ENVIRONMENT BEFORE YOU PRINT THIS E-MAIL

This email contains confidential information intended solely for the addressee. It is not for further distribution without our permission. If you are not the appropriate recipient please:
• Reply, advising us that you are not the appropriate person then permanently delete the message.
We have done our best to ensure this email is free from computer viruses and spyware and disclaim liability for loss or damage resulting from its receipt. If you do not wish to receive further emails on our latest initiatives and ongoing activities simply reply to this email with "unsubscribe" in the subject line.

Symposium Papers

Agricultural Technologies
in a Changing Climate



Co-hosts

ENGINEERS
AUSTRALIA

The 2009 CIGR International Symposium of the Australian
Society for Engineering in Agriculture
The Chifley at Lennons - Brisbane - Queensland - Australia

13-16th September 2009

Borzoo Ghareei Khabbaz

From: Suellen Holland [SuellenH@icmsaust.com.au]
Sent: Friday, 7 August 2009 12:46 PM
To: Borzoo Ghareei Khabbaz
Cc: Erik Schmidt
Subject: Seag 2009 Symposium - Paper Reviews
Attachments: 30.Khabbaz, B.G..doc; 28.Khabbaz, B.G..doc; 29.Rashidi, M.doc; 30.Khabbaz, B.G..doc; 28.Khabbaz, B.G..doc; 29.Khabbaz, B.G..doc
Importance: High

Dear Borzoo

I understand from Erik that you have indicated you have not received your reviews? These were sent by my colleague Michael on the 14th July?

Thereafter, we have received your returned papers as your final submissions.

Would you please re-check that these are the final papers for the program.

Best regards
Suellen

Suellen Holland
Executive Manager
ICMS Australasia
72 Merivale Street
South Brisbane QLD 4101
(PO Box 3599, South Brisbane QLD 4101)
AUSTRALIA
T: 07 3255 1002
F: 07 3255 1004
E: suellenh@icmsaust.com.au
www.icmsaust.com.au
"Leaders in the management of conferences, exhibitions, corporate communications and special events."

PLEASE CONSIDER THE ENVIRONMENT BEFORE YOU PRINT THIS E-MAIL

From: Michael Blower
Sent: Tuesday, 14 July 2009 11:54 AM
To: 'khabbaz@usq.edu.au'
Subject: Seag 2009 Symposium - Paper Reviews

Dear SEAg 2009 Paper Submitter,

Please find attached the light review of your full paper for the upcoming SEAg 2009 Symposium. We ask that you please make the suggested adjustments to your paper and re-submit to myself at michaelb@icmsaust.com.au as soon as possible to ensure inclusion in the Symposium scientific program.

Kind Regards,
Michael

Michael Blower
Conference & Exhibition Coordinator
ICMS Australasia Pty Ltd
72 Merivale St
South Brisbane QLD 4101
(PO Box 3599, South Brisbane QLD 4101)
AUSTRALIA
T: (+61 7) 3255 1002
F: (+61 7) 3255 1004
E: michaelb@icmsaust.com.au
www.icmsaust.com.au

"Leaders in the management of conferences, exhibitions, corporate communications and special events."



PLEASE CONSIDER THE ENVIRONMENT BEFORE YOU PRINT THIS E-MAIL.

This email contains confidential information intended solely for the addressee. It is not for further distribution without our permission. If you are not the appropriate recipient please:

• Reply, advising us that you are not the appropriate person then permanently delete the message
We have done our best to ensure this email is free from computer viruses and spyware and disclaim liability for loss or damage resulting from its receipt. If you do not wish to receive further emails on our latest initiatives and ongoing activities simply reply to this email with "unsubscribe" in the subject line.

Agricultural Technologies in a Changing Climate



This is to Certify

Borzoo Chareei Khabbaz

attended

The 2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture

“Agricultural Technologies in a Changing Climate”

13 - 16 September 2009

Brisbane Queensland Australia

T.M. Banhazi

Dr Thomas Banhazi
Chairman of SEAg and the Scientific Committee

E Schmidt

Erik Schmidt
Chair of Organising Committee

Monday, 14th of September, 2009 (session 1)

Start	Finish	Event/Session	Title	Author Surname
08:30	17.00	registration open	registration open	
09:00	09:30	opening ceremony	SEAg Executive (chair: E. Schmidt, presenters: T. Banhazi & D. Hargreaves)	
			Chair for both sessions: T. Banhazi (Australia)	
09:30	10:10	invited speaker	Prof. Dr. Ir. Daniel Berckmans	
10:10	10:40	Morning break		
10:40	11:20	invited speaker	Prof. J. Hartung	
			Chair: E. Schmidt (Australia)	
11:20	11:40	sensors & robots	AUTOMATION AND THE FARMER	Billingsley, J.
11:40	12:00	Post-harvest	STUDIES ON THE RIPENING OF THE CAVENDISH CULTIVARS OF BANANA (MUSA	Yalpin, G.
12:00	12:20	Post-harvest	EFFECTS OF COATING METHODS AND STORAGE PERIODS ON SOME QUALITATIVE	Rashidi, M.
12:20	13:00	lunch		
			Chair: In-Bok Lee (South Korea)	
13:00	13:20	machinery	A REVIEW OF CANE HARVESTER PERFORMANCE RESEARCH IN THE AUSTRALIAN	Davis, R. J.
13:20	13:40	machinery	EVALUATION OF ENERGY USAGE FOR COTTON GINNING PROCESS	Ismail, S. A.
13:40	14:00	machinery	IMPROVING DIESEL FUEL EFFICIENCY ON FARMS IN WESTERN AUSTRALIA	Reithmuller, G.
14:00	14:20	machinery	IMPACT OF THE FAN FREQUENCY ON DROPLET TRANSMISSION OF AIR BLAST	Song, S.
14:20	14:40	machinery	DEVELOPMENT STRATEGY OF AGRICULTURAL MACHINERY BASED ON ENERGY	Yang, Z.
14:40	15:00	machinery	DESIGN AND MODELLING OF THE STRUCTURAL INTEGRITY OF A UNIVERSAL	Fraser, M. J.
15:00	15:30	Afternoon break	Afternoon break	
			Chair: A. Aarnik. (Holland)	
15:30	15:50	Emerg. Techn.	VARIABLE RATE HERBICIDE APPLICATION USING THE GLOBAL POSITIONING	M. Zamani
15:50	16:10	Emerg. Techn.	A NUMERICAL EVALUATION MODEL BASED ON INFORMATION THEORY FOR	Lee, J.
16:10	16:30	Emerg. Techn.	AN APPLICATION OF SELF ORGANISING MAP SCHEME OF NEURAL NETWORK ON	Li, P.
16:30	16:50	Emerg. Techn.	A FREQUENCY-RESPONSE PERMITTIVITY SENSOR FOR MEASURING PROPERTIES	Zhang, N.
16:50	17:10	Emerg. Techn.	SPATIAL DISTRIBUTION OF PASTURE HERBAGE MASS BY HYPERSPECTRAL	Suzuki, Y.
17:10	18:00	Poster present.	various	
18:00	19:00	Break	Break	Break
19:00	late	Conf. dinner	Conference dinner	Conference dinner

Monday, 14th of September, 2009 (session 2)

Start	Finish	Event/Session	Authors/title
08:30	17:00	registration open	
09:00	09:30	opening ceremony	SEAg Executive (chair: E. Schmidt, presenters: T. Banhazi & D. Hargreaves)
09:30	10:10	invited speaker	Chair for both sessions: T. Banhazi (Australia)
10:10	10:40	Morning break	Prof. Dr. Ir. Daniel Berckmans
10:40	11:20	invited speaker	Prof. J. Hartung
			Chair: G. Chen (Australia)
11:20	11:40	CFD	SIMULATION OF AN ARRAY OF FENCES IN SAE MANGUEUM RECLAIMED LAND Bitoog, J.P.
11:40	12:00	CFD	NUMERICAL PREDICTIONS OF AIR TEMPERATURE AND VELOCITY Mossad, R.R.
12:00	12:20	CFD	DEVELOPMENT OF A CFD MODEL TO PREDICT THE DISPERSION OF FUGITIVE Seo, I.H.
12:20	13:00	lunch	lunch
			Chair: J. Hartung (Germany)
13:00	13:20	Livestock tech.	ASSESSMENT OF THE EFFICIENCY OF FOUR AIR BIO-SAMPLERS AFTER Zhao, Y.
13:20	13:40	Livestock tech.	OPTIONS FOR DUST REDUCTION FROM POULTRY HOUSES Aarnink, A.
13:40	14:00	Livestock tech.	ESTABLISHMENT AND OPERATION OF THE NATIONAL AIR EMISSION Casey, K.D.
14:00	14:20	Livestock tech.	NUMERICAL INVESTIGATION OF THE PIG HOUSE TO PREVENT PIG Seo, I.H.
14:20	14:40	Livestock tech.	A REGIONAL SURVEY OF EMERGING HOT CLIMATE CONDITIONS IN Fitas da Cruz, V.
14:40	15:00	Soil/tillage	EFFECT OF TILLAGE PRACTICES ON SOYBEAN YIELD DURING DRY SEASON IN Rahmati, M.H.
15:00	15:30	Afternoon break	Afternoon break
			Chair: T. Banhazi (Australia)
15:30	15:50	Image analysis	A MECHANISM FOR GUIDING THE FLOW OF POTATO TUBERS AND CLOUDS ON Al-Mallahi, A.A.
15:50	16:10	Image analysis	USING IMAGE ANALYSIS AND STATISTICAL MODELLING TO ACHIEVE Banhazi, T. M.
16:10	16:30	Image analysis	APPLIED MACHINE VISION IN AGRICULTURE AT THE NCEA McCarthy, C.J.
16:30	16:50	Image analysis	AUTOMATIC MONITORING OF TURKEYS: A VISION-BASED APPROACH TO Poursaberi, A.
16:50	17:10	Image analysis	DEVELOPMENT OF A PROTOTYPE PRECISION SPOT SPRAY SYSTEM USING Rees, S. J.
17:10	18:00	Poster present:	various
18:00	19:00	Break	Break
19:00	late	Conf. dinner	Conference dinner

Tuesday, 15th of September, 2009 (Session 1)

Start	Finish	Event/Session	Authors/title
08:30	17.00	registration open	registration open
		Chair: E. Schmidt (Australia)	
09:20	10:00	invited speaker	Prof. Jeff Smithers (South Africa)
10:00	10:30	Morning break	Morning break
		Chair: N. Hancock (Australia)	
10:30	10.50	Post-harvest	COMPARISON OF SYSTEM PARAMETERS RESPONSE OF A LOCALLY THE USE OF A UAV AS A REMOTE SENSING PLATFORM IN AGRICULTURE
10.50	11.10	sensors & robots	SIMULTANEOUS DETERMINATION OF CADMIUM AND LEAD IN RICE BY ESTIMATING LEAF CHLOROPHYLL CONCENTRATION OF ERECTOPHILE CROPS
11:10	11:30	sensors & robots	Vincini, M
11:30	11:50	sensors & robots	DEVELOPMENT OF WIRELESS SENSOR NETWORK FOR PRECISION lunch
11:50	12:10	sensors & robots	Wang, N
12:10	12:50		
		Chair: G. Reithmuller (Australia)	
12:50	13:10	Environ. issues	DESIGN OF A BUBBLE COLUMN PBR FOR GROWING MICRO-ALGAE USING CFD
13:10	13:30	Environ. issues	CAN GIS BE USED TO CHOOSE SITES FOR INTENSIVE LIVESTOCK FACILITIES
13:30	13:50	Environ. issues	UTILIZATION OF ANIMAL WASTE AS FERTILIZER FOR PADDY FIELD IN THE
13:50	14:00	Environ. issues	WHY NOT INCORPORATE FEEDLOT GREENHOUSE GAS EMISSION MODELLING
14:00	14:20	Environ. issues	GREENHOUSE GAS BALANCE OF MANURE MANAGEMENT, EFFECT OF SLURRY
14:20	14:40	Environ. issues	ANIMAL WASTE MANAGEMENT IN KOREA AND ANAEROBIC CO-
14:40	15:20	Afternoon break	Oh, I.H.
			Afternoon break
		Chair: C. Bailie (Australia)	
15:20	15:40	Soil/tillage	A HORIZONTAL SENSOR FOR MEASURING SOIL MECHANICAL RESISTANCE ON-
15:40	16:00	Soil/tillage	RESPONSE OF CROP YIELD AND YIELD COMPONENTS OF TOMATO TO
16:00	16:20	Soil/tillage	A REVIEW OF SOIL OR TOOL ADHESION PRINCIPLES AND APPROACHES TO
16:20	16:40	Soil/tillage	DETERMINATION OF SOME PRIMARY TILLAGE PARAMETERS IN TEN PROVINCE
16:40	17:00	Soil/tillage	EFFECTS OF DEEPEP TILLAGE AND IRRIGATION REGIMES ON SUGARBEET YIELD
17:00	18:00	Poster present.	various
18:00	18.30	Closing ceremony	Closing ceremony
18:30	TBA	After conf. drinks	After conference

* might be replaced by presentation from QLD (R.J. Davis) ✓

Tuesday, 15th of September, 2009 (session 2)

Start	Finish	Event/Session	Authors/title	Event/Session
08:30	17.00	registration open	registration open	registration open
09:20	10:00	invited speaker	Prof. Jeff Smithers (South Africa)	invited speaker
10:00	10:30	Morning break	Morning break	Morning break
		Chair: D. Berckmans (Belgium)		
10.30	10.50	Emerg. & others	Student Project: Development and evaluation of low cost technology to convert	Piip, A.
10.50	11.10	Emerg. & others	A METHODOLOGY TO ASSESS LANDSCAPES FROM RURAL ROADS	Ramirez Gomez, A.
11:10	11:30	Emerg. & others	TRAJECTORY PLOTTING SYSTEM	Macmillan, R.H.
11.30	11:50	Emerg. & others	PRECISION AGRICULTURE TECHNOLOGIES - RELEVANCE AND	Davis, R.J.
11.50	12:10	Emerg. & others	SYNCHRONISATION OF PRESSURE DISTRIBUTION AND IMAGE RECORDING	Pluk, A.
12:10	12:50	lunch	lunch	
		Chair: Fitas da Cruz, V. (Portugal)		
12:50	13:10	water/irrigation	EFFECT OF IRRIGATION MANAGEMENT ON NITRATE MOVEMENT UNDER A	Althaus, K.J.
13:10	13:30	water/irrigation	REDUCING EVAPORATION LOSSES FROM AGRICULTURAL RESERVOIRS BY	Gallego Elvira, B.
13:30	13:50	water/irrigation	THE EFFECT OF WATER STRESS AND NATURAL ZEOLITE ON	Gholizadeh, A.
13:50	14:00	water/irrigation	TOWARDS A BIOPHYSICAL UNDERSTANDING OF OBSERVED	Hancock, N.
14:00	14:20	water/irrigation	EXPLORATION OF DATA REQUIREMENTS FOR ADAPTIVE CONTROL OF	McCarthy, A.
14:20	14:40	water/irrigation	THE ECONOMICS OF SPRINKLER IRRIGATION UNIFORMITY FOR LETTUCE	Hussain, A.
14:40	15:20	Afternoon break	Afternoon break	
		Chair and convenor: T. Banhazi (Australia)		
15.20	15:40	Collab. discussions		
15:40	16:00	Collab. discussions		
16:00	16:20	Collab. discussions		
16:20	16:40	Collab. discussions		
16:40	17:00	Collab. discussions		
17:00	18:00	Collab. discussions	various	
18:00	18:30	Closing ceremony	Closing ceremony	Closing ceremony
18:30	TBA	After conf. drinks	After conference drinks	After conference drinks