

## Oral Sessions

Wednesday, September 20

14:45-16:05

### Aquatic Weeds 1

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Organizer/Chairperson: Nimal Chandrasena  
GHD Pty Ltd., Australia

#### O-001 **Lead**

**Endothall use in flowing systems for nuisance aquatic weed and algae control**

Cody J. Gray

United Phosphorus, Inc., USA

#### O-002

**Control of aquatic weeds in canals and drains in Australasia – a review of methods**

William Chisholm<sup>1</sup>, Nimal Chandrasena<sup>2</sup>, Peter Harper<sup>3</sup>

<sup>1</sup>Aquatic Weed Control Ltd, New Zealand; <sup>2</sup>GHD Pty Ltd., Australia; <sup>3</sup>Bettersafe Pest & Weed Management, Australia

#### O-003

**Fungal metabolites of *Alternaria raphani* in microbial control agents of aquatic weed *Alternanthera phylloxeroides***

Puja Ray, Writuparna Dutta, Jashaswi Basu

Presidency University, India

#### O-004

**Crassulacean acid metabolism in an aquatic weed, a fern-ally: *Isoetes coromandelina* L. f.**

Royyim Thananusak, Ornusa Khamsuk, Tassanai Jaruwattanaphan, Srisom Suwanwong

Kasetsart University, Thailand

#### O-005

**Submerged aquatic plant control in Sydney 2000 Olympic lakes with fluridone (Sonar®) –A case study**

Nimal Chandrasena<sup>1</sup>, Peter Harper<sup>2</sup>, Kevin Flynn<sup>3</sup>

<sup>1</sup>GHD Pty Ltd., Australia; <sup>2</sup>Bettersafe Pest & Weed Management, Australia; <sup>3</sup>Sydney International Regatta Centre, Australia

16:25-17:30

## Aquatic Weeds 2

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Organizer: Nimal Chandrasena  
*GHD Pty Ltd., Australia*

Chairperson: A. N. Rao  
*International Crops Research Institute for Semi Arid Tropics (ICRISAT), India*

### O-006 **Lead**

Translocation of  $^{14}\text{C}$ -endothall in *Eurasian Watermilfoil*, *Curlyleaf Pondweed*, and two *Hydrilla* biotypes

Cody J. Gray<sup>1</sup>, Mirella Farinelli Ortiz<sup>2</sup>, Scott Nissen<sup>2</sup>

<sup>1</sup>United Phosphorus, Inc., USA; <sup>2</sup>Colorado State University, USA

### O-007

Genetic and morphological diversity of *Ludwigia sedioides* in Sri Lanka: a potential invasive aquatic plant

Dinusha Debarawatta, Kapila Yakandawala, Thilak Attanayake

Wayamba University of Sri Lanka, Sri Lanka

### O-008 **APWSS Travel Grant**

Studies on understanding the trends of invasive aquatic plant succession through inter-specific interactions among weeds

Writuparna Dutta, Parbani Chaudhury, Puja Ray

Presidency University, India

### O-009

Management of *Hydrocotyle rannunculoides* in the Canning River, Perth: an options review

Nimal Chandrasena<sup>1</sup>, Peter Harper<sup>2</sup>, Luke McMillan<sup>3</sup>, Greer Gilroy<sup>3</sup>, Brett Kuhlmann<sup>4</sup>, Matt Grimbly<sup>4</sup>, Russel Gorton<sup>5</sup>

<sup>1</sup>GHD Pty Ltd., Australia; <sup>2</sup>Bettersafe Pest & Weed Management, Australia; <sup>3</sup>Perth Region NRM, Australia; <sup>4</sup>South East Regional Centre for Urban Landcare (SERCUL), Australia; <sup>5</sup>Wilson Wetlands Action Group Inc., Australia

## Oral Sessions

Thursday, September 21

10:30-12:05

### Invasive Alien Species

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**Organizer:** Tjitrosemito Soekisman  
*BIOTROP, Indonesia*

**Chairpersons:** Steve Adkins  
*University of Queensland, Australia*  
Rahayu Sukmaria Sukri  
*Universiti Brunei Darussalam, Brunei Darussalam*

#### O-010 **Lead**

**A preliminary work to control *Chimonobambusa quadrangularis*, an invasive alien plant species in Gunung Gede National Park, West Java.**

Tjitrosemito Soekisman, Mawardi Imam, Bachri Syaiful, Setiabudi Setiabudi, Wahyuni Indah,  
Tjitrosoedirdjo Sudarmiyati Sri  
BIOTROP, Indonesia

#### O-011

**Managing entry of noxious alien weeds in to Sri Lanka: Can DNA barcoding be an effective identification tool?**

W. J. Nimanthika, W. L. I. A. Harischandra  
National Plant Quarantine Service, Sri Lanka

#### O-012

**What a changing climate may mean for an invasive giant, *Parthenium hysterophorus*?**

Ali A. Bajwa, Bhagirath S. Chauhan, Steve Adkins  
The University of Queensland, Australia

#### O-013

**The impact of *Acacia* invasion on litterfall production in lowland tropical rain forests of Brunei Darussalam**

Salwana Md Jaafar<sup>1</sup>, Faizah Metali<sup>1</sup>, David F. R. P. Burslem<sup>2</sup>, Rahayu Sukmaria Sukri<sup>1</sup>  
<sup>1</sup>Universiti Brunei Darussalam, Brunei; <sup>2</sup>University of Aberdeen, Scotland

#### O-014

**Invasive alien plants and policy needs in Turkey**

Ahmet Uludag<sup>1,2</sup>  
<sup>1</sup>Düzce University, Turkey; <sup>2</sup>Canakkale Onsekiz Mart University, Turkey

O-015

**Medieval and modern volunteer vegetation shift in Jammu and Kashmir Himalayas**

Anil Kumar, Jai Kumar, A. P. Singh, Lobzang Stanzen, Vikas Abrol, Sapna Bhagat

Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu, India

14:15-16:00

**Parasitic Weeds, Weed Biology and Ecology, Utilization of Weeds**

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**Chairpersons: Asad Shabbir**

*University of the Punjab, Pakistan/University of Sydney, Australia*

**Cumali Özaslan**

*Dicle University, Turkey*

O-016

**Screening maize for compatibility with *F. oxysporum* to enhance *Striga Asiatica* (L.) Kuntze. resistance**

Admire I.T Shayanowako, Mark D Laing, Hussein Shimelis

University of KwaZulu-Natal, South Africa

O-017

**iTRAQ-based differential expression proteomics in roots of sunflowers differing in resistance to *Orobanche cumana***

Na Zhang<sup>1</sup>, Chong Yang<sup>1</sup>, Ling Xu<sup>1</sup>, Xiaopeng Yun<sup>2</sup>, Quanjiang Bai<sup>2</sup>, Weijun Zhou<sup>1</sup>

<sup>1</sup>Zhejiang University, China; <sup>2</sup>Inner Mongolia Academy of Agricultural & Animal Husbandry Sciences, China

O-018

**Inventaritation of weeds in sweet corn (*Zea mays* L Saccarata Strurt) at different fields condition**

Uum Umiyati, Denny Kurniadie

Padjadjaran University, Indonesia

O-019

**Weed diversity is comparable in Bt-transgenic and conventional cotton fields**

Yongbo Liu

Chinese Research Academy of Environmental Sciences, China

O-020

**Hyperaccumulator identification from weed species and its phytoremediation potential in Cd contaminated field**

Shuhe Wei<sup>1</sup>, Huiping Dai<sup>2</sup>

<sup>1</sup>Chinese Academy of Sciences, China; <sup>2</sup>Shaanxi Sci-Tech University, China

O-021

**Management of southern blight of bell pepper by soil amendment with dry biomass of *Datura metel***

Arshad Javaid, Nadia Jabeen, Amna Shoaib

University of the Punjab, Pakistan

O-022

Competitiveness of two broad-leaf weeds: sesbania pea (*Sesbania cannabina*) and bladder ketmia (*Hibiscus trionum*) in mungbean (*Vigna radiata*).

Sudheesh Manali<sup>1,2</sup>, Bhagirath Singh Chauhan<sup>1</sup>

<sup>1</sup>The University of Queensland, Australia; <sup>2</sup>Amrita University, India.

## Oral sessions

Friday, September 22

10:30-12:05

### Weedy Rice

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**Organizer: Muhamad Shakirin Mispan**  
*University Malaya, Malaysia*

**Chairperson: Xing-You Gu**  
*South Dakota State University, USA*

### O-023 **Lead**

**An ecological genetics study on seed overwintering in weedy rice**

Muhamad Shakirin Mispan<sup>1</sup>, Jiujuan Feng<sup>2</sup>, Xing-You Gu<sup>2</sup>

<sup>1</sup>University Malaya, Malaysia; <sup>2</sup>South Dakota State University, USA

### O-024

**Genetic diversity and population differentiation of weedy red rice in Japan**

Toshiyuki Imaizumi<sup>1</sup>, Kaworu Ebana<sup>1</sup>, Maiko Akasaka<sup>1</sup>, Ayumi Deguchi<sup>2,3</sup>, Atsushi J. Nagano<sup>2</sup>, Hiroyuki Kobayashi<sup>1</sup>

<sup>1</sup>NARO, Japan; <sup>2</sup>Ryukoku University, Japan; <sup>3</sup>Chiba University, Japan

### O-025

**Innovative solution for the management of weedy rice and other weeds in wet-direct seeded rice systems**

Virender Kumar, Jhoana Opeña, Katherine Valencia, Ofelia Namuco, Teodoro Migo, Shalabh Dixit, David E Johnson

International Rice Research Institute, Philippines

### O-026

**Weedy rice management strategies in transplanted aromatic rice in sub-tropical North-Western Himalayas of India**

Anil Kumar, Jai Kumar, R. Puniya, B. R. Bazaya, Susheel Rattan

Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu, India

### O-027

**Weedy rice: a threat to rice cultivation in Sri Lanka**

A.S.K. Abeysekera, H.M.S.D. Kulatunga, D.D. Witharana, W.M.U.B. Wikrama

Rice Research and Development Institute, Sri Lanka

O-028

**Spatial distribution pattern of weedy rice (*Oryza sativa* L.) in two rice granaries in Peninsular Malaysia**

Muhamad Shakirin Mispan, Fazrul Rahman Yatim, Intan Filzah Mahmud

University Malaya, Malaysia

13:15-14:50

### Herbicide Tolerant Crops

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**Organizers/Chairpersons:** David E. Johnson

*International Rice Research Institute, Philippines*

Virender Kumar

*International Rice Research Institute, Philippines*

O-029 **Lead**

**Herbicide-resistant crops: A quarter century journey from dominance to diminished utility to diversified weed management practices**

Krishna N. Reddy

U. S. Department of Agriculture, Agricultural Research Service, USA

O-030

**Sustainability of the Clearfield® production system for rice in Malaysia**

M. Azmi<sup>1</sup>, T. V. George<sup>1</sup>, T. Alex<sup>1</sup>, C. Kevin<sup>1</sup>, M. Dilipkumar<sup>2</sup>, B. Weston<sup>3</sup>

<sup>1</sup>BASF (Malaysia) Sdn Bhd, Malaysia; <sup>2</sup>MARDI Seberang Perai, Malaysia; <sup>3</sup>BASF SE, Germany

O-031

**Fifteen years of Clearfield™ rice in Brazil: What we have learned**

Luis A. Avila<sup>1</sup>, Aldo Merotto Jr.<sup>2</sup>, Edinaldo R. Camargo<sup>1</sup>

<sup>1</sup>Federal University of Pelotas, Brazil; <sup>2</sup>Federal University of Rio Grande do Sul, Brazil

O-032

**Learning about the Provisia® rice technology**

Nilda Roma-Burgos<sup>1</sup>, Christopher E. Rouse<sup>1</sup>, Vijay Singh<sup>1,2</sup>

<sup>1</sup>University of Arkansas, USA; <sup>2</sup>Texas A&M University, USA

O-033

**Provisia™ rice system: efficacy, stewardship and potential**

S. Luke Mankin<sup>1</sup>, Sudakir Sudakir<sup>2</sup>, S. Tan<sup>1</sup>, Brigitte Weston<sup>3</sup>, Zuhair Zainal Abidin<sup>4</sup>

<sup>1</sup>BASF Corporation, USA; <sup>2</sup>BASF Indonesia, Indonesia; <sup>3</sup>BASF SE, Germany; <sup>4</sup>BASF Malaysia, Malaysia

O-034

**Evaluation of herbicide tolerant transgenic corn hybrids in India**

Satbir Singh, Punia

CCS Haryana Agricultural University, India

## Oral Sessions

Wednesday, September 20

14:45-16:15

### Biological Control 1

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Organizers/Chairpersons: **Kunjithapatham Dhileepan**

*Biosecurity Queensland, Australia*

**Gadi V. P. Reddy**

*Montana State University, USA*

#### O-035 **Lead**

**Exploration in Asia for biological control agents of *Hydrilla verticillata* a submerged aquatic weed in the United States**

Matthew Purcell<sup>1</sup>, Nathan Harmes<sup>2</sup>, Jialiang Zhang<sup>3</sup>, Sun-Hee Hong<sup>4</sup>, Hyoung-ho Mo<sup>4</sup>, Young Ju Oh<sup>5</sup>

<sup>1</sup>CSIRO Health and Biosecurity, Australia; <sup>2</sup>US Army Corps of Engineers ERDC; <sup>3</sup>Chinese Academy of Sciences; <sup>4</sup>Korea University; <sup>5</sup>Institute for Future Environmental Ecology Co., Ltd

#### O-036

**Biological control of prickly acacia (*Vachellia nilotica* subsp. *indica*) in Australia: prospective agents from Ethiopia and Senegal**

Kunjithapatham Dhileepan<sup>1</sup>, Boyang Shi<sup>1</sup>, Jason T Callander<sup>1</sup>, Mindaye Teshome<sup>2</sup>, Stefan Nesar<sup>3</sup>, Nathalie Diagne<sup>4</sup>, Anthony King<sup>5</sup>

<sup>1</sup>Biosecurity Queensland, Australia; <sup>2</sup>Central Ethiopia Environment and Forest Research Center, Ethiopia; <sup>3</sup>University of Pretoria, South Africa; <sup>4</sup>National Centre for Agronomic Research, Senegal; <sup>5</sup>Plant Protection Research Institute, South Africa

#### O-037

**The development of biological control of *Chromolaena odorata*, a common invasive alien species in the Southeast Asian region**

Tjitrosemto Soekisman, Mawardi Imam, Syaiful Bachri, SETIA BUDI, Sri SUDARMIYATI Tjitrosoedirdjo, Wahyuni Indah

SEAMEO BIOTROP, Indonesia

#### O-038

**An emerging success story of a seed-attacking weevil *Cissoanthonomus tuberculipennis* Hustache (Coleoptera: Curculionidae) released against balloon vine *Cardiospermum grandiflorum* Sw. (Sapindaceae) in South Africa**

David O Simelane, Khethani V Mawela

Agricultural Research Council-Plant Protection Research Institute, South Africa



O-039

**Biological control programs of the invasive weeds in the Mariana Islands**

Gadi V. P. Reddy<sup>1</sup>, R. Muniappan<sup>2</sup>

<sup>1</sup>Montana State University, USA; <sup>2</sup>Virginia-Tech, USA

O-040

**The adventive pathogen *Cercospora dolichandrae* and its impact on the biological control of cat's claw creeper, *Dolichandra unguis-cati*, in South Africa**

Anthony M. King

Agricultural Research Council, Plant Protection Research, South Africa

16:35-18:10

**Biological Control 2**

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**Organizers/Chairpersons: Kunjithapatham Dhileepan**

*Biosecurity Queensland, Australia*

**Gadi V. P. Reddy**

*Montana State University, USA*

O-041 **Lead**

**Prioritizing weeds as targets for biological control: a consultative and transparent framework for investing limited resources for weed management**

S. Raghu, Louise Morin

CSIRO Health & Biosecurity, Australia

O-042

**Biological control of invasive weeds –a potential weed management strategy for Japan**

Daisuke Kurose, Marion K. Seier

CABI, UK

O-043

**Biological control of parthenium weed (*Parthenium hysterophorus* L.) in China: opportunities from Australia**

Boyang Shi, Kunjithapatham Dhileepan

Biosecurity Queensland, Australia

O-044

**Enhancing mycoherbicidal potential by combination treatment of fungi for biological control of waterhyacinth**

Puja Ray<sup>1</sup>, Sushil Kumar<sup>2</sup>, Akhilesh Kumar Pandey<sup>3</sup>

<sup>1</sup>Presidency University, India; <sup>2</sup>Directorate of Weed Research, Jabalpur, India; <sup>3</sup>R.D. University, Jabalpur, India

O-045

**Genetic variation for tolerance to defoliation in *Cirsium arvense***

M. G. Cripps<sup>1</sup>, C. A. Dowsett<sup>1</sup>, S. D. Jackman<sup>1</sup>, A. D. L. Noble<sup>1</sup>, G. J. Houlston<sup>2</sup>

<sup>1</sup>AgResearch, New Zealand; <sup>2</sup>Landcare Research, New Zealand

O-046

**Fungi species infesting weed species of lentil in Diyarbakr province, Turkey**

Cumali Özaslan

Dicle University, Turkey

## Oral Sessions

Thursday, September 21

10:30-12:00

### Non-Chemical Control

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**Chairpersons: Daizy R. Batish**

*Panjab University, India*

**Mohamed Fathy Salem**

*Genetic Engineering and Biotechnology Research Institute, GEBRI, University of Sadat City, Egypt*

#### O-047

**Non-chemical weed management technique for rice**

Eagan Somasundaram, Bhavaji Gudi Shoba Rathod, D. Udhaya Nandhini

Tamil Nadu Agricultural University, India

#### O-048

**Utilization of *Chromoleana odorata* integrated with water irrigation on weed control, rice growth and yield**

Nawapon Pimthong, Udornporn Pangnakorn, Thanatchasanha Poonpaiboonpipattana

Naresuan University, Thailand

#### O-049

**Effect of *Biden pilosa* L. integrated with water logging on changes of water and soil properties, and its physiological mechanisms to control barnyardgrass**

Saiwaree Poolkum, Wipa Homhaul, Udornporn Pangnakorn, Thanatchasanha Poonpaiboonpipattana

Naresuan University, Thailand

#### O-050

**Evaluating of bio efficacy of the aqueous solution of *Michelia champaca* seeds in controlling common weeds in agricultural lands.**

P. K. M. Deepani, K. G. Prematilake, A. G. A. W. Alakolanga

University of Sri Lanka, Sri Lanka

#### O-051

**Altering arbuscular mycorrhizal native density has effects on weed suppression in wheat fields**

Muhammad Akbar<sup>1</sup>, Muhammad Sajjad Iqbal<sup>1</sup>, Tayyaba Khalil<sup>1</sup>, Aqeel Ahmad<sup>2</sup>

<sup>1</sup>University of Gujrat, Pakistan; <sup>2</sup>University of the Punjab, Pakistan

#### O-052

**Natural herbicides from essential oils: prospects and constraints**

Daizy R. Batish, Shalinder Kaur

Panjab University, India

14:15-16:00

## Allelopathy

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Chairpersons: Yoshiharu Fujii

*Tokyo University of Agriculture and Technology, Japan*

Hisashi Kato

*Kagawa University, Japan*

O-053

**Competition and allelopathic potential of *Cyperus rotundus* L. on sweet corn**

Panwaree Uchaiya, Surasak Thongmuang, Thanatchasanha Poonpaiboonpipattana  
Naresuan University, Thailand

O-054

**Allelopathic potential of *Ludwigia sedioides***

Dinusha Debarawatta, Kapila Yakandawala, Thilak Attanayake  
Wayamba University of Sri Lanka, Sri Lanka

O-055

**Two growth inhibitory substances in the leaves of the tree fern, *Cyathea lepifera***

Noriyuki Ida<sup>1</sup>, Toshiaki Teruya<sup>2</sup>, Arihiro Iwasaki<sup>3</sup>, Kiyotake Suenaga<sup>3</sup>, Hisashi Kato-Noguchi<sup>1</sup>  
<sup>1</sup>Kagawa University, Japan; <sup>2</sup>University of the Ryukyus, Japan; <sup>3</sup>Keio University, Japan

O-056

**Bioefficacy and phytotoxicity of Eucalyptus leaf oil on wheat and associated weeds under field condition**

Ankita Arya, Vipin C. Dhyanj, Sumit Chaturvedi  
GBPUAT, Pantnagar, India

O-057

**Allelopathic potentiality of Bangladesh indigenous rice variety 'Boterswar'**

Sheikh Md. Masum<sup>1,2</sup>, Md. Amzad Hossain<sup>3</sup>, Hikaru Akamine<sup>3</sup>, Jun-Ichi Sakagami<sup>1</sup>, Takahiro Ishii<sup>3</sup>, Shinichi Gima<sup>3</sup>, Takara Kensaku<sup>3</sup>, Prasanta Chitta Bhowmik<sup>4</sup>  
<sup>1</sup>Kagoshima University, Japan; <sup>2</sup>Sher-e-Bangla Agricultural University, Bangladesh; <sup>3</sup>University of The Ryukyus, Japan; <sup>4</sup>University of Massachusetts, USA

O-058

**Mechanism action analysis of horseweed (*Conyza canadensis*) subject to botanic caryplic acid stress**

Zuren Li<sup>1,2</sup>, Qiong Peng<sup>1,2</sup>, Lifeng Wang<sup>1,2</sup>, Lamei Wu<sup>1,2</sup>, Haona Yang<sup>1,2</sup>, Xiaomao Zhou<sup>1,2</sup>, Qin Yu<sup>1</sup>, Lianyang Bai<sup>1,2</sup>

<sup>1</sup>Hunan Academy of Agricultural Sciences, China; <sup>2</sup>Collaborative Innovation Center for Field Weeds Control, China

O-059

**Administration effect of L-DOPA · allelopathic substance of *Mucuna prurens* on dogs**

Hiromi Shimasaki, Taiki Iida, Yoshiharu Fujii  
Tokyo University of Agriculture and Technology, Japan

## Oral Sessions

Friday, September 22

10:30-12:00

### Weed Management (Sustainable System)

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**Chairpersons: Makhan S. Bhullar**

*Punjab Agricultural University, India*

**Udai Pratap Singh**

*Banaras Hindu University, India*

#### O-060

##### **Impact of climate change on weed growth and control**

Khawar Jabran<sup>1</sup>, M. N. Doğan<sup>2</sup>

<sup>1</sup>Duzce University, Turkey; <sup>2</sup>Adnan Menderes University Aydin, Turkey

#### O-061

##### **Nitrogen scheduling and impact on weed management in aerobic rice**

B. Sreedevi, B. Dhanunjaya Reddy, A. Sandhyarani, R. Mahender Kumar, P. Senguttuvel, V. Ravindrababu  
ICAR-Indian Institute of Rice Research, India

#### O-062

##### **Sustainable weed management options for conservation agriculture in eastern Indo-Gangetic Plains of India**

U. P. Singh, Yashwant Singh, A. V. Dahiphale, Sanjeev Kumar Kashyap, Sandeep Kumar  
Banaras Hindu University, India

#### O-063

##### **Long term mechanical soil intervention and weed management on yield of irrigated Maize –Sunflower cropping system under semi arid tropics**

Murali Arthanari Palanisamy, Chinnusamy Chinnagounder, N. K. Prabhakaran, P. Janaki  
Tamil Nadu Agricultural University, India

#### O-064

##### **Impact of tillage, crop residue, and weed management on crop productivity in a rice-wheat cropping system under conservation agriculture**

Makhan S. Bhullar<sup>1</sup>, Simerjeet Kaur<sup>1</sup>, Navjyot Kaur<sup>1</sup>, Pervinder Kaur<sup>1</sup>, Tarundeep Kaur<sup>1</sup>, Gurjeet Gill<sup>2</sup>

<sup>1</sup>Punjab Agricultural University, India; <sup>2</sup>The University of Adelaide, Australia

O-065

**Direct seeded rice in sequence with zero tillage wheat in north-western Indo-Gangetic plains: dealing with increased complexity in weed management**

Dharam Bir Yadav<sup>1</sup>, Ashok Yadav<sup>2</sup>, Dalip Kumar Bishnoi<sup>1</sup>, Gurjeet Gill<sup>3</sup>

<sup>1</sup>CCS Haryana Agricultural University, India; <sup>2</sup>IRRI-CSISA Hub, OUAT Campus, India; <sup>3</sup>University of Adelaide, Australia

13:15-15:00

**Weed Management (Integrated Weed Management)**

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**Chairpersons: Abdul Shukor Juraimi**

*Universiti Putra Malaysia (UPM), Malaysia*

**Abul Hashem**

*Government of Western Australia, Australia*

O-066

**Row spacing, herbicides and nitrogen effect on crop-weed competition in cereal-broadleaf crop rotation**

A. Hashem<sup>1</sup>, W. Vance<sup>2</sup>, R. Brennan<sup>1</sup>, R. Bell<sup>2</sup>

<sup>1</sup>Department of Primary Industry and Regional Development, Government of Western Australia, Australia; <sup>2</sup>Murdoch University, Australia

O-067

**Quantitative sustainable weed management strategy in intensive rice-wheat double cropping fields**

Sheng Qiang

Nanjing Agricultural University, China

O-068

**Effect of integrated weed management practices on growth, yield and economics of transgenic cotton**

Y. R. Aladakatti, Ramesh H. Jatti

University of Agricultural Sciences, India

O-069

**Evaluation of eight rice varieties for their weed-suppressive ability under different water regimes**

Abdul Shukor Juraimi, Masitah Ab Jalil

Universiti Putra Malaysia (UPM), Malaysia

O-070

**A new weed control measure of synchronous seeding and spraying herbicides with the precision rice hill-drop drilling machine**

Jianping Zhang, Yongliang Lu, Wei Tang, Xiaoyue Yu

China National Rice Research Institute, China

O-071

**Evolving appropriate tillage, weed and nutrient management practices for improving resource use efficiency in Green Manure-Maize-Pulse cropping system for the Semi Arid Tropics**

R. Thirumalaikumar, N. S. Venkataraman, K. Balakrishnan, R. Babu, A. Rathinasamy

Tamil Nadu Agricultural University, India

O-143

**Response of some summer season crops on weed suppression**

Javaid Iqbal, Javeria Muneer, Safdar Hussain, Muhammad Ishaq Asif Rehmani, Shahzadi Mahpara

Ghazi University, Pakistan

## Oral Sessions

Wednesday, September 20

14:45-16:35

### Weed Problem, Constraint, and Opportunity in different countries 1

**Organizer:** Bhagirath Singh Chauhan  
*The University of Queensland, Australia*

**Chairpersons:** Buddhi Marambe  
*University of Peradeniya, Sri Lanka*

Khawar Jabran  
*Düzce University, Turkey*

#### O-072 **Lead**

##### Issues and opportunities for sustainable weed management in Pakistan: a review

Saima Hashim<sup>1</sup>, Hafiz Haider Ali<sup>2</sup>, Zarka Hanif<sup>3</sup>, Arsalan Masood Peerzada<sup>4</sup>, Bhagirath Singh Chauhan<sup>4</sup>

<sup>1</sup>The University of Agriculture Peshawar, Pakistan; <sup>2</sup>University of Sargodha, Pakistan; <sup>3</sup>The Islamia University of Bahawalpur, Pakistan; <sup>4</sup>The University of Queensland, Australia

#### O-073

##### Weed research issues, challenges, and opportunities in Cambodia

Robert J. Martin

The University of Sydney, Australia

#### O-074

##### Weed research issues and opportunities in China

Jinwen Zhu<sup>1</sup>, Jian Wang<sup>1</sup>, Chaoxian Zhang<sup>2</sup>, Guiping Zheng<sup>1</sup>, Wen Liang<sup>1</sup>, Faisal Islam<sup>1</sup>, Chong Yang<sup>1</sup>, Xuexin Chen<sup>1</sup>, Weijun Zhou<sup>1</sup>

<sup>1</sup>Zhejiang University, China; <sup>2</sup>Chinese Academy of Agricultural Sciences, China

#### O-075

##### Weed research issues, challenges, and opportunities in India

A. N. Rao<sup>1</sup>, Ravi G. Singh<sup>2</sup>, G. Mahajan<sup>3</sup>, S. P. Wani<sup>4</sup>, J. K. Ladha<sup>5</sup>, Arvind. Kumar<sup>5</sup>, B. S. Chauhan<sup>3</sup>

<sup>1</sup>ICRISAT Development Center (IDC) and IRRI, International Crops Research Institute for Semi Arid Tropics (ICRISAT); <sup>2</sup>International Maize and Wheat Improvement Center (CIMMYT), Mexico; <sup>3</sup>The University of Queensland, Australia; <sup>4</sup>International Crops Research Institute for Semi Arid Tropics (ICRISAT), India; <sup>5</sup>International Rice Research Institute (IRRI), Philippines

#### O-076

##### Weed problems in Japan

Tohru Tominaga<sup>1</sup>, Shunji Kurokawa<sup>2</sup>

<sup>1</sup>Kyoto University, Japan; <sup>2</sup>National Agriculture and Food Research Organization, Japan



O-077

**Confirmation of imidazolinone-resistant weedy rice (*Oryza sativa*) in Malaysia**

Dilipkumar Masilamany<sup>1</sup>, Zuhair Zainal Abidin<sup>2</sup>, George Varghese<sup>2</sup>, Nilda Roma Burgos<sup>3</sup>, Chuah Tse-Seng<sup>4</sup>

<sup>1</sup>Malaysian Agricultural Research and Development Institute (MARDI), Malaysia; <sup>2</sup>BASF (Malaysia), Malaysia;

<sup>3</sup>University of Arkansas, USA; <sup>4</sup>University of Malaysia Terengganu, Malaysia

O-078

**Current issues related to weeds and weed management in Sri Lanka**

Buddhi Marambe

University of Peradeniya, Sri Lanka

16:55-17:55

**Weed Problem, Constraint, and Opportunity in different countries 2**

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Chairperson: Bhagirath Singh Chauhan

*The University of Queensland, Australia*

O-079

**Survey of weed floral composition under aerobic rice (*Oryza sativa* L.) soil condition in Malaysia.**

Siti Nur Anisah Aani<sup>1,2</sup>, Abdul Shukor Juraimi<sup>1</sup>, Muhammad Saiful Ahmad Hamdani<sup>1</sup>, Mohd Ridzwan A.Halim<sup>1</sup>

<sup>1</sup>Universiti Putra Malaysia, Malaysia; <sup>2</sup>Universiti Teknologi Mara, Malaysia

O-080

**Opportunities for capacity building in weed management - Laos PDR**

Deirdre Lemerle

Charles Sturt University, Australia

O-081

**The Wild Oat Problem in Wheat Fields in Turkey**

Ahmet Uludag<sup>1,2</sup>, Süleyman Türkseven<sup>3</sup>, İsmail Can Paylan<sup>3</sup>, Mehmet Demirci<sup>4</sup>, Deniz Çapkan<sup>3</sup>

<sup>1</sup>Düzce University, Turkey; <sup>2</sup>Çanakkale Onsekiz Mart University, Turkey; <sup>3</sup>Ege University, Turkey; <sup>4</sup>Agrobest Grup, Turkey

O-082

**The succession of weed community demanding glyphosate-resistant corn production in China**

Xiang-ju Li, Hai-lan Cui, Hui-lin Yu

Chinese Academy of Agricultural Sciences, China

## Oral Sessions

Thursday, September 21

10:30-12:05

### Herbicide Resistance (Status)

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**Organizer/Chairperson: Bodo Peters**  
*Bayer AG, Germany*

#### O-083 **Lead**

**How to manage weed resistance and protect yields —a company perspective**

Bodo Peters

Bayer AG, Germany

#### O-084

**Overcoming the resistance to the uptake of integrated weed management tactics in farming systems**

Murray Scholz

Scholz Farming Company, Australia

#### O-085

**Seventeen years of continuous application of glyphosate leads to evolution of resistance and shift in weed species**

Abul Hashem, Catherine Borger, Mohammad Amjad

Department of Primary Industry and Regional Development, Government of Western Australia, Australia

#### O-086

**Herbicide resistant weeds and their emerging trends in China**

Chaoxian Zhang, Hongjuan Huang, Shouhui Wei, Jingchao Chen, Zhaofeng Huang, Cuilan Jiang

Chinese Academy of Agricultural Sciences, China

#### O-087

**Current status and management of herbicide resistance weeds in Sri Lanka**

A. S. K. Abeysekara<sup>1</sup>, D. D. Witharana<sup>2</sup>, T. M. G. H. Tennakoon<sup>1</sup>, W. M. U. B. Wickrama<sup>1</sup>

<sup>1</sup>Rice Research and Development Institute, Sri Lanka; <sup>2</sup>Postgraduate Institute of Agriculture, Sri Lanka

#### O-088

**Current and future herbicide resistance challenges in Asia**

Vinod Shivrain<sup>1</sup>, Florinda Vasquez<sup>2</sup>, Xiaolong Jiang<sup>3</sup>, Susan Knight<sup>1</sup>, Ajit Kumar<sup>4</sup>, Gaylene Marsden<sup>1</sup>, Sugiyama Minoru<sup>5</sup>

<sup>1</sup>Syngenta Asia Pacific Pte. Ltd., Singapore; <sup>2</sup>Syngenta Philippines Inc., Philippines; <sup>3</sup>Syngenta (China) Investment Co., Ltd, China; <sup>4</sup>Syngenta India Ltd., India; <sup>5</sup>Syngenta Japan, Japan

14:15-15:45

## Herbicide Resistance (Management)

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Chairpersons: Tse-Seng Chuah

*University of Malaysia Terengganu, Malaysia*

Roberto Busi

*University of Western Australia, Australia*

**O-089**

**Outcrossing of herbicide resistance rice with local weedy rice variants in Malaysia**

Norida Mazlan, Nur Hidayatul Shuhada Anuar, Engku Ahmad Khairi Engku Arif, Siti Nor Akmar Abdullah, Abdul Shukor Juraimi, Mohd Rafii Yusop

Universiti Putra Malaysia, Malaysia

**O-090**

**Weed control efficacy and herbicide resistance management of Rinskor™ active in rice fields in Asian countries**

Lê Duy<sup>1</sup>, Trần Trọng Vinh<sup>1</sup>, Mongkol Sripeangchan<sup>2</sup>, Bobba Venkata Niranjan Kumar<sup>3</sup>, Robert A. Master<sup>4</sup>, Richard K. Mann<sup>4</sup>, Mauricio Morell<sup>4</sup>

<sup>1</sup>Dow AgroSciences Vietnam, Vietnam; <sup>2</sup>Dow AgroSciences Thailand, Thailand; <sup>3</sup>Dow AgroSciences Malaysia, Malaysia;

<sup>4</sup>Dow AgroSciences LLC, USA

**O-091**

**Strategies to manage multiple resistant wheat weeds in India to herbicides of several sites of action**

Samunder Singh, Aman Dhillon, Pawan Gowda, Mohammad Irfan, Pradeep Kumar

CCS Haryana Agricultural University, India

**O-092**

**Efficacy of MSMA based premix herbicides on control of goosegrass that evolved multiple resistance across glyphosate, glufosinate and fluazifop in Malaysia**

Sim Khay Chuan<sup>1</sup>, Anthony Tan Swee Hock<sup>1</sup>, Wong Kian Joo<sup>1</sup>, Chuah Tse Seng<sup>2</sup>

<sup>1</sup>Ancom Crop Care Sdn. Bhd., Malaysia; <sup>2</sup>University Malaysia Terengganu, Malaysia

**O-093**

**Strategic cultivation for control of glyphosate-resistant weeds in Australian conservation agriculture considering weed ecology and cultivation type**

Michael Widderick, Andrew McLean

Queensland Department of Agriculture and Fisheries, Australia

**O-094**

**Identification of paraquat-resistant *Eleusine indica* populations in corn fields across district of Tiga Binanga, Karo, Indonesia**

Edison Purba, Kristian Adinata Ginting

Universitas Sumatera Utara, Indonesia

## Oral Sessions

Friday, September 22

10:30-12:00

### Herbicide Resistance (Target-Site Resistance)

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Chairpersons: Michael Widderick

*Queensland Department of Agriculture and Fisheries, Australia*

Tae-Seon Park

*National Institute of Crop Science, Korea*

#### O-095

**A novel EPSPS Thr-102-Ser mutation endows glyphosate resistance in *Tridax procumbens***

Jingbo Li<sup>1,2</sup>, Qiong Peng<sup>2,3</sup>, Heping Han<sup>2</sup>, Qin Yu<sup>2</sup>, Stephen B. Powles<sup>2</sup>

<sup>1</sup>Hunan University of Humanities, Science and Technology, China; <sup>2</sup>University of Western Australia, Australia; <sup>3</sup>Hunan Academy of Agricultural Sciences, China

#### O-096

**The dose responses of various sulfonyleurea-resistant *Monochoria vaginalis* to ALS inhibitors**

Kensuke Ohta, Yoshimi Fujino, Yoshinao Sada

Sumitomo Chemical Co.,Ltd., Japan

#### O-097

**Stacking effects of the mutated ALS genes in SU-resistant *Schoenoplectiella juncooides***

Yoshinao Sada

Sumitomo Chemical Co., Ltd., Japan

#### O-098 **IWSS**

**Single nucleotide substitution at Asp-376-Glu conferred various resistance patterns to AHAS inhibitors in a problematic rice field weed *Limnocharis flava***

Norazua Zakaria, Muhammad Saiful Ahmad-Hamdani, Mahbod Sahebi, Abdul Shukor Juraimi, Norhayu Asib

Universiti Putra Malaysia, Malaysia

#### O-099

**CRISPR/Cas9-mediated base-editing system efficiently creates point mutations conferring herbicide resistance in *Arabidopsis***

Linjian Jiang, Yiyu Chen, Zhiping Wang, Hanwen Ni, Yong Xu, Qijun Chen

China Agricultural University, China

#### O-100

**A rapid assay method for detecting ACCase activities of grasses using malachite green**

Yoshinobu Jin

Sumitomo Chemical, Japan

13:15-15:00

**Herbicide Resistance (Non-Target-Site Resistance), Others**

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Chairpersons: Shyama R. Weerakoon

*The Open University of Sri Lanka, Sri Lanka*

Kiyoshi Kawai

*Kumiai Chemical Industry Co., Ltd, Japan*

**O-101**

**Investigating the glyphosate resistance mechanism in *Conyza canadensis* from Korea**

WeiQiang Jia<sup>1</sup>, Aung BoBo<sup>1</sup>, Ok Jae Won<sup>1</sup>, Young Tae Kim<sup>1</sup>, Inkon Park<sup>2</sup>, Kee Woong Park<sup>1</sup>

<sup>1</sup>Chungnam National University, Korea; <sup>2</sup>Syngenta Korea Limited, Korea

**O-102**

**Enhanced activity of  $\beta$ -cyanoalanine synthase does not confer quinclorac resistance in multiple-herbicide resistant *Echinochloa phyllopogon***

Pattarasuda Chayapakdee<sup>1</sup>, Satoshi Iwakami<sup>2</sup>, Yoshitaka Kamidate<sup>1</sup>, Akira Uchino<sup>3</sup>, Longjiang Fan<sup>4</sup>, Yukari Sunohara<sup>1</sup>, Hiroshi Matsumoto<sup>1</sup>

<sup>1</sup>University of Tsukuba, Japan; <sup>2</sup>Kyoto University, Japan; <sup>3</sup>NARO, Japan; <sup>4</sup>Zhejiang University, China

**O-103**

**Effect of metabolic enzyme inhibitors on herbicides**

Bo Tao, Hao Sun, Jingjing Li

Northeast Agriculture University, China

**O-104**

**Multiple-resistance to ACCase- and ALS-inhibiting herbicides in *Polypogon fugax***

Xiaoyue Yu, Wei Tang, Jianping Zhang, Yongliang Lu

China National Rice Research Institute, China

**O-105**

**Tribenuron-methyl resistance in *Myosoton aquaticum*: ALS resistance mutation and P450-mediated enhanced herbicide metabolism**

Weitang Liu, Shuang Bai, Lele Zhang, Wei Li, Jinxin Wang

Shandong Agricultural University, China

**O-106**

**Investigation of clomazone resistance mechanism in multiple-herbicide resistant *Echinochloa phyllopogon***

Feng Guo<sup>1</sup>, Satoshi Iwakami<sup>2</sup>, Takuya Yamaguchi<sup>1</sup>, Kiichi Nagai<sup>1</sup>, Akira Uchino<sup>3</sup>, Yukari Sunohara<sup>1</sup>, Hiroshi Matsumoto<sup>1</sup>

<sup>1</sup>Tsukuba University, Japan; <sup>2</sup>Kyoto University, Japan; <sup>3</sup>NARO, Japan

**O-146**

**Studies on germination ecology and interference of *Cleome viscosa* in mungbean (*Vigna radiata* (L.) Wilczek)**

Hafiz Haider Ali<sup>1</sup>, Muhammad Mansoor Javaid<sup>1</sup>, Zaighum Abbas<sup>1</sup>, Muhammad Ehsan Safdar<sup>1</sup>, Asif Tanveer<sup>2</sup>

<sup>1</sup>University of Sargodha, Pakistan; <sup>2</sup>University of Agriculture, Pakistan

## Oral Sessions

Wednesday, September 20

14:45-16:15

### Herbicide 1

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**Chairpersons: Shinichi Shirakura**

*Bayer CropScience, Japan*

**Simerjeet Kaur**

*Punjab Agricultural University, India*

#### O-107

**Discovery and development of novel pesticides by combining biological and chemical rationales with computational technologies**

Boaz Inbal

Evogene Ltd., Israel

#### O-108

**Weed control efficacy and crop safety of Rinskor™ active against common weeds in rice fields in Asian countries**

Lê Duy<sup>1</sup>, Trần Trọng Vinh<sup>1</sup>, Mongkol Sripeangchan<sup>2</sup>, Marman Maulana<sup>3</sup>, Jasmi Aiman Hanis<sup>4</sup>, Bobba Venkata Niranjan Kumar<sup>4</sup>, Richard K. Mann<sup>5</sup>, Mauricio Morell<sup>5</sup>

<sup>1</sup>Dow AgroSciences, Vietnam; <sup>2</sup>Dow AgroSciences Thailand, Thailand; <sup>3</sup>Dow AgroSciences Indonesia, Indonesia; <sup>4</sup>Dow AgroSciences Malaysia, Malaysia; <sup>5</sup>Dow AgroSciences LLC, USA

#### O-109

**Rinskor™ active: biological studies with granule and EC formulations in Japan**

Masanori Kobayashi, Shun Nomoto, Ikuo Shiraishi

Dow Chemical Japan Ltd., Japan

#### O-110

**Rinskor™ active + Penoxsulam 3.41% OD: A novel pre-mixture formulation for post-emergence use in transplanted rice in Taiwan**

Yi-hsiou Huang, Ta-I Huang

Dow AgroSciences Taiwan Ltd., Taiwan

#### O-111

**A new rice herbicide: cyclopyrimorate**

Hiroshi Tamaru<sup>1</sup>, Takashi Sakamoto<sup>1</sup>, Kosuke Yoshino<sup>1</sup>, Nobuko Imamura<sup>1</sup>, Soichi Saeki<sup>1</sup>, Takuya Ando<sup>1</sup>, Sadafumi Koda<sup>1</sup>, Yoshihisa Tsukamoto<sup>1</sup>, Junji Kadotani<sup>1</sup>, Kenta Ikemachi<sup>2</sup>, Katsuya Kitahara<sup>2</sup>, Chie Furuyama<sup>2</sup>, Ryoichi Aoyama<sup>2</sup>

<sup>1</sup>Mitsui Chemicals Agro, INC., Japan; <sup>2</sup>National Federation of Agricultural Cooperative Associations, Japan

O-112

**Rinskor™ active control of *Echinochloa spp* and other grasses in rice fields in Jiangsu Province of China**

Zhen Wei Yao<sup>1</sup>, Jia Xing Yu<sup>2</sup>, Li Yao Dong<sup>2</sup>

<sup>1</sup>Dow AgroSciences (China) Ltd., China; <sup>2</sup>Nanjing Agricultural University, China

16:35-18:20

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**Herbicide 2**

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**Chairpersons: Yoshinao Sada**

*Sumitomo Chemical Co., Ltd., Japan*

**Zhen Wei Yao**

*Dow AgroSciences (China) Ltd., China*

O-113

**Triafamone (Council®)- A new herbicide for Asia's diverse rice cropping systems**

Ramisis Fulgencio<sup>1</sup>, Juergen Echle<sup>1</sup>, Silke Heibges<sup>1</sup>, Hans-Peter Krause<sup>1</sup>, Eva-Maria Franken<sup>1</sup>, Christopher Rosinger<sup>1</sup>, Wolfgang Schulte<sup>1</sup>, Shinichi Shirakura<sup>2</sup>

<sup>1</sup>Bayer CropScience AG, Germany; <sup>2</sup>Bayer CropScience K.K., Japan

O-114

**Council Complete-Performance on hard-to-control weeds**

Tatsuya Yamaoka, Nobuhiro Yamashita, Hidenori Hayakawa, Kenji Sugiura

Bayer CropScience K.K.(Japan), Japan

O-115

**The effects of Fenquinotrione on ALS-R broadleaf weeds under flooded conditions**

Ken Ueda, Yuta Amano, Atsushi Nagamatsu, Masami Kobayashi

Kumiai Chemical Industry Co., Ltd., Japan

O-116

**A new herbicide mixture for early post-emergent application timing in transplanted rice**

Vinod Shivrain<sup>1</sup>, Ari Budiawan<sup>2</sup>, Ruediger Kotzian<sup>3</sup>, Ajit Kumar<sup>4</sup>, Gaylene Marsden<sup>1</sup>, Tiffany Su<sup>1</sup>, Pete Tsai<sup>5</sup>, Nan Xu<sup>3</sup>

<sup>1</sup>Syngenta Asia Pacific Pte. Ltd., Singapore; <sup>2</sup>PT Syngenta Indonesia, Indonesia; <sup>3</sup>Syngenta Crop Protection AG, Switzerland; <sup>4</sup>Syngenta India Ltd, India; <sup>5</sup>Syngenta Taiwan Limited, Taiwan

O-117

**Effectiveness of the rice herbicidal agent, Pyraclonil**

Takashi Shigefuji, Yoshio Ushiguchi, Katsuhiko Takahashi, Takuma Sasaki, Takayuki Uchida

Kyoyu Agri Co.,Ltd., Japan

O-118

**Metabolism of the novel herbicide fenquinotrione.**

Satoshi Usami, Mitsumasa Ikeda, Yudai Hotta, Yuji Ono

Kumiai Chemical Industry Co., Ltd., Japan

O-119

**Re-evaluation of the effectiveness of commonly used herbicides in wet seeded rice in Sri Lanka**

D. D. Witharana<sup>1</sup>, A. S. K. Abeysekara<sup>2</sup>, H. M. S. D. Kulatunga<sup>2</sup>, W. M. U. B. Wikrama<sup>2</sup>

<sup>1</sup>Postgraduate Institute of Agriculture, Sri Lanka; <sup>2</sup>Rice Research and Development Institute, Sri Lanka.



## Oral Sessions

Thursday, September 21

10:30-12:00

### Herbicide 3

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**Chairpersons: Clair L Keene**

*North Dakota State University, USA*

**Ramesh Kumar Singh**

*Banaras Hindu University, India*

#### O-120

**Indaziflam – an innovative base herbicide for plantation crops in Asia**

Ramisis Fulgencio<sup>1</sup>, Joerg Oeser<sup>1</sup>, Anne Helgers<sup>1</sup>, Christopher Leake<sup>1</sup>, MinSik Park<sup>2</sup>

<sup>1</sup>Bayer CropScience AG, Germany; <sup>2</sup>Bayer (South East Asia) Pte Ltd., Singapore

#### O-121

**Indaziflam – a residual and broad spectrum herbicide for turf**

Shin Nakamura, Shigetoshi Obuchi

BayerCropScience K.K., Japan

#### O-122

**Indaziflam (Alion®) – a novel herbicide for weed management in oil palm (*Elaeis guineensis* Jacq.): crop safety and performance**

S. H. Ho<sup>1</sup>; R. Fulgencio<sup>2</sup>, A. Xavier<sup>1</sup>, C. K. Hoe<sup>3</sup>

<sup>1</sup>United Plantations Berhad, Malaysia; <sup>2</sup>Bayer CropScience AG, Germany; <sup>3</sup>Bayer Co. (Malaysia) Sdn. Bhd., Malaysia

#### O-123

**Herbicidal efficacy of tolpyralate under various environmental conditions**

Yu Naito, Yoshikazu Satake, Hiroyuki Okamoto, Hiroshi Kikugawa, Shigeru Mitani

Ishihara Sangyo Kaisha, Ltd., Japan

#### O-124

**Biological performance of tolpyralate and tank mixture with atrazine as a post-emergence herbicide application for corn (*Zea mays*) production**

Taketo Suganuma, Yoshikazu Satake, Yosuke Kobayashi, Yu Naito, Hiroshi Kikugawa, Shigeru Mitani

Ishihara Sangyo Kaisha, Ltd., Japan

#### O-125

**Control of mixed weed flora in maize with temboptrione and its tank-mix with atrazine and 2,4-D**

Simerjeet Kaur, Makhan S. Bhullar, Tarundeep Kaur

Punjab Agricultural University, India

14:15-16:00

## Herbicide Usage 1

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Chairpersons: Md. Hazrat Ali

*Sher-e-Bangla Agricultural University, Bangladesh*

Xiangju Li

*Chinese Academy of Agricultural Science, China*

### O-126

**Herbicides affect growth and seed germination of broadleaf dock (*Rumex obtusifolius*)**

Wiharti Oktaria Purba, Lisa Wasko DeVetter, Chris Benedict, Ian C Burke, Timothy Miller

Washington State University, USA

### O-127

**Evaluation of weed control measures in combination with seeding rates on chickpea (*Cicer arietinum* L.) weeds under rainfed conditions**

Rahamdad Khan<sup>1</sup>, Ijaz Khan Ahmad Khan<sup>2</sup>, Syed Salim Shah<sup>1</sup>

<sup>1</sup>Bacha Khan University, Pakistan; <sup>2</sup>The University of Agriculture, Peshawar Pakistan, Pakistan

### O-128

**Bio-efficacy and phyto-toxicity of BAS 835 UB H against weeds in groundnut and its residual effects on succeeding sorghum, wheat and maize crops**

Malligawad Lokanath Hemaraddi

University of Agricultural Sciences, India

### O-129

**Long term application of herbicides on weed shift, weed control, yield and soil properties in transplanted rice-rice system at north western zone of Tamil Nadu**

Chinnusamy Chinnagounder, N. K. Prabhakaran, P. Murali Arthanari, P. Janaki

Tamil Nadu Agricultural University, India

### O-130

**Herbicide combinations for higher productivity and profitability of transplanted rice**

M. Madhavi<sup>1</sup>, S. Anusha<sup>1</sup>, G. Pratibha<sup>2</sup>, T. Ramprakash<sup>1</sup>

<sup>1</sup>Professor Jayashankar Telangana State Agricultural University, India; <sup>2</sup>Central Research Institute for Dryland Agriculture, India

### O-131

**Studies on the efficacy of pre-emergence and post-emergence herbicides on control of weeds in groundnut and soybean and their residual toxicity on succeeding crops**

H. D. Shilpa, Lokanath Hemaraddi Malligawad

University of Agricultural Sciences, India

**O-144**

**Growth and yield of soybean as affected by irrigation and weed management method**

Md. Hazrat Ali<sup>1</sup>, Jannatul Ferdous<sup>1</sup>, Md. Shahidul Islam<sup>1</sup>, Imtiaz Faruk Chowdhury<sup>1</sup>, Md. Nazmul Haque<sup>1</sup>,  
Sheikh Muhammad Masum<sup>1,2</sup>

<sup>1</sup>Sher-e-Bangla Agricultural University, Bangladesh; <sup>2</sup>Kagoshima University, Japan

## Oral Sessions

Friday, September 22

10:30-12:00

### Herbicide Usage 2

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Chairpersons: Lokanath Hemaraddi Malligawad

*University of Agricultural Sciences, India*

Vinod Shivrain

*Syngenta Asia Pacific Pte. Ltd., Singapore*

#### O-132

**Bio-efficacy and phytotoxicity evaluation of pendimethalin + metribuzin (RM) for the control of weeds in wheat crop and its residual effect on succeeding crops**

Satbir Singh

CCS Haryana Agricultural University, India

#### O-133

**Bio-efficacy of post emergence herbicides alone and as tank mixtures on weed control, growth and yield of roselle (*Hibiscus sabdariffa* L.)**

A. S. Rao

Acharya N.G. Ranga Agricultural University, India

#### O-134

**Efficacy of pre-mix formulation of oxyfluorfen + glyphosate on weeds in non-crop areas**

Ramesh Kumar Singh, Neelam Bisen

Banaras Hindu University, India

#### O-135

**Troublesome perennial grass weed, dallisgrass (*Paspalum dilatatum*) and cogon grass (*Imperata cylindrica*) control by foramsulfuron in turf.**

Shin Nakamura, Shigetoshi Obuchi, Hirohisa Ohtake

BayerCropScience K.K., Japan

#### O-136

**Burn down effect and chlorosis of transgenic and conventional corn varieties due to potassium glyphosate 660 g/l at different time of application**

Denny Kurniadie, Uum Umiyati, Dedi Widayat

Padjadjaran University, Indonesia

O-137

**A new micro emulsion of propaquizafop 2.5%+imazethapyr 3.75% for weed control in Cluster bean (*Cyamopsis tetragonaloba* L.)**

Ramesh K. Singh, Vishal Tyagi, Neelam Bisen

Banaras Hindu University, India

13:15-15:00

### Herbicide Usage 3

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**Chairpersons: Camila Ferreira Pinho**

*UFRRJ - Federal Rural University, Brazil*

**Chairpersons: C. R. Chinnamuthu**

*Tamil Nadu Agricultural University, India*

O-138

**Inhibitory effect of some herbicides on Three Soil borne diseases**

Pruchya Ekkathin, Chanya Maneechote, Yurawan Anantanamane, Suneerat Seemadua, Assiri Klangawad

Plant Protection Research and Development Office, Department of Agriculture, Thailand

O-139

**Sorption and dissipation of pyrithiobac sodium in cotton growing soils of India**

T. Ramprakash, M. Madhavi, P. Leela Rani

Professor Jayashankar Telangana State Agricultural University, India

O-140

**Nano encapsulated formulations to improve absorption and translocation of herbicide for season long weed control**

C. R. Chinnamuthu<sup>1</sup>, N. Viji<sup>1</sup>, T. Pradeeshkumar<sup>2</sup>

<sup>1</sup>Tamil Nadu Agricultural University, India; <sup>2</sup>Vanavarayar Institute of Agriculture, India

O-141

**Alleviation of quinclorac toxicity by salicylic acid in rice seedlings based on visible/near-infrared hyperspectral imaging**

Lan Li, Jian Wang, Chong Yang, Su Yang, Weijun Zhou

Zhejiang University, China

O-142

**Comparative transcriptome and iTRAQ proteome analyses of rice leaf responses to salicylic acid under quinclorac stress**

Jian Wang, Lan Li, Meijuan Long, Mengting Lv, Weijun Zhou

Zhejiang University, China

O-145

**Influence of herbicides on plant parasitic nematodes infecting aerobic rice**

Nethi Somasekhar, B. Sreedevi, K. Shivakrishna

ICAR-Indian Institute of Rice Research, India