

## 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**

**Physical and genetic exploration for effective biocontrol agents of the climbing fern *Lygodium microphyllum*: progress, problems, potential**

Jeff Makinson<sup>1</sup>, Graham McCulloch<sup>2</sup>, Ryan Zonneveld<sup>1</sup>, Ellen Lake<sup>3</sup>

<sup>1</sup>ABCL, CSIRO Health & Biosecurity; <sup>2</sup>University of Queensland; <sup>3</sup>IPRL, USDA ARS

#### 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**

Tjitrosemiteo 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

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**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**

#### Constrictions and prospects for sustainable weed management in Pakistan

Saima Hashim

The University of Agriculture Peshawar, Pakistan

#### 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: Naomi Hosaka

*Japan Association for Advancement of Phyto-Regulators, Japan*

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