



January-June

2015

Message from the President



The preparations for the upcoming 25th APWSS Conference is going on pretty well. The response for participation is overwhelming. Over 850 abstracts have been received so with nearly 280 of them meant for oral presentation..Our interest in giving the scientists an opportunity to make oral presentation notwithstanding, due to constraint of time; many papers will have to be pushed to poster presentation. I hope the participants will bear with us.

As notified earlier, we would be running five satellite symposia during the Conference. They are on – *Parthenium*, Herbicide resistance, Weed utilization, Biological weed control, Weed management in CA and Weedy rice. World renowned experts in the field have volunteered to coordinate and moderate these symposia. It would be something unique never attempted in previous Conferences. The special publication to mark the Golden Jubilee of APWSS – **Weed Science in the Asian- Pacific region** has shaped up very well with contributions form 19 countries. This publication, which is unique, is expected to enhance the image of ISWS manifold. The Chief Editor Dr V S Rao has seen to it that the publication retains high standards.

The accommodation for Indian delegates is being made at various guest houses located at Rajendranagar. I encourage our ICAR scientists to stay at Hotels listed in the website. On twin sharing basis, the cost will be within the rates stipulated by the ICAR. This will ease the pressure on the Accommodation committee. Overall, we are trying our best to host a memorable event. Come to Hyderabad and enjoy the Conference!

N.T. Yaduraju

Executive Committee Meeting of ISWS Held

A meeting of the old and new members of the Executive Committee was held at the Indian Institute of Oilseeds Research (IIOR), Hyderabad on 28 February, 2015 (forenoon) to hand over the charge of ISWS to the newly elected EC and to discuss various issues related to ISWS. The following members and special invitees were present:

Members, Executive Committee, ISWS

Drs. N.T. Yaduraju, TVR Prasad, C. Chinnusamy, Sushil Kumar, Prashant Bodake and A.R. Sharma

Special Invitees: Drs. D. Raji Reddy, P.C. Rao, A.N. Rao, M. Yakadri, M.D. Reddy, M.B.B. Prasad Babu, T. Ram Prakash, Leela Rani, K.A. Gopinath, G. Suresh, V. Ravindrababu and K.S. Varaprasad

EC members Drs. R.K. Ghosh, J.S. Mishra, and Shobha Sondhia could not attend the meeting due to their preoccupation.

Dr. A.R. Sharma, Secretary extended a warm welcome to all the members and special invitees. The newly elected members, Dr. N.T. Yaduraju, President; Dr. C. Chinnusamy, Vice President, and Dr. Prasant Bodake, Joint Secretary were felicitated.

Dr. Sharma thanked Dr. Dev Raj Arya, Returning Officer for conducting the election in the most democratic and transparent manner. Following decisions were taken:

1. Dr. R.K. Singh, Professor of Agronomy, BHU was unanimously elected as co-opted Vice-President and Dr. M.S. Bhullar, Professor (Agronomy), PAU, Ludhiana as co-opted Joint Secretary.

2. Dr. Sushil Kumar was re-elected unanimously as the Chief Editor of Indian Journal of Weed Science.

3. It was decided to print the contents of articles on the back cover from 2015 onwards and to retain the old colour of Journal with some modification, which should not be changed frequently.

4. Editorial Board for the biennium 2015-16 was constituted as follows: Dr. Sushil Kumar, Chief Editor; Dr. A.N. Rao, Associate Editor; and members: Dr. M.D.



Reddy (Hyderabad), Dr. N. Prabhakaran (Coimbatore), Dr. Gulshan Mahajan (Ludhiana), Dr. Ashok Yadav (Patna), Dr. Suresh Gautam (Himachal Pradesh), Dr. C. Sarthambal (Jabalpur), Dr. P. Janki (Coimbatore), Dr. V.S.G.R. Naidu (Rajahmundry), Dr. T. Ram Prakash (Hyderabad), Dr. T.K. Das (New Delhi), Dr. K.A. Gopinath (Hyderabad) and Dr. Narendra Kumar (Kanpur).

Overseas editors: Dr. Amit Jhala (USA), Dr. Gurjeet Gill (Australia), Dr. V.K. Nandula (USA), Dr. Mayank Malik (USA).

Dr. J.S. Mishra (Patna), Editor, ISWS Newsletter

Meeting of the National Organizing Committee of the 25th APWSS Conference Held

A meeting of the National Organizing Committee of the 25th APWSS Conference was held at the Indian Institute of Oilseeds Research, Hyderabad on 28 February, 2015 in the afternoon to review the progress made so far. A brief presentation was made by Dr. A.R. Sharma and the members were apprised of the progress made so far.



WEED WATCH

Cirsium arvense – a major threat to Changthang pastoralism of Leh-Ladakh

Creeping thistle (*Cirsium arvense*), also referred to Canada thistle is becoming a major threat to Changthang pastoralism of Leh-Ladakh and creating imbalance in the natural eco-system of the region. Changthang, being a home to Changpa nomads for centuries, preserving pastureland is the only means to survive the harsh weather. Survival of flocks of sheep, yak, goats and horses corresponds to the decline balance in nature. In Changthang pastoral ecosystems, being natural vegetation for nomadic livestock economy is under threat with vegetation other than on which livestock survive. Immediate attention is needed to control the menace of *C. arvense* in this region.



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RESEARCH HIGHLIGHTS

Integrated weed management in hybrid brinjal

Field experiment was conducted during *kharif*, 2014 at Agricultural College and Research Institute (Tamil Nadu Agricultural University), Madurai, to evaluate integrated weed management methods in hybrid brinjal. Different weed management methods involving pre-emergence herbicide pendimethalin and oxyfluorfen, early post-emergence quizalofop ethyl and



imazethapyr at different doses and in combinations along with wheel hoe weeding and sugarcane trash mulching and cowpea as weed smothering intercropping were evaluated. Phytotoxic symptoms were observed with oxyfluorfen at 0.25 kg a.i/ha fb imazethapyr at 0.06 kg a.i/ha and pendimethalin at 1.0 kg a.i/ha fb imazethapyr at 0.06 kg a.i/ha, but brinjal plants recovered after three irrigations. Hand weeding twice at 15 and 45 DAT recorded higher weed control efficiency, followed by oxyfluorfen at 0.25 kg a.i/ha with imazethapyr at 0.06 kg a.i/ha and sugarcane trash mulching 5 t/ha on 3 DAT at earlier stages. Whereas, pendimethalin at 1.0 kg a.i/ha with HW at 30 DAT at later stages. Pendimethalin at 1.0 kg a.i/ha with HW at 30 DAT gave higher benefit cost ratio in hybrid brinjal with higher yield of 52.5 t/ha.

*K. Sureshkumar and C. Chinnusamy
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Dicamba affects non-target plants and pollinator visitation

To understand the influence of dicamba on pollinators, sub-lethal, drift-level rates of dicamba were applied to alfalfa (*Medicago sativa* L.), and *Eupatorium perfoliatum* L. and evaluated plant flowering and floral visitation by pollinators. It was observed that dicamba doses simulating particle drift ($\approx 1\%$ of the field application rate) delayed onset of flowering and reduced the number of flowers of each plant species; however, plants that did flower produced similar quality pollen in terms of protein concentrations. Further, plants affected by particle drift rates were visited less often by pollinators. Because plants exposed to sub-lethal levels of dicamba may produce fewer floral resources and be less frequently visited by pollinators, use of dicamba or other synthetic-auxin herbicides with widespread planting of herbicide-resistant crops will need to be carefully stewarded to prevent potential disturbances of plant and beneficial insect communities in agricultural landscapes. [Eric W. Bohnenblust, Anthony D. Vaudo, J. Franklin Egan, David A. Mortensen & John F. Tooker (2015). *Environmental Toxicology & Chemistry*, online 17 July, 2015. Courtesy by David Low; *WeedsNews*, July 29, 2015]

Glyphosate affects Honeybee navigation

Three sub-lethal concentrations of GLY (2.5, 5 and 10 mg/L corresponding to 0.125, 0.250 and 0.500 $\mu\text{g}/\text{animal}$) were evaluated to see the effect of glyphosate on the homeward flight path of honeybees in an open field. It was noticed that honeybees that had been fed with solution containing 10 mg/L glyphosate spent more time performing homeward flights than control bees or bees treated with lower glyphosate concentrations. They also performed more indirect homing flights. These results suggest that, in honeybees, exposure to glyphosate doses

commonly found in agricultural settings impairs the cognitive capacities needed to retrieve and integrate spatial information for a successful return to the hive. Therefore, honeybee navigation is affected by ingesting traces of the most widely used herbicide worldwide, with potential long-term negative consequences for colony foraging success. [María Sol Balbuena, Léa Tison, Marie-Luise Hahn, Uwe Greggers, Randolph Menzel & Walter M. Farina (2015). *The Journal of Experimental Biology*, online 14 July, 2015. Courtesy by David Low; *WeedsNews*, July 29, 2015]

Recognitions and Awards

Dr. Samunder Singh, Principal Scientist of Agronomy Department, CCS Haryana Agricultural University and Secretary of International Weed Science Society has been nominated Scientific Expert on herbicides in a newly constituted Expert Committee for the consideration of bio-efficacy protocols for pesticide registration by the Central Insecticide Board and Registration Committee (CIB&RC) of Directorate of Plant Protection, Quarantine and Storage, Department of Agriculture and Cooperation under Ministry of Agriculture, Government of India.



Dr. Singh, was also awarded **Honorary Member of Weed Science Society of America** in a function held on 9 Feb. 2015 at Lexington, Kentucky, USA. This is the most prestigious award only given to one person every year or sometime every other year from the whole world for meritorious service to the field of weed science. The award also has a cash prize of US\$1000 towards travel cost. Dr. Singh is the first Indian Weed Scientist selected for this honour.



Dr. T. K. Das, Principal Scientist, Division of Agronomy, ICAR-Indian Agricultural Research Institute (IARI) received the Hooker Award 2012-13 in 2015 for his outstanding research contributions in the field of weed management and conservation agriculture. The Award is instituted by the Indian Agricultural Research Institute, New Delhi and was conferred on him on the occasion of 53rd Convocation held on February 20, 2015. The Award carries a cash prize of Rs. 15, 000/- a certificate and citation.

The ISWS congratulate both Dr. Singh and Dr. Das for their stupendous achievements.

M.Sc. (Ag.)/Ph. D. Theses in Weed Science

K.Sureshkumar: Evaluation of integrated weed management methods in hybrid brinjal (*Solanum melongena* L). M.Sc. (Agri.) Thesis, 2015.

Supervisor: Dr. C. Chinnusamy, Tamil Nadu Agricultural University, Coimbatore

Ravi Kumar H.S.: Effect of crop establishment methods and weed management on rice -wheat system productivity and profitability. Ph. D. Thesis, 2015, BHU, Varanasi

Supervisor: Prof. U.P. Singh

Coming Events

BCPC Congress 2015

6 - 7 October 2015

Venue: Hilton Metropole, Brighton, UK

Visit <http://www.bcpccongress.org> for more details.

25th Asian Pacific Weed Science Society Conference

13-16 October 2015

Venue: Hyderabad, India

7th International Weed Science Congress

19-25 June 2016

Venue: Clarion Congress Hotel Prague, Prague, CZECH REPUBLIC

Contact: Dr. Josef Soukup, Tel. +420 22438 2780

E-mail: soukup@af.czu.cz / iwsc2016@guarant.cz, www.iwsc2016.org

11th International Symposium on Adjuvants for Agrochemicals (ISAA 2016)

June 20-24, 2016

Contact: President Symposium Committee: Solito Sumulong, www.isaa-online.org

2nd Global Herbicide Resistance Challenge Conference

Venue: Denver, Colorado, USA

Date: 14-18 May 2017

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The *ISWS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations.

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