



January-June

2017

President's Message



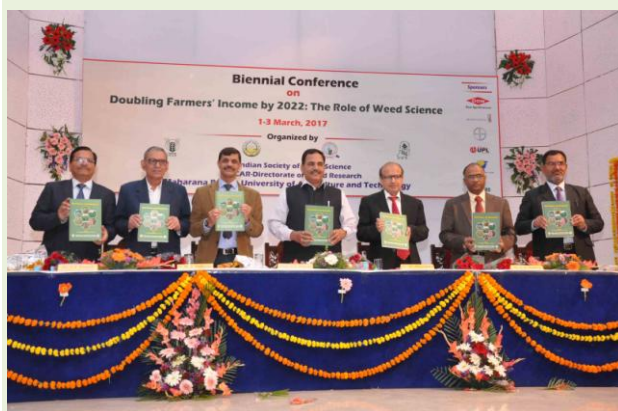
At the outset, I express my sincere thanks to all the members of the ISWS for electing and giving me this opportunity to serve the society in the capacity of its President. The society has been able to carve out a special niche among the professional societies dedicated to Indian Agriculture. With a strong group of society members, it has been marching ahead since its inception in 1968. With the recent hosting of the 25th APWSS, organization of biennial conferences, initiation of a number of awards and travel grants particularly for students working in weed science, regular publication of the Indian Journal of Weed Science and other host of activities, it has made its present felt in the field of weed science societies across the globe. I also hope ISWS Newsletter will provide valuable information to all those who are interested in weeds and their management.

We are at very important juncture in the history of agriculture. Although we have achieved self-sufficiency in food grain production, our natural resources have been degraded to a great extent. Several socioeconomic problems such as expensive labour, apathy towards agriculture in younger generation with reference to broad acre agriculture have also emanated. Small farms are too becoming less profitable so farmers in these farms are migrating towards cities for better livelihood. Effect of climate change on agriculture is also a major concern today. Agriculture thus is becoming poorly managed. Weeds therefore have more opportunities to flourish. Weeds are also becoming omnipresent and the population of herbicide resistant weeds is increasing. There are very few effective herbicides to tackle these weeds. Market has dominated agricultural landscape and as a result new crops and cropping systems are being introduced. A huge amount of the agricultural produce of the country is lost during the yield time which makes weed management a necessity in the agricultural sector. The complexity of these situations has resulted in a need to develop a holistic sustainable eco-friendly weed management programme throughout the farming period. I am hopeful that with this Newsletter, farmers, students and scientific fraternity will abreast themselves with the work of weed scientists of the country.

V.P. Singh

Conference on 'Doubling Farmers' Income by 2022: The Role of Weed Science' Organized

In order to address the emerging challenges and for doubling farmers' income by 2022, the Biennial Conference of the Indian Society of Weed Science was organized during 1-3 March, 2017 at Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan with a theme "Doubling Farmers' Income by 2022: The Role of Weed Science". About 200 delegates from all over India and overseas including members of the Society, scientists from agricultural research institutions and State Agricultural Universities (SAUs), representatives from concerned government departments and industries attended the Conference.



Release of publications by the dignitaries



Dr. NT Yaduraju addressing the participants



Dr. Mruthyunjaya addressing the gathering

The conference was inaugurated by Dr. U.S. Sharma, Vice Chancellor, MPUAT, Udaipur, and the Chief Guest of the function. The other dignitaries present were; Dr. N.T. Yaduraju, President, ISWS; Dr. T.V. Muniyappa and Dr. L.S. Brar, Former Presidents, ISWS; Dr. A.R. Sharma, Secretary, ISWS and Director, DWSR, Dr. Bhagirath Chauhan from Australia. In his inaugural address, Chief Guest highlighted the problems posed by the weeds and

emphasized the need of their integrated management instead of relying only on chemicals. He desired that weed scientists should formulate strategies on weed management which are especially suitable for the small and marginal farmers of the country. Dr. A.R. Sharma, Secretary, ISWS welcomed the participants representing almost every state of India. He explained the challenges posed by weeds and the importance of their management. He hoped that this Conference will be useful for the delegates and students to know about the emerging challenges in weed management in different parts of the country and the world. Dr. N.T. Yaduraju, President ISWS highlighted the current scenerio of weed problems in the country and the world. He informed the gathereing about the role of integrated weed management in improving the input-use efficiency, productivity and profitability. Dr. Mruthyunjaya, former Director, NCAP and National Director, NAIP, ICAR New Delhi, in his Keynote Address emphasized that reduction in input cost and increase in crop productivity are the major components to the income increase, hence efficient weed management has much importance and play a vital role in increasing the farmers' income. A book on 'Weed Science and Management (Eds. NT Yaduraju, AR Sharma and TK Das), jointly published by Indian Society of Weed Science and Indian Society of Agronomy was also released by the Chief guest and dignitaries.

Awards and Fellowships: During inaugural function, the following scientists were honoured for their outstanding contributions to weed science.

Life Time Achievement Award:

Dr. L.S. Brar (PAU, Ludhiana, Punjab)
Dr. Gita Kulshrestha (IARI, New Delhi)

ISWS Special Recognition Award

Dr. Bibhas C. Ray, New Delhi
Dr. Devraj Arya, RML AgTech (P) Ltd.
Dr. Bhagirath S. Chauhan, Australia.

ISWS Gold Medal

Dr. J.S. Mishra, ICAR-RCER, Patna (2014)
Dr. C.T. Abraham, KAU, Thrissur (2015)

ISWS Fellow

2014

Dr. Mahesh K. Upadhyaya, University of British Columbia, Vancouver, Canada
Dr. C.R. Chinnamuthu, TNAU, Coimbatore
Dr. Dharambir Yadav, HAU, Hisar

2015

Dr. V.S.G.R. Naidu, CTRI, Rajahmundri
Dr. B. Duary, VB, Sriniketan



Dr Bibhas Ray



Dr Devraj Arya

Dr. Neelam Sharma, CSKHPKVV, Palampur

ISWS Young Scientist Award

2014: None

2015: Dr. Ramphool Punia, SKUAST, Jammu

ISWS Best Ph.D. Thesis Award

2014: None

2015

Dr. N. Viji, TNAU, Coimbatore

Dr. Nimmi Jose, KAU, Thrissur

ISWS Best Book Award

Dr. Bhagirath S. Chauhan & Dr. Gulshan Mahajan for the book “Recent Advances in Weed Science”

ISWS Student Travel Grant Award

Ms. Tarun Suryavanshi, IGKVV, Raipur

Mr. Saurabh Pagare, RDVV, Jabalpur

Mr. Manpreet Singh, PAU, Ludhiana

Mr. Shyam Lal, IGKV, Raipur

Mr. Subhash Kumar Mishra, MGCGV, Chitrakoot

Mr. Tapas Ranjan Sahoo, OUAT, Bhubaneswar

Mr. R. Thirumalaikumar, TNAU, Coimbatore

Ms. Paawan Kaur, PAU, Ludhiana

Ms. Maninder Kaur, HAU, Hisar

Ms. Gunjan Guleria, HPKVV, Palampur



Dr. L.S. Brar



Dr. Gita Kulshrestha



Dr J.S. Mishra



Dr C.T. Abraham



Dr. C.R. Chinnamuthu



Dr. Dharambir Yadav



Dr. VSGR Naidu



Dr. B. Duary



Dr. Neelam Sharma



Dr. Ramphool Punia



Dr. Nimmi Jose



Dr. Bhagirath S. Chauhan

Glimpses of ISWS Award Ceremony

Research Notes

Weed Wiper for managing red rice in rice fields

Weedy rice is currently a major problem in rice across the globe. The labor and water shortages are the major drivers in making farmers shift from transplanting to direct-seeding method of rice establishment. The shift in the crop establishment method from transplanting to direct sowing of rice, dependence on herbicides, reduced tillage practices, acute shortage and high cost of labour are leading to shift in weed flora and making weedy rice a major problem. In India, the weedy rice is a major weed in direct-seeded rice. The Weedy rice infestation in rice fields was reported to cause reduction in yield of up to 50-70 per cent and often causes many farmers to abandon the rice farming and leave the field fallow, if the infestation is severe. Hand weeding or herbicidal management are ineffective in managing weedy rice due to morphological and physiological similarities amongst weedy rice and cultivated rice.



Dr. Nimmy Jose, an agricultural scientist at Rice Research Station, Kerala Agricultural University, Monkombu, Kerala developed a simple device called, 'weed wiper', in an effort to manage weedy rice ('vari nellu' as it is called in Kerala) in rice fields of Kerala. The device makes use of the principle of selective drying of weedy rice panicles by direct contact application of a recommended herbicide, using the weed wiper by taking advantage of the earliness in flowering and tallness of weedy rice compared to cultivated rice. It has been tested successfully in Kuttanad and other areas of Kerala, India. Several farmers have already started using the machine. Dr. Nimmy Jose filed an application for getting Indian patent for the device and transferred the technology to Raidco Kerala Limited, a Government of Kerala enterprise. Further information on "weed wiper" may be obtained from Dr. Nimmy Jose (email: nimmy.jose@kau.in). Dr. Nimmy Jose has received, for her innovative work, the "Mr. Adusumilli Rama Rao Best Thesis Award", during the

Biennial Conference of Indian Society of Weed Science (ISWS) held at Udaipur in March, 2017.

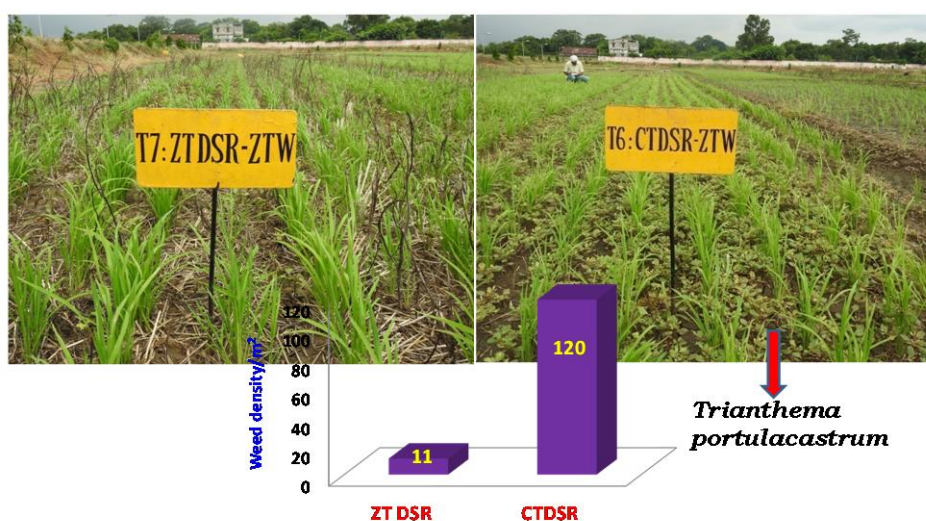
(News item from Dr.A.N. Rao; anraojaya1@gmail.com)

Management of Carpet weed (*Trianthema portulacastrum*) in direct-seeded rice through zero-tillage

Horse Purslane (*Trianthema portulacastrum* L.), also known as Carpet weed, is becoming a major weed in direct-seeded rice (DSR) in eastern India. Studies of a long-term experiment on 'Crop establishment in rice-wheat-greengram cropping system' under ICAR-CSISA collaborative project at ICAR-Research Complex for Eastern Region, Patna revealed that after 2 years, the population of *T. portulacastrum* in ZT DSR-ZT wheat-ZT greengram (complete CA) system was drastically reduced to 11/m² as compared to 120/m² in conventional DSR.

(JS Mishra, Rakesh Kumar, SP Poonia and RK Malik; ICAR-Research Complex for Eastern Region, Patna)

Weed shift in rice (3rd Yr) due to crop establishment methods



Recognitions and Awards



Dr. R.P. Singh, a renowned weed scientist and former president of Indian Society of Weed Science was felicitated by the Indian Society of Agronomy for his significant contribution in the field of Agronomy (Weed Science) during the 4th International Agronomy Congress at New Delhi.



Dr. Amit Jhala, Assistant Professor of Weed Science at the University of Nebraska, USA recently honored with Distinguished Achievement Young Weed Scientist Award by the North Central Weed Science Society in Dec 2016 and Outstanding Early Career Weed Scientist Award by the Weed Science Society of America (WSSA) in Feb 2017. Amit Jhala completed his BS (Agriculture) and MS (Weed Science) from Gujarat Agricultural University (now Anand Agricultural University), India. He was

selected for an international fellowship sponsored by the Belgian government and spent a year at Ghent University, Belgium, during which time he visited several universities in Europe. Amit completed his Ph.D. from the University of Alberta, Canada in 2009, after which he completed postdoctoral experiences at the University of California—Davis and the University of Florida (in the lab of Dr. Megh Singh). Amit is an early career weed scientist with 62 papers published/accepted in peer-reviewed journals, of which he is the first or senior author on 49. Additionally, he has published 11 book chapters. Amit has graduated two MS students and two Ph.D. students after joining University of Nebraska, in addition to currently supervising two postdoctoral fellows, two Ph.D. students, and two MS students as a major advisor and serving as a committee member for four other post-graduate students.

New Office Bearers of the ISWS

Elections were held during February 2017 to elect the new Executive Council (EC) of Indian Society of Weed Science (ISWS) for the term of 2017-2018 for the positions of President, Vice President, Secretary and Treasurer. Dr. Dev Raj Arya, Returning Officer of the ISWS election has announced the results as: Dr. Virendra Pratap Singh as President; Dr. S.S. Punia as Vice President; Dr. Sushilkumar as Secretary, and Dr. M. Madhavi as Treasurer. During its first meeting, the EC of the Society co-opted Dr. Chinnusamy, Dr. J.P. Deshmukh and Dr. J.S. Mishra as Vice President, Joint Secretary and Chief Editor, respectively. All of them took charge of their respective positions and will hold the respective office during the term 2017-2018.

 V. P. Singh President	 S.S. Punia Vice President	 C. Chinnusamy Vice President (Co-opted)	 Sushilkumar Secretary
 M. Madhavi Joint Secretary	 J.P. Deshmukh Joint Secretary (Co opted)	 Bhumesh Kumar Treasurer	 JS Mishra Chief Editor

Ph.D./M.Sc. (Ag.) Theses

Anupam Mukherjee: Survey, biology and management of Weedy rice in the red and lateritic belt of West Bengal. Ph. D. (Agronomy) thesis, 2017.

Supervisor: Dr. B. Duary, Visva-Bharati, West Bengal.

Mandira Chakraborti: Integrated weed management in upland direct seeded rice and its residual effect on succeeding *Toria* in Tripura. Ph. D. (Agronomy) thesis, 2017.

Supervisors: Dr. B. Duary, Visva-Bharati, West Bengal and Dr. Mrinmoy Dutta, Tripura.

Kazi Aliza Ahmed: Integrated weed management in *kharif* maize in plateau of Odisha. M.Sc. (Ag.) (Agronomy) thesis, 2016.

Supervisor: Dr. B. Duary, Visva-Bharati, West Bengal.

Santanu Das: Comparative studies between overall and row application of herbicides in potato (*Solanum tuberosum* L.). M.Sc. (Ag.) (Agronomy) thesis, 2016.

Supervisor: Dr. B. Duary, Visva-Bharati, West Bengal.

Ayesha Fatima: Response of sesame cultivars to weed management by straw mulching with or without pre-emergence herbicide during summer season. M.Sc. (Ag.) (Agronomy) thesis, 2017.

Supervisor: Dr. B. Duary, Visva-Bharati, West Bengal.

Tushar Kanti Mallick: Chemical weed management in transplanted summer rice with special emphasis on *Echinochloa* spp. M.Sc. (Ag) (Agronomy) thesis, 2017.

Supervisor: Dr. B. Duary, Visva-Bharati, West Bengal.

Upcoming Events

26th Asian-Pacific Weed Science Conference

Date: 19-22 September, 2017

Venue: Kyoto, Japan.

Contact Person: Hiroshi Matsumoto

E-mail: hmatsu@biol.tsukuba.ac.jp

19th New South Wales Biennial Weeds Conference

Date: 1 October 2017

Venue: Armidale, New South Wales, Australia
Go to <http://nswweedsoc.org.au/common/programs/EventItem.asp?id=875> for more details

The 5th International Symposium "Weeds and Invasive Plants" is jointly organized by three working groups of the EWRS: "Weed Mapping", "Germination and Early Growth" and "Invasive Plants"

Date: 10 – 14 October 2017

Venue: Chios, Greece

Go to <https://www.ewrs-chios-invasives5.org/> for more details

International Conference on Crop Losses caused by diseases, pests and weeds

Date: 16 – 18 October 2017

Venue: Paris, France

Go to <http://www.smach.inra.fr/en/Events/crop-losses> for more details

British Crop Production Council (BCPC) Congress 2017

Theme: Achieving both productivity and safety improvements through better regulation

Date: 31 October – 1 November 2017

Venue: Hilton Metropole Hotel, Brighton, UK

Go to <http://www.bcpc.org/events/congress/bcpc-congress-2017> for more details

28th German Conference on Weed Biology and Weed Control

Date: 27 February – 1 March 2018

Venue: Braunschweig, Germany

Go to <http://www.unkrauttagung.de/> for more details

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

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