ISWS News Letter
A publication of Indian Society of Weed Science
July – December 2022
ISWS HOME PAGE ACCESSED AT:
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Message from President

Dear Honorable Members of the ISWS

Greetings!!!

Wish you a very happy and prosperous New Year, 2023

I wish to congratulate all the members of ISWS in general and those who participated in the 3rd International ISWS Conference in particular for being a part of Conference held at Anand Agricultural University (AAU), Anand (Gujarat) during 20 to 23 December, 2022. The conference was held after the defeating the COVID-19 virus by the joint efforts of public and Government of India. I am personally grateful to the present EC of ISWS, Vice Chancellor and all the committee members of AAU, colleagues from ICAR-Directorate of Weed Research, different industries managers and all those who helped to organize the conference in a grand manner. The conference was jointly organized by the Indian Society of Weed Science, Indian Council of Agricultural Research - Directorate of Weed Research, Jabalpur and Anand Agricultural University (AAU), Anand, Gujarat. Around 500 delegates from across the country and the globe participated in the conference to tackle the enormous losses caused by weeds in different ecosystems, and to discuss the future weed management strategies. Thank you very much for your warm response. In general, the conference was rated "excellent" by the participants. I assure you that in future too; society will try its level best to organized such conferences to address the issues of weed problems and managements. The proceedings and photographs of the conference have been uploaded on the website. Please visit the website.

In the year 2021, we started a series of webinars which remain continued in 2022 also on different current topics on weed science by the eminent weed scientists of India and abroad to uplift the current knowledge of the members especially younger ones. This series of webinars received very warm response from the members, which can be judged by large number of participations in each of such webinars. You will also find a lot of improvement in the website of ISWS for its easy access and to retrieve the information with single click. We have also started online submit and review system for publication of research papers in Indian Journal of Weed Science. I request all of you to visit the ISWS website regularly to get updates and to access the Indian Journal of Weed Science. ISWS in collaboration of ICAR-DWR, Jabalpur also organized a 5 days training programme on Invasive weeds management for the scientists of the Indian Council of Forestry Research and Education, Dehradun. You will also be delighted to know that more than 791 new colleagues have joined the Society during the period of 2022. I welcome all of them in the Society.

Now the term of present Executive Committee (EC) is going to over on March, 2023. We shall soon start the election process for the selection of new EC. I earnestly request all the members to cast their votes without fail to elect the members.

Please take utmost care of yourself and your family.

Happy reading.

Sushil Kumar

A Glimpse of 3rd International Weed Conference

Indian Society of Weed Science, ICAR-Directorate of Weed Research, Jabalpur, Anand Agricultural University (AAU), Anand, Gujarat and Indian Council of Agricultural Research (ICAR), New Delhi jointly organised the 3rd International Weed Conference at Anand Agricultural University Campus during December 20-23, 2022. Around 500 delegates from across the country and the globe have attended this conference. The inaugural session was chaired by Hon'ble Vice Chancellor, Dr. K. B. Kathiria, Anand Agricultural University. Dr. Himanshu Pathak, Secretary, DARE, Government of India and DG of ICAR, graced the inaugural session as Chief Guest. Dr S K Chaudhari, DDG (NRM), ICAR, Dr Samunder Singh, President, International Weed Science Society, USA and Prof. Yoshiharu FUJII, Tokyo University of Agriculture and Technology, Tokyo, Japan also graced the inaugural session as Guests of Honour. At the end of inaugural session Dr. T. Mohapatra, former DG, ICAR and former Secretary DARE delivered key note address. Total 12 technical sessions have been conducted during four days of the conference in which scientists, professors, researchers, students, herbicide producers and executives have discussed the emerging issues and, shared their thoughts and views on various sub-themes. Several awards were given to the awardees as a mark of their achievements in the field of weed science. In the closing ceremony, Hon'ble Vice Chancellor, Dr. K. B. Kathiria, Anand Agricultural University graced the ceremony as a Chief Guest and Dr. S. Kumar, Director (Act.), ICAR-Directorate of Medicinal & Aromatic Plants Research, Anand, Gujarat, graced the ceremony as Guest of honour**.** The closing ceremony of the conference was ended with vote of thanks given by Dr J S Mishra, Organizing Secretary and Director, ICAR-Directorate of Weed Research.

Full Proceedings available at this link https://www.isws.org.in/Conference_Proceedings.aspx

Honours and Awards

ISWS Awards 2020-2021

Life Time Achievement Award	Dr. T.V. Ramachandra Prasad, Bengaluru (2020-2021)	
ISWS Gold Medal	Dr. Mahesh K. Upadhyaya Canada (2020) Dr. A.S. Rao Hyderabad (2021) Dr. S.S. Punia Hisar (2021)	
ISWS Special Recognition Award	Dr. Dr. O.S. Kandasamy, Coimbatore (2020-2021) Dr. Megh Singh, USA (2020-2021)	
ISWS Fellow	Dr. Virender Kumar, Philippines (2020) Dr. P.K. Mukherjee, Jabalpur (2020) Dr. Ramanjit Kaur, New Delhi (2020) Dr. Pratap Singh, Kota (2021) Dr. P. Saravanane, Karaikal (2021) Dr. V.J. Patel, Anand (2021) Dr. Rakesh Kumar, Patna (2021)	
ISWS Recognition Award	Dr. P.J. Suresh (2020-2021) Dr. Sunil Kumar (2020-2021)	
ISWS Young Scientist Award	Er. C.R. Chethan Jabalpur (2020-2021) Dr. Todar Mal Poonia Hisar (2020-2021)	
ISWS Best Ph.D. Thesis Award	Dr. Satya Prakash Kumar Bhopal (2020-2021) Dr. Writuparna Dutta Kolkata (2020-2021)	
ISWS Best Book Award	Prof. Mahesh K. Upadhyaya Canada (2021) *"Global Plant Invasions"*	
IJWS Best Paper Award	Nitish Tiwari, Shrikant Chitale and Tapas Choudhary, "Long-term weed management effect on weed dynamics, weed shift and productivity of direct-seeded rice-chickpea cropping system". *Indian Journal of Weed Science* **52**(2): 107–115, 2020; DOI: 10.5958/0974-8164.2020.00020.9 C. Durga and S. Anitha, "Effect of conservation agriculture practices on weed management in okra under rice- okra-green manure cropping system". *Indian Journal of Weed Science* **53**(2): 164–168, 2021; DOI: 10.5958/0974-8164.2021.00030.7	
ISWS Student Travel Grant Award	Mr. Arockia Infant Paul R. TNAU, Coimbatore Mr. Deepak Kumar Jaiswal Visva-Bharati, Sriniketan Mr. Harendra Kumar IGKV, Raipur Mr. Narendra Kumar RVSKV, Gwalior Mr. Sushil Kumar CCH HAU, Hisar Ms. Justina Michael SRMIST, Chennai Ms. Narmadha R. TNAU, Coimbatore Ms. Priyanka Devi CCH HAU, Hisar Ms. Sunita Meher IGKV, Raipur Ms. Alpana Kumhare RVSKV, Gwalior	Mr. Badal Verma JNKVV, Jabalpur Mr. Deepak Loura CCH HAU, Hisar Mr. Manisankar G. Visva Bharti, Sriniketan Mr. Sunil Kumar IARI, New Delhi Ms. Harshdeep Kaur PAU, Ludhiana Ms. Manisha Dhurve IGKV, Raipur Ms. Pooja Maurya CSIR-CIMAP Lucknow Ms. Suman Dhayal MPUAT, Udaipur Ms. Sonali Singh RVSKV, Gwalior
Best poster awards	11 best poster awards were also distributed	

A Glimpse of 8th International Weed Science Congress

The International Weed Science Society oganized the 8th International Weed Science Congress during December 4-9, 2022 at Bangkok, Thailand. More than 300 scientists from 40 different countries were participated and presented papers in the following topics viz., Herbicide Resistance, Weed Biology and Ecology, Integrated Weed Management, Climate Aspects of Weed Science, Non-Chemical Weed Control, Economic and Social Aspects of Weed Management, Bioherbicides, Environmental Fate of Herbicides, Weed Issues in Asia, Weed 'Omics', Modelling, Application Technology, Physiology of Plants and Herbicide Interaction, New Technology for Weed Management, Invasive and Parasitic Plant Species.

From India **Dr. C.R. Chinnamuthu**, Vice President, Indian Society of Weed Science, Former Director, Crop Management and Retired Professor and Head, Department of Agronomy, Tamil Nadu Agricultural University and **Dr. P. Murali Arthanari,** Joint Secretary, ISWS and Professor, Tamil Nadu Agricultural University were awarded with travel grant for participation in the conference. Both the scientists presented oral paper. In addition to this, Dr.C.R.Chinnamuthu also chaired one of the technical sessions.

In consecutive two years ICAR-Directorate of Weed Research, Jabalpur has been awarded with "**First Prize**" by Nagar Rajbhasha Karyanvayan Smiti, Zone-2, Jabalpur on promotion and popularization of Rajbhasha Hindi for the year 2020 and 2021.

Dr. C.R. Chinnamuthu, Vice President, Indian Society of Weed Science, Former Director, Crop Management and Retired Professor and Head, Department of Agronomy, Tamil Nadu Agricultural Univesity, Coimbatore, Tamil Nadu, has been awarded with **'Emeritus Scientist'** by the Indian Council of Agricultural Research (ICAR), New Delhi.

Ph.D. student **Mr. Dhanu Unnikrishnan** got the "**Best Oral Presentation Award"** in the National Conference on *'Biodiversity-trends, threats and management'* organized by Kerala State Biodiversity Board held during December 3-4, 2022 at Thiruvananthapuram for his dissertation work under the supervision of **Dr. Sheeja K Raj**.

Mr. Arindam Deb received the "**Best Poster Award"** in the National Conference on *'Biodiversity-trends, threats and management'* organized by Kerala State Biodiversity Board held during December 3-4, 2022 at Thiruvananthapuram.

Mr. N.E. Naveen was awarded with **"Best Oral Presentation Award"** at the 3rd International Web Conference on "*Natural Resource Management for Global Food Security and Sustainable Development Goals*" held during December 2-3, 2022.

Research highlight

Resistance to glufosinate in Palmer amaranth involves changes in GS2 copies, expression level, protein production, and more

Prof. Nilda Burgos, Past-President, IWSS

Amaranthus palmeri (Palmer amaranth) is, undoubtedly, one of the most troublesome weeds now-a-days in many parts of the world. This species harbors strong weedy traits, most notably its high growth rate, voluminous biomass, and copious seed production. High genetic diversity certainly has contributed to its remarkable plasticity and adaptability. The evolution of various patterns of multiple-herbicide resistance traits in Palmer amaranth is a testament to that.

Twelve years after the first report of target-site overproduction as a mechanism for herbicide resistance to glyphosate in Palmer amaranth, this rare mechanism was recently identified in a glufosinate-resistant Palmer amaranth population from the Bootheel Missouri, USA, in a project led by the Weed Physiology Laboratory at the University of Arkansas, in collaboration with the University of Missouri, Mississippi State University and BASF SE. In the same period, glufosinate resistance was also reported in Arkansas.

Resistance to glufosinate involves not only increased copy of *GS2* but also increased *GS2* expression. The work is published recently in Planta, entitled "Involvement of glutamine synthetase 2 (GS2) amplification and overexpression in *Amaranthus palmeri* resistance to glufosinate" (https://doi.org/10.1007/s00425-022-03968-2). At a frequency of about 20% resistant plants, these mechanisms endowed 4-fold resistance to the field population, increasing to 6-fold resistance in the F1 progeny. The role of GS2 overexpression in glufosinate resistance was validated in *Nicotiana benthamiana*. The absence of resistance-endowing mutations in GS2 in the population was confirmed by sequence analysis of three GS isoforms from 17 glufosinate survivors. Another set of resistant plants were analyzed for number of GS2 gene copy, expression level, and protein level.

GS2 is highly conserved across species and is 100% conserved in all glufosinate-resistant Palmer amaranth analyzed, underlining the critical role of this enzyme in N assimilation in plants. GS2 was overexpressed up to 190-fold in resistant plants compared to plants from a sensitive population. The correlation between fold-change in copy number and in expression was not significant. Furthermore, the fold-change in GS2 protein levels did not correlate with the fold-change in GS2 expression. A small proportion of resistant plants harbor different resistance mechanism(s) given that not all resistant plants exhibit *GS2* amplification overexpression.

The basis for resistance to glufosinate is complex at the plant level and more so at the population level. Post-transcriptional and post-translational regulation and epigenetic factors are being investigated. The history of Palmer amaranth adaptation to herbicide selection pressure shows that its management must not rely solely on the chemical approach. A diversified management strategy must be practiced, integrating cultural, chemical, and mechanical methods. Optimizing sequences and mixtures of herbicides with different modes of action is necessary. This work allowed us to define precise stewardship guidelines in order to mitigate glufosinate resistance, to preserve its efficacy.

Ph.D. and M.Sc. theses in Weed Science

Sadaf Iqbal has successfully completed ***Degree of Doctor of Philosophy*** in the thesis entitled *"Weed dynamics and productivity of sweet corn (Zea mays saccharata L.)"* under the chairmanship of Dr. Mohammad Anwar Bhat, Professor and Head Division of Agronomy, Faculty of Agriculture, Wadura Sopore, Jammu & Kashmir

Subhra Mishra has successfully completed ***Degree of Master of Science*** in the thesis entitled "*Weed and nutrient management in winter transplanted organic chia (Salvia hispanica L.)"* under the chairmanship of Dr. Basudev Behera, Professor, Department of Agronomy, Faculty of Agricultural Sciences (IAS), SOADU, Bhubaneswar, Odisha

Recent published articles in Indian Journal of Weed Science

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Dasari Sreekanth, Deepak Pawar, C.R. Chethan, P.K. Singh, Shobha Sondhia, Subhash Chander and Mool Chand Singh. 2022. Indian quarantine weeds invasiveness assessment using bio-security tool: Weed Risk Assessment. *Indian Journal of Weed Science* **54**(2): 110-115.

V.S. Susha, Harikrishna Sagar and T.K. Das. 2022. The possible role of nanotechnological interventions in weed management – An opinion. *Indian Journal of Weed Science* **54**(2): 116-123.

Rakesh Kumar, J.S. Mishra, Santosh Kumar, Hansraj Hans, A.K. Srivastava and Sudhanshu Singh. 2022. Effect of crop establishment and weed management methods on weed dynamics and productivity of direct-seeded rice in middle Indo-Gangetic Plains. *Indian Journal of Weed Science* **54**(2): 124-128.

Deepak Pawar, Dasari Sreekanth, Subhash Chander, C.R. Chethan, Shobha Sondhia, P.K. Singh. 2022. Effect of weed interference on rice yield under elevated CO2 and temperature. *Indian Journal of Weed Science* **54**(2): 129-136.

Dibakar Ghosh, Subhash Kumar Mishra, Raghwendra Singh, Meenal Rathore, Bhumesh Kumar, R.P. Dubey and P.K. Singh. 2022. Variability in seed germination and dormancy of Indian weedy rice. *Indian Journal of Weed Science* **54**(2): 137-141.

Y.M. Ramesha, Siddaram, Veeresh Hatti and D. Krishnamurthy. 2022. Management of weeds in transplanted rice with XR-848 benzyl ester + cyhalofop-butyl (ready-mix). *Indian Journal of Weed Science* **54**(2): 142-145.

C.R. Chethan, R.P. Dubey, Subhash Chander, Deepak V. Pawar, Dibakar Ghosh, P.K. Singh. 2022. Harnessing the full potential of low-dose high-potency (LDHP) herbicide molecules by standardized spraying technique in rice and wheat. *Indian Journal of Weed Science* **54**(2): 146-150.

Jeetendra Kumar Soni, Amarjeet Nibhoria, S.S. Punia, Paras Kamboj and V.K. Choudhary. 2022. Wheat growth and physiological response and management of herbicide resistant Phalaris minor Retz. as affected by selective herbicides. *Indian Journal of Weed Science* **54**(2): 151-156.

Sonaka Ghosh, T.K. Das, Y.S. Shivay, K.K. Bandyopadhyay, Susama Sudhishri, Arti Bhatia, D.R. Biswas, Md Yeasin, Sourav Ghosh. 2022. Weeds response and control efficiency, greengram productivity and resource-use efficiency under a conservation agriculture-based maize-wheat-greengram system. *Indian Journal of Weed Science* **54**(2): 157-164.

Sachin Kumar, Surinder Singh Rana, Neelam Sharma. 2022. Long-term tillage and weed management effects on weed shifts, phyto-sociology and crops productivity. *Indian Journal of Weed Science* **54**(2): 165-173

Mudalagiriyappa, M.N. Thimmegowda, D.C. Hanumanthappa Santosh Nagappa Ningoji and Subhash Sannappanavar. 2022. Evaluation of weed management efficacy of post-emergence herbicides in blackgram under semi-arid Alfisols. *Indian Journal of Weed Science* **54**(2): 174-181.

Ajay Kumar Kashyap, H.S. Kushwaha and Harshita Mishra. 2022. Effect of herbicides on weeds, yield and economics of chickpea. *Indian Journal of Weed Science* **54**(2): 182-186.

Shilpa, Priyanka Bijalwan, Y.R. Shukla, K.S. Thakur, Sandeep Kansal and Parveen Sharma. 2022. Integration of raised beds, mulching and stem training for weed management in tomato under mid-hill conditions of Himachal Pradesh. *Indian Journal of Weed Science* **54**(2): 187-191.

Sapna Gautam and Archana Sharma. 2022. Invasive weed Lantana utilization for textile finishes. *Indian Journal of Weed Science* **54**(2): 192-196.

Surabhi Pant, Tej Pratap, V. Pratap Singh, S.P. Singh, Prithwiraj Dey and Vishal Vikram Singh. 2022. Maize establishment methods and weed management effect on weeds, maize productivity and economics. *Indian Journal of Weed Science* **54**(2): 197-200.

Bharat Lal Meena, D.S. Meena, Baldev Ram, Gajendra Nagar Suman Dhayal and Harkesh Meena. 2022. Effect of pre- and post-emergence herbicides on weeds and yield of soybean. *Indian Journal of Weed Science* **54**(2): 201-202.

Suman Dhayal, S.L. Yadav, Baldev Ram and Adarsh Sharma. 2022. Effect of herbicides on associated weeds and growth of blackgram. *Indian Journal of Weed Science* **54**(2): 203-207.

Y. Yernaidu, Y.S. Parameswari, M. Madhavi and T. Ram Prakash. 2022. Influence of weed management practices on growth and yield attributes of mustard. *Indian Journal of Weed Science* **54**(2): 208-210.

K.K. Shakkira, P.V. Sindhu and Meera V. Menon. 2022. Screening of Indian borage[*Plectranthus amboinicus* (Lour) Spreng], bitter weed [*Andrographis paniculata* (Burm.f.) Nees] and Southern cone marigold (*Tagetes minuta* L.) for allelopathic potential against weeds. *Indian Journal of Weed Science* **54**(2): 211-215.

Manoj Kumar, Arun Bhai Patel and Suchismita Prusty. 2022. Determining the nutrient removal capacity of duckweed Wolffia globosa under artificial conditions. *Indian Journal of Weed Science* **54**(2): 216-219.

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Satya Prakash Kumar, V.K. Tewari, C.R. Mehta, C.R. Chethan, Abhilash Chandel, C.M. Pareek and Brajesh Nare. 2022. Mechanical weed management technology to manage inter- and intra-row weeds in agroecosystems - A review. *Indian Journal of Weed Science* **54**(3): 220-232.

Nisha Sapre, M.L. Kewat, A.R. Sharma and Priya Singh. 2022. Effect of tillage and weed management on weed dynamics and yield of rice in rice-wheat-greengram cropping system in vertisols of central India. *Indian Journal of Weed Science* **54**(3): 233-239.

Ritu Mohanpuria, Simerjeet Kaur, Tarundeep Kaur, K.B. Singh, A.S. Brar and J.S. Deol. 2022. Integration effect of drip irrigation and mulching on weeds and spring maize productivity. *Indian Journal of Weed Science* **54**(3): 240-244.

L.K. Jain, Ishwar Singh, Ramawtar, R.K. Sharma and P.L. Maliwal. 2022. Impact of organic methods of nutrient and weed management on weeds nutrient uptake and maize productivity in sandy loam soils of Rajasthan, India. *Indian Journal of Weed Science* **54**(3): 245-250.

V. Pratap Singh, Arunima Paliwal, Tej Pratap, S.P. Singh, Ajay Kumar and Radhey Shyam. 2022. Bio-efficacy of nicosulfuron against mixed weed flora in maize and its residual effect on succeeding crops. *Indian Journal of Weed Science* **54**(3): 251-256.

Sandeep Rawal, A.S. Dhindwal, Ashok Yadav, Aradhna Bali and Pardeep Sagwal. 2022. The moisture regimes and herbicides efficacy in improving productivity and profitability of maize-wheat cropping system. *Indian Journal of Weed Science* **54**(3): 257-264.

Gaytri Hetta, S.S. Rana, Rahul Sharma and G.D. Sharma. 2022. Evaluation of cultural practices for weed management in maize-based cropping system in Palam valley, Himachal Pradesh. *Indian Journal of Weed Science* **54**(3): 265-271.

Gatkal Narayan Raosaheb, Vijaya Rani, Rahul pannu, Naresh and Mukesh Jain. 2022. Performance and economical evaluation of two row self-propelled narrow crop rotary weeder for managing weeds in mustard crop. *Indian Journal of Weed Science* **54**(3): 272-278.

Neeshu Joshi, Shourabh Joshi, J.K. Sharma, H.S. Shekhawat and Uma Nath Shukla. 2022. Efficacy of sequential application of pre- and post-emergence herbicides for weed management in sesame. *Indian Journal of Weed Science* **54**(3): 279-282.

Dharam Bir Yadav, Lila Bora, Narender Singh, Anil Duhan, Ashok Yadav and S.S. Punia. 2022. Synergistic integration of crop residue mulch and cultural practices with herbicides for managing weed complex in turmeric in North-Western India. *Indian Journal of Weed Science* **54**(3): 283-290.

Vivek Kumar and C.S. Aulakh. 2022. Effect of planting geometry and potato seed tuber size on weeds and potato tuber yield. *Indian Journal of Weed Science* **54**(3): 291-295.

Anil Kumar, Sidharth Baghla, Navneet Kaur, Tigangam P. Gangmei, S.S. Rana and Sandeep Manuja. 2022. Effect of irrigation levels and weed management practices on weeds, water productivity and yield of cauliflower. *Indian Journal of Weed Science* **54**(3): 296-302.

Teresa Alex and Meera V. Menon. 2022. Occurrence and distribution of Alternanthera bettzickiana (Regel) Voss., an invasive weed in the uplands of Kerala. *Indian Journal of Weed Science* **54**(3): 303-308.

Karamatullah Fazil, T.K. Das, C.P. Nath, R. Nazir and M. Samim. 2022. Nitrogen and weed management effects on weeds and yield of barley in Kandahar, Afghanistan. *Indian Journal of Weed Science* **54**(3): 309-313.

Anamika Nepali, Arvind Verma, J.K. Singh, Deepa Verma and Pooja. 2022. Effect of different pre- and post-emergence herbicides for weed management in chickpea. *Indian Journal of Weed Science* **54**(3): 314-317.

Pramod Kumar, V.J. Patel, D.D. Chaudhari and B.D. Patel. 2022. Effect of herbicides on complex weed flora and yield of summer greengram. *Indian Journal of Weed Science* **54**(3): 318-320.

Vishal Singh, Naushad Khan, Utkarsh Singh and Raghvendra Singh. 2022 Herbicidal combinations for managing weeds and improving crop productivity in summer blackgram. *Indian Journal of Weed Science* **54**(3): 321-323.

C.P. Amaya and P. Gayathri Karthikeyan. 2022. Integrated weed management effect on yield and economics of cowpea *Indian Journal of Weed Science* **54**(3): 324-327.

T.G. Lakshmidevi, V.J. Patel, B.D. Patel and D.D. Chaudhari. 2022. Effect of herbicide mixtures on weeds and yield of summer groundnut. *Indian Journal of Weed Science* **54**(3): 328-330.

K.K. Binjha, S. Barla and R.R. Upasani. 2022. Effect of herbicides on weed dynamics and productivity of soybean. *Indian Journal of Weed Science* **54**(3): 331-333.

Varsha Gupta, Deep Singh Sasode, Ekta Joshi, Y.K. Singh, Rahul Ojha and Kavita Bhadu. 2022. Herbicidal impact on density of Cuscuta campestris Yunck. emerged in berseem fodder crop. *Indian Journal of Weed Science* **54**(3): 334-336.

Ajit Kumar Mandal, Ga. Dheebakaran, Mahamaya Banik and C. Chinnusamy. 2022. Effect of increased temperature and soil moisture levels on *Cyperus rotundus* L. *Indian Journal of Weed Science* **54**(3): 337-340.

Dhanu Unnikrishnan Sheeja K. Raj, P. Shalini Pillai, M. Ameena, D. Jacob and Atul Jayapal. 2022. Stimulatory effect of sesame on the germination and seedling growth of *Melochia corchorifolia* L. *Indian Journal of Weed Science* **54**(3): 341-344.

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A.N. Rao. 2022. Weed management role in meeting the global food and nutrition security challenge. *Indian Journal of Weed Science* **54**(3): 345-356.

Bhagirath S. Chauhan. 2022. Weed biology: An important science to develop effective weed management strategies. *Indian Journal of Weed Science* **54**(3): 357-359.

Bharat Babu Shrestha. 2022. Invasive alien weeds problem in South Asia: Challenges and prospects of their management. *Indian Journal of Weed Science* **54**(3): 360-369.

M.C. Singh, V.C. Chalam, Dhruv Singh, Sushilkumar and S. Gnansambandhan. 2022. Risk associated with the weed seeds in imported grain. *Indian Journal of Weed Science* **54**(3): 370-375.

G. Mahajan, Vivek Kumar and B.S. Chauhan. 2022. Biology and management of wild oat in Australia. *Indian Journal of Weed Science* **54**(3): 376-388.

Prasanta C. Bhowmik. 2022. Bioavailability of allelochemicals in soil environment under climate change: Challenges and perspectives. *Indian Journal of Weed Science* **54**(3): 389-396.

Narendra Kumar, C.P. Nath and K.K. Hazra. 2022. Weed management in pulse crops: Challenges and opportunities. *Indian Journal of Weed Science* **54**(3): 397-410.

V.K. Choudhary, R.P. Dubey and J.S. Mishra. 2022. Weed management in oilseed crops- a review. *Indian Journal of Weed Science* **54**(3): 411-420.

Puja Ray, Malay K. Bhowmick, Rati Kanta Ghosh and Sushil Kumar. 2022. Herbal herbicide: A low-cost and eco-friendly tool for weed management in smallholder farming. *Indian Journal of Weed Science* **54**(3): 421-430.

Welcome of new life members in Indian Society of Weed Science (Jan-June, 2021)

1. **Mr. Jahar Ghosh (LM-1412)**
   E Aqua Agro R. M. C. M. S. S. Ltd., Barrackpore, West Bengal
2. **Dr. Sudhir Kumar Rajpoot (LM-1413)**
   Department of Agronomy,IAS,BHU, Varanasi, Uttar Pradesh
3. **Dr. Vikash Kumar (LM-1414)**
   S.D. Agricultural University, Sardarkrushinagar, Gujarat
4. **Dr. Baldev Ram (LM-1415)**
   Agriculture University, Kota, Kota, Rajasthan
5. **Dr. Ajay Kumar (LM-1416)**
   College of Forestry, VCSG UUHF, Ranichauri, Uttarakhand
6. **Prof. Virendra Singh (LM-1417)**
   IFTM University, Moradabad, Uttar Pradesh
7. **Dr. N. Premaradhya (LM-1418)**
   Central Agril. University-Imphal, Pasighat, Arunachal Pradesh
8. **Dr. Lekshmi Sekhar (LM-1419)**
   Kerala Agricultural University, Kayamkulam, Kerala
9. **Dr. Rajesh Kumar (LM-1420)**
   Ummedganj, Agriculture University, Kota, Rajasthan
10. **Dr. Ganesh Datt Bhatt (LM-1421)**
    School of Agriculture, Galgotias University, Greater Noida
11. **Dr. Himanshu Mahawar (LM-1422)**
    ICAR - Directorate of Weed Research, Jabalpur, Madhya Pradesh
12. **Mr. Arockia R. Infant Paul (LM-1423)**
    Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu
13. **Mr. Kashinath G. Teli (LM-1424)**
    Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra
14. **Miss. Varsha Nakala (LM-1425)**
    Mallareddy University, Sangareddy, Telangana
15. **Dr. Shobha Rani Pujari (LM-1426)**
    SBVR Agricultural College, Angrau, Badvel, Andhra Pradesh
16. **Dr. Vimalkumar Rupareliya (LM-1427)**
    Junagadh Agricultural University, Junagadh, Gujarat
17. **Dr. Amit Kumar Singh (LM-1428)**
    Banda University of Agriculture and Technology, Banda, Uttar Pradesh
18. **Miss. Narmadha Rajendhiran (LM-1429)**
    Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu
19. **Miss. Harshdeep Kaur (LM-1430)**
    Punjab Agricultural University, Ludhiana, Punjab
20. **Miss. K. Srimathi (LM-1431)**
    Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu
21. **Mr. Pawan Kumar Verma (LM-1432)**
    Institute of Agricultural Sciences, BHU, Varanasi, Uttar Pradesh
22. **Dr. Vishakha Chaudhari (LM-1433)**
    Anand Agricultural University, Anand, Gujarat

23. **Prof. Ahmad Abdullah Saad (LM-1434)**
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ISWS General Body Meeting

The GB meeting of ISWS was held on 20-12-2022 at 6: 00PM in the main hall. All the members were present in the meeting. The Secretary ISWS presented previous two years progress and the activities like training programmes, series of Webinars, etc. He informed that around 150 new life members were enrolled in the Society. The Chief Editor, IJWS, Dr AN Rao could not attend the Conference due to personal reason. The Chief Editor's report was also presented by the Secretary. He presented the current status of the IJWS, which is being published well in time. All the 4 issues of 2022 were published in time. Dr. VK Choudhary, the treasurer of the Society presented the audit report 2021-22 of the ISWS. Following agenda points were discussed:

1. **Conduct of ISWS Election and selection of Returning Officer:** It was decided that the next election will be completed before March 2023. Mr. Dev Raj Arya was unanimously nominated as the returning officer. It was decided that Secretary ISWS will write a letter to Dr Arya for his willingness.
2. **ISWS Awards:** Discussions were held to increase the number of ISWS lifetime award from 1 to 2. However, it was decided to keep the number only one at present. If the number of ISWS members will increase in future, further decisions may be taken. Members felt that there is a need to improve the current guidelines for selection of the awards in different categories. It was decided to make a committee to suggest the modifications required in the guidelines. It was also suggested that the award application form and its review system should be in ON-LINE mode.
3. **Increase the membership fee:** No changes have been suggested.

General Discussion: An oral session especially for the students may be organized in future conferences. Based on the merit of the presentations, awards will also be given to encourage the students

News and upcoming events

6th CWSS International Conference on "*Agricultural Innovations for Sustainable Development Goals with Special Focus on Natural Farming*" (AISDGONF-2023) to be held during March 10-13, 2023 at the Farmers' Academy & Convention Centre (FACC), BCKV, Kalyani, Nadia, West Bengal, India **(details in website-** http://www.cwssbckv.org).

28th Asian-Pacific Weed Science Society Conference 2023 (APWSS 2023) "*Weed science solutions for global food security*" during 26-29 November 2023 in Phuket, Thailand (**details in website-** https://www.apwss2023-phuket.com/)

Editorial

Dear Reader,

For you, the efforts have been made to bring up an exhilarating flashback of recently held 3rd International Weed Conference. Your enthusiasm, dedication and zeal made a grand success of the Conference and simultaneously it helped to uphold the banner of ISWS at higher level. Complement goes to the scientists of AICRP-WM unit and staffs of Anand Agricultural University (AAU) who left no stone unturned and organized the event in more befitting manner. I congratulate all the Awardees, we're so very proud of you

I am really obliged for your constant support and therefore, it is my privilege to reach out to all the members as well as whole fraternity of weed science for their contribution on the emerging issues and current challenges in the field of weed science for our newsletter. Our newsletter in nutshell is always projecting your research achievements, honours, awards, M.Sc and Ph.D theses awarded under you supervision etc. in public domain. Suggestions from the members are always welcome in this regard.

Last but not least I express my sincere thanks to all the members who contributed for the issue of newsletter.

Pijush Kanti Mukherjee
Editor

ISWS members are requested to contribute any major research finding as a news, awards obtained, Ph.D. obtained, forthcoming events on weed Science *etc.* to:

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