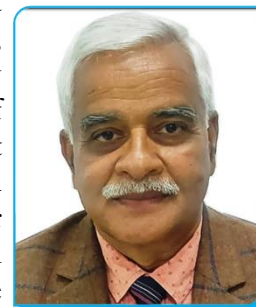


## Message from President

Dear ISWS Colleagues,

The need for sustainable weed management is becoming increasingly important not only in agriculture, but also in natural ecosystems. In modern weed management tools, herbicides are becoming increasingly popular among the farmers due to their high efficacy and lower cost. However, evidences show that due to over-reliance and indiscriminate use of herbicides, new problems such as herbicide resistance in weeds, weed flora shifts, non-target damage to crops/organisms, loss of natural vegetation & biodiversity, and adverse effect in food-chain and environment have increased globally. The problem has been further aggravated due to the global climate change, water & energy scarcity, deterioration of soil health, non-availability of new modes of action herbicides and restrictions/banning of some popular herbicides, and promotion of new ways of farming such as conservation agriculture, natural & organic farming systems. However, advancement in biological science (biotechnology & genetic engineering) and trends in computing power, robotics, etc. suggests that multiple paths exist for improving weed management that can be integrated with existing tools and techniques to develop more sustainable weed management systems. Emphasis need to be given on understanding the weed biology & ecology, weed seedbank dynamics, bio-based herbicide products, harvest weed seed control, etc. In addition, large-scale utilization of weeds, and capacity building of the stakeholders using modern information technological tools are also needed. Weed scientists, herbicide industries and machine manufacturers have a combined responsibility to develop and disseminate the weed management technologies for sustainable agriculture.



Indian Society of Weed Science (ISWS) can act as a fulcrum to encourage research and education in the scientific and practical aspects of weed management, and to disseminate knowledge of weed management in its widest perspective. For this purpose, the ISWS encourages the young weed scientists and students to become life member of the Society. We organized a series of webinars and training programmes on cutting-edge topics in recent past, financed the young scientists to participate in international conferences, and promoted larger participation of members in the society activities. During 2023, we added 64 new life members in ISWS family, with a total active members of 1302. We will continue our efforts to add more life members of other disciplines who can contribute and integrate with weed management research. We are regularly upgrading/updating our website to increase its visibility.

During the last year the Society conducted its election and got its new executive. I once again thank you all for the opportunity to serve the ISWS. The new executive committee met twice virtually and finalized the date and venue of the next ISWS biennial conference to be held at BHU, Varanasi during 28-30 November 2024. I sincerely request and appeal to each one of you to inspire and motivate your colleagues, research scholars and students to participate in the conference and make it a grand success.

The Journal “Indian Journal of Weed Science” has now been included in the UGC care list. We should try to improve its image further by increasing its NAAS rating. The recent (January, 2024) downfall from 5.84 to 5.42 in the NAAS rating of the Journal is a matter of great concern for all of us. We have to work hard to improve its image by submitting quality research papers and review articles. I sincerely urge the Editorial group and referees to reject the articles of substandard nature. As the Journal is a mirror of the Society and the Society cannot survive without a good Journal, we should maintain its high quality and reputation.

I thank Dr. V.K. Choudhary, the newsletter editor for timely compilation and editing of the newsletter.

My best wishes for the New Year.

A handwritten signature in blue ink, likely belonging to JS Mishra.

JS Mishra

## Research highlights

### Shift in weed flora in dry direct-seeded rice

Pijush Kanti Mukherjee and Sonali Singh (ICAR-Directorate of Weed Research, Jabalpur)

The treatments penoxsulam + pendimethalin (RM) 625 g/ha as PE *fb* bispyribac –sodium 25 g/ha as PoE and pendimethalin 678 g/ha (38.7 CS) as PE *fb* bispyribac-sodium 25 g/ha + [(metsulfuron methyl + chlorimuron ethyl) (RM)] 4 g/ha (Tank mix) as PoE led to aggressive growth of *Dinebra retroflexa* and *Eleusine indica* in second year of experimentation. The treatment pendimethalin 678 g/ha (38.7 CS) as PE *fb* penoxsulam + cyhalofop-butyl (RM) 135 g/ha as PoE caused dominance of *Ludwigia parviflora* and *Ludwigia perennis* during both the year of experimentations; however, their density values were comparatively lower in other weed management treatments.



2<sup>nd</sup> year

Application of pendimethalin 678 g/ha (38.7 CS) as PE *fb* bispyribac-sodium 25 g/ha + [(metsulfuron methyl + chlorimuron ethyl) (RM)] 4 g/ha (Tank mix) as PoE led to the aggressive growth of *Dinebra retroflexa* and *Eleusine indica* in second year

### Potential impact of surface rice residue retention in ameliorating terminal heat stress in wheat in north-western India

Ankur Chaudhary and Todar Mal Poonia (CCS Haryana Agricultural University, Hisar)

Rice-wheat is the most important cropping system of South Asia. Scarcity of resources (water, labour and energy), escalating cost of cultivation coupled with frequent climatic anomalies are the major sustainability issues. Combine harvester along with thresher as fully automated machine are being employed to harvest the non-scented rice crop which leads to the presence of both anchored stubbles and loose residue (6-8 t/ha). Generally, farmers following extensive *in-situ* burning for timely sowing of succeeding wheat crop and easy disposal off of rice residue. *In-situ* rice residue burning leads to significant reduction in microbial population in soil, and leads to emission of greenhouses gases emission along with volatile organic compounds and particulate matter. Timely sowing of wheat under rice residue load has become possible with the help of efficient seeding machineries. Presence of rice residue significantly affect the sowing time, nutrient availability, weed infestation and crop water requirement. Moreover recent climate change scenario, the incidence of heat stress in wheat due to abnormal rise in temperature during grain filling time resulted in significant yield reduction.

Based on study conducted at CCS HAU Regional Research Station Uchani, Karnal during *Kharif* 2018 to *Rabi* 2021-22 revealed that different tillage and residue treatments showed thermo-moderating effect by reducing the soil temperature under zero tillage (ZT) conditions as compared to conventional till wheat (CTW) during afternoon hours (2:00 PM). ZT (mean of temperature recorded under different zero tillage



Application of pendimethalin 678 g/ha (38.7 CS) as PE *fb* penoxsulam + cyhalofop-butyl (RM) 135 g/ha as PoE led to the aggressive growth of *Ludwigia parviflora* and *Ludwigia perennis*

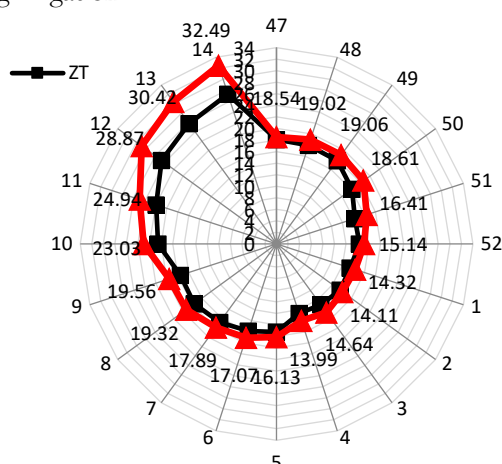


1<sup>st</sup> Year



scenario) reduced afternoon soil temperature to the tune of 1.8-3.59 °C and 0.88-4.66 °C as compared to CTW from 5 to 13<sup>th</sup> standard meteorological weeks during *Rabi* 2020-21 and *Rabi* 2021-22 (heat stress year), respectively. During the heat stress year (2021-22), ZT (mean of temperature recorded under different zero tillage scenario) reduced soil temperature of about 0.88, 1.21, 1.14, 1.67, 2.06, 2.46, 3.01, 4.26, 4.66, 5.22 from 5 to 14<sup>th</sup> SMWs, respectively as compared to conventional till wheat (**Figure 1**). The heat wave in year 2022 has resulted in decline of wheat productivity by 15-20% by shortening of crop duration by 7-10 days in India (Singh et al., 2022). Sidhu (2023) observed losses in national wheat production to the tune of 4.5-15.0% compared to a normal year (median of 1992–2021 climate) due to terminal heat stress in north western India. Further in *Rabi* 2021-22, it was the hottest March month ever recorded since 122 years as documented by the Indian Meteorological Department (IMD).

The study showed surface rice residue retention under ZT help in ameliorating heat stress by reducing soil temperature along with infestation of *Phalaris minor* in wheat. Seeding of wheat under residual soil moisture (irrigation to be applied 10-14 days before super straw management-based combine harvesting of rice) and surface retained residue driven reduction in soil temperature may facilitate early sowing (an escape mechanism) and moderating soil temperature against terminal heat stress in wheat, besides saving of pre-sowing irrigation.



**Figure 1.** Comparative soil temperature (2:00 PM) differences under zero tillage (mean values of all zero tillage with different residue management options) and conventional tillage (CT) in wheat with respect to standard meteorological weeks (SMWs) during *Rabi* 2021-22

## Conservation agriculture-based climate-resilient weed management strategy in direct-seeded rice under a rice-wheat-greengram cropping system

Sonaka Ghosh, Kirti Saurabh, Ved Prakash, Rakesh Kumar, Rachana Dubey, Saurabh Kumar and Rohan Kumar Raman  
ICAR Research Complex for Eastern Region, Patna

Conservation agriculture (CA) comprising minimum soil disturbance, biomass mulch soil cover and diversified crop rotation is being promoted for sustainable crop intensification. However, weed management is a greater challenge under CA. Weed infestation is a continuous and recurrent problem and dynamic in nature for crop production, which envisages a continuous research need to be undertaken towards developing new tools for weed management. Weed competition impedes rice-based production systems, especially under direct seeding condition. The study was conducted to identify an effective weed management strategy in zero-till direct-seeded rice (ZTDSR) under a rice-wheat-greengram cropping system. In this study, the dominance of broadleaf weeds was higher than grassy weeds and sedges in direct-seeded rice compared to puddled line transplanted rice. It was observed from the study that weed competition could lead to 100% crop failure in direct seeded rice under weedy situation. Results of the study revealed that pre-emergence application of pyrazosulfuron-ethyl (25 g/ha) *fb* post-emergence application of cyhalofop-butyl + penoxsulam (100 +25) g/ha (tank-mix) led to significant reduction of weed emergence and biomass and recorded 87.9% weed control efficiency. This practice also led to significant improvement in crop productivity, profitability and resource-use efficiency in ZTDSR.



Unweeded control in direct-seeded rice



Pyrazosulfuron-ethyl (PE) *fb* cyhalofop-butyl + penoxsulam (PoE) in ZTDSR with residue retention

## Weed management in organically grown aromatic transplanted rice

Nitish Tiwari (Indira Gandhi Krishi Vishvavidyalaya, Raipur)

In aromatic transplanted rice, the lowest weed biomass was observed under hand weeding (HW) twice at 20 and 40 DAT over all other weed management options. Among mechanical weeding options, motorized weeder twice (single row type) + one intra row HW and Ambika paddy weeder at 20 DAT + one intra row HW were found next in order of merit for weed control. Maximum grain yield was achieved under the application of HW twice at 20 and 40 DAT but was close to motorized weeder twice (single row type) + one intra row HW. The highest net returns were recorded under HW twice at 20 and 40 DAT while, highest B:C was achieved under motorized weeder twice (single row type) + one intra row HW.



Motorized weeder



Ambika paddy weeder

## Herbicidal weed management on important smaller millets

Harendra Kumar and Nitish Tiwari (Indira Gandhi Krishi Vishvavidyalaya, Raipur)

The sequential application of pyrazosulfuron-ethyl 10 % 20 g/ha (PE) *fb* chlorimuron-ethyl 10 % + metsulfuron

methyl 10% 4 g/ha (PoE) in kodo millet and finger millet effectively controlled the broad-leaved weeds resulted in higher weed control efficiency. Higher weed control helped the plants to produce more yield attributing characters resulted in higher seed yields of kodo millet (2044 kg/ha) and finger millet (2719 kg/ha). This was also profitable in both the crops.



Kodo millet



Finger millet

## Application of imazethapyr + imazamox herbicide in berseem for quality seed production

Wasnik VK, Halli HM, Manjanagouda S. Sannagoudar, Mahesha HS, Srinivasan R and Kumar A. (ICAR-Indian Grassland and Fodder Research Institute, Jhansi)

Berseem is a highly palatable and nutritious winter legume fodder crop. Berseem initial growth is extremely affected by the weed infestation. Weed menace not only deteriorates the fodder quality but also curtails 23-28% green fodder and 38-44% seed yield of berseem. Weed control through mechanical means in berseem are laborious, time consuming and expensive. Hence to overcome the mechanical weed control method related issues and for the quality seed production application of imazethapyr + imazamox 0.07 kg/ha at 20 DAS effectively controlled the weed flora and recorded the lowest weed density (23.7/m<sup>2</sup>) and biomass (8.72 g/m<sup>2</sup>) at first cut of berseem as compared to weedy check (347.7/m<sup>2</sup> and 46.43 g/m<sup>2</sup>, respectively). Reduction in weed density and biomass due to the application of herbicide imazethapyr + imazamox 0.07 kg/ha increased the WCE and recorded the highest green fodder (26.9



t/ha) and seed yield (0.48 t/ha) of berseem with highest BC ratio of 2.18 over weedy check (green fodder yield 21.7 t/ha, seed yield 0.33 t/ha and BC ratio of 1.62).



Imazethapyr + imazamox 0.07 kg/ha (55 DAS)



Weedy check (55 DAS)

## Salvinia weeds threats to water bodies in Eastern Vidarbha Region

V.V. Gaud (Panjabrao Deshmukh Krishi Vidyapeeth, Akola)

*Salvinia molesta*, commonly known as giant Salvinia or Kariba free floating plant native to southeast Brazil, is playing havoc by shrinking freshwater bodies and destroying indigenous plant and animal biodiversity, and also causing livelihood loss to traditional fishermen communities in the Eastern part of Vidarbha namely Bhandara, Chandrapur and Gadchiroli districts. Lakes constitute important habitat and food resources for a diverse array of fish, aquatic life and fisherman. The thick mat of weeds prevents light penetration in the water killing primary producers like algae and zooplanktons, which are a major food of fishes. It also lowers nutrients in the water and makes the water acidic due to generation of  $H_2S$ . The decomposition of biomass

and its settlements decreases the depth and gradually leads to the death of water bodies. It also causes a reduction in stored water in reservoirs, and over the long term leads to gradual drying up of natural and manmade water bodies. This is a serious matter which needs to be tackled on priority before it becomes another menace like water hyacinth or Congress grass. Increasing infestation of *Salvinia* weed is impeding access to water bodies, ponds, and lakes and fisherman feel helpless as they can't catch fish as nets get entangled in these aquatic weeds and boats can't move freely, however, some fisherman complain about itching problems caused due to these weeds when they entered into water bodies for removal of entangled fishing net. Mechanical removal of weeds is costly, time consuming and only suitable for small infestations, however, it cannot remove all of the infestation. *Cyrtobagous salviniae* was successfully controlled the *Salvinia molesta* in lakes of Gadchiroli (Heti, Lanjeda and Indra nagar lake) and Chandrapur districts (Junona and Ghodpeth lake) of Eastern Vidarbha region of Maharashtra.



Salvinia infested reservoir at Gadchiroli, Maharashtra



Reservoir after introduction of Salvinia

## Events

### HRD activities conducted at KVK, Jagatsinghpur

Awareness training conducted on “Integrated Weed Management” at KVK, Jagatsinghpur on 06/10/2023. A total 100 nos. of farmers participated. In the programme inputs like herbicides, flatfan nozzles were distributed.



### 6<sup>th</sup> CWSS International Conference

The 6<sup>th</sup> CWSS International Conference on “Agricultural Innovations for Sustainable Development Goals with Special Focus on Natural Farming” (AISDGONF-2023) was held during 30th September – 02nd October, 2023 at Farmers’ Academy & Convention Centre

(FACC), Kalyani, Nadia, West Bengal, India organized by the Crop and Weed Science Society (CWSS Registered under West Bengal Act XXVI of



1961 --Registration No S/IL/24559 of 2004-2005 and Website: [http:// www.cwss.in](http://www.cwss.in) / [www.cropandweed.com](http://www.cropandweed.com)). More than 600 delegates (including scientists, corporates, students, persons from NGOs etc.) participated from the different states of India and also from abroad. Inauguration was held in the presence of Chief Guest Prof. Dr. D. Basu, Vice Chancellor, UBKV, West Bengal, Guest of Honour Dr. Virender Kumar, Deputy Platform Leader, IRRI, Philippines; Dr. Sudhanshu Singh, Director, South Asia Regional Centre, IRRI, Philippines; Mr. Partha Sengupta Director of Agriculture, Government of West Bengal; Prof. Nilotpal Ghosh, Former Dean, WBUAFS; Prof. B. Chakraborti, Project Director & Researcher, Department of Fisheries, Bangladesh and Prof. Dr. Te-Ming Paul Tseng, Treasurer, International Weed Science Society, MSU, Mississippi, USA. Prof. R. K. Ghosh, CWSS & Organizing President AISDGONF-2023 welcomed the guests. Prof. Dr. D. Basu delivered an address before the Presidential Address by Prof. Jayanta Tarafder, Director of Research & acting Vice Chancellor, BCKV India. The Secretary Prof. A. K. Basu delivered a vote of Thanks. In this session, the presentation of CWSS Award (Gold Medal; Fellow; Farmers award; Recognition and Felicitation); followed by Journal of Crop and Weed and CWSS Newsletter, 6th International Conference Souvenir and Books of ABSTRACT were also released. The Opening ceremony was coordinated by Dr. Kusal Roy, the Technical Convener AISDGONF-2023 and Editor of the CWSS Journal.

### Observation of Parthenium Awareness Week (16-22 August, 2023)

*Parthenium hysterophorus*, locally called carrot grass/ congress grass/gajar ghaas/ white cap/ chatak chandni has been considered one of the most problematic alien invasive weeds, which is posing a serious threat to human beings and livestock besides deteriorating environment and causing loss of crop productivity and biodiversity. It is an annual herbaceous plant reaching heights up to 1.5-2.0 meters, which is propagated by seeds. It's one plant can produce about 5000-25000 seeds. Since its seed is very light, it easily reaches from one place to another place by wind, water and other activities of living beings. It is considered the most hazardous weed because it causes skin diseases (dermatitis, asthma and bronchitis) in humans and livestock. Due to the tasteless, animals do not like it, if it goes into their mouth, then blisters are formed. Also, the availability of fodder is gradually decreasing due to expansion in pastures, meadows and forest areas. In view of the seriousness and magnitude of the threat posed by this weed, “18<sup>th</sup> Parthenium Awareness Week” from 16-22 August, 2023 was observed throughout the country with the active participations of ICAR Institutes, SAUs, KVKs, Schools, Municipal Corporations, Railways, Electricity supplying departments etc. During these, various programme was organized like brainstorming sessions, rallies, Parthenium uprooting programmes, distribution of publications on Parthenium etc.



ICAR Research Complex for Eastern Region, Patna



OUAT, Bhubaneswar



## Maithana village became *Parthenium* free: Role model of Madhya Pradesh

The scientists working under the project AICRP-WM, Rajmata Vijayaraje Scindia Krishi Vishwa Vidhyalaya, Gwalior, have made Maithana village, block Murar, district Gwalior completely *Parthenium* free.

In the year 2016, about two-third part of this village was under the grip of carrot grass (*Parthenium*) and gradually it started entering the cropped area as well. But for this work, village Maithana was divided into four phases. *Parthenium* awareness campaign was organized throughout the period. In the first phase, the villagers sprayed glyphosate (1-1.5%) herbicide in roadside. When this *Parthenium* dried up, they were uprooted and placed in a pit and buried. In the second phase, women farmers uprooted the *Parthenium* growing around their houses and buried it in the pits and covered by the cow dung layer. In the third phase, progressive farmer Mr. Ram Singh with other farmers were provided *Zygogramma bicolorata* beetles through the AICRP-WM, which were released on the rams infected with *Parthenium* in the cultivated areas. In the fourth phase, the training was given to villagers to maintain the village free from *Parthenium* and also taught

the villagers to make manure free from *Parthenium* and with the help of the scientists, the villagers sowed marigold seeds on the rams of their fields and Pawar (*Cassia tora*) seeds in the road sides and uncultivated areas.

After almost three years, in 2019, there was a decrease of about 50 percent in the number of *Parthenium*. A progressive farmers joined the hands with *Sangh* (RSS) workers and reduced the amount of *Parthenium* by about 75 percent by 2020 by doing *shram daan*. Since in the Corona period (2020 to 2021), *Parthenium* again started showing its fierce form and in two years the village was again affected by 50 percent. After 2021, the villagers worked together again and by end of 2023 the whole village has become free of *Parthenium*.



Rajmata Vijayaraje Scindia Krishi Vishwa Vidhyalaya, Gwalior

In this village, now farmers are learning to make the compost of *Parthenium* under the supervision of scientists of the All India Coordinated Research Project.

## Honours and Awards

**Dr. Sanjoy Saha**, Principal Scientist (Agronomy) & Head (Crop Production Division), ICAR-Central Research Institute for Jute and Allied Fibres, Kolkata, West Bengal and ISWS life member has been awarded with “**CWSS Gold Medal**” in the field of Weed Research by Crop and Weed Science Society during the 6<sup>th</sup> CWSS International Conference on “*Agricultural Innovations for Sustainable Development Goals with Special Focus on Natural Farming*” held during 30 September – 2 October, 2023.

### APWSS Young Scientist Award and Lifetime Achievement Awards 2023

#### 2023 – APWSS Young Scientist Award

Joint winners are:

- **Dr. C. R. Chethan**, India
- **Dr. Ali Bajwa**, Australia

#### 2023 – APWSS Lifetime Achievement Awards

- **Dr. Yoshiharu FUJII**, Japan
- **Dr. Nimal Chandrasena**, Australia
- **Dr. Adusumilli Narayana Rao**, India

The actual award plaque for the above awards will be awarded at the APWSS 2025 Conference in China

**Dr. Vinod Kumar Wasnik**, Senior Scientist (Agronomy) and team received **Best Team Award** of ICAR-IGFRI on the occasion of 61<sup>st</sup> Foundation Day of ICAR-Indian

Grassland and Fodder Research Institute, Jhansi on 1<sup>st</sup> November, 2022.

**Dr. Sonaka Ghosh**, Scientist, Division of Land and Water Management, ICAR Research Complex for Eastern Region, Patna received **Best Ph.D. Thesis Award** from **Indian Society of Agronomy** at the XXII Biennial National Symposium on “Climate Smart Agronomy for Resilient Production Systems and Livelihood Security” held at ICAR-Central Coastal Agricultural Research Institute, Goa during November 22-24, 2023. The title of thesis was “Nitrogen management and weed dynamics in a conservation agriculture-based maize-wheat-mungbean system”.



**Dr. Vinod Kumar Wasnik**, Senior Scientist (Agronomy), Division of Seed Technology, ICAR-IGFRI, Jhansi, Uttar Pradesh and ISWS Life member was awarded with “**Best Oral Presentation Award**” in the National Symposium on

“Innovations in Forage and Livestock Sector for Enhancing Entrepreneurship and Farm Productivity” organized by Range Management Society of India, Jhansi during November 1-3, 2022 at Jhansi.

**Dr. P.K. Mukherjee**, Principal Scientist (Agronomy), ICAR-DWR, Jabalpur awarded with **Outstanding Scientist Award 2023** in the 3<sup>rd</sup> Biotic Science Congress and international conference on “*Advancement in Plant Health Research-Retrospect & Prospect*” organized by SBER at Visva Bharati University, Santiniketan, during 7-8 December 2023.

**Mr. Arindam Deb** received the **Best Oral presentation Award** in the “*Biozon-International Biotechnology Conclave*” for the paper titled “*Effect of elevated CO<sub>2</sub> on competitive ability of Rice weeds*” by Arindam Deb and Ameena M organised during 7-11 August, 2023, at College of Agriculture, Vellayani, Thiruvananthapuram, Kerala.

**Ms. Sethulakshmi V.S.** received **second Best Poster award** in the “*National seminar on soil and water symbiosis for Sustainable Agriculture*” for the paper entitled “*Impact of soil health on invasive trait of the weed Leptochloa chinensis*” by Sethulakshmi V.S., Ameena M and Nimmy Jose organised during December 5-6, 2023 at College of Agriculture, Vellayani, Thiruvananthapuram, Kerala.

**Dr. A.N. Rao**, Visiting Scientist, ICRISAT Development center (IDC) and IRRI, was awarded with the “Life Membership Award 2024” by the Weed Science Society of America (WSSA) at the 64th Annual meeting of WSSA held at San Antonio, Texas, USA on 23 January, 2024.



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

Name	Name of chairmanship	Thesis title	University
<b>Ph.D.</b>			
<b>Harendra Kumar</b>	Dr. Nitish Tiwari	Effect of herbicidal weed management on growth, yield, weed dynamics and economics of important smaller millets of Chhattisgarh	IGKV, Raipur (CG)
<b>Dhanu Unnikrishnan</b>	Dr. Sheeja K Raj	Management and utilization of Chocolate weed ( <i>Melochia corchorifolia</i> L.) in sesame ( <i>Sesamum indicum</i> L.)	Kerala Agricultural University, Thrissur
<b>M.Sc.</b>			
<b>Neelam Gupta</b>	Dr. Shrikant Chitale	Effect of weed control techniques and row spacing on the growth and productivity of Rabi maize ( <i>Zea mays</i> L.)	IGKV, Raipur (CG)
<b>Narmada Barik</b>	Dr. R. Dash	Bioefficacy of pre- and post-emergence herbicide on productivity of Black gram	OUAT, Bhubaneswar
<b>Anusmita Saha</b>	Dr. R. Dash	Weed management in sweet corn under conservation agriculture	OUAT, Bhubaneswar
<b>Chiranjib Barik</b>	Dr. Koushik Sar	Tillage and weed management practices in mustard under conservation agriculture-based rice-mustard-green gram cropping system	Department of Agronomy, IAS, SOADU, Bhubaneswar
<b>Roshni Mishra</b>	Dr. Koushik Sar	Weed dynamics and productivity of direct-seed rice ( <i>Oryza sativa</i> L.) under different weed and nitrogen management practices	Department of Agronomy, IAS, SOADU, Bhubaneswar
<b>Vengaldas Chaitanya</b>	Dr. A. N. Paslawar	Weed management practices in organic cotton	PDKV, Akola
<b>Vandana Devi V.S.</b>	Dr. Sheeja K Raj	Response of finger millet ( <i>Eleusine coracana</i> (L.) Gaertn) to live mulch and stale seedbed	Kerala Agricultural University, Thrissur
<b>Manoj Kumar</b>	Dr. S. P. Singh	Weed management under different establishment methods of wheat ( <i>Triticum aestivum</i> L.)	G.B.P.U.A&T., Pantnagar
<b>Aakash Sunaratiya</b>	Dr. Tej Pratap	Evaluation of integrated weed management approaches and its impact on production of black gram ( <i>Vigna mungo</i> L.)	G.B.P.U.A&T., Pantnagar



## Recently published articles in Indian Journal of Weed Science

### Volume 55(2) 2023

- Vipin Kumar, Mandeep Singh, Ramandeep Kaur, Amit J. Jhala. 2023. The scenario of herbicide-resistant weeds: Management challenges and perspectives. *Indian Journal of Weed Science* 55(2): 123-132.
- Tejinder Singh, Anuj Choudhary and Simerjeet Kaur. 2023. Weeds can help in biodiversity and soil conservation. *Indian Journal of Weed Science* 55(2): 133-140.
- R.P. Dubey, C.R. Chethan, V.K. Choudhary and J.S. Mishra. 2023. A review on weed management in millets. *Indian Journal of Weed Science* 55(2): 141-148.
- Adikant Pradhan, Anil Dixit, K.S. Keram and P.K. Dewangan. 2023. Weed management in dry direct-seeded rice under rainfed ecology of Southern Chhattisgarh. *Indian Journal of Weed Science* 55(2): 149-152.
- Kommireddy Poojitha, K.N. Kalyana Murthy, M.T. Sanjay and G.N. Dhanapal. 2023. Weed management efficacy of herbicides and allelochemicals in direct-seeded rice. *Indian Journal of Weed Science* 55(2): 153-156.
- Priya Das, Bikas Mandal, Kanu Murmu and Arup Sarkar. 2023. Weed dynamics and productivity of transplanted aromatic rice as influenced by pre- and post-emergence herbicides in lower Gangetic alluvial zone. *Indian Journal of Weed Science* 55(2): 157-161.
- S Vijayakumar, Sanjay Saha, P Saravanane, E Subramanian, R Mahender Kumar and R Meenakshi Sundaram. 2023. Barnyardgrass (*Echinochloa crus-galli*) seed production and shattering in response to its emergence time and transplanted rice geometry. *Indian Journal of Weed Science* 55(2): 162-168.
- Raminder Kaur Hundal and M.S. Bhullar. 2023. Enhancing herbicide efficacy with improved spray technology adoption in rice-wheat cropping system. *Indian Journal of Weed Science* 55(2): 169-173.
- R.R. Potdar, P.S. Tiwari, D. Singh, M. Kumar, A.K. Roul, B. Jyoti, A.P. Pandirwar and C.R. Chethan. 2023. Development and performance evaluation of herbicide applicator-cum-planter to manage weeds in soybean. *Indian Journal of Weed Science* 55(2): 174-180.
- Ratneswar Poddar, Rajib Kundu, Soumen Bera and Dibakar Ghosh. 2023. Complex weed flora managing efficacy of herbicides in soybean and their effect on soil properties, microorganisms and productivity of succeeding mustard. *Indian Journal of Weed Science* 55(2): 181-186.
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## Welcome of new life members in Indian Society of Weed Science (Jul -Dec. 2023)

### 1. Mr. Koushik Paul (LM-1527)

Krishi Vigyan Kendra, Jalpaiguri West Bengal

### 2. Dr. Vikash Singh (LM-1528)

ICAR-Directorate of Weed Research, Jabalpur, MP

### 3. Dr. Surabhi Hota (LM-1529)

ICAR-Directorate of Weed Research, Jabalpur, MP

### 4. Dr. Bhupendra Kumar (LM-1530)

Banaras Hindu University, Varanasi, Uttar Pradesh

### 5. Dr. Nishant Prakash (LM-1531)

Krishi Vigyan Kendra, Lakhisarai, Bihar

### 6. Dr. Santosh Kumar Yadav (LM-1532)

GBPUA, Pantnagar Uttarakhand

### 7. Miss. Jyoti Sharma (LM-1533)

SKUAST, Jammu, Jammu and Kashmir

### 8. Miss. Kajal Verma (LM-1534)

Banaras Hindu University, Varanasi, Uttar Pradesh

### 9. Mr. Ambuj Kumar (LM-1535)

Banaras Hindu University, Varanasi, Uttar Pradesh

### 10. Mr. Vineet Kumar Shukla (LM-1536)

Banaras Hindu University, Varanasi, Uttar Pradesh

### 11. Mr. Yashwant Gehlot (LM-1537)

ICAR-Indian Institute of Soil Science, Bhopal, Madhya Pradesh

### 12. Dr. S. Rajkumara (LM-1538)

UAS Dharwad, Dharwad Karnataka

### 13. Miss. Priyanka Jadon (LM-1539)

ICAR-Indian Institute of Soil Science, Bhopal, Madhya Pradesh

### 14. Mr. Jitendra Kumar Dubey (LM-1540)

ICAR-Directorate of Weed Research, Jabalpur, MP

### 15. Mr. Jitendra Marskole (LM-1541)

Zonal Agricultural Research Station, Narmadapuram, MP

### 16. Mr. Sachin Sharma (LM-1542)

Hemvati Nandan Bahuguna Garhwal, Garhwal Uttarakhand

### 17. Dr. Deepak Khande (LM-1543)

Zonal Agricultural Research Station, Narmadapuram, MP

### 18. Dr. Aparna Sharma (LM-1545)

Rani Durgavati Vishwavidyalaya, Jabalpur, Madhya Pradesh

### 19. Dr. Arvind Ahirwal (LM-1546)

SAGE University, Bhopal, Madhya Pradesh

### 20. Miss. Manisha Pandey (LM-1547)

D.A.V. (P.G) College, Dehradun, Uttarakhand

### 21. Dr. R. RAJA PRIYA (LM-1548)

Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu

### 22. Dr. Ajay Chourasiya (LM-1549)

DRI-Krishi Vigyan Kendra, Satna, Madhya Pradesh

### 23. Dr. Sahadevan Jawahar (LM-1550)

Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu

### 24. Dr. Pradeesh Kumar (LM-1551)

Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu



## Upcoming events

- 3-days-Workshop of the EWRS WGs | Weed Management in Mediterranean Cropping Systems and Herbicide Resistance  
| Dates: 6 to 8 March 2024 | Location: Antalya, Turkey  
For details: <https://ewrs.org/en/info/Events/ldquo-Sustainable-Weed-Management-in-Mediterranean-Cropping-Systemsrdrquo>
- International Conference on Plant Physiology and Weed Science ICPPWS | Dates: May 24-25, 2024 | Location: Montreal, Canada | Organization: World Academy of Science, Engineering and Technology  
For details: <https://waset.org/plant-physiology-and-weed-science-conference-in-may-2024-in-montreal>
- EWRS Working Group meeting '*Physical and Cultural Weed Control*' Wageningen, The Netherlands, 27<sup>th</sup> to 29<sup>th</sup> of May 2024  
<https://www.ewrs.org/en/info/Events/EWRS-Working-Group-meeting-Physical-and-Cultural-Weed-Control/Program>
- International Conference on Plant Pathology, Physiology, and Weed Science ICPPWS; August 05-06, 2024;  
Location: Montreal, Canada | Organization: World Academy of Science, Engineering and Technology  
For details: <https://waset.org/plant-pathology-physiology-and-weed-science-conference-in-august-2024-in-montreal>
- 9th International Weed Science Congress (IWSC); Weed Science – Meeting the Challenges of Global Food Security; December 1-5, 2024; Venue: Ramada Hotel Jerusalem, Ruppin Bridge at Herzl Blvd, Jerusalem 91033, Israel  
For details: <https://www.iwsc2024.com/>

### Condolence Message

With profound grief and sorrow, we came to know about the sudden demise of **Dr. Ramesh Kumar Singh** on August 1, 2023 at the age of 63. He has left behind wife and 2 sons. ISWS family expresses its most sincere condolences to his family, colleagues and friends.

Dr. Ramesh Kumar Singh, born on 1 June 1960, received his Bachelor degree in the year 1980, M.Sc. Degree in 1982 and Ph.D degree in the year 1984 all from the Banaras Hindu University (BHU), Varanasi, UP. He served as a lecturer from 1985 to 1998, Reader (1998 to 2006), Professor (2006 to 2023) and as Head (2023) in the Department of Agronomy, Banaras Hindu University, Varanasi. He has guided 25 M.Sc. and 6 Ph.D. students. He had visited abroad 5 times for attending International Weed Conferences. He served the society as Editor, ISWS News Letter (2002-2005), Joint Secretary (2005 to 2009) and Vice-President (2014 to 2015). He was awarded ISWS Fellow in 2003-04.

In this tragic moment, the entire ISWS family stands together in offering heartfelt condolences to his family. His loss is irreplaceable and his memories shall always remain with us. A condolence meeting was conducted on 02 August 2023 at 5.00 PM by observing two minutes of silence to give tribute to the departed soul. In this meeting all the members of the Executive Committee of ISWS and scientists of the Directorate of Weed Research, Jabalpur participated. We pray the Almighty to rest his soul in eternal peace and give strength to the bereaved family to bear this irreparable loss.



**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:**

**Dr. V.K. Choudhary**

ISWS Newsletter Editor

Principal Scientist (Agronomy)

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