ICAR-DWR

SIGNIFICANT ACHIEVEMENTS

2025-26

भाकृअनुप
ICAR

ICAR-Directorate of Weed Research
Jabalpur - 482 004, Madhya Pradesh

April 2026

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PREFACE

Weed management constitutes a critical component of the *One Health* framework, contributing to the integrated well-being of humans, animals, and the environment. Uncontrolled weeds act as reservoirs of pests, pathogens, and allergens, adversely affecting crop productivity as well as human and animal health. They also compete aggressively for essential nutrients, often leading to nutrient-deficient agricultural produce. Adoption of integrated weed management (IWM) technologies reduces excessive dependence on herbicides and fertilizers, thereby promoting healthier agro-ecosystems, safer food systems, improved public health, and ecological balance. Major achievements of the Directorate are categorized under five thematic areas: (i) sustainable weed management strategies in diversified cropping systems; (ii) crop–weed interactions under changing climate and herbicide resistance; (iii) weed risk assessment, utilization and management of invasive weeds; (iv) environmental impact of herbicides and other toxic chemicals, along with mitigation measures; and (v) socio-economic impacts of weed management technologies.

The widespread adoption of improved weed management technologies has significantly reduced crop yield losses due to weeds from approximately 25% during 2003–2014 to 16.2% during 2014–2024. Integrated weed management practices have been developed and disseminated across major crops (rice, maize, soybean, groundnut, sugarcane, wheat, and linseed) and CA-based cropping systems and natural farming. Significant advancements have been made in understanding the crop–weed interaction, herbicide efficacy, species distribution and modelling under changing climatic conditions. Additionally, a new bioagent namely *Megamelus scutellaris* for management of water hyacinth has been imported from South Africa, and established weed gene bank facilities. Studies on the persistence and leaching behaviour of topramezone under different soils have been undertaken, and paraquat residues in greengram samples were analysed. Capacity-building and outreach efforts included organization of 45 training programmes covering more than 12,500 stakeholders, nationwide *Parthenium* awareness campaigns, and 135 field demonstrations on improved weed management practices. Impact assessments of biocontrol technologies were also conducted. During the period, weed atlas for six states were developed, three technologies were certified by the ICAR, and five copyrights were obtained. In addition, various meetings, publications, Rajbhasha activities, recognitions, seed production initiatives, establishment of new facilities, revenue generation, and health camps collectively reflect the Directorate's multifaceted achievements.

This document presents a concise account of the Directorate's accomplishments during the year 2025–26. The contributions of scientists from the Directorate of Weed Research (DWR) and AICRP on Weed Management centres are gratefully acknowledged. The support extended by Gyanendra Pratap Singh and Mr. Daud Raza, Young Professional (ARIS Cell) is sincerely appreciated. It is hoped that this document will serve as a valuable resource for researchers, students, farmers, and other stakeholders. Constructive suggestions for further improvement are most welcome.

Editors

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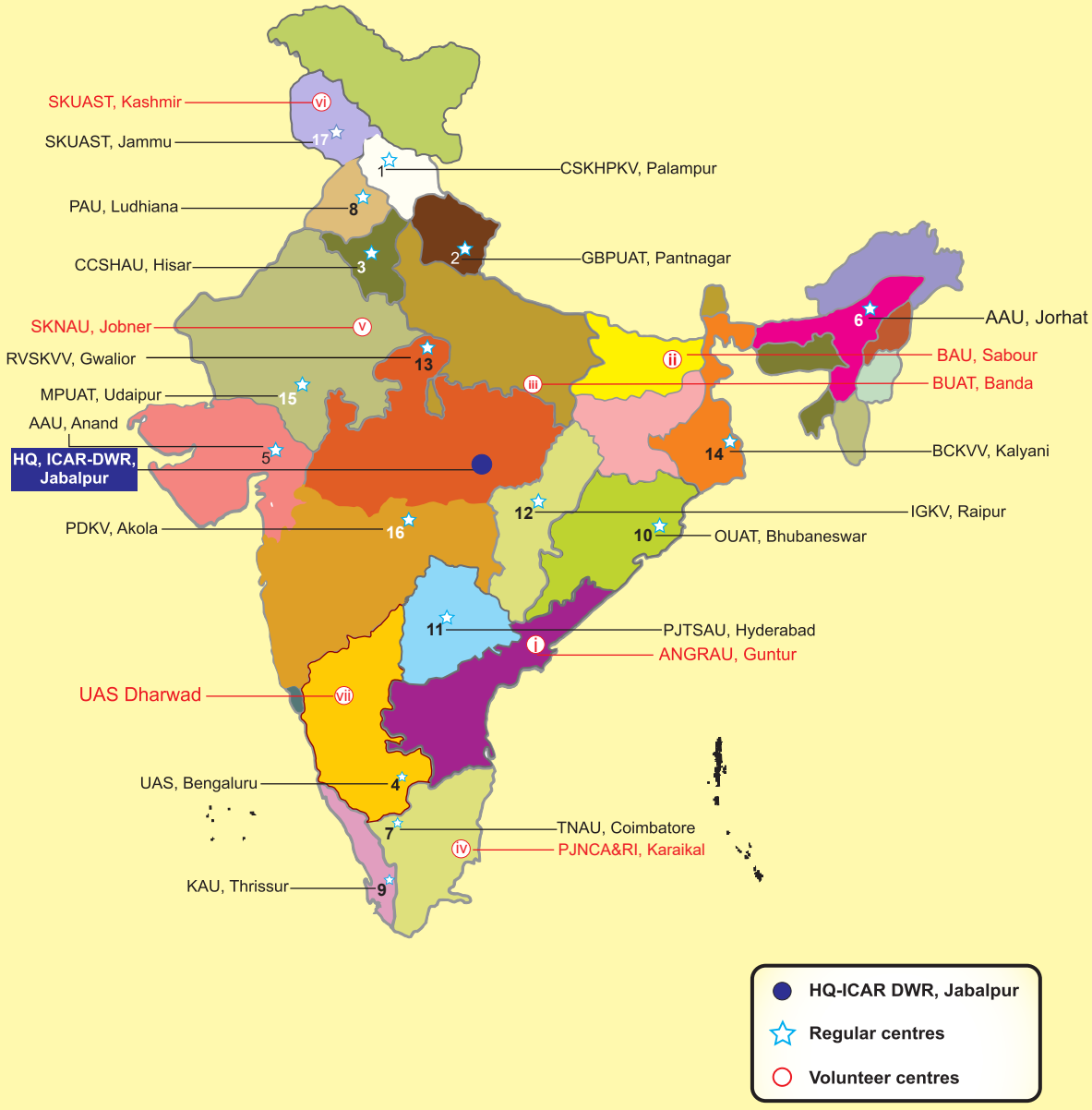
Place: Jabalpur

ICAR-Directorate of Weed Research

All India Coordinated Research Project on Weed Management



ICAR - Directorate of Weed Research
SIGNIFICANT ACHIEVEMENTS 2025-26

A Sustainable weed management strategies in diversified cropping systems

Integrated weed management in conservation agriculture (CA)-based cropping systems

Under conservation agriculture, diversified cropping systems (rice/ soybean/ maize–wheat–greengram) exhibited superior performance by achieving higher weed suppression (38.2%), system productivity (14.8 t/ha), water productivity (8.7 kg/ha/mm), net returns (₹ 3.14 × 10^5/ha), B:C (4.4), and energy ratio (11.2) as compared to rice-wheat-fallow system (system productivity-7.1 t/ha, water productivity- 4.7 kg/ha/mm, net returns ₹ 1.43 × 10^5/ha, B:C 3.4, and energy ratio 6.8).

In long-term CA experiments, diversification of rice with maize resulted in the highest rice equivalent yield (REY, 14.27 t/ha), net returns (₹ 2.67 lakh/ha), B:C (3.81), net energy (3.25 × 10^5 MJ /ha), energy ratio (10.16), and energy productivity (0.40 kg/MJ) as compared to continuous rice-wheat-greengram system (REY 8.94 t/ha, net returns ₹ 1.41 lakh/ha, B:C 2.62, net energy 2.02 ×10^5 MJ/ha), energy ratio 5.75, and energy productivity 0.21 kg/MJ). Among weed management practices, integrated weed management comprising atrazine + pendimethalin (500 + 500 g/ha) in maize, clodinafop + metsulfuron (64 g/ha) in wheat, and pendimethalin (678 g/ha) in greengram supplemented with hand weeding produced the highest REY (17.33 t/ha), and total water productivity (WP, 10.1 kg/ha/mm), along with maximum net returns ₹ 3.22 lakh/ha) and energy productivity (0.46 kg/MJ).

In cotton–baby corn system, pre-emergence application of diuron (2 DAS) *fb* pyrithiobac + quizalofop (4–6 leaf) *fb* directed glufosinate (50–55 DAS) improved weed control and seed cotton yield. In succeeding baby corn, application of atrazine (2 DAS) *fb* topramezone (20 DAS) *fb* HW (40 DAS) gave higher WCE and cob yield (5.46 t/ha). Herbicides showed t½ ~15–18 days; residues mostly degraded before harvest except atrazine (AICRP-WM, TNAU, Coimbatore).

Rice

In **dry DSR**, pre-emergence application of penoxsulam + pendimethalin (625 g/ha) or pretilachlor + pyrazosulfuron 615 g/ha *fb* post-emergence application of cyhalofop + penoxsulam 135 g/ha or florpyrauxifen-benzyl + cyhalofop-butyl (150 g/ha) recorded the broad-spectrum weed control and higher grain yield (4.39 t/ha).

Penoxsulam + pendimethalin 625 g/ha PE *fb* fenoxaprop 67g/ha + ethoxysulfuron 18 g/ha (TM) PoE (25 DAS)

Pretilachlor + pyrazosulfuron ethyl 615 g/ha PE *fb* florpyrauxifen-benzyl + cyhalofop-butyl 150 g/ha (25 DAS)

Integration of weed-competitive rice cultivars (*Purna, Abhishek, IR-64 Drt 1, Swarna Shreya*) in combination with post-emergence application of florpyrauxifen-benzyl + cyhalofop-butyl (ready-mix) at 150 g/ha was comparable to sequential application of pendimethalin + pyrazosulfuron-ethyl (ready-mix) at 920 g/ha as pre-emergence followed by post-em. application of florpyrauxifen-benzyl + cyhalofop-butyl at 150 g/ha in terms of weed control and yield advantage.

IR 64-Drt 1 and *Abhishek* at 90 DAS

Abhishek and *Swarna Shreya* at 90 DAS

Weed management in herbicide-tolerant rice

For effective weed control in IMI-tolerant rice (CR Dhan 807), sequential application of imazethapyr 10% SL at 100 g/ha as early post-emergence (15 DAS), followed by a ready-mix of florpyrauxifen-benzyl 2.13% + cyhalofop-butyl 10.64% EC at 150 g/ha as post-emergence (32 DAS), provided superior weed control compared to sequential application of imazethapyr alone at both stages.

In **wet DSR**, pre-emergence application of pendimethalin + pyrazosulfuron (785 g/ha) or pretilachlor + pyrazosulfuron (615 g/ha) *fb* post-emergence application of bispyribac-sodium + metsulfuron + chlorimuron (43 g/ha) or florpyrauxifen-benzyl + cyhalofop-butyl (150 g/ha) recorded the broad-spectrum weed control and higher grain yield.

In **transplanted rice**, pre-emergence application of bensulfuron-methyl + pretilachlor (660 g/ha) *fb* post-emergence application of penoxsulam + cyhalofop-butyl (135 g/ha) provided broad-spectrum weed control and higher grain yield.

Bensulfuron-methyl 0.6% + pretilachlor 6% GR 660 g/ha (PE) *fb* bispyribac-sodium 10 SC 25 g/ha (PoE)

Penoxsulam 1.02% + cyhalofop-butyl 5.1% OD @ 135 g/ha

Management of weedy rice in DSR

For effective management of weedy rice in DSR, soil solarization during May-June (high temperature up to 52-53 °C and RH ~99%), followed by cultivation of herbicide-tolerant rice (HTR) with imazethapyr @ 100 g/ha applied at 14 and 28 DAS provided excellent control of weedy rice (up to 98%) along with effective control of other associated weeds, resulting in high rice grain yield (≈4.5 t/ha).

Around 38-47% seeds of weedy rice shattered within 28 days after 50% anthesis, indicating significant pre-harvest seed loss and rapid soil seed bank build-up. In contrast, cultivated varieties (MTU 1010 and Shyamala) exhibited zero shattering during this interval, confirming that high seed shattering is a key adaptive trait of weedy rice and highlighting the need for timely management to prevent seed return.

For effective management of *Phyllanthus maderaspatensis* in rice-wheat-greengram system, application of propaquizafop + imazethapyr at 125 g/ha as early post-emergence (15 DAS) in zero-tillage greengram effectively reduced its infestation in the succeeding dry direct-seeded rice.

Florpyrauxifen-benzyl + cyhalofop-butyl at 150 g/ha failed to effectively control *Phyllanthus maderaspatensis* during the 2024 season

Propaquizafop + imazethapyr at 125 g/ha as early PoE (15 DAS) in ZT greengram resulted in good control of *P. maderaspatensis* in rice

Maize

Post-emergence application of tank-mix of topramezone + atrazine (25.2 + 500 g/ha) *fb* interculture + hand weeding (at 40 DAS) or atrazine (0.5 kg/ha as PE) *fb* tembotrione (120 g/ha, 20–25 DAS) ensured season-long weed control and provided 18-22% higher grain yield as compared to atrazine alone.

Topramezone + atrazine (25.2 + 500 g/ha) *fb* interculture + hand weeding (at 40 DAS)


Topramezone 33.6% SC 25.2 g/ha

Soybean

Pre-emergence application of sulfentrazone + clomazone (725 g/ha) and post-emergence application of fomesafen + fluazifop-p-butyl (250 g/ha) or sodium acifluorfen + clodinafop-propargyl (245 g/ha) or imazethapyr + propaquizafop (75+75 g/ha) or imazethapyr + quizalofop (75+60 g/ha) provided broad-spectrum weed control, enhanced productivity and profitability.


Sulfentrazone 28%+ clomazone 30% WP (RM) @ 725 g/ha as PE


Sodium acifluorfen 16.5% + clodinafop propargyl 8% EC @ 245 g/ha at 20 DAS

Groundnut

Pre-emergence application of diclosulam (26 g/ha) *fb* post-emergence application of propaquizafop + imazethapyr (50 + 75 g/ha) or quizalofop-ethyl + imazethapyr (32.81 + 65.65 g/ha) provided effectively suppression *Commelina benghalensis*, *Echinochloa colona* and *Cyperus rotundus*, resulting in higher WCE.


Diclosulam @ 26 g/ha (PE) *fb* propaquizafop + imazethapyr (50 + 75 g/ha) (PoE)

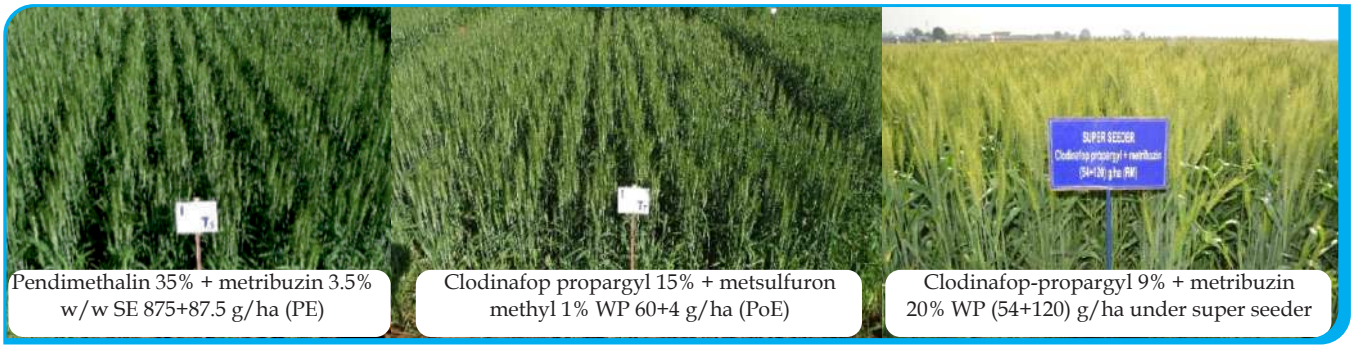

Ametryne 80% WDG 2000 g/ha (EPoE)

Sugarcane

Application of ametryne 80% WDG (2000 g/ha, early PoE) provided broad-spectrum weed control, improved cane yield by 16% and reduced production cost by 5%.

Wheat

Pre-emergence application of pendimethalin + metribuzin (875 + 87.5 g/ha), aclonifen + diflufenican + pyroxasulfone (900+150+100 g/ha) effectively controlled resistant biotypes of *Phalaris minor* and provided higher yields. Post-emergence application of clodinafop-propargyl + metsulfuron (60+4 g/ha) or sulfosulfuron + metsulfuron (30+2 g/ha) or clodinafop-propargyl + metribuzin (54 + 120 g/ha) or carfentrazone + sulfosulfuron (20+25 g/ha) provided broad-spectrum weed control, enhanced productivity and profitability.



Pendimethalin 35% + metribuzin 3.5% w/w SE 875+87.5 g/ha (PE)

Clodinafop propargyl 15% + metsulfuron methyl 1% WP 60+4 g/ha (PoE)

Clodinafop-propargyl 9% + metribuzin 20% WP (54+120) g/ha under super seeder

Sunflower

Pyroxasulfone (127.5 g /ha as PE) effectively controlled most weeds (except *Cyperus rotundus*) with yields comparable to pendimethalin/oxyfluorfen. Post-emergence application of quizalofop-ethyl + oxyfluorfen controlled broad-leaf weeds.

Pyroxasulfone 85% WG @ 127.5 g/ha at 20 DAS

Weedy check at 20 DAS

Quizalofop ethyl 4% + oxyfluorfen 6% EC (RM) @ 100 g/ha at 60 DAS

Seed spices

Pre-emergence application of oxadiargyl (100 g/ha) *fb* HW (40 DAS) in fenugreek, ajwain and isabgoal, oxadiargyl (75 g/ha) *fb* quizalofop (40 g/ha) in dill recorded higher WCE, yield and B: C.

Linseed

Application of topramezone at 25.20 g/ha (20 DAS) proved most effective, recording the lowest weed density (2 plants/m²) and biomass (1.09 g/m²), along with the highest weed control efficiency (WCE, 90.5%). This treatment also resulted in the maximum seed yield (2167 kg/ha).

Compatibility of herbicides with nano urea

In wheat, application of clodinafop + metsulfuron (60 + 4 g/ha) combined with nano urea (4 ml/L) resulted in the lowest weed density (6.3 plants/m²) and biomass (2.6 g/m²), while achieving the highest weed control efficiency (WCE, 93.4%) and grain yield (5.69 t/ha). Similarly, in greengram, propaquizafop + imazethapyr (125 g/ha) in conjunction with nano-urea (4 ml/L) minimized weed density (5.0 plants/m²) and biomass (1.9 g/m²), and recorded the highest WCE (95.4%) and yield (1.26 t/ha).

Herbicide application though drone

In blackgram, fluazifop-p-butyl + fomesafen (250 g/ha) applied at 20 DAS with a drone was found to be a more effective control of weeds and biomass. Resulted in better crop performance and higher economics due to uniform coverage and better canopy penetration, covering 5–6 acres per hour. This method outperformed knapsack spraying and saved about Rs 2,000 per spray (AICRP-WM, ANGRAU, Guntur).

In transplanted rice, application of different herbicides through drone or knapsack sprayer recorded comparable results with regard to weed parameters, yield attributes and yield. However, higher net returns (Rs. 64, 820/ha) and B: C (2.25) were recorded with bispyribac sodium 25 g/ha as PoE applied through knapsack spraying (AICRP-WM, TNAU, Coimbatore).

Florpyraxifen- benzyl + cyhalofop- butyl 150 g/ha as PoE, Knapsack spraying 375 L/ha

Florpyraxifen- benzyl + cyhalofop- butyl 150 g/ha as PoE, drone spraying 25 L/ha

In wheat, application of pyroxasulfone 127.5 g/ha (PE) *fb* clodinafop-propargyl + metsulfuron 60 + 4 g/ha (PoE) applied through a drone recorded the lowest weed density and biomass, along with the highest grain yield, net returns, and B: C compared to knapsack sprayer application (AICRP-WM, SKUAST, Jammu).

Pyroxasulfone 127.5 g/ha PE *fb* clodinafop-propargyl + metsulfuron 60 + 4 g/ha PoE spray by drone

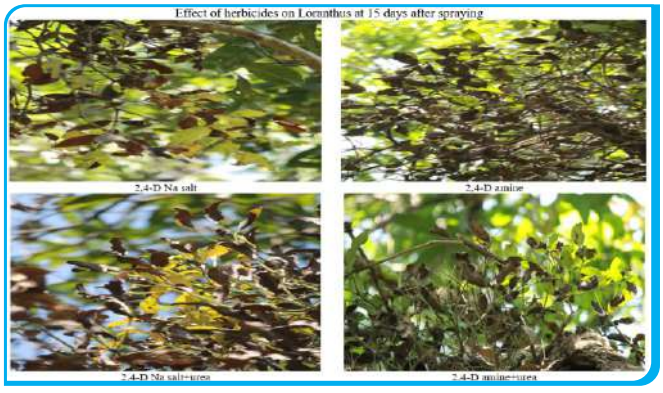
Weedy check

Integrated weed management in natural farming

Under natural farming-based weed management treatments in **rice-chickpea-greengram** cropping system, CT-DSR recorded the highest grain yield (2.69 t/ha) under narrow crop spacing (15 cm) + 1 hand weeding. The highest seed yield (1.2 t/ha) in subsequent chickpea with narrow row spacing (30 cm) + 1 HW, followed by chickpea + mustard intercropping (2:1) with one hand weeding. The highest greengram yield (1.17 t/ha) was obtained with with 1 HW, closely followed by mechanical weeding and mixed cover cropping.

Management of parasitic weed *Loranthus falcate* in mango orchard

In mango orchards, the troublesome parasitic weed *Dendrophthoe falcata* (Loranthus) can be effectively managed through targeted spraying of 2,4-D (sodium salt or amine formulation) along with a suitable sticker. The solution should be applied directly onto the parasite using battery-operated or manual hydraulic sprayers to ensure precise application and improved control (AICRP-WM, KAU, Thrissur).



Design, development and evaluation of power operated multi crop weeder

A petrol engine-based power weeder was modified and equipped with three tines. It was tested in chickpea and needs refinement. The spacing between the soil engaging blades and their depth in soil could be adjusted according to the planting geometry of the target crop and prevailing soil condition, to make it suitable for multiple crop usage.

Management of sarkanda *(Saccharum spontaneum)* in international border area of Jammu region

Sarkanda (Saccharum spontaneum) is one of the most problematic weed species along the international border, posing a serious challenge to Border Security Force (BSF) personnel by obstructing patrolling and surveillance activities, thereby increasing the risk of infiltration and illegal cross-border movements. A management strategy for this weed was successfully demonstrated by AICRP–Weed Management, SKUAST-Jammu. The application of glyphosate at 2.0 kg/ha combined with 1% urea and suitable surfactants, applied using drone technology, proved highly effective in controlling Saccharum spontaneum and associated weed flora in international border areas.

Infested site of international border | Herbicide spray through drone | Glyphosate 2.0 kg/ha + urea 1% + surfactants with drone

B Crop-weed interaction under changing climate and herbicide resistance

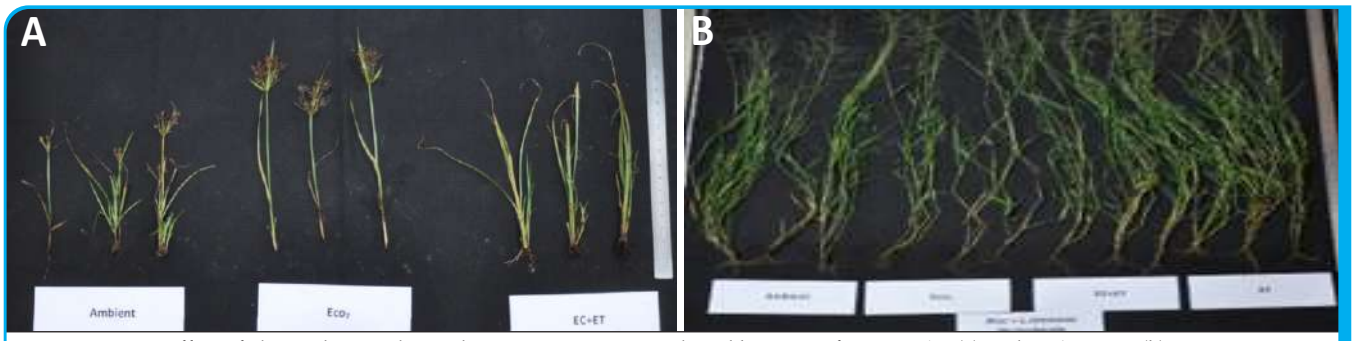
Rice - weed interaction under moisture stress using root phenotyping

Rice yield loss was greatest with *C. rotundus* under drought. Root phenotyping showed intensified below-ground competition under drought, with *C. rotundus* suppressing rice roots more than *L. chinensis*.

Root phenotyping of crop-weed interaction under drought stress (a) Experimental setup for root phenotyping using PVC pipe columns under controlled and drought conditions (b) root phenotypic differences in weed-free rice, rice + *C. rotundus* and Rice + *L. chinensis* under drought and control conditions

Impact of elevated CO_2 and temperature on crop-weed interaction and herbicide efficacy

In FACE and OTC, elevated CO_2 (550 ± 50 ppm), temperature (ambient +2 °C), and their combination reduced and delayed (2–5 days) the efficacy of cyhalofop-butyl (80 g/ha) and ethoxysulfuron (18 g/ha) against *L. chinensis* and *C. rotundus* versus ambient. Rice yield losses were highest with *C. rotundus* under EC in FACE and with *L. chinensis* under ET in OTC. *L. chinensis* and *C. rotundus* growth and biomass was highest under EC, ET and EC+ET compared to ambient.

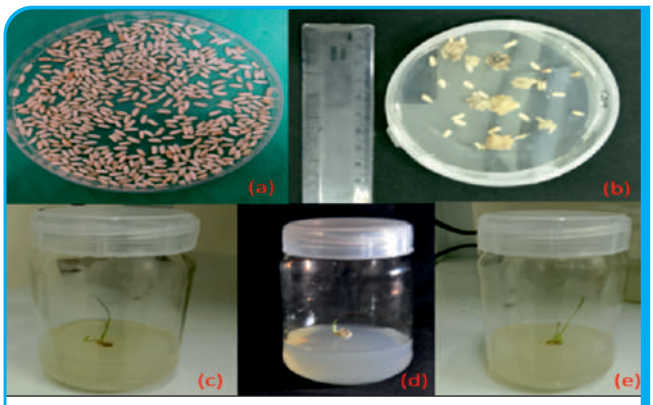


Effect of elevated CO_2 , elevated temperature on growth and biomass of *C. rotundus* (a) and *L. chinensis.* (b)

Impact of drought stress on crop-weed interaction and herbicide efficacy

Drought stress delayed the efficacy of ethoxysulfuron (18 g/ha) and cyhalofop-butyl (80 g/ha) by 3–5 days against *Cyperus rotundus* and *Leptochloa chinensis* in rice, and carfentrazone by 3-4 days against *Malva parviflora* and *Sonchus oleraceus* in wheat.

Standardization of *In Vitro* regeneration protocol of Swarna Shreya rice

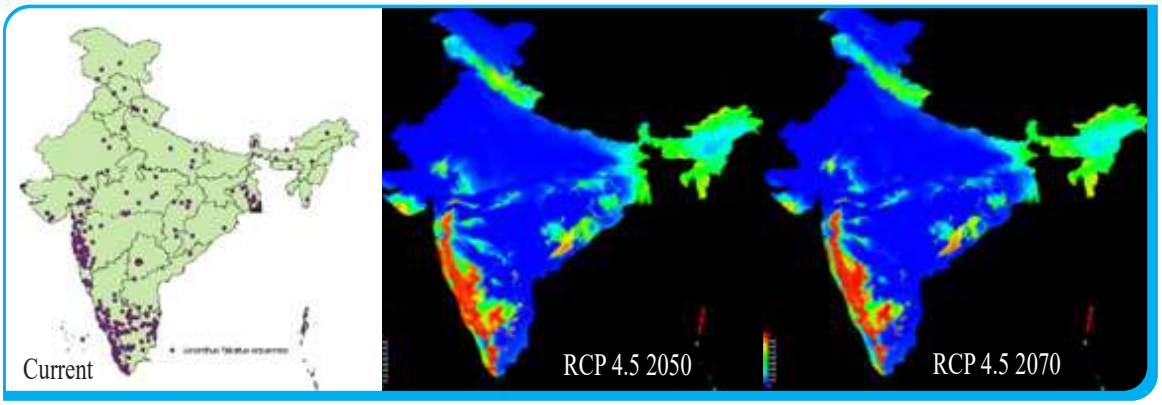


Stages involved in in vitro regeneration of Swarna Shreya rice:

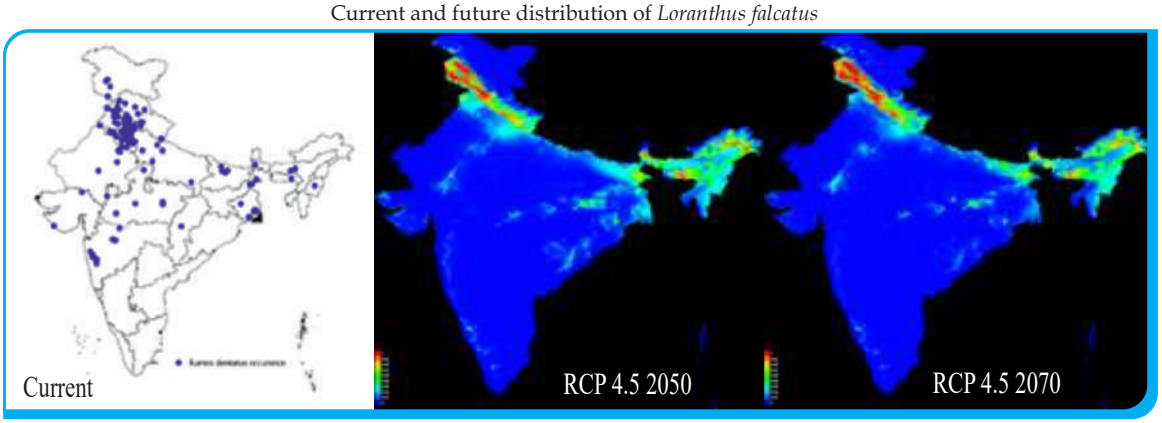
A robust and reproducible in vitro regeneration protocol was successfully standardized for rice cultivar 'Swarna Shreya', establishing an efficient pipeline from seed sterilization to callus induction, shoot regeneration, and rooting for downstream genetic transformation and genome editing of the OsGS1 gene. An optimized surface sterilization procedure (70% ethanol, Bavistin, streptomycin, and $HgCl_2$) ensured ~85% explant survival with minimal contamination. Maximum callus induction (~90%) with compact, embryogenic calli was achieved on MS medium supplemented with 2.5 mg/L 2,4-D and 0.5 mg/L NAA, with initiation observed around 28 days. The highest regeneration efficiency (88%), along with superior shoot proliferation (5.77 shoots per callus) and shoot length (3.72 cm), was obtained on MS medium containing 2 mg/L Kinetin, 2 mg/L BAP, and 0.5 mg/L NAA. This optimized protocol provides a reliable platform for Agrobacterium-mediated transformation and CRISPR/Cas-based genome editing, facilitating the development of glufosinate-tolerant rice lines and advancing genetic improvement efforts in rice.

Species distribution modelling

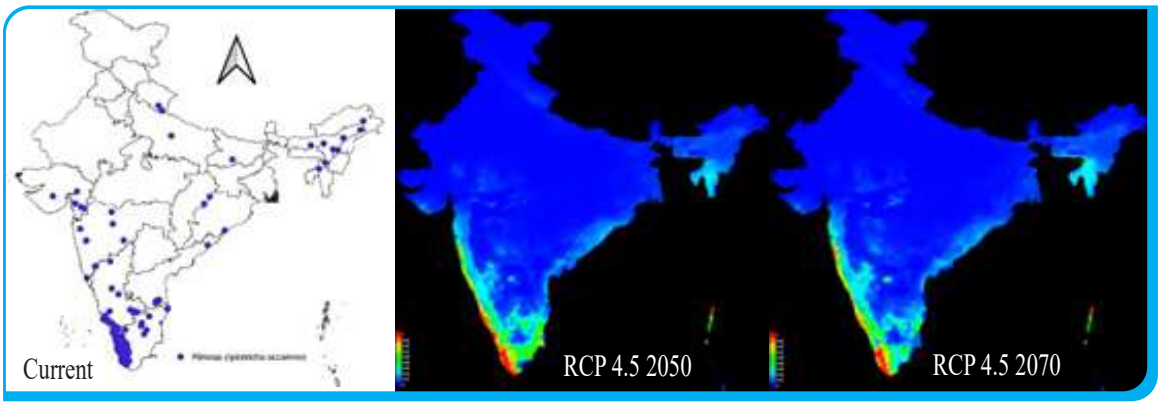
Species distribution modelling was used to model and project the current and future invasion potential of important weed species *Loranthus falcatus, Rumex dentatus* and *Mimosa diplotricha* under Representative Concentration Pathways (RCPs) 4.5 and 8.5 for the years 2050 and 2070. Occurrence data of *L. falcatus* (440 points), *R. dentatus* (142 points) and *M. diplotricha* (230 points) were used for the modelling. Following figures shows the current as well as future distribution of the species under different climatic scenarios.



Current and future distribution of *Loranthus falcatus*



Current and future distribution of *Rumex dentatus*



Current and future distribution of *Mimosa diplotricha*

Red colour shows the higher chances of establishment of the species whereas yellow colour shows moderate and green colour shows less favourable areas for the species.

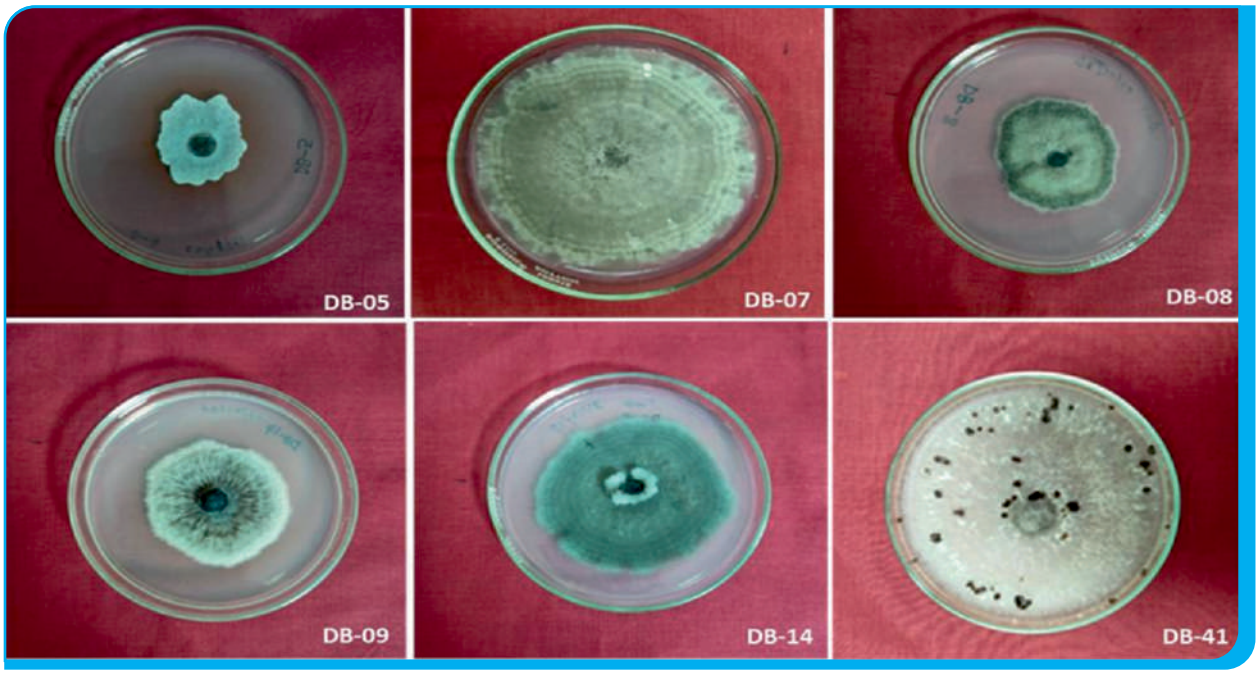
C Weed risk assessment, utilization and management of invasive weeds

Development of mass multiplication technique for *Zygogramma bicolorata*

A chickpea-*Parthenium*-based semi-synthetic diet was developed and standardized for the laboratory rearing of *Zygogramma bicolorata*, an important biological control agent of *Parthenium hysterophorus*. The diet was formulated using different combinations of essential nutritional and preservative constituents. Chickpea flour and *Parthenium* leaf powder were used as the primary sources of carbohydrates and proteins, ensuring both nutritional adequacy and host-plant familiarity for the insect. Results indicated significant variation in insect performance across different diet ratios. Among the tested treatments, the chickpea-to-Parthenium ratio of 25:75 proved to be the most suitable, supporting faster development, higher survival, and better overall fitness of *Z. bicolorata*.

Importation of new insect bioagents: *Megamelus scutellaris*, a host-specific biocontrol agent of water hyacinth, was introduced into India from South Africa and is currently maintained under QC-2 quarantine at ICAR-NBAIR, through a collaborative effort with ICAR-DWR, reflecting a quiet yet impactful stride in sustainable weed management.

Collection, isolation and characterization of weed pathogen(s) in rice-wheat cropping system: Fungal isolates were collected from *Dinebra retroflexa* and purified using the hyphal tip isolation method. Morphological characterization of purified isolates (DB-05, DB-07, DB-08, DB-09, DB-14, and DB-41) revealed substantial variability in colony colour, texture, margin, elevation, pigmentation, growth pattern, and sporulation, indicating pronounced morphological diversity within the fungal population.



Development of National Weed Genebank

More than 155 weed germplasm accessions/samples were acquired from AICRP-WM centers and through exploration programs, which include 15 new weed species. Thus, at present, the National Weed Genebank (NWG) conserves approximately 510 weed germplasm accessions representing diverse weed species, all maintained under ambient storage conditions.

Viability assessment of 10 weed species (collected during 2024) was carried out in the petri plates, depicting the large variability in germination percentage (0–100%) at ambient storage conditions in the weed genebank.

Similarly, regeneration and multiplication of weed germplasm were carried out in the weed cafeteria and pots to maintain fresh stocks for research and utilization.

Collection of weed seeds

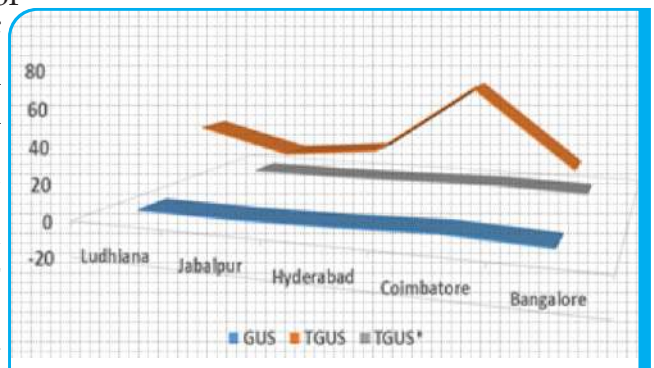
Ambient storage of weed biotypes

D Environmental impact of herbicides, toxic chemicals and mitigation measures

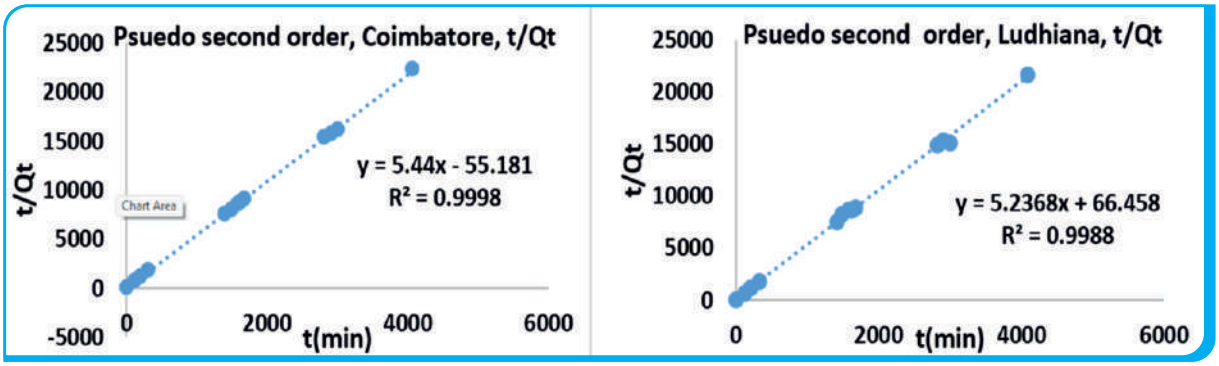
Persistence and leaching potential of topramezone in different soil type

For greater understanding on topramezone leaching, adsorption isotherms i.e. Freundlich and Langmuir were made by measuring residual concentrations of molecules in aqueous solution at the equilibrium point after adsorption on soil of different initial concentrations.

- The value of 1/n <1 at sandy loam soil of Bangalore indicated nonlinear relationship between herbicide concentration and adsorption, whereas in other soils it is >1 and showed linear relationship.
- Organic carbon-water partition co-efficient (K_{OC}) values in sandy loam soils of Bangalore, Hyderabad; sandy clay loam soil of Coimbatore and loamy sand soil of Ludhiana were in the range of 232 to 476, indicated medium mobility group. Adsorption isotherm showed high topramezone affinity in sandy clay loam of Coimbatore and loamy sand soils of Ludhiana in comparison to sandy clay loam soils of Hyderabad, Jabalpur and sandy loam soil of Bengaluru.
- Higher Kd values resulted in less GUF Values in Ludhiana, Jabalpur and less Kd value resulted in high GUF values for Bangalore, Coimbatore and Hyderabad.
- Topramezone leaching was significantly correlated with soil OC (%), sand and silt, Kd (mol/g) and TGUF*.



Depiction of various GUSs' to predict topramezone leaching potential



- Based on Groundwater Ubiquity Scores (GUSs') values, leaching potential of topramezone was found high in sandy clay loam soil (Coimbatore) than loamy sand (Ludhiana) and sandy loam soils (Jabalpur, Hyderabad and Bangalore).

Paraquat residues in greengram: An emerging health concern

Paraquat is a non-selective contact herbicide, recommended by CIB&RC for weed control in certain crops (Tea, Potato, Cotton, Rubber, Coffee, Grapes, Apple) as directed inter-row application at 2-3 leaf stage of weeds. In recent years, inappropriate pre-harvest use of paraquat has increased exponentially in summer greengram to facilitate the combine harvesting. Recent studies at ICAR–DWR revealed that paraquat use as a pre-harvest desiccant has led to high residue levels (2.49 to 3.40 mg/kg) in seeds, which may pose severe health hazards for human beings, animals and environment.

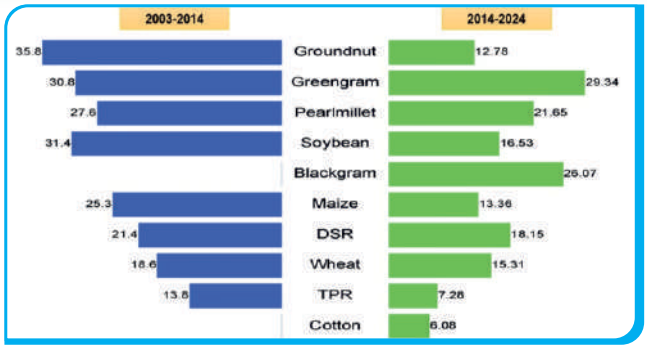
E Dissemination and socio-economic impact of weed management technologies

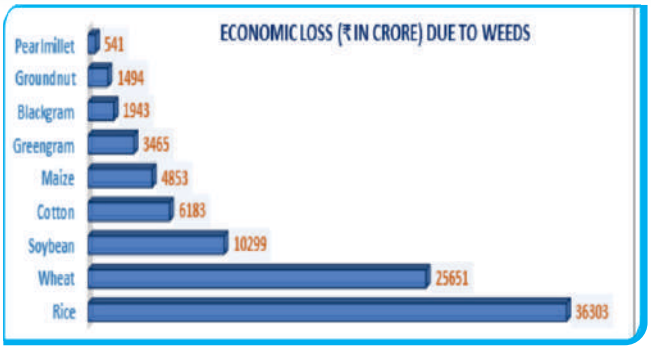
- During the year 2025-26, the Directorate organized 45 trainings under different aspects of the weed management and facilitated visit of 12783 farmers including farm women and agricultural officers of State Department of Agriculture during the year. During the visit, farmers and agricultural officers were made aware about the technologies adopted and displayed at the farm of the Directorate. They were also provided suitable recommendations on location-specific weed problems.
- Organized a country-wide "*Parthenium* Awareness Week (PAW)" campaign from 16-22 August 2025 in which awareness rallies, *Parthenium* uprooting, photo exhibitions, workshops, and distribution of bio agent were organized in 35 universities, colleges, schools, and 27 villages. This week was celebrated across the country through 731 Krishi Vigyan Kendra's, AICRP-Weed Management centers, ICAR institutes, and State Agricultural Universities.

- Under OFR Programme, a total of 135 field demonstrations in rice, maize, wheat, chickpea and greengram crops were conducted during the year 2025 at 15 villages of Panagar, Sihora & Kundam locality of Jabalpur district and Dungariya, Bichhiya, & Khuksar locality of Mandla District of Madhya Pradesh.

Yield and economic losses due to weeds estimated

Yield losses due to weeds were assessed using 1622 on-farm trials (2014–2024) across nine major crops in India. Losses under farmer practices were compared with best management practices to derive estimates. Weed-related yield losses declined from 25% (2003–14) to 16.2% (2014–24). Despite improvement, economic losses remain high at ~ 90,732 crore (MSP 2023–24), though reduced due to better weed management practices.



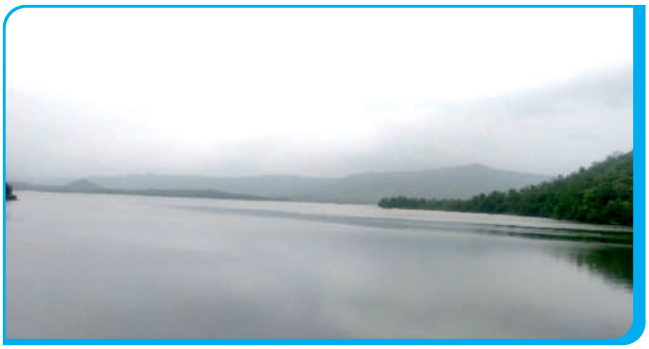


Impact assessment of biocontrol technology

The biological control of *Salvinia molesta* in the 1100-hectare Satpura Reservoir has resulted in the following major impacts and benefits:

- Generated regular employment for **209 individuals** through fishing and associated activities, who had earlier remained in disguised unemployment due to the weed mat that had blocked access to the reservoir.
- An estimated **572 tonnes** of fish were harvested in the first year after weed removal, generating a total value of approximately **Rs. 8.01 crore**.
- Ensured uninterrupted supply of approximately **18 million litres** of clean water per day to over **22,000 households** in Sarni Nagar Palika and the townships associated with STPS and WCL, following the restoration of the reservoir.
- Visitor footfall has risen **to 80–120** per day (from almost zero during infestation), with people travelling from a 30–35 km radius to enjoy the restored aesthetic beauty of the reservoir. Their estimated willingness to pay (WTP) of Rs. **40–50** per visit, if an entry ticket were charged, indicates strong potential for sustainable eco-tourism revenue.

Salvinia-infested Sarni Thermal Power Station, Madhya Pradesh, October 2022 (before release of insects)



Salvinia-free Sarni Thermal Power Station, Madhya Pradesh, March 2024

Trend in herbicide use

A study based on FAOSTAT data (1990–2022) reveals that India's share in global herbicide use declined sharply from 0.88% to 0.37%, indicating stagnant or negative growth compared to steadily increasing global trends.The analysis highlights India's marginal global position, ranking 32nd in herbicide consumption and recording the lowest application intensity (0.03 kg/ha), reflecting minimal reliance on herbicides relative to major agricultural countries.

Development of weed atlas

The information on weeds and their spatial distribution in different agro-ecosystems is of paramount importance for developing sustainable weed management strategies. During 2025-26, AICRP-WM, PDKV, Akola, IGKV, Raipur, GBPUAT, Pantnagar, TNAU, Coimbatore, AAU,

Assam and UAS, Bengaluru have developed Weed Atlas of their respective states. These atlases provide district-wise and block-wise comprehensive information on the most prominent weeds associated with major field crops of the states.

Akola (Vidarbha) | Chhattisgarh | Uttarakhand | Tamil Nadu | Assam | Karnataka

Technologies certified by the ICAR

During 2025, following 03 technologies of the Directorate were certified by the ICAR.

- An adjustable ergo-refined spray boom holding tool for knapsack sprayer.
- Ergo-refined operator friendly spray-boom holding tool for tractor-operated boom sprayer.
- Integrated weed management in soybean-wheat-green gramcropping system under conservation agriculture.

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S.N.	Application/ Registration No.	Name of Innovation/ Technology/ Product/ Variety	Developers/ Authors	Date of Filing/ Registration	Application Granted/ Registered**
1	36614/2024-CO/L	A scientific appraisal on herbicides proposed for ban/ restriction in India	Shobha Sondhia & J.S. Mishra	21/11/2024	23/04/2025 (LD-20250163830)
2	36354/2024-CO/L	Herbicides vis-à-vis other pesticides: Trend analysis and economic impact	Jamaludheen A., P.K. Singh, V.K. Choudhary Yogita Gharde & J.S. Mishra	20/11/2024	05/05/2025 (LD-20250164170)
3	36615/2024-CO/L	Safe use of herbicides and mitigation modalities	Shobha Sondhia and P.K. Singh	21/11/2024	08/05/2025 (LD-20250164248)
4	22798/2024-CO/SW	Weed Manager Mobile App for Weed Management	P.K. Singh, V.K. Choudhary Yogita Gharde & Sandeep Dhagat	17/07/2024	17/06/2025 (SW-2025020777)
5	LD-50975/2025-CO	Stewardship Guidelines for Non-GM Imazethapyr Tolerant Rice in India	Virender Kumar, V.K. Choudhary, S. Gopala Krishnan, J.S. Mishra, A.K. Singh & Sudhanshu Singh	08/12/2025	03/03/2026 (LD-20260182994)

Linkage and collaboration

- ICAR-DWR, Jabalpur signed MoU with Vidhya Shree Traders, Jabalpur for commercialization of adjustable ergo-refined spray boom holding tool for knapsack sprayer.
- ICAR-IIMR, Hyderabad and ICAR Central Buffalo Research Institute, Hisar for TSP and SCSP programmes
- ICAR-IIPR, Kanpur for quality seed production of pulses and varietal screening for Madhya Pradesh

Externally funded projects

S. No.	Project Title	Duration	Budgets (in Lakhs)	Funding Agency
1	Climate-smart management practices (Mechanized DSR System)	2023-28	US$6000	IRRI
2	Development of integrated weed management technologies under conservation agriculture systems (CRP on CA)	2015-26	19.95	ICAR
3	Enhancing crop productivity and livelihood security through improved technological interventions in Jabalpur district of Madhya Pradesh *(FARMERS FIRST)*	2017-26	10.84	ICAR
4	Efficiency evaluation of HIL25H-APM against weed complex in wheat crop and it's effect on succeeding greengram	2025-27	9.50	Heranba Industries Limited
5	Efficacy evaluation of diflufenican 125g/l + pyrasulfotole 250g/l SC in wheat crop and its effect on succeeding greengram	2024-26	11.89	Bayer Crop Science Limited, Thane Mumbai
6	Integrated weed management in pearl millet-chickpea-green gram cropping system under Natural farming	2025-27	22.0	National Mission on Natural Farming, Ministry of Agriculture & Farmers Welfare, GoI

Awards and recognitions

Dr. Dasari Sreekanth received "Young Scientist Award" from The Society for Science of Climate Change and Sustainable Environment, New Delhi, on 16th October 2025.

Dr. Dasari Sreekanth received "Young Scientist Award" and elected as an "Associate Fellow" from Telangana Academy of Sciences, Hyderabad, Telangana, on 24th December 2025.

Dr. J.K. Soni awarded International Weed Science Society Scientist Travel Support Awards 2025 for attending 9th International Weed Science Congress (IWSC) at Nanjing, China during 19-24, October, 2025

Dr. J.K. Soni received IAHF Young Scientist Award 2023, and Best Oral Presentation Award during the PASEL-2025 International Conference organized by the Indian Association of Hill Farming and ICAR RC for NEH Region, Tripura Centre on 20–21 November 2025.

Dr. Shobha Sondhia received 'Global Environment Leader Award' in 3rd Environment Civilian Awards – 2026 by the World Environment Council, New Delhi on 25th January 2026 in India International Centre, New Delhi.

Dr. V.K. Choudhary received Best Scientist award for the year 2024-25 by ICAR-Directorate of Weed Research, Jabalpur (MP) during 22 April, 2025.

Dr. V.K. Choudhary received ISA Fellow by the Indian Society of Agronomy during 6th International Agronomy Congress held at CSIR-NPL, New Delhi during 24-26 November 2025.

Dr. V.K. Choudhary received Best poster award "Exploring rhizospheric microbiome diversity in maize based conservation agriculture system" during National Conference on "Novel Strategies for Biotic Stress Management in Crop Plants" 11-12 December 2025 at ICAR-NIBSM, Raipur, India.

Women empowerment and gender awareness activities

Directorate works toward strengthening the role of women in agriculture, particularly in the field of weed management. The Directorate promotes the involvement of a greater number of women farmers in its various outreach programmes, such as *Mera Gaon Mera Gaurav*, Farmers FIRST, Scheduled Caste Sub-Plan, Tribal Sub-Plan, etc. During the period, The Directorate ensured significant participation of women farmers in the programmes such as training, *Kisan Divas*, Frontline demonstrations, agricultural input distribution programmes, exposure visits, field visits, *Kisan Mela* etc. benefitting 1397 women farmers from Jabalpur and nearby districts of Madhya Pradesh.

राजभाषा कार्यान्वयन

भाकृअनुप-खरपतवार अनुसंधान निदेशालय में राजभाषा अनुभाग द्वारा नियमित तिमाही बैठको एवं 06 हिन्दी कार्यशालाओं का आयोजन किया गया। गृह मंत्रालय, भारत सरकार, राजभाषा विभाग द्वारा जारी राजभाषा वार्षिक कार्यक्रम 2025-26 का अनुपालन करते हुए वर्षभर कार्य किया गया। निदेशालय में दिनांक 15.09.2025 से 29.09.2025 तक हिन्दी पखवाड़े का आयोजन किया गया। हिन्दी पखवाड़े का शुभारंभ पर मुख्य अतिथि के रूप में डॉ. पंकज कुमार, ए.जी.एम., बी.आर.बी.आर.ए.आई.टी.सी., जबलपुर एवं समापन समारोह में मुख्य अतिथि के रूप में श्री राजीव कुमार शुक्ल, अतिरिक्त महानिदेशक (से.नि.), प्रसार भारती,नई दिल्ली उपस्थित रहें। हिन्दी पखवाड़े के दौरान निदेशालय में विभिन्न प्रतियोगिताओं का आयोजन किया गया, जिसमें तात्कालिक निबंध लेखन, कम्प्यूटर पर यूनिकोड में टाइपिंग, हिन्दी शुद्धलेखन, आलेखन एवं टिप्पण, अंताक्षरी, वाद-विवाद एवं प्रश्न-मंच प्रतियोगिताओं का आयोजन किया गया तथा प्रोत्साहन योजना के तहत निदेशालय के वर्ष भर शासकीय कार्यों का संपादन हिन्दी में करने एवं 20,000 से अधिक हिन्दी शब्द लिखने हेतु प्रथम, द्वितीय, तृतीय नगद पुरस्कार एवं अनुभागो को चालित शील्ड प्रदान की गई। निदेशालय द्वारा प्रकाशित वार्षिक हिन्दी पत्रिका "तृण संदेश" के बीसवें अंक का विमोचन किया गया। नगर राजभाषा कार्यान्वयन समिति, क्रंमाक-02 जबलपुर की 16वीं बैठक (दिनांक 31 जुलाई, 2025) में वर्ष 2024 के दौरान सरकारी कामकाज में राजभाषा के उल्लेखनीय एवं सराहनीय प्रचार-प्रसार हेतु राजभाषा ट्राफी (द्वितीय पुरस्कार) से सम्मानित किया गया।

Publications

During the year 2025-26, the Directorate has published a total number of 50 research papers, 05 Technical Bulletins,03 Information Bulletins, 14 Extension Bulletins, 02 Newsletters, 02 Books, 25 Book Chapters, 32 Popular Articles, 04 Training Manuals, 14 Technology Bulletins and 05 other publications.

Research paper with >6 NAAS rating

1. Agrawal, R.K. , **Soni, J.K.**, Jha, S.K., Kale, R.V., Kumar, R., Kumar, B., Thomas, U.C., Chand, S., Roy, A.K., Jha, A.K. and Yadav, V. K. 2025. Weed management in fodder maize using herbicides under diverse agro-climates of India. *International Journal of Plant Production*. https://doi.org/10.1007/s42106-025-00389-5 (NAAS-8.20)
2. Basavaraj, P.S., Rane, J., Ishwaryalaxmi, V.G., Kumar, C.A., Kumar, M., Babar, R., Gangurd, A., Shinde, S., **Sreekanth, D.**, Boraiah, K.M. and Harisha, C.B. 2025. Unravelling chickpea (*Cicer arietinum* L.) genotype stability through univariate and multivariate approaches under varying soil types and water regimes. *Indian Journal of Genetics and Plant Breeding*, 85(04), pp.578-592 (NAAS-6.00).

3. Basavaraj, P.S., Biradar, M., Meena, V.S., Tripathi, K., Babar, R., **Sreekanth, D**., Boraiah, K.M., Harisha, C.B., Hanamant, M.H., Anil Kumar C., Santosh, H.B., Rafat, S. and Sammi Reddy, K. 2026. Multi-trait stability selection drives genetic gains in cowpea [*Vigna unguiculata* (L.) Walp.] under high-temperature stress. *BMC Plant Biology*. https://doi.org/10.1186/s12870-026-08597-5 (NAAS 10.80)
4. Basavaraj, P.S., Babar, R., Gangurde, A., Lakshmi, V.I., Shinde, S., Gund, S., Boraiah, K.M., Harisha, C.B., Halli, H.M., **Sreekanth, D**. and Rane, J. 2026. Unveiling drought-tolerant mungbean genotypes through integrated multi-trait selection. *Scientific Reports*. https://doi.org/10.1038/s41598-026-36830-6 (NAAS-9.90)
5. Basavaraj, P.S., Tripathi, K., **Sreekanth, D**., Boraiah, K.M., Harisha, C.B., Halli, H.M. and Reddy K.S. 2025. Identification of heat tolerant cowpea genotypes based on yield and stress tolerance indices. *Journal of Crop Improvement*, 39(6), 544-567 (NAAS-7.50).
6. **Choudhary, V.K.**, Sahu, M.P., Dubey, R.P., Singh, R. and Mishra, J.S. 2025. Assessment of seed rate and weed management practice on weed control, crop productivity and profitability of dry direct seeded rice. *Journal of Agriculture and Food Research*. 22: 102110. http://doi.org/10.1016/j.jafr.2025.102110 (NAAS- 12.20).
7. Dass, A., Tyagi, V., Nagargade, M., Sharma, V. K., Singh, A., Lal, S.K., **Anokhe A**. and Gupta, G. 2025. Nutrient expert and omission effects on soybean productivity, soil health, and economics in Northern India: a site-specific nutrient management approach. *Soil Science and Plant Nutrition*. 1–13. https://doi.org/10.1080/00380768.2025.2595449 (NAAS-7.80)
8. Gireesh, S., Dinesh, G.K., Adityan, S., Abinaya, S., Aravindharajan, S.T.M., **Anokhe, A**., Venkatramanan, V., Manu, S.M., Shahidha, P.A., Geetha, I.R. and Surendhar, P. 2025. Assessing India's millet promotion policies: Schemes and initiatives of the Government of India to promote millets for food and nutritional security through a systematic approach. *AGRIVITA Journal of Agricultural Science*. DOI https://doi.org/10.17503/agrivita.v47i3.4332, 47(3), 616–629 (NAAS- 6.50).
9. Guleria, N., **Deeksha, M.G.**, Chandel, R.S., Dorjee, L. and Saini, N.2025. Fungivory by *Nala lividipes*: understanding its ecological impact on powdery mildew. *Current Science*. 128(10) (NAAS-7.00)
10. Jayaswal, D., Prabha, R., Kumar, K., Kumar, D., Jayaswal, K., **Anokhe, A**., Singh, A.N., Kumar, S. and Kansal, R. 2025. Whole genome sequencing and subtractive genomics of *Lipaphis erysimi*: A vital pest of *Brassica juncea*. *Journal of Plant Growth Regulation*. https://doi.org/10.1007/s00344-025-11962-7 (NAAS-10.40)
11. Kaluskar, S.A., **Singh, C**., Kumar R. and Chaudhari, S.B. 2025. A reliable and effective method for regenerating Uraria picta (Jacq.) in vitro using nodal explants sourced from mature seed-derived seedlings. *Bio-catalysis and Agricultural Biotechnology*, 103715 (NAAS-9.80).
12. Keerthana, U., Senapati ,A.K., Bag, M.K., Prabhukarthikeyan, S.R., Naveenkumar, R., **Yadav, M.K**., Baite, M.S., Behura, A., Kar, M.K. and Mohapatra, S.D. 2025. Leveraging genetic diversity of aromatic rice landraces in Odisha for sustainable rice blast resistance. *Physiological and Molecular Plant Pathology*. 138, p.102682 (NAAS-9.30).
13. Keerthana, U., Prabhukarthikeyan, S.R., Senapati, A.K., Bag, M.K., Parameswaran, C., Naveenkumar, R., Mohapatra, S., **Yadav, M.K**., Baite, M.S. and Mohapatra, S.D. 2025. Comparative proteomic analysis of resistant and susceptible aromatic rice landraces in response to blast pathogen, *Magnaporthe oryzae*. *Physiological and Molecular Plant Pathology*, 137, p.102629 (NAAS-9.30).
14. Kumar, R., Choudhary, J.S., Mondal, S., **Mishra, J.S.**, Makarana, G., Naik, S.K., Mali, S.S., Jha, B.K., Meena, R.S., Biswas, A.K., Kumari, S., Prakash, V., Das, A., Bhatt, B.P. and Chaudhari, S.K. 2025. Earthworm population and diversity enhanced under conservation management practices in intensified rice-fallow system of South Asia. *Land Degradation and Development*. http://doi.org/10.1002/ldr.70203.
15. Kumar, R., Karmakar, P., Bahadur, A., **Sreekanth, D**., Verma, R.K. and Krishna, H. 2025. Exploring drought tolerance in okra through morpho-physiological, biochemical characteristic and yield based indices. *Journal of Crop Health*. 77:91. https://doi.org/10.1007/s10343-025-01155-3 (NAAS-6.55).
16. Mudagadde, G.D., Srinivasan, R., **Kuwardadra, S.I.** and Gracy, G.R. 2025. Ecological insights into *Parapoynx diminutalis* Snellen populations and their association with potamogeton crispus L. *National Academy Science Letters*-India. https://doi.org/10.1007/s40009-025-01730-2 (NAAS-7.30)
17. Muniswamy, P.S., Basavaraj, P.S., Gangurde, A., Babar, R., Sinda, S., Boraiah, K.M., Harisha, C.B., Halli, H.M., **Sreekanth, D**., Kumar, P., Laxuman, C., Suma, T.C., Kuchanur, P., Gangashetty, P. and Reddy, K.S. 2025. Leveraging high-throughput phenomics and morpho-physiological traits for selecting drought-tolerant pigeonpea [*Cajanus cajan* (L.) Millspaugh] *Genotypes*. *Journal of Plant Growth Regulation*. https://doi.org/10.1007/s00344-025-12045-3. (NAAS 10.40)

18. Nanda, G., Jha, S.K., Agrawal ,R.K., **Soni, J.K**., Chand, S., Yadav, V.K. and Dwivedi, P.N. 2025. Enhancing forage efficiency: insights from cultivar, nitrogen and cutting strategies in pearl millet. *Grass and Forage Science*. 80:e70005. https://doi.org/10.1111/gfs.70005 (NAAS-8.90)
19. Singh, P., Mishra, V.K., Atri, N., Ashutosh, Kumar, M. and **Yadav, M.K**. 2026. Identification and validation of molecular markers for rust resistance in wheat genotypes for marker assisted breeding in India. *Research Journal of Biotechnology*, 21(2), 264–270 (NAAS-6.20)
20. **Sondhia, S.** 2025. Evaluating the environmental impact of topramezone in maize fields: A comprehensive assessment of risk, degradation kinetics, and residue dynamics, *Journal of Food Composition and Analysis*, 147, 108022, https://doi.org/10.1016/j.jfca.2025.108022 (NAAS-10.60).
21. **Sreekanth,** D., Pawar D.V., Basavaraj, P.S., Kumar, R., Mahesh, S., Chethan, C.R., Jamaludheen, A., Singh, P.K. and Mishra, J.S. 2025. Interactive effects of drought and weeds on greengram: Impacts on physiological, biochemical and yield traits. *Scientific Reports*. https://doi.org/10.1038/s41598-025-28123-1 (NAAS-9.90)
22. **Sreekanth,** D., Pawar, D.V., Basavaraj, P.S., Kumar, R., Mahesh, S., Chethan, C.R., Jamaludheen, A., Sondhia, S., Singh, P.K. and Mishra, J.S. 2025. Effect of *Phalaris minor* and *Medicago denticulata* on wheat growth and yield under drought stress: physiological and biochemical insights. *Journal of Plant Growth Regulation*. https://doi.org/10.1007/s00344-025-11769-6 (NAAS-10.40)
23. **Sreekanth D**., Pawar D.V., Kumar R., Sondhia S., Singh P.K., Mishra J.S., Sinha A., Chander S., Mukkamula N., Kumar B.K. 2025. Interactive effects of elevated CO_2, temperature, and weed competition on mungbean. *Agricultural Research*. https://doi.org/10.1007/s40003-025-00919-7 (NAAS-7.10)
24. **Sreekanth, D**., Pawar, D.V., Sahadeo, I.K., Kumar, R., Basavaraj, P.S., Mahesh, S., Chethan, C.R., mangrauthia, S.K., Sondhia, S., Singh, P.K. and Mishra J.S. 2025. Advancements in CRISPR/Cas technology for generating herbicide tolerant crops: a comprehensive review. *Journal of Plant Biochemistry and Biotechnology*. https://doi.org/10.1007/s13562-025-00984-7 (NAAS-7.50).
25. Srinivasan, R., Suputhra, S.A., Lalitha, M., Thilagam, V.K., **Hota, S.** and Ramamurthy, V., 2025. Mapping the spatial variability of soil organic carbon stocks in the South-Eastern Ghats region of India for ecosystem sustainability. *Tropical Ecology*, 1-11 (NAAS-7.70).
26. Udikeri, A., Khan, M.S., **Deeksha, M.G**., Anooj, S.S. and Banakar, S.N. 2025. Unveiling the ecological importance of syrphid flies as flower visitor in the Northwestern Indian Himalayan Terai ecosystem. *International Journal of Tropical Insect Science*. Https://doi.org/10.1007/s42690-025-01657-7 (NAAS-7.20)
27. Veena, K., Hosamani, A., Prabhuraj, A., Hanchinal, S., Deshmukh, S.S., Bueno, A.D.F and **Deeksha, M.G**. 2025. Performance of four major egg parasitoids as biocontrol agents against *Spodoptera Frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae) eggs. *Bulletin of Entomological Research*. 1-7. https:/doi.org/10.1017/S0007485325100485 (NAAS-7.60)

Seed production

In order to increase the Institute's revenue, the Directorate has started quality seed production programme with the ICAR-Indian Institute of Pulses Research, Kanpur and Madhya Pradesh State Seed and Farm Development Corporation (MPSS & FDC). A total of 169.34 tonnes of foundation/certified seed of rice 'JR 206' (60.0 t), wheat 'GW 322' (71.5 t), mustard 'MP-30' (3.24 t), field pea 'IPFD 19-1', 'IPFD 19-3' and 'IPFD 16-3' (12.41 t), chickpea 'RVG 204' and IPC 2005-62 (11.87 t), lentil 'IPL 220' (1.1 t) and greengram 'Virat and Shikha (7.87 t), blackgram 'IPU 13-1' and 'IPU 10-02' (1.35 t), was produced and sold to the MPSS& FDC.

New facilities

During 2025-26, new facilities/equipment/vehicle/farm implements, such as quarantine facilities, GCMS, tractor (60 HP), hand operated thresher, *etc.* were created/procured.




Health camps organized

A free medical checkup camp was organized on 02-10-2025 & 30-12-2025 for all staff and casual workers of the Directorate and their family members at the guest house of the Directorate by the courtesy of Baderia Metroprime Multi-speciality Hospital, & ASG Eye Hospital, Jabalpur.

Budget utilization

The Directorate utilized 100% of its budget* as per RE of 2025-26.

Head of expenditure	Budget received (RE)	% of expenditure
ICAR-DWR+SCSP		
Grant-in-aid capital	226.5	100
Grant-in aid general	259.76	100
AICRP-WM+SCSP		
Grant-in-aid capital	1.38	100
Grant-in aid general	107.5	100
Grand total	724.62	100

*Excluding salary

New colleague joined

During 2025-26, Mrs. Lakshmi Arora, Assistant, joined the Directorate.

Revenue generation

During 2025-26, the Directorate generated total revenue of Rs. 72.31 lakhs from various sources such as sale of seed & farm produce, guest house, services, *etc.*

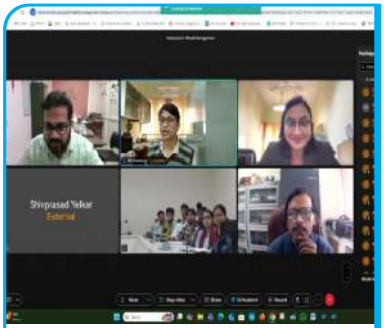
Important meetings/conferences organized

XXXII Annual Review Meeting of AICRP-Weed Management, 21-22 May, 2025; RVSKVV, Gwalior (MP)

Vikshit Krishi Sankalp Abhiyan, 29 May-12 June 2025

State-level workshop on "*Transforming Food, Land, and Water Systems to Combat the Climate Crisis*" for the state of Chhattisgarh organized at IGKVV, Raipur, 12 August 2025

National Training Programme on "*Smart Weed Management for Sustainable Agriculture*" On-line, 1-10 September, 2025.



Training program on '*Advances in Weed Management*' organized with NIPHM, Hyderabad, 17-19 February 2026

IMC meeting
11 November, 2025
ICAR-DWR, Jabalpur

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