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1. Background Information:

National Research Centre on Plant Biotechnology (NRCPB) is a premiere research institution of the Indian Council of Agricultural Research (ICAR). The institute was founded in 1985 as the 'Biotechnology Centre' of Indian Agricultural Research Institute (IARI) for molecular biology and biotechnology research in crop plants. The prescience of the role of biotechnology in agriculture led to a bigger responsibility for this centre and it was elevated as National Research Centre on Plant Biotechnology (NRCPB) in the year 1993. ICAR-NRCPB has been entrusted with the responsibility of developing new tools and techniques and to deliver breakthrough in biotechnology for crop improvement.

With a humble beginning and a few dedicated scientists, the centre could successfully deliver varieties such as Pusa Jai Kisan, which is one of the top three mustard varieties released by the ICAR till date. Besides, the centre has released a rice variety Improved Pusa Basmati-1 resistant to bacterial leaf blight and PB-1637 for blast resistance using marker assisted selection (MAS) in collaboration with the Division of Genetics, IARI. Recently, in rice DRR Dhan-50, CR Dhan 802, CR Dhan 206, Ranjeet and Bahadur for drought and submergence tolerance were released using marker assisted selection (MAS) in collaboration with IIRR, Hyderabad, NRRI, Cuttack, Odisha and AAU, Jorhat, Assam under the DBT sponsored project QTL to Variety. Moricandia based CMS system developed at NRCPB has contributed to the commercial production of mustard hybrids namely NRC Sankar Sarson (DRMR, Bharatpur) and Coral 432 (Advanta India). Recently, four varieties of mustard namely Pusa Jai Kishan, PM-25, PM-26, PM-28 and PM-29 were released and notified by CVRC with partnership of IARI, New Delhi and three wheat varieties namely HD 3237, HD 3271 and HD 3249 were released and notified by CVRC with partnership of IARI, New Delhi. Also, an early maturing dwarf pigeon pea variety Pusa Arhar-16 was released in 2017 with collaboration of IARI, New Delhi. Apart from Moricandia CMS, about 11 CMS in Brassica juncea and one CMS in Brassica oleracea were developed from ICAR-NRCPB, Delhi. In 2017 one genetic stock of *Brassica rapa* vr. yellow sarson namely, NRCPB rapa 8 were registered in 2017 which enables high frequency of *in-vivo* seed recovery in interspecific crosses with *Brassica nigra* without embryo rescue or any other tissue culture interventions during resynthesis of *Brassica juncea*.

The rice blast resistance gene Pi54 identified, mapped, cloned and characterized at NRCPB has been transferred in mega varieties of rice like Pusa Basmati and BPT 5204 and in many other varieties by the rice breeders using MAS. The centre has matched steps with the changing time and conducted research in basic and applied research for crop improvement resulting in many publications in high impact factor journals, patents and public private partnerships. The state-of-the-art infrastructure and expertise of the scientists have enabled the successful execution of International (rice, tomato and wheat) and National (Pigeonpea, Mango, *Mesorhizobium*, *Puccinia* and *Magnaporthe*) genome sequencing projects.

The centre takes lead and has contributed substantially towards human resource development by developing strong inter-and intra-institutional linkages and organizing training programmes,

summer/winter schools sponsored by Education Division of ICAR as well as other major national funding agencies.

2. Technological intervention: The new varieties viz., DRR Dhan 50, Pusa Basmati 1637, Pusa Jaikisan, Pusa Mustard 28, Pusa Arhar 16, HD 3237, were demonstrated at farmer's field in the area of western and eastern part of Uttar Pradesh.

3. Innovative extension methods used: Field demonstrations were conducted through farmer participatory mode at farmer field and at ICAR-NIPB, Delhi. Kisan ghosti and farmer's day were organized at institute and villages. The seed kits were distributed of the improved varieties under MGMG program for the replacement of the old technologies with new technologies.

4. Linkage developed through Govt. sponsored schemes /Spread/benefits: The linkage were developed with ICAR-IARI, Delhi, ICAR-IISR, MAU, KVK, Sikohpur, KVK, Gautam Buddha Nagar in public sector institutes and in private sector organization the linkage were developed with NEFORD Lucknow for the spread of the technologies to the farmers.

5. Impact: The new technologies were adopted by the farmer's in large scale in the respective areas. We are providing the knowledge and training to the farmers for the Quality seed production of the different crops which helps in the self sufficiency of the quality seed for their use.

6. Lessons Learned: NA

7. Supporting Images (2-4 photographs of technological intervention / VIP visit/ extension activities)

8. Additional information (If any) : NA

Name of Nodal officer with contact details

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Detailed Progress:

The centre is also actively involved in farmers related project including PM's dream project Mera Gav Mera Gaurav and Farmers FIRST program to provide the new technologies (varieties tolerant to climate change) and high yielding quality seeds to minimize the cost of cultivation and ultimately to increase the farmer income aiming towards Doubling the Farmer's Income till 2022. The FLD for different crops were regularly conducted in western and eastern part of UP at farmer's field and example in case of Doubling the Farmer's Income through ICAR-NRCPB technologies like mustard variety Pusa Jai Kishan, PM 28 and rice varieties Pusa Basmati 1637, CR Dhan 802 and DDR Dhan 50

Activities undertaken

- The institute has organized 29 *Kisan Ghosthi* /Meeting with farmers in adopted villages Narmohampur, Nekpur and Shakalapur district Bulandshar and Dumrao, Kasharia, Arshipur, Bhilashpur, district Mau and Ballia Uttar Pradesh .
- Near about 507 farmers participated and getting benefit from each ghosthi/meeting.
- Conducted 15 demonstrations of Rice varieties Pusa Basmati 1637 and DDR Dhan 50 were conducted at these adopted villages at farmer filed.
- Conducted 35 demonstrations of Mustard varieties Pusa Jai Kishan, Pusa Mustard 28 and wheat variety HD 3237 were conducted at these adopted villages at farmer filed.
- The Scientist of the institute advised to the farmers time to time by mobile based technology and also distributed supporting literature related to varieties.
- The awareness about Soil testing, *Pradhan Mantri Fasal Bima Yojna*, E-marketing, Drip irrigation, organic farming and *Sawach Bharat Abhiyan* was also undertaken during the visit
- Institute have organized training program of seed production and seed production of Pusa 1637 and Pusa 1460 along with mustard varieties Pusa Jai Kishan, Pusa Mustard 28 and wheat variety HD 3237 at respective villages
- Farmers of adapted villages under MGMG was participated in Krishi Umannti Mela 2019

1. Detailed Progress:

No. of Team formed	No. of Scientists	No. of Villages selected	No. of Blocks	No. of Districts	Bench Mark Survey conducted (No. of villages)
06	40	12	04	04	03

2. Activities undertaken

S. No.	Name of activity	No. of activities conducted	No. of farmers benefitted
1	Awareness created		
2	Demonstrations conducted	50	50
3	Interface meeting/ <i>Goshthies</i>	02	55
4	Literature support provided	--	--
5	Training organized	--	--
6	Visit to village by teams	--	--
7	Mobile based advisories	55	55
Total		107	107

3. Other activities organized

S. No.	Activity	Particulars	
1	Linkages developed with other agencies	No of Agency (No)	--
		Farmers Benefitted (No)	--
2	Facilitation for		
	i) New varieties	Numbers	--
		Area (ha)	--
		Farmers Benefitted (No)	--
	ii) Technology (No)	Numbers	--

		Area (ha)	--
		Farmers Benefitted (No)	--
	iii) Seeds (q)	Area (ha)	--
		quantity (q)	--
		Farmers Benefitted (No)	--
	iv) New crops (No.)	Numbers	--
		Farmers Benefitted (No)	--
	v) Other (seedlings, biofert. Poultry bird etc.)	Numbers	--
		Area (ha)	--
		Farmers Benefitted (No)	--

4. Activity-wise action photographs with caption (also attach photographs JPEG format separately/ news paper cutting)



Seed distribution of DDR Dhan 50 for demonstration at Bahraich district, Uttar Pradesh



Demonstration of Pusa basmati 1637 rice crop at Agota village Buldandhar



Demonstration of Pusa basmati 1637 rice crop at Nekpur village Buldandhar



Men & Women farmers Field visit of DDR Dhan 50 demonstration plot at Narmohampur, Bulandshar



Application fertilizer dose in Pusa Basmati 1637 demonstration plot at Sayrial, Bulandshar



Demostration Plot of HD 3249 wheat varieties at Nakpur, Bulandshar

Scientist and Farmers interaction through Web Conferencing on 19 September 2020 at ICAR-NIPB, Delhi

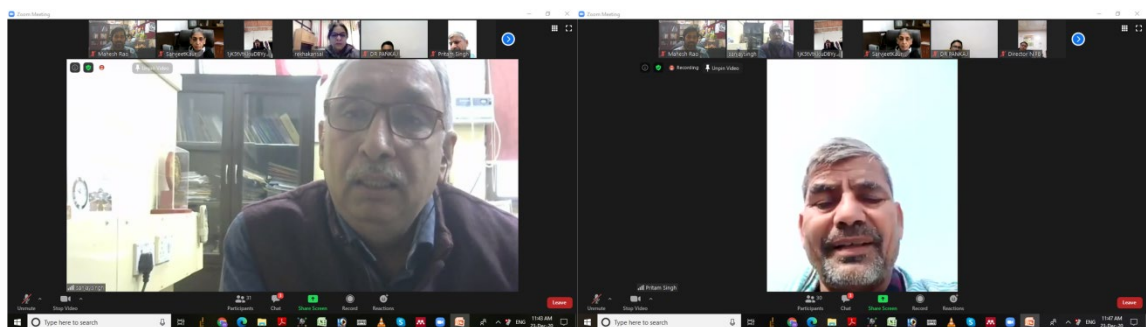
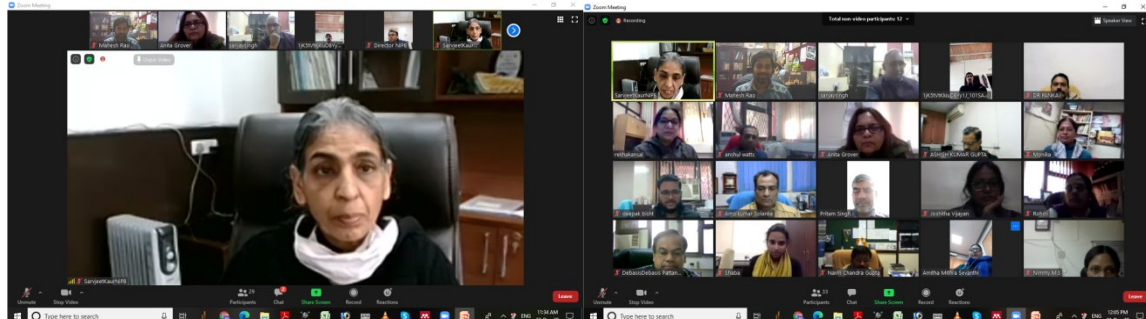
ICAR-National Institute for Plant Biotechnology Delhi organized one Scientist-Farmer interaction on 19th September 2020 through web-conferencing. Chief guest of the program was Dr. Ashok Kumar Singh, Deputy Director General (Agriculture Extension), ICAR, Delhi. Director of the institute Dr. Sarvjeet Kaur chaired the program and Dr. Sanjay Singh, Nodal Officer, Institute Outreach program was the moderator. Director madam welcomed the chief guest and all the participants and gave a brief remarks about the research and extension program of the institute. On this occasion Chief Guest gave an outline of the different farmer oriented program of the ICAR and also appreciated the extension work to reach farmers in different area by NIPB. During the program the interactive discussion was done and the lectures was delivered by Professor Nagendra Kumar Singh, National Professor ICAR, Dr. Awani Kumar Singh, Dr. Rajeev Kumar Singh, Dr. Jasdeep Padaria, Dr. Subodh Kumar Sinha, Dr. Ashish Kumar, Dr. Mahesh Rao and Dr. Nimmy MS on Rice varieties, protected cultivation, Integrated farming system (IFS), GM crops, wheat varieties, plant disease management, improved mustard varieties and newly developed chickpea varieties respectively. The scientific and technical staff of institute were attended the program and the discussions were made on the adoption of new technologies by farmers and improve the production and income.



Report of Celebration of Special Day: Kisan Diwas on 23 December 2020 through Web Conferencing at ICAR-NIPB, Delhi

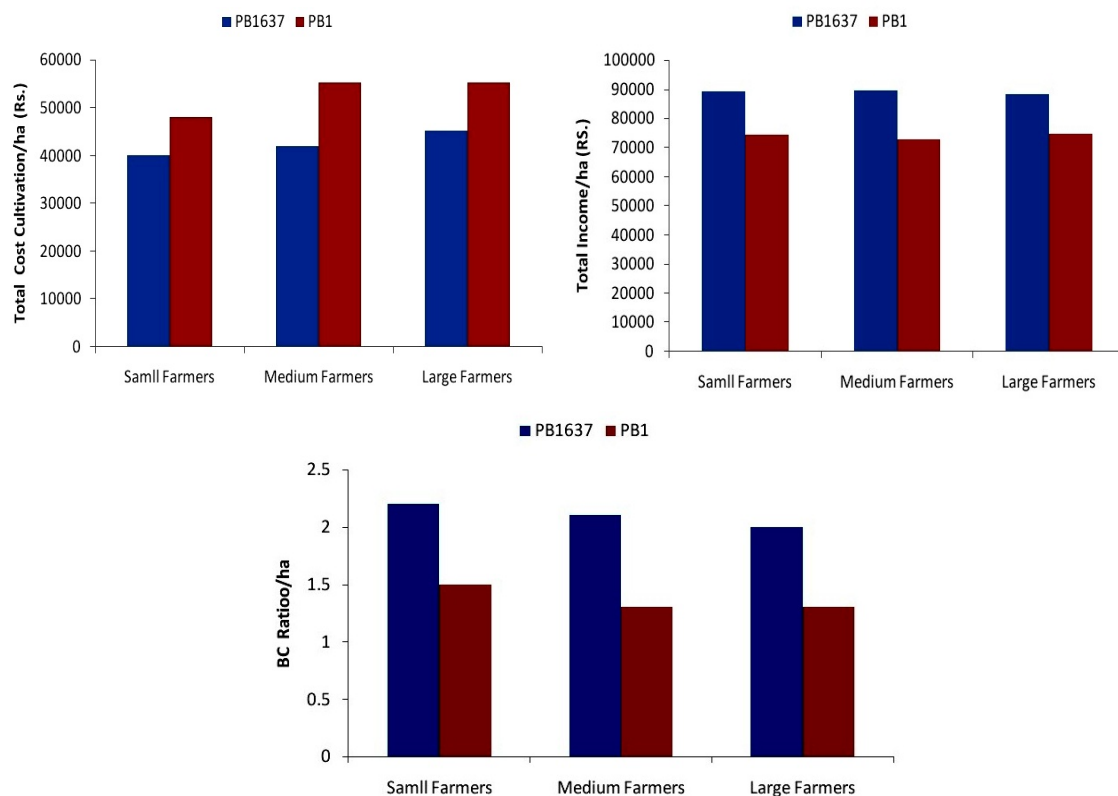
ICAR-National Institute for Plant Biotechnology Delhi organized Celebration of special Day: Kisan Diwas on 23rd December 2020 through web conferencing during Swacchta Pakhwada. Director of the institute Dr. Sarvjeet Kaur chaired the program and Dr. Sanjay Singh, Nodal Officer, Institute Outreach program was the team leader for the program. Dr. Rekha Kansal, Principal Scientist, ICAR-NIPB, Delhi was the moderator of the program. Director NIPB welcomed the farmers and staff and gave brief remarks about the Kisan Diwas Program and Swacchta Pakhwada of the institute. She also remembered Mr. Chaudhary Charan Singh Ji, Ex-PM, India, and outlined his great work for the farmers as on his birthday the Kisan Diwas

Program is celebrated every year. The farmers viz., Mr. Preetam Singh Ji, Mr. Deepak Chauhan Ji, Ms. Neetu Singh Ji etc gave the outline of the involvement of farmers in cleanliness and the work done by Mr. Chaudhary Charan Singh Ji for the farmers community. All the NIPB staff were present during the program.

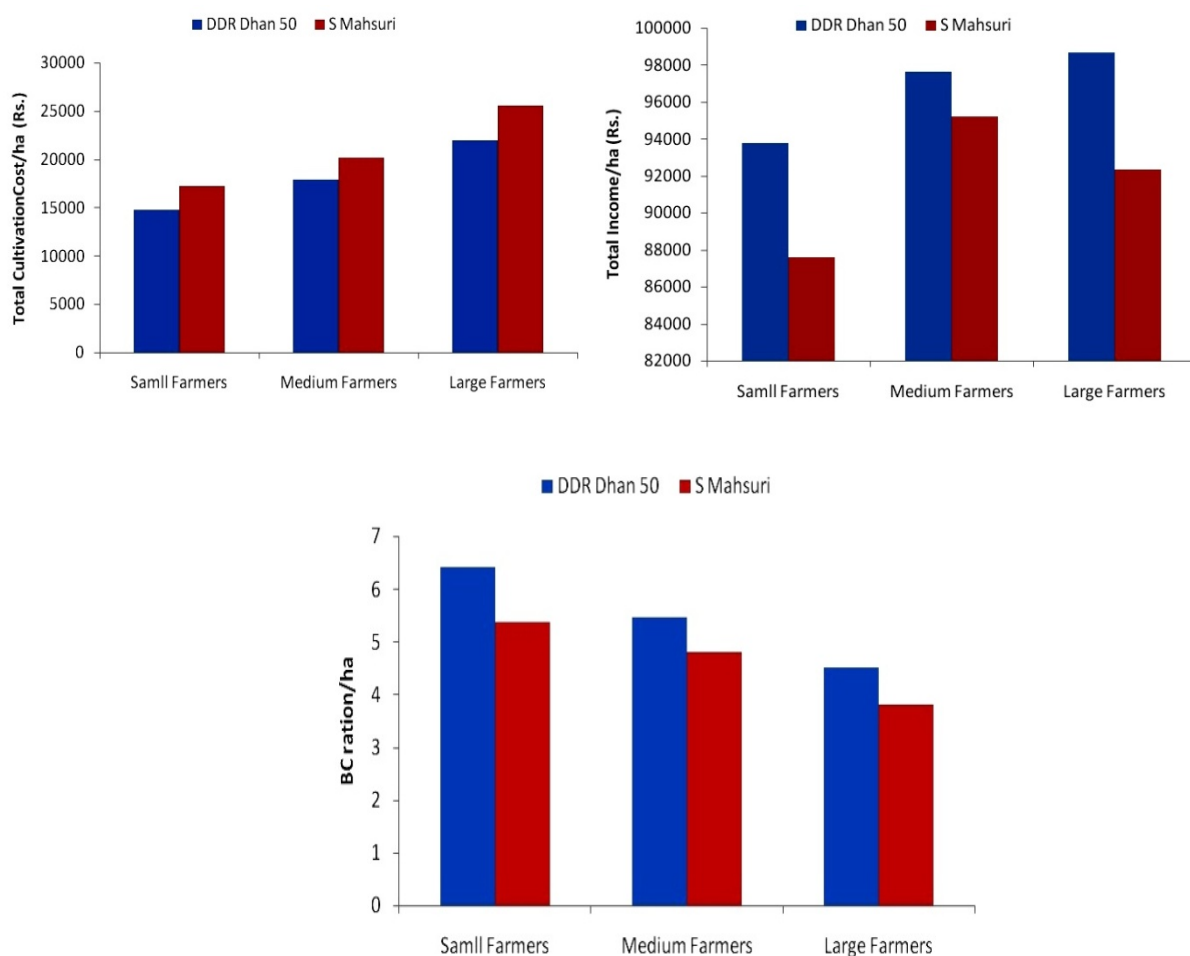


5. Format for reporting 'Case studies/success story' under MGMG (Jan-Dec 2020)

Impact analysis of random 50 farmers (Small, medium and large) of Pusa Basmati 1637 compared with Pusa Basmati 1 in Khurja Block of District Bulandshar



impact analysis of random 50 farmers (small, medium and large) of DDR Dhan 50 compared with Shamba Mashuri at Pardaha Block, Mau, Uttar Pradesh



ग्राम पीपरसात ज़िला मऊ और ग्राम तेतरिया ज़िला कुशीनगर में 'डीआरआर धान 50' से संतुष्ट किसानों के साथ



2000 thousand farmers from adapted villages of MGMP programme visited ICAR-NIPB pandal in the Pusa Krishi Vigyan Mela of IARI held on March 01-03, 2020.

News paper/Media coverage



Azmagar News: अनुसूचित जाति का परियोजना के अन्तर्गत कृषि गोधी का आयोजन...

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Azmagar News: जनपद में अच्छे कार्य करने वाले किसानों को मिला सम्मान पत्र...

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Circle अनुसूचित जाति पत्र परियोजना के अन्तर्गत कृषि गोधी का आयोजन

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वैज्ञानिक ढंग से खेती कर किसान तैं अधिक लाभ



भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

धान की नई प्रजाति के फायदे बताए

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

धान की नई प्रजातियों के बारे में दी जानकारी

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

खरीफ की खेती की नई तकनीक बताई

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

News paper/Media coverage

कृषि गोधी ने किसानों को बाँटे बीज

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

ANOO AGARWAL

40, 6' B BACK, KIDWAI NAGAR KANPUR
EXCLUSIVE SHOWROOM
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बाढ़-सूखा में भी कारगर होगी धान की नई प्रजाति

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

धान की नई प्रजातियों के बारे में दी जानकारी

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

किसानों को दी नवीन तकनीकों की जानकारी

भूमदा में किसान गोधी व परियोजना कार्यक्रम का शुभ आयोजन

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शुद्धजीविका

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