



# GURBACHAN SINGH FOUNDATION for Research, Education and Development

## GSFRED NEWS LETTER

Special Issue

Jan 2023 to Feb 2024



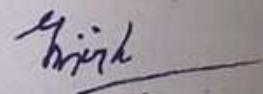
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## From Chairman's Desk

We celebrated our Fifth Foundation Day last year alongwith a Kisan Mela on March 11, 2023 with great pump and show. The Foundation Day Lecture was delivered by Dr. Gurdev Khush, World Food Laureate and chaired by Dr. R.S. Paroda, Former DG, ICAR and Secretary DARE, Govt. of India. The GSFRED new building was also inaugurated. A publication "Five years of GSFRED" was released by Drs Khush and Paroda. The first meeting of the Task Force constituted by the Govt. of Haryana under the chairmanship of Dr. Gurbachan Singh to prepare Kisan Kalyan Niti with Vision 2047 was also held at GSFRED. More than 300 people including farmers participated in the celebration. Seeds of new rice varieties PB 1847, PB 1885, PB 1886, PR 130, PR 131, PB 1692 etc were distributed to the farmers. To distribute the seeds of promising new varieties of wheat DBW 327, DBW 332, DBW 370, DBW 371, DBW 372, HI 1620, PBW 826, WH 1270 etc a Beej Divas was organized in September, 2023. About 400 persons including farmers, scientists and civil society members participated. A workshop, sponsored by Govt. of Haryana was organized to sensitize farmers about Integrated Farming System Model developed by GSFRED. To see the Agro-Eco-Tourism facility created at GSF Research Center more than 1000 people including school students, scientists, farmers and residents of Karnal and adjoining areas visited the centre. The notable visitors to the centre included Dr. T. Mohapatra, Former DG, ICAR and Secretary DARE; Dr. S.K. Choudhary, DDG (NRM), ICAR; Shri Bhupinder Singh, IAS, Chief Executive Officer, Haryana Kisan Kalyan Pradhikaran; Shri Amarjit Maan, Advisor, Agriculture and Farmers Welfare, Govt. of Haryana; Dr. M.L. Madan, Ex DDG (Animal Sciences), ICAR; Dr. P.C. Sharma, Director, CSSRI; Dr. Gyandera Singh, Director, IIWBR, Karnal; Dr. H.S. Jat, Director, IIMR, Ludhiana; Dr. R.K. Yadav, New Director, CSSRI, Karnal; Dr. M.L. Jat, CIMMYT. The long term experiments initiated in 2017-18 including integrated farming system; location specific evaluation of rice, wheat and other crops, climate smart agricultural practices, residue management, crop diversification, agroforestry, water saving and soil rejuvenation techniques etc. were continued during the year. The Chairman, GSFRED, as Chairman QRT visited ICAR – CAZRI, Jodhpur to review the institute work for the period 2018 to 2022; ICAR – IIWBR, Karnal to deliver the 10th Foundation Day Lecture; TAAS, New Delhi to participate in Board Meetings as Vice-chairman; Guru Kashi University, Talwandi Sabo to deliver the inauguration address as chief guest in the International conference; Desh Bhagat University, Mandi Gobindgarh to address farmers and students during an Innovative Farmers Enclave etc. Dr. Gurbachan Singh chaired the inauguration session and delivered the validatory address as chief guest during the International Salinity Conference held at ICAR-CSSRI, Karnal from February 14 to 16, 2024.

The present newsletter covers the activities of the Foundation undertaken after the Fifth Foundation Day Celebration and upto February, 2024. I believe and hope the information will be of interest to readers. We will look forward for your valuable comments and suggestions.

  
(Gurbachan Singh)





## 1. Research Highlights

### 1.1 Paddy Straw Management Strategy

Large scale burning of paddy straw is a serious environmental concern. Experiments were initiated in 2018 to make best use of straw through *in-situ* management to improve soil quality, saving water and to reduce cost of cultivation: These efforts were continued during 2023-24. The *in-situ* management technique developed at GSF Research Farm involves sowing of wheat on raised beds and placing harvested rice residue in furrows as mulch, resulted in saving of water by 20-30%, controlled Mandusi (*Phalaris minor*) and other weeds, conserved excess rain water *in-situ*, ensured minimum adverse impact on wheat due to submergence and lodging and better microclimate for soil microbes to flourish. Wheat planted on ridges gave almost same or even more yield than sown on flat surface and escapes



### 1.2 Integrated Farming System Model to Double Farmers Income

The farmers generally grow rice – wheat crops in a rotation and get income after 4 to 6 months. The small and marginal farmers which constitute about 85% of the total farmers lot in India have to depend upon commission agents to run their households. There is a need to shift from single crop/commodity agriculture to multi-enterprise agriculture

lodging. The following other conclusions were drawn from this technology.

- About 80% small and marginal farmers cultivate less than 5 acre land and may not require heavy straw management machinery. They also rear cattle. They can use paddy straw to meet their dry fodder requirement, decompose using FYM to make manure and also can use as mulch to save water and improve soil health.
- The GSFRED demonstrated this eco-friendly approach for last 4 years at their research centre to create awareness and capacity building of farmers.
- The state governments of Punjab and Haryana may consider giving incentives to the small and marginal farmers to promote this innovation.



to make multiple use of limited resources to ensure livelihood security to small and marginal farmers and to make them stand on their own feet. An integrated farming system has been developed at GSF Research Farm for 2 acre land holding. Various components integrated in the system included: crops, horticulture, dairy, fishery, poultry, goatery, biogas, forestry etc. The five years results indicated that income of small and marginal farmers can be more than







doubled, expenditure on cultivation can be reduced by 60 to 80% and agriculture can be made climate smart.

### 1.3 Evaluation of New High Yielding Varieties of Wheat and Rice

#### WHEAT

During rabi 2022-23, 7 promising wheat varieties viz; HI 1653, HI 1654, DBW 370, DBW 371, DBW 372, DBW 303 and PBW 826 were sown to evaluate their performance at GS farm. The varieties were sown during 2-17 November, 2022 and harvested during 3-8 April, 2023 in reclaimed sodic soil. Recommended agronomic practices were followed. The average grain yield of 7 wheat varieties is

#### Performance of wheat varieties at GS Farm during rabi 2022-23

Sr. No	Variety	Date of sowing	Date of harvesting	Processed seed yield (qt / ha)
1.	HI 1653	2.11.2022	4.4.2023	60.24
2.	HI 1654	2.11.2022	5.4.2023	62.05
3.	DBW 370	3.11.2022	7.4.2023	62.61
4.	DBW 303	4.11.2022	3.4.2023	58.00
5.	DBW 371	14.11.2022	8.4.2023	61.00
6.	DBW 372	17.11.2022	8.4.2023	60.89
7.	PBW 826	13.11.2022	7.4.2023	60.70



reported in table below. The newly released variety DBW 370 recorded the highest processed seed yield (62.61qt/ha) followed by Variety HI 1654 (62.05 q/ha).

#### RICE

During kharif 2023, 12 rice varieties viz; CSR 88, PR 114, PR 126, PR 130, PR 131, PB 1509, PB 1692, PB 1847, PB 1885, PB 1886, CSR 30 and CSR 90 were grown at GS farm to evaluate their performance. The varieties were transplanted on 22 July, 2023 and harvested in the 1<sup>st</sup> week of November, 2023 in reclaimed sodic soil.

Recommended agronomic practices were followed. The average processed seed yield of 12 rice varieties is

#### Performance of rice varieties at GS Farm during kharif 2023

Sr. No	Variety	Processed seed yield (qt / ha)
1.	CSR 88	60.54
2.	PR 114	64.70
3.	PR 126	75.58
4.	PR 130	62.96
5.	PR 131	75.75
6.	PB 1509	54.05
7.	PB 1692	60.60
8.	PB 1847	61.30
9.	PB 1885	45.00
10.	PB 1886	40.00
11.	CSR 30	25.74
12.	CSR 90	38.95

reported in table below. The maximum dried processed seed yield was given by PR 131 followed closely by PR 126. Amongst the basmati varieties highest yield was obtained from PB 1847 followed by PB 1692.

### 1.4 Management Strategy for Monsoon Triggered Flood Water Management along River Yamuna

- Dr. Gurbachan Singh accompanied by Dr. M.L. Madan, Former DDG (Animal Sciences), ICAR and convenor, NAAS Chapter, scientists from ICAR-CSSRI, Karnal and ICAR-IWBR, Karnal paid a visit to the flood affected area along







River Yamuna on September 4, 2023. The team has an opportunity to interact with farmers at the site, see losses to the crops and extent of sand deposited in farmers fields. Based upon observations and feed back of farmers following suggestions were made:

- The Yamuna flood water entered in the adjoining area and 5 to 7 feet water remained in the farmers fields for 8 to 10 days. The submerged crops mainly planted at lower elevation like rice, maize, late planted sugarcane, vegetables and pulses etc were completely damaged. However, crops planted in fields at higher elevation survived the floods furry.
- The Yamuna River encroached into the farmers fields by washing out its naked banks (no vegetation) and deposited 2- 4 feet sand/silt in the farmers fields. The farmers will be unable to take their Rabi crop unless this sand is removed and land is properly leveled.
- There is acute shortage of green fodder in flood affected area. The farmers are harvesting tops of sugarcane which is dried up due to prolonged submergence and feeding to
- The need of the hour is to manage lifting of deposited sand/ silt so that farmers can take successful Rabi crop
- There is still about 2 months when the main Rabi season will start. Farmers may take some catch crops like Toria, coriander, vegetables like Palak and Sarson for Saag, radish, early varieties of gobhi etc.

their animals and supplying to Gaushalas.

- The banks of the river where soil binding trees, grasses and other vegetation was existing, resisted entry of flood water into the adjacent farmers fields. We attach some photographs to make this point clear. There is strong need of strengthening of all rivers banks and planting of soil binding vegetation on their dykes for permanent stabilization to nagate/moderate flood water entry into farmers fields in the future.
- Now very clean water is flowing in the Yamuna river. The farmers shared that industries will start releasing their untreated effluents into the river soon and the present flowing clean water will get polluted, colour changed from sky blue to dark black with foul smell all around.
- The visiting team decided to analyse quality of the sand/silt deposited in the farmers fields. Based upon profile sampling and analysis of chemical, physical and biological properties further suggestions will be given to the farmers.

### 1.5 Diversification Options for Rice – Wheat Cropping System

There is strong need to diversify from water guzzling rice crop to save ground water and to check pollution associated with rice residue burning. The promising crops to replace rice tested at GSF Research Farm included maize, soybean, green







gram and urd. Similarly, some area from wheat in Rabi season need substitution with low input and less water requiring crops. Viable candidate crops tested at the research farm included mustard, gram and barley. Every year demonstrations of these crops are established to make awareness of the farmers about promising candidate crops which can replace some area from rice and wheat. However, assured purchase of these crops at guaranteed MSP will be required to make this diversification happen.

Alternate Kharif crops: Maize, Soybean, Urd, Green Gram.

Alternate Rabi crops: Mustard, Gram and Barley.

### 1.6 Farmers Participatory Seed Production

The total effective cropped area of GSF Research Farm is about 5.5 acre. This area is not sufficient to meet seed requirement of farmers. Looking to increased demand of seed by the farmers, participatory seed production program was started during 2023.

### 1.7 Resodification: A Concern for Future Food Security

After the establishment of ICAR – CSSRI, Karnal in 1969, about two million ha salt-affected soils, mainly sodic lands have been reclaimed which are adding about 20 million tons of additional food grains in the total food production in the country. However, in the recent past some soil profiles were dug at GSF Research Center to track movement of salts within the profile to take preventive measures to avoid resodification in reclaimed alkali soils. The profiles were dug out 180 cm depth to analyze soil properties. The profiles were characterized with the help of scientists from CSSRI, Karnal.



For the examination of physico-chemical properties, soil samples were taken at an interval of 15cm from the surface upto 180cm depth. There was a gradual increase in pH of the soil with depth. Beyond 45cm depth, the pHs of the soil is quite high and not suitable for growing salt sensitive crops. The electrical conductivity is well within the normal range (<4.0dS/m) for growing most crops and representing non-saline character. Except the top 45cm soil layer, the organic carbon content is very low throughout the profile. Calcium carbonate content in the form of granules is present throughout the profile indicating the character of caliche bed between 90 to 130cm depth.

Visual observations indicated very low water infiltration rate and deflocculated muddy water condition after rain or irrigation where surface soil was removed and lower layer soil was spread along the dikes of a pond dug out for rearing fishes. The soil analysis clearly represents the characteristics of a surface reclaimed alkali soil with application of gypsum. A strong need was felt to reclaim the sub surface layers through the placement of amendments like gypsum, FYM and crop residue to avoid resodification.

Studies are in progress at farm in this direction. The problem was given to a Ph.D student to test the efficacy of cut soiler technique developed by the Japanese scientists under a collaborative programme of CCSHAU-ICAR-CSSRI and GSFRED. The concern of re-sodification of reclaimed alkali soils was discussed with Dr. R.S. Paroda and Dr. Gurdev Khush during their visit to GSFRED in 2023.



## 2. Celebrations

### 2.1 Fifth Foundation Day and Kisan Mela

The 5th Foundation Day of GSFRED along with a Kisan Mela was organized at GSF Research Centre on March 11, 2023. The salient highlights of the Foundation Day and Kisan Mela are as under:

- Foundation Day Lecture was delivered by Dr. Gurdev Khush, World Renowned Rice Breeder, Fellow of Royal Society, London and World Food Laureate.
- The session was chaired by Dr. R. S. Paroda, Former Director

General, ICAR and Secretary, DARE, Govt. of India.

- The new building of GSFRED was inaugurated in the presence of Dr. Khush, Dr. Paroda, Sant Kashmir Singh Ji, Gurudwara Nankar, Sec-6, Karnal and Baba Jaswinder Singh Ji, Nirmal Kutya, Jarifa.
- GSFRED publication entitled "Five Years of GSFRED: Activities and Achievements" was released by Dr. Khush, Dr. Paroda, Dr. P.C. Sharma, Director, CSSRI, Karnal; Dr. Gyanendra





Singh, Director, Indian Institute of Wheat and Barley Research, Karnal and Dr. M. L. Madan, Former DDG, ICAR.

- The seed of new rice varieties PB-1847, PB-1885, PB-1886, PR-130 and PR-131 was given to the farmers.
- Farm Fresh Naturally produced almost organic food items produced at the research station such as Basmati rice (PB-1718, PB-1121 and CSR-30), Jaggery (Gur), Jaggery (Shakar), Turmeric Seed and Powder, Moong, Soybean, Wheat and Maize Flour, Gulkand etc. were showcased to create awareness about safe food.
- The scientists, farmers and other stakeholders were exposed to the experiments and demonstrations of new varieties of wheat (DBW-370, DBW-371, DBW-372, PBW-826, HI-1653, HI-1654 and DBW-303), crop diversification options, integrated farming system model for doubling farmers income, water saving and soil rejuvenation

agro-techniques, crop residue management strategies to stop burning, climate smart agricultural practices, quality saplings of fruits, aromatic and medicinal plants and agroforestry systems etc.

- More than four hundred people participated in the Foundation Day Celebration and Kisan Mela including one Padma Bhushan and three Padma Shri Award scientists and farmers.

### 2.2 Kisan Mela and Beej Diwas

During September, 2023 a Kisan Mela and Beej Diwas was organized. More than 300 farmers, scientists and civil society members participated. Farmers had the opportunity to purchase high quality seed of new wheat varieties such as PBW 327, PBW 332, PBW 370, PBW 371, PBW 372, WH 1270, PBW 826, HI 1620 etc.



### 2.3 Workshop on Integrated Farming System

Kisan Kalyan Pradhikaran, Govt. of Haryana, organized a one day workshop at GSF Research, Education and Development Centre, Karnal on December 22, 2023 to educate farmers and

create awareness about adoption of Integrated Farming System to double their income. About 100 farmers participated in this workshop and also had the opportunity to see the successful integrated farming system model developed







at GSFRED research farm. The farmers were addressed by. Shri Bhupinder Singh, IAS, Chief Executive Officer, Farmers Welfare Authority, Govt. of Haryana; Shri Amarjit Singh Maan, Advisor, Agriculture and Farmers Welfare, Govt. of Haryana; Dr. Gurbachan Singh, Chairman, GSFRED; Dr. Samar Singh, Ex Vice-Chancellor, Maharana Pratap University of Horticulture and Technology and Dr. R.K. Yadav, Director, CSSRI, Karnal. The notable progressive farmers and their

representatives who participated in the workshop included Sardar Harpreet Singh, President, Kisan Club, Karnal; Shri Vijay Kapoor, Secretary, Kisan Club; Shri Satija ji, Dr. Malik, Chairman, Farmers Producer Organisation; Dr. S.P. Tomar, Vice Chairman, Horticulture FPO; Shri Bhagwan Singh, Shri Gurkirat Singh etc. The experts answered the questions raised by the farmers. Dr. Randhir Singh, Chief Technical Officer, GSFRED presented a vote of thanks.

### 3. Visitors

#### 3.1 Scientists from USA and UK

Scientists from USA and UK accompanied by Dr. S. K. Dubey at GSF Research, Education and Development Centre, Karnal on January 5, 2023



Integrated Farming System Model for doubling farmers income, crop diversification options for rice-wheat system, model for saving water and rejuvenating soil under rice-wheat system, agro-techniques for *in-situ* management of rice residue, climate smart agricultural practices, demonstration of new wheat varieties and elite germplasm of horticultural plants and fruit trees based agroforestry systems.

#### 3.2 Dr. Trilochan Mohapatra, Former DG, ICAR and Dr. S.K. Choudhary, DDG (NRM)

Dr. Trilochan Mohapatra, Former Director General, ICAR and Secretary, DARE along with Dr. S. K. Choudhary, DDG, NRM, ICAR at GSF Research Centre in the evening of March 1, 2023



#### 3.4 Directors of ICAR Institutes

Dr. R.K. Yadav, Newly Appointed Director, ICAR-CSSRI, Karnal with Dr. Gurbachan Singh at GSF Research, Education and Development Centre, Karnal on March 15, 2023.



#### 3.3 Former DG (Agriculture and Farmers Welfare), Govt. of Haryana

Dr. Hardip Singh, DG, HAMETI visited GSF Research Centre on February 9, 2023. Dr. Gurbachan Singh, Founder Chairman showed various research, education and development activities to the visiting dignitary such as

The newly appointed Director of Indian Institute of Maize Research, Ludhiana Dr. H. S. Jat and Dr. P. C. Sharma, Director, CSSRI, Karnal with Dr. Gurbachan Singh at the Centre on February 14, 2023.





Dr. Gurbachan Singh with Dr. R.S. Paroda, Former Secretary DARE and Director General, ICAR; Dr Gurdev Khush, World Food Prize laureate and Dr Gyandera Singh, Director, Indian Institute of Wheat and Barley Research, Karnal at Research Centre in March, 2023. The eminent visiting scientists saw the performance of new high yielding pest resistant climate smart varieties of wheat developed by NARS and planted at GSF Farm.



### 3.5 School and College Students

About 400 KG students of Adarsh School, Karnal visited Agro-Eco Tourism at the Centre on 8th and 10th

January, 2023.



Students of a Government School, Pundrik at the Research Centre, Karnal



Dr Gurbachan Singh with students of Khalsa College, Karnal at the Research Farm on 18 February, 2024



## 4. Chairman Visits

### 4.1 TAAS, New Delhi

Dr. Gurbachan Singh, Vice Chairman, Trust for Advancement of Agricultural Sciences. (TAAS a think tank for agricultural research, education, development and policy) was with eminent scientists at NASC, New Delhi on August 19, 2023. Dr. R.S. Paroda (Padma Bhushan Awardee), Former Director General, ICAR and Secretary DARE is the Chairman of TAAS. The other eminent experts on the Board of Trustees of TAAS included: Dr. Himanshu Pathak, DG, ICAR and Secretary, DARE; Dr. A.K. Singh, Director, IARI; Madam Rita Sharma, Former Secretary, Rural Development, Govt. of India; Shri Raju Barwale, Chairman, Mayco; Dr. A.K. Srivastava, Vice Chancellor,

DUVASV, Mathura; Dr. Bhag Mal, Former South Asia Coordinator, Bioversity International and Dr. J.L. Karihaloo, Former Director, NBPGR, New Delhi.

Dr. Gurbachan Singh participated in 63rd Meeting of Board of Trustees and in an award function instituted by TAAS in honour of Dr. M.S. Swaminathan, a doyen of Indian Agriculture. The first recipient of this award was Nobel Laureate Dr. Norman E. Borlaug who received it from Former President, Dr. APJ Abdul Kalam. The second recipient was World Food Prize Laureate Dr. Gurdev Khush, presented by Former Prime Minister of India, Dr. Manmohan Singh. This prestigious award is presented annually to an eminent







agricultural expert whose contributions towards creating greater food security and poverty elevation have made an impact on farmers and national agriculture.

Dr Surinder (Suri) Sehgal, a visionary institution builder, agricultural entrepreneur, and founder of SM Sehgal Foundation (India) and Sehgal Foundation (USA) has been given the prestigious Dr. M.S. Swaminathan award for leadership in agriculture for 2022. The award was presented by eminent maize breeder, World Food Prize Laureate, and recipient of this award, Dr. S.K. Vasal. Galaxy of eminent experts (amongst more than 100 participants) who attended the function included: Dr. Soumya Swaminathan, Chairperson MSSRF; Dr. R.B. Singh, Former Chairman, ASRB; Dr. C.D. Mayee, Former Chairman, ASRB; Dr. Deepak Pentel , Former VC, Delhi University; Dr. H.S. Gupta, Former DG, BISA; Mr. Raju Barwale, Chairman, Mayco; Dr. T. Mohapatra, Chairman, PPVFR Authority; Dr. Anjali Makhija, CEO, SM Sehgal Foundation; Dr.S.K. Chaudhary, DDG (NRM), ICAR; Dr. J.K. Jena, DDG (Fisheries), ICAR; Dr. A.K. Singh VC, Central University, Jhansi; Dr. K.M.L Pathak, Former DDG (Animal Sciences ), ICAR; Dr. V. Sadamate, Former Advisor, Planning Commission; Dr. Kaul, Former DDG (Horticulture), ICAR, and others.

**4.2 ICAR – IIWBR, Karnal**

Delivered 10th Foundation Day Address as chief guest at ICAR-Indian Institute of Wheat and Barley Research, Karnal on 9th February, 2024.



Dr. Gurbachan Singh, Former Chairman, ASRB and Union Agriculture Commissioner with Dr. R. S. Paroda, Former DG, ICAR and Secretary, DARE; Dr. Narhari Banger, Director General; Ministry of Agriculture and Farmers Welfare, Haryana; Dr. Hardip Singh Kadian, DG, HAMETI, Govt. of Haryana; Shri Ram Kumar Kashyap, MLA, Indri; Dr. M. L. Madan, Former VC, DUVASU; Dr. Gyanendra Singh, Director, IIWBR; Dr. Dheer Singh, Director, NDRI, Karnal and Dr.



Aditya Dabas, Deputy Director Agriculture, Karnal during foundation day celebration of IIWBR on February 9, 2023.

**4.3 Guru Kashi University, Talwandi Sabo**

Visited Guru Kashi University, Talwandi Sabo, Bathinda to present an inaugural address as chief guest in an international conference organized by the University.



**4.4 Desh Bhagat University, Mandi Gobindgarh**

Visited Desh Bhagat University, Mandi Gobindgarh to deliver a key note address in Progressive Farmers Enclave organized by the University.



**4.5 ICAR – CSSRI Karnal**

Visited ICAR – CSSRI, Karnal to chair the inaugural session and to deliver the valedictory address as chief guest in the International Soil Salinity Conference held at CSSRI, Karnal from February 14-16, 2024.





## 5. Facilities Created

### 5.1 New Building Inaugurated,

The new building of GSFRED was inaugurated by Dr. R.S Paroda, Dr. Gurdev Khush, Saint Kashmir Singh ji and Baba Jaswinder Singh on March 11, 2023.



### 5.2 Seed Processing Plant

Seed processing facility is established at the

Research Center, Karnal. All crop varieties are grown at farm and also in adjacent farmers fields as farmer participatory seed production programme. This year, genetically pure, vigorous seed of new high yielding varieties of wheat such as DBW 327, DBW 332, DBW 370, DBW 371, DBW 372, DBW 303 developed by ICAR IIWBR; WH 1270 of HAU, HISAR; HI 1620, HI 1653, HI 1654 of IARI (PUSA) and PBW 826 of PAU was processed for distribution to farmers.



## 6. Awards and Honours

### 6.1 Award of Honour by TAAS

With Dr. R.S. Paroda, Chairman and Trustees Drs. Himanshu Pathak, DG ICAR and Secretary, DARE; A.K. Singh, Director, IARI, New Delhi, A.K. Srivastava, Raju Barwale, Bhag Mal and Karihaloo of TAAS during 64th Board Meeting on 30th November, 2023 at TAAS office, IARI, New Delhi. The Board of Trustees felicitated GSFRED Chairman for his almost 10 years association with TAAS as its Trustee and Vice Chairman.



### 6.2 Baba Jassa Singh Ramgarhia International Award

Citation read during the award ceremony

Today, the country's famous agricultural scientist and former Agriculture Commissioner of India, Dr. Gurbachan Singh ji was conferred with "Baba Jassa Singh Ramgarhia" International Award. He received this honour from Padma Shri Jagjit Singh Dardi, Baba Sukha Singh, Kar Seva and Jathedar Bhupinder Singh, Senior Vice President of Gurdwara Management Committee. It is noteworthy that this country is self-sufficient in pulses because of Dr. Gurbachan Singh's selfless service to the nation. Dr. Gurbachan Singh, a self-reliant agricultural scientist, did many works in the interest of farmers by holding various posts in the Ministry of Agriculture, Govt. of India. Even after retirement, he continues his scientific research to increase the income of farmers and payback to the society.







### 7. Obituary



Sardar Hardyal Singh Brar (1930 to 2023)

Dr. Hardyal Singh Brar, Father in law of chairman, GSFRED and former professor plant breeding and seed specialist left for his heavenly abode on 25th, November, 2023. Dr. Brar was born in 1930 in Samalsar village of Faridkot district in a farming family. After completing his school education from village, he did his B.Sc (Agriculture) from Khalsa College, Amritsar and M.Sc (Plant Breeding) at PAU, Ludhiana. Throughout his professional career, Brar Sahib served the PAU with utmost dedication and developed seed system of the university starting from 1960's. He had the opportunity to work in close association of top scientists of the university including Drs D.S. Athwal, M.S. Randhawa, Khem Singh Gill, A.S. Khehra and A.S. Cheema. Dr. Brar Sahib received three advanced increments for his outstanding work in the field of seed research and development, a rare of honour for a university professor.

Brar Sahib served as Director at the seed farms of the university at Naraingarh, Ladhawal and Ropar. The state Farms Corporation of India selected him as Director of one of the biggest seed farms in the country (Central Seed Farm, Suratgarh). Because of his so much attachment with PAU and Punjab Farmers, he declined this offer. Brar Sahib also served as President of Governing Council of Adarsh School, Karnal for nearly 35 years. Under his visionary guidance, the school rose gradually and now considered one of the best institution in Karnal region.

Dr. Hardyal Singh Brar retired in 1990 and started a firm "Brar Seeds to" serve the farmers of Punjab with quality seeds. The Brar Seeds is now one of the leading companies in north India for production and distribution of good quality seeds.

Brar Sahib lived a saintly life. He helped everyone who approached him for moral, physical and financial support. Throughout his life, her maintained a close connection with his village people and helped the less privileged by providing financial support. Dr. Brar also took keen interest in development of the village school. His friends, colleagues and subordinates always considered him as role model personality.

Brar Sahib is no more with us. However, he will always be remembered for his unparalleled contribution to PAU, Punjab Farmers, honesty, loyalty, integrity and dignity.

### 8. GSFRED in Press and Media



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