**April to June 2022** Issue:02 Vol:01

#### **Editorial Board**

- 1. Dr. Arvind Nath Singh
- 2. Dr. Sripathy K.V.
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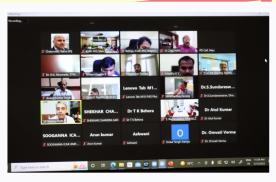


Dr. Sanjay Kumar Director, ICAR-IISS, Mau

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25<sup>th</sup> Annual Breeder Seed Review Meeting and 37<sup>th</sup> AGM of AICRP on Seed (Crops) held on 13th May, 2022 through Virtual mode at ICAR-IISS, Mau

The 25<sup>th</sup> Annual Breeder Seed Review Meeting, 2022 was organized by ICAR-IISS, Mau along with the 37<sup>th</sup> Annual Group Meeting of AICRP on Seed (Crops) through video-conferencing during 12<sup>th</sup> to 13<sup>th</sup> May, 2022. The meeting was chaired by Sh. Ashwini Kumar, Joint Secretary (Seeds), DAC&FW, GoI, and Co-Chaired by Dr. D.K. Yadava, Assistant Director General (Seed), ICAR and Dr. Sanjay Kumar, Director, ICAR-IISS, Mau convened the meeting. The ABSRM, 2022 was attended by Directors/PDs/PCs of Crop Science Division-ICAR, Nodal Officers of quality seed production centres and officials from ICAR headquarters, DAC & FW, National Seeds Corporation, State Seed Corporations, State Seed Certification Agencies and National Seed Association of India. *In toto*, 210 delegates attended the virtual meeting. Dr. D.K. Yadava, ADG (Seed), ICAR, New Delhi in his opening remarks, emphasized the importance of AICRP on Seed (Crops) as the largest AICRP network in the country making significant contributions in ensuring seed and nutritional security. He highlighted that, ICAR along with SAUs shouldered the

responsibility of producing breeder seed of improved varieties and on an average, each year 25 % higher breeder seeds are being produced over the indent's. However, the varietal mis-matches do exist which is a matter of concern. He highlighted the initiatives taken jointly by ICAR and DAC&FW in reducing varietal mis-matches in breeder seed production and efforts to continue in order to bring it down below a mark of 5.0 % in a span of next two years. Dr. Sanjay Kumar, Director, ICAR-IISS, Mau presented Action Taken Report on recommendations of 24<sup>th</sup> Annual Breeder Seed Review Meeting held on 21<sup>st</sup> April, 2021, followed by presentation on status of breeder seed production during Rabi 2020-21 & Kharif 2021 and review of shortfalls in breeder seed production during Rabi 2020-21 & Kharif 2021. He also elucidated the 'challenges' faced by the seed sector including climate change, varietal mismatches, low SRR in few crops or states, non-lifting of breeder seeds, poor indenting from private sector, less efficient downstream multiplication of BS/FS/CS and maintenance breeding. The Chairman of the ABSRM, 2022 Sh. Ashwini Kumar, Joint Secretary (Seeds), DAC&FW, GOI in his remarks lauded the efforts of ICAR in varietal development. Further he emphasized on the need to identify new/ alternative areas for breeder seed production to abate the problem of shortfalls, especially in crops such as soybean and groundnut.



## **Breeder Seed Production**

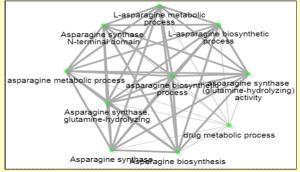
Centre	Crop	Production (q)	
	Chickpea	574.55	
AU, Kota	Field Pea	94.45	
AU, Kota	Lentil	134.44	
	Linseed	30.20	
SDAU, S.K. Nagar,	Field Pea	24.40	
Gujarat	Mustard	0.30	
	Wheat	2615.62	
	Gram	754.25	
SKRAU, Bikaner	Lucerne	0.23	
	Mustard	2.20	
	Chickpea	110.60	
	Field Pea	21.80	
	Lathyrus	66.35	
ICVV Doinve	Lentil	2.95	
IGKV, Raipur	Linseed	33.55	
	Mustard	5.00	
	Safflower	18.05	
	Wheat	666.40	
	Black gram	1.50	
NIATI NI	Castor	7.64	
NAU, Navsari	Green gram	5.50	
	Sorghum	9.31	
	Castor	0.15	
	Fodder crops	8.00	
	Maize	34.00	
DITCALL Hyderehod	Paddy	1943.87	
PJTSAU, Hyderabad	Pulses	101.02	
	Safflower	10.30	
	Sesame	2.56	
	Sorghum	27.40	

## **Research Highlights**

#### NRRI, Cuttack

#### Meta QTL identification for grain weight

• Using QTL meta-analysis technique, NRRI, Cuttack have identified 39 QTLs linked to grain



Network display of five grain related genes underlying identified MQTL involved in asparagine biosynthesis and metabolism pathways having significant role in regulating source to sink relation in rice.

## **Quality Seed Production**

Centre	Crop	Production (q)
	Chickpea	39.75
NAU, Navsari	Green gram	18.30
	Rice	30.27
	Sorghum	32.40
	Bengalgram	168.00
	Blackgram	169.87
	Greengram	457.31
DITCALL Hadanahad	Groundnut	30.00
PJTSAU, Hyderabad	Paddy	7230.65
	Redgram	270.47
	Safflower	100.00
	Soybean	151.70
	Cotton	5.46
	Forage crops	21.03
	Greenmanure	9.05
TNIALL Colombatana	Millets	70.69
TNAU, Coimbatore	Oilseeds	343.41
	Paddy	900.59
	Pulses	463.81
	Vegetable crops	47.89
	Finger millet	0.70
IGAD MEM D M	Groundnut	400.00
	Jowar	0.20
ICAR-NEH Region, Manipur	Maize	1.87
	Rice	23.80
	Soybean	2.25

weight that were spread over 12 chromosomes of rice. Out of 39 QTLs, only one QTL 3.1 that include OsAPX1, PDIL, SAUR, and OsASN1 genes were significantly involved in grain development which play a key role in asparagine biosynthesis and metabolism for source-sink regulation.

## PJTSAU, Hyderabad

# Effect of pre storage seed treatment on seedborne infections in soybean

• Three pre- harvest sprays with Pyraclostrobin + Metiram (Cabriotop) @ 2 g/l followed by pre- storage seed treatment with Carboxin + Thiram (Vitavax power) @ 3g/kg in soybean was found effective in maintaining germination at 72% (above IMSCS) with absolutely nil seed borne infections after 12 months of storage as against that in untreated and unsprayed treatment where 6.25% germination and 45% seed infection were recorded for the same storage period.



#### **BSKKV**, Dapoli

To reaffirm the validity periods of certified seeds of field crops [Sunflower] (as per the IMSCS regulations)

• After ten-months of storage in sunflower varieties, KBSH -41 stored in HDPE bag (79.50) maintained germination above IMSCS (70%) but KBSH53 stored in HDPE bag (65.75%) did not maintained the requisite percentage of germination, while the seeds stored in gunny bags the germination percentage declined to 51.50% for KBSH-53 and to 62.50% for KBSH-41.

Influence of terminal heat stress on seed set, seed yield and quality in field crops [Demonstration of most efficient treatment validated for mitigation of heat stress in paddy).

• The most efficient treatment foliar spray of salicylic acid @ 400 ppm was found superior over state recommended dose of fertilizer (control) and recorded yield 61.92 kg/plot and 43.0 q/ha over recommended dose of fertilizer (control) 58.90 kg/plot and 40.90 q/ha.

#### SCSP/TSP/NEH

#### **SCSP**

• 2.26 quintals of green gram seeds, 163.07 quintals of paddy seeds and 791 pieces of *Kudal* were distributed among 4,279 farmers from ICAR-IISS, Mau.



Seed distribution under SCSP at ICAR-IISS, Mau

• 10.70 quintals of rice and 0.20 quintals of millet seeds

were distributed to 31 farmers from ICAR-NEH Region, Manipur.

- 20 Nos. of Battery-operated sprayers were distributed from PAJANCOA & RI, Karaikal.
- Quality seeds of Pusa Basmati-1637 (375 Kg) and Pusa Basmati-1121 (125 Kg) were distributed among the scheduled caste farmers of Meerut, Hapur and Ghaziabad district of Uttar Pradesh by SVPUA&T, Meerut.
- Training and awareness programme on Basmati Rice production was organized on 7 and 9 June, 2022 for 100 farm women and rural youth by SVPUA&T, Meerut.

#### **TSP**

- About 60 farmers were benefitted from front line demonstrations conducted in the villages of Singhimari, Pashim Barachowki, Kathalbari and Mathura of West Bengal.
- About 75 farmers were benefitted from training programme organized in Kathalbari village of West Bengal.
- Quality seeds of Paddy and Kutki were distributed to 85 farmers in Kusmur village of Chhattisgarh.
- 160 small farm toolkits were distributed by CSKHPKV, Palampur to the tribal farmers of Bharmour, Chamba district on 06.05.2022.
- IGKV, Raipur distributed 9.00 q Paddy Breeder Seed and 2.10 q of Kulthi Breeder Seed to 60 tribal farmers.
- PAJANCOA & RI, Karaikal distributed farm inputs to 100 tribal farmers in 5 Tribal Villages viz., Aruvangadu, Melathukudi, Keezhathukudi, Maniarpalayam and Eachengadu of Kalrayan Hills Block of Kallakuruchi Dist. (TN) on 30.04.2022.
- Four training programmes on 'Seed production techniques in millets and pulses' were conducted during the first fortnight of June, 2022 by TNAU, Coimbatore benefitting 260 tribal farmers of Theni, Virudhunagar, Tirupathur and Namakkal districts.



- Two training programmes entitled "Poverty alleviation through quality seed production of wheat & beans" were conducted for 200 beneficiaries covering the Chamkoot and Teetwal villages under Kupwara district by SKUAST, Srinagar on 04.07,2022.
- Four FLDs were conducted covering Chamkoot and Teetwal under Kupwara district by SKUAST, Srinagar benefitting 250 farmers.

#### **NEH**

- 39 quintals of CAU-R1, 7.5 quintals CAU-R3 and 24 quintals of RCM-13 (paddy seeds) were distributed to 155, 30 and 87 farmers respectively.
- About 266 farmers were benefitted from front line demonstrations conducted in the villages of Haraorou, Maibam, Loitangkhunou, Konsakhul, Monlom Sinakeithei, Ningombam of Manipur in which quality seeds of paddy var. CAU-R1, CAU-R2 & RCM-13 were distributed.
- About 105 farmers were benefitted from one day training programme on 'Rice cultivation and inputs distribution' organized in Haraorou village of Manipur.
- About 88 farmers were benefitted from one day training programme on 'Rice cultivation and inputs distribution' organized in Maibam village of Manipur.
- About 30 farmers were benefitted from one day training programme on 'Cultivation of rice and crop production' organized in Luangkao village of Manipur.
- 223 farmers were benefitted from the training programme conducted by CAU, Imphal on the topic 'Rice cultivation and inputs distribution' at Imphal East, Bishnupur, Tamenglong districts on 7th, 8th and 29th June, 2022 respectively.

### **Publications**

#### **Research Papers**

• Adhithya G., Siddaraju R., Parashivmurthy, Manja Naik C. (2022). Effect of solarization against bruchids and on seed quality in green gram during storage. *The* 

- Pharma Innovation Journal, 11(1):640-644. (UAS, Bengaluru).
- Aravind K., Rajeswari B., Kiran Babu T., Pushpavalli S.N.C.V.L. (2022). Pathogenic and molecular variability of *Magnoporthe oryzae* isolates collected from major rice growing locations of Telangana State, India. *Indian Phytopathology*, https://doi.org/10.1007/s42360-022-00496-7. (PJTSAU, Hyderabad).
- Bharath Kumar T.K., Venkataravana P., Ramanappa T.M., Priyadarshini S.K., Mohan Kumar N.V. (2022). Breeding potential of connected crosses involving tmv-2 as a common patent in groundnut (*Arachis hypogaea* L.). *The Pharma Innovation*, 11(5):2035-2039. (UAS, Bengaluru).
- G Padmaja G., Tabassum Fatima, Jagan Mohan Rao P., Sandhya Kishore N., Pallavi C.H., Veeranna D., Madhu M. (2022). Influence of abiotic factors and dates of sowing on sterility mosaic disease of Pigeon pea incited by *Aceriacajani*, *The Pharma Innovation* 11(6): 1870-1874 (PJTSAU, Hyderabad).
- G.P. Chinnasamy, S. Sundareswaran, P.R. Renganayaki, C. Vanitha, S. Srinivasan (2022). Standardization of radicle emergence test to predict seed vigour and field emergence in blackgram (*Vigna mungo* (L.) Hepper). Legume Research, https://doi.org/10.18805/lr-4899. (TNAU, Coimbatore).
- Jyothi B.L., Sumalata B., Manja Naik C., Siddaraju R. (2022). Study on the efficacy of botanicals on seed quality of cowpea during storage under ambient condition. *Mysore Journal of Agricultural Sciences*, 56(2): 166-173. (UAS, Bengaluru).
- Kiran Dasanal, Siddaraju R., Madagouda Y.B., Mahesh Biradar (2022). Effect of solarization against bruchid infestation and seed germination in cowpea (*Vigna unguiculata* (L.) Walp.) cv. IT38956-1 during storage. *The Pharma Innovation*, 11(1): 48-51. (UAS, Bengaluru).
- Kishore N.S., Rao P.J.M., Saritha A., Neelima G., Sandeep S., Madhukar Rao P., Sridhar Chauhan, Lingaiaha N. (2022). Phenotypic stability in elite Pigeon pea (*Cajanuacajan* (L) Mill) genotypes using



Biplot Model. *Bangladesh Journal of Botany*. 51(2):371-380. (PJTSAU, Hyderabad).

- Kumar R., Kumar S., Jakhar S.S. (2022). Response of micronutrients to seed quality in *Coriandrum sativum* L. *Indian Journal of Ecology*, 49(2):399-404. (CCS HAU, Hisar).
- Manja Naik C., Doddabasappa B., Mallika M. (2022). Efficacy of seed treatment and foliar application of insecticides against soybean stem fly (Melanogromyzasofae.). Indian Journal of Entomology, DoI No. 10.55446/IJE.2022.526. (UAS, Bengaluru).
- Nayak A.K., C. Anil Kumar, Behera S., Sah R.P., Gera R.L., Kumar A., Behera L., Azharudheen T.P.M. (2022). Genetic dissection of grain size traits through GWAS using genic markers in rice. *Rice Science*, 29(5):3. (NRRI, Cuttack).
- Patel V.K., Gilhare L.K., Jaiswal R.K., Singh S.K. (2022). Effect of different organic nutrient management on yield and yield attributes of different aromatic rice varieties. *The Pharma Innovation Journal*, 11(4): 1520-1523. (IGKV, Raipur).
- Patel V.K., Gilhare L.K., Jaiswal R.K. (2022). Effect of different organic nutrient management on qualitative characters of different aromatic rice varieties. *The Pharma Innovation Journal*, 11(4): 1524-1526. (IGKV, Raipur).
- Patel V.K., Gilhare L.K., Jaiswal R.K. (2022). Interaction effect of organic nutrient management and different aromatic rice varieties on soil properties and available nitrogen, phosphorus and potash in soil. *The Pharma Innovation Journal*, 11(4): 1530-1533. (IGKV, Raipur).
- Satya Sri, Nethra N., Nagarajappa, Vasudevan S.N. (2022). Is seed coat structure at fault for altered permeability and imbibition injury in artificially aged soybean seeds? *Crop Science*, 62:1-12. (UAS, Bengaluru).
- Sridhar V., Jagan Mohan Rao P., Saikiran V., Sandhya Kishore N., Sandeep S., Neelima G., Saritha A., Rajanikanth E. (2022). Adaptability and stability of

- elite greengram (*Vigna radiata* L. Wilczek) genotypes for high seed yield. *The Pharma Innovation* 11(6): 1363-1366. (PJTSAU, Hyderabad).
- Yadav R., Panghal V.P.S., Duhan D.S., Bhuker A. (2022). Investigation of nitrogen effects on growth and yield of two potato cultivars in northern plains of India. *Potato Research*. Https://doi.org/ 10.1007/s11540-022-09551-2. (CCS HAU, Hisar).
- Yaseen A., M. Habib, M.A. Bhat, A.M.I. Qureshi, F. Wani, A. Hamid, G. Ali, Z.A. Dar. (2022). Physiological changes associated with hydropriming in maize hybrids. *Journal of Ecofriendly Agriculture*, 17(2): 285-89. (SKUAST, Srinagar).

#### Book

 Seed production technologies for important agricultural crops in NEH Region of India by Th. Robindro Singh, Pramesh Kh., S. Basanta Singh. (CAU, Imphal).

#### **Popular Articles**

- Bhuker A. and Surbhi (2022). Digitalization in seed industry- crucial necessity. *Just Agriculture E-Magazine*. E-ISSN:2582-8223: 2 (9):6-9. (CCS HAU, Hisar).
- Jagan Mohan Rao P., Swarnalatha V., Parimala K., Pallavi M., Prabhavathi K. (2022). Rythu seva lo vyavasaya vishwavidualayam- Seed Mela 2022. Vyavasayam, May-2022: 26-28. (PJTSAU, Hyderabad).
- Rajeswari B., Madhavi M., Padmasri A., Jagan Mohan Rao P. (2022). Vittana shuddi avasyakata *Eruvaka*, June-2022: 58-60. (PJTSAU, Hyderabad).
- Rajeswari B., Padmasri A., Jagan Mohan Rao P. (2022). Rabi panatalalo asinche chida pidala yajamanyam. Eruvaka, May- 2022: 52 -54. (PJTSAU, Hyderabad).
- Shailaja K., Rajeswari B., Reddy K.P.C., Sharma S.H.K., Jayasree J. (2022). Vari narumadi lo poshaka yajamanyam. *Eruvaka*, July-2022: 31. (PJTSAU, Hyderabad).



- Surbhi and Bhuker A. (2022). Seed Certification- An important process to maintain seed quality. *Agrospheres E-Newsletter ISSN (E): 2582-7022.* 3 (3):62-65. (CCS HAU, Hisar).
- Vishal Tyagi, Kalyani Kumari, Sanjay Kumar, Jitendra Tripathi, Rajesh Chauhan (2022). Krishaksahbhagitabeejotpadan se aay men vridhhi. Kheti (ICAR Publication) 74(12) April, 2022, Pp: 4-5. (ICAR-IISS, Mau)

#### **Training Manual**

- Dr. B. Rajeswari preparation techniques of different mushroom recipes Chapter *In*: Training manual Skill Development courses on Automated system for mushroom cultivation and Spawn Production. IDP, NAHEP: Pp: 97. (PJTSAU, Hyderbad).
- Kalyan T.A., B. Rajeswari (2022). Cultivation Technology of Milky Mushrooms, Chapter *In*: Training manual Skill Development courses on Automated system for mushroom cultivation and Spawn Production. IDP, NAHEP: Pp: 59. (PJTSAU, Hyderbad).

#### **Awards**

#### CCS HAU, Hisar

- Received award for best paper titled "Synthesis and characterization of metal-Based Nanoparticles and their effect on Seed quality parameters of American varieties of Cotton" authored by Nirmal Singh, AxayBhuker, V.S. Mor, Anurag Malik, Kusum Kumari, D.S. Duhan, Yogender Kumar, Surender S. Yadav, Saurabh Jakhar and RituReddu in International conference on Design and Application of Multifunctional Materials, Interfaces and Composites (DAM21C-22) organized by School of Engineering& Technology, K.R. Mangalam University, Gurugram, Harayana held on June 4-6, 2022.
- Received Best poster presentation award for poster entitled "Response of nutrients spray on physiological and biochemical aspects of seed quality in mungbean (Vigna radiataWilzek) during summer" authored by Shivani, S.S. Jakhar and Sunil Kumar in Technical Session III<sup>rd</sup> of the IV<sup>th</sup> International conference on ICAAAS-2022 during 12-14 June, 2022 at Himachal Pradesh University, Summer Hill, Shimla, H.P. India.

## **Meeting/Training**

#### **ICAR-IISS**, Mau

- An exposure visit to the institute for extension workers of Assam was conducted on 20<sup>th</sup> April, 2022.
- Under ICAR@100 celebrations an exposure visit of school children from Ambedkarnagar was conducted at the institute on 22<sup>nd</sup> April, 2022.
- Two days training programme on 'Seed sampling and analysis' was conducted for about 20 ADOs from Assam on 4<sup>th</sup> and 5<sup>th</sup> April, 2022.
- An Indo-German meeting with Eastern zone coordinators was conducted virtually on 7th April 2022.

#### Attended

#### PJTSAU, Hyderabad

• Training programme was attended on "Statistical Data Analysis" from 06.04.2022 to 08.04.22 & 18.04.22 to 19.04.22 organized by NAARM, Hyderabad through Virtual mode.

#### SKUAST, Srinagar

- Participation was made in three-day National Conference organized by the Agro-met Centre of Shalimar campus on the topic of "Managing weather & Climate Risks in Agriculture" conducted at SKUAST-K.
- AICRP, NSP (Seed), Shalimar-SKUAST-K, Scientific and Technical staff members participated in three days National Seminar from 26 to 28 May, 2022 on "Agriculture and more Beyond 4.0", hosted by SKUAST- Jammu in collaboration with SKUAST Kashmir organized by the Society for Community Mobilization for Sustainable Development of Agriculture.
- AICRP, NSP (Seed), Shalimar-SKUAST-K participated in Kisan Maha Sammellan on 29<sup>th</sup> June, 2022 organised by Department of Agriculture, Kashmir at SKICC Srinagar.



## **Advisory**

#### Validation of storage technology in groundnut

• For the validation of STR results from seed storage experiment, 15 ground nut seed growers were selected from Puduchery district and were supplied with HDPE Bags (120 GSM) and Super grain bags along with Vitavax (Powder) for evaluation of Pod and Kernel storage in ground nut. By this approach, the farmers are expected to witness the better storability of improved storage techniques and also gain the confidence in seed storage of ground nut seeds in their premises. (PAJANCOA & RI, Karaikal)

# Multi crop seed drill for Black gram and Green gram

 The seed growers of Black gram and Green gram were requested to use Multi crop Rotary Seed drill for sowing of pulses and Ground nut seeds for reducing the seed rate as well as for line sowing (row crop) by way of demonstration on 21.06.2022.(PAJANCOA & RI, Karaikal).



Readily adopted by a Seed grower in his farm and taken up sowing of Black gram in 2.0 ac

### **Others**

#### BSKKV, Dapoli

• Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli signed 03 MoUs with Blue Mormon Agro Producer Company Ltd., Kolhapur; Maha agri Seeds Private Ltd., Pune and Indrayani Seeds and Agrotech, Latur for sharing breeder seed of different paddy and vegetable crops varieties.

### **Personnel**

#### UAS, Bengaluru

Sl. No.	Scientist Name	Date of Transfer	From	То	Designation
1	Dr. R. Siddaraju	1 <sup>st</sup> June 2022	STR, AICRP on Seed (Crops), NSP, GKVK, Bengaluru	Department of Seed Science and Technology, UAS, GKVK, Bengaluru	Professor and Head
2	Dr. Vishwanath, K.		QSP, AICRP on Seed (Crops), NSP, GKVK, Bengaluru	STR, AICRP on Seed (Crops), NSP, GKVK, Bengaluru	Seed Research Officer
3	Mr. B. Basavaraj		ARS, Madenur, Hassan	QSP, AICRP on Seed (Crops), NSP, GKVK, Bengaluru	Assistant Seed Production Officer



## **Extension Activities**

S.N.	Topic	Date	Place	No. of Participants (Approx.)
1.	One day training programme on Improved Seed storage Techniques in Ground nut	19.04.2022	PAJANCOA & RI, Karaikal	51
2.	One day training programme on Distribution of farm inputs to the Tribal Farmers	30.04.2022	PAJANCOA & RI, Karaikal	85
3.	Ground nut cultivation and Seed production and Demonstration of multi crop seed drill	21.06.2022	PAJANCOA & RI, Karaikal	42
4.	Kharif Seed Day cum Farmers Training Programme	09.05.2022	SKRAU, Bikaner	80
5.	Seven days training programme entitled "Seed Production Technology for Livelihood Improvement"	23.04.2022 to 29.04.2022	National Seed Project, Srinagar centre in collaboration with SAMETI, SKUAST -K and MANAGE, Hyderabad	30
6.	Quality seed production in paddy for poverty alleviation	08.04.2022	Pulwama, Kashmir organized by SKUAST, Srinagar	306
7.	Brain storming interactive session on "TNAU Consortium of Seed Value System"	28.06.2022	Seed Centre, TNAU, Coimbatore organized by TNAU, Coimbatore	56
8.	Training-cum-awareness on Cultivation of high yielding rice varieties in rainfed lowland condition	27.6.2022	Basantipur, Mayabunder organized by ICAR -CIARI, Port Blair	27
9.	Training-cum-awareness on Management of rainfed lowland rice nursery	28.6.2022	Madhupur, Diglipur organized by ICAR -CIARI, Port Blair	20
10.	Demonstration on paddy var. CAU-R1, CAU-R2 & RCM-13		Districts: Imphal East, Bishnupur, Imphal West, Kangpokpi, Churachandpur,Ukhrul, Thoubal CAU, Imphal	235
11.	Radio talk on Kisan Vani at Doordarshan Kendra Dharamshala on the topic "Ucchgunvatta wale beejo ka utpadan kaise kare"	09.06.2022	Bharmour ,Chamba district of Himachal Pradesh under STC component of AICRP on Seed (Crops) organized by CSKHPKV, Palampur	160
12.	The Two days training programme entitled "Training on Seed Production of Field Crops"	25.05.2022 to 26.05.2022	IGKV, Raipur	100
13.	A virtual interaction cum campaign programme on 'Kisan Bhagidari Prathmikta Hamari'	27.04.200 to 28.04.2022	ICAR-IISS, Mau	140
14.	A Kisan Gosthi on 'Efficient and balanced use of fertilizers (including nano fertilizers) '	21.06.2022	ICAR-IISS, Mau	50
15.	Seed Mela	24.05.2022	PJTSAU, Hyderabad	1200





## , இருவாருர், மங்கொடுதுறை, காறைக்கால் भारतीय बीज विज्ञान संस्थान கைத்தெளிப்பான் में कर्मियों ने अभ्यास किया வழங்கல் मऊ। भारतीय बीज विज्ञान संस्थान में अंतर्राष्ट्रीय योग

दिवस एवं किसान जागरूकता अभियान कार्यन न भारतीय कृषि अनुसंधान परिषे 40 किसान

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## कृषि क्षेत्र में रोजगार



बीज विकार अंतरका पुरानदेश में आपकानुत अंबेरावय नामों में जान विद्यारें। के पटार्क की प्राचीनकारण में तक पटार्क दिये देखनिकां। जंगस

प्रदर्शन पूरि अध्योगन परिषद के विकासियों को बोज रिवार होगान प्रक्रीकरों के बोद में कारण अस्य के द्वीतीराजी प्रयोग्यान्य का प्रवास देव क्षेत्रेतकांत्र प्रयाद असामित अस्या और बोज परिषय रहिंग्यों को

## किसान देश की रीढ़, उनकी समृद्धि से ही विकास संभव

