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IMPORTANT EVENTS

Visit of senior officers of ICAR at Ladowal, Ludhiana

Dr. J. S. Sandhu, Deputy Director General (Crop Science) visited IIMR Ludhiana on 8th Dec. 2016.



Sh Chhabilendra Roul, IAS Additional Secretary (DARE) & Secretary (ICAR) visited IIMR Ludhiana on 10th October 2016.



Short course on Precision Conservation Agriculture

ICAR sponsored short course training programme on "**Conservation Agriculture for climatic change adaptation and mitigation in cereal systems**" organized at ICAR-Indian Institute of Maize Research, New Delhi during 08-17 August. 2016.



The programme inaugurated by Dr A. K. Vyas, ADG (HRM), ICAR and he emphasized on importance of conservation agriculture (CA), for maximization of yield and profitability. Dr N.S. Rathore, DDG (Edu.) addressing on valedictory function, he appreciated the training programme. He expressed that, crop rotations are integral part of CA that reduces run off and increases infiltration. He stated that crop rotations are integral part of CA add crop diversification naturally by changing rooting pattern, which makes significant contribution in agriculture. He also stressed upon sensor based weed, water and nutrient management. He also called upon that CA should be the 4th principle of agriculture.

The training consisted of lectures and practical on precision input management (nutrient, water, pesticides, etc.) in conservation agriculture (CA) for ensuring higher benefits from CA. Climate resilience and relevance of CA, benefits of CA on soil health was also covered through various lectures and practical. Plant health in precision conservation agriculture measurement through sensors was also discussed through lectures and hands on training of the equipments. A field trip was also organized at IIMR, New Delhi on the aspect of tillage x cropping system, nitrogen management in CA, precision nutrient management in CA, breeding for CA, etc.

A total of 17 scientists of SAUs from different states (Assam, Chhattisgarh, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Uttar Pradesh, Uttarakhand and West Bengal) participated in this training programme, comprising different disciplines of agricultural sciences encompassing Agronomy, Plant Breeding, Plant Pathology and Plant Physiology. The organizers of this short course were Dr. Aditya Kumar Singh (*Course Director*), Drs. C.M. Parihar & Shankar Lal Jat (*Course Coordinators*).



हिंदी भाषा के कार्यन्वयन से संबंधित गतिविधियां

राजभाषा हिंदी के प्रगामी कामकाज को बढ़ावा देने हेतु संस्थान में निम्नलिखित घटनाक्रमों का आयोजन किया गया।

विवरण	दिनांक
तिमाही बैठक की समीक्षा विश्लेषण	12.05.2016
एक दिवसीय हिंदी कार्यशाला राजभाषा निति की कार्यान्वयन	24.06.2016
राजभाषा कार्यान्वयन की बैमासिक बैठक	8.08.2016
एक दिवसीय हिंदी कार्यशाला	28.09.2016
तिमाही बैठक की समीक्षा	24.10.2016
हिंदी कार्यशाला	3.12.2016
हिंदी राजभाषा कार्यान्वयनकी मासिक बैठक	23.01.2017



स्वच्छता अभियान

आईआईएमआर के कर्मचारियों ने स्वच्छ भारत अभियान में भाग लिया। भारत में चल रहे स्वच्छता अभियान को तेज करने के उद्देश्य से संस्थान ने स्वच्छ भारत मिशन में शामिल किया गया। जिसके अंतर्गत आईआईएमआर लुधियाना, बेगुसराई एवं हैदराबाद के कर्मचारियों ने बढ़-चढ़ कर हिस्सा लिया।



Publicity of activities on IIMR website



Office staff taking Swachhta Pledge during the initiation of Swachhta Pakhwada



Swachata Abhiyan

Vigilance Week

The Institute observed Vigilance Awareness Week during October 31 2016 to November 5, 2016. Dr Vinay Mahajan, Director, IIMR administered the pledge to the staff members.



Research Highlights

- The genomic regions on chromosome No. 1 identified for maydis leaf blight resistance (MLB) in tropical maize germplasm: Two F₂ populations developed from crossing resistant and susceptible parents (CML269 (R), HKI4C4B (S); P72cIXbrasil1117 (R), ESM113 (S)) were used in BSA. Parents of both the populations were surveyed and revealed 42.2% polymorphism between the parents. Two SSR markers, viz., phi109275 (bin location 1.03) and umc1917 (bin location 1.04) on chromosome #1 which could able to differentiate resistant bulks from susceptible in both of the populations.
- Two recombinants inbred lines (RILs) mapping populations (CML269, HKI4C4B; P72cIXbrasil1117, ESM113) have been developed and ready to use: Two different RILs mapping populations have been developed from crossing resistant/high yielding/normal lines with susceptible/low yielding parents (CML269 (R), HKI4C4B (S); P72cIXbrasil1117 (R), ESM113 (S)). They are under Phenotyping at multiple environments for target traits viz., MLB resistance and yield.
- A new rapid method using hydro & aeroponic techniques for preliminary drought stress screening have been standardized and validated in maize: The identified tolerant and susceptible genotypes were validated in pots and at genes level.
- The association mapping panel of 300 diverse lines has been constituted and phenotyped for multiple disease resistance (Charcoal rot, MLB, TLB) and Fe & Zn content at different locations. The significant genetic variability was established for target traits. The genotyping of mapping panel have been initiated for fine mapping of target traits.

Decisions Support System for better utilization of the maize inbred line germplasm

- A decision support database was developed in My Structured Query Language (MySQL) using the latest version of Drupal (7.34); Hypertext Preprocessor (PHP) was used for frontend development. It provides comprehensive information on established maize

inbred lines augmented with high-quality images of tassels and cobs consisting data of 300 inbred lines. The database displays information on 14 traits viz. time of anthesis, time of silk emergence, density of spikelets, number of kernel rows, number of kernels per row, grain type, plant height, ear placement height, anthocyanin colouration at base of glume, anthocyanin colouration of anthers, anthocyanin colouration of silks, grain colour, kernel row arrangement and 1000-kernel weight against each inbred lines. It caters to the needs of breeders by supplementing their efforts in making better-learned choices the and the beginners to take informed decisions while choosing inbred/parental lines based on information housed in the database.

Promising technologies

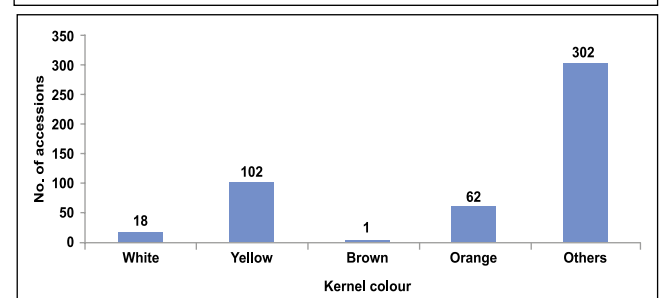
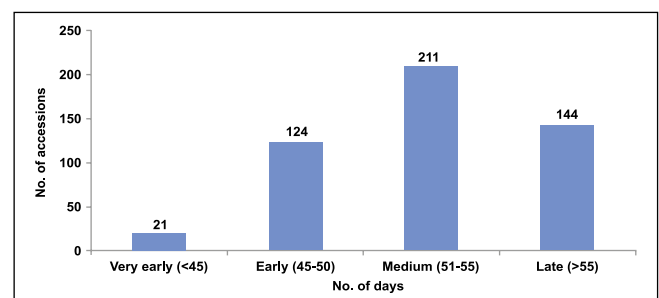
- Two normal single cross hybrids viz., DMRH1301, DMRH1308 with yield potentials of more than 10.0 tones/ha in *rabi* and one popcorn i.e. DMRHP1402 with yield potential of more than 4.0 tones/ha., identified as best varieties after three years of AICRP testing.
- Strengthening germplasm base of the AICRP centres during 2016-17**

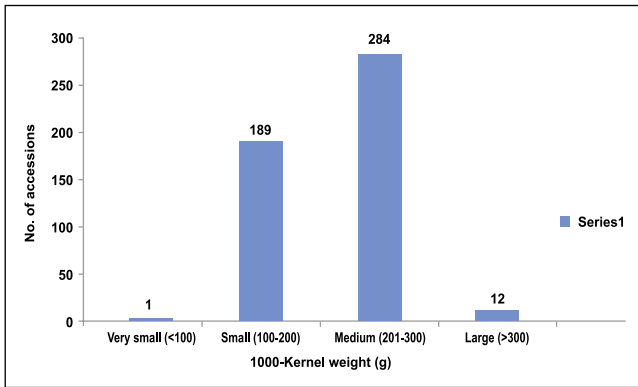
A total of 638 maize accessions were provided to 16 different AICRP and cooperating centers

Types of Corn	Numbers distributed	Types of Corn	Numbers distributed
Yellow Maize	367	Sweet corn	80
white Maize	21	Popcorn	39
QPM	130	Number of accessions distributed	638
Total distributions	1080		

Consortium Research Platform on Agrobiodiversity Kharif, 2016

Under the project 500 maize landraces, which were received from NBPGR, were characterized and evaluated for 26 traits.





• Integrated management of *Sitophilus oryzae*

Integration of solar heat along with application of leaf powder of *E. indica* is cheap, effective, and economic offers great prospect for protection of stored maize for poor farmers. The combination of sun drying of maize for 4 hours for weekly intervals along with application of leaf powder of *Erythrina indica* L. @ 2% w/w provides best protection against *Sitophilus oryzae* L.

IIMR outreach programme

IIMR is providing extension service to the nation through Frontline Demonstrations (FLDs), field days, various trainings etc., under National Food Security Mission and Tribal Sub-plan scheme. A total of 190 ha frontline demonstrations were conducted on the aspect of integrated nutrient management, integrated pest management, weed management, seed production and speciality corn based cropping system in 19 states viz., Andhra Pradesh, Assam, Bihar, Chattisgarh, Delhi NCR, Gujrat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Manipur, Meghalaya, Odisha, Punjab, Rajasthan, Tami Nadu and Uttar Pradesh.



Field days and training programme

• Exhibitions

IIMR's technologies are being demonstrated through farmer's fairs and exhibitions organized at national level by participating in 3rd India International MSME Expo & Summit, Pragati Maidan, New Delhi (11-13 August, 2016); Krishi Unnati Mela, Mathura, UP (26-29 Sep, 2016); Diwali Mela, Pandara Park, New Delhi (15-16 October, 2016); 4th International Agronomy Congress Exhibition, Pusa Campus, New Delhi (22-26 Nov, 2016) and Northern Regional Agricultural Fair- Krishi Kumbh, G.I.C. Ground, Muzaffarnagar, UP (28-30 November, 2016). More than 500 visitors visited the IIMR stall and benefitted.



Tribal Sub Plan training programme

Institute organized four National Level Training programmes for tribal farmers to enrich their skills in respect of latest production technologies and value addition in maize during the period. A total of 171 tribal farmers from Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Telangna etc., were attended the training. To update the farmers on latest improved maize technologies; seed of improved maize hybrid, maize sheller and literature were provided.

S. No.	Location	Duration	No of farmers
1	Delhi	07-09 September, 2016	54
2	Delhi	22-24 September, 2016	44
3	Delhi	28-30 September, 2016	39
4	Ludhiana	21-22 October, 2016	34
		Total farmers	171

• Mera Gao Mera Gaurav scheme

ICAR-IIMR, Ludhiana launched the programme activities in village clusters under '**Mera Gaon Mera Gaurav**' scheme in four states namely Delhi NCR, Bihar, Punjab and Andhra Pradesh. Team visited Jakhouli Village of Sonapat district of Haryana. In Telangana districts Burjugadda Thanda, Shamshabad Mandal, Ranga Reddy were covered. Farmer & scientist interaction/discussions on Crop Insurance, soil health cards, improved maize production and protection technologies on Speciality corn, Rabi maize, Value addition in maize were conducted to uplift the economic condition of farmers. A total of 13 meetings were conducted with the farmers where knowledge A total of 979 literature sets were distributed to the farmers



Activities under Mera Gaon Mera Gaurav

Literature distributed:

S.No	Subject matter of Literature	No. of Copies
1	खरीफ मौसम में मक्का की वैज्ञानिक खेती	30
2	अधिक उत्पादकता के लिए एकल क्रॉस संकर मक्का की किस्में	73
3	एकल संकर मक्का बीज उत्पादन की तकनीकी	72
4	मक्का की फसल में पौध संरक्षण	51
5	बेबीकॉर्न-फसल उपरान्त प्रबंधन एवं प्रसंस्करण	57
6	बेबीकॉर्न उत्पादन तकनीकी	57
7	Seed production technology of maize single cross hybrid	48
8	Quality protein maize for food and nutritional security	48
9	Single cross maize hybrids for higher productivity	48
10	Sweet corn	48
11	Baby corn for increasing income of farmers	48
12	Production technology of maize	48
13	Value addition of maize	48
14	Production technology of baby corn	48
15	Baby corn- Management and processing after harvesting	48
16	Package practice of DHM 117	30
17	Package practice of DHM 121	15
18	Telugu Bulletin on "Maize production Technology"	8
19	Insect Pests of Maize and their Management	57
20	Identification and Management Insect Pests of Maize	57
21	maize production and protection technologies	40

Visitors

- **Students:** A group of 73 students of final year B.Sc. Agriculture programme studying at "Agricultural College and Research Institute Killikulam, Tamil Nadu Agricultural University, Tamil Nadu" visited the Institute on 9th December, 2016. The students were briefed about the institute profile and the research and development of maize in the country.
- **Farmers:** A group of 30 farmers under "*Mukhyamantri Khet Tirth Yojna*" from Datiya (M.P) visited the institute on 21st December, 2016. The farmers and extension officials with them were exposed to the best production technologies like hybrids cultivars, conservation agriculture, neem coated urea, production of different types of corn, industrial importance of maize, hybrids with high nutritional quality, insect and disease management and hybrid seed production technologies





Students and farmers visited IIMR

Important meetings

• Institutional Biosafety Committee

The Institutional Biosafety Committee (IBSC) meeting was held in ICAR-IIMR on 7th October, 2016 at 11 A.M. The Members—Dr. Vinay Mahajan (Director & Chairman), Dr. Amar Kumar (DBT nominee), Dr. Amrita Srivastava (Medical Officer IARI dispensary & member), Dr. Meena Shekhar (Principal Scientist & member), Dr. Krishan Kumar (Scientist & member), Dr. Pranjal Yadava (Scientist & Nodal Officer), Dr. Ishwar Singh (Principal Scientist, In-charge PME & Special invitee) were present in the IBSC meeting.

• Foreign visits

Dr P Laxmi Soujanya visited USA to attend 25th International Congress of Entomology from 25-30 October, 2016 at Orlando, Florida, USA, travel grant funded by Science and Engineering Research Board (SERB), Department of Science and Technology (DST), New Delhi and delivered oral presentation on "**Potent Indian medicinal plant *Ixora coccinea* L. for the effective management of *Sitophilus oryzae* L.**"

Awards/Honours

- Dr. A.K. Singh, Dr. C.M. Parihar and Dr S.L. Jat jointly received **best poster award** in The Fourth International Agronomy Congress on 26 November, 2016.
- Dr S. B. Singh received "**Scientist of the Year -2016**" award for Genetics and Plant Breeding in the Global Agriculture & Innovation Conference (GAIC-2016) held at Noida International University, Noida w.e.f. November 27-29, 2016.
- Dr C.M. Parihar and Dr. S.L. Jat received **FAI-Dhiru Morarji Award for best article** in Indian Journal of Fertilizers by Fertilizer Association of India, New Delhi on 30 November, 2016
- Dr Meena Shekhar received "**Distinguished Scientist**" award for outstanding contribution in the field of **Plant Pathology** on the occasion of National conference on Innovative and current advances in Agriculture & Allied Science (ICAAS- 2016), during 10-11 December, 2016 held at PJTSAU, Rajendranagar, Hyderabad.

- Dr S. B. Singh received "**Distinguished Scientist**" award for Genetics and Plant Breeding in the National Conference on Innovative and Current Advances in Agriculture and Allied Sciences (ICAAAS-2016) during 10-11 December, 2016 held at PJTSAU, Rajendranagar, Hyderabad.
- Dr S. B. Singh received "**Fellow Award**" for Genetics and Plant Breeding from the Society for Scientific Developments in Agriculture & Technology in the National Conference on Innovative and Current Advances in Agriculture and Allied Sciences (ICAAAS-2016) during 10-11 December, 2016 held at PJTSAU, Rajendranagar, Hyderabad.



Scientists receiving award

Human Resource Development

Personals; New joining

Name of Employees/Scientists	Date of Joining	Joining place
Dr Alla Singh, Scientist	11.4.2016	IIMR Ludhiana
Mr Mukesh Choudhary, Scientist	11.4.2016	IIMR Ludhiana
Mr Praveen Kumar Bagaria, Scientist	11.4.2016	IIMR Ludhiana
Mrs Mamta Gupta, Scientist	11.11.2016	IIMR Ludhiana
Dr Pardeep Kumar, Scientist	03.02.2017	IIMR Ludhiana

Human Resource Development

Participation in Conferences, Workshops, Symposium, Meetings

Name of scientist	Programme	Venue	Date
Dr Bhupender Kumar	Asia regional collaborative Project "Climate-resilient maize for Asia (CRMA)"	CIMMYT Office, ICRISAT Campus, Hyderabad, India	29-30 July, 2016
Dr S.B. Singh Dr S.B. Singh	Mission on Agricultural Extension and Technology (NMAET)	Office of District Magistrate, Begusarai	20 th September 2016
Dr S.B. Singh	Scientific Advisory Committee Meeting	KVK, Khagaria	20 th October 2016
Dr P. Laxmi Soujanya	25 th International Congress of Entomology	Orlando, Florida, USA	25-30 October, 2016
Dr Meena Shekhar Dr Sunil Neelam Mr Mukesh Choudhary	Presented poster in 1 st International Agro biodiversity Congress	NAASC New Delhi	6-9 November, 2016
Dr S. L. Jat & Dr Krishan Kumar	Training on "Transforming Government through ICT: Government process reengineering"	Indian Institute of Public Administration, New Delhi	16-18 November 2016
Dr A.K. Singh Dr Ashok Kumar Dr C.M. Parihar Dr Bhupender Kumar Dr S.L. Jat	Fourth International Agronomy Congress	ICAR-IARI	22 – 26 November, 2016
Dr S. B. Singh	Scientist Farmer Interaction Meeting	DAO office Begusarai	23-24 November, 2016
Dr S.B. Singh	Global Agriculture & Innovation Conference (GAIC-2016)	Noida International University	27-29 November, 2016
Dr A.K. Singh Dr Bhupender Kumar Dr S.L. Jat	Annual Review Workshop on NICRA project	NASC, New Delhi	9-10 December, 2016
Dr S.B. Singh Dr Meena Shekhar	Innovative and Current Advances in Agriculture and Allied Sciences (ICAAAS-2016)	PJTSAU, Rajendranagar, Hyderabad	10 -11 December, 2016
Dr P. Laxmi Soujanya	Training programme in the field of Nanotechnology	Nano Materials Laboratory, I & PC Division, CSIR-IICT, Hyderabad	06-23 December 2016

Transfers

Name of Employees / Scientists	Date of Transfer	From	To
Dr Jyoti Kaul, Pr. Scientist	02. 09. 2016	IIMR, New Delhi	IARI, New Delhi
Dr Ashok Kumar, Pr. Scientist	16. 11 2016	IIMR, New Delhi	ICAR, KB-I, New Delhi
Dr Nirupma Singh, Scientist	29.8. 2016	IIMR, New Delhi	IARI, New Delhi
Dr Ambika Rajendran, Scientist	30.6.2016	IIMR, New Delhi	IARI, New Delhi

Dr K.P. Singh, Sr. Scientist	18.8.2016	IIMR, New Delhi	ICAR, New Delhi
Dr C.M. Parihar, Scientist	01.09.2016	IIMR, New Delhi	IARI, New Delhi
Sh H.C. Ghildyal, A.O	13.01.2017	IIMR, New Delhi	IARI, New Delhi
Sh. Ajay Kumar Singh Tech. Asstt, T-2	16.5. 2016	IIMR, New Delhi	IARI, New Delhi
Sh Raj Kishor Singh, T-2	26.7. 2016	IIMR, New Delhi	IARI, New Delhi

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