# DMR Newsletter

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## Dr. Swapan Kumar Datta, DDG (CS) addresses the scientists of DMR

Dr. Swapan Kumar Datta, Deputy Director General (CS), ICAR, interacted with the scientists of DMR on November 3, 2012. In his address, he described maize as a global crop and mentioned about the research priorities in maize. He highlighted acquisition of DH Technology from abroad a top priority and assured ICAR support to DMR in this endeavour. He emphasised developing effective scientific collaborations with various national as well as international organizations working on upstream areas; focussed basic and strategic research and further strengthening of on-going programmes. He gave the example of certain countries especially China in improving its research standards by developing and implementing need-based, target-oriented research agendas. He proposed a holistic approach to make Indian maize programme robust, sound and dynamic.

His critical analysis, pragmatic guidance and over-all leadership is expected to further boost the maize research activities in India.

## Dr. O.P. Yadav joins as Director, DMR and shares his vision on maize R&D

Dr. Om Prakash Yadav, an eminent pearl millet breeder took over the charge of Project Director, Directorate of Maize Research on September 7, 2012 and addressed the Scientists on October 15, 2012. He expressed his pleasure over the current growth rate of maize in the country and recalled the significant contributions made by former Project Directors in catapulting it to newer heights. In order to maintain the tempo, he suggested three-pronged strategy: use of diverse germplasm in breeding programmes with yield enhancing and stabilizing factors and improved crop production and protection technologies; capacity building; and administrative support. He highlighted the role of genetically diverse germplasm especially from temperate/ sub-tropical backgrounds for introgression of desirable gene(s) into tropical / indigenous maize; this approach may further improve the breeding efficiency in widening source germplasm from which new inbred lines may be extracted out to augment single cross hybrid breeding programme. In this context, he mentioned

*(cont... on page 6 )*

## Diverse uses of maize in everyday life

Maize is a crop of opportunities. With the growth of Indian economy as well as the increased demand of specialty corns, this crop has assumed greater economic importance. Maize-based food processing industry is rapidly growing and a number of new products can be seen in the market thereby indicating a major shift in its utilization pattern. Now, maize has become a major crop of industrial applications. A vast list of products that contain maize includes toothpaste, dish detergent, paper, clothing dyes, explosives and soaps, etc. Maize-based plastics are used in food containers and plastic food packaging, disposable dishware and gift cards. Cornstarch is often used as an electrical conductor in batteries. Some batteries also contain corn derivatives in the form of energy derived from corn. Cornstarch is also a common ingredient in many cosmetic and hygiene items, including deodorants. Many medicines and vitamins also contain cornstarch. Cornmeal or cornstarch shows up as an important ingredient of glues and other adhesives. Carpets and other textile products now make wide use of maize in their production. Maize-based products are often preferable to petroleum-based products in textile production because they are typically better for the environment. The countless uses of maize have surged its demand world-wide. In 2011-12, India exported a record 4.8 million tons to Southeast Asian countries such as Malaysia, Indonesia and Vietnam. As per the latest U.S. Department of Agriculture data, Indian maize is currently being exported at about $305-$310 a ton, including cost and freight, while rival supplies from South America are available at $330-340 a ton. Maize is expected to be a major contributor to the agricultural share of the GDP in near future.

# Notification of maize hybrids

During July-December 2012, 16 hybrids of maize were notified. Of these, two namely, Co6 and SMH 3904 were notified vide notification number 1708(E) dated July 26, 2012 and rest fourteen vide notification number 2125 (E) dated September 10, 2012, respectively. The detailed information on these hybrids is given below:

| S.No. | Hybrid | Pedigree | Avg yield (t/ha) | Seed characteristics | Area of adaptation | Notification number and date |
|---|---|---|---|---|---|---|
| **Late maturity** | | | | | | |
| 1. | Co 6 | UMI-1200 X UMI-1230 | 6.0 | orange-yellow, semi-dent | Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 1708(E) ; 26/7/12 |
| 2. | NMH-920 | NM-81 X NM-45 | 7.7 | orange-yellow, semi-dent | Uttar Pradesh, Bihar, Orissa and Jharkhand | 2125(E); 10/9/12 |
| 3. | NK-30 | NK191 X NK 132 | 7.0 | orange-yellow, flint | Punjab, Haryana, Delhi, Uttar Pradesh, Karnataka, Andhra Pradesh,Tamil Nadu and Maharashtra | 2125(E); 10/9/12 |
| 4. | NK 6240 | NK125 X NK 128 | 7.0 | yellow, flint | Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Orissa, Karnataka, Andhra Pradesh,Tamil Nadu, Maharashtra, Rajasthan, Gujarat, Chhattisgarh and Madhya Pradesh | 2125(E); 10/9/12 |
| 5. | SMH-3904 | MI-201 x MI-211 | 7.0 | orange-yellow, semi-flint | Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Orissa, Karnataka, Andhra Pradesh,Tamil Nadu, Maharashtra, Rajasthan, Gujarat, Chhattisgarh and Madhya Pradesh | 1708(E) ; 26/7/12 |
| 6. | NMH-731 | NM-206 X NM-85 | 5.4 | orange-yellow, semi-dent | Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 2125(E); 10/9/12 |
| **Medium maturity** | | | | | | |
| 7. | HM 12 | HKI-1344 X HKI-1378 | 5.8 | white, semi-dent | Uttar Pradesh, Bihar, Jharkhand, and Orissa | 2125(E); 10/9/12 |
| 8. | KMH-218 Plus | KML 2257 X KML 2003 X KML 5163 | 6.3 | yellow, dent | Uttar Pradesh, Bihar, Jharkhand and Orissa | 2125(E); 10/9/12 |
| 9. | KMH-3426 | KML 5277 X KML 5164 X KML 5253 | 6.5 | orange, semi-dent | Uttar Pradesh, Bihar, Jharkhand, Orissa, Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 2125(E); 10/9/12 |
| 10. | NMH-803 | NM-124 X NM-250 X NM 161 | 6.2 | yellow, dent | Uttar Pradesh, Bihar, Jharkhand, Orissa, Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 2125(E); 10/9/12 |
| 11. | Bisco x 1 (Bisco 506) | BSI 245 X BSI 263 | 9.0 | yellow, dent | Uttar Pradesh, Bihar, Jharkhand, Orissa, Madhya Pradesh Karnataka, Maharashtra, Andhra Pradesh and Tamil Nadu | 2125(E); 10/9/12 |
| 12. | P3441 | PH1N20 X PHD1A | 8.0 | orange, flint | Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Orissa, Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 2125(E); 10/9/12 |
| 13. | KMH 3712 | KML 5164 X KML 5253 | 7.5 | orange, dent | Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Orissa, Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 2125(E); 10/9/12 |
| 14. | P3502 | PHE2Y/PHM6T | 5.7 | orange, flint | Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh | 2125(E); 10/9/12 |
| 15. | KMH 25K60 | KML-2254 X KML-2168 | 8 .6 | yellow, dent | Maharashtra, Karnataka, Andhra Pradesh and Tamil Nadu | 2125(E); 10/9/12 |
| 16. | Bio-9682 | - | - | - | Punjab , Haryana , Uttar Pradesh, Madhya Pradesh, Rajasthan and Gujarat | 2125(E); 10/9/12 |

*- Data not avilable*

# Identification of sources of resistance to different diseases

A set of elite inbred lines was screened against charcoal rot and Turcicum leaf blight.

**Charcoal rot**

Charcoal rot was recorded on individual plants by splitting open the stalks at the time of harvesting and disease severity was recorded following a rating scale of 1-9 and the genotypes were categorized as resistant ($\leq$ 3.0), moderately resistant (3.0 to 6.0) and susceptible (>6.0).

**Turcicum leaf blight**

Severity of turcicum blight was recorded 30-35 days after inoculation on disease scale 1-5 and the genotypes were categorized as resistant(< 2.0), moderately resistant (2.1-3.0) and susceptible (>3.0).

The information on desirable lines is compiled below:

| S.No. | Inbred lines | Source | Reaction |
|---|---|---|---|
| **Charcoal rot** | | | |
| 1 | DMRM12 | P390Am/CML c4 F230-B-2-1-2-2-B-B-B | 1.5 |
| 2 | DMRM14 | P72c1xBrasil 1177-2-2-1-B-B | 3.0 |
| 3 | HKI 1040-5 | BC318 | 3.0 |
| 4 | DSCl7 | CUBA 380 | 2.5 |
| 5 | CML 172 | G25Q | 2.67 |
| 6 | DMRWN13-2 | HYD05R/13-2 | |
| 7 | LM16 | - | 2.5 |
| 8 | CM144 | - | 2.5 |
| 9 | DMRW-1 | ae40 | 2.0 |
| 10 | CM 117-3-4-1-2-2-1 | - | 2.5 |
| 11 | JCY3-7-1 | - | 2.0 |
| 12 | KML 225 | - | 2.33 |
| 13 | | SW-930-313-23-PO-49-54-1-3-1-1-1-2-1-2-3-1-1-2 | 3.0 |
| 14 | WINPOP-1 | Ambar pop | 2.0 |
| 15 | KML 3-3 | - | |
| 16 | JCY 2-7-1 (resistant check) | | 2.57 |
| 17 | Win orange sweet corn (Susceptible check) | - | 7.25 |
| **TLB** | | | |
| 18 | CML 141 | P62 | 2.0 |
| 19 | JCY3-7-4 | - | 2.0 |
| 20 | JCY3-7-2 | - | |
| 21 | HKI 164-3 (2-1)-1 | CML164 | 2.0 |
| 22 | HKI-164-7-4-2 | CML164 | 2.0 |
| 23 | HKI 164-7-4 | CML164 | 2.0 |
| 24 | HKI 193-1 | CML193 | 2.0 |
| 25 | HKI-193-2-2-4 | CML191 | 2.0 |
| 26 | HKI 191-1-2-5 | CML191 | 2.0 |
| 27 | DMRW 1 | ae40 | 2.0 |
| 28 | Nityashree (resistant check) | - | 1.5 |
| 29 | 219J (Susceptible check) | - | 5.0 |

HKI 164-3(2-1)-1

DMRM 12

DMRM 14

## Institute Management Committee (IMC) Meeting

The 4th Institute Management Committee (IMC) meeting was held on July 11, 2012 at Directorate of Maize Research, New Delhi under the chairmanship of PD, DMR. The team comprised of Drs. AP Saini, PS Sabharwal, P Kumar, Pratibha Sharma, S. Venila and Mohan Singh as members and Sh AK Mathur as member-secretary. At the out-set, the chairman welcomed all the members and presented the annual progress report of the directorate; the member-secretary presented information on utilization of non-plan, plan as well as AICRP fund budget for the year 2011-12.Various administrative as well as research issues were also discussed. The members expressed satisfaction over the achievements made and hoped the trend to continue in future as well.

## DMR Signs MoU with Syngenta Biosciences India Pvt. Ltd.

MoU has been signed between DMR and Syngenta Biosciences India Pvt Ltd. on December 12, 2012 for conducting studies on "Baseline-susceptibility of multiple populations of *Chilo partellus*, *Sesamia inferens* and *Helicoverpa armigera* for two Bt insecticidal proteins (Cry1Ab and Vip3A)" supplied by SBPL.The study would be conducted for two years.

## Quinnquennial Review team (QRT) Meeting

QRT for the years 2006-10 was organized under the chairmanship of Dr. RR Hanchinal, Hon'ble Vice Chancellor UAS Dharwad with Dr. NS Malhi, Dr. RK Malik, Dr. KT Pandurange Gowda, Dr.S J Rehman, Dr. MC Wali and Dr. R. Sai Kumar as members and Dr. P. Kumar as member-secretary. The team visited different AICRP (Maize) centres and reviewed the progress made during the past five years. The members were quite impressed with the growth of maize in India and attributed its success to the deployment of hybrid technology.


## eDdk vuqla/kku fun'kky; esa fgUnh i[kokMk dk lekiu lekjkg dk vk;kstu

eDdk vuqla/kku fun'kky; esa flrEcj 14&28] 2012 rd euk, x, fgUnh i[kokM+k dk vDrcj 11] 2012 dk lekiu lekjkg dk vk;kstu fd;k x;kA lekiu lekjkg dh v/;{krk djrs gq, ifj;kstuk fun'kd us fgUnh dk c<kok nus ds fy, lHkh dk mRlkfgr fd;k ,oe lHkh fotsrkvksa dk iqjLdkj forj.k fd, x,A fun'kky; ds lHkh vf/kdkjh ,oe deZpkfj;ksa us bles c<&p< dj Hkkx fy;kA

# Extension-related activities

**Demonstrations**

- Demonstrations at Chhindwara in Madhya Pradesh and Ambikapur in Chattisgarh were conducted. In Chhindwara, total 19 acres were demonstrated i.e., 10 acres with DHM 117 and 9 acres with HQPM 5. In Ambikapur, more than 10 acres area was under demonstration.
- HQPM 1 was demonstrated in 9 acres and HM 4 was demonstrated in one acre during Kharif 2012 in Haryana, Rajasthan, Uttar Pradesh and Delhi. Farmers were satisfied with the performance of these hybrids.
- HQPM 1 was demonstrated in 6.5 acres during Rabi 2012-13 in Haryana, Uttar Pradesh and Andhra Pradesh.
- Baby corn hybrid HM-4 was successfully demonstrated in Palwal area of Haryana. A team comprising Dr. Dharam Paul and Dr. S.L. Jat, visited the village Baroli, Distt. Palwal, Haryana on September 2, 2012. The baby corn hybrid HM-4 was grown in half acre of land. The farmers were thoroughly educated regarding baby corn cultivation, its importance in the peri-urban region, its importance as fodder and regarding silage making technology.
- 80 frontline demonstrations were conducted and sprayers and fertilizer input distributed among the tribal farmers of Chittorgarh and Rajsamand districts of Rajasthan for improving maize production in tribal belt.

**Field days**

For the popularization of maize–based farming system, field days were successfully organized across different states: Kushmahaut Farm, Begusarai, Bihar on July 30, 2012 (popularization of maize silage); Port Blair on August 13, 2012 (promotion of maize); Amarwada in Chhindwara district of Madhya Pradesh on October 2, 2012 (hybrid technology); Sharli Manpur in Dhaulakuan district, Himachal Pradesh (hybrid technology); East Godavari district, Andhra Pradesh on October 11, 2012; Ambikapur on October 13, 2012; AICRP (Maize) Banswara, Rajasthan on October 21, 2012 (nutritional security under TSP); KVK, Kalimpong, West Bengal on October 25, 2012 (promotion of maize), respectively.

**Exhibitions**

The Directorate of Maize Research participated in six exhibitions

on the occasion of following programmes to create awareness among people about new technologies of maize :

- Farm Innovators Day held on October 10, 2012 at Directorate of Maize Research, New Delhi
- Agriculture Education Day held on October 12, 2012 at Directorate of Maize Research, New Delhi
- 2nd ASEAN- India Ministerial Meeting on Agriculture held from October 17-19, 2012 at NASC complex, New Delhi
- NSFI Global Agri Connect 2012 held from November 2-4, 2012 at Mela Ground, Pusa Campus, New Delhi
- India International Trade Fair held from November 14-27, 2012 at Pragati Maidan, New Delhi
- 3rd International Agronomy Congress held from November 26-30, 2012 at Mela Ground, Pusa Campus, New Delhi

**Programmes at DMR**

**Farmers' trainings under Tribal Sub Plan**

Directorate of Maize Research organized two national level training programmes on “Seed Production, Cultivation and Value Addition in Maize” for tribal farmers under Tribal Sub Plan from December 22-24, 2012 and December 27-29, 2012, respectively. More than 50 farmers from various states across the country namely Maharashtra, Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Jammu & Kashmir, Chhattisgarh, Rajasthan and Gujarat participated in each program. The three day training programme included lectures and exposure visits.

The first day of the training programmes included lectures related to cultivation practices of maize, insect-pest and disease management, preparation of silage, etc. On second day the tribal farmers were taken on exposure visit to Aterna village in Sonepat

district, Haryana. The farmers learned about baby corn and sweet corn cultivation, mushroom cultivation and a maize canning industry. Simultaneously, they also understood the importance of integrated farming system in the village wherein, a farmer who cultivates baby corn uses its fodder to feed cattle. The dung of the cattle is used in the biogas plant and also used in preparing vermi-compost. Later, the vermi-compost is again used as manure in baby corn cultivation. On the third day of the training programme, the farmers were briefed about value addition in baby corn, sweet corn and QPM.

Simultaneously, the data regarding profile of farmers, knowledge assessment, training need assessment, adoption level, preferences, scientific orientation, indigenous technical knowledge and constraints were collected from the farmers. This feedback would be utilized in further devising / improving the programs in future.

**Farm Innovators Day**

A farm Innovators' day was organized at Directorate of Maize Research (DMR) on October 10, 2012. Around 25 progressive farmers took part in this programme. The farmers were taken to experimental plots of maize and were explained about its cultivation practices. During post lunch session, the farmers had an interaction with Director and scientists of DMR wherein various problems related to maize like procurement of quality seed, marketing of produce, overcoming pests and diseases, etc, were discussed.

**Agriculture Education Day**


Agriculture Education Day was organized at Directorate of Maize Research on October 12, 2012. Around 30 students from Government Boys Senior Secondary School, IARI, Pusa Campus, New Delhi participated. The students were taken to experimental fields of DMR and were explained about different hybrids,maize cultivation practices, etc. A lecture on importance and uses of maize was also delivered by Dr. V.K.Yadav, Senior Scientist, DMR.

## Varietal registration under PPV & FR Act, 2001

Eleven varieties including three hybrids , seven inbred lines and one OPV have been registered under PPV&FR Act, 2001. Of these, the hybrid NAH 2049 and Pratap Makka-5 an OPV, have been registered under extant category, whereas, JKMH-142 (White) and KMH-25K55 and, eight proprietary inbred lines have been registered after DUS testing of two years. This information is given below:

| S.No. | Name of the Hybrids/ OPV/inbreds | Period of protection |
|---|---|---|
| **Extant Hybrid** | | |
| 1. | NAH-2049 | August 02, 2012 to February 10, 2024 |
| **Extant Composite** | | |
| 2. | Pratap Makka-5 | August 02, 2012 to April 24, 2021 |
| **New Proprietary Hybrid** | | |
| 3. | JKMH-142 (White) | July 02, 2012 to July 1, 2027 |
| **VCK Proprietary Hybrid** | | |
| 4. | KMH-25K55 | August 16, 2012 to August 15, 2027 |
| **New Proprietary Inbreds** | | |
| 5. | MIM 612 | July 02, 2012 to July 1, 2027 |
| 6. | MIM 601 | October 21, 2011 to October 20, 2026 |
| 7. | MIM 101 | October 21, 2011 to October 20, 2026 |
| 8. | MIM 611 | October 21, 2011 to October 20, 2026 |
| 9. | MIM 311 | November 01, 2011 to October 31, 2026 |
| 10. | MIM 301 | November 01, 2011 to October 31, 2026 |
| 11. | MIM 502 | December 07, 2011 to, December 6, 2026 |

*(cont... from page 1 )*

## Dr. O.P. Yadav joins as Director, DMR ...

about the Doubled Haploid (DH) technology and molecular interventions in hastening the efficiency of inbred development activities. Further, he also emphasized on systematic identification of stable sources of resistance to diseases especially Sorghum Downy Mildew (SDM) and Banded Leaf and Sheath Blight (BLSB) for which presently no source of resistance is known. A strategy was worked-out including : *i)* continuous screening of germplasm comprising elite hybrids, inbreds and land races (available at NBPGR) under hot-spot locations in the country, *ii)* identification/ development of resistant stocks and *iii)* use of identified donor sources in on-going resistance breeding programs. He also laid stress on strengthening on-line system for faster dissipation of information through re-designing of DMR web-site and exploring increased use of ICT in administration. He flagged certain administrative and other issues for the overall betterment of the directorate. At the end, he called upon the scientists to forge stronger linkages and develop appropriate national/international collaborative research projects which may further enhance the visibility of DMR in India and abroad.

His vital inputs, critical suggestions, remarks and research priorities are expected to further strengthen the maize programme in the country.

## Awards and Honors

- Dr. Ashok Kumar was awarded Chancellor Nominee in Career Advancement Meeting held on November 21, 2011 at Mahatma Gandhi Gramodoyog Vishvavidyalaya, Chitrakoot, Satna (MP). He was also awarded Fellow of Indian Society of Agronomy

- Dr. Pradyumn Kumar, Principal Scientist (Entomology) was nominated as one of the members of Research Advisory Board of Institute of Pesticides Formulation Technology, Gurgaon, Haryana
- Dr. Jyoti Kaul was nominated as one of the members of Institute Management Committee of Indian Institute of Pulses Research, Kanpur ( 2012-2015)

## Participation of DMR scientists in meetings, workshops, conferences, etc in India

- Dr. Jyoti Kaul and Dr. Ramesh Kumar attended Review meeting of ICAR seed project "Seed production in Agricultural crops", NASC Complex, New Delhi from July 25-26, 2012
- Dr. Jyoti Kaul, Dr. Nirupma Singh and Dr. R. Ambika participated in Germplasm day organized by NBPGR, New Delhi on September 17, 2012
- Dr. O.P. Yadav and Dr. Ashok Kumar participated in meeting for defining the research agenda for BISA at NASC Complex, New Delhi, from October 15-17, 2012
- Dr. O.P. Yadav, Dr. A K Singh, Dr. Ashok Kumar and Dr. CM Parihar participated in ICAR- CIMMYT work plan meeting at NBPGR, New Delhi, on October 18, 2012
- Dr. O.P. Yadav, Dr. Ashok Kumar, Dr. AK Singh, Dr. CM Parihar and Dr. SL Jat attended Third International Agronomy Congress- Agriculture diversification, Climate Change management and Livelihoods Organized by Indian Society of Agronomy and ICAR, New Delhi held at New Delhi, from November 26-30, 2012
- Dr. Ishwar Singh and Dr. Pranjal Yadava attended national seminar on "Physiological & molecular approches for development of climate resilient crops" held at ANGRAU, Hyderabad from December 12-14, 2012

## Human Resource Development

Given below is the information on trainings attended by various scientists of DMR:

| S. No. | Scientist | Training programme | Organized by | Venue | Period |
|---|---|---|---|---|---|
| 1 | Dr. Lakshmi Soujanya | New Frontiers in Integrated Pest Management in Rice and Rice based cropping systems | ICAR | DRR, Rajendra nagar, Hyderabad | August 13-October 3, 2012 |
| 2 | Dr. Ramesh Kumar, Dr. Bhupinder Kumar | Precision phenotyping for abiotic stresses in maize | CIMMYT | Hyderabad | August 29- September 1, 2012 |
| 3 | Dr. Pradyumn Kumar | Advanced Techno-Management Program for F and G level Scientists | DST | Administration Staff College of India, Hyderabad | September 17 - October 19, 2012 |
| 4 | Dr. KS Hooda | Management program on leadership development | ICAR | NAARM, Hyderabad | October 8-19, 2012 |
| 5 | Sh. Vishal Singh | Recent Advances in Quantitative Genetics and Statistical Genomics | ICAR | IASRI, New Delhi | November 6-26 , 2012 |
| 6 | Ms. Sapna | Scientific Paper Writing | National Academy of Science, Allahabad | Allahabad | November 8-10, 2012 |
| 7 | Dr. Jyoti kaul | Intellectual Property and PPV&FR Act 2001 | PPV&FR, Authority and Scriboard Research & Development, Centre | NASC Complex, New Delhi | November 22-24, 2012 |
| 8 | Dr. CM Parihar, Ms. Sapna | Project formulation, Risk Assessment, Scientific Report Writing and Presentation | ICAR | IARI, New Delhi | December 11-15, 2012 |

## Farewell

Dr. R Sai Kumar, Director, DMR superannuated on August 31, 2012 after serving as Project Director for a period of two years (July 28, 2010-August 31, 2012). He supported single cross hybrid technology in maize and emphasized on development of source germplasm, genetically diverse inbred lines and high yielding hybrids. His coordinated approach has enriched AICRP (Maize) including DMR.

## Promotions

**Dr.(Mrs) Jyoti Kaul**
Principal Scientist
Plant Breeding

**Dr. K S Hooda**
Principal Scientist
Plant Pathology

**Dr. A K Singh**
Principal Scientist
Agronomy

**Dr. Ishwar Singh**
Principal Scientist
Plant Physiology

**Dr. (Mrs) Meena Shekhar**
Principal Scientist
Plant Pathology

**Dr. Ashok Kumar**
Principal Scientist
Agronomy

## Sports Activities

ICAR Central Zone Tournament was held at IARI, New Delhi from September 26-30, 2012. A team of eight members from DMR participated in different events and won various awards. Mr. Yatish, K.R. Scientist won best athlete award for getting I$^{st}$ position in 200 m & 400 m race, II$^{nd}$ position in 100 m race and long jump.

## Transfers

**Dr. Ramesh Kumar**
transferred from RMR & SPC Begusarai to DMR, New Delhi on October 29, 2012

**Dr. Chikkappa, G.K.**
transferred from DMR New Delhi to Winter Nursery Hyderabad on July 7, 2012

**Sh Abhijeet Kumar Das**
transferred from RMR & SPC Begusarai to DMR, New Delhi on September 9, 2012

## New Joining

Dr. S.B. Singh
Principal Scientist,
RMR & SPC, Begusarai joined on August 30, 2012

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