This Newsletter highlights some of the salient research and training achievements made and other significant activities performed during the period under report.

The Institute has initiated work on Bioinformatics aspects of rice genome. In this regard a study on Computational analysis of SNPs at functional elements of rice genome has been undertaken. A web page has been developed for Agricultural Bioinformatics Lab (ABL) wherein links are provided to the most commonly used bioinformatics tools. Online local BLAST has been developed to locate and quantify blocks of similarity between query and subject sequences. Bioperl and cgi scripts are written for parsing BLAST report.

A winter school on "Advances in design and analysis of agricultural experiments" and a training programme on "Recent advances in sample survey and analysis of sample survey data" under the aegis of Centre of Advanced Studies in Agricultural Statistics and Computer Applications were organised. One day workshop entitled "A sensitization workshop on content management for eLearning systems using MOODLE" was also organized.

A two-days Hindi Karyashala for scientific/technical/administrative personnel of the Institute was also organised.

The Institute Research Committee (IRC) meeting was organised to discuss the progress of ongoing and new research projects. The Institute also provided consultancy services to various research studies/projects in NARS.

Dr. Raj S. Chhikara, Professor of Statistics at University of Houston – Clear Lake, Texas, USA visited IASRI as part of his sabbatical from his university.

The Institute participated in number of meetings/conferences/symposia/workshops etc. It is hoped that the contents of this document would be informative and useful for scientists in NARS. Any suggestions for improving the contents of the newsletter further, would be highly appreciated.

(VK Bhatia)
RESEARCH ACHIEVEMENTS

- Genomic information as well as information on functional elements of all the chromosomes of *Oryza sativa* has been collected from public domain. The collected information has been processed in a way suitable for extraction through web interface. The genomic coordinates of functional elements have been obtained and a database on the same has been populated. A web page has been developed for Agricultural Bioinformatics Lab (ABL) wherein links are provided to the most commonly used bioinformatics tools. Online local BLAST has been developed to locate and quantify blocks of similarity between query and subject sequences. *Bioperl* and *cgi* scripts are written for parsing BLAST report. DNA polymorphisms (SNPs/INDELS) detected between two subspecies, viz., *indica* and *japonica* have been collected from http://www.plantgenome.uga.edu/snp. SNPs along with their flanking sequences are processed and stored in a database. Scripts are being written to find the genomic coordinates of SNPs. Work is being initiated to provide visual graphic display of distribution of SNPs and functional elements on rice genome.

- SAS and SPSS steps and syntax for performing the analysis of data generated from completely randomized designs and cross over designs have been uploaded as links “Completely randomized design” and “Cross over design” on the page “Analysis of data” in Design Resources Server.

HONOURS AND AWARDS

- Best poster presentation in “Section of Mathematical Sciences” of 96th Indian Science Congress for the paper entitled “GARCH nonlinear time-series modelling and forecasting for volatile meteorological subdivision rainfall data” by Himadri Ghosh and Pranjeshu.

HUMAN RESOURCE DEVELOPMENT

- A winter school on “Advances in design and analysis of agricultural experiments” was organized during 14 January-03 February 2009. The winter school was aimed at familiarizing the participants with the
advances in designing experiments and analysis of data for making valid inferences from agricultural research data, to acquaint the participants with the use of statistical packages SAS/SPSS/GenStat for data analysis and also to undertake collaborative research in future. This winter school was intended for the 25 scientific research personnel working in the National Agricultural Research System. Dr. Rajender Parsad was the Course Director of this winter school.

A 21 days training programme on "Recent advances in sample survey and analysis of sample survey data" was organized under the aegis of Centre of Advanced Studies during 10 February-02 March 2009. Dr. UC Sud was the Course Director of the training programme.

A one day workshop entitled "A sensitization workshop on content management for eLearning systems using MOODLE" was organized on 30 January 2009 in the Institute as a part of one of the objectives of the institute project "An eLearning Solution for Agricultural Education" for the course instructors/faculty members of the PG school, IARI under the disciplines of Agricultural Statistics and Computer Applications in Agriculture and also for other scientists of the Institute. The workshop was inaugurated by the Director of the Institute. The website http://elearnagri.iasri.res.in of the eLearning system under the project was also launched.
96th 'Indian Science Congress' held at NEHU, Shillong during 03-07 January 2009.

Director’s Conference during 15-16 January 2009 at NASC, New Delhi


Launching workshop of the NAIP project ‘Risk assessment and insurance products for agriculture’ held at NCAP, New Delhi during 20-21 January 2009.

15th meeting of the ‘Regional Technical Coordination Committee of rice wheat consortium for the Indo-Gangetic Plains’ organized at NASC, New Delhi during 02-03 February 2009.

International 4th World Congress on 'Conservation agriculture' during 04-07 February 2009 at NASC, New Delhi.

6th meeting of the Technical Monitoring Committee (TMC) for the Central Sector Scheme on ‘Strengthening of database and geographical information system for the fisheries sector’ at Central Fisheries Research Institute (CIFRI), Barrackpore, West Bengal on 12 February 2009.

47th Convocation at IARI, New Delhi on 13 February 2009.

Vice Chancellor’s Conference during 16-17 February 2009.

Training programme on ‘Stress management strategies for enhanced personal and organizational effectiveness’ at NAARM, Hyderabad during 18-24 February 2009.

11th Annual Conference of the Society of Agricultural Statistics and Computer Applications organized in Department of Statistics, Madras University, Chennai on 24 February 2009 and the Director, IASRI chaired one session of invited talks.


Workshop on ‘Developing a decision support system for agricultural commodity market outlook’ during 25-26 March 2009 at NCAP, New Delhi.

Meetings etc.

- Meeting of the Empowered Committee for implementation of the scheme ‘Awards and fellowships and outstanding and meritorious research studies in statistics’ on 06 January 2009 at Sardar Patel Bhavan, New Delhi.
- Meeting of the Steering Committee for preparation of manuals under the Chairmanship of DG, CSO on 09 January 2009.
- 376th meeting of the Academic Council on 13 January 2009 at IARI, New Delhi.
- 80th Annual General Meeting of the ICAR Society on 20 January 2009 at NASC, New Delhi.
- Meeting of Task Force Committee on 29 January 2009 at KAB-II, New Delhi.
- 3rd meeting of the Technical Committee on FASAL under the Chairmanship of Dr. S.M. Jharwal, Principal Advisor, DAC on 05 February 2009 at Krishi Bhawan, New Delhi.
- 27th meeting of Departmental Advisory Board of Department of Educational Measurement and Evaluation, NCERT, New Delhi on 06 February 2009.
- Meeting of the committee constituted for the revision of methodology for estimation of major livestock products and the prescribed guidelines under the Chairmanship of Commissioner, Animal Husbandry on 13 February 2009 at Krishi Bhawan, New Delhi.
- PMAC meeting of the project ‘Visioning, policy analysis and gender (V-PAGe)’ during 27-28 February 2009 at NCAP, New Delhi.
- Meeting with DDG (Fisheries)/ DDG (Animal Sciences), ICAR during 02-03 March 2009.
- Meeting with ADG (Ag Engineering), ICAR during 02-05 March 2009.
- Meeting pertaining to assessment of yield at Gram Panchayat level in remote sensing technology made by Department of Science and Technology in Krishi Bhawan, New Delhi under the Chairmanship of Dr. SM Jharwal, Principal Adviser, DES, Min. of Agriculture, GOI on 09 March 2009.
- ICAR Expert Committee meeting on 19 March 2009 under the Chairmanship of Dr. Anwar Alam, Vice Chancellor, SKUAST, Srinagar held at IASRI, New Delhi in which the final results of the study entitled 'Assessment of post harvest losses of crops/commodities' were discussed at length.
- RAC meeting of PDCSR on 24-25 March 2009.

COMPUTING FACILITIES

Wide Area Network

Internet services have been provided to the users and the website of IASRI is being updated regularly. This site has been visited 104068 times since 01 April 2008 and 585767 times since 05 September 2003.

SEMINARS DELIVERED

Seminars in different areas of Agricultural Statistics and Computer Application were
delivered. These seminars include presentation of salient findings of the completed research projects by the scientists, thesis/ORW/course seminars of students of M.Sc. and Ph.D. (Agricultural Statistics) and M.Sc. (Computer Application) and Guest Seminars.

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Guest seminars were delivered by Prof. Prem Narain, Prof. JN Srivastava, Dr. Aloke Dey, Prof. Bikas Sinha and Dr. Pitam Chandra as a part of the celebrations for the Golden Jubilee Year of the Institute’s Foundation Day.

**LECTURES DELIVERED**

Various scientists of the Institute delivered:
- Invited talks on ‘Data warehousing: A step ahead databases’ and ‘LINUX’ in a seminar on ‘Emerging technology on data acquisition’ at Sri Guru Govind Singh College of Commerce, Delhi University, New Delhi on 12 February 2009.

**PUBLICATIONS**

**Research Papers**

**Project Reports/ User Manual/ Technical Report**

**Popular Articles**

संस्थान की हिन्दी पत्रिका सालिखकों-विवरण : 2008-09 में निम्नलिखित लेख प्रकाशित हुए :
- भाटिया, विजय कुमार. भारतीय कृषि सालिखको
Research Papers Presented

- Poster presentations in the 96th Indian Science Congress held at NEHU, Shillong during 03-07 January 2009:
  - Crop yield forecast models based on weather and agricultural inputs by Ranjana Agrawal and S.C. Mehta
  - GARCH Non-linear time-series modeling and forecasting for volatile meteorological sub-division rainfall data by Himadri Ghosh and Prajneshu

- Research papers presented at the 11th Annual Conference of Society of Statistics, Computer and Application held at University of Madras, Chennai during 23-26 February 2009:
  - Technology forecasting of agricultural scenario - A case study in genetics and plant breeding by Ramasubramanian V, Anil Rai, Amrinder Kumar and Sarvesh Kumar Premi
  - On optimal fertilizer doses for experiments of AICRP on soil test crop response correlations by Aloke Lahiri
  - Balanced sampling plans excluding contiguous units by Rajender Parsad, BN Mandal and VK Gupta

- Research paper on Statistical methods and concepts for analysis of farmer’s field data by Rajender Parsad, Jose Crossa, VK Gupta, Raj K Gupta and JK Ladha was presented at the 15th meeting of the Regional Technical Coordination Committee of Rice Wheat Consortium for the Indo-Gangetic Plains at New Delhi.

- Poster presentations in the 4th World Congress on 'Conservation Agriculture' organized during 04-07 February 2009:
  - Modeling the crop yield under
agroforestry system by Cini Varghese, Seema Jaggi, AS Gill, VK Sharma and NP Singh
- Impact assessment of agroforestry system on yield of associated barley and gram crops by Seema Jaggi, AS Gill, Cini Varghese, VK Sharma and NP Singh
- Modeling yield prediction under long-term fertility experiments in rice-wheat rotation of Indo-Gangetic plains by Anil Kumar, PK Batra, MS Gill, Gyan Singh and Sanat Kumar

- Research paper on Production of flowers in Delhi based on market arrival and village survey approaches by AK Gupta was presented at the 'National conference on floriculture for livelihood and profitability' organized by Indian Society of Ornamental Horticulture (ISOH) during 16-19 March 2009 at IARI, New Delhi.

CONSULTANCY
- Dr. CA Nimbalkar, National Agricultural Research Project (Plain Zone), Mahatma Phule Krishi Vidyapeeth, Rahuri was advised on the analysis of data pertaining to the experiment conducted to compare performance of tomato, capsicium and broccoli under shednet cultivation and open field cultivation of three crops.
- Consultancy on 'Techniques for survey data analysis and capacity building' has been provided to NCAER, New Delhi.

VISITOR
Dr. Raj S. Chhikara, Professor of Statistics at University of Houston – Clear Lake, Texas, USA, visited IASRI from November 1, 2008 to March 31, 2009 as part of his sabbatical from his university. As a visiting professor, he interacted and engaged in collaborative research with the IASRI scientists; attended seminars held at the institute, delivered a seminar and contributed to the success of CAS training programme by addressing the participants. The main fields of collaboration were regarding the problem of domain estimation in the presence of non-response. They developed an optimal two-phase sampling plan with sample sizes determined at each phase to achieve desired precisions for both domain and population total estimators. He also collaborated in the study pertaining to the pilot survey in Maghalaya that would help in achieving a better state coverage and an improvement in estimation of agricultural items of interest.

PERSONNEL

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<td>Sh. Sunil Bhatia</td>
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Wish you Happy Retired Life

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