

List of Publications

Research Papers

- Ahamad, T, Singh, R, Rai, Anil and Kant, A (2007). [Model for prediction of area under Yamunanagar district of Haryana](#). Ind. J. Agril. Sci., **77(1)**, 43-45.
- Anupama, Singh, MC, Kumar, Rajesh, Parmar, BS and Kumar, A (2006). [Performance of a new superabsorbent polymer on seedling and post planting growth and water use pattern of Chrysanthemum grown under controlled environment](#). Acta Horticulturae, **42**, 43-50.
- Arora, Alka, Singh, Balbir, Dahiya, Shashi and Farooqi, Samir (2005-06). [On line information system for personnel management](#). Hry. Eco. J., **26(1-2)**, 79-80.
- Bhardwaj, SP and Vasisht, AK (2007). [Policy support for contract farming in lac cultivation – An alternative marketing model](#). Ind. J. Agril. Mktg., **21(3)**, 43-54.
- Bhardwaj, SP (2007). [Conceptual reforms to improve marketing efficiency](#). Ind. J. Agril. Mktg., **21(3)**, 100-107.
- Bhasin, RM, Sethi, SC and Sharma, SK (2006). [To study the profitability of angora rabbits farming](#). Hry. Eco. J., **26(1-2)**, 86-89.
- Bhattacharya, BK, Dutta, S, Dadhwal, VK, Parihar, JS, Chattopadhyay, C, Agrawal, R, Kumar, V, Khan, SA, Roy, S and Shekhar, C (2007). [Predicting aphid \(Lipaphis erysimi\) growth in oilseed Brassica using near surface meteorological data from NOAA TOVS - A case study](#). Int. J. Rem. Sens., **28(17)**, 3759-3773.
- Chakravorti, Kalyan, Paul, Amrit and Alam, Wasi (2007). [Application of clustering technique in mango and litchi germoplasm of West Bengal](#). J. Interacademia, **11(1)**, 34-39.
- Chandra, H, Salvati, N and Chambers, R (2007). [Small area estimation for spatially correlated populations - A comparison of direct and indirect model based methods](#). Stat. Trans., **8**, 887-906.
- Das, MN, Lahiri, Alope and Shukla, Mukti Kant (2007). [A convenient algorithm for extraction of any root of any number](#). J. Stat. Appl., **5(1-2)** (new series), 99-100.
- Dhar, Vishwa, Singh, SK, Kumar, M, Agrawal, R and Kumar, Amrender(2007). [Prediction of pod borer \(Helicoverpa armigera\) infestation in short duration pigeonpea \(Cajanus cajan\) in central Uttar Pradesh](#). Ind. J. Agril. Sci., **77(10)**, 701-704.
- Ganguly, S, Anupama, Parmar, BS and Kumar, A (2007). [Effect of a new hydrogel formulation on shelf life characteristics of steinernema thermophilum](#). Nematology Mediterranea, **742**, 43-50.

- Ghosh, H, Iquebal, MA and Prajneshu (2008). [A bootstrap study of variance estimation under heteroscedasticity using algorithm](#). J. Statist. Theo.Prac., **2**, 55-59.
- Gupta, AK, Narang, MS, Jain, VK, Sud, UC and Tyagi, KK (2007). [Estimation of area, production and productivity of flowers in Delhi](#). Int. J. Agril. Statist. Sci., **3(1)**, 7-15.
- Islam, Shahnawazul, Agarwal, Hari Om and Farooqi, Samir (2007). [Need of a new revolution in agriculture](#). Agril. Situation India, (Special Number: How to Bring About a Second Green Revolution in India), 51-53.
- Jaggi, Seema and Tomar, Jitendra Singh (2005). [Robustness of neighbour balanced complete block designs for correlated observations](#). Ind. J. Appl. Statist., **9**, 41-52.
- Jaggi, Seema, Varghese, Cini and Gupta, VK (2007). [Optimal circular block designs for neighbouring competition effects](#). J. Appl. Statist., **34(5)**, 577-584.
- Joshi, AK, Ortiz-Ferrara, G, Crossa, J, Singh, G, Sharma, RC, Chand, R and Parsad, Rajender (2007). [Combining superior agronomic performance and terminal heat tolerance with resistance to spot blotch \(Bipolaris sorokiniana\) of wheat in the warm humid Gangetic Plains of South Asia](#). Field Crops Research, **103**, 53-61.
- Kaul, Sushila, Ram, Ghasi and Panwar, Sanjeev (2006). [Economic analysis of productivity and profitability in rice production in India](#). Agril. Situation India, **53(5)**, 295-300.
- Kaur, Charanjit, George, Binoy, Deepa, N, JaggiSeema and Kapoor, HC (2007). [Viscosity and quality of tomato pulp as affected by processing methods](#). J. Food Qual.. **30(6)**, 864-877.
- Kolluru, Ramesh, Rao, AR, Prabhakaran, VT, Selvi, A and Mohapatra, T (2007). [Comparative evaluation of clustering techniques for establishing AFLP based genetic relationship among sugarcane cultivars](#). J. Ind. Soc. Agril. Statist., **61(1)**, 51-65.
- Kumar, Jitendra, Nisar, K, Kumar, Arun, MB, Walia, Suresh, Shakil, NA, Parsad, Rajender and Parmar, Balraj S (2007). [Development of polymeric seed coats for seed quality enhancement of soybean \(Glycine max\)](#). Ind. J. Agril. Sci, **77(11)**, 738-743.
- Kumar, Jitendra, Singh, Gyanendra, Palta, RK, Walia, Suresh, Parsad, Rajender and Parmar, Balraj S (2006). [Field appraisal of controlled release formulations of carbofuran against the rice leaf folder \(Cnaphalocrocis medinalis\)](#). Ind. J. Agril. Sci., **76(12)**, 732-735.
- Kumar, Rajendra, Singh, NP and Singh, Gyan (2007). [Statistical investigation on use of application of micro nutrients with NPK in rice-wheat cropping system research](#). Bhartiya Vaigyanik Evam Audhyogik Anusandhan Patrika.
- Kumar, Sanjeev, Sethi, IC and Arora, A (2006). [Online data management system for long term fertilizer experiments](#). J. Ind. Soc. Agril. Statist., **60(3)**, 162-168.

- Lahiri, Alope and Das, MN (2007). **Finding eigen values related to precision of GCA effects using diallel crossing plans**. J. Stat. Appl., **5(1-2)** (new series), 101-104.
- सेठी, आई.सी. एवं मौर्या, एम.एम. ;2007 **पशु प्रजनन वैज्ञानिकों हेतु सांख्यिकीय पैकेज / भारतीय कृषि अनुसंधान पत्रिका** **22(3)**, 77-83 A
- Marwaha, Sudeep and Bedi, Punam (2007). **Temporal extension to OWL ontologies**. Int. J. Info. Tech., **4(1)**, 53-60.
- Nilakanta, Sree, Scheibes, Kevin and Rai, Anil (2008). **Dimensional issues in agricultural data warehouse design**. Comp. Elect. Agric., **60(2)**, 263-278.
- Pal, Satya, Ramasubramanian, V and Mehta, SC (2007). **Statistical models for forecasting milk production in India**. J. Ind. Soc. Agril. Statist., **61(2)**, 80-83.
- Parsad, Rajender (2006). **A note on semi-Latin squares**. J. Ind. Soc. Agril. Statist., **60(2)**, 131-133.
- Parsad, Rajender, Kageyama, Sanpei and Gupta, VK (2007). **Use of complementary property of block designs in PBIB designs**. ARS Combinatoria, **85**, 173-182.
- Pateria, Dinesh Kumar, Jaggi, Seema, Varghese, Cini and Das, MN (2007). **A series of incomplete non circular block designs for competition effects**. J. Stat. Appl., **5(1-2)**, 5-14.
- Patil, JP, Sarangi, A, Singh, OP, Singh, AK and Ahmad, T (2007). **Development of a GIS interface for estimation of runoff from watersheds**. Water Resour. Manage., <http://www.springerlink.com/content/27238h2716861028>.
- Rai, Anil, Malhotra, PK, Sharma, SD and Chaturvedi, KK (2007). **Data warehousing for agricultural research - An integrated approach for decision making**. J. Ind. Soc. Agril. Statist., **61(2)**, 264-273.
- Rai, Anil, Chaturvedi, KK and Malhotra, PK (2008). **Design and development of fisheries data mart**. In: **Applied Bioinformatics, Statistics and Economics in Fisheries Research**, (Eds.) Ajit Kumar Roy and Niranjana Sarangi, New India Publishing Agency, New Delhi, 261-292.
- Rai, Anil, Dubey, Vipin, Chaturvedi, KK and Malhotra, PK (2007). **Issues of design and development of agricultural data warehouse in India**. CSI Communications, **31(1)**, 43-51.
- Rai, Anil, Gupta, NK and Singh, Randhir (2007). **Small area estimation of crop production using spatial models**. J. Model Assisted Statist. Appl., **2(2)**, 89-98.
- Rai, Anil, Saxena, BC and Bindal, Vijay (2005). **Two phase sampling in multiple frame surveys**. J. Ind. Soc. Agril. Statist., **59(3)**, 187-191.

- Ramasubramanian, V, Rai, Anil and Singh, Randhir (2007). **Jackknife variance estimation under two phase sampling**. J. Model Assisted Statist. Appl., **2(1)**, 27-35.
- Agrawal, Ranjana and Mehta, SC (2007). **Weather based forecasting of crop yields, pests and diseases - IASRI models**. J. Ind. Soc. Agril. Statist., **61(2)**, 255-263.
- Rao, AR and Prabhakaran, VT (2007). **Simultaneously selection of cultivars for yield and stability in crop improvement trials**. Ind. J. Genet., **67(2)**, 161-165.
- Roca, X, Olson, AJ, Rao, AR, Enerly, ER, Kristensen, VN, Dale, AB, Anderson, BS, Krainer, AR and Schidanandam, R (2007). **Features of 5' splice site efficiency derived from disease causing mutations and comparative genomics**. Genome Research, online, 21 November 2007.
- Sandhya Kiran, P, Bhatia, VK and Paul, AK (2007). **Bayesian estimation of heritability in different situations**. J. Anim. Sci., **77(11)**, 1188-1191.
- Sandhya Kiran, P, Bhatia, VK and Paul, AK (2007). **Estimation of heritability by modified ANOVA method in different situations**. J. Anim. Sci., **77(11)**, 1184-1187.
- Sandhya Kiran, P, Bhatia, VK and Paul, AK (2007). **Estimation of heritability of robust method in case of half sib**. J. Anim. Sci., **77(12)**, 1301-1306.
- Sarika, Wahi, SD and Rao, AR (2006). **Effect of outliers on the estimates of genetic correlation**. Ind. J. Anim. Genet. Breed., **27(1, 2)**, 17-21.
- Sarkar, Susheel Kumar and Lal, Krishan (2008). **Profile analysis for animal growth data**. Ind. J. Anim. Sci., **78**, 401-405.
- Satpati, Subrata Kumar, Parsad, Rajender and Gupta, VK (2007). **Efficient block designs for dependent observations: A computer aided search**. Comm. Statist. - Theory Methods, **36(6)**, 1187-1223.
- Satpati, Subrata Kumar, Parsad, Rajender, Gupta, VK and Nigam, AK (2006). **Computer aided search of efficient nested incomplete block designs for correlated observations**. J. Comb. Info. Sys. Sci. (Special issue in honour of Prof. Bhu Dev Sharma), **31(1-4)**, 163-186.
- Sethi, SC, Mathur, DC and Pandey, PS (2007). **Estimation of wheat yield at block level of Haryana using small area method**. J. Farm. Sys. Res. Dev., **13(1)**, 138-141.
- Sethi, IC, Sud, UC, Rai, Anil and Narang, MS (2005). **A comparison of different estimators of regression coefficients from survey data**. Ind. J. Appl. Statist., **9**, 27-34.
- Sethi, SC, Sood, RM, Dass, Bhagwan and Mathur, DC (2006). **A study on block level estimators of crop yield and comparison of estimates for important crops in the Sirsa district of Haryana State**. Hry. Eco. J., **26(1-2)**, 103-105.

- Sharma, A, Varghese, C, Rao, AR, Gupta, VK and Pal, S (2007). **SPRMD – A statistical package for cataloguing and generation of repeated measurement designs**. J. Ind. Soc. Agril. Statist., **61(1)**, 84-90.
- Dahiya, Shashi, Chowdhury, RK, Mathur, DS (2006). **A web enabled networking of National Seed Project (Crops)**. Ann. Agril. Res., **27(2)**, 203-204.
- Singh, DK, Rajput, TBS, Singh, DK, Sikarwar, HS, Sahoo, RN and Ahmad, T (2006). **Simulation of soil wetting pattern with subsurface drip irrigation from line source**. Agril. Water Manage., **83**, 130-134.
- Singh, NO, Paul, Amrit Kumar and Alam, Wasi (2007). **Non-linear models to describe growth pattern of tor putitora (Hamilton) under monoculture and polyculture systems**. Ind. J. Anim. Sci., **77(12)**, 1346-1348.
- Singh, NO, Rao, AR, Wahi, SD and Singh, VP (2006). **Robustness of bootstrap estimates of variance of heritability of master samples in halfsib analysis**. Ind. J. Anim. Genet. Breed. **27(1, 2)**, 6-11.
- Srinath, K, Unnithan, GR, Gopal, N, Nair, RV, Bathla, HVL and Ahmad, T (2007). **Harvest losses in marine fisheries**. Fish. Tech., **44(1)**, 117-120.
- Srivastava, AK, Sud, UC and Chandra, H (2007). **Small area estimation - An application to NSSO data**. J. Ind. Soc. Agril. Statist., **61(2)**, pg 249-254.
- Srivastava, R, Parsad, Rajender, Dey, Amitava and Gupta, VK (2007). **A-efficient block designs for symmetric parallel line assays**. Utilitas Mathematica, **73**, 239-253.
- Sud, UC and Mishra, Divijesh Chandra (2006). **Estimation of finite population mean using ranked set two stage sampling designs**. J. Ind. Soc. Agril. Statist., **60(2)**, 108-117.
- Sud, UC, Srivastava, AK, Sethi, IC and Narang, MS (2005). **On some aspects of proximal estimators in repeated surveys**. Ind. J. Appl. Statist., **9**, 53-66.
- Tomar, Jitendra Singh and Jaggi, Seema (2007). **Efficient neighbour balanced block designs for correlated observations**. Metron, **LXV (2)**, 229-238.
- Vasisht, AK, Kumar, S Sujith, Aggarwal, PK, Kalra, N, Pathak, H, Joshi, HC and Choudhary, RC(2007). **An integrated evaluation of trade-offs between environmental risk factors and food production using Interactive Multiple Goal Linear Programming – A case study of Haryana**. Ind. J. Agric. Econ., **62(3)**, 511-523.
- Vishwakarma, RK, Wanjari, OD, Rai, Anil, Bathla, HVL and Gupta, RK (2007). **New methodology to study harvest and post-harvest losses in groundnut**. Agril. Situation India, 625-630.
- Wimmer, K, Roca, X, Beiglbock, H, Etzler, J, Rao, AR, Krainer, AR, Fonatsch, C and Massiaen, L (2007). **Extensive in silico analysis of NF1 splicing defects uncovers determinants for splicing outcome upon 5' splice site disruption**. Human Mutation, **28(6)**, 599-612.

Research Papers Published in Conference Proceedings

- Kumar, A, Ramasubramanian, V and Agrawal, R (2007). **Forecasting rice yield using neural networks**. Proceedings of the 3rd Indian International Conference on Artificial Intelligence (IICAI-07), Pune, 1510-1516.
- Lal, SB, Ramasubramanian, V, Agrawal, R, Raza, SM and Jha, GK (2007). **A software for imputing missing values using neural networks**. Proceedings of the 3rd Indian International Conference on Artificial Intelligence (IICAI-07), Pune, 1595-1604.
- Ramasubramanian, V, Agrawal, R, Lal, SB, Rai, A, Kumar, A, Raza, SM and Jha, GK (2007). **Evaluation of neural network application for data editing**. Proceedings of the 3rd Indian International Conference on Artificial Intelligence (IICAI-07), Pune, 1572-1581.
- Kumar, Ashok (2007). **Role of micro credit and financial institutions in rural development**. Souvenir of the Conference on Environmental and Livelihood Security through Resource Management in Northern India, Chandigarh.
- Chandra, H and Chambers, R (2007). **Small area estimation in multivariate surveys**. Proceedings of the American Statistical Association Section on Survey Research Methods.
- Chandra, H and Chambers, R (2007). **Multipurpose small area estimation**. Proceedings of the 3rd International Conference on Establishment Surveys, American Statistical Association.
- Saxena, BC and Bindal, Vijay (2007). **Robustness of estimators in multiple frame survey**. Proceedings of V International Symposium on "Optimization and Statistics", Department of Statistics and Operational Research, Aligarh Muslim University, Aligarh, 264-271.

Book Chapters

- Rai, Anil (2005). **Data Warehousing – An Introduction**. *Bioinformatics and Statistics in Fisheries Research*, II. CIFA, 63-76.
- Rai, Anil, Dubey, Vipin, Chaturvedi, KK and Malhotra, PK (2007). **Implementation of Fisheries Data Marts**. *Bioinformatics and Statistics in Fisheries Research*, III. CIFA, 90-109.
- Vasisht, AK (2007). **On Project Evaluation Techniques for Estimation of Research Benefits of Fisheries Research**. *Applied Bioinformatics, Statistics & Economics in Fisheries Research* (Eds.) AK Roy and N Sarangi, CIFA, Bhubaneswar, Orissa.

Popular Articles

- Jaggi, Seema (2007). **Analysis of multilevel data using SPSS**. *The SPSS Analyst*, April-June, 43-49.

- मैहता, सुभाष चन्द्र, सत्य पाल एवं कुमार, विनोद (2008) । *आबू की उपज के पूर्वानुमान हेतु मौसम चरों पर आधारित मॉडल* । सांख्यिकीविमर्श, 2007-08 (3), 58-62.
- विशाखी, पी. एवं बिन्दल, विजय (2008) । *संस्थान का पुस्तकालय सूचना तंत्र* । सांख्यिकी विमर्श, 2007-08 (3), 63-69.
- प्रज्ञेषु, अग्रवाल, रंजना एवं घोष, हिमाद्रि (2008) । *वर्षा का पूर्वानुमान : वर्तमान परिदृश्य एवं अपेक्षित भावी शोध कार्य* । सांख्यिकीविमर्श, 2007-08 (3), 41-46.
- अग्रवाल, रंजना एवं शर्मा, सुखदेव (2008) । *संस्थान के कीर्तिस्तम्भ -डॉ गोविन्द राम सेठ* । सांख्यिकीविमर्श, 2007-08(3), 1-3.
- शर्मा, सुखदेव (2008)। *सूचना प्रौद्योगिकी एवं जीव विज्ञान में अनुप्रयोग* । सांख्यिकीविमर्श, 2007-08(3), 63-69.
- अग्रवाल, रंजना (2008) । *कम्प्यूटर की कहानी उसी की जुबानी* सांख्यिकीविमर्श, 2007-08(3), 23-28.
- गुप्ता, ए.के., नारंग, एम.एस. एवं माथुर, डी.सी. (2007). *सब्जियों की उपज पर उर्वरक सिंचाई एवं कीटनाशक का प्रभाव* । भारतीयकृषिअनुसंधानपत्रिका22(3), 195-200 ।
- सेठी, सुभाष चन्द्र, सूद, सुरेन्द्र मोहन और शर्मा, सुरेन्द्र कुमार (2008)। *धन की खेती में जोत आकार का महत्व* । कृषिचयनिकापत्रिका,कृषिअनुसंधानभवन,पूसा, नईदिल्ली
- कुमार, अशोक (2008) । *क्योटो प्रोटोकाल में कृषि से होने वाले लाभ की सम्भावनाएँ* । सांख्यिकीविमर्श, 2007-08(3), 52-57।

Research Project Reports

- Bhar, LM, Parsad, Rajender and Gupta, VK. *Outliers in designed experiments*. (AP Cess Funded)
- Jaggi, Seema, Sharma, VK, Gill, AS and Varghese, Cini. *Some investigations on design and analysis of agroforestry experiments*.
- Kumar, Anil, Kaur, Ajit, Kaur, Rajinder, Sharma, GC and Gangwar, B. *Combined analysis of experiments on long range effect of continuous cropping and manuring on soil fertility and yield stability*. (AP Cess Funded)
- Mohan, Madan, Sharma, Rajbir, Rai, T and Agrawal, Ranjana. *Forecasting of yield loss due to weeds*.

- Sharma, SD, Sud, UC, Bathla, HVL, Goyal, RC, Narang, MS, Mathur, DC, Gupta, AK, Pal, Satya, Jain, VK, Dass, Bhagwan, Arora, Alka, Singh, Man, Sharma, SK, Sharma, DP, Gupta, PL and Grover, Rajni (2007). [Analytical report on survey capabilities of private agencies under the study “Assessment of survey capabilities of private sector”](#). (CSO, MOS&PI, GOI Funded)
- Sharma, SD, Sud, UC, Bathla, HVL, Goyal, RC, Narang, MS, Mathur, DC, Gupta, AK, Pal, Satya, Jain, VK, Dass, Bhagwan, Arora, Alka, Singh, Man, Sharma, SK, Sharma, DP, Gupta, PL and Grover, Rajni (2007). [Project document for setting up the Consultancy Wing under the study “Assessment of survey capabilities of private sector”](#). (CSO, MOS&PI, GOI Funded)
- Singh, Mahender, Kumar, Ashok, Sivaramane, N, Singh, DR and Arya, Prawin (2007). [An econometric study of estimation of elasticities of demand and supply of major fruits and vegetables in India](#).
- Singh, RP and Vasisht, AK (2007). [Adoption and impact of resource conservation technologies on farm economy in Indo-Gangetic plains of India](#). IARI, IASRI and DWR.
- Srivastava, Ravindra, Gupta, VK and Parsad, Rajender. [Study on robustness of block designs for biological assays against loss of data](#).
- Varghese, Cini, Rao, AR, Gupta, VK and Sharma, Anu. [Statistical and algorithmic approach for improved estimation of treatments effects in repeated measurements designs](#). (DST Funded)
- [National information system on agricultural education network in India \(NISAGENET\)](#), Project Report.
- [National information system on agricultural education network in India \(NISAGENET\)](#). Technical document.

Monograph

- Parsad, Rajender, Gupta, VK, Batra, PK, Satpati, SK and Biswas, Pabitra (2007). [Monograph on \$\alpha\$ -designs](#). IASRI, New Delhi.
- Gupta, VK, Dhandapani, A and Parsad, Rajender (2007). [Monograph on Hadamard Matrices](#). IASRI, New Delhi.

Electronic Manual

- Jaggi, Seema and Rai, Anil (2008). [Research Methodology](#). Training programme for scientists of ICFRE, Dehradun from 07 to 18 January 2008.

Technical Bulletin

- Varghese, Cini, Jaggi, Seema, Sharma, VK and Singh, NP (2007). [Tables of lattice designs](#). IASRI Publication.

Lesson Series

- Jaggi, Seema and Prajneshu. [Sampling Distributions and Testing of Hypothesis](#). Lessons for BA programme of University of Delhi available at University's website (<http://www.du.ac.in/course/material/ug/ba/basicstat/index.html>).

Seminar Write-Ups

- A web page (<http://www.iasri.res.in/seminar/AS-299/new1.html>) containing the seminar write-ups of M.Sc. and Ph.D. students of Post Graduate School, IARI pursuing their study at IASRI in the discipline of Agricultural Statistics has been designed and developed for easy accessibility of the readers. These write-ups of the seminars delivered by the students during different academic sessions (2005-06, 2006-07, 2007-08) are a part of their course curriculum (AS -299).