List of Publications

Research Papers

1. Ahmad, T, Singh, R and Rai, A (2003). A bootstrap technique for variance estimation using imputed survey data for missing observations. *Ind. J. Appl. Statist.*, **7**, 40-48.
2. Ahmad, T, Singh, R and Rai, A (2006). Comparison of bootstrap methods for missing survey data-A simulation study. *Int. J. Model Assisted Statist. App.*, **1(1)**, 43-49.
3. Arora, Alka, Singh, Balbir, Dahiya, Shashi and Farooqi, Mohd. Samir (2005). Planning and distribution of manpower of ICAR using PERMISnet. *J. Ind. Soc. Agril. Statist.*, **59(2),** 141-145.
4. Chandran, KP and Prajneshu (2005). Nonparametric regression with autocorrelated errors methodology for describing country's marine fish production data. *Ind. J. Fish.*, **52**, 151-158.
5. Chandran, KP and Prajneshu (2005). Nonlinear statistical models for plant disease. *Ind. J. Agril. Sci.*, **75**, 361-363.
6. Chandran, KP and Prajneshu (2005). Nonparametric regression with jump points methodology for describing country's oilseed yield data. *J. Ind. Soc. Agril. Statist.*, **59(2),** 126-130.
7. Chattopadhyay, C, Agrawal, R, Kumar, Amrender, Bhar, LM, Meena, PD, Meena, RL, Khan, SA, Chattopadhyay, AK, Awasthi, RP, Singh, SN, Chakravarthy, NVK, Kumar, A, Singh, RB and Bhunia, CK (2005). Oilseed *Brassica alternaria* blight epidemiology and forecasting in India – A case study. *Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz (J. Plant Diseases Pro.),* **112**, 351-365.
8. Chattopadhyay, C, Agrawal, R, Kumar, Amrender, Singh, YP, Roy, SK, Khan, SA, Bhar, L, Chakravarthy, NVK, Srivastava, A, Patel, BS, Srivastava, B, Singh, CP and Mehta, SC (2005). Forecasting of *Lipaphis erysimi* on oilseed *Brassica* in India – A case study. *Crop Prot.*, **24**, 1042-1053.

9. Chaudhary, RK, Bathla, HVL and Sud, UC (2004). Non-response in sampling over two occasions. *J. Ind. Soc. Agril. Statist.*, **58(3)**, 331-343.

10. Dash, RC, Sirohi, NPS and Tyagi, KK (2005). Selection of optimum sizes of agricultural machinery - A case study. *J. Agril. Engg.,* **42(4)**, 32-41.

11. Deshpande, SN, Varma, PG, Semwal, P, Rao, AR, Bhatia, T, Nimgaonkar, V, Lerer, LB and Thelma, BK (2005). Serotonin receptor gene polymorphisms and their association with tardive dyskinesia among schizophrenia patients from north India. *Psy. Genet.*, **15**, 157-158.

12. Farooqi, Mohd. Samir, Singh, Balbir, Dahiya, Shashi and Arora, Alka (2005). PERMISnet: E-solution for the management of agricultural research personnel in ICAR. *Agril. Extn. Rev.*, May-June 2005, 3-5.

13. Ghosh, H and Das, A (2005). Optimal designs for best linear unbiased prediction in diallel crosses. *Comm. Statist.-Theory Methods,* **37**, 1579-1586.

14. Ghosh, H, Sunilkumar, G and Prajneshu (2005). Mixture nonlinear time-series analysis: Modelling and forecasting. *Cal. Stat. Assoc. Bull.*, **57**, 95-108.

15. Gupta, AK and Narang, MS (2005). Effect of fertilizer, irrigation and insecticides on the yield of vegetables. *Int. J. Agril. Statist. Sci.,* **1(1&2)**, 35-40.

16. Islam, SN, Farooqi, Mohd. Samir and Agarwal, Hariom (2005). Expert systems: A boon for the farming community. *Agric. Extn. Rev.,* January-February 2005, 3-6.

17. Kar , Abhijit, Chandra, Pitam, Parsad, Rajender and Dash,SK (2004). Microwave drying of button mushroom (*Agaricus biosporus*). *J. Food Sci. Tech.,* **41(6)**, 636-641.

18. Kar, Abhijit, Chandra, Pitam, Parsad, Rajender and Dash, SK (2005). Mass transfer during osmotic dehydration of banana slices (*Dwarf Cavendish*). *J. Agril. Engg.,* **42(3)**, 42-49.

19. Kaur, Rajinder, Kumar, Anil and Farooqui, Mohd. Samir (2005). Statistical assessment of different rice (*Oryza sativa*) varieties-based crop sequences. *Ind. J. Agril. Sci.,* **75(8)**, 501-503.

20. Khatri, RS, Goyal, JP, Bathla, HVL, Jayasankar and Geethalakshmi, V (2005). Review article on sampling methodology for estimation of sheep population and wool production. *Ind. J. Anim. Sci.*, **75(8)**, 1013-1019.

21. Khurana, GL, Tomer, RS, Kumar, Rajendra and Garg, RN (2004). Pictorial presentation of bivariate data of intercropping experiments. *New Botanist,* **31(4),** 209-225.

22. Kiran, PS, Bhatia, VK and Rao, AR (2004). A robust method of estimation of heritability. *J. Ind. Soc. Agril. Statist.*, **57**, 116-128.

23. Kumar, Amrender and Bhar, LM (2005). Forecasting model for yield of Indian mustard (*Brassica juncea*) using weather parameter. *Ind. J. Agril. Sci.,* **75(10)**, 688-690.

24. Kumar, Pramod, Singh, NP, Bhar, LM and Shinde, GS (2005). Relationship study between diameter and height of agroforestry species to predict volume growth. *Ind. J. Forestry*, **28**, 349-352.

25. Kumar, Rajendra and Kapoor, JK (2004). Statistical survey for cultural cum manurial experiments conducted on various crops in the country. *New Botanist,* **13(1-4)**, 253-257.

26. Kumar, Rajendra and Kapoor, JK (2005). Methodological study of composite yardsticks of additional production from the use of cultural practices at optimum level of fertilizer. *Ann. Agril. Res.,* **26(2)**, 185-189.

27. Menon, Pramila, Gopal, Madhuban and Parsad Rajender (2005). Effects of chlorpyrifos and quinalphos on dehydrogenase activities and reduction of Fe^{3+} in the soils of two semi-arid fields of tropical India. *Agril. Ecosystems Environment*, **108**, 73-83.

28. Narang, MS, Sud, UC and Gupta, AK (2005). Estimation of finite population regression coefficient in repeat surveys. *Int. J. Agril. Statist. Sci.*, **1(1&2)**, 1-9.

29. Narang, MS, Sud, UC and Gupta, AK (2005). Estimation of seemingly unrelated regression in random coefficient model with unequal numbers of observations. *Int. J. Agril. Statist. Sci.,* **1(1&2)**, 101-105.

30. Parsad, Rajender, Gupta, VK and Gupta, S (2005). Optimal designs for experiments on two-line and four-line crosses. *Utilitas Mathematica*, **68**, 11-32.

31. Parsad, Rajender and Satpati, SK (2005). Nested block designs for comparing test treatments with a control. *Utilitas Mathematica,* **68**, 271-281.

32. Panda, DK, Sharma, VK and Parsad, Rajender (2005). Robustness of optimal block designs for triallel crosses experiments against interchange of a pair of cross. *J. Ind. Soc. Agril. Statist.*, **59(1)**, 83-91.
33. Pateria, DK, Jaggi, Seema, Batra, PK and Gill, AS (2005). Modelling the impact of fruit trees on crop productivity. *Ind. J. Agril. Sci.,* **75(4)***,* 222-224.
34. Prajneshu and Chandran, KP (2005). Computation of compound growth rates in agriculture: Revisited. *Agril. Eco. Res. Rev.*, **18**, 317-324.
35. Prajneshu (2005). Statistical modelling in fisheries: A review. *Ind. J. Anim. Sci.*, **75**, 1008-1012.
36. Prajneshu and Kandala, VM (2005). Fitting of nonlinear Schaefer model. *Ind. J. Fish.*, **52**, 33-36.
37. Rai, Anil, Jha, GK and Srivastava, AK (2003). Conditional ratio estimator under successive sampling. *Ind. J. Appl. Statist.*, **7**, 22-32.
38. Rai, SC and Bhatia, VK (2004). Dimensions of regional disparities in socio economic development of Assam. *J. Ind. Soc. Agril. Statist.*, **57(Special Volume)**, 178-190.
39. Rai, Anil, Ahmad, T and Singh, R (2003). A bootstrap technique for variance estimation using imputed survey data for missing observations. *Ind. J. Appl. Statist.*, **7**, 40-48.
40. Rao, AR and Prabhakaran, VT (2005). Use of AMMI in simultaneous selection of genotypes for yield and stability. *J. Ind. Soc. Agril. Statist.,* **59(1)**, 76-82.
41. Rao, AR, Varghese, Cini and Sharma, VK (2005). Robustness of repeated measurements designs against missing observation(s)**.** *Ind. J. Dairy Sci.***,** **58(4)**, 281-286.
42. Rathore, Abhishek, Parsad, Rajender and Gupta, VK (2004). Computer aided construction and analysis of augmented designs. *J. Ind. Soc. Agril. Statist.,* **57(Special Volume)**, 320-344.
43. Ravichandran, S and Prajneshu (2005). On the modelling of seasonal fluctuations in fish landings using structural time-series approach - A case study. *Ind. J. Anim. Sci.*, **75**, 982-984.
44. Sarker, Subhra, Parsad, Rajender and Gupta, VK (2005). Outliers in block designs for diallel crosses. *Metron - Int. J. Statist.*, **63(2)**, 177-191.
45. Sethi, SC, Dass, B and Sud, UC (2005). A note on the regression estimator. *Haryana Eco. J.,* **25,** 153-155.
46. Sethi, SC, Mathur, DC and Sharma, SK (2005). Price spread and marketing pattern of vegetable crops in Pune. *Haryana Eco. J.,* **25,** 137-138.
47. Sharma, Anu, Varghese, Cini, Jaggi, Seema and Sharma, VK (2005). A computer software for PBIB(3) designs and partial diallel crosses. *J. Ind. Soc. Agril. Statist.,* **59(1)**, 67-75.
48. Singh, N Okendro, Wahi, SD and Kumar, Basant (2005). Study of different bootstrap strategies for estimating the precision of heritability in half-sib analysis. *Ind. J. Anim. Prod.,* **37(1&2)**, 36-39.
49. Sud, UC, Sethi, SC, Mathur, DC and Sharma, SK (2005). A comparative study of crop cut estimates and farmer's estimates in Sirsa district of Haryana state. *Haryana Eco. J.*, **25(1&2)**, 77-82.
50. Tiwari, AK, Deshpande, SN, Rao, AR, Bhatia, T, Mukhit, SR, Sriharsh, V, Lerer, B, Nimagaonkar, V and Thelma, BK (2005). Genetic susceptibility to Tardive Dyskinesia in chronic schizophrenia subjects: III. Lack of association of CYP3A4 and CYP2D6 gene polymorphisms. *Schizophrenia Res.*, **75**, 21-26.
51. Tiwari, Arun K, Deshpande, Smita N, Rao, AR, Bhatia, Triptish, Mukhit, Sabiha R, Sriharsh, Vandana, Lerer, Bernard, Nimagaonkar, Vishwajit and Thelma, BK (2005). Genetic susceptibility to Tardive Dyskinesia in chronic schizophrenia subjects: I. Association of CYP1A2 gene polymorphism. *The Pharmacogenomics J.,* **5**, 60-69.
52. Varghese, Cini, Jaggi, Seema, Sharma, VK and Singh, UV (2005). On use of partially balanced incomplete block designs in partial diallel crosses. *Ind. J. Genet.*, **65(1)**, 37-40.
53. Wahi, SD, Singh, Pal, and Chand, Lal (2005). An improved measure of distances among different genetic groups of Indian goats. *Ind. J. Dairy Sci.*, **58,** 211-213.
54. अनुपम, कुमार, राजेश, कुमार, अनिल एवं परमार, बलराज सिंह (2005)। पानी सोखने की अदभुत क्षमता है हाईड्रांजैल्स में। *कृषि चयनिका,* जनवरी-मार्च, 18-19।
55. जग्गी, सीमा, हांडा, डी पी, गिल, ए एस एवं सिंह, एन पी (2005)। कृषिवानिकी परीक्षण का सांख्यिकीय मूल्यांकन। *भारतीय कृषि अनुसंधान पत्रिका,* 20(2एवं3), 40-45।

56. सिंह, डी आर एवं कौल, सुशीला (2005)। अजमेर जिले में प्रवासी भेड़ पालन प्रौद्योगिकी हस्तक्षेप का मूल्यांकन। *भारतीय कृषि अनुसंधान पत्रिका*, 20(2एवं3), 30-39।

57. कौल, सुशीला एवं पान्डेय, आर के (2005)। भारत में खाद्य उपलब्धता का तथा खाद्य सुरक्षा पर इसका प्रभाव । *भारतीय कृषि अनुसंधान पत्रिका*, 20(4), 188-194।

Popular Articles

1. Nigam, AK, Parsad, Rajender and Gupta, VK (2006). Design and analysis of On-Station and On-Farm agricultural research experiments: A Revisit. Workshop Series 0, IASRI, New Delhi.
2. Jaggi, Seema and Pateria, DK (2005). Multivariate analysis of data from agroforestry experiments. *Proceedings of the National Symposium on Agroforestry in 21st Century*, 71-75.
3. Srivastava, R, Parsad, Rajender and Gupta, VK (2006). Studies on block designs for biological assays. Workshop Series 2, IASRI, New Delhi.
4. वर्गिस, सिनी, जग्गी, सीमा, शर्मा, विजय कुमार एवं सिंह, निर्भय पाल (2006)। थ्री-एसोसिएट क्लास पार्शियली बैलेंस्ड ब्लॉक अभिकल्पनाएँ और उनका पार्शियल डायलल क्रॉसेस में अनुप्रयोग। भारतीय कृषि सांख्यिकी अनुसंधान संस्थान की हिन्दी पत्रिका *सांख्यिकी-विमर्श:* 2005-06, 72-76।
5. प्रसाद, राजेन्द्र, निगम, अरुण कुमार, गुप्ता, विनोद कुमार एवं कुमार, अजीत (2006)। अनुसंधान केन्द्रों और किसानों के खेतों पर किये गये कृषि परीक्षणों की अभिकल्पना एवं विश्लेषण: एक पुनरावलोकन। भारतीय कृषि सांख्यिकी अनुसंधान संस्थान की हिन्दी पत्रिका *सांख्यिकी-विमर्श:* 2005-06, 49-53।
6. नारायण, प्रेम, शर्मा, एस.डी., राय, एस.सी. एवं भाटिया, वी.के. (2006)। आर्थिक विकास की दृष्टि से प्रदेशों का वर्गीकरण तथा अल्प विकसित क्षेत्रों की पहचान । भारतीय कृषि सांख्यिकी अनुसंधान संस्थान की हिन्दी पत्रिका *सांख्यिकी-विमर्श:* 2005-06, 39-48।

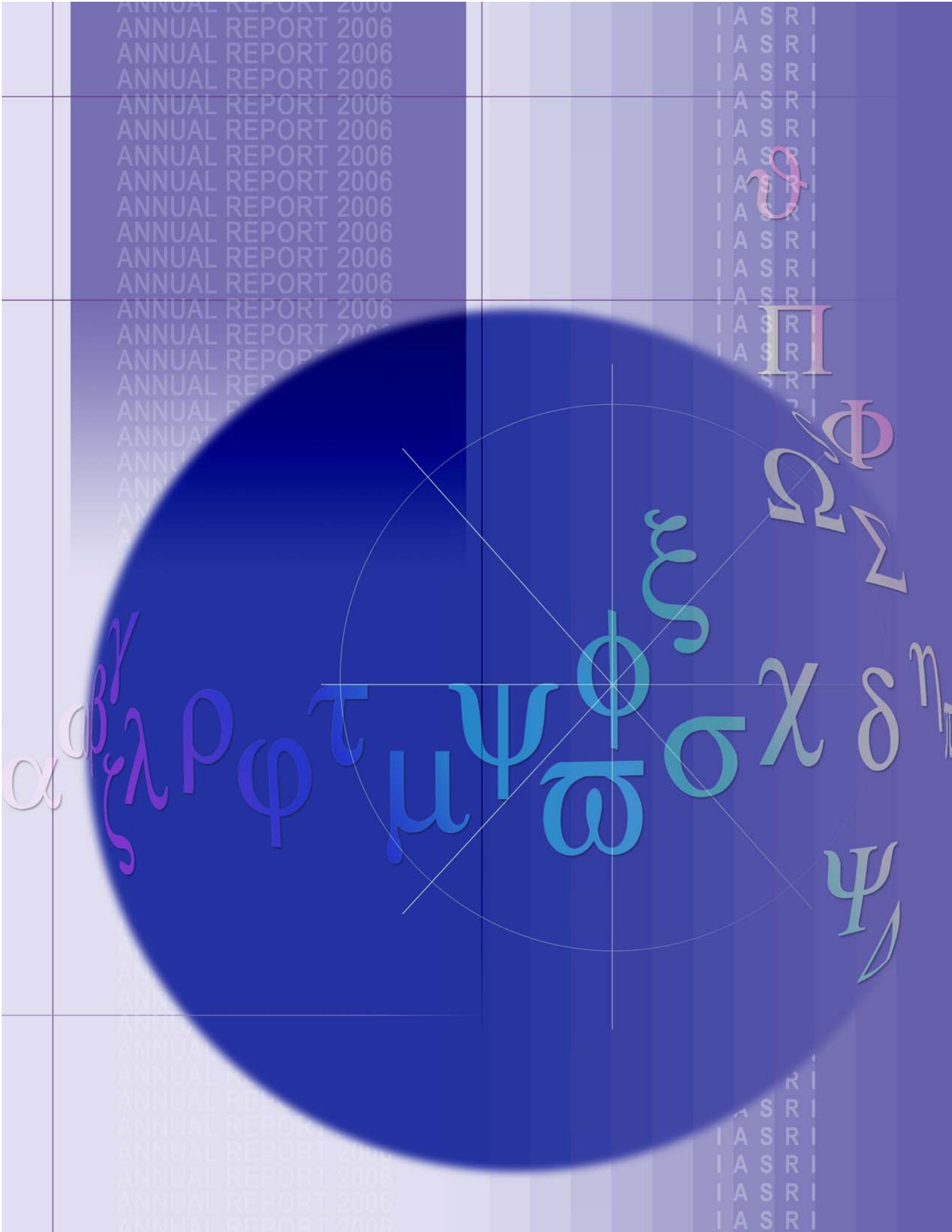
Book Chapters

1. Bhatia, VK (2005). Biometrical procedures for estimation of genetic components of variance under different mating designs. In: *Recent Advances in Mating Designs*, published by L.S. Kaushik and R.C. Hasija, Dhanpat Rai & Co.(P) Ltd., New Delhi, 7.1-7.25.
2. Gupta,VK and Parsad, Rajender (2005). Statistical designing of experiments with emphasis on hill agriculture research. In: HS Gupta(Eds.), *Sustainable Production from Agricultural Watershed in NWHR.*
3. Parsad, Rajender, Dixit, Anshu, Malhotra, PK and Gupta, VK (2005). Geoinformatics in precision farming: An overview. In: *Geoinformatics Applications for Sustainable Development.*
4. Paul, Amrit Kumar (2006). Some study of heritability of all or none traits in livestocks. In: A.K. Roy, A. Antony and N. Sarangi (Eds.), *Bioinformatics and Statistics in Fisheries Research, Vol-II* published by Central Institute of Freshwater Aquaculture, Kausalyaganga, Bhubaneswar-751002, **(2),** 467-482.
5. Paul, Amrit Kumar (2006). Selection strategies for more than one characters in livestock. In: A.K. Roy, A. Antony and N. Sarangi (Eds.), *Bioinformatics and Statistics in Fisheries Research, Vol-II* published by Central Institute of Freshwater Aquaculture, Kausalyaganga, Bhubaneswar-751002, **(2)**, 445-457.
6. Sahoo, N, Rajput, TBS, Rao, AR and Behera, D (2005). Estimation of watershed sediment yield through geomorphological parameters. In: *Technical Manual, 46th Session of Inst. Eng. India (India),* 149-156.
7. Jaggi, Seema (2006). Experimental designs and data analysis in agroforestry. *Production Technology and Management of Agroforestry,* Agrotech Publishing Academy, Udaipur, 185-196.
8. Prabhakaran, VT (2005). On probability of inadmissible estimates of heritability from different mating designs and procedures for improved estimation. In: *Recent Advances in Mating Designs.* L.S. Kaushik, and R.C. Hasija, Dhanpat Rai & Co. (P) Ltd., New Delhi.

Research Project Reports

1. A study on trend free designs by *Krishan Lal, Rajender Parsad and VK Gupta*
2. Statistical study on competition effects among neighbouring units in field experiments (AP Cess fund, ICAR) by *Seema Jaggi and VK Gupta*
3. Forecasting sugarcane yield using multiple markov chains by *V Ramasubramanian, Ranjana Agrawal and LM Bhar*

4. Pilot sample survey for developing sampling methodology for estimation of poultry meat production in Gurgaon district of Haryana state by *Mahender Singh*
5. Determinants of performance of self help groups in rural micro finance by *Lakshmi Prasanna and Ashok Kumar*
6. Development of software for on-line information system for personnel management for ICAR (PERMISnet) by *Balbir Singh, Alka Arora, Mohd. Samir Farooqi and Shashi Dahiya*
7. Requirement analysis document (EXOWHEM) by *SN Islam, Mohd. Samir Farooqi, Hariom Agarwal, Vipin Dubey, KK Chaturvedi and HS Sikarwar*
8. Pilot sample survey to develop sampling methodology for estimation of area, production and productivity of important flowers on the basis of market arrivals by *AK Gupta, VK Jain, MS Narang, KK Tyagi and UC Sud*
9. Status of farm mechanization in India, document prepared as a part of the project entitled "Study relating to formulating long term mechanization strategy for each agro-climatic zone/state", compiled and prepared by *KK Tyagi, HVL Bathla and SD Sharma*
10. A study of land use statistics through integrated modelling using GIS by *Anil Rai, AK Srivastava, Randhir Singh and VK Jain*
11. Assessment of harvest and post harvest losses (Inland Fisheries) by *HVL Bathla, T Ahmad, DL Khasim, K Srinath, GR Unnithan, and JC Jeeva*
12. Assessment of harvest and post harvest losses (Marine Fisheries) by *HVL Bathla, T Ahmad, K Srinath, GR Unnithan, N Gopal, and VR Nair*


ANNUAL REPORT 2006
IASRI