

Department of Agricultural Statistics

INTRODUCTION

The Department of Agricultural Statistics was established in 1977 in Gujarat Agricultural University. Teaching at both under-graduate level and post-graduate level, statistical advisory service to the researchers of the University were started at that time. In 1984, after the introduction of micro computer, the Computer Cell was also established in this Department. The additional service of preparing computer software for scientific application viz., data analysis of experimental research and also software for accounts and administrations viz., paybill, monthly expenditure/income statements, arrear bills, advance bill, charge statements etc. were developed and implemented. At the same time, many short term computer trainings were organized to aware both technical and administrative staff so that they can operate and process their work on computer. Thus, this department was engaged in activities related to statistics and computer application since 1984. This department conducted various research projects in collaboration with other Departments/Units. About 750 participants had been trained in 25 Computer training programmes and also many trained participant successfully passed the examination of CCC and CCC+ conducted by the Government of Gujarat. This department guided eight M. Sc. students and three Ph. D. students in Agricultural Statistics so far. The staff of this department contributes a major part and helps in formulating experimental designs, analysis of data of research project of every PG student as well as all the data of various departments/units of constituents of the University. Faculty members also extended their help during the work in RAWE programme and remain present in field visit and evolution of the same. In past, the college magazine and Krushi Mela Souvenirs were published by this department every year. The faculty members actively participate in various seminars organized by NAU and NGO's and also extended their help for successful organizations.

Since 23th September 1997, the Local Area Network (LAN) started under ARIS project, the start of real Information Technology. At that time LAN started but internet was available through Telephone Dial-up in specific important offices, later on CAB reference made available through LAN.

At present all the Departments of four colleges, administrative offices, Central Library and other important offices of this University are connected by Local Area Network. Now LAN running with three main servers connected with 100 Mbps speed about more than 400 computers with required equipment like hubs, switches, UTP cables, Fiber optic cable, Firewall and different software.

Department of Agricultural Statistics and Computer Center, Navsari - 396450

GENESIS

Established as the Statutory Department of GAU in 1979

M. Sc. Agricultural Statistics started in 1980

MANDATE

Teaching related to Agricultural Statistics, Experimental Designs and Application of Computer in Agricultural Fields, providing advisory services to Researchers, Scientists, Technical Staff members of NAU and PG students for successful planning, conducting of their experiment and interpretation of their data obtained from research activity of various disciplines.

:: MAJOR ACHIEVEMENTS

Four Ph.D. & Eleven M.Sc. students have completed the PG degrees from this department.

Computer trainings were given to all technical and administrative staff of NAU 298 participants trained in 11 training programmes.

:: RESEARCH ACTIVITY

Every year we submit and present report of research programme undertaken in previous year as well propose New Technical Programmes for the next year under departmental research programme scheme in the platform of AGRESKO.

:: Major Activities:-Teaching (UG)

Odd Semester :

Ag. Stat. 1.1 Agricultural Informatics (2+1)
Ag. Stat. 7.3 RFWTE Teaching and other courses as per the requirement

Even Semester :

Ag. Stat. 2.2 Statistical Methods (2+1)

Teaching (PG)

Odd Semester :

Ag. Stat. 521 Applied Regression analysis
Ag. Stat. 533 Statistical Methods for Crop Protection - I
Ag. Stat. 535 Statistical Methods for Crop Production – I
Ag. Stat. 537 Statistical Methods for Social Science-I
Ag. Stat. 539 Statistical Methods for Crop Improvement – I
Ag. Stat. 551 Mathematical Methods-I
Ag. Stat. 563 Multivariate Analysis
Ag. Stat. 564 Design of Experiments
Ag. Stat. 611 Advanced Statistical Methods
Ag. Stat. 651 Recent Advances in field of specialization

Even Semester :

Ag. Stat. 2.2 Agricultural Statistics (2+1) Pre Requisite
Ag. Stat. 531 Data Analysis Using Statistical Packages
Ag. Stat. 534 Statistical Methods for Crop Protection-II
Ag. Stat. 536 Statistical Methods for Crop Production-II
Ag. Stat. 538 Statistical Methods for Social Science-II
Ag. Stat.540 Statistical Genetics-II
Ag. Stat.562 Statistical Inference
Ag. Stat. 565 Sampling Techniques
Ag. Stat. 602 Simulation Techniques
Ag. Stat. 614 Advanced Sampling Techniques
Ag. Stat. 615 Advanced Statistical Genetics

Other activities:, Publishing College Magazine and Krushimela Smarnika every year. Guiding & attending all the P. G. seminar. Also acting as Statistician in ZREAC & AGRESKO meeting of different sub-committees.

:: Facilities

Data Analysis: Experimental data of P.G. students and various research projects of NAU are being analyzed.

Advisory Service: Guidance and advice for planning of research experiments to staff of research scheme and all P.G. students of NAU, Navsari

Total 30 PC, well furnished two AC class room and well equipped with 100 Mbps Leased line Internet Facility and Printer, scanner and two LCD Projectors with Two Laptop facility available to the PG and UG students and staff of the university.

:: Publication (2004-15) – complete list

Patel A. P., Parmar P. B., Mehta M. D. and Awadaria J. D. (2005). Effect of nitrogen levels and spacing on growth and yield of Gladiolus cv. Rose Suprime under South Gujarat condition.' The Horticultural Society of Gujarat Vol. No. 4. P 21-23.

Parikh R. K Kalola A. D. and Patel J. B. (2008) Comparison of partially balanced lattice design with progeny row trial in grain sorghum (*Sorghum bicolor*(L), Moench) Bioscience Reporter 6(2):189:192

Parikh R.K Khatri T.J. and Kalola A.D. (2008) Modelling of Grain Sorghum (*Sorghumbicolor* (L.) Moench) Plant.Bioscience Reporter (2):209:212

Patel J. B., Awadaria J. D., Parikh R. K. and Patel J. S. (2008) Estimation of optimum plot size for field experiment on green gram *Phaseolus radiatus* L.) Bioscience Reporter 6(2):393:397

Kalola A.D, Pandya H.R., Sakarvadia H.L., Upadhyay S.M. and Parikh R.K..(2008) Period wise trends in area, production and yield of groundnut crop for different regions of Gujarat state. Bioscience Reporter 6(2):267:271

Kalola A.D., Pandya H.R., Sakarvadia H.L., Upadhyay S.M. and Parikh R. K. (2008) Regional disparity in area, production and yield of castor crop of Gujarat state. Bioscience Reporter 6(2):351:355

Raj V.C., Patel K.P., Patel P. M., Patel V. S., Dammame H. S. and Parikh R.K. (2008). Effect of Herbicides in kharif Okra (*Abelmoschus esculentus* (L) Moench) in conjunction with fym and their residual effect on succeeding rabi Cabbage crop. Bioscience Reporter 6(2):223:225

Patel S. R., Thakare H. S., Kapadia C. V., Awadaria J. D. and Patil R. G. (2009). Germination and seedling growth of rice varieties under salinity stress. Annals of Plant Physiology, Akola Vol 23. (1): 51-53

J.J.Mavadia, A.D.Kalola, H.R.Pandya, H.L.Sakarvadia and R.K.Parikh (2009) Growth rate and instability of paddy crop in different regions of gujarat state Biosciene Reporter 7(1),pp 35-39

A.D.Kalola ,J.J.Makadia, H.R.Pandya, H.L.Sakarvadia and R.K.Parikh(2009) Growth rate sugaranse crop in gujarat state, Bioscience Reporter 7(1) pp 159-163

S.N.Sarvaiya N.B., N.B.Patel, M.P.Ahir, N.M.Patel, K.D.Desai and J.B.Patel. (2010) Integrated nutrient management (INM) approach for brinjal (*Solanum Melongenal.*) and other solanaceous vegetables- A review Agric. Rev. 31(2) : 79-92,2010

A.R.Patel, S.N.Sarvaiya, A.N.Patel, K.D.Desai, N.M.Patel and J.B.Patel (2010) Effect of micronutrients on yield and fruit quality of Banana (*Musa paradisica* L.) cv. Basarai under pair row planting method Hind Agricultural Research and Training Institute

M.R.Rajeshwari, J.D.Awadaria, R.K.Parikh, J.R.Naik, J.B.Patel and S.R.Patel (2010), Studies on comparison of various equations for estimation of sapota fruit volume under south Gujarat condition Unn Plant physiol 24 (2): 179-181

Ojha, S. and Bhar, L. (2014). Cook statistic for detecting outliers in block designs with correlated errors. *International Journal of Agricultural and Statistical Sciences*, 10(2), 503-512.

Ojha, S. and Bhar, L. (2015). Detection of outliers in Designed Experiments with Correlated Errors. *Journal of the Indian Society of Agricultural Statistics*. 69(1), 57-63.

Bhar, L. and Ojha, S. (2015). Influence Measures in Blocked Designs of Experiments with Correlated Errors. *Communication in Statistics-Theory and Methods*. (Accepted).

:: M. Sc. (Agri) Thesis Submitted

Sr No.	Name of the Student	Registration No	Title of Thesis	Name of Major Guide	Year of Submission
1	Satishkumar M. Upadhyay	4-1102-81	Optimum Plot Size for Paddy in the Navsari Zone	Dr. K. R. V. Raja	1983
2	Nalinkant Kanjibhai Patel	4-1222-82	Study of border effect in an insecticidal trial on hybrid-4 cotton	Dr. T. J. Khatri	1984
3	Pankaj Amritlal Patel	4-1223-82	Use of nonparametric test for the analysis of field experiments in entomology	Dr. T. J. Khatri	1984
4	Rajeshkumar Kantilal Parikh	4-1168-81/85	D2 analysis in grain sorghum (sorghum bicolor (L) Moench)	Dr. T. J. Khatri	1986
5	Jagubhai Durlabhbai Awadaria	4-1165-81/85	Effect of irrigation levels on plot border in summer groundnut (Arachis hypogaea) under heavy black soils	Dr. T. J. Khatri	1986
6	Jayantilal Balubhai Patel	04-5069-2001	Estimation of optimum plot size for field experiment on green gram (Phaseolus radiatus L.)	Dr. J. D. Awadaria	2004
7	Ms. Rajeshwari M. Raundal	04-0657-2009	Effect of morpho-physiological variables and weather parameters on growth of Sapota (Manilkara achras (Mill) Fosberg, cv. Kalipatti under South Gujarat conditions-a statistical approach	Dr. J. D. Awadaria	2011
8	Sonawane Nivedita Ashok	04-1033-2011	Genetic variability , correlation and path coefficient analysis in grain sorghum (Sorghum bicolor L. Moench)	Dr. R. K. Parikh	2013
9	Kanthesh Basavaraj Banakara	2010114039	Pre-harvest crop modeling for kharif rice using weather parameters in South Gujarat.	Dr. B. K. Bhatt	2016
10	Keerthiga S	2010115055	Estimation of genetic variability in F4 progenies of green gram (Vigna radiate (L) R. Wilczek) for yield and component traits.	Dr. H. R. Pandya	2017
11	Kihla Vilasben Bijalbai	2010115057	Development of statistical model for human resource generation in agricultural education in Navsari Agricultural University	Dr. B. K. Bhatt	2017

:: Ph.D. Thesis Submitted

Sr No.	Name of the Student	Registration No	Title of Thesis	Name of Major Guide	Year of Submission
1	Ramesh Chandra Bharati	4-3176-92	Four-stage sampling for estimation of biometrical characters for the use of pre-harvest yield forecast model of mango (<i>Mangifera indica</i> L.) CV. Kesar	Dr. T. J. Khatri	1996
2	Rajeshkumar Kantilal Parikh	4-1168-81/85	An empirical comparison of plant breeding designs for biometrical analysis in grain sorghum (<i>Sorghum bicolor</i> (L.) Moench)	Dr. T. J. Khatri	1997
3	Jagubhai Durlabhbai Awadaria	04-03545-94	An empirical comparison of various field experimental designs for drip irrigation in Sesamum (<i>Sesamum indicum</i> L.) crop	Dr. T. J. Khatri	1999
4	Leimapokpam Netajit Singh	1010114010	Consumption Pattern of Food and Non-Food Commodities in Rural and Urban Areas of Agro climatic Zone-II of South Gujarat	Dr. H. R. Pandya	2017
