

Chapter-1

Vision & Mission

The vision and Mission of the Anand Agricultural University (AAU) are described as under:

Vision

Agriculturally Prosperous Gujarat and India

Mission

The mission of the Anand Agricultural University is to provide teaching, research and extension services related to agriculture and allied sciences thereby to develop excellent human resources and innovative technologies for services to the farming community with the main motto of making Gujarat and India agriculturally prosperous.

Goals and Objectives

The following are the objectives to be served by the University to achieve the goals viz.:

- Making provision for imparting education in agriculture and allied sciences leading to masters and doctorate degrees and develop quality human resources in different branches agricultural sciences.
- Furthering the advancement of learning and conducting of research;
- Undertaking extension education;
- Promoting partnership and linkages with national and international educational institutions;

Teaching: Goals and Objectives

- To impart education in agriculture and allied sciences at undergraduate and post graduate level leading to Bachelor's, Master's and Doctorate degree in various discipline of agriculture, dairy, veterinary and such other sciences concerning agriculture;
- To provide integrated agricultural education at different levels to increase efficiency and effectiveness of skill of students;

- To upgrade the technical competence of the teachers by redesigning course curriculum as suggested by ICAR/ Dean's Committee and coordinating the teaching with research in the field of agriculture.
- To organize vocational courses to educate rural youth in various disciplines of agriculture and allied sciences with intension to develop self-employment;
- To provide consultancy and advisory services to the industry, government and non-government sectors;
- To architect agribusiness professionals for agriculture, agri. food firms, rural and allied sectors;
- To encourage entrepreneurial spirit and develop qualified entrepreneurs for rural development;
- To cater to the needs of enterprises and cooperative agribusiness at national and international level.

Research: Goals and Objectives

- The research is aimed at evolving new varieties and developing technologies for increasing agricultural and animal productivity with a view to improve socio-economic status of farmers of Gujarat and Nation as a whole;
- To develop specific cross breed suitable to agro-climate of Middle Gujarat;

Extension : Goals and Objectives

- To impart training to the officers and extension workers of line department of Government of Gujarat, field functionaries, staff of the University, NGOs, farmers, entrepreneurs etc;
- To conduct short and long duration vocational training for front line farmers, farm women, farm youth, entrepreneurs along with tribals;
- To assess, refine and demonstrate the latest agricultural technologies of University through front line demonstration for their wider adoption;

History

The Anand Agricultural University (AAU) has entered into fourth year of its existence. Established by the Gujarat Act No. 5 of 2004 which was passed by the Gujarat Legislature and assented by His Excellency the Governor of Gujarat on 4th, March 2004, the AAU has been incorporated as a teaching and affiliated University for imparting

education in agriculture and allied sciences. The AAU has a long cherished history. Sardar Vallabhbhai Patel, a Statesman and Iron man of India and Dr. K. M. Munshi, one of the authors of Indian Constitution had established *Krush-Go-Vidhya Bhavan* or Institute of Agriculture, Anand in 1938 to revitalize agriculture and train farmers and their sons and daughters in modern practices of agriculture so that they can raise their head and live in prosperity.

The Institute of Agriculture was popularly known as *Khetiwadi* which later on in June, 1972 became the part of the Gujarat Agricultural University. The Institute of Agriculture, Anand had two Colleges viz., B. A. College of Agriculture established in 1947 and Sheth M. C. College of Dairy Science established in 1964 which were affiliated to Sardar Patel University, Vallabh Vidhyanagar. Later on in 1972 they became integral part of Gujarat Agricultural University along with the Government College of Veterinary Science and Animal Husbandry which was situated in Anand.

The activities of Anand zone of erstwhile Gujarat Agricultural University have now been transferred to newly established Anand Agricultural University with effect from May 1, 2004 with three Colleges viz., B. A. College of Agriculture, Sheth M. C. College of Dairy Science and College of Veterinary Science & Animal Husbandry and 17 Research Stations, one Extension Education Institute and 22 Extension Education Centres like Krushi Vigyan Kendra, Sardar Smruti Kendra, Tribal Training Centre, Tribal Research-cum-Training Centre, Poultry Training Centre, Bakery Training Centre, Livestock Training Centre, Home Science School, Mali Training Centre and Agricultural Schools at Anand, Chharodi, Dahod and Vadodara.

Power and Functions of the University

Under Section 6 of the GAU Act, 2004 the University is empowered to exercise the following powers.

- (1) To provide education and instruction in agriculture and allied sciences and in such other branches of learning as the University may deem fit;
- (2) To make provision for research in agriculture and allied branches of learning;
- (3) To make provision for dissemination of the findings of research and technical information through extension education programmes;

- (4) To make such provision, which would enable affiliated colleges and recognised institutions to undertake specialisation in different fields of studies;
- (5) To institute degrees, diplomas and other academic distinctions;
- (6) To lay down courses of study and instruction for various examinations;
- (7) To hold examinations and confer degrees, diplomas and other academic distinctions and grant certificates to persons who—
 - (a) have pursued approved courses of study in the University or in a college unless exempted there from, in the manner prescribed and have passed the examinations prescribed by the University or
 - (b) have carried on research under conditions prescribed;
- (8) To withdraw or cancel any degree, diploma or certificate conferred or granted by the University in such manner as may be prescribed;
- (9) To confer honorary degrees and other distinctions in the manner prescribed;
- (10) To provide lectures, instructions and training to persons who are not enrolled students of the University and to grant such certificates to them as may be prescribed;
- (11) To co-operate with any other University or authority in such manner and for such purpose as the University may determine;
- (12) To establish and maintain colleges for imparting education in agriculture and allied sciences,
- (13) To establish and maintain laboratories, libraries, research stations and institutions and museums for teaching, research and extension education;
- (14) To create such teaching, administrative and other posts as the University may deem necessary from time to time and make appointments thereto;
- (15) To institute and award fellowships, scholarships and prizes in accordance with the Statutes;
- (16) To associate or admit educational institutions imparting education in agriculture and allied sciences with, or to the privileges of the University by way of affiliation or recognition;
- (17) To withdraw or modify, either in whole or part, affiliation or recognition of educational institutions;
- (18) To inspect colleges and recognised institutions and to take measures to ensure that proper standards of instruction, teaching and training are maintained in them and that adequate library and laboratory provisions are made therein;
- (19) To lay down and regulate the salary scales, allowances and other conditions of service of the members of the teaching, other academic and non-teaching staff of the University;

- (20) To lay down and regulate the salary scales, allowances and other conditions of service of the members of the teaching, other academic and non-teaching staff in the affiliated colleges and recognised institutions;
- (21) (a) To control and co-ordinate the activities of, and to give financial aid to, affiliated colleges and recognised institutions; and
(b) To regulate fees to be paid by the students in affiliated colleges and recognised institutions;
- (22) To institute and maintain residential accommodation for students and staff of the University;
- (23) To fix demand and receive or recover such fees and other charges as may be prescribed;
- (24) To supervise, regulate and control the residence, conduct and discipline of the students of the University, and to make arrangements for promoting their health and general welfare;
- (25) To conduct, co-ordinate, supervise, regulate and control post-graduate teaching and research work in the University departments and affiliated colleges and recognised institutions;
- (26) To co-ordinate, supervise, regulate and control conduct of undergraduate teaching and instruction in the affiliated colleges and to undertake the same in University colleges;
- (27) To make special provision for agricultural education, research and extension in relation to arid areas and areas prone to scarcity in the University area;
- (28) To do all such other acts and things, whether incidental to the powers aforesaid or not, as may be requisite in order to further the objectives of the University.

Chapter-2

Functioning of Authorities

Authorization

The authority to govern the affairs of Anand Agricultural University flows from the GAU Act, 2004.

The AAU is a body corporate established under the GAU Act, 2004 (Gujarat Act No. 5 of 2004) and consists of the Chancellor, Vice-Chancellor, Board of Management, Academic Council and Officers of the University. It has territorial jurisdiction of six districts of Gujarat namely Ahmedabad, Anand, Dahod, Kheda, Panchmahal and Vadodara.

Functioning of the Authority

During the year under report following authorities as provided in Section 17 of the Act were functional.

- Board of Management
- Academic Council
- Faculties
- Board of Studies of different groups of subjects of different faculties.

The Organizational Chart and decision making channel are given in the chart- 1 and chart- 2.

Board of Management

The Board of Management considers and decides matter of general policies relating to progress and development of University. The list of the Hon'ble members of the Board is given in Appendix -1.

During the year under report, four regular meetings were held under the Chairmanship of Prof. M. C. Varshneya, Vice Chancellor. Shri V. P. Macwan acted as the Secretary of the Board.

The Board of Management held the four meetings during the year and took important decisions as follows:

1. The Board of Management has decided to give special incentives to the employees for good performance. Under the scheme, the employees may be promoted out of seniority or will be given award/certificate. The Board has also adopted the government scheme for higher pay scale to those who complete 12 and 24 years in the non teaching cadres.
2. Under the HRD programmes the Board has decided that all the employees of the University should have computer literacy. Therefore a certificate Course on Computer Concepts (CCC) and the CCC⁺ examination have been made compulsory for all staff of the university. These examinations are made compulsory both for direct recruitment and promotion.
3. The Board of Management in its 12th meeting resolved to implement the reservation policy of the Government in all teaching posts. Previously, it was upto the level of Assistant Professor and its equivalent posts only.
4. The Board has approved the list of the Chancellor's & the Vice Chancellor's and other medals along with the degree for conferment at the convocation.
5. During the year under report, the Board of Management approved the selection of 14 Professors in different faculties.

Posts	No of teachers appointed				
	Agriculture	Veterinary	Dairy Science	F.P.T. & B.E.	Total
Professors	01	-	-	02	03
Asso. Professor	03	06	02	-	11

6. The Board has approved the new department of Seed Science & Technology with M.Sc. programmes in Seed Science & Technology from the academic year 2007-2008. Also the Board approved PG programme leading to the MBA in International Agri-business Management along with its regulations and course curriculum.
7. The Board has also approved the regulations of Gold Medal/Medal and revised regulations of earlier approved Gold medals.

Academic Council

The Academic Council has been established in the University under Section 21 of GAU Act. The Academic Council is responsible for maintenance of standard of teaching and examination of the University. It controls and regulates the quality of teaching, education and examination in the university.

During the year under report Prof. M. C. Varshneya, Vice Chancellor was the Chairman of the Council and Shri V.P. Macwan, Registrar acted as the Secretary of the Academic Council. The list of the members of the Academic Council is given in Appendix -2.

During the year under report, the Academic Council held three meetings to consider various issues pertaining to improvement of education, course curricula, course credits, recruitment rules for teachers and such other items. Besides making recommendations to the Board of Management as mentioned above, the Academic Council also took following important decisions.

The Academic Council took important decisions as follows:

1. The Academic Council approved and recommended the list of eligible candidates for award of degrees at the Fourth Annual Convocation and for the Chancellor's, Vice Chancellor's and other medals to the Board of Management. It also approved the common Academic Regulations for PG education in State Agricultural Universities as per the 3rd Deans Committee Report. The new regulations were implemented from the academic year 2007-08. Also new Gold medal viz. Shradhha Dipakbhai Sheth Medal, Dr. M. N. Mannari Gold Medal and Smt. Ramaben B. Avasthi medal were instituted.
2. The Academic Council also decided that B.Sc. (Dairy Tech.) / B.Tech. (Dairy Technology)/ B. Tech. (FPT & BE) candidates to be considered eligible for M.Tech. degree in Dairy Science faculty in their respective disciplines.
3. The Academic Council approved the regulations and curriculum of two new PG diploma courses viz. Dairy and Food Quality Assurance and PG diploma in Agri. (IT).

Faculties:

Faculties, provided in the Section 23 of the Act, are the authorities within the University. The following faculties in the University are constituted:

- Faculty of Post Graduate Studies
- Faculty of Agriculture
- Faculty of Dairy Science
- Faculty of Veterinary Science & Animal Husbandry
- Faculty of Food Processing Technology & Bio-energy
- Faculty of Agricultural Engineering
- Faculty of Agricultural Information Technology

The constitution of faculty is given in appendix-4

Faculties consider all administrative and academic matters pertaining to respective faculties and make recommendations to the Academic Council. The faculty either initiates the matters on its own or receives recommendations of the board of studies of group of subjects of the respective faculty.

During the year under report meetings of the different faculties were organised as under:

Agriculture	3 rd Meeting	22-10-2007
Dairy Science	4 th Meeting	22-08-2007
	5 th Meeting	22-01-2008
F. P. T. & B. E.	3 rd Meeting	19-03-2008

No meeting of Faculty of Veterinary Science was organised.

Board of Studies

As provided in Section 24 of the GAU Act 2004, the Anand Agricultural University has constituted the Board of Studies for different group of subjects. The Constitution of Board of studies is given in Appendix-5

During the year under report following Board of Studies were functional and held meetings to consider various issues pertaining to their group of subjects.

Sr. No.	Name of Board of Studies	Date of Meeting
Agriculture Faculty		
1	Board of Studies of the subject of Crop Production	17-02-08
2	Board of Studies of the subject of Plant Science	23-02-07
3	Board of Studies of the subject of Plant Protection	--
4	Board of Studies of the Basic and Social Science subjects	--
Dairy Science Faculty		
5	Board of Studies of the subjects of Dairy Technology	12-12-07
6	Board of Studies of Basic subjects of Dairy Science Faculty	29-12-07
7	Board of Studies of Dairy Business Management	03-01-08
Veterinary Faculty		
8	Board of Studies of the Basic Subjects of Veterinary Faculty	16-0-08
9	Board of Studies of the Pre-clinical subjects of Veterinary Faculty	08-01-08
10	Board of Studies of the Clinical subjects of Veterinary Faculty.	04-01-08
11	Board of Studies of the subjects of Animal Production	--
Food Processing Technology and Bio-Energy		
12	Board of Studies of subjects of Post Harvest Engineering and Technology.	
13	Board of Studies of subjects of Food Science, Nutrition and Food Processing Business Management.	
14	Board of Studies of subjects of Agricultural, Horticultural, Livestock and Aqua-cultural Produce Processing and Food Engineering.	
15	Board of Studies of subjects of Bio-Energy.	
16	Board of Studies of Faculty of Post Graduate Studies:	27-07-07

- The Board of Studies of all faculties specially considered the following 5 items:
 1. Scrutiny of application for recognition of teachers as Ph.D. guide.
 2. List of experts in the subjects dealt with by that Board of Studies.
 3. List of examiners from the field of subjects of that Board of Studies.
 4. Research Problems to be given to the students for M.Sc. /Ph.D. thesis
 5. The evaluation of examination results of all semesters and their analysis.

Other decisions by different Board of Studies :

- The Board of Studies of Basic Subjects of Dairy Science Faculty had reviewed and repositioned the programme launched on PG Diploma in Dairy and Quality Food Assurance. It constituted a committee of (1) Dr. R. S. Sharma (2) Dr. S. S. Sannabhadti and (3) Mr. S. K. Bhalla, GM, GCMMF for re-structuring of the syllabus, mode of examination, mode of admission and requirement of training, eligibility criteria etc for the said course.
- The Board of Studies of Dairy Technology considered the issue of inadequate knowledge of students with regard to dairy equipment and machines. Therefore, to expand the knowledge of dairy equipment and machineries, and to provide the exposure to the students in dismantling and assembling of various equipments, it suggested to establish a new department under the name of Dairy Plant Machines and Operations.
- The Board of Studies of Social Science and Humanities in the Faculty of Agriculture suggested to establish language laboratory, coaching classes for CAT and JRF besides other item as listed above.

Appendix-1

Members of the Board of Management

Vice Chancellor

Prof. M. C. Varshneya
Chairman

Secretary

Agriculture & Cooperation Department

Dr. Avinashkumar

Secretary

Finance Department

Shri A. K. Jyoti

Secretary

Education Department

Shri P. Paneervel

Director of Agriculture

Dr. R. A. Sherasiya

Director of Animal Husbandry

Dr. R. B. Shukla

Director of Horticulture

Dr. S.R. Choudhary

Dean, Agriculture College

Dr. A. M. Shekh

Nominated by Vice-Chancellor

Director

NRC M & AP (Boriavi)

Dr. S. Maiti

Nominated by I.C.A.R.

Registrar

Shri V. P. Macwan

Member Secretary

Appendix-2

Members of Academic Council

Vice Chancellor
Prof. M. C. Varshneya
Chairman

**Director of Research &
Dean, PG Studies**
Dr. A. R. Pathak

Director of Extension Education
Dr. P. P. Patel

Dean, Agriculture
Dr. A. M. Shekh

Dean, Veterinary Science
Dr. J. V. Solanki

Dean, Dairy Science
Dr. B. P. Shah

**Dean, Food Processing Technology &
Bio-energy**
Dr. D. C. Joshi

Dean, Agriculture Information Technology
Dr. S. K. Dixit

**Principal
Extension Education Institute**
Dr. Arun A. Patel (Nominated)

**Professor & Head
Veterinary Pathology**
Dr. K. S. Prajapati (Nominated)

**Prof. & Head
Agriculture Botany**
Dr. G. C. Jadeja (Nominated)

**Prof & Head
Veterinary surgery**
Dr. D.B. Patil (Nominated)

Professor & Head
Dairy Microbiology
Dr. J. B. Prajapati (Nominated)

Professor & Head
Post Harvest Engineering & Technology
Dr. R. F. Sutar (Nominated)

Retd. Prof. / Dean, Horticulture
Dr. K. P. Kikani (Co-opt) upto 23-11-07
Dr. V. M. Mehta (Co-opt) from 24-11-07

Librarian
Dr. Girish B. Valand (Co-opt)

Director of Student Welfare
Dr. A. M. Thaker (Co-opt)

Retd. Research Scientist
Dr. B. S. Jadon (Co-opt)

Managing Director, Vidya Dairy
Dr H.K. Desai (Co-Opt)

Rt. Principal Dairy Science
Dr. S.S. Sannabhadti (Co-Opt)

Rt. Principal Veterinary Science
Dr. M. C. Desai (Co-Opt)

Vice-Chancellor
M. S. University, Baroda
Dr. Manoj Soni (Co-Opt)

Asstt. Director General (Edn)
I.C.A.R., New Delhi,
Dr. G. C. Tiwari (Co-Opt)

Director, IRMA (Co-Opt)

Registrar
Shri V. P. Macwan
Member Secretary

Appendix-3
Officers of the University

Chancellor
Shri Nawal Kishore Sharma

Dean, Veterinary Science
Dr. J. V. Solanki

Vice Chancellor
Prof. M. C. Varshneya

**Dean Food Processing Technology &
Bio-energy**
Dr. D. C. Joshi

Registrar
Shri V. P. Macwan

Comptroller-cum-Accounts Officer
Shri P. S. Vyas

**Director of Research & Dean PG
Studies**
Dr. A. R. Pathak

Librarian
Dr. Girish B. Valand

Director of Extension Education
Dr. P. P. Patel

Director of Students' Welfare
Dr. A. M. Thaker

Dean, Agriculture
Dr. A. M. Shekh

Director, Information Technology
Dr. J. G. Sarvaiya upto 18-02-08
Shri R. S. Parmar from 19-02-08

Dean, Dairy Science
Dr. B. P. Shah

Executive Engineer
Shri B. N. Bhalia

Appendix-4
Heads of the Department

AGRICULTURE Faculty :

Dean : Dr. A. M. Shekh

Sr. No.	Name & Address of the Teacher	HOD Declared for the Department
1	2	3
1.	Dr. M. V. Patel Professor of Agronomy BACA, AAU, Anand	Agronomy
2.	Dr. G. C. Jadeja Professor of Botany BACA, AAU, Anand	Plant Breeding & Genetics
3.	Dr. H. C. Patel Professor of Horticulture BACA, AAU, Anand	Horticulture
4.	Dr. S. K. Dixit Professor of Statistics, BACA, AAU, Anand	Agricultural Statistics
5.	Dr. N. B. Chauhan Professor of Extension Deduction BACA, AAU, Anand	Extension Education
6.	Dr. D. R. Patel Professor, Agril. Biotechnology, BACA, AAU, Anand	Agricultural Biotechnology
7.	Dr. R. Bhatnagar Professor (P) Biochemistry, BACA, AAU, Anand	Agricultural Biochemistry
8.	Dr. R. C. Jhala Professor, BACA, AAU, Anand	Agricultural Entomology
9.	Dr. Vyas Pandey Professor, BACA, AAU, Anand	Agricultural Meteorology
10.	Dr. M. S. Vora, Research Scientist (P), Deptt. of Microbiology, BACA, Anand	Agricultural Microbiology
11.	Dr. G. B. Valand, Professor (P), BACA, AAU, Anand	Plant Pathology
12.	Dr. B. A. Patel Associate Professor, Department of Nematology, BACA, AAU, Anand.	Nematology
13.	Dr. G. N. Patel (Upto 29-12-08) Professor (P), BACA, AAU, Anand	Agricultural Economics
14.	Dr. V. R. Bhatt Professor (P), BACA, AAU, Anand	Agri. Chemistry & Soil Science

VETERINARY SCIENCE & ANIMAL HUSBANDRY Faculty :

Dean: Dr. J. V. Solanki

Sr. No.	Name & Address of the Teacher	HOD Declared for the Department
1.	Dr. Subhash Parnerkar, Research Scientist (P), Western Regional Animal Nutrition Station, AAU, Anand	Animal Nutrition
2.	Dr. A. I. Patel Professor, Veterinary Parasitology, College of Veterinary Science & Animal Husbandry, Anand	Veterinary Parasitology
3.	Dr. F. S. Kavani Professor, Animal Re-Production Gynaecology & Obstetrics, College of Veterinary Science & Animal Husbandry, Anand	Animal Re-production, Gynaecology & Obstetrics.
4.	Dr. P. R. Patel Professor, Epidemiology & Preventive Veterinary Medicine, College of Veterinary Science & Animal Husbandry, Anand	Clinical Veterinary Medicine
5.	Dr. P. R. Patel Professor, Epidemiology & Preventive Veterinary Medicine, College of Veterinary Science & Animal Husbandry, Anand	Epidemiology & Preventive Veterinary Medicine
6.	Dr. K. S. Prajapati Professor, Veterinary Pathology, College of Veterinary Science & Animal Husbandry, Anand	Veterinary Pathology
7.	Dr. A. M. Patel Professor, Livestock Production & Management, College of Veterinary Science & Animal Husbandry, Anand	Livestock Production & Management & Livestock Product Technology
8.	Dr. D. B. Patil Professor, Veterinary Surgery, College of Veterinary Science & Animal Husbandry, Anand	Veterinary Surgery (In-charge)
9.	Dr. C.G.Joshi Professor, Animal Biotechnology, College of Veterinary Science & Animal Husbandry, Anand	Animal Biotechnology (Animal Science)
10.	Dr. P. H. Vatalia Professor, College of Veterinary Science & Animal Husbandry, AAU, Anand.	Animal Genetics & Breeding
11.	Dr. A. M. Patel Professor, College of Veterinary Science & Animal Husbandry, AAU, Anand.	Livestock Production Technology

12.	Dr. A. M. Thaker Professor (P), Veterinary Pharmacology & Toxicology, College of Veterinary Science & Animal Husbandry, Anand	Veterinary Pharmacology & Toxicology
13.	Dr. Y. L. Vyas Professor (P), Veterinary Anatomy, College of Veterinary Science & Animal Husbandry, Anand	Veterinary Anatomy
14.	Dr. J. S. Arya Professor (P), College of Veterinary Science & Animal Husbandry, AAU, Anand.	Veterinary Physiology
15.	Dr. A. M. Pandey Professor (P), College of Veterinary Science & Animal Husbandry, AAU, Anand.	Veterinary Biochemistry & Biotechnology
16.	Dr. B. P. Patel Professor (P), College of Veterinary Science & Animal Husbandry, AAU, Anand.	Veterinary Animal Husbandry Extension
17.	Dr. Ashish Roy, Professor (P), College of Veterinary Science & Animal Husbandry, AAU, Anand.	Veterinary Microbiology
18.	Dr. D. M. Patel Professor (P), College of Veterinary Science & Animal Husbandry, AAU, Anand.	Teaching Veterinary Clinical Service Complex

DAIRY SCIENCE Faculty :**Dean : Dr. B. P. Shah**

Sr. No.	Name & Address of the Teacher	HOD Declared for the Department
1.	Dr. M. J. Solanki Professor, Dairy Technology, Dairy Science College, Anand (Upto 30-11-07)	Dairy Technology
2.	Dr. V. R. Boghra, Professor (P), Dairy Chemistry, Dairy Science College, Anand (Upto 01-12-07)	Dairy Chemistry
3.	Dr. A. G. Bhadania Professor, Dairy Engineering, Dairy Science College, Anand	Dairy Engineering
4.	Dr. J. B. Prajapati Professor, Dairy Microbiology, Dairy Science College, Anand	Dairy Microbiology
5.	Dr. A. J. Pandya Professor, Dairy Plant Machines and Operations Dairy Science College, Anand	Dairy Plant Machines and Operations
6.	Dr. R. H. Patel, Asso. Professor, Dairy Business Management, Dairy Science College, Anand	Dairy Business Management (In-charge)

Appendix-5

Constitution of Board of studies

- (a) The Head of the Department Ex-Officio Chairman
- (b) Professor in each subject comprised in the Board from each constituent college/department.
- (c) One academic staff members for each subject comprised in the Board other than Professors to be nominated by the concerned Associate Dean/Principal from the constituent / affiliated college.
- (d) One member from amongst the development departments and allied fields related to concerned Board of Studies to be nominated by the Vice-Chancellor.
- (e) One progressive having specialized knowledge about related subjects to be nominated by the Vice-Chancellor.
- (f) Chairman of the concerned Boards of Studies under the remaining Agricultural Universities in the State. Provided further that the Chairman may invite one or two academic staff members from a constituent college for a particular meeting.

Chart-1

ORGANIZATIONAL SET-UP

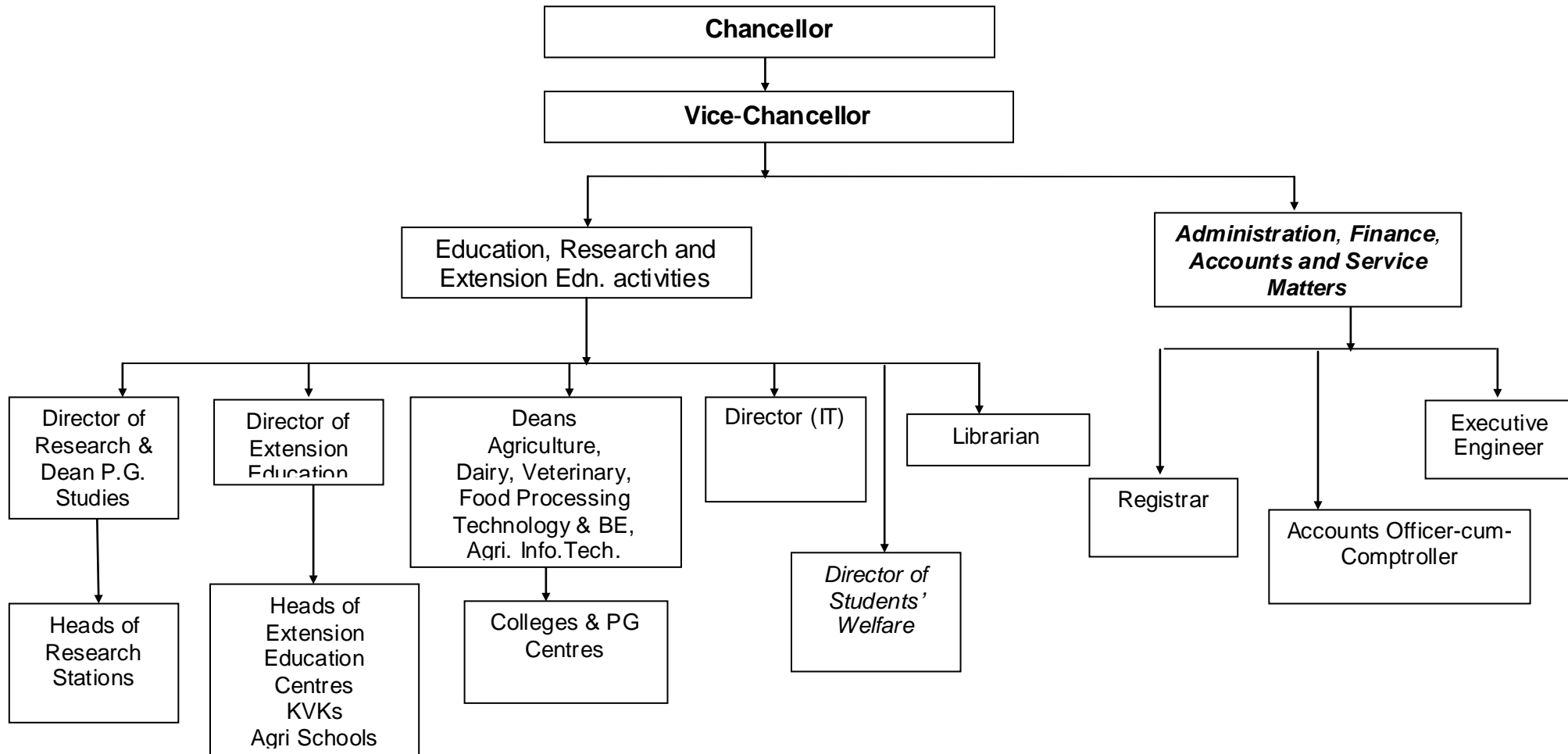
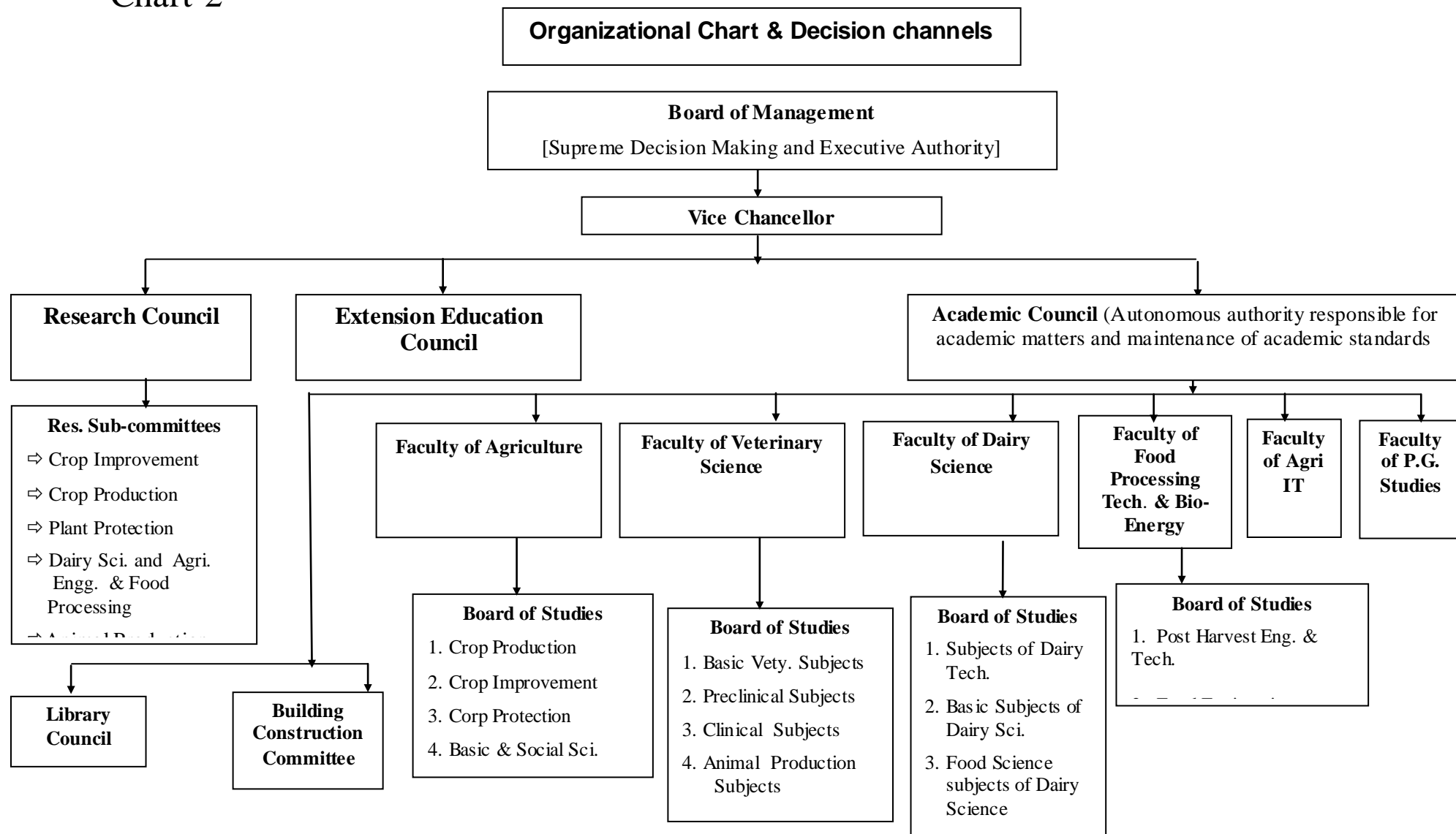


Chart-2



Chapter 3

The Vice Chancellor High Winds Blow on High Hills

The Vice-Chancellor is the principal executive and academic officer of the University. He is ex-officio Chairman of the Board of Management and Academic Council. The Vice-Chancellor visualizes the direction of growth and development, exercises general control over the affairs of the University and is responsible for the maintenance of the discipline in the university. Vice-Chancellor gives effect to the orders of the Board of Management regarding appointment, dismissal, suspension of the officers, teachers and employees of the University.

The present Vice Chancellor, Prof. M. C. Varshneya is a renowned Agro-Meteorologist. During his term as the Vice Chancellor, Prof. Varshneya has taken the university to a new height. The major contributions of Prof. M. C. Varshneya as Vice Chancellor are as follows:

- Decision Support System Software on Soil Health Card Project covering 10 lakh farmers of 18,000 villages of Gujarat through internet.
- Establishment of four new Colleges and five Polytechnics within three years.
- Centre of Excellence in Bio-technology, Animal Nutrition, Medicinal & Aromatic Plants, weather forecasting & Climate change & Niche area project on symbiotic.
- Organized three Krushi Mahotsav of one month duration in six districts involving more than one lakh farmers every year.
- Established four new faculties and six new departments.
- Provided dynamic leadership to AAU Scientific Community having 5 colleges with different faculties 17 research stations, 16 Extension Centers including three KVKs under University and three KVKs with NGO's.
- Within three years 167 teachers were appointed through systematic recruitment proceedings.
- Signed five MoUs for collaborative research with foreign Universities.
- Visited USA, Italy and Israel. Prepared CM's presentations of Israel entitled 'More crop per drop'

The leadership role played by Prof. Varshneya has made excellent impact. The efforts have resulted in:

- Gujarat Farmers are now aware about health of their soil resultant effect is balanced use of inputs.
- Teaching and Agricultural Education has been given impetus in the State as evident from large numbers of applications received for admission in all faculties and higher percentage of cut off marks compared to GAU regime.
- The Research and Extension activities of university are streamlined.
- Streamlined admission and examination reducing delay.

As the first Vice-Chancellor of the Anand Agricultural University, Prof. M. C. Varshneya constituted the authorities like Academic Council, Faculties, Board of Studies of different groups of subjects, Research Council, Extension Education Council and made them effectively functional. He also completed the task of drafting Statutes of the University and submitted it to the Government for the approval after approval from the Board of Management.

The Government of Gujarat has assigned him special responsibilities as Nodal Officer of all the four agricultural Universities of Gujarat for taking care of administrative and academic matters concerning the state agricultural universities.

National and State level Representation of the Vice Chancellor:

Prof. M. C. Varshneya has been nominated /appointed on the various State Level and National Level Committees by the competent authorities, which are given below:

- Member-Advisory Board, Sri Sri Institute of Agril. Science and Technology, Member- Task Force – Food Processing Industries in Gujarat.
- Member – Work Plan Inter Departmental Co-ordination Committee Member - State Food Security Mission.

Trustee

- Trustee – Narmada Integrated Rural & Environmental Development Society.

ACTIVITIES AS NODAL OFFICER

Administrative Matters:

Prof. M. C. Varshneya as a Nodal Officer of the four agricultural Universities of Gujarat has vigorously pursued various pending problems of the staff and solved problems related to pay commission, transfer, promotion etc. He also took-up the issue of displacement of staff of erstwhile Gujarat Agricultural University.

As the Nodal Officer, he has been providing constant guidance in the matter of academic and personnel/management and has solved many problems with innovative approaches. During the year under report five appointments on compassionate grounds to the nearest relatives of deceased employees have been made.

Academic and Examination Matters:

As the Nodal Officer for Academic and Examination matters Prof. M.C. Varshneya successfully organized tedious and tiresome exercise of central admission at UG and PG level of four SAUs of Gujarat. As Nodal Officer, he convened meetings of Registrars and Deans of four SAUs and conducted examinations and paper evaluation exercise for centralized admissions. The details of the students admitted are given below:

UNDERGRADUATE LEVEL (2007-08)

Degree	Number of application received for admission	Actual admission given in SAUs			
		Anand	Junagadh	Navsari	Sardar Krushinagar
B.Sc.Agri	2166	86	72	77	61
B.V.sc.and A.H.	2147	65	00	00	60
B.Tech (D.T)	591	54	00	00	00
POSTGRAUDATE LEVEL (2007-08)					
M.V.Sc.	98	61	00	00	27
Ph.D (Vetrenary)	17	09	00	00	02
M.Sc.(Agri)	319	84	63	58	35
Ph.D (Agri)	53	09	09	07	03
M.Tech(Dairying)	10	10	00	00	00
M.Tech(FPT)	08	08	00	00	00

The annual convocation was organized with traditional saraswati worship on Vasant Panchami day Dr. S. L. Mehta, Hon'ble Vice Chancellor of MPAUT, Udaipur was the chief guest. One convocation like function was also arranged for the outgoing school students. Dr. B. K. Kikani, Hon'ble Vice Chancellor, JAU, Junagadh was the chief guest and Dr. R. P. S. Ahalawat, Hon'ble Vice Chancellor, NAU, Navsari was the Guest of Honor.

University Administration:

Prof. Varshneya has provided direction and dynamism to the university through participative management and committee approaches. During the year under report, 18 meetings of different authorities, important committees and councils have been organized under his Chairmanship, wherein he actively participated/guided and motivated the personnel of the university and setup new standards in all spheres of activities and programmes. Due to his efforts the academic sessions are regularized.

Under the dynamic leadership of Prof. M. C. Varshneya as Vice-Chancellor 50 new research projects to the tune of Rs.1080.69 lakh have been sanctioned during the year under report by Government of India, Government of Gujarat, Overseas and other agencies.

Seminars and Meetings:

During the year under report Prof. Varshneya attended various seminars and meetings and presented papers. The details are as under:

- Attended one-day seminar on "Monsoon-2007 and prediction by other Natural events" organized by College of Agriculture, Pune on 25th May, 2007.
- Attended "Monsoon-2007" seminar as a Chief Guest at Pune on 28th May, 2007.
- Visited University of Agricultural Sciences, Dharwad on 30th June, 2007.
- Attended XVIII Tobacco Workshop "AINP on Tobacco" at AAU, Anand on 11-12th August, 2007.
- Attended WTO meeting at New Delhi on 13th August, 2007.
- Attended National Conference on "Impacts of Climate Change with Particular Reference to Agriculture" at Tamil Nadu Agricultural University, Coimbatore on 22-24th August, 2007.

- Visited Tamil Nadu Animal Husbandry University & Agril. University, Coimbatore with Hon'ble Agriculture Minister delegation during 1-4th August, 2007.
- Worked as Chairman-Judging Committee for "Best Teacher Award, IVRI, Izatnagar held on 7th September, 2007.
- Attended "National Ground Water Congress" organized at New Delhi 11th September, 2007.
- Attended Symposium on "Recent Trend in Organic Farming" at Pune on 12th September, 2007.
- Attended Workshop on "Capacity Building of State & District Level Functionaries" organized at Yashwantrao Chavan Academy of Development & Administration, Pune held during 13th September, 2007.
- Attended M & AP seminar on "Stakeholders interface on Medicinal and Aromatic Plants" on 29-30 October, 2007 at Anand (organized by AAU, Anand in collaboration with CSS-Macro-Management (M&AP) Areca-nut & Spices Development Board, GOI, Calicut, Kerala).
- Attended National Symposium on "Horizons of Veterinary Public Health in Augmenting Veterinary Medicinal & Environmental Health" organized at College of Veterinary Science & Animal Husbandry, AAU, Anand during 29-30th November, 2007.
- Visited Aurangabad WALMI Campus and Irrigation Project & Automatic Irrigation System from 1st to 4th December, 2007.
- Attended Indian Agricultural University Association 32nd Annual Convention of Vice Chancellors' at Birsa Agricultural University, Ranchi on 20-21st December, 2007.
- Attended Vice Chancellors Conference at New Delhi held on 18-19th January, 2008.
- Delivered a lecture on "Aspects of the India Argarian-Crisis-the Challenges ahead" at IRMA, Anand on 21st January, 2008.
- Attended Jubilee function of India Meteorological Department at Pune during 28th January, 2008.

Chapter-4

Human Resource (HR) Activities **We are proud that we develop the next generation**

Human Resource Development in Anand Agricultural University (AAU) is taken on top priority. The changing global scenario demands that traditional research must be sharpened and it should be based on market driven economy. Therefore AAU scientists are encouraged to update their knowledge and to improve their skill. The need of the day is to search for new technology with cutting edge research so that new generation, young farmers and daughters are imparted instructions in cutting edge technologies.

In view of this the AAU organises various Programmes and activities to expand wings of knowledge of its scientists and the staff.

During the year under report following programmes/trainings/workshops/seminars are organised or were attended by the University scientists.

Seminar Organized by Anand Agricultural University.

- District level farmers' Seminar on "Stakeholders interface on Medicinal and Aromatic Plants" was organized on October 29, 2007 by Anand Agricultural University, Anand in collaboration with CSS – Macro-management (M & AP) Arecanut & Spices Development Board, GOI, Calicut, Kerala.
- **Seminar** on "Good Agricultural Practices" was organized on March 17, 2008 by the AAU under the auspices of Gujarat Association for Agricultural Science (GAAS) Anand Chapter, Central Sector Scheme Macro Management M&AP, Calicut, Kerala, and Department of Horticulture, Gandhinagar, Gujarat State.

Workshop

- A workshop on "Training Methods (September 17-24, 2007)," Extension Management (November 20-27, 2007) and Training Management (February 25, to March 1, 2008) was organised at Extension Education Institute, Anand Agricultural University, Anand.
- A workshop on Leadership Development Programme from October 3-12, 2007 at Anand Agricultural University, Anand where in 47 teachers/scientists participated.

Group Meeting / Seminar Attended:

- Dr. H. R. Kher, Dr. C. C. Patel, Dr. M. R. Patel and Shri N. N. Patel attended the National Kharif Group Meeting held at Birsa Agril. University, Ranchi during 13-April 15, 2007.
- Dr. P. G. Shah, Mrs. Kalpana Diwan, Assistant Residue Analyst attended XVI Annual Workshop on AINP on Pesticide Residues and Workshop on Monitoring Scheme at Ludhiana during December 15-16, 2007.
- Dr. H. R. Kher, Dr. C. C. Patel, Dr. H. P. Parmar, Shri N. N. Patel and Shri R. M. Patel attended the National Kharif Group Meeting held at Bidhan Chandra Krushi Viswavidyalaya, Kalyani (West Bangal) during September 8-9, 2007.
- Dr. D. M. Korat and Dr. B. H. Patel attended the 15th 'Biocontrol Wrokers' Group Meeting held at Hyderabad on May 18-19, 2007.
- Dr. P. G. Shah, Residue Analyst, attended the "Team Review of Monitoring Project at Rahuri during October 29-30, 2007.
- Dr. P. G. Shah, Residue Analyst, attended meeting on Monitoring of Project on Pesticide Residues at National level New Delhi during May 7-8, 2007.
- Dr. K. P. Patel, Research Scientist, attended National Seminar on Development in Soil Science, 2007 at Birsa Agril. University, Ranchi during November 2-5, 2007.
- Dr. K. P. Patel Research Scientist, Mrs. V. George, Assistant Research Scientist, Dr. V. P. Ramani, Assistant Research Scientist and Dr. S. B. Patel, Senior Technical Assistant attended National Seminar on Micro and Secondary Nutrients for Balanced use of Fertilization and Food Security sponsored by the Ministry of Agriculture, DOAC, Govt. of India, New Delhi at Micronutrient Project, Anand Agricultural University, Anand during March 11-12, 2008.

Training / Symposium

- Shri B. R. Parmar, Assistant Research Scientist attended the training programme on "web based education technology application in Agriculture" for the Scientists held at National Agril. Research Management, Rajendranagar, Hyderabad during 20-09-07 to 10-10-07.
- Shri S. G. Vohra, Subject matter Specialist attended the National Symposium on Recent trends in policy initiatives and technological interventions for rural prosperity in small holders livestock production system held at Veterinary College, Tirupati (A.P.) during 20-06-07 to 22-06-07.
- Dr. S. M. Khanorkar, I/c. Research Scientist (Maize) attended Training and Monitoring of Germplasm, maintenance and hardening of inbreds and selection of inbreds for Hybrid programme at ANGRAU, Rajendranagar, Hyderabad.

- Five scientists of the University participated in the training programme for Sensitization using GIS on watershed management at SPIPA, Ahmedabad during 24 to 26 July, 2007.
- Dr. P. C. Patel participated and presented a paper in National Symposium Range Land and Forage Resources in changing socio economic scenario during November 15-17, 2007 at IGFRI, Jhansi.
- Dr. C. K. Borad attended the training programme on "Introduction of GIS & its application" at Hyderabad during 01-10-2007 to 26-10-2007.
- Dr. D. B. Patel, Associate Research Scientist attended the training programme on monitoring of Maize Germplasms at Hyderabad from 08-03-2008 to 10-03-2008.
- Dr. H. B. Patel, Assistant Research Scientist attended the training programme on 'Modern Approaches in Heterosis Breeding' at Coimbtore (Tamilnadu) from 12-02-2008 to 03-03-2008.
- Dr. D. H. Desai, Assistant Research Scientist attended the training programme on 'Auto Analyzer' at Rajmundri during 26-02-2008 to 01-03-2008..
- Dr. B. B. Patel, Senior Research Scientist attended the training course on 'National Resources Management for Sustainable Ecological Agriculture' at Ludhiana during 27-09-2007 to 17-10-2007.
- Dr. G. B. Chaudhary, Technical Officer attended the International Symposium on 'Agro-meteorology and food security (INSAFS)' at Hyderabad from 18-02-2008 to 21-02-2008.

Foreign Training:

- Dr. J. J. Jani, attended the International Training Course on "Research & Development of New Concepts in IPM" held at International Training Courses, ARO / CINADCQ, Bet Degan, Israel from 29-05-07 to 21-06-07.

Visit

- Dr. P. G. Shah, Residue Analyst, visited the laboratory at NEERI, Nagpur during 21-22 November, 2007 to review the results.

Conference

- Dr. B. B. Patel, Senior Research Scientist attended the Conference on 'Bharatiya Vigyan Sammelan-2007' at Bhopal from 23-11-2007 to 25-11-2007.
- Dr. G. B. Chaudhary, Technical Officer attended the Conference on 'Bharatiya Vigyan Sammelan-2007' at Bhopal from 23-11-2007 to 25-11-2007.

Managerial Training:

Besides, the above mentioned seminars/trainings following administrative and managerial training were also organized by the University.

Eight-day training for preparation of departmental examination was conducted by the Registrar of the University for the employees during July 2-7, 2007. In all 144 employees prepared for the departmental examination during the training.

The University has also sent its employees for other workshops and managerial skill enhancement trainings, the details of which are as under:

- The employees of the university attended the workshop on "Pay Fixation" at New Delhi during April 2-4, 2007.
- As many as 40 members of the staff including University officers were sent for training for "Service Rules, Finance Rules & Record Management" organized by Sardar Patel Institute of Public Administration (SPIPA), Ahmedabad during April 9-14, 2007.
- Three faculties of International Agri-business Management Institute, Anand were sent for training cum workshop organized by IIM, Lucknow on "Agri-business and Food Industry in Developing Countries: Opportunities and Challenges" held on August 12, 2007.
- Four officers of the University attended the "Intellectual Property Summit-2008" held at Ahmedabad on the auspices of Ahmedabad Management Association during January 1-2, 2008.
- A training programme on "Soil Health Card Software Application" was attended by the Assistant Research Scientist organised during June 26 to July 3, 2007.

Human Resource:

The staff position as on 31-03-2008 in the Anand Agricultural University is given **Appendix-1**

Reservation policy implemented:

The Anand Agricultural University implements the reservation policy of the Govt. in University service in letter and spirit. During the year under report the SC / ST / SEBC backlog was as given in Table-1.

Table: 1 Backlog in Reservation in SC/ST/SEBC categories in recruitment

Sr. No.	Cadre	Backlog as on 31-03-2007			
		SC	ST	SEBC	Total
1.	Agricultural Officer	01	02	--	03
2.	Agricultural Assistant	--	08	--	08
3.	Laboratory Technician	--	05	--	05
Total		01	15	--	16

Note: Out of 16 backlog, 3 posts of Agril. Officers & 5 posts of Laboratory Technicians have been filled up by the University in year 2007-08.

New Appointments

During the year under report, the Board of Management approved the selection of teachers and equivalent posts in different faculties, details of which are given in Table-2.

Table: 2 Teachers Appointed during the year 2007-2008

Sr. No.	Post	No. of Teachers appointed				Total
		Agriculture	Veterinary	Dairy	F.P.T	
1.	Professor	01	-	-	02	03
2.	Associate Professor	03	06	02	-	11

Non-teaching cadre

During the year, 4 Junior Clerk and 1 class-IV cadre employees were appointed under the dependents of deceased government servants.

Also during the year under report 03 Agriculture Officers, 5 Lab. Technician and one Programme Assistant (Computer) – have been appointed.

Career Advancement Scheme (CAS)

During the year under report, 06 Professors, 08 Associate Professors(P) and 01 Assistant Professor (Selection Grade) and 01 Assistant Professors (Senior Scale) have been promoted under Career Advancement Scheme) details of which is given in Table-3.

Table: 3 Teachers appointed under CAS in various faculties.

Sr. No.	Post	No. of Teachers appointed				Total
		Agriculture	Veterinary	Dairy	F.P.T	
1.	Professor (P)	2	4	-	-	06
2.	Associate Professor (P)	2	6	-	-	08
3.	Assistant Professor(S.G.)	1	-	-	-	01
4.	Assistant Professor (Sr. Scale)	1	-	-	-	01

Promotion

During the year under report, AAU has given the promotion in different administrative cadres is mentioned in Table-4.

Table: 4 Promotions to Non-teaching cadres.

Sr. No.	Category	No. of promotion	Remarks
(1)	Class-II	02	Office Supdt. promoted in Class-II
(2)	Head Clerk	08	Sr. Clerk promoted in Head Clerk
(3)	Senior Clerk	20	Sr. Clerk promoted in Sr. Clerk
(4)	Steno Gr-I	01	Gr.-2 Steno promoted in Gr.-1

Retirement:

During the year under report, number of persons retired from the university services is given in Table-5.

Table: 5 No. of persons retired on Superannuation/resignation and voluntarily during the year 2007-2008

Sr. No.	Name of posts	No. of persons retired on		
		Superannuation	Voluntarily	Resignation
1.	Professor	-	1	-
2.	Associate Professor	-	1	1
3.	Assistant Professor	-	2	-
4.	Agril. Officer	-	-	1
5.	Agril. Supervisor	3	3	-
6.	Agril. Assistant	3	1	-
7.	Office Superintendent	1	1	-
8.	Head Clerk	3	1	-
9.	Senior Clerk	6	1	1
10.	Junior Clerk	-	1	1
11.	Lab technician	4	3	-
12.	Driver	1	-	-
13.	Tractor Driver	1	-	-
14.	Class – IV	6	2	2
	Total:	28	17	6

Appendix-1

The staff position as on 31-03-2008 in the Anand Agricultural University is given

Sr. No.	Cadres Name	Sanctioned post	Filled up Posts	Vacant posts
(1)	(2)	(3)	(4)	(5)
1	<u>University Officers</u>			
	A Vice-Chancellor	1	1	0
	B Director of Research	1	1	0
	C Registrar	1	1	0
	D Director of Extension Education	1	1	0
	E Account Officer-cum- Comptroller	1	1	0
	F Director (I.T.)	1	0	1
	G Director, Students' Welfare	1	0	1
	H University Librarian	0	0	0
	Total	7	5	2
2	<u>Teaching / Research / Extension:</u>			
	A Principal	3	3	0
	B Associate Director of Research	2	2	0
	C Professor & equivalent	51	38	13
	D Associate Professor & equivalent	152	95	57
	E Asstt. Professor & equivalent	243	186	57
	F Asstt. Librarian	1	0	1
	G Physical Instructor	2	2	0
	H Farm Manager	4	3	1
	I Asstt. Farm Manager	4	3	1
	Total	462	332	130
3	<u>Administration - Class-I</u>			
	A Assistant Registrar	2	2	0
	B Adm-cum-Accounts Officer	1	0	1
	C Legal Officer	1	0	1
	Total	4	2	2
4	<u>Non Technical Class-I</u>			
	A Executive Engineer	1	0	1
	B Deputy Engineer	2	2	0
	C Medical Officer	1	0	1
	Total	4	2	2
5	<u>Administration - Class-II</u>			
	A Accounts Officer (Cash)	1	1	0
	B Accounts Officer (P.F/ Cash)	1	1	0
	C Assistant Adm. Officer	3	3	0
	D Audit Officer	1	0	1
	Total	6	5	1
6	<u>Adm- Class -III</u>			
	A Office Supdt	27	18	9
	B Head Clerk	21	16	5
	C Senior Clerk	95	89	6
	D Junior Clerk	142	142	0
	Total	285	265	20

7	Technical Class –III			
	A Agril Officer / S.R.A (Agri) & equivalent	115	65	50
	B Programme Assistant	9	3	6
	C Veterinary Officer & equivalent	15	10	5
	D Senior Research Assistant (Agri. Engg)	4	4	0
	E Senior Research Assistant (Dairy)	13	0	13
	/ Dairy Supervisor			
	F Agril Supervisor & equivalent	49	22	27
	G Agril Asstt. & equivalent	173	172	1
Total		378	276	102
8	Non Technical – Class- III			
	A Steno Grade – I	3	3	0
	B Steno Grade – II	13	13	0
	C Steno Grade –III	10	5	5
	D Lab Technician	65	53	12
	E Driver	58	47	11
	F Tractor Driver	20	13	7
	G Stockman / Live Stock Assistant	11	8	3
	Total	180	142	38
9	Isolated Cadres – Enclosed proforma	65	45	20
	Total	65	45	20
10	Class – IV Cadres (Regular)	315	257	58
	Total	315	257	58
11	As per Supreme Court order Created posts			
	A Class – III (Jr. Clerk /Agril Asstt./Driver/ Tractor Driver)	15	14	1
	B Class - IV	247	212	35
	Total	262	226	36
	Grant Total	1968	1557	411
Details of Isolated Cadres:				
1	Blacksmith	2	2	0
2	Carpenter	2	2	0
3	Compounder	2	2	0
4	Junior Mechanic-cum-wiremen	1	1	0
5	Mechanic	1	0	1
6	Boiler Attendant	3	2	1
7	Compressor Attendant	2	2	0
8	Sanetary Inspector	1	0	1
9	Fitter	2	1	1
10	Bakery Operator	1	1	0
11	Plumber	1	1	0
12	Hatchery Supervisor /Chick Sexier	1	1	0
13	X- ray Technician	1	0	1
14	Qualified midwife	1	0	1
15	Project Operator	2	1	1
16	Electrician	1	0	1

17	Junior Instructor (Bakery)	1	0	1
18	Craft Teacher	1	1	0
19	Balwadi Teacher	1	1	0
20	Shaving Teacher	1	1	0
21	Teaching Assistant	3	2	1
22	Hostel Warden	1	1	0
23	Tracer	1	1	0
24	Junior Instructor	1	1	0
25	Junior Instructress	1	1	0
26	Assistant Instructor	1	1	0
27	Mechanic cum Draftsman	1	1	0
28	Draftsman	1	0	1
29	Senior Wireman	1	1	0
30	Wireman	3	3	0
31	Wireman (Electrical)	1	0	1
32	Librarian	1	0	1
33	Artist/ Photographer	1	1	0
34	Artist	1	0	1
35	Statistical Assistant	1	1	0
36	Computer Operator	2	1	1
37	Data Entry cum Disk Librarian	1	1	0
38	Library Assistant	1	1	0
39	Programmer	1	1	0
40	Data Processor	1	0	1
41	Senior Technician	2	1	1
42	Instructor (Baking /Science)	3	3	0
43	Senior Lab Technician (Electronics)	1	0	1
44	Junior Engineer (Civil/Electric)	4	3	1
45	Prof reader	1	0	1
46	Electrician (Arne.j)	1	1	0
Total		65	45	20

Chapter -5

Education Chiseling Agri-tech Entrepreneurs

The Gujarat Agricultural Universities Act, 2004 is enacted "to establish and incorporate teaching and affiliating Universities for imparting education in agriculture and allied sciences in the state of Gujarat". One of the missions of the Anand Agricultural University is to develop excellent human resources. This is achieved by excellent teaching in class room amalgamated with hands-on-training and field training to the students of the University.

AAU imparts effective education in Agriculture through residential semester system of under-graduate and post-graduate degree programme, providing the degrees in three faculties namely, Agriculture, Dairy Science, Veterinary Science and Animal Husbandry.

In Agriculture faculty, B. A. College of Agriculture, one of the five oldest colleges of agriculture in the country, started in 1947 provides education which involves exposure to concepts, skills and knowledge in agriculture and related sciences. During the year 2007-08.

In the faculty of dairy Science, Sheth M.C. College of Dairy Science was started in 1961, and then SMC graduates were being awarded Diploma (IDD, Indian Dairy Diploma). Through years, the College broadened its educational horizons, and the dairy students started earning their Bachelor of Science degrees in Dairy Technology. In 1989, the course work was upgraded to an enormous extent with many new subjects and wider orientations. Students starting their education in 1989 and after were awarded the Degree of B.Tech. (Bachelor of Technology) in Dairy Technology.

In Veterinary Science and Animal Husbandry, the College of Veterinary Science & Animal Husbandry, Anand, established in the year 1964, played a key role in development and growth of livestock sector in Gujarat. The College shoulders major responsibilities in teaching subjects of Veterinary and Animal Science, conducting high quality research, and enhancing the economic productivity, as well as transferring the technology to the farmers.

With a great heritage behind, Anand Agricultural University (AAU) stands for revitalization of technology in order to develop rural community and caters the need for knowledge workers to make India a developed country. On one hand, this University imparts graduate and post-graduate programs in Agriculture, Veterinary Science and Dairy Technology under the administration of the Registrar and on the other, it imparts diploma and certificate courses in Agriculture, Home Science, Extension Education and Baking Technology under the supervision of Director of Extension Education.

(1) Admission Procedure for Under-graduate Programme:

The University is mainly a residential one and follows semester system of education. Duration of B.Sc.(Agri) and B.Tech.(Dairy Technology) study course is of four years divided into eight semesters, while B.V.Sc.& A.H, is of five years divided into ten semesters. The candidates should have passed Higher Secondary School Certificate examination in science stream with English, Physics, Chemistry and Biology / Mathematics (optional for Agri.) for admission in all the degree courses run by the University. Candidates are selected for admission strictly on merit basis. The medium of instruction is English.

The number of seats and the actual admitted students' details for the academic year 2007-08 are given.

Exemption of Tuition Fees for Girls:

All the girl students are exempted from tuition and hostel fess.

Students admitted in AAU for academic year 2007-08							
Graduate Study Course-Admission & Output (UG)							
Sr. No.	Graduation & its duration	Name of the College	Admission capacity				
			Gen/SC/ST/OBC	NRI/Payment	ICAR/VCI	Students Admitted	Students Passed
1.	B.Sc.(Agri) 4 years (8 semesters)	B.A.College of Agriculture, Anand	65	20	10	88	53
2.	B.V.Sc.& A.H. 5 years (10 semesters)	College of Vety.Sci. & A.H., Anand.	50	15	09	72	61
3.	B.Tech.(Dairy Tech.) 4 Years (8 Semesters)	Sheth M.C.College of Dairy Science, Anand.	40	15	06	51	41

Admission procedure for Post-graduate Programme:

A candidate aspiring to take admission in PG studies should have a graduate degree of the related field with an OGPA of not less than 6.00/10.00. A basic science graduate should have 55% in aggregate as well as in the field in which he/she seeks admission.

Entrance test and personal interview are conducted and on the basis of performance in the entrance test, interview, and as per the intake capacity students are admitted.

Two academic years (four semesters) are required for the course work, research thesis preparation and examination leading to the Master's Degree. A minimum period of three academic years (six semesters) is required for the Ph.D. degree.

Intake Capacity:

The Anand Agricultural University has taken up an innovative approach for fixing intake capacity for master's and Ph.D. programmes.

Till the Academic Council fixed the intake capacity in a particular discipline the question of how many students should be admitted was dependent on the willingness of a teacher in that discipline. Therefore, Hon'ble Vice-Chancellor proposed that intake capacity for post graduate programmes in a particular discipline should be fixed on the basis of infrastructure in that department and the experts / recognized teachers available.

The Academic Council unanimously decided and fixed the intake capacity as follows.

Faculty	Masters	Ph.D.
Agriculture	176 (32)	66 (33)
Veterinary	89 (12)	20 (10)
Dairy	24 (4)	08 (4)
F.P.T. & B.E.	7 (1)	03 (2)
Total	296	97

Note:

- Figures in parentheses show NRI / payment seats
 - 25% seats are reserved for ICAR/GOI candidates
 - The intake capacity in P.G. Diploma in Agril. I.T. is 15 and Dairy and Food Quality Assurance -20
- Subject wise fixed intake capacity is given in Appendix-A attached herewith.

Post-Graduate study course:

There is no separate building or department for the PG programme. The faculties meant for the UG studies and Research handle the PG studies in their respective subjects.

Nodal Officer.

As the Nodal Officer for Academic and Examination matters, Prof.M.C. Varshneya successfully organized tedious and tiresome exercise of central admission at UG and PG level for four SAUs of Gujarat. As Nodal Officer, he convened meeting of Registrars and Deans of four SAUs and conducted examinations and paper evaluation exercise for centralized admissions.

Centralized Admission Process:

Under Section 25 (7) (g) of the GAU Act, 2004 the Council of State Agricultural Universities is assigned the function to supervise and coordinate the central admission to various degree courses in the University. However, since the Council was not adequately staffed and functional the central admissions for all SAUs of Gujarat are processed by the Vice Chancellor & Nodal Officer, Anand Agricultural University.

In response to the advertisement published in popular Gujarati dailies the applications were processed through computer OMR system and merit list was prepared. Thereafter, the candidates were called for counseling. During the year under report, details of applications received and students admitted in four SAUs are given.

Students admitted in four SAUs

Sr. No.	Name of Course	No. of applications received	Candidates called for interview	No. of Students admitted
1.	B.Sc.(Agri.)	2166	1338	296
2.	B.V.Sc. and A.H.	2147	285	125
3.	B.Tech.(D.T.)	591	124	54

UNDER GRAUDATE / POST GRAUDATE LEVEL (2007-08)

Degree	Number of application received for admission	Actual admission given in SAUs			
		Anand	Junagadh	Navsari	Sardar krishnagar
Under Graduate					
B.Sc.Agri	2166	86	72	77	61
B.V.Sc. & A.H.	2147	65	-	-	60
B.Tech (D.T)	591	54	-	-	-
Post Graduate					
M.V.Sc.	98	61	-	-	27
Ph.D (Veterinary)	17	09	-	-	02
M.Sc.(Agri)	319	84	63	58	35
Ph.D (Agri)	53	09	09	07	03
M.Tech(Dairying	-	10	-	-	-
M.Tech(FPT)	-	08	-	-	-

Admission and Output (PG):

During the year under report admissions given in different faculties at Masters and Ph.D. level under Anand Agricultural University, Anand are as under:

The details of admission in PG studies are given

Sr. No.	Name of the Course	Duration of the course	Name of the College	Students Admitted	Students Passed.
1.	M.Sc. (Agri.)	2 Years (4 semesters)	B.A. College of Agriculture, Anand	83	29
2.	M.V. Sc.	2 Years (4 semesters)	College of Vety. Sci. & A. H., Anand	51	35
3.	M.Sc. (Dairying)	2 Years (4 semesters)	S.M.C. College of Dairy Science, Anand	-	02
4.	M. Tech. (D.T.)	2 Years (4 semesters)	S.M.C. College of Dairy Science, Anand	08	02

5.	M.Tech (FPT)	2 Years (4 semesters)	Faculty of Food Processing Technology and Bio-Energy	06	02
6.	Ph. D.	3 Years (6 semesters)	All the above colleges	18	11
7.	PG Diploma in Dairy & Food quality Assurance	14 Months(2 Semesters + 2 Months in plant training.	S.M.C. College of Dairy Science, Anand	07	-

As mentioned earlier, the admissions for PG programmes in all four Agricultural Universities were processed centrally by the AAU. In response to the advertisement published in popular Gujarati as well as English daily newspapers the applications received and entrance test papers were processed through computer OMR system and merit list was prepared. Thereafter, the candidates were called for counseling. During the year under report following admissions were issued at PG level in all four Agricultural Universities of Gujarat State.

Sr. No.	Name of Course	No.of application	Students admitted
Agriculture			
1.	M.Sc.(Agri)	319	205
2.	M.Sc.	033	014
3.	Ph.D.	053	027
Veterinary			
4.	M.V.Sc.	098	073
5.	Ph.D	017	011

Examination:

The University conducted its examinations regularly, as per schedule for the various degree courses mentioned herein. The results were also declared in time. Annual examinations prescribed by the Veterinary Council of India for B.V.Sc. and A.H. were conducted. Detailed programme of Examinations are given in Appendix- ,B,C,D.

Result Analysis:

The details of number of students passed with different level of success during the academic year 2007-08 as below:

Degree	First class with Distinction	First class	Second Class	Pass Class	Total (passed out)
Graduate					
B.Sc.(Agri.)	12	14	14	13	53
B.V.Sc. and A.H.	05	31	25	-	61
B.Tech.(D.T.)	04	19	18	-	41
Post Graduate					
M.Sc.(Agri.)	02	15	12	-	29
M.V.Sc.	14	20	01	-	35
M.Sc. (Dairying)	-	01	01	-	02

M.Tech. (D.T.)	-	02	-	-	02
M.Tech.(FPT)	-	02	-	-	02
Ph.D.	-	-	-	-	11
PG Diploma in Agril. (I.T.)	-	-	-	-	-
P.G.Diploma in Dairy & Food Quality Insurance	-	-	-	-	-

➤ Convocation



**H. E. the Governor of Gujarat and the Chancellor Shri Nawal Kishore Sharma
awarding Gold Medal to a 4th Annual Convocation**



**H. E. the Governor of Gujarat and the Chancellor Shri Nawal Kishore Sharma
awarding Gold Medal in the a 4th Annual Convocation**

Fourth Annual Convocation:

February 11, 2008 was a historic day for Anand Agricultural University as its Fourth Annual Convocation was held in the presence of His Excellency the Governor of Gujarat and the Chancellor of the university Shri Naval Kishorji Sharma, the Guest of Honour Shri Dilipbhai Sanghani, Hon'ble Minister of Agriculture Gujarat state and the chief Guest Shri Sudarshanji, Head of Rashtriya Swayamsevak Sangh.

Shri G.Purushotam A student of Veterinary College was awarded Chancellor's Gold medal for Ph.D. degree and Ms. Rekha M.T. was awarded chancellor's Gold medal for Master degree in Agriculture faculty. Also Miss Neetu pareek a student of B.A.College of Agriculture, Shri Sadariya Kamlesh A. a student of Veterinary Science and Rumeet R. Sodhi a student of Dairy science college were awarded Vice Chancellor's Gold medal.

H.E. the Governor of Gujarat and the Chancellor of AAU, Anand Shri Naval Kishorji Sharma conferred the degrees on the graduates and post-graduates in person and in absentia. In all, **288** graduate and post-graduate candidates received the degrees in this Convocation.

➤ Students' placement and Achievements

During the year of report there was a heavy demand from the different companies for employment to the students of the University. Details are given in Chapter-8.

Appendix-A

Agricultural Faculty :

Sr. No.	Subject	M. Sc. (Agri.)		Ph. D.	Total
		Open / SC / ST / SEBC	ICAR / GOI / OTHER		
1	Agronomy	17	03	03	23
	Water Management	03	01	-	04
2	Ag. Chem. & Soil Sci.	08	02	03	13
3	Biochemistry	07	01	02	10
4	Pl. Breeding & Genetics	17	03	10	30
5	Agril. Entomology	17	03	10	30
6	Ag. Statistics	04	02	06	12
7	Plant Pathology	11	03	06	20
8	Agril. Economics	03	01	-	04
9	Extension Education	15	03	10	28
10	Plant Physiology & Ecology	02	03	02	07
11	Agril. Meteorology	06	03	04	13
12	Nematology	04	02	02	08
13	Horticulture	09	01	04	14
14	Agril. Microbiology	14	01	04	19
15	Agril. Biotechnology	07	-	-	07
TOTAL:		144★	32	66●	242

- ★ Out of Intake Capacity of 144 Seats for M.Sc. (Agri.), 32 Seats shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.
- Out of Intake Capacity of 66 Seats for Ph.D., 33 Seats shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.

Veterinary Science Faculty :

Sr. No.	Subject	M.V.Sc. (Vety.)		Ph. D.	Total
		Open / SC / ST / SEBC	ICAR / GOI / OTHER		
1	Anatomy	07	01	01	09
2	Veterinary Pathology	05	01	02	08
3	Parasitology	05	01	-	06
4	Veterinary Microbiology	-	-	-	
5	Animal Physiology and Biochemistry	02	01	01	04
6	Livestock Production & Management	03	01	01	05
7	Animal Genetics and Breeding	05	01	02	08
8	Veterinary Surgery	09	01	01	11
9	Veterinary Pharmacology	02	-	01	03
10	Veterinary Obstetrics and Gynaecology	06	01	01	08

Sr. No.	Subject	M.V.Sc. (Vety.)		Ph. D.	Total
		Open / SC / ST / SEBC	ICAR / GOI / OTHER		
11	Veterinary Medicine	09	01	03	13
12	Animal Nutrition	07	01	02	10
13	Reproductive Biology	02	01	01	04
14	Veterinary Public Health	02	01	03	06
15	Poultry Science	06	-	01	07
16	Animal Biotechnology	07	-	-	07
17	Veterinary Extension	-	-	-	-
TOTAL :		77★	12	20●	109

- ★ Out of Intake Capacity of 77 Seats for M.V.Sc., 12 Seats shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.
- Out of Intake Capacity of 20 Seats for Ph.D., 10 Seats shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.

Dairy Science Faculty :

Sr. No.	Subject	M. Sc. / M.Tech.		Ph. D.	Total
		Open / SC / ST / SEBC	ICAR / GOI / OTHER		
1	Dairy Technology	06	01	03	10
2	Dairy Engineering	05	01	02	08
3	Dairy Microbiology	01 M.Sc.	01	01	03
4	Food Biotechnology	02 M. Tech.	-	01	03
5	Dairy Chemistry	06	01	01	08
TOTAL :		20★	04	08●	32

- ★ Out of Intake Capacity of 20 Seats for M.Sc./M.Tech., 04 Seats shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.
- Out of Intake Capacity of 08 Seats for Ph.D., 04 Seats shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.

Food Processing Technology & Bio-Energy Faculty :

Sr. No.	Subject	M. Tech. (FPT)		Ph. D.	Total
		Open / SC / ST / SEBC	ICAR / GOI / OTHER		
1	Food Processing Technology	05	01	03	09
TOTAL :		05★	01	03●	09

- ★ Out of Intake Capacity of 05 Seats for M.Tech. 01 Seat shall be filled in by NRI / NRI Sponsored / Payment Seat from Gujarat / Other States in order of preference / availability.
- Out of Intake Capacity of 03 Seats for Ph.D., 50 % Seats from Gujarat / Other States should be on payment.

Appendix-B
ANAND AGRICULTURAL UNIVERSITY
ANAND – 388110
INFORMATION OF EXAMINATION

Statement showing details of the examination held on December-2007/January-2008 : B. A. College of Agriculture, AAU, Anand

Semester	Date of Exam		Total students of sitting in exam	Pass out students	Promoter students	Fail students	Remarks
	Practical Exam	Theory Exam					
1	2	3	4	5	6	7	8
First Semester (Regular)	03-12-2007 to 06-12-2007	31-12-2007 to 08-1-2008	82 Admission Year 2007	51	27	04	---
Second Semester (Supple.)	26-11-2007 to 29-11-2007	11-1-2008 to 18-1-2008	29	21	08	--	
Second Semester Makeup Exam	15-2-2008		02	02	--	--	
Third Semester (Regular)	03-12-2007 to 08-12-2007	31-12-2007 to 09-1-2008	79 Admission Year 2006	59	17	03	
Fourth Semester (Supple.)	26-11-2007 to 30-11-2007	11-1-2008 to 18-1-2008	03	00	01	02	
Fifth Semester (Regular)	3-12-2007 to 08-12-2007	31-12-2007 to 10-1-2008	50 Admission Year 2005	46	02	02	
Sixth Semester (Supple.)	26-11-2007 to 29-11-2007	11-1-2008 to 18-1-2008	06	05	01	00	
Sixth Semester Makeup Exam.	15-2-2008		01	01	00	00	
Seventh Semester (Regular)	December-2007 RAWE		56 Admission Year 2004	56	00	00	
Total :			308	241	56	11	

Appendix-C
ANAND AGRICULTURAL UNIVERSITY
ANAND – 388110
INFORMATION OF EXAMINATION

Statement showing details of the examination held on May/June, 2008 : B. A. College of Agriculture, AAU, Anand

Semester	Date of Exam		Total students of sitting in exam	Pass out students	Promoter students	Fail students	Remarks
	Practical Exam	Theory Exam					
1	2	3	4	5	6	7	8
First Semester (Supple.)	5-5-08 to 8-5-08	13-6-2008 to 18-6-2008	30	26	--	04	---
Second Semester (Regular)	19-5-2008 to 22-5-2008	2-6-2008 to 12-6-2008	85 Admission Year 2007	44	29	12	
Third Semester (Supple.)	5-5-2008 to 9-5-2008	13-6-2008 to 19-6-2008	20	15	01	04	
Fourth Semester (Regular)	19-5-2008 to 24-5-2008	2-6-2008 to 11-6-2008	75 Admission Year 2006	49	22	04	
Fifth Semester (Supple.)	5-5-2008 to 9-5-2008	13-6-2008 to 19-6-2008	04	02	--	02	
Sixth Semester (Regular)	19-5-2008 to 24-5-2008	2-6-2008 to 11-6-2008	47 Admission Year 2005	44	03	--	
Eighth Semester (Regular)	5-5-2008 to 10-5-2008	20-5-2008 to 26-5-2008	55 Admission Year 2004	53	--	1-Fail 1-withdrawn	(1) First Class with Distinction : 12 (2) First Class : 14 (3) Second Class : 14 (4) Pass Class : 13 (5) 1-Fail & 1-withdrawn : 02 (Awarded to degree certificates in Fifth Annual Convocation)
Total :			316	233	55	28	

APPENDIX-C

ANAND AGRICULTURAL UNIVERSITY COLLEGE OF VETERINARY SCIENCE & ANIMAL HUSBANDRY-ANAND

INFORMATION OF EXAMINATION

Statement showing details of the examination held on July-2007 to Jan-2008: College of Vet. Science & A.H.,ANAND.

Semester	Date of examination		Total students of sitting in examination	Pass out students	Promoter students	Fail students	Remarks
	Practical Examination	Theory Examination					
1	2	3	4	5	6	7	8
First Year (Ist & IInd Semester)	08-08-07 to 18-08-07	25-07-07 to 08-08-07	81	57	--	24	-
Second Year IIIrd & IVth Semester)	08-08-07 to 22-08-07	25-07-07 to 08-08-07	74	58	--	16	
Third Year (Vth & VIth Semester)	26-12-07 to 03-01-07	07-12-07 to 24-12-07	56	56	--	--	
Fourth Year (VIIth Semester)	17-07-07 to 26-07-07	04-07-07 to 16-07-07	53	50	--	03	
Fifth Year (VIIIth & IXth Semester)	19-07-07 to 27-07-07	07-07-07 to 18-07-07	61	61	--	--	
Xth Semester Internship Program (01-08-2007 to 19-02-2008) Only viva voce exam.in 10 th semester	--	--	61	61	--	--	1) First class with Distinction05 2) First Class 31 3) Second Class 25 Total..... <u>61</u> (Awarded to degree certificates in Fifth Annual convocation.

Appendix-D
ANAND AGRICULTURAL UNIVERSITY
ANAND-388110

INFORMATION OF EXAMINATION

Statement showing details of the examination held on April/May-2008:Sheth M.C.College of Dairy Science, AAU, Anand.

Semester	Date of Exam		Total of students sitting in Exam	Pass out students	Promoter students	Fail students	Remarks
	Practical Exam	Theory Exam					
1	2	3	4	5	6	7	8
First Semester (Supply)	12-05-2008 to 14-05-2008	05-05-2008 to 09-05-2008	14	14	---	---	Summary: First Class with Distinction : 04 First Class : 19 Second Class : 18 Pass Class : 00 Fail : 04 <hr/> Total : 45 (Awarded to Degree Certificates in Fifth Annual Convocation)
Second Semester (Regular)	25-04-2008 to 03-05-2008	15-04-2008 to 24-04-2008	55	38	16	01	
Third Semester (Supply)	22-04-2008 to 25-04-2008	21-04-2008 to 24-04-2008	09	09	---	---	
Fourth Semester (Regular)	09-04-2008 to 19-04-2008	13-03-2008 to 08-04-2008	50	43	07	---	
Sixth Semester (Regular)	06-05-2008 to 11-05-2008	---	59	59	---	---	
Seventh Semester (Supply)	09-05-2008 to 13-05-2008	05-05-2008 to 08-05-2008	09	09	---	---	
Eighth Semester (Regular)	25-04-2008 to 03-05-2008	15-04-2008 to 24-04-2008	45	41	---	4	
Total:-			241	212	23	5	

Chapter – 6

Research

Anand Agricultural University, Anand, the University which is concerned for the overall development of farming community through the main objective of enhancing production and productivity of agriculture and related community for up-liftment of socio-economic status of the farmers. The main motto of this University is being achieved through the high standard of research conducted in the field of agriculture, animal science, dairy science, food processing technology and related areas covering all the seasons as per the requirement of farming community of Gujarat under different agro-climatic conditions and problems of farming community.

The research is multi-dimension which include the research on natural resource management, pests and diseases control, water management, high quality seed production, post harvest technology, value addition, Biotechnology and tissue culture, animal science and dairy science. Scientific community of Anand Agricultural University is always engaged in developing cutting-edge technology in several quarters of agriculture as per requirements. The field crops, horticultural crops, animal and other related aspects which are covered under research are restricted through research stations located in Anand Agricultural University jurisdiction.

Table- 6.1: Agroclimatic zone wise Research Stations of AAU and their area

Sr. No.	Name of Centre	Mandated Crop / Research	Area (ha)
MIDDLE GUJARAT AGROCLIMATIC ZONE-III			
1	Zonal Research Station, Anand		
	Agronomy Farm, Anand	Instruction farm, Seed production and Departmental research	40.70
	Animal Nutrition Research Station, Anand	Animal feed, food and byproduct utilization for better health and production of animal	1.93
	Bidi Tobacco Research Station Anand	Research on Tobacco, Seed Production	25.43
	Centre for Organic Farming, Anand	Organic food testing and production	-
	Centre of Excellence on Bio-technology, Anand	Biotechnological Research on Plant, Animal and Food Bio-technology	-
	Faculty of Food Processing Technology and Bio-energy, Anand	Technology development for processing horticultural and food crops, biofuel & biogas	-
	Forage Research Station, Anand	Research on Forage crops and seed production	18.44
	H. F. Project, Anand	Bull mother farm and ET in Exotic Cattle	51.18
	Horticulture Farm, Anand	Research on Horticultural crops and maintenance of germplasm	34.70
	Livestock Research Station, Anand	Production of Cross Bred. Improvement of Kankrej	21.20

	Medicinal & Aromatic Plants Project, Anand	Medicinal & Aromatic Plants	6.30
	Micronutrient Research Project, Anand	Research on Micronutrient of different crops	-
	Poultry Research, Anand	Poultry breeding for higher and laying chicken, Rural poultry farming and training to the rural youth	-
	Bio-control Research Project, Anand	Biocontrol Research on different crops	-
	Regional Research Station, Anand	Research on Cotton, Oilseeds, Pearl millet, Wheat, Water management and Seed Production on commercial basis and its research and training	29.69
	Reproductive Biological Research Unit, Anand	Improving reproductive efficiency of farm animals	2.00
	Vegetable Research Station, Anand	Research on Vegetable crops	23.99
2	Main Rice Research Station Nawagam	Paddy Research & Seed production	25.92
3	Agril. Research Station, Derol	Drilled paddy, Pulses and Oil seed Research	38.42
4	Agril. Research Station, Thasra	Research on irrigated crops Sugarcane and Cotton	15.71
5	Agricultural Research Station, Dahod	Minor Millet, Drilled Paddy, Maize and Pulses Research, KVK and Tribal Training	46.70
6	Krushvi Vigyan Kendra, Devataj	Krushvi Vigyan Kendra	18.92
7	Maize Research Station, Godhra	Maize Research & Seed production	22.15
8	Narmada Irrigation Research Project, Khandha	Water management on field and horticultural crops in Narmada command	24.62
9	Paddy Research Station, Dabhoi	Paddy Research and Seed production Water management Research in Narmada Command	29.13
10	Pulse Research Station Vadodara	Research on Pulses crops, production of cuttings/saplings of horticultural crops and Agricultural School.	33.08
11	Tobacco Research Station, Dharmaj	Research on Chopadiu type tobacco	11.92
12	Tribal Research-cum-Training Centre, Devgadhi baria	Maize and Budded cotton, Tribal Training Centre	8.00
NORTH GUJARAT AGROCLIMATIC ZONE –IV			
13	Agricultural Research Station, Sanand	Seed production of Cotton	6.44
14	N. C. Farm, Chharodi	Breeding of Kankrej cow, Research on Arid Horticultural crops and Jatropha cultivation. Seed production	809.40
15	Regional Cotton Research Station, Viramgam	Research on Deshi Cotton and Dual Sorghum, Seed production.	24.43
BHAL AND COASTAL AGROCLIMATIC ZONE-VIII			
16	Agricultural Research Station, Arnej	Research on rainfed wheat, gram, rabi sorghum and problematic soils, KVK and NCMRWF	60.84

17	Agril. Research Station, Dhandhuka	Research on Rainfed wheat, gram, cotton and water management, Seed production	44.32
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SEASONAL WEATHER AND CROP CONDITION

Seasonal weather and crop condition during the year 2007

The onset of monsoon took place on 3rd week of June exactly coinciding to its normal onset week with 9.8 mm rainfall on 16th June (Table 6.2). Then after rainfall activity started on 21st June which favourable for sowing of rainfed crops. During this period other areas of the state received good amount of rainfall resulting sowing operation in large part covering about 90 % area. Subsequently in the last week of June and first week of July (26 and 27 MSW) there were wide spread rainfall helped in completion of sowing operation. During MSW 28 and 29 rainfed crops experienced 17 days dry spell. The various rainfed crops were not severely affected to the dry spell because of higher humidity condition. Rainfall activity remains satisfactory in the month of August with 16 rainy days. During the month of September there was another dry spell of 17 days, but it did not affected seriously the standing crop because of favourable temperature and humidity condition. The SW monsoon withdraws during 39th MSW in September month. The monthly total rainfall of June was 94.6 mm in 7 rainy days against the normal of 107.5 mm. July month received highest rainfall of 491.1 mm in 11 rainy days against the normal of 287.7 mm. August month received 351.7 mm rainfall in 16 rainy days as compared to 256.6 mm of normal rainfall. September month received 203.1 mm rainfall with a 9 rainy days as against the normal of 138.0 mm. Thus, the total annual rainfall of 1140.5 mm received in 43 rainy days against the normal rainfall of 853 mm.

The weekly distribution of weather parameters along with their normal values are depicted in Table 6.3 and Figures 6.1 to 6.4. The maximum temperature was remain 2 to 4 °C higher than the normal temperature except few weeks. Similar trend was observed for minimum temperature during whole year. Morning and after noon relative humidity were also remain higher except 3 to 4 weeks. Weekly evaporation rate was also found on higher side as compared to its normal value. During the monsoon period bright sun shine hours showed higher fluctuation. The lower BSS was recorded during this period. On average the year 2007 remain good for rainfed crops. The monthly rainfall distributions under different categories of all the districts of middle Gujarat region are depicted in Figure 6.5 to 6.8.

District wise rainfall distribution during 2007 in Gujarat state

The district wise seasonal of all the zones of Gujarat and its percentage departure from normal is presented in Table 6.4 and depicted in Fig.6.9. In middle Gujarat region, which is comprised of Ahmedabad, Anand, Dahod, Kheda, Panchmahals and Vadodara districts, all the districts received higher rainfall than normal (118 to 127 %). July month received highest rainfall amongst all the rainy month in all the districts.

Table 6.2: Daily rainfall during 2007 at Anand

Date	June	July	August	September
01	0.0	129.6	37.0	1.6
02	0.0	156.0	1.0	20.0
03	0.0	23.5	0.0	0.5
04	0.0	20.6	38.6	0.0
05	0.0	0.0	4.2	0.0
06	0.0	0.0	2.5	0.0
07	0.0	0.0	33.2	1.4
08	0.0	0.0	8.8	0.0
09	0.0	25.1	37.8	0.0
10	0.0	25.8	8.7	0.0
11	0.0	42.5	2.0	0.0
12	0.0	0.0	7.4	0.0
13	0.0	0.0	8.8	0.0
14	0.0	0.0	0.8	0.0
15	0.0	6.0	18.7	0.0
16	9.8	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0
19	0.0	0.0	1.0	4.2
20	0.0	0.0	0.0	12.4
21	41.0	0.0	1.2	23.4
22	13.2	0.0	15.4	0.4
23	0.0	0.3	0.0	34.2
24	2.6	0.0	0.0	25.8
25	15.8	0.0	2.0	45.5
26	4.1	0.0	0.0	28.3
27	0.0	0.0	0.0	5.4
28	8.1	0.0	6.4	0.0
29	0.0	18.7	51.2	0.0
30	0.0	4.2	52.6	0.0
31	--	38.8	12.4	--
Total	94.6	491.1	351.7	203.1
Rainy days	7	11	16	9

Table 6.3 : Weekly weather parameters during the year 2007

Week	EP	BSS	RF	WS	MAXT	MINT	RH1	RH2
01	3.0	9.0	0.0	2.5	26.4	11.6	93	46

02	3.5	8.5	0.0	4.5	26.0	11.5	80	37
03	3.5	9.7	0.0	3.0	27.9	10.3	81	36
04	4.3	9.6	0.0	3.7	29.8	12.9	78	37
05	4.0	8.3	0.0	2.6	30.9	13.2	89	39
06	4.5	8.8	2.4	3.4	31.4	15.4	90	43
07	4.4	9.8	0.0	3.8	29.0	13.4	91	33
08	5.0	9.8	0.0	3.0	34.0	15.7	79	28
09	5.1	9.8	0.0	3.5	31.9	14.7	84	33
10	6.2	10.1	0.0	3.3	33.6	14.9	71	27
11	6.2	9.8	0.0	4.2	34.6	16.3	76	25
12	7.8	10.1	0.0	4.5	35.9	20.2	61	27
13	8.0	10.3	0.0	3.2	39.9	18.9	61	25
14	7.6	10.4	0.0	3.4	39.7	19.6	65	19
15	7.9	10.3	0.0	4.4	39.2	22.0	71	24
16	8.3	9.6	0.4	5.5	40.2	23.9	80	31
17	8.2	10.7	0.0	4.9	39.4	24.1	75	27
18	8.5	9.7	0.0	5.0	40.6	25.8	72	33
19	8.3	10.5	0.0	7.1	39.3	25.9	81	41
20	9.0	11.2	0.0	7.1	38.7	26.4	74	39
21	9.0	10.9	0.0	7.2	38.6	26.9	76	34
22	9.4	10.1	0.0	6.5	40.0	28.2	70	36
23	8.8	7.5	0.0	7.4	39.5	28.1	76	41
24	9.0	8.5	9.8	8.7	39.4	28.4	78	43
25	7.2	7.4	56.8	6.5	37.1	26.7	89	62
26	3.2	5.2	157.6	6.8	33.3	26.1	93	77
27	2.2	0.0	200.1	10.1	29.9	26.0	90	84
28	2.7	2.7	99.4	6.8	30.7	25.8	93	80
29	4.8	5.4	0.0	5.6	33.6	25.8	94	63
30	3.9	5.3	19.0	4.3	33.9	26.2	92	72
31	2.4	2.2	123.8	3.5	31.5	25.8	96	85
32	2.5	1.8	100.4	6.6	30.3	24.8	94	85
33	3.6	4.7	29.3	8.0	31.7	25.4	89	73
34	2.8	6.6	18.6	3.9	31.7	25.0	95	76
35	3.0	3.0	144.2	3.1	32.2	24.5	98	78
36	3.0	5.2	1.9	4.9	32.9	25.5	94	70
37	4.5	8.2	0.0	4.2	33.9	25.4	89	57
38	4.3	6.1	74.6	4.5	33.6	24.2	93	66
39	3.1	3.9	105.0	4.5	31.1	23.9	95	74
40	5.1	9.0	0.0	3.4	34.0	21.4	81	48
41	4.8	8.9	0.0	2.7	35.5	21.7	88	50
42	5.5	9.4	0.0	2.4	35.9	17.3	84	32
43	4.4	8.7	0.0	2.5	34.8	18.0	79	32
44	4.6	8.8	0.0	3.6	35.1	21.2	73	35
45	3.7	8.6	0.0	1.8	35.6	19.6	87	31
46	4.1	9.1	0.0	2.0	33.8	16.6	79	25
47	4.1	9.7	0.0	2.5	32.1	12.6	76	21
48	3.2	7.8	0.0	2.2	31.4	14.5	84	30
49	3.3	7.6	0.0	3.6	29.1	15.3	80	41

50	3.9	8.5	0.0	4.9	28.3	13.6	75	39
51	4.0	8.8	0.0	4.6	28.5	14.0	78	37
52	3.4	9.0	0.0	2.6	29.3	13.2	83	36

Table 6.4: District wise rainfall during 2007

Zone	District	Total rainfall (mm)	% Against normal
Middle Gujarat	Ahmedabad	864	120
	Anand	876	120
	Dahod	872	120
	Kheda	1114	127
	Panchmahals	1016	125
	Vadodara	1183	118
Average		987.5	121.67

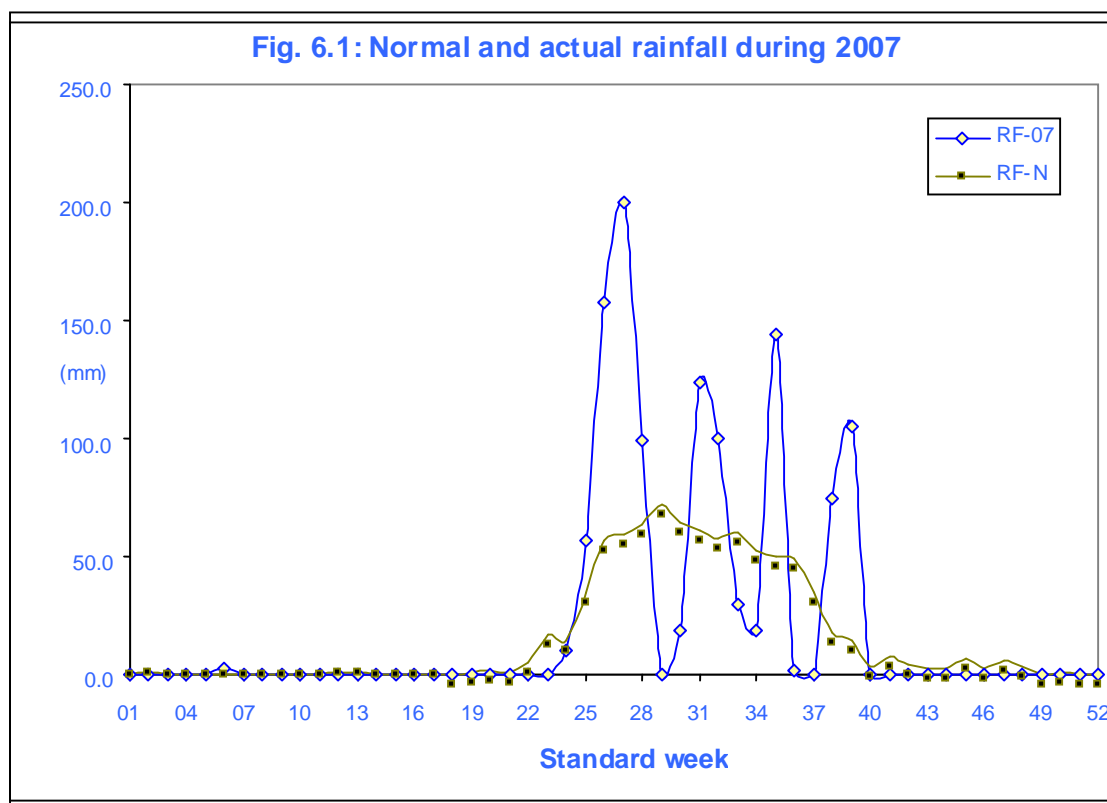


Fig.6.2: Comparison of normal and actual maximum and minimum temperature during 2007

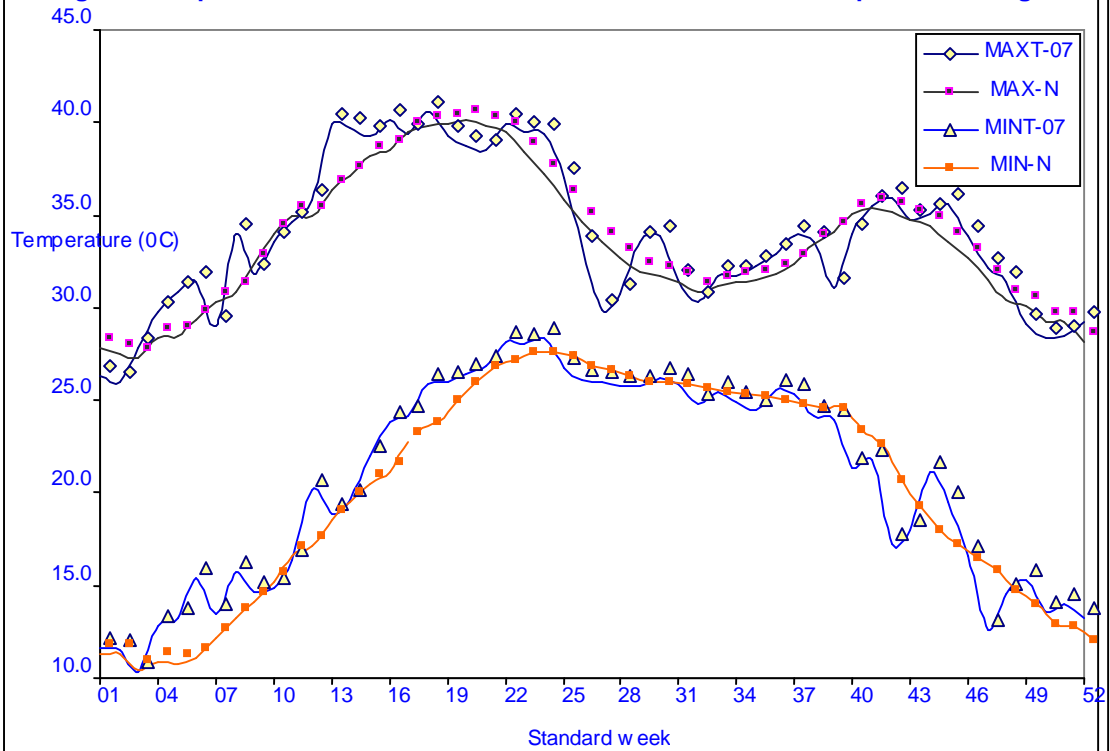


Fig 6.3: Comparison of normal and actual relative humidity during 2007

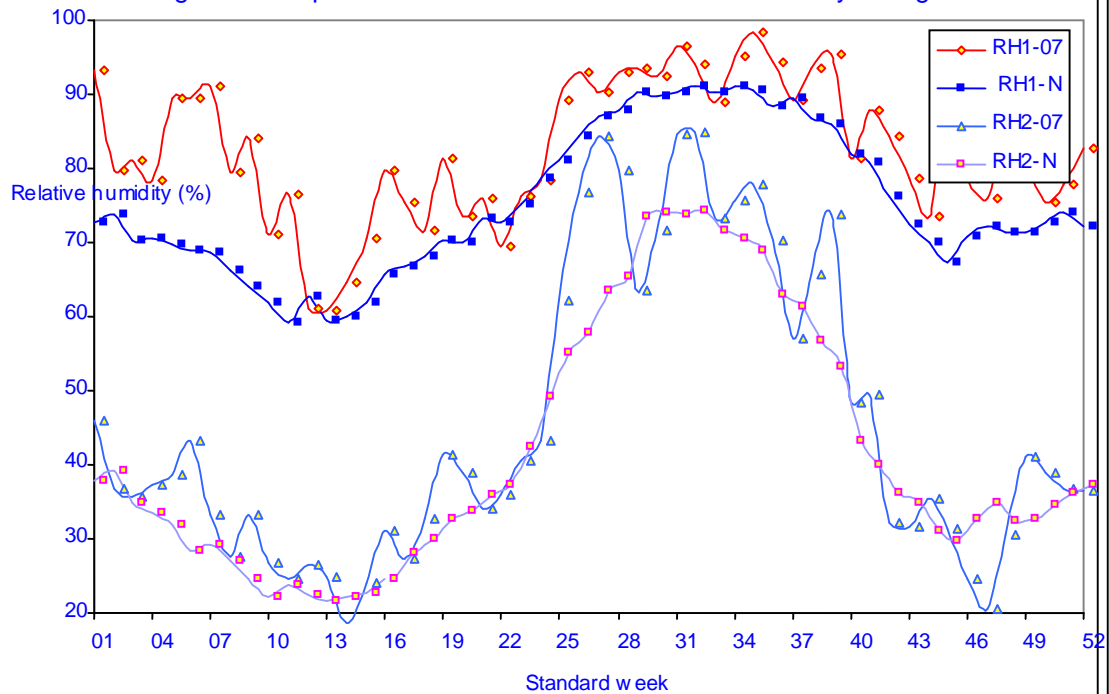


Fig. 6.4: Coparision of normal and actual EP and BSS during 2007

The graph displays four data series over 52 standard weeks:

- EP-07** (Yellow line with diamond markers): Actual Evapotranspiration (mm).
- EP-N** (Blue line with square markers): Normal Evapotranspiration (mm).
- BSS-07** (Blue line with triangle markers): Actual Base Saturation (hr).
- BSS-N** (Yellow line with square markers): Normal Base Saturation (hr).

The Y-axis represents both BSS (hr) and EP (mm), ranging from 0.0 to 12.0. The X-axis represents the Standard week, ranging from 01 to 52. The graph shows significant fluctuations, with a major peak around week 20 and a sharp drop to zero around week 28.

[illegible]

Fig. 6.6 Rainfall distribution over Middle Gujarat during July 2007

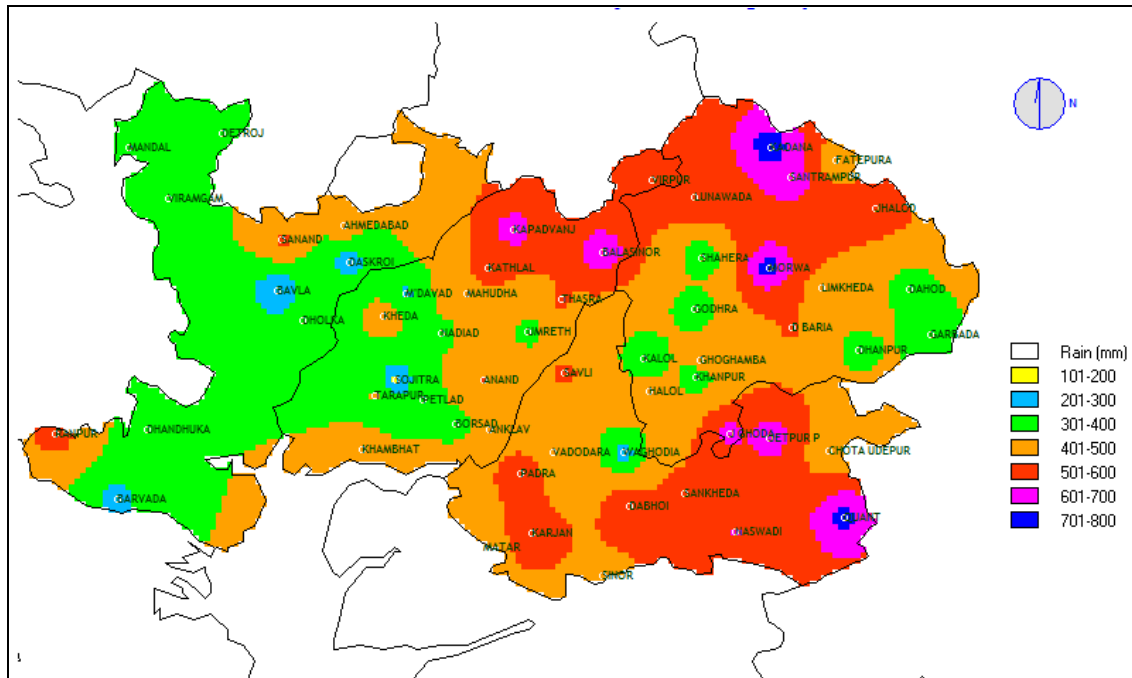


Fig. 6.7 Rainfall distribution over Middle Gujarat during August 2007

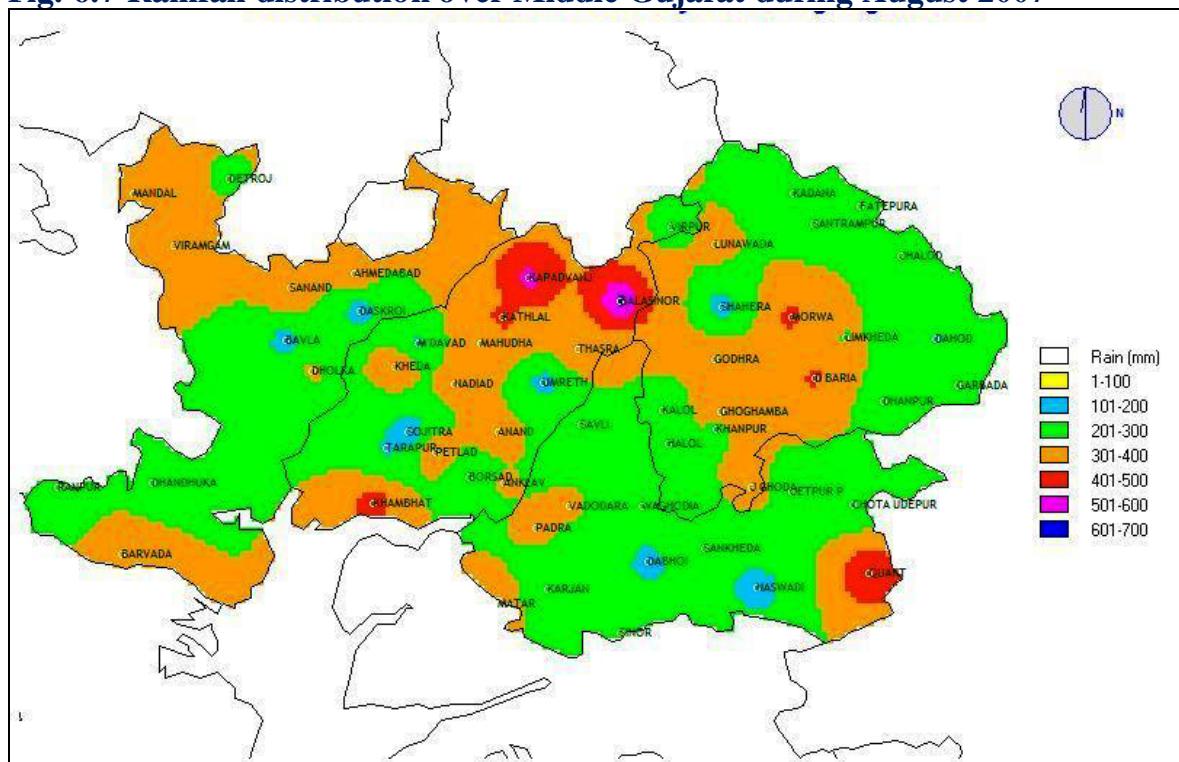


Fig. 6.8 Rainfall distribution over Middle Gujarat during September 2007

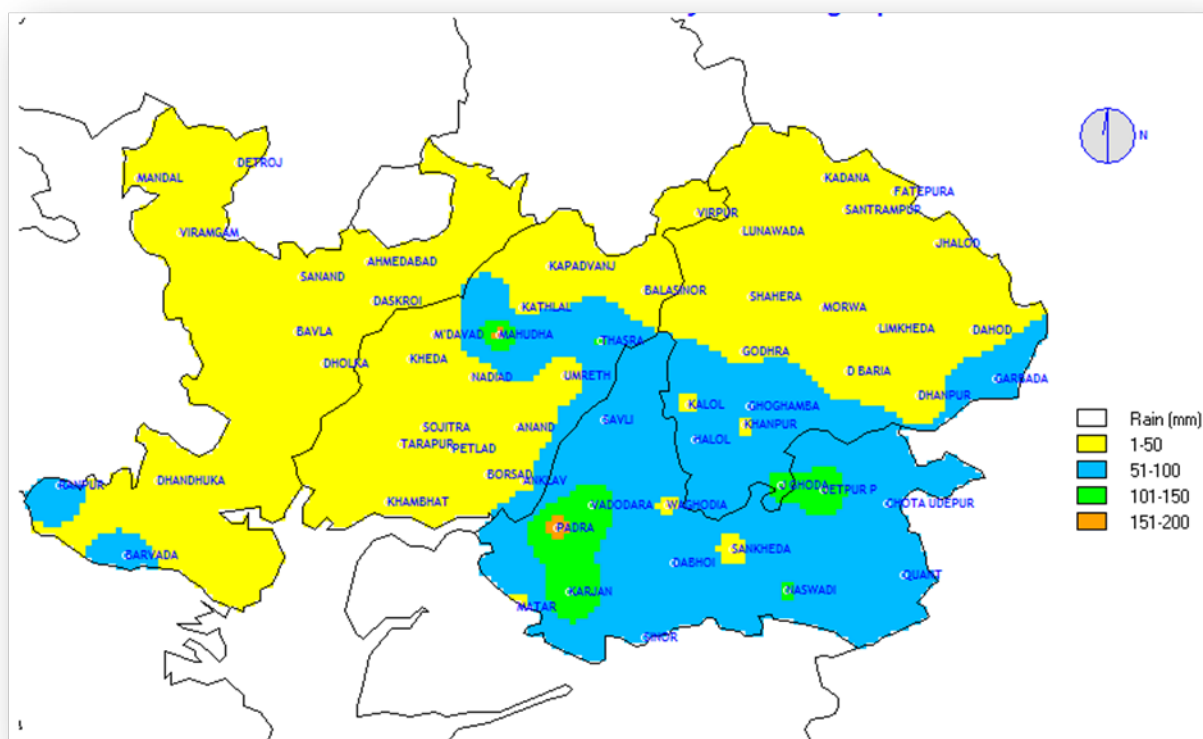
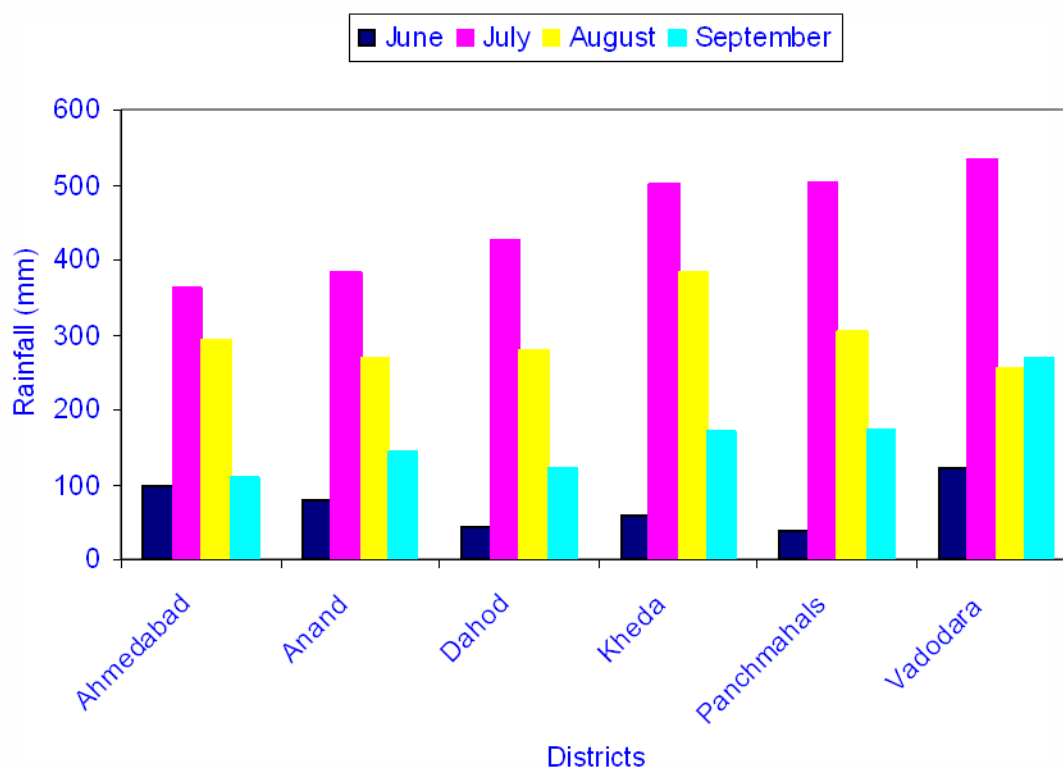


Fig. 6.9 District wise monthly rainfall during 2007 of Middle Gujarat



RESEARCH COUNCIL

As per the first statute of AAU (Proposed), Chapter 7, Item No. 42, the Research Council of AAU was formulated.

Constitution of Research Council

S.No.	Name, Designation & Address		
A.	Prof. M.C. Varshneya, Vice Chancellor, AAU, Anand		Chairman
B.	Dr. A.R. Pathak, Director of Research & Dean, PG Studies, AAU, Anand		Secretary
C.	1.	Dr.R.H.Patel, Associate Director of Research, (Agriculture), AAU, Anand	Member
	2.	Dr. M.M. Pathak, Associate Director of Research (Animal Science), AAU, Anand	Member
D.	Faculty Deans		
	1.	Dr. A.M. Shekh, Dean, Faculty of Agriculture, BACA, AAU, Anand	Member
	2.	Dr. B. P. Shah, Dean, Faculty of Dairy Science, SMC Dairy Sci. College, AAU, Anand	Member
	3.	Dr. J.V.Solanli, Dean, Faculty of Vety. Science, College of Vety. Sci. & A.H., AAU, Anand	Member
	4.	Dr. D.C. Joshi, Dean, Food Processing Tech. & Bio-energy, AAU, Anand	Member
	5.	Dr. S.K. Dixit, Dean, Information Technology, AAU, Anand	Member
E.	Dr. P.P. Patel, Director Extension Education, AAU, Anand		Member
F.	Conveners of the AGRESCO Sub-committee		
	1.	Dr.G.C.Jadeja, Convener, Crop Improvement Sub-Committee and Professor of Botany, BACA, AAU, Anand.	Member
	2.	Dr.K.P.Patel, Convener, Crop Production Sub-Committee and Research Scientist (Micronutrient), AAU, Anand.	Member
	3.	Dr.R.N.Pandey, Convener, Plant Protection Sub-Committee and Professor of Pl. Pathology, BACA, AAU, Anand.	Member

	4.	Dr.D.C.Joshi, Convener, Dairy Science & Agril. Engineering and Processing Sub-Committee and Unit Officer, APPE, AAU, Anand.	Member
	5.	Dr.P.R.Patel, Convener, Animal Health Sub-Committee and Professor of Medicine, College of Vety. Sci. & A.H., AAU, Anand.	Member
	6.	Dr.P.H.Vataliya, Convener, Animal Production Sub-Committee and Professor of AGB, College of Vety. Sci. & A.H., AAU, Anand.	Member
	7.	Dr. P.P. Patel, Convener, Social Science Sub-Committee and Director Extension Education, AAU, Anand	Member
G.	Two Eminent Scientists of ICAR Institutes nominated by the Vice-Chancellor		
	1.	Dr. B. S. Bisht, Asstt. Director General (HRD 1), Indian Council of Agricultural Res., 217, Krishi Anusandhan Bhavan-II, New Delhi – 110 001	Member
	2.	Dr. H. B. Singh, Head, Central Soil & Water Conservation, Research & Training Institute, Vasad – 388 306, Distt. Anand	Member
H.	Two Progressive Farmers nominated by the Vice-Chancellor		
	1.	Shri Narsinhbhai Patel, Naika, Umiya Farm, Ta. Matar, Dist.: Kheda	Member
	2.	Shri Rohitbhai Purshottambhai Patel, “Patel Farm”, At: Shardapur, Post: Vejpur, Ta: Savli, Dist.: Vadodara – 391 535	Member

The meeting of research council was held on 25th September 2007 for review of the work done during year 2006-07 and approval of the new research schemes to be implemented in the university during year 2007-08. Committee has also suggested and considered the changes of mandate for Agricultural Research Station, Thasra to “**Agricultural Research Station for Irrigated Crops**” and Tobacco Research Station, Sanand to “**Research in Castor and seed Spices**” and also considered the change of mandate of Budded cotton Research Scheme at Devgadbaria to “**Scheme for research in oilseed and pulse crops for tribal area**”.

RESEARCH SUB-COMMITTEES

To carry out research work in particular direction, the research areas of different subject under Anand Agricultural University has been sub-grouped in 7 research sub-committees, as follows.

FACULTY OF AGRICULTURE

- **Crop Improvement** (Plant Breeding & Genetics, Plant Biotechnology, Plant Physiology and Biochemistry)
- **Crop Production** (Agronomy, Soil Science, Horticulture, Meteorology and Bio-fertilizer)
- **Plant Protection** (Entomology, Plant Pathology and Nematology)
- **Social Science** (Agril. Statistics, Economics and Extension Education)

FACULTY OF VETERINARY SCIENCE

- **Animal Production** (Animal Biotechnology, Animal Breeding and Genetics, Animal Physiology & Bio-chemistry, Livestock Production and Management, Animal Nutrition, Reproductive Biology and Poultry Sciences)

- **Animal Health** (Vet. Medicine, Vet.Microbiology, Vet.Pharmacology, Vet.Surgery, Vet. Pathology, Gynaecology & Obstratics, Veterinary Public Health, Vet. Clinics and Anatomy)

FACULTY OF DAIRY SCIENCE AND FOOD PROCESSING TECHNOLOGY & BIO ENERGY.

- **Dairy Science, Agril. Engineering and Processing** (Dairy Microbiology, Dairy Engineering, Dairy Technology, Dairy Economics, Food Bio-technology, Dairy Chemistry, Post Harvest Technology, Food Processing and Packaging Technology and Bio-Energy)

RESEARCH ACCOMPLISHMENT

Research Sub-Committees met and finalized different research programmes considering the requirement of farmers burning problems and educational needs as per today's global requirement in agricultural sciences. As a result of sincere efforts of the scientists, the research accomplishments made are given below.

I. RESEARCH ACCOMPLISHMENTS

Name of the sub-committee	Meeting held on	No. of recommendations finalized
Crop improvement	05-06 April, 2007	07
Crop production	03-04 April, 2007	14
• Cultural practices		01
• Cropping system		03
• Nutrient management		01
• Micronutrient		02
• Organic farming (Bio-fertilizers)		01
• Soil amendments		01
• Water management		01
• Weed Management		01
• Horticultural crop		03
Plant Protection	13-14 April, 2007	08
• Pest Management		06
• Disease management		02
Dairy Science & Argil. Engineering	06-07 March, 2007	05
Animal Production	08-09 March, 2007	09
Animal Health	08-09 March, 2007	01
Social Science	06-07 March, 2007	-
Joint Agresco	09 April, 2006	44
Joint AGRESCO of SAU's	12-14 April, 2006	44

The details of recommendations approved in the Joint AGRESCO meeting of SAUs of Gujarat held at Anand are given here.

I CROP IMPROVEMENT

1. RICE: DDR-97 (ADR-1)



The culture DDR-97 (ADR-1) showed 21.7 % & 26.5 % yield superiority over check varieties GR-5 and GR-9, respectively in middle Gujarat (Zone-III). Similarly, in south Gujarat (Zone II) it displayed 10.2 % yield increment over the popular check GR-5. Besides, it is early maturing, drought tolerance, with good grain quality is recommended for rainfed / drilled rice growing areas of Middle and South

Gujarat.

2. COWPEA: CYACP65 (AVCP-1)



The culture CYACP65 (AVCP-1) has given 73.70 q/ha green pod yield under middle Gujarat condition which was 99.14 and 161.73 per cent higher over check varieties, Pusa Falguni and GC 4, respectively. The genotype was found resistant to viral diseases, moderately resistant to root knot nematodes with better pod quality. It is recommended for its release in Middle Gujarat agroclimatic zone.

3. **CHILLI: ACS-01-4 (AVC (NP)-131)**



The variety AVC(NP)-131 (7039 Kg/ha) gave 43.2 and 51.7 per cent higher green fruit yield over the checks SG 5 and KTPL 19, respectively. It is recommended for its cultivation in Middle Gujarat. It is having zero pungency of green fruits, higher fruit yield and better quality.

4. **PIGEONPEA: ANDT-3 (AVT-1)**



The variety ANDT-3 (8272 Kg/ha) registered 32.6, 36.2 and 18.1 per cent higher yield over GT 100 (6652 Kg/ha), GT 101 (6929 Kg/ha) and GT1 (7154 Kg/ha), respectively. The entry ANDT-3 (AVT-1) has been recommended due to ideal plant type for the vegetable purpose, high yield, tolerance to pod damaging pest complex (pod borer, pod fly and pod bug) and quality of the pods, for its release in Middle Gujarat.

5. **KALMEGH: (Anand Kalmegh-1)**



The proposal of Anand Kalmegh-1 was recommended for its release in Middle Gujarat due to its yield and quality. The variety AKC 3 (3599 Kg/ha) recorded 14.8 per cent higher yield over check variety ND 1 (3136 Kg/ha).

6. **SAFED MUSLI: AMVI-II (ASM-1)**

The strain AMVI-II (ASM-1) was recommended for its release in Middle Gujarat due to its superiority for yield and quality. The variety ASM 1 is first of its kind for the farmers and recorded the highest (3564 Kg/ha) fasciculated roots yield in comparison to rest of the tested germplasm.

7. **NAGLI: WN-228 (Gujarat Nagli-4)**



The variety Gujarat Nagli 4 (1406 Kg/ha) recorded 14.2 percent higher seed yield over Gujarat Nagli 3 (1231 Kg/ha). The variety was recommended for Middle Gujarat due to its nutritive value and its higher yield over Gujarat Nagli-3.

II CROP PRODUCTION

[A] CULTURAL PRACTICES

1. Time of Harvest and N in marvel grass

The farmers of North Gujarat agro-climatic zone-IV (AES- IX and XII) having naturally grown grass (marvel grass) are advised to harvest natural grass once at the

time of maturity and apply 60 kg N/ha at onset of monsoon to obtain higher dry fodder yield as well as higher net realization (CBR- 1: 4.32).

[B] CROPPING SYSTEMS

2. INM in pearlmillet-wheat sequence

The farmers of middle Gujarat Agro-climatic zone - III (AES-I & II) are advised to apply 100 % NPK as per soil test through inorganic fertilizers to both pearlmillet (GHB-316, 518) in *kharif* and wheat (GW-496) in *rabi* grown in a sequence under irrigated conditions for getting higher production and net realization (CBR pearlmillet 1:3.30, wheat 1:4.31).

3. Nitrogen application in forage crops in sequence

The farmers of Middle Gujarat, Agro-climatic Zone-III (AES-II) are advised to grow sorghum (S-1049) (single cut) in *kharif*, sunflower (EC-68414) in semi *rabi* and Lucerne (GAUL-1) in *rabi* season with application of 100% RDF to each crop along with 30 t FYM/ha to *kharif* crop to obtain higher forage production, quality as well as higher net realization (CBR- 1: 1.65) under irrigated conditions.

4. Forage cropping system with inter crops

The farmers of middle Gujarat agro-climatic zone- III (AES-II) are advised to adopt cropping system of hybrid Napier (APBN-1) with cowpea (EC-4216) as inter crop in *kharif* and Lucerne (GAUL-1) in *rabi* for obtaining higher net return (CBR-1: 2.05). It gives higher forage production round the year for two to three years cycle under irrigated condition.

[C] NUTRIENT MANAGEMENT

5. Applications of nitrogen with and without irrigation to dillseed in Bhal area

Farmers of Bhal and Coastal Zone VIII (AES 1A & 1B) are advised to sow dillseed (GD-2) fertilized with 20 kg N ha⁻¹ and 20 kg P₂O₅ ha⁻¹ as basal application. The crop should be given one irrigation of 50 mm at 30 DAS and top dressing of 20 kg N ha⁻¹ after the irrigation to secure higher yield and net return (CBR-1:5.7). While, under conserved moisture condition, farmers should apply only 40 kg N ha⁻¹ as basal application at the time of sowing.

[D] MICRONUTRIENT

6. Micronutrients application in tomato

The farmers of middle Gujarat agro-climatic zone-III (AES-II), growing tomato (Junagadh rubi) on soils marginal in available Zn and Fe status are advised to spray neutralized solution of 0.5 % FeSO₄ at 30, 50 and 70 days after transplanting of tomato to get higher yield and net return (BCR 1:5.04).

7. Micronutrients application in chilli

The farmers of middle Gujarat agro-climatic zone-III (AES-II), growing chilli (S-49) on soils having marginal status of available Zn and Fe are advised to apply micronutrients mixture (Fe-2%, Mn-0.5%, Zn-5%, Cu-0.2%, B-0.5%) equivalent to Government notified soil application Grade-V @ 20 kg/ha to get higher yield and more net return (CBR 1: 2.6).

[E] BIOFERTILIZER

8. Seed treatment with biofertilizer and N application in *rabi* maize

The farmers of middle Gujarat Agro-climatic zone -III (AES-I & II) growing maize cv. GM-3 in *rabi* season are advised to treat the seeds with *Azospirillum lipoferum* culture having 10⁸ C.F.U. per ml at sowing and apply 120 kg N/ha splitting 25 per cent N at basal (30 kg/ha), 50 per cent N at knee high stage (60 kg/ha) and 25 per cent N at tasseling stage (30 kg/ha) for securing higher grain yield and net realization. Whereas, marginal farmers are advised to apply 60 kg N/ha to the maize.

[F] SOIL AMENDMENTS

9. Amendments use in *herbaceum* cotton

The farmers of the Bhal and coastal Agroclimatic Zone VIII (AES 1A & 1B) growing *herbaceum* cotton in salt affected soil are advised to apply Gypsum and FYM @ 3t/ha each for securing higher seed cotton yield and net return (CBR- 1:2.88) in *kharif* season.

[G] WATER MANAGEMENT

10. Irrigation scheduling in *rabi* maize

The maize growing farmers of Middle Gujarat Agro-climatic zone-III (AES-II) are advised to give total 7 irrigations of 60 mm depth in *rabi* season for securing higher yield

and net return. The first, second and third irrigation should be given at the time of sowing, at 6 DAS and at 30 DAS, respectively. The remaining four irrigations should be applied each at an interval of 15 days to get higher yield and net return (CBR- 1: 2.15). Withholding of irrigation at silking stage is detrimental.

[H] WEED MANAGEMENT

11. Weed management in *Kharif* maize

The farmers of middle Gujarat zone-III (AES-II) growing maize (GM-4) are advised to apply mixture of pendimethalin @ 0.25 kg / ha + atrazine @ 0.50 kg / ha as pre-emergence for effective weed control measures to get higher net return. (Twice inter culturing and hand weeding (20 and 40 DAS) is also equally effective for weed management in *Kharif* Maize).

[I] HORTICULTURE CROPS

12. Micronutrients application in *kagzilime*

The farmers of middle Gujarat agro-climatic zone-III (AES-II), growing *kagzilime* on soils having marginal status of Zn and Fe are advised to spray neutralized ZnSO_4 at 0.3% OR FeSO_4 at 0.5% starting from first year during February-March and October-November besides application of recommended dose of NPK + FYM to get higher fruit yield and net return (CBR- ZnSO_4 1: 7.04; FeSO_4 1: 6.94). The NPK (900:750:500 g/plant) and FYM (50 kg/plant) application schedule is as under.

NPK in two equal splits in July and November while FYM once in a year at onset of monsoon (July).

13. Use of poultry manure in banana

Banana cv. 'Robusta', growers of middle Gujarat (AES-2) are advised to replace 25% of recommended dose of N in banana in the form of poultry manure and apply at the time of planting which gives higher net return (CBR- 1 : 3.53) and improves quality of banana fruits and soil health.

14. Use of nitrogen in aonla

The farmers of Middle Gujarat Agro-climatic Zone –III (AES-II) growing ten years old aonla cv. Gujarat Aonla-1 are advised to apply 1 kg N in addition to 100 kg FYM per tree (age 10 years and above) at the onset of monsoon (June- July) to get higher net realization (CBR-1: 3.14).

III PLANT PROTECTION

[A] PLANT PATHOLOGY

1. Management of powdery mildew disease in mustard

For effective and economical management of powdery mildew disease in mustard crop, farmers of Middle Gujarat are advised to spray hexaconazole @ 0.005 % (ICBR 1: 5.77) or penconazole @ 0.005 % (ICBR 1:4.40) thrice i.e. first at the initiation of disease and two sprays at 10 days intervals.

2. Management of root-knot nematodes in brinjal

For effective and economical management of root-knot nematodes in brinjal, the farmers of middle Gujarat Agro-climate Zone-III are advised to apply *Paecilomyces lilacinus* @ 25 kg spore dust (10^9 conidia/g) with carrier / ha at the time of transplanting + Poultry manure @10 tons/ ha a week prior to transplanting (ICBR 1: 18.58) **OR** mustard cake @ 2 tons/ha a week prior to transplanting (ICBR 1: 6.71) **OR** *P. lilacinus* @ 25 kg spore dust (10^9 conidia/g) with carrier / ha at the time of transplanting + neem cake @ 2 tons/ha a week prior to transplanting (ICBR 1: 5.80).

[B] AGRICULTURAL ENTOMOLOGY

3. IPM for fruit and shoot borer in brinjal

In order to reduce load of pesticides in the environment and to conserve natural enemy *Trathela flavo-orbotalis* following eco-friendly IPM strategy has been recommended to the farmers of middle Gujarat and south Saurashtra region for the management of fruit and shoot borer *Leucinodes orbonalis* in brinjal crop:

- (i) Removal of previous year brinjal crop residue from farm before planting
- (ii) Prompt cutting and disposal of damaged shoots.
- (iii) Installation of pheromone-baited traps @ 40 / ha throughout the field once at flowering starts. The trap should be installed in such a way that the lure remains 1 ft above canopy level. The lure should be changed at least at monthly interval.

4. Control of mango leaf webber

One spray application of dichlorvos @ 0.05 % or chlorpyrifos @ 0.04 % is recommended to the farmers of middle Gujarat for the control of mango leaf webber. The spray application covering the whole canopy of the tree should be made at the initiation

of tent formation usually in the month of August – September. The costs of application for one spray of above insecticides are Rs. 4 and 11 per tree, respectively.

5. Management of mite in brinjal

For the effective and economical management of mite (*Tetranychus urticae*) in brinjal, two sprays of fenazaquin @ 0.01 % (ICBR 1: 16.17), first at the appearance of the mite and second after 15 days of first spray are recommended for the farmers of middle Gujarat.

6. Management of little leaf, fruit and shoot borer in brinjal

To minimize the occurrence of little leaf disease, fruit and shoot borer and to get the higher fruit yield the farmers of middle Gujarat are advised to transplant brinjal crop in the first week of September.

7. Management of thrips in chilli

For the effective and economical management of thrips, *Scirtothrips dorsalis* in chilli crop farmers of middle Gujarat are advised to spray ready mix formulation of ethion 40 % + cypermethrin 5 % @ 0.045 % (ICBR 1: 22.10) or difenthiuron @ 0.05 % (ICBR 1: 15.60) in addition to earlier recommended insecticides viz., imidacloprid @ 0.005 % (ICBR 1: 17.20) and triazophos 0.04 % (ICBR 1: 26.60) following ETL of 1 thrips per leaf.

8. Management of leaf miner and fruit fly in Cucumber

For effective and economical management of leaf miner and fruit fly in Cucumber (Kakadi.) following IPM module is recommended to the farmers of Middle Gujarat (ICBR 1: 41.4 0)

- (i) Installation of yellow sticky trap @ 1 / 10 hills after germination.
- (ii) Clipping of infested leaves in the initial stage of the crop.
- (iii) Application of neem soap @ 10g / litre of water at two leaf (cotyledonary) stage.
- (iv) Application of deltamethrin @ 0.0014 % + 20 g jaggery per litre of water at initiation of flowering.

IV DAIRY SCIENCE, AGRIL. ENGINEERING & PROCESSING

[A] DAIRY SCIENCE:

1. Spouted inert bed drying chamber

It is recommended to use the spouted inert bed drying chamber along with the complete set of air blower, air heater, cyclone separator and feeding system for drying of milk at small scale level using polypropylene bids as the inert particle. The flow rate of milk is recommended as 0.5 to 0.7 kg/h.

2. Synbiotic dahi

Synbiotic dahi in three different forms can be prepared using cow milk with nutritional and therapeutic advantages containing probiotic culture *L. acidophilus* LBKV₃ (@ 2.0 % v/v) and prebiotic inulin (@ 2.0 % w/v) ;

M - Acidophilus dahi

A - Synbiotic dahi (Plain)

B - Synbiotic dahi with non-nutritive sweetener (Sucralose)

C - Synbiotic dahi with sugar (Sucrose)

- (i) Plain synbiotic dahi (blend A) is suitable for all age groups.

- (ii) Blend-A along with addition of non-nutritive sweetener sucralose @19.5 mg / 100 ml (blend B) for calorie conscious and diabetic persons.
- (iii) Blend-A along with addition of nutritive sweetener sucrose @ 9.0 w/v (blend C) for normal and healthy consumers of all age groups.

3. Ready-to-serve (RTS) soup

An acceptable quality of ready-to-serve (RTS) soup can be prepared from soup powder mix consisting of *tofu* powder, whey powder, garlic, ginger, onion powder, chilli, monosodium glutamate, sodium alginate and common salt. One serving size (30 g/ 175 ml) of RTS soup provides 5.9 g of protein, 16.7 g of carbohydrates, 1.1 g of fat and 2.6 g of minerals and is recommended to the consumers particularly the vulnerable groups to meet their protein requirements.

4. Dietetic frozen dessert

A good quality dietetic, sugar-free, enriched with protein, poly unsaturated fatty acids and calcium, low fat (2.5 X lower than average ice cream) frozen dessert can be made utilizing ingredients like sunflower oil, coconut oil and milk fat as fat source, milk SNF and Whey Protein Concentrate as MSNF sources along with sucralose, sorbitol, polydextrose, maltodextrin, stabilizer and emulsifier. The dietetic frozen dessert is 20 % cheaper than a regular full-fat ice cream and has 40% lower calorific value. The dietetic frozen dessert is recommended for commercial and industrial exploitation.

[B] AGRIL. ENGINEERING & PROCESSING

5. Technology for Production of Dehydrated Coriander Leaves

The food processing entrepreneurs interested in dehydration of vegetables are recommended to use the technology developed by Anand Agricultural University for the production of dehydrated coriander leaves. The technology is simple and economically viable and the product obtained is well acceptable to the consumers and it is superior to the sun dried product.

V ANIMAL PRODUCTION

1. Mixed ration

The total mixed ration comprising of 50% bajra straw can support daily gain over 500 g when fed to 6-9 months old crossbred calves and was superior to total mixed ration either with 40 or 60% bajra straw.

2. Additional compound concentrate mixture

A. The farmers of Surat district are advised to feed additional compound concentrate mixture 1-1.5 kg to cows and buffaloes producing 5-8 kg milk and 2.5-3.0 kg to animals producing up to 15 kg milk per day during summer and during monsoon 1.0 kg to cows and buffaloes producing 5-8 kg and 1.5-2.0 kg to cows and buffaloes producing 8-12 kg milk” on account of green fodder unavailability.

- B.** The farmers of Navsari district are advised to feed additional compound concentrate mixture 1.0 kg to cows producing 8-10 kg milk and 0.5 kg to cattle and buffalo heifers, respectively. They are also advised to supplement all categories of dairy animals 30 g of mineral mixture (without salt) as per BIS specifications.
- C.** The farmers of Bharuch district are advised to feed extra compound concentrate mixture 1.0 kg to the lactating buffaloes producing 5.5-9 kg milk and to feed 45g mineral mixture as per BIS specifications to lactating cows producing 6-15kg and buffaloes 5.5-9 kg milk and to pregnant, dry and, buffalo heifers and bullocks.
- D.** The farmers of Vadodara district are advised to feed extra compound concentrate mixture 1 kg to the lactating buffaloes and to the other buffaloes producing 9-12 kg milk. They are also advised to feed 50 g mineral mixture as per BIS specifications to all categories of dairy animals.
- E.** The farmers of Anand district are advised to feed extra compound concentrate mixture 1.5 kg to buffaloes producing 12-15 kg milk. They are also advised to feed 30 g mineral mixture as per BIS specifications to pregnant cows, buffaloes and bullocks.
- F.** The farmers of Jamnagar district are advised to feed extra compound concentrate mixture 0.5 kg to cows producing 14-16 kg and 2kg to buffaloes producing 11-13.5 kg to bridge the gap of protein supply. They are also advised to feed 100 g mineral mixture as per BIS specifications to lactating and pregnant cows and buffaloes.

3. Mineral mixture

- A.** The farmers of Mahuva and Gadhada taluka of **Bhavnagar** district are advised to feed 75 g mineral mixture as per BIS specifications to the lactating cows and buffaloes and 50 g to other categories of cattle and buffaloes.
- B.** The farmers of **Porbandar** district are advised to feed mineral mixture as per BIS specifications 150g to lactating and pregnant cows and buffaloes and 50g to dry buffaloes and heifers.

VI ANIMAL HEALTH

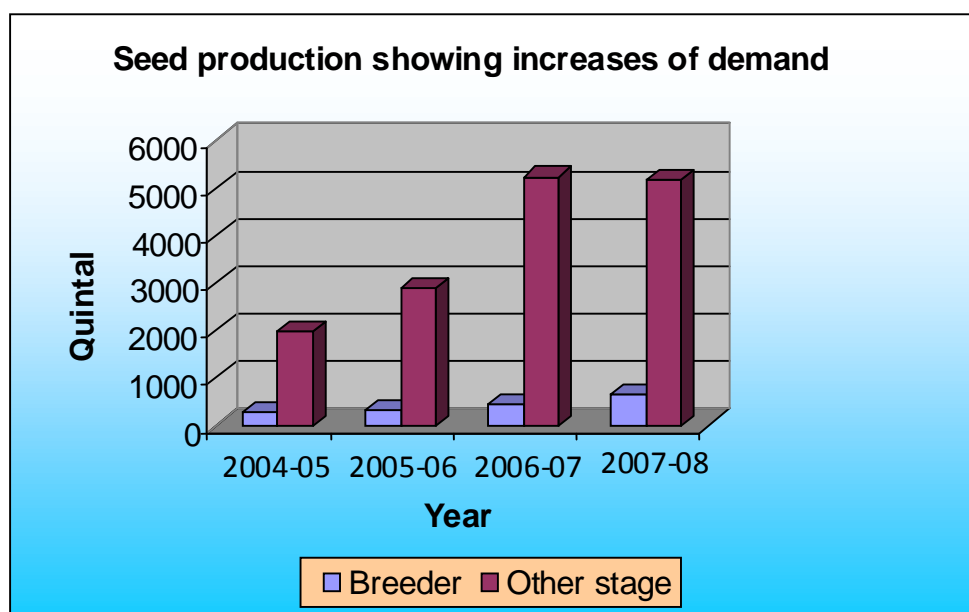
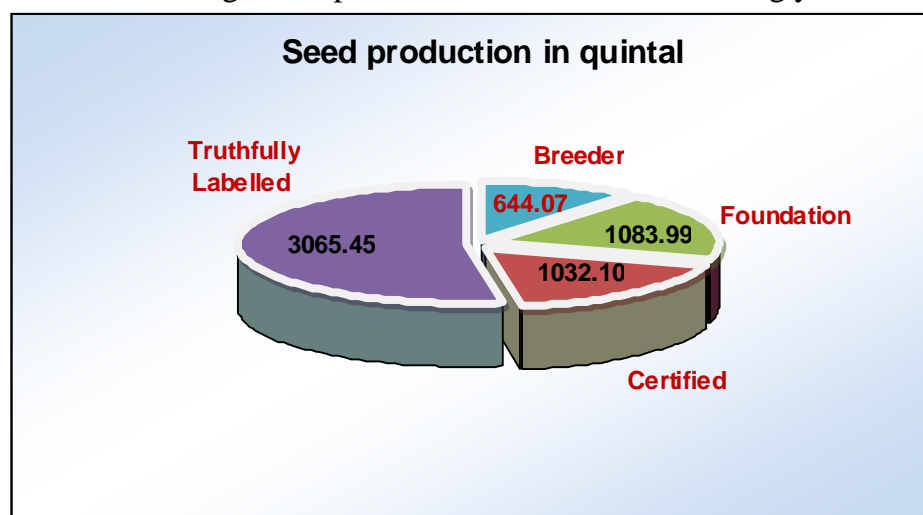
Recommendation for field veterinarians and poultry farmers

Diclofenac sodium proved highly nephrotoxic to broilers leading to gout with high mortality. Field veterinarians and poultry farmers are advised not to use diclofenac sodium in any form of treatment to broilers.

II NUCLEUS, BREEDER AND OTHER STAGES SEED PRODUCTION

Seed is the main key factor for raising the production and productivity of any crop and for wide adaptability of released variety. University is producing nucleus as well as breeder seeds in enough quantities to cater the needs of seed industry in public and private sectors.

Apart from the production of nucleus and breeder seed, the university has also produced certified / truthful / seed of the most adapted varieties in large quantity, which was distributed to the farmers in the brand name of “Anubhav Seed”. During the year 2007-08 Seed production programme was taken up in **339 ha.** area and production of **5825.61** quintal was achieved (**29 % higher**) against targeted seed production of about **4505 q.** (Table-6.5) of state as well as national varieties of important crops. Quantity of different stage of seed produced can be seen in figure. Because of increasing in demand, breeder as well as other stage seed production was found increasing year after year (Fig.).



Seed of different popular varieties of green gram, black gram and cluster bean (both vegetable & seed) for summer season after processing, packing (in Non-woven fabric bags) and sealing was sold at doorstep of farmers in the interior villages of Panchmahal & Dahod districts of the state by university vehicle. This was appreciated by farmers. AAU in it's commitment to make quality seeds available at the grass root level boosted the programme with this new venture.

The University also distributed seedlings of vegetable crops, tobacco and horticultural plants to the farmers.

Table- 6.5 : Seed and Seedling production

Sr. No.	Crop	Breeder seed (q)	Other stage seed (q)
1.	Rice	254.50	2673.78
2.	Maize	33.50	715.33
3.	Wheat	180.00	877.90
4.	Pearlmillet (Hyb.)	0.00	10.60
5.	Greengram	4.25	53.45
6.	Gram	51.00	106.40
7.	Black gram	8.68	18.40
8.	Pigeonpea	0.00	6.00
9.	Castor (Hyb.)	0.00	4.14
10.	Mustard	7.44	7.00
11.	Groundnut	0.00	1.00
12.	Cotton	46.50	116.50
13.	Tobacco	0.00	201.95
14.	Clusterbean (seed)	0.00	155.10
15.	Sunhemp	0.00	63.00
16.	Lucerne	14.31	76.00
17.	Oat	36.00	0.00
18.	Sorghum	0.00	8.75
19.	Clusterbean (Veg.)	3.65	5.44
20.	Pigeonpea(Veg.)	0.00	1.00
21.	Chilli (Veg.)	0.00	6.88
22.	Brinjal	0.00	0.65
23.	Okra	1.15	27.98
24.	Tomato	0.00	0.08
25.	Bottlegourd	0.00	0.55
26.	Cowpea (Veg.)	0.00	1.50
27.	Muskmelon	0.00	0.02
28.	Cumin	3.09	5.25
29.	Fennel	0.00	34.32
30.	M & A plants Seed	0.00	2.57
	Total	644.07	5181.54
	Grand Total		5825.61

Seedling Production 2007-08

	Seedlings/ Stumps	(in lakhs)
1	Vegetable crops	16.27
2	Tobacco	12.38
3	Napier Hybrid Grass	0.35
4	M & A plants	0.47
5	Other Horticultural crops	0.15
6	Other Floriculture crops	0.53
		30.15
	Horti. Crops	(Numbers)
	Fruit crops	
1	Mango grafts	5446
2	Aonla grafts	12059
3	Sapota grafts	1409
4	Kagzilime plants	35649
5	Custard apple plants/grafts	4048
6	Other fruit crops plants/ grafts	21704
	Flower & Ornamental plants	
7	Rose	2623
8	Tube rose	844
9	Marigold	28000
10	Gaillardia seedling	19000
11	Golden Rod	500
12	Asters	0
13	Chrysanthemum	574
14	Gerbera	364
15	Other plants	5990
		138210

III RESEARCH PROJECTS

Besides 106 state plan, 75 non-plan and 20 ICAR co-ordinated project, following 32 private agency/GOG and GOI's schemes were sanctioned during the year.

Sr. No.	Name of Project	Principal Investigator	Financing Authority	Grant Allotted (Rs.in lakhs)
1	2	4	5	8
A. GOVERNMENT OF GUJARAT				
1.	Assessment of Performance of Agricultural System in the periphery of Narmada Command Area – Phase-I	Dr. V. K. Sood Asstt. Professor, BACA, Anand	SSNNL, Gandhinagar	2.28
B. NATIONAL HORTICULTURE MISSION				
2.	Frontline Demonstration of Horticultural Crops	Programme Coordinator, KVK, Devataj	Director of Horticulture, Gandhinagar	1.80
C. PRIVATE ORGANIZATION				
3.	Evaluation of residues and persistence studies of fipronil 80 WG and its metabolites in chilli & soil	Dr. P. G. Shah, Residue Analyst, Pesticide Residue Scheme, Anand	M/s Bayer Crop Science Ltd.	1.00
4.	Effect of URJA – the bypass fat- supplementation on milk yield, milk composition and nutrient utilization in lactating crossbred cows	Dr. A. J. Dhami, Research Scientist LRS, Anand	Tinna Oils and Chemicals Ltd., New Delhi	0.97
5.	Bio-efficacy, phototoxicity and effect on Natural enemies of E245 20 SC against shoot and fruit borer on brinjal	Prof. J.J.Patel Asstt.Res. Scientist, MVRs, Anand	DuPont India Pvt. Ltd., Gurgaon, Haryana	1.98
6.	Effect of Mobicel-H on nutrient availability in soils and response to its application by potato and maize crops	Dr. V.R.Bhatt, Prof. & Head Dept. of Ag. Chem. and Soil Sci., BACA, Anand	Excel Crop Care Ltd., Mumbai	5.00
7.	Bio-efficacy of Oberon 240 SC for the control of red spider mites in okra	Prof. J.J.Patel Asstt. Res. Scientist, MVRs, Anand	M/s Bayer Crop Science Ltd.	1.64
8.	Bio-efficacy of Whip super 9 EC for Grassy Weed Control in Cotton Crop	Dr. R.B.Patel, Agronomist, AICRP on Weed Control, BACA, Anand	M/s Bayer Crop Science Ltd.	1.64
9.	Copper Hydroxide 46.1 % (Metallic copper) against Bacterial blight of cotton	Dr. R.K.Patil, Professor, Dept of Pl.Pathology, BACA, Anand	DuPont India Pvt. Ltd., Gurgaon, Haryana	1.91
10.	Endo Roots Soluble on Bt. Cotton	Prof. S.N.Shah Asstt. Res.Scientist, DR Office AAU, Anand	Novozymes South Asia Pvt. Ltd., Bangalore	1.97
11.	Bio-efficacy of Fipronil 40 % + Imidacloprid 40 % -	Dr. B.H.Patel, Asso.Professor,	Bayer Crop Science, Pune	1.74

	80 WG, a ready mixture against sucking pests of cotton	Dept.of Entomology, BACA, Anand		
12.	Bio-efficacy of ProGibb on cotton and vegetables (Chilli & Tomato)	Dr. Subhash N. Professor Dept. of Agril.Botany, BACA, Anand	Sumitomo Chemical India Pvt. Ltd., Mumbai	3.72
13.	Residue analysis of Endosulfan 35 % EC in Groundnut & Sugarcane	Dr. P. G. Shah, Residue Analyst, Pesticide Residue Scheme, Anand	AINP on Pesticide Residue, New Delhi	2.00
14.	Bio-efficacy of Applaud 25 % SC (Buprofezin) against cotton mealy bugs	Dr. M.G.Patel, Asso. Res. Scientist , Dept. of Agril. Ento., BACA, Anand	Rallis India Ltd. Hyderabad	2.36
15.	Bio-efficacy of UPI – 106 and UPI – 206 against pests of cotton and cabbage	Dr. T.M.Bharpoda, Asso. Professor, Dept. of Agril. Ento., BACA, Anand	United Phosphorus Ltd., Mumbai	2.70
16.	Response of Summer groundnut crop to micro irrigation under middle Gujarat conditions	Prof. D.B.Patel Asstt. Res. Scientist, RRS, Anand	Jain Irrigation System Ltd., Jalgaon	0.80
17.	Testing of UPF-106 against blast and sheath blight of paddy	Dr.V.P.Gohil Professor, Dept. of Pl.Pathology BACA, Anand	United Phosphorus Ltd., Mumbai	1.00
18.	Evaluation of efficacy of “Agribar” in cotton and groundnut	Dr.V.P.Ramani Asstt. Res.Scientist, Micronutrient Res. Project, Anand	Borax Mararji Ltd., Ambarnath	6.38
19.	Bio efficacy of Biosoft (Beaveria bassiana) against plutella Xylostella on cabbage	Dr. B.H.Patel Asso. Res. Scientist, Biological Control Res. Laboratory, Anand	Agri – land Biotech Ltd., Moto Motipura	0.89
20.	Evaluation of the Residue Persistence (Dissipation) of Solomon 300 OD (Beacy fluthrin 9 % Imidacloprid 21 % OD) in Tomato, Okra and Brinjal & in soil	Dr. P. G. Shah, Residue Analyst, Pesticide Residue Scheme, Anand	Net-work Coordinator, AINP on Pesticide Residue, New Delhi	4.50

21.	Evaluation of Dissipation /Residues of Fipronil 18% + Imidacloprid 36% - 540 FS (w/v) in maize & in soil	Dr. P. G. Shah, Residue Analyst, Pesticide Residue Scheme, Anand	M/s. Bayer Crop Science, Delhi	1.50
22.	Testing of Imazethapyr 10% SL for efficacy, Phytotoxicity in Kharif Groundnut	Dr. R.B. Patel, Agronomist, AICRP on Weed Control, BACA, Anand	Tropical Agrosystem (India) Ltd., Chennai	0.80
D. GOVERNMENT OF INDIA				
23.	Study on the air pollution	Dr. A. M. Shekh	DST, New Delhi	41.49

	effects on crop growth	Principal,BACA, Anand		
24.	FASAL Technique Development for Parameter Retrival and Crop Growth Simulation	Prof. & Head, Dept. of Agril. Meteorology, BACA, Anand	Space Application Centre , Ahmedabad	2.60
25.	Facilitation Centre for Medicinal Plants (QPM)	Dr. S. Sriram Research Scientist, M & AP Project, Anand	National Medicinal Plants Board, New Delhi	30.00
26.	Soil Fertility Evaluation and Fertilizer recommendation Using Hyperion Data	Dr. K.C.Patel Asstt. Professor Dept. of Soil Science BACA, Anand	Space Application Centre, Ahmedabad	3.50
27.	Genetic Improvement of yield and oil content in <i>Jatropha curcus</i>	Dr. D. R. Patel Unit Officer Dept. of Agril. Bio-technology, Anand	DBT,New Delhi	23.25
28.	Detoxification and utilization of key agro-forest based non conventional oil cakes in the feeding of livestock	Dr. S. Parnerkar, Research Scientist & Head, ANRS, Anand	DBT,New Delhi	48.88
E. ICAR				
29.	Outdoor mass production unit of Biocontrol agents integration with organic farming model for income generation	Dr. D. N. Yadav Retd. Scientist ICAR Unit-9, Anand	ICAR, NewDelhi	6.46
30.	Experiential Learning – setting up of Facilities for Hands on Training on Livestock and Poultry Feed Manufacturing Unit	Dr. S. Parnerkar, Research Scientist & Head, ANRS, Anand	ICAR, NewDelhi	35.00
31.	Scaling up of water productivity in agriculture for livelihood through Teaching-cum-Demonstration, Training of Trainers and Farmer	Principal,EEL,Anand (Nodal Officer)	WTC for ER (ICAR) Bhubneswar	124.00
32.	National Invasive Weed Surveillance	Dr.R.B.Patel (Area Coordinator) Agronomist, AICRP on Weed Control, BACA, Anand	NRC-WC (ICAR), Jabalpur	2.00

IV RESEARCH PUBLICATIONS

a. Research Papers Published

A. FACULTY OF AGRICULTURE	:	062
B. FACULTY OF DAIRY SCIENCE	:	008
C. FACULTY OF VETERINARY SCIENCE	:	066

Research papers published are given in **Annexure-6.1**

b. Research Papers Presented

A. FACULTY OF AGRICULTURE	:	098
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B.	FACULTY OF DAIRY SCIENCE	:	052
C.	FACULTY OF FOOD PROCESSING TECHNOLOGY & BIO-ENERGY	:	004
D.	FACULTY OF VETERINARY SCIENCE	:	136

V PARTICIPATION OF SCIENTISTS FOR CONFERENCE / SEMINAR / SYMPOSIUM / WORKSHOP / TRAINING

A. FOREIGN / ABROAD	:	004
B. NATIONAL LEVEL	:	298

**VI DISTINGUISHED AWARDS/ HONORS
FACULTY OF AGRICULTURE**

- The FAI Golden Jubilee Award for Excellence in the field of 'Use of micronutrients for improving crops yield' (2007) was presented to the staff of micronutrient project.
- Dr. V. P. Ramani, Asstt. Research Scientist, Micronutrient Project secured FIRST position in "State Level Post Graduate Paper Presentation Competition – 2008 for Agricultural Universities of Gujarat" sponsored by Gujarat Council on Science and Technology, Gandhinagar held at Sardar Smruti Kendra, S. D. Agricultural University, Sardarkrushinagar on February 14-15, 2008.
- Dr. V. P. Ramani Asstt. Research Scientist, Micronutrient Project and associates won First position in best poster presentation of research paper in National Seminar on Micro and Secondary Nutrients for Balanced Fertilization and Food Security held at AAU, Anand during March 11 -12, 2008.
- Dr. K. C. Patel, Asstt. Professor Won the West Zone competition for “ISSS Best Doctoral Research Presentation – 2007” held at AAU, Anand and also participated in National level competition at BAU, Ranchi. organized by ISSS, New Delhi.

- Dr. H.R. Patel, Associate Professor of Agro-meteorology received Dr. P. D. Mistry award for the best Ph. D. thesis entitled “Simulation modeling of wheat (cv. GW-496)



yields using CERES-wheat model in varied environmental and moisture regimes of middle Gujarat Agroclimatic region” in Agricultural Meteorology for year 2005 instituted by Association of Agrometeorologists

- Dr. (Mrs.) M.S. Kulshreshtha and Dr. A.M. Shekh received best poster paper award entitled

“Application of Double variable Fourier series and Artificial Neural Network in annual rainfall prediction” during International Symposium on Agrometeorology and Food Security” held at CRIDA, Hyderabad during 18-21 Feb., 2008

- Prof. M.M. Lunagaria:- Received the certificate for best M.Sc. thesis entitled “Radiation regime over row orientation in winter wheat (*Triticum aestivum* L.) in Agricultural Meteorology for year 2005 by Association of Agrometeorologists, Anand.
- AICRP on Weed Control, AAU, Anand has been awarded for Best Annual Report 2007-08 in the 18th Workshop of AICRP on Weed Control held at Patna during 25-26 February 2008. The award was presented to Dr. R.B. Patel, Research Scientist & PI, AICRP on Weed Control by Honorable Minister of Agriculture, Govt. of Bihar.



FACULTY OF DAIRY SCIENCE

- Vishwanath K., JB Prajapati and Asa Ljungh awarded Second Prize to poster paper entitled “Adhesion of probiotic lactobacilli to human colonic cell line HT-29X” presented at the Third International Conference on “Fermented Foods, Health Status and Social Well-being” organized by SASNET-FF, AAU, Lund University and NDDDB, December 14-15, 2007 at AAU, Anand.
- Jana A.H. and Shah Rahul (2007). “A novel technique of producing pasteurized Mozzarella Cheese from raw milk without pasteurizing milk” Poster presented and secured Third Prize in the National Seminar on “Revamping of Dairy Engineering Courses at B.Tech. (DT) level” organized by Indian Dairy Engineers Association in collaboration with SMC College of Dairy Science, Anand on 11-12 April, 2007.
- Prajapati P.S. (2007). Third prize for Poster presentation at National Seminar on “Revamping Dairy Engineering, Education and Industry in Global context”. Organized by Indian Dairy Engineers Association in collaboration with SMC College of Dairy Science, Anand on 11-12 April, 2007.
- Shah Rahul and Thakkar Purna (2008). “Manufacture of Pizza cheese from cream and rennet casein.” Paper presented and secured Second Prize in the National Seminar on “Health Food” in the student forum TECNNIK, organized by AFSTI and DFRL, Mysore at IIT, Kharagapur on 31st Dec, 2007 to 2nd Jan., 2008.
- Dr. Sunil Patel & Dr. B.P. Shah received 1st prize Awarded for Best Poster



Presentation on Research Paper “Continuous Basundi making Machine- A process up-gradation for industrial application” poster presented in 4th National Convention of Indian Dairy Engineers Association and National Seminar on “Revamping Dairy Engineering: Education and Industry in Global Context” jointly organized by SMC College of Dairy Science, Anand

Agricultural University and Indian Dairy Engineers Association, Chandigarh held on April 11-12, 2007.

- Dr Sunil Patel; Shah, B.P.; Bhadania, A.G. and Solanky, M.J. received award for the best paper presentation entitled “Heat Transfer Performance and Design Aspects of Continuous Basundi making Machine” in the oral paper presentation session for young researchers during the ‘International Conference on Traditional Dairy Foods’ organized by Dairy Technology society of India at NDRI, Karnal from November 14 to 17, 2007.



FACULTY OF FOOD PROCESSING TECHNOLOGY AND BIO-ENERGY

- Dr. D.C. Joshi, Dean, Faculty of FPT & BE, AAU, Anand has been awarded the prestigious COMMENDATION MEDAL for outstanding contribution in research & development in Agro-processing and Agricultural engineering by Indian Society of Agricultural Engineers, the apex professional body of Agricultural Engineers in the country. The medal was awarded to Dr. Joshi by Dr. Mangla Rai, Hon'ble Director General, ICAR, New Delhi during the XLII Annual Convention of Indian Society of Agricultural Engineers held on Feb. 1-3, 2008 at Bhopal.



FACULTY OF VETERINARI SCIENCE

- Dr D. M. Bhayani awarded Best Paper Award by Indian Association of Veterinary Anatomists at Tirupati on 23-11-2007
- Dr G Purushotham Rao awarded Dr G Rajeshwar Rao Memorial Award & Gold Medal by Indian Association of Veterinary Anatomists at Tirupati on 23-11-2007
- Dr. U.D. Patel awarded Best Paper presentation by Gujarat Council on Science and Technology at C P College of Agriculture, SDAU, S K Nagar on February 14-15, 2008
- Rekha M.T. awarded V.C.'s Gold Medal by AAU at Anand on 18.2.08
- Priyadarshani B. Dubal, awarded Best paper Presentation by Young Scientist in Technical sessions during the Symposium by XXIII Annual Convention of ISSAR and National Symposium on “Challenges in Improving Reproductive Efficiency of Farm and Pet Animals” at Veterinary College, OUAT, Bhubaneswar on December, 7 – 9, 2007
- G.K. Mishra, awarded Best paper Presentation by Young Scientist in Technical sessions during the Symposium by XXIII Annual Convention of ISSAR and National Symposium on “Challenges in Improving Reproductive Efficiency of Farm and Pet Animals” at Veterinary College, OUAT, Bhubaneswar on December, 7 – 9, 2007
- Dr. D. B. Patil awarded Late Dr. G. Rajeshwar Rao Memorial award and Gold Medal by Indian Asso. of Vet. Anatomists
- Dr. N. H. Kelawala awarded BOLT award by Air India for the Anand district by Air India at Vadodara

- Roon Mathai, Kelawala, N. H., Bhatt, R. H., Jhala, S. K., Parikh, P. V., Patil, D. B., Tank, P. H. and Barvalia, D. R. awarded Gold Medal for the best oral presentation in Anaesthesia and Analgesia session of Indian Society of Veterinary Surgery
- Dr. P. H. Tank R. H. Bhatt, Roon Mathai., Jhala, S. K. Pinakin Soni, Kelawala, N. H., Joshi, B. P., Joshi, C. G., Parikh, . V., Tank, P. H., Patil, D. B. and Prajapati, K. S. awarded Best poster presentation Studies on Incidence of horn cancer with special reference to the genetic predisposition” during National Seminar on “Rehabilitation of Veterinary Surgical Patients and XXXIth Annual Congress of ISVS.
- R. H. Bhatt, Pawar, S., Ghodasara, D. J., Dhaygude, V., Joshi, B. P., Joshi, C. G., Kelawala, N. H., Parikh, . V., Tank, P. H., Patil, D. B. and Prajapati, K. S. awarded Best poster presentation Incidence of canine mammary gland tumour along with sequence analysis of Exon 4 and 5” during National Seminar on “Rehabilitation of Veterinary Surgical Patients and XXXIth Annual Congress of ISVS

VII IMPORTANT EVENTS

- ❖ National Seminar on Micro and Secondary Nutrients for Balanced Fertilization and Food security held during March 11 -12, 2008.
- ❖ A Herbicide Residue Research Review meeting of AICRP on Weed Control was held on September 18-19, 2007.
- ❖ Anand Agricultural University had published Rainfall calendar for the year 2007 for all 25 districts of Gujarat based on Astrometeorological computations. To review the progress made in this direction and update with latest information available on Monsoon rainfall forecast for the Monsoon - 2007 season. Group meeting for Monsoon-2007 was organized on 5th June, 2007 at Department of Agricultural Meteorology in which 15 experts participated.



- ❖ International Symposium on “Agrometeorology and Food Security” Organized by Association of Agrometeorologists, Anand and Central Research Institute for Dryland

Agriculture (CRIDA), Hyderabad was held during 18-21 February, 2008 at CRIDA, Hyderabad. The event was co-sponsored by Anand Agricultural University, Anand.



- ❖ The “Earth Day” was celebrated on 22nd April, 2008 by organizing Poster Painting Competition for school children. The event was sponsored by Ministry of Earth Sciences, Govt. of India, New Delhi. Around 250 students participated in the event.
- ❖ Third International Conference on “Fermented Foods, Health Status and Social Well-being” during 14-15 December, 2007 at Anand. The programme was organized in collaboration with SMC College of Dairy Science, Anand Agricultural University, Anand; Department of Applied Nutrition, Lund University, Sweden, Trace Element Institute of UNESCO, France and National Dairy Development Board, Anand.
- ❖ Dairy Chemistry Department has organized a training course on “Advanced Laboratory Chemical Quality Assurance in Dairy Industry” for 10 days from February 29 to March 9, 2008. Fourteen participants from various dairy and food industries/co-operatives have attended the programme.
- ❖ Seminar on “Bio-diesel for sustainable growth” organized by Faculty of FPT & BE on 18th August-2007 at AAU, Anand



- ❖ The new building of the Biodiesel Processing Plant was inaugurated by Pujya Shri K.C. Sudarshanji, Sar Sangh Chalak of Rashtriya Svayam Sevak Sangh on Feb 11, 2008 in the august presence of Hon'ble Agriculture Minister of Gujarat, Shri Dilip Sanghani and Prof. M.C. Varshneya, Hon'ble Vice Chancellor of AAU.
- ❖ State level farmers seminar on "Stakeholders interface on Medicinal and Aromatic Plants" organized by M&AP, AAU, Anand on 29-30 October, 2007 in collaboration with CSS – Macro Management M&AP, Arecanut and Spices Development, GOI, Calicut.
- ❖ Seminar on GAP (Good Agricultural Practices) organized by Gujarat Association for Agricultural Sciences, Central Sector Scheme for Macro Management for M&AP; Anand Agricultural University and Department of Horticulture, Gandhinagar at AAU, Anand on 17th March, 2008.
- ❖ National Symposium on 'Horizons of Veterinary Public Health in Augmenting Veterinary, Medical and Environmental Health' organized by Department of Veterinary Public Health on 29-30 November, 2007.
- ❖ Seminar on "Sustainable Agriculture for poverty eradication" organized by Department of Livestock Production on 24-28 September, 2007.



Annexure-6.1

Research Paper published

A. FACULTY OF AGRICULTURE	
AGRONOMY	
1.	Kacha, R. P.; Sadhu, A. C.; Tank, D. A.; Gediya, K. M. and Patel, M. V. (2007). Effect of spacing, castor cake and nitrogen levels on green fruit yield of chilles (<i>Capsicum annum</i> L.). <i>Research on Crops</i> . 8(2): 431-434.
2.	Patel, D. H.; Patel, K. V.; Patel, M. A.; Upadhyay, N. V.; Punjani, N. H. and S. Sriram (2007). Effect of different harvest schedule on total dry herbage yield of Shankhpushpi (<i>Convolvulus microphyllus</i> (L) Sieb. <i>The Asian Journal of Horticulture</i> . 2 (2):10-12.
3.	Patel, D. H.; Patel, K. V.; Patel, M. A.; Upadhyay, N. V.; Punjani, N. H. and Sriram, S. (2007). Effect of organic manures and spacings on fasciculated root yield of safed musli (<i>Chlorophytum borivilianum</i>). <i>Indian Journal of Agriculture Research</i> . 42(1): 31-36.
4.	Patel, A. S.; Barevadia, T. N.; Patel, M. R.; Sadhu, A.C. and Parmar, H. P. (2007). Effect of nitrogen and different management practices on growth and seed production of oat (<i>Avena Sativa</i> L.). <i>Forage Research</i> . 32(4): 264-266.
5.	Patel, A. S.; Sadhu, A.C.; Patel, M. R. and Patel, P. C. (2007). Effect of Zinc, FYM and fertility levels on yield and quality of forage maize (<i>Zea mays</i> L.). <i>Forage Research</i> . 32(4): 209-212.
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7.	Patel, M. R.; Sadhu, A.C.; Patel, P. C.; Patel, C. C. and Patel, N. N. (2007). Forage yield and quality of Pandadiu (<i>Chicorium intybus</i> L.) as influenced by seed rate and nitrogen levels on under middle Gujarat conditions. <i>Forage Research</i> . 32(4): 233-235.
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Chapter – 7

Extension Education : Extension Education and Technology Transfer

DIRECTORATE OF EXTENSION EDUCATION

The Directorate of Extension Education has to plan, coordinate, organize and guide the extension education programs in the University and to ensure efficient working of the extension education activities in close coordination with the Development Departments, voluntary and private organizations.

EXTENSION EDUCATION COUNCIL

The Extension Education Council has been constituted according to the provisions of the Gujarat Agricultural Universities Act-5 of 2004 to consider and recommend the extension education programmes/activities of the University. The Extension Education Council is as under:

1	The Vice-Chancellor	Chairman
2	The Director of Research	Member
3	The Director of Agriculture or concerned Joint Director	Member
4	The Director of Animal Husbandry or concerned Joint Director	Member
5	The Director of Horticulture or concerned Joint Director	Member
6	The Dean, Faculty of Agriculture	Member
7	The Dean, Faculty of Dairy Science	Member
8	The Dean, Faculty of Veterinary Science	Member
9	The Dean, Faculty of Food Processing Technology and Bio-Energy	Member
10	The Principal, Extension Education Institute	Member
11	The Professor of Extension Education	Member
12	The Extension Educationist, EEI	Member
13	The Training Organizer, Krushi Vigyan Kendra, Dahod	Member
14	The Research Scientist , Poultry Training Centre	Member
15	The Associate Extension Educationist,(Publication)	Member
16	The Assistant Extension Educationist, Sardar Smruti Kendra	Member
17	The Assistant Extension Educationist, Agricultural School, Anand	Member
18	The Assistant Extension Educationist, Home Science School, Anand	Member
19	The Training Associate, TTC, Dahod	Member
20	The Director of Extension Education	Member Secretary

Zonal Research and extension Advisory Committee (ZREAC)

The transfer of technology & future research programmes are based on the feed back received from development departments in ZREAC, Which is held regularly two times in a year for *kharif* and *rabi* seasons. This CENTERS OF EXTENSION EDUCATION, Director of Research. Deans of the faculties, crop & subject matter specialists, members of the development departments, co-operatives sectors, industries & progressive farmers. The ZERAC *rabi* was held on 20-9-2007 & *Kharif* on 2-3-2008.

CENTERS OF EXTENSION EDUCATION

Under the umbrella of Directorate of Extension Education, following centers / activities are functioning

Sr. No.	Type	Name of Center	Location
1	Diploma/ Certificate Course	Agricultural Schools	Anand, Chharodi, Vadodara, Dahod
		Home Science School	Anand
		Bakery School	Anand
		Poultry Training Centre	Anand
		Mali Training Centre	Anand
2	Training Centers for Extension Workers	Extension Education Institute	Anand
		Training and Visit Training Centre	Anand
3	Training Centers for Farmers/ Farm women/ Rural Youth	Sardar Smruti Kendra	Anand
		Krushi Vigyan Kendra	Devataj, Dahod, Arnej
		Tribal Training Centre	Dahod
		Tribal Research cum Training Centre	D'baria
		Dept. of Extension Education	Anand

4	Advisory Services	Farm Advisory Services	Anand
		Agro-Advisory Services	Anand
		Publication Unit	Anand
5	Other	ATMA	Arnej, Dahod

EXTENSION EDUCATION AND TRAINING PROGRAMS

1. Diploma/Certificate Courses for Farm Youths

Anand Agricultural University conducts various Diploma/Certificate courses as per the details given below

Sr. No	Name of Diploma/ Certificate Course	Duration	Centre	No. of Students Completed the Course
1.	Agricultural Diploma	Two Years	Anand, Chharodi, Vadodara & Dahod	106
2.	Home Science Training	Two Years	Anand	21
3.	Bakery Training (Two batches in a year)	Twenty weeks	Anand	40
4.	Poultry Training (Three batches in a year)	Ten weeks	Anand	16
5.	Mali Training (One batch in a year)	Six months	Anand	04

2. Training Programmes for Extension Workers

(a) Extension Education Institute

The Extension Education Institute, Anand caters to the extension training needs of middle level functionaries of various development departments of Western Zone States namely Gujarat, Rajasthan, Madhya Pradesh, Chhatisgarh, Maharashtra, Goa and UTs of Diu, Daman and Dadara Nagar Haveli. The aim is to improve upon their job performance whenever they are working in different capacities.

There is a Management Committee of EEI that approves action plan and review the progress of EEI activities. The constitution of the Management Committee is as under:

1. The Vice-Chancellor, AAU, Anand	Chairman
2. The Director of Extension (Trg.), Govt. of India, New Delhi.	Member
3. The Director of Administration, Govt. of India, New Delhi.	Member
4. The Additional Commissioner (Extn. Trg.), GOI, New Delhi.	Member
5. The Director General, National Institute of Agril. Extension Management (MANAGE), Rajendranagar, Hyderabad.	Member
6. The Director, Institute of Rural Management (IRMA), Anand.	Member
7. The Director of Agriculture, Govt. of Gujarat, Gandhinagar.	Member
8. The Director of Horticulture, Govt. of MP, Bhopal.	Member
9. The Director of Fisheries, Govt. of Chhatisgarh, Raipur.	Member
10. The Director of Agriculture, Govt. of Maharashtra, Pune.	Member
11. The Director of Extension Education, AAU, Anand.	Member
12. The Principal, B.A.College of Agriculture, AAU, Anand	Member
13. The Comptroller, AAU, Anand	Member
14. Shri Kanubhai K. Patel, Progressive Farmer, Boria.	Member
15. Shri Vishnubhai. Patel, MLA, Umreth,	Member
16. Brother Galicya, Mogar Farm, Mogar, Anand.	Member
17. The Principal, EEI, AAU, Anand.	Member
	Secretary

The details of the training courses conducted by the EEI, Anand during the year 2007-2008 are as follows:

Sr. No	Type of Training Course	No.of course	No.of participants
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1	Scheduled Training courses 1. On campus 2. Off campus	21 07	364 207
2	Additional Training Courses	03	74
3	Collaborative Training Courses	31	645

Moreover, six follow up and research studies were undertaken during the year 2007-08.

(b) T&V Training Center

The Anand Agricultural University has taken up the task of training for the extension personnel of the Department of Agriculture through the Training and Visit Training Centers at Anand. The details about bi-monthly workshops, pre-seasonal training workshops and short-term training programs organized for the extension personnel of the Department of Agriculture, and the number of SMSs/ AEOs attended the programs are as under:

Sr No	Type of program	No.	No. of Participant
1	Bimonthly workshop	04	72
2	Pre-seasonal training programme	04	110
3	Special Training on cotton mini	06	199
4	Short-term training programme	01	28
5	Five day training programme for the officers of the horticulture	02	61
6	Training on Production Technology for wheat	01	31
7	Training on Gram Mitra(Krishi)	03	92
Total		21	593

3. Training/Extension Education Programs for Farmers/Farm Women/ Farm Youths

(a) Training Programs

Training is essential to increase the efficiency of the farmers, farm women and farm youths. On-campus as well as off-campus training programs are organized based on the needs and interests of the stakeholders.

Through the Front Line Transfer of Technology (TOT) Centers, 142 on-campus and 181 off-campus training programs were organized. The details are depicted in Table-7.1:

Table – 7.1: Training Programmes Organized by the Transfer of Technology Centres for Farmers/Farm Women.

Sr. No.	TOT Centre	No. of trg. progs.	No. of participants				Total
			Farmers	Farm women	Farm Youths	Extension workers/ /other	
i	KVK, Devataj	A 22	283	85	64	134	566
		B 39	812	73	79	-	964

ii	KVK, Dahod	A 13	363	90	-	-	453
		B 23	614	170	-	-	784
iii	KVK, Arnej	A 36	25	290	466	32	813
		B 57	41	443	869	37	1396
iv	SSK, Anand	A 58	531	995	291	109	1925
		B -	-	-	-	-	-
v	TTC, Dahod	A 13	153	284	-	56	493
		B 45	843	719	-	110	1672
vi	TRTC, D'baria *	A -	-	-	-	-	-
		B 17	402	117	51	08	578
	Total (i to vi)	A 142	1355	1744	821	331	4250
		B 181	2712	1411	999	155	5394
	Grand Total (A+B)	323	4067	3155	1820	486	9644

A = On-campus B = Off-campus

(b) Extension Education Activities

The TOT centres have also planned and organized extension activities like, seminar /workshop /symposium, field/ farmers' day, agriculture fair/ exhibition, film/ slide/ video show, field visit, farmers group/ demonstration meeting, etc. The details of the extension activities organized and number of beneficiaries are given in Table-7.2, 7.3, & 7.4

Table-7.2: Extension Education Activities carried out by TOT Centers.

Sr No	Name of Activity	Name of TOT centre				
		KVKS			SSK	TTC
		Devataj	Dahod	Arnej	Anand	Dahod
1	Farmers / field days	04(187)	03(177)	09(399)		18(1352)
2	Agril fairs /exhibitions					
3	Khedut / women shibir / meetings	22(1784)				22(17140)
4	Seminar/workshop/kisan gosthi	04(452)		09(243)		17(1086)
5	Agirl. tour /field visits	90(1457)	28(246)	32(175)	48(2356)	35(664)
6	Film/slide/video cassette show/radio talk/TV programmes	19(598)	20(416) 4(mass)	12(444) 1(Mass)	48(1918)	13(Mass)
7	Celebration of women in Agril.day/ world food day/van mahotsav		1(32)	01(23)		
8	Guidance through letters/personal contact		33		1237	62
9	Publication of farm literature	10(5000)	10	06	02	
10	Press Note released	21(Mass))			04(Mass)	
11	Krishi-Go-Vidya subscriber registered	35			128	08
12	Escorting the visitors				14924	21(118)
13	Telephone helpline services	109(109)				16(58)
14	Crop diagnostic services				01(140)	22(55)
15	Farmer-scientists interactions	02(91)				18(530)
16	Distribution of Farm literature	10(3000)	7500		20	45(1569)
17	Ext.Res. Programme	03 (03)			02	
18	Group Discussion	02(276)			37(1045)	09(357)
19	Field Visit of Scientists	71(859)				15(94)
20	Cattle Camp	1(98)		01(298)		
21	Video Conference				18(2695)	
22	Guidance in farmers day/Field day				06(Mass)	18(1523)
23	Interactive demonstration				14(531)	
24	Article Published				02(Mass)	
25	Lectures delivered for transfer of technology				247	19(1461)
26	Lectures delivered for crop seminar				38	08(709)
27	Kishan Shetu on line prog.				01(21)	

Note : Figures in brackets indicates numbers of participants / beneficiaries

Table-7.3 : Extension Education Activities carried out by different Centres of Diploma and Certificate Courses.

Sr No	Name of Activity	Name of the centre						
		Agricultural School				School of Baking	Home Science	Poultry
		Anand	Baroda	Chharodi	Dahod	Anand	Anand	Anand
1	Agril fair /exhibition		01(32)					04(14)
2	Agirl.tour /Edu. tur/ field visit	01(28)		02(29)	03(75)	06(478)	04(90)	
3	Film/slide/video cassette show /radio talk / TV programme				01(54)	01(Mass)		01(Mass)
4	Celebration of women in Agril. day/world food day / van mahotsav		01(56)	01(61)	01(54)		02(44)	
5	Guidance through letters/personal contact		25			26	15(24)	06
6	Publication of farm literature			01		01	02	02
7	Press Note released	01				07	05	02
8	Krishi-Go-Vidya subscriber registered	33		30	48			
9	Escorting the visitors		15		30	10(186)	166	21(450)
10	Participated in other agencies programme							
11	Farmer-scientists interaction							
12	Ext. res. prg.			01	01	01		
13	Guidance in Farmers day/Field day			02(327)	01(50)			
14	Bird diagnostic Service							02
15	Article /Success Stories published					02	03(Mass)	
16	Field visit of Scientist			01			01(166)	
17	Bakery Item Demonstration					80(47)		
18	Discussion about bakery					04(97)		
19	Group Discussion		02(56)					
20	Parena pravas		02(56)					

Note : Figure in parenthesis indicated the no. of beneficiaries

Table-7.4: Extension Education Activities carried out by T&V Training Centre at Anand

Sr No	Activity	No.
1	Film/slide/video cassette show/radio talk/TV programmes	04 (Mass)
2	Field Visits	09
3	Farm Visits	09(350)
4	Krishi Shabir	29 (2,05,000)
5	Video Conference	10 (25)
6	Farmer's shibir/Farmer day/Crop Seminar	25(7200)
7	Guidance to telephone	400
8	Office Visit	200
9	Article Published	12 (Mass)
10	Reading Materials	15(450)

Note : Figures in parenthesis indicates no. of beneficiaries.

(c) Agriculture Fair

To communicate the agricultural technology to many farmers at a time, AAU has participated in different agricultural fairs.

The profile of AAU and the latest technologies developed by the Institution were displayed. Interactions between scientists and the farmers were also organized. Literature on the latest technology was distributed during such fairs.

Sr. No.	Agriculture Fair/ Exhibition	Place	Period	Approximate beneficiaries
1	Agriculture Exhibition	AAU Anand	16-6-2007	700
2	Agriculture Fair	Dhandhuka	9-1-08	2000
3	Agriculture Exhibition	Saragwada	31-1-2008	202
4	Agriculture Fair	FTC Dahod	January-2008	13247
5	Agriculture Exhibition	Dahod	9 Taluka & Different village	3183
6	Agriculture Fair	CII A'bad	24 TO 27 Jan-08	150000
7	Agriculture Fair	Disha	15 to 18 March	300000

(d) Celebration of Krushi Mahotsav – 2007

As a measure towards enlightenment of farming community "Krushi Mahotsav-2007: a doorstep extension modus operandi of the State Government Visionary programme was launched from 20th April to 19th May 2007 though out the Gujarat State. Hon'ble Chief Minister Shri Narendrabhai Modi inaugurated the function on April 20, 2007 for middle Gujarat at Anand Agricultural University.

- The programme aimed at;
- (i.) creating awareness amongst the rural mass regarding scientific innovations in crop production practices, farm implements, water conservation, irrigation methods, animal husbandry, etc. and bringing these innovations to the farming community through the concept of people's participation.
 - (ii.) bringing agricultural and rural development programmes at village level for the betterment of peasants implemented by various State Government Organizations and thereby to create an atmosphere to motivate the farmers for their participation in such programmes.
 - (iii.) The ultimate objective of the whole programme is to make the farmer's income double during the span of five years.

The Government has assigned an important responsibility to the state Agricultural Universities to have a *Kisan Rath* along with a team of scientists for the purpose of guidance and demonstration of latest agricultural technologies based on 'agro-climatic' conditions in the villages.

In all, the Government has prepared a total of 227 *Kisan Rath*, which were a Mobile with photography exhibition along with TV / Audio Video Systems for different agro-climatic areas.

➤ **Role of Anand Agricultural University in the Celebration of *KURHSI MAHOTSAVA- 2007***

The Anand Agricultural University, has territory in six districts namely, Ahmedabad, Anand, Dahod, Kheda, Panchmahals and Vadodara having 58 talukas. The Nodal Scientists at District and Taluka levels and other scientist, in total 428 scientists and similar number of supporting staff have been assigned the duties to move with *Kisan Rath* in the villages. Two group of scientists were formed to escort the *Kisan Rath* for 15 days each. During the visits in the villages, the scientists have delivered talk and interacted with farmers. They have guided them to prepare a crop production plan at village as well as individual levels, plant protection measures, farm implements, water conservation, irrigation methods bio-fertilizers, bio-pesticides, bio-control of insects / pests, animal husbandry, cultivation practices of major field crops, fruit crops, vegetable crops and medicinal plants of the area.

Further, the soil health cards and manuals of model action plan of crop production were distributed amongst the farmers.

The scientists of AAU have also participated in the *Khedut Shibirs* organized at Taluka levels by the Agricultural Produce Market Committees (APMCs) of respective talukas. In addition to this, the AAU has organized three training programmes for AOs, AEOs and STL Officers of Deptt. of Agriculture on Soil Health Card Programme.

The AAU has played a vital role in preparing Soil Health Cards, Model Action Plan and literature in the form of folders, leaflets, booklets C.D. etc.

The more emphasise were given on Animal Health, clean milk production and Animal Vaccination.

The important activities carried out by AAU's scientists during the Krushi Mahotsav 2007 in middle Gujarat is as under:

No	District	Villages covered	Krushi Shibir		Farmers Training		Village meeting	Guidance to farmers by scientist
			No	Beneficiaries	No	Beneficiaries		
1	Ahmedabad	538	8	82509	5	2025	561	27398
2	Anand	369	6	71482	3	1350	365	58519
3	Dahod	702	6	145839	5	5385	702	27758
4	Kheda	644	9	88484	7	3150	636	34242
5	Panchmahal	1186	9	61522	1	125	1156	13368
6	Vadodara	1570	11	68527	3	620	1535	25201
Total		4959	49	518363	24	12655	4955	186486

➤ Feedback of the Programme

1. The farmers got chance to make face to face interactions with the scientists of AAU and with the personnel of various Line Departments.
2. They have been well acquainted with the technical Know-how of the latest scientific agricultural technology and various development programmes /schemes run by the State Government for betterment of the rural masses.
3. The scientists of AAU have also got the unique experience to exchange their ideas and knowledge with the farmers. They have also learnt many things from the farmers, which will be useful in future research programmes.

Thus, The Krushi Mahotsav- 2007 was a grand success.

(e) Frontline Demonstrations

The FLDs aim to demonstrate the production potentialities of newly released and pre-released production technologies on farmers' fields.

The KVKs have organized 387 FLDs on various crops such as castor, sesamum, gram, groundnut, maize and wheat in 167.3 ha during *kharif*, *rabi* and summer seasons. The details of these FLDs are as under: Frontline Demonstrations conducted.

Sr. No.	Crop/Variety	No. of FLDs	Area (ha)	Yield (Kg/ha)		Increase in yield (per cent)
				Demonstration	Local	
I - KVK, Devataj						
1	Castor GCH-5	20	10	3143	2598	20.98
2	Mustard GM 3	20	10	2260	1920	17.71
3	Wheat GW322	20	10	4160	3524	18.05
4	Green Manuring dhanchia (Paddy-Gurjari)	10	5.0	5260	4630	11.20
5	Bio fertilizer(Wheat,GW-496)	10	5.0	4068	7312	09.60
6	Fertilizer Management (Wheat, GW -496)	10	5.0	4286	3644	14.87
II - KVK – Arnej						
1	Paddy GR-11 GR-12 Gurajari	10	5.0	34.8	30.0	13.8
				33.8	29.0	14.2
				40.6	34.7	14.5
2	Cotton G.Cot 21	10	5.0	5.4	4.2	22.2
3	Castor GCH-4 GCH-5	10	5.0	11.8	9.9	16.1
		10	5.0	14.0	11.2	20.0
4	Wheat GW-1	20	10.0	13.0	9.2	29.2
5	Gram GG-1 GG2	10	5.0	7.7	6.5	15.6
		10	5.0	6.4	5.3	17.2
6	Cumin GC-4	20	10.0	7.0	5.8	17.1
7	Mustard GM-3	10	5.0	11.6	10.1	12.9
III- KVK - Dahod						
1	Soyabean JS-335	21	10	14.9	13.4	10.0
2	Maize Narmada Moti G.M.-3	27	06	20.3	17.6	14.0
3	Wheat GW-496	25	10	29.8	24.0	19.0
4	Blackgram T-9	21	10	8.5	7.6	10.0
5	Pigeonpea ICPL-87	15	06	15.0	11.2	25.0
6	Pigeonpea ICPL-87 (Trichoderma)	05	02	15.7	11.2	29.0
7	Gram	20	10	15.3	12.2	20.0
8	Cotton	25	10	29.4	25.0	15.0
9	Chilly	08	01	112.5	92.0	18.0
10	Brinjal	05	01	in progress		
11	Ginger	10	0.1	160	140	14.0
12	Marigold	04	0.3	79.5	42.3	47.0
Total						

(f) Department of Agricultural Extension Education.

The Extension Wing is to provide theoretical and practical field trainings to undergraduate and postgraduate students for offering knowledge and experience of extension principles, techniques and education psychology.

The 20 weeks program of one semester (i.e., 7th Sem.) is being run by the department with a view to producing well trained graduates in the field of agriculture having broad-based knowledge and technical know-how to meet the emerging challenges in agriculture. The students are exposed to research stations, high-tech cells, farmers' fields in villages, NGOs, agro-based industries, cooperative sectors and agriculture related organizations/institutions of the state and the nation.

4. Advisory Services

(a) Farm Advisory Services (FAS)

The Farm Advisory Service Centre, Anand provides guidance and information to farmers on scientific farming. The farmers are advised on their farm problems through correspondence and field visit. This center acts as a link among research scientists, extension workers and farmers. During the year under report, various extension activities carried out by the scheme are as under:

Sr. No.	Activity	No of Activity	No of Beneficiaries
1	Farmer's / field Day	10	3760
2	World Food Day/Women Day/Vanmhotsav	3	605
3	Farm Women Meeting	2	230
4	Farm Women Shibir	1	195
5	Field Visit	20	650
6	Guidance through Telephone/Letter	220	220
7	Krishi Goshthi	1	364
8	T.V. Programmes	4	Mass
9	Film/Slide/VC show	1	155
10	Agricultural Literature Published	1	Mass
11	Escorting the visitors for guidance	26	1500
12	Night meetings	2	109
13	Distribution of Farm Literature	500	500
14	Crop diagnostic service	12	12
15	Articles published for farming community	4	Mass
16	Lectures for transfer of technology delivered	4	160
17	Lectures in crop seminar delivered	5	165
18	Field visit of scientists	60	Mass
19	Farmers –scientist interaction	3	280
20	Telephone helpline	480	480
21	Press Notes Released	25	Mass
22	Registration of KRUSHIGOVIDHYA subscribers	20	20

(b) Agriculture Technology Information Centre (ATIC) at Anand

The Agriculture Technology Information Centre (ATIC) (a single window system) was established from August, 2005 in order to disseminate Agricultural information and Technology to the farmer and other Stakeholders with the following objectives.

- (i) To provide direct access for information & knowledge to the needy farmers.
- (ii) To bring together different research divisions/units and users of technology i.e farmers.
- (iii) To develop, publish and supply latest technology via folders, booklets, C.D.'s, Video Films and other media.
- (iv) To help farmers in devising effective solutions to their problems, and to increase their acute decision making competence.
- (v) To supply seeds, planting materials, bio-fertilizers, bio-pesticides, earth worms and vermin composts etc.
- (vi) To provide animal health service at ATIC.
- (vii) To provide various analytical service of plants, soil & water for the nutrients contents etc.
- (viii) To popularize the new technologies developed by the university & allied institutes in Agricultural Science.
- (ix) To facilitate dynamic, enthusiastic feed-forward and feed-back.

The following extension activities are carried out by the centre during the year under report.

Sr. No.	Activity	No of Activity	No of Beneficiaries
1	Field Visit	15	590
2	Film / Slide / V.C. Show	14	615
3	Escorting the visitors for guidance	1	1544
4	Press note published	4	Mass
5	Guidance through telephone / letter	968	968
6	Distribution of the farm literature	9 (folders)	915 copies
7	Provide information and guidance to visitors		
8	Training Program – on campus	25	815
9	Agricultural Literature Published	02	2000 copies
10	Registration of KRUSHIGOVIDHYA subscribers	47	47
11	Group Discussion	07	311
12	Guidance For Animal Health Care	01	119
13	Guidance in Farmers Day/Field Day	01	Mass
14	Interactive Demonstration	08	237
15	Crop Diagnostic Services	01	127
16	Article Published for Farming Community	01	Mass
17	Lectures for Transfer of Technology	39	Mass
18	Lectures in Crop Seminar	06	470

(c) Transfer of Technology Centre at Anand and Arnej

The New programme on Transfer of Technology Centre at Anand and Arnej has been sanctioned in the year 2004-05 by the Govt. of Gujarat, in which demonstrations, field days, training, advisory activities are under taken by the university in Anand and Ahmedabad district. The following extension activities are carried out by the centre during the year under report.

Sr No	Activity	Centres	
		Anand	Arnej
1	Training Programme	13 (405)	3(57)
2	Farmers Shibir	09 (863)	-
3	Crop Demonstration	08 (640)	-
4	Video conference	02 (330)	-
5	Guidance through letters	26 (26)	32(32)
6	Publication of farm literature/ Distribution	-	29 (8700)
7	Escorting the visitors	-	27(483)
8	Crop diagnostic services	-	03
9	Field Visit	11(80)	19 (194)
10	Telephone talk for information	44(44)	-
11	Guidance in farmers day, filed day / khedut shibir	-	13 (1545)
12	Farmers scientist interaction and filed visit of scientist	-	19 (194)
13	Krishi Goshti	-	17(113)
14	Group Discussion	29(297)	17(113)
15	T.V. Programme	-	01 (Mass)
16	Article Published for Farming Community	-	06(Mass)
17	Lectures for Transfer of Technology	-	10 (292)

Note : The figures in parenthesis indicates numbers of Beneficiaries

(d) Centre For Communication Network (CCN) At Anand

Since there will be an immediate need to develop strong communication network for maintaining regular contacts with agricultural university once WTO is implemented, the Govt. of Gujarat has accorded sanction for the scheme "Centre for communication Network", under Tenth plan from the year 2005-2006 with following specific objectives:

- To establish the Gram Kisan Samities (GKS) in the rural areas.
- To train the members of Gram Kisan Samities in leadership communication and co-operation for transfer of technologies.
- To disseminate the latest agricultural and allied technologies through Gram Kisan Samities in rural areas.
- To carry out different extension activities through GKS in different villages
- To know the feedback from the farmers.

During the year under report, various extension activities carried out by the scheme are as under:

Sr. No.	Activity	No of Activity	No of Beneficiaries
1	Agricultural Tour	01	35
2	Film/slide/video cassette show	13	1052
3	Farm literature / distribution	20	1280
4	Field Visit	08	315
5	Crop Seminar	03	185
6	Krishi Goshthi	01	52
7	T.V. Programme	03	Mass
8	Escorting the visitors for guidance	18	40
9	Group discussion	03	82
10	Guidance through telephone/letter	36	36
11	Crop diagnostic service	03	12
12	Lectures for transfer of technology delivered	06	460
13	Farmers –scientist interaction	01	250
14	Press note published	03	Mass
15	Establishment of Gram Kissan Samit (GKS)	20	350

(e) Extension activities carried out under NARP project at Main Maize Research Station, Godhra.

During the year under report, various extension activities carried out by the scheme are as under:

Sr. No.	Activity	No of Activity	No of Beneficiaries
1	Field Day	9	994
2	Escorting the visitors for guidance	49	1396
3	Guidance in farmes day / khedut shibir	9	827
4	Guidance through telephone/letter	454	454
5	Articles published for farming community	04	-
6	Lectures for transfer of technology delivered	22	2704
7	Distribution of the farm literature	10000	-
8	Press note published	06	-
9	Agril Tour	01	256
10	Field visit	70	669
11	Seminar	03	145
12	Krishi goshti	22	2704
13	Film/Slide/V.C.show	27	145
14	Radio talk	01	Mass
15	T.V.programm	01	Mass
16	Field training for graduates	04	346

Sr. No.	Activity	No of Activity	No of Beneficiaries
17	Ext Res Programme	01	669
18	Lectures for crop seminar	04	1093
19	Field Visit of scientists	11	65
20	Farmers scientist interaction	11	65
21	Other ext.edu.activities	3	102

(f) Mass Media

(i) Radio Talks

The scientists of the University delivered Radio talks on agriculture and allied topics from All India Radio, Vadodara. During the year, 12 scientists have delivered talks on different topics related to agriculture, horticulture, agricultural engineering, animal husbandry, etc. The details of radio talks are given in Appendix-1

(ii) TV Talks

In all, 22 television programs on different aspects covering agriculture, animal science, agricultural engineering, horticulture, home science, etc. were telecast through Doordarshan Kendra, Ahmedabad in "Gram Jagat" program for the benefit of farming community. The details are given in Appendix-2

(iii) Press Meet

One press meet was organized during the year to convey the control of Mealy bug in cotton and other crops on

(g) Publication

(i) Farm Magazine

The publication unit publishes the monthly farm magazine "Krushi-Go-Vidya" regularly. There were 8079 subscribers registered for this magazine during 2007-2008.

Further special issues on Spices Crops have been published in February-2007. A zero-budget revolving fund has been created to make this magazine self-sufficient.

Moreover, Krushigovidya Publication unit has provided guidance to farming community (about 2410 beneficiaries) through telephone / letters.

(ii) Publication of AAU Newsletter

The Director of Extension Education publishes a quarterly "Anand Agricultural University Newsletter" regularly. The AAU Newsletter gives research highlights, technical events / news, extension activities, noteworthy work done by any agricultural educationist, research scientist, and extension educationist. Special issue on Krushimhotsav-07 was published during the year under report.

(iii) Publication of Agricultural Literature

Different folders / books/ leaflets on various subjects were published by different extension education centers of AAU during year under report. The details of 11 publications are given in Appendix-3

5. Others (Agricultural Technology Management Project)

The Central Govt. has sanctioned a project as support to State Extension Plan so called as ATMA Project in 8 districts of Gujarat State. The project was sanctioned by the Govt. of Gujarat in the year 2004, when Dr. K. N. Shelat was Principal Secretary of Govt. of Gujarat. The Project aim is bottom of planning suggested by the farmers and it is demand driven and farmer accountable. Ahmedabad and Dahod districts which are comes under the jurisdiction of Anand Agricultural University are selected for the ATMA Project.

The following extension activities are carried out by the Ahemdabad and Dahod centres during the year under report.

Sr No	Activity	AHMEDABAD	Dahod
1	Field Day	-	11(1576)
2	Publication of farm literature/ Distribution	-	20(Mass)
3	Mobilization of farmers group	-	-
4	Agricultural Tour /Farmers Exposure Visit	03(166)	4(200)
5	Crop Demonstration	60	1847 (625 ha)
6	Kishan Goshti	02(70)	-
7	Training rogramme		3(91)
	State Level		
	District Level	17(452)	13 (453)
	Village Level		23(784)
8	District level Exhibition cum krushi mela	-	-
9	Press not released	-	1 (Mass)
10	Registration of KRUSHIGOVIDHYA Subscriber	-	148
11	Farmers Scientist Interaction	02(202)	-

Note : Figures in paranthesis indicates no. of beneficiaries.

6. Coordination with Development Departments

- The Anand Agricultural University has planned and organized various extension education programs/activities in close coordination with line departments of the State. The structural linkages exist under Training and Visit system by way of constituting technical committees at district, zonal and state levels.
- The functional linkages also exist under T&V System through bi-monthly workshops, pre-seasonal trainings, fortnightly trainings, diagnostic team, and state level crop seminars/workshops etc. The coordination exist in follow-up programs as well as planning of farm trials. In AGRESO, the officers of the line departments are the members, and they generously contribute to the formulation of technical programs as well as in finalizing recommendations for the farmers.
- Interface of AAU scientists with functionaries of the departments of the State, NGOs and other agencies organized at state as well as at campus level.
- The agricultural programs of All India Radio as well as Doordarshan are finalized by such coordinated efforts.
- For transfer of technologies to the farmers at large, Farmers' Day, Krushi Mela, farmer-scientist interactions, group discussions etc. are organized by collaborative efforts.

7. Capacity Building of AAU Staff

During the year under report, five scientists/teachers of Anand Agricultural University were deputed outside the Gujarat state for updating their knowledge and up gradation of skills in their respective disciplines. The details are given in Appendix-4

APPENDIX-1

Radio Talks Delivered

Sr. No	Scientist	Topic	Date (Time of broadcast 6.00 to 6.30 pm
1	Dr. K.B. Katheria	Unalu Sakbhaji ma pak sarakshan	6/4/07 & 16/4/07
2	Dr. A.D. Patel	Khrif sakbhaji aayojan	12/6/07 & 22/6/07
3	Dr. R.C. Jala	Katra ane Kapas ni Milybugnu Niyantran	6/7/07 & 17/7/07
4	Dr. P.P. Patel	Krushhi Vistranma Krushi Vigyan kendrono fallo	14/8/807 & 24/8/807
5	Dr. H.U Vyas	Khedut ni sevama Krishi vigyan Kendra	Sept-20007
6	Smt. S.N. Selat	Siyalu Pakoma jai vik khatarono upyog	23/10/07 & 2/11/07
7	Dr. K.P. Patel	Suksma tatvoni agtyata	26/10/07/ & 6/11/07
8	Dr. M.S. Jakasania	Bhal Vistar ni Jaminono Prashno ane ukel	20/11/07 & 30/11/07
9	Dr. S.H. Patel	Chalani lili eyalnu sanklit niyantran	7/12/07 & 8/12/07
10	Dr. R.B. Patel	Nindaman nasak davana avsesho ni jankari	11/11/08 & 21/11/08
11	Dr. D.C. Joshi	Gujarat ma Biodimul utpadan	25/11/08 & 4/11/08
12	Dr. Arun Patel	Krushhi Vistranma Information no falo	5/2/08 & 15/2/08

APPENDIX-2
Television Talks Delivered

Sr. No	Scientist	Topic	Date (Time of broadcast 6.00 to 6.30 pm
1	Dr. R.S. Gupta	Swachh Dudh utpadan mate Pasu Aharni Kalji	11/4/07
2	Dr. R.M Patel	Jal ane Jamin sarakshan	26/4/07
3	Dr. F. P. Savaliya	Garmi ma Pakshio ni Mavjat (Layer ane Boieler)	2/5/07
4	Dr. P.R. Patel	Pasupalan safal vyavsay safal varta	30/5/07
5	Dr. Atul Mehta	Dangrni Ropni	2/7/07
6	Dr. D.B. Patel	Makai na nava sansodhano	9/7/07
7	Dr. Paresh Shah	Jantunasak Davana Avseso ane tenu nivaran	26/7/07
8	Dr. Harsha Selat	Pravahi Jai vik Khatarono upyog	30/7/07
9	Dr. K.B. Katharia	Sakbhaji na Prasno	2/8/07
10	Dr. R.C. Jala	Kharif Pako ma jivat Niyantaran	20/8/07
11	Dr. D. M. Korat Dr. P.K. Borad	Jantu nasak davao samji ne va5ro (Phone in Live Programme)	30/8/07
12	Dr. R. C. Jala	Kapas pakma mily bug ane jivat niyantran	12/10/07
13	Dr. J.G. Patel Dr. R.G. Jadav	Amla nu Arthkaran (safal varta)	23/10/07
14	Dr. P.K. Borad Dr. Subhs Patel	Ravi Pako ma pak sarakshan	26/10/07
15	Dr. R.B. Patel	Ravi Pakoma nindan niyantran	29/10/07
16	Dr. S.T. Patel Dr. K.P. Patel	Ravi Pako ma sankalit niyantran vyavstha	2/11/07
17	Dr. Atul Mehta	Unalu Dangar mate nava sansodhno	25/12/07
18	Dr. R.B. Patel	Nindan nasak dava o ane tena avseso ni jankari	7/1/08
19	Dr. D.C. Joshi	Gujarat ma Bio dyul utpadanni samta	22/1/08
20	Dr. H.C. Patel Dr. Nattubhai Parekh	Bagayti pako ma mavjat (Phone in Live Programme)	25/1/08
21	Dr. K.B. Kathria Dr. J.J. Patel	Unalu sakbhaji ni bin paddhati o (Phone in Live Programme)	1/2/08
22	Dr. N.B. Chauhan	Krusha Vikas ma Information Technology no faydo	4/2/08

APPENDIX-3

PUBLICATION OF AGRICULTURAL LITERATURE

Sr. No.	Name of publication
1	JEERA NI VAIGYANIK KHETI PADDHATI
2	BHHANA NI KHETI PADDHATI
3	INTEGRATED PLANT PROTECTION MEASURES OF GRAM POD BORES
4	SOIL IMPROVEMENT THROUGH GYSSUM
5	CONTROL OF CAMEL THRONE & INCREASE WHEAT PRODUCTION
6	PRODUCTION TECHNOLOGY FOR RAIN FEED GRAM
7	PRODUCTION TECHNOLOGY FOR CUMIN
8	SHACHI DISHA BADLAYEE DASHA
9	SHACHI DISHA SHUDHARI DASHA
10	CHALO KHET UTPADAN KHARCH GHADIYE (FOLDER)
11	KRUSHI MHOTSHAV AHEVAL 2007
12	KRYSHI MHOTSHAV DAIRY
13	AUSHDHIYA PAKO

APPENDIX-4

CAPACITY BUILDING OF AAU STAFF

Sr. No.	Scientist	Topic	Duration	Institution
1	Dr. B.B.Patel	Yield & quality of forage sorghum as influence by intercropping of cowpea & Nitrogen level under rain fed condition	23 to 25 Nov, 2007	Madhya Pradesh council of science & Technology ³ Bhopal
2	Dr. G.B.Chaudhari Dr. K.L.Bhoi Dr. M.S.Jakashaniya Dr. A.M.Sheakh	Assured & potential productivity of Groundnut in Saurashtra region of Gujarat	18 to 21 Feb, 2008	INSAFS AT CRIDA HYDERABAD
3	Dr. K.D.Mevada	Weed management in kharif crops	29-8-07 to 1-9-07	NRC for weed science Jabalpur (MP)

Chapter-8

Students' Welfare

Beyond the Curriculum Confines

The office of Directorate of Students' Welfare strives hard for the overall development of personality, character and high human values of all the students of the University. The University provides facilities like hostels, health care, training, scholarship and counseling and placement guidance to the students. It organizes various extra curricular activities like sports, adventure, cultural programs, festival celebration etc.

Students' Representative Council

All the constituent colleges of the University have the Students' Representative Council (SRC), which is formed by nominating the staff advisory committee including the students' representative as per University rules. The Council is formed with a view that the students can represent their problems through their representatives. The SRC organizes and monitor various extracurricular activities of students. The Students' Representative Councils of all the colleges were very active during the year and various extracurricular activities like planning forum, sports, debate and elocution, college magazine, cultural programs; NSS, NCC etc. were organized.

Student Amenities

(A) Hostels

Hostel environment plays an important role in the development of personality and social behavior of a student. As a residential University, good hostel services are provided to all the under graduate and postgraduate students at all the colleges of the University. The hostels have their own respective messes which are run and managed by students themselves while others are under contract basis under the supervision of the Rector/Assistant Rector. In the campus canteen facility for breakfast and snacks as well as other essential facilities are also available. E-library facility is available and the other amenities for day-to-day requirements like laundry, tailor, cycle store, provisional store, bus for transportation, telephone facility, Bank, ATM centers etc. are also available in the premises of the University. The Rector and Assistant Rector are appointed in each college for maintenance of student facilities and solving the residential problems of the students. The facility for solar water heater and water coolers are also available in the hostels. Recently one girls hostel has been made available for the girls of veterinary college.

(B) Health Facilities

The maintenance of sound health of all the students, staff and farm labour is primary objective of the health centre of AAU DSW monitors the routine activity of health centre. For this purpose, the University governs the Primary Health Centre with the appointment of the staff like doctor, compounder, laboratory technician and other administrative staff. Free service of the Health Centre is available to all the employees, their families and students residing in the campus. Ambulance is available for emergency services as well as shifting of the patients to other hospitals. This Health Centre provides Allopathic, Ayurvedic, Homeopathic treatment and also provides guidance for diagnosis and treatment. Newly admitted students get free medical fitness certificate. The facility for blood grouping and thelaseemia testing of newly admitted students has been introduced. During the year of report, **total 6192** patients were treated which includes 866 patients Ayurvedic and 933 patients Homeopathic and 4393 patients Allopathic.

Special free check up camps organized at health center are as under.

No.	Date	Name of camp	No.ofpatients examined
1	26.7.07	Gynecologic	35
2	21.9.07	Homeopathic	54
3	3.11.07	Diabetic& Cardiac	56
4	17.1.08	Eye check up & Spectacles distribution	400

Following pathological tests were done by the health center.

No	Name of pathological test	No. of patients
1	Routine Hematology	325
2	P.S for M.P	103
3	Blood sugar	85
4	Blood Group	89
5	G.T.T	05
6	Urine routine examination	22
7	Urine sugar test	85
	Total	714

Activities

(A) Student Counseling

The student counseling cells are established at the colleges for guidance and solving the problems and to contact with various companies and organizations for job opportunities. It also provides coaching the students for various competitive examinations.

(B) Placement

During the year of report there was a heavy demand from the different companies for employment to the students of the university. Faculty wise details of the placement are given here

Faculty of Agriculture

Sr. No.	Name of Institute	No. of Selected candidate
1.	State Bank of India	24
2.	Pest Control India	8
3	ICICI Bank	6
4	CAPERT(council for Advancement of People,s Action and rural Technology	4
5	Cadila Pharmaceuticals Ltd.	7
6	Godrej Agrovat Ltd	4
7	Agro-Economic Research Center	1
8	Vetcare company Ltd	2
9	Triveni Industries Ltd	9
10	Druva, Asister concern of BAIF	4
11	D-SAG	2
12	Deepak Foundation	2
	Total	73

Faculty of Veterinary Science

Sr. No.	Name of Institute	No. of Selected candidate
1	SAG (Bidaj)	4
2	Sabar Dairy	10
3	Amul Dairy	18
4	Valsad Dairy	6
5	Glaxo (vibre)	4
6	NGO , Ahmedabad	1
7	Panchamrut Dairy	10
8	National Dairy Federation	1

9	J.K.Trust	10
10	Banas Dairy	8
11	Vet cone Ltd	2
	Total	74

Faculty of Dairy Science

1.	Amul Dairy, Anand	5
2.	Dudhsagar Dairy, Mehsana	8
3.	Mother Dairy, Gandhinagar	6
4.	Sumul Dairy, Surat	7
5.	Panchamrut Dairy, Godhra	8
6.	Sabar Dairy, Himatnagar	15
7.	Vasudhara Dairy, Valsad	7
8.	Rajkot Dairy, Rajkot	4
9.	Junagadh Dairy, Junagadh	6
10.	Uttam Dairy, Ahmedabad	4
11.	Banas Dairy, Palanpur	3
	Total	73

(C) Physical Education Programme

The Physical Education and Sports play vital role for development and maintenance of personality, physical fitness, health and stamina, besides body-building of the students. Along with development of the academic career of the students, this University also puts in every effort to bring out the hidden qualities of the students by involving them in physical education, sports, cultural, adventurous activities etc. at college and university levels. Two Physical Instructors organize these activities at college level under the direct guidance and supervision of Director of Students' Welfare. The following activities were carried out under this programme.

(i) Adventurous Activities

Swami Vivekananda State Mountaineering Academy, Mount Abu was contacted for organizing basic and advanced workshop/camp in rock climbing with the aim to develop adventurous virtues and prepare them to face adverse conditions. Information is as under.

Sr. No.	Type of workshop	Dates	No. of Participants	Place
1	Mountaineering (Basic course)	16-10-2007 To 25-10-2007	30-Boys	Swami Vivekananda Institute of Mountaineering Academy at Mount Abu
2	Tracking	4-5-07 To 23-5-07	5- Boys	Youth hostel Association of India, Moussouri, Himachal Pradesh.

(ii) Sports Activities

Along with the academic curriculum, the students are also trained for the development of skills and excellence in various sports activities. For this reason, Inter-Collegiate competitions for several games like chess, table-tennis, badminton, kabaddi, volley ball, basket ball, kho-kho, cricket, weight-lifting, athletics, cultural activities, essay, debate and elocution competitions etc. are regularly arranged at various colleges

under the direct guidance of the DSW. The selected students from Inter-Collegiate competitions are nominated for Inter-University participation.

During the year under report, **inter-collegiate competitions** were arranged at different colleges as under.

No.	Game	place	Winner	Remarks
1	Cricket	B.A.College of Agriculture, Anand	College of dairy science, Anand- First College of Vet Science & A.H- Second	5/6.2.08
2	Football	B.A.College of Agriculture, Anand	First College of Veterinary Science	18.2.08
3	Chess	Food Processing Techno & Bio energy, Anand	College of Veterinary Science & A.H., Anand	25.8.07
4	Table Tennis	Food Processing Technology & Bio energy, Anand	Girls & Boys team win- College of Vet .Science & A.H	25.8.07
5	Basket Ball	College of dairy science, Anand	First College of dairy science, Anand-	15.9.07
6	Kho-Kho	B. A. College of Agriculture, Anand	College of Veterinary Science & A.H. Anand Champion	22.9.07
7	Debate & Elocution	College of Dairy science, Anand	College of dairy science First in Debate & BACA, First in elocution Anand	2.10.07
8	Kabaddi	College of Veterinary Science & A.H, Anand.	First College of Veterinary Science & A.H. Anand	6.10.07
9	Volley Ball	College of Veterinary Science & A.H., Anand	First College of dairy science, Anand	7.10.07

During the year under report, the following university teams participated in inter-Agricultural University Competition in various games.

Sr. No.	Competition/Tournament	Organizing Institute	Participation in the games	Remarks
1	Gujarat Inter Agricultural Twenty -20 Cricket Tournament (Dt 12-2-08)	Sadar Krushinagar Agril. University, SKNagar	Cricket	participation
2	9 th All India Inter Agricultural University Games & Sports Meet (west zone) (Dt 21-2-08 to 25-2 08)	Mahatma Fule Krushi Vidhyapith, Rahuri	Basket Ball(boys) Volley Ball(boys) Table Tennis(girl) Athletic(boy/girl) Kho-Kho (boys/girls) Kabaddi (boys)	participation
3	State level P.G Paper Presentation Competition (Dt.15-2-08)	C.P.College of Agricultural University, SDAU, S.K.Nagar	15 students were participated	win & got prize & certificate

Second Gujarat Inter Agricultural University Literary and Cultural Competitions- 2008 on 15th February, 2008. The details of GIAU events and our achievements are as under.

Sr. no.	Gujarat Inter-Agricultural University Tournaments	Organizing University	Remark/Position won
1	Literary Events	Junagadh Agril.University, Junagadh	Debate competition-in favor - First Prize Against- First Prize Essay competition-participation
2	Cultural Events	Junagadh Agril.University, Junagadh	Folk dance - First Prize, Fancy dress - First Prize, Mono Acting (Male & Female) – Second Prize

(D) National Service Scheme (NSS)

The National Service Scheme is operated in all the Colleges of Anand Agricultural University. During the year under report, two units of 50 students and one unit of 100 students were allotted to different colleges. Details of the college-wise registered volunteers are as under.

Sr. No.	Name of College	No. of registered Volunteers
1	B. A. College of Agriculture, Anand	100
2	College of Veterinary Science & A.H., Anand	50
3	SMC College of Dairy Science, Anand	50
Total		200

During their spare time in their academic schedule, the students actively participate in the activities related to the problems and requirements of the society and its development and welfare through various NSS activities.

The social activities carried out by the NSS are divided into two categories.

(i) Regular Activities

The regular activities carried out by the Colleges of AAU during the year are as follows.

No.	Activities	Total
1	Tree plantation	210
2	Pulse polio program	189

(ii) Special Camp Activities

Under special camp activities, all the three colleges of AAU have organized special camps in which student volunteers have participated.

No	Activities	Total
1	Blood donation camp	154
2	Aid awareness programme	110
3	Thalassaemia testing	186

(iii) Other Activities

No.	Activities	Place	Participation
1	5 th to 7 th July Training	A' bad	Programme.co-ordinator

2	23 rd 24 th September NSS Day	Rajkot	Student volunteers
3	Yuva Netrytva Talim Sibir	Navsar	Student volunteers
4	1 st December Nirmal Gujarat Rally	Anand	Collaboration with Nagarpalika
5	Prayer meeting	Anand	College students
6	International Non-violence day	Anand	College student
7	2 nd October Debate Competition	Anand	College student

(E) National Cadet Corps (NCC)

With a view to give a boost to the youth for Nationalism and to serve the motherland the NCC Unit of B.A. College of Agriculture of AAU has been established. It organizes various training programs for the development of quality leadership, patriotism, brotherhood, sportsmanship and adventurous attitude and unity among the students joining this unit willingly. This unit of NCC is attached with 4 Gujarat Battalion (boys) NCC, and V.V.Nagar. The unit consists of 2 platoons of 100 cadets.

No.	Name of camps	Place	No.of students
1	Annual Training Camp	Dakor, Petlad , Ahmedabad	45
2	Advanced Leadership Camp	Asansol (West Bengal)	4
3	Army Attachment Camp	Bhuj	10
4	National Integration Camp	Ahmedabad	10

42 cadets cleared B certificate and **16 cadets** cleared C certificate examination this year. U/O Dines Kumar Bhakar got **A Grade** in the C certificate examination.

(F) College Magazine

The college magazine is published by each college of AAU with the aim to bring the potential of or students in writing and expression. The teachers, staff members and Post-Graduate students of the College contribute for the overall development of the students through inspirational articles, poems, drama, and agricultural information useful to farmers and scientific community and other columns. The Director of Student Welfare provides the needed financial assistance.

(G) Educational Tour

Educational tour is considered as a part of the academic syllabus of the degree courses of Anand Agricultural University. The duration of educational tour is of three weeks in Agriculture/Dairy faculty and two weeks in Veterinary faculty, which comprises of visits to reputed Institutes of Gujarat and other states of India.

During the year under report, all the colleges have arranged their educational tour by University vehicles, thereby reducing University expenditure to a large extent.

Sr. No.	Name of College	No. of Students	Duration of Tour
1	B.A.College of Agriculture	56	15.10.2007 to 4.11.2007
2	College of Veterinary Science	61	16.12.2007 to 30.1.2008
3	S.M.C.College of Dairy Science	45	16.2 .2008 to 7.3.2008

(H) Other Activities: The students are encouraged to participate in the following.

- | | |
|----------------|-------------------------------|
| i Nature Club | viii Alumni Association |
| ii Rotary Club | ix Gandhi Jayanti Celebration |

- | | | | |
|-----|----------------------------------|------|---|
| iii | Elevet Forum | x | Republic and Independence Day Celebration |
| iv | Extension Club | xi | World AIDS day |
| v | Quest | xii | Annual Day celebrations |
| vi | Sardar Patel Jayanti Celebration | xiii | Teachers Day celebration |
| vii | Sadbhavna Day | xiv | Ambedker Jayanti |
| | | xv | Leadership development programme |

A Leadership development programme was organized for 60 AAU students from 14-5-07 To 19-5-07.

(I) Financial Assistance to the Students

Anand Agricultural University provides scholarship and financial assistance on merit basis to the students admitted to various constituent colleges. Merit scholarship of Rs.75/- per month is awarded to the students of Veterinary Science and merit scholarship of Rs.500/-month to undergraduate students except Veterinary Science. The ICAR Merit cum Means scholarship of Rs.500/- per month, Merit scholarship Rs.60/- per month, and poor student's scholarship of Rs.60/- per month and free scholarships of Rs.250/- per semester are awarded.

The amount of fellowship is Rs.1500/- per month for master degree and Rs. 2000/- per month for PhD awarded on merit basis.

Students' Discipline

The discipline is being inculcated in students through sports, NCC and NSS activities creating a congenial atmosphere amongst teachers, students and staff members of the University.

Chapter – 7

Estate Management : Architecting dream monuments.

All the works related to construction and maintenance of Anand Agricultural university campus falls the purview of Executive Engineer, who supervise the work with the assistance of the Deputy Engineer and Junior Engineers.

In addition, the office of the Executive Engineer also looks after transport, communication and security services, the University Guest Houses and housing facilities. Presently, Er. B.N. Bhalia is acting as the Executive Engineer of the university.

CONSTRUCTION COMMITTEE :

The Construction Committee is constituted to frame regulations, planning and approval of major works and excess/extra items as per power delegated in statue-28.

The Construction committee consists of following members :

Sr. No.	Name member	Designation	
1	Prof. M.C. Varshneya	Vice Chancellor	Chairman
2	Dr. A.R. Pathak	Director of Research	Member
3	Dr.P.P. Patel	Director of Extension Education	Member
4	Dr. A. M. Shekh	Principal BACA	Member
5	Dr.J.V. Solanki	Principal, Vet. Sci. College	Member
6	Dr. B.P. Shah	Principal, Dairy Sci. College	Member
7	Dr. D.C. Joshi	Dean, FPT & BE	Member
8	Shri V.P. Macwan	Registrar	Member
9	Shri P.S. Vyas	Account officer-cum- comptroller	Member

10	Dr. M.S. Jakasania	Research Scientist, Arnej	Member
11	Dr. B.S. Patel	Research Scientist, Dahod.	Member
12	Er. B.N. Bhalia	Executive Engineer	Member Secretary

MEETINGS OF COMMITTEE :

Sr. No.	Meeting	Date
1	7 th meeting	25-07-2007
2	8 th meeting	17-08-2007
3	9 th meeting	26-10-2007
4	10 th meeting	22-02-2008
5	11 th meeting	19-03-2008

As per provision of grant, total number of 86 administrative approval and 112 technical/part technical sanctions were accorded.

Following works are completed during the period of report :-

- (1) Construction of Agriculture Technology Information center building at AAU Anand.
- (2) Construction of Tissue culture laboratory at AAU Anand
- (3) Construction of Ladies hostel for Vet. Sci. college at AAU Anand.
- (4) Construction of High tech floriculture laboratory at Horticulture farm AAU Anand.
- (5) Drilling 250mm dia. tube well for RRS at AAU Anand.
- (6) Drilling 250mm dia. tube well for BTRS (Navli farm) at AAU Anand.
- (7) Repairing of Milking parlor at AAU Charodi.
- (8) Addition alteration work in Veterinary college at AAU Anand.
- (9) Construction of compound wall in front side of Dairy Sci. college at AAU Anand.
- (10) Construction of compound wall at Navli corner for RRS farm at AAU Anand.
- (11) Construction of Compound wall with fencing at D+E quarter at Vet. Campus AAU Anand.
- (12) Construction of Compound wall to back side of Bio-diesel shed at AAU Anand.
- (13) Construction of Compound wall at side of fodder shed at Charodi.
- (14) P/L & fixing Granite/Marbogranite flooring in front porch of BACA at AAU Anand.
- (15) Providing Vertical blinds in EEI dinning hall at AAU Anand.
- (16) Providing and fixing curbing & Widening of road of Agronomy farm at AAU Anand.
- (17) Renovation of Cattle shed at RRS farm AAU Anand.
- (18) Renovation of I.T. laboratory AAU Anand.
- (19) P/F flooring in M.D. Patel library at AAU Anand.
- (20) Construction of Implement shed for Forage farm at AAU Anand.
- (21) Rewiring of residential new-B type 1 to 12 quarters at AAU Anand.
- (22) Rewiring of residential Veterinary-C type 28 to 50 quarters at AAU Anand.
- (23) P/L water proofing treatment to new 'C' type quarter at AAU Anand.
- (24) Providing C.C. road at Vet. Campus from post office to 'A' hostel at AAU Anand.
- (25) P/L glaze tukdi tiles for water proofing treatment on terrace of (Pathology & Chemistry) of BACA at AAU Anand.
- (26) P/L water proofing treatment to new 'D' type quarter 17 to 22 & new 'C' type quarter 17 to 18 at AAU Anand.
- (27) P/L water proofing treatment to new 'B' type quarter 13 to 24 at AAU Anand.
- (28) Rewiring of residential new-B type 13 to 12 quarters at AAU Anand.
- (29) Strengthening of server room of I.T. laboratory at AAU Anand.

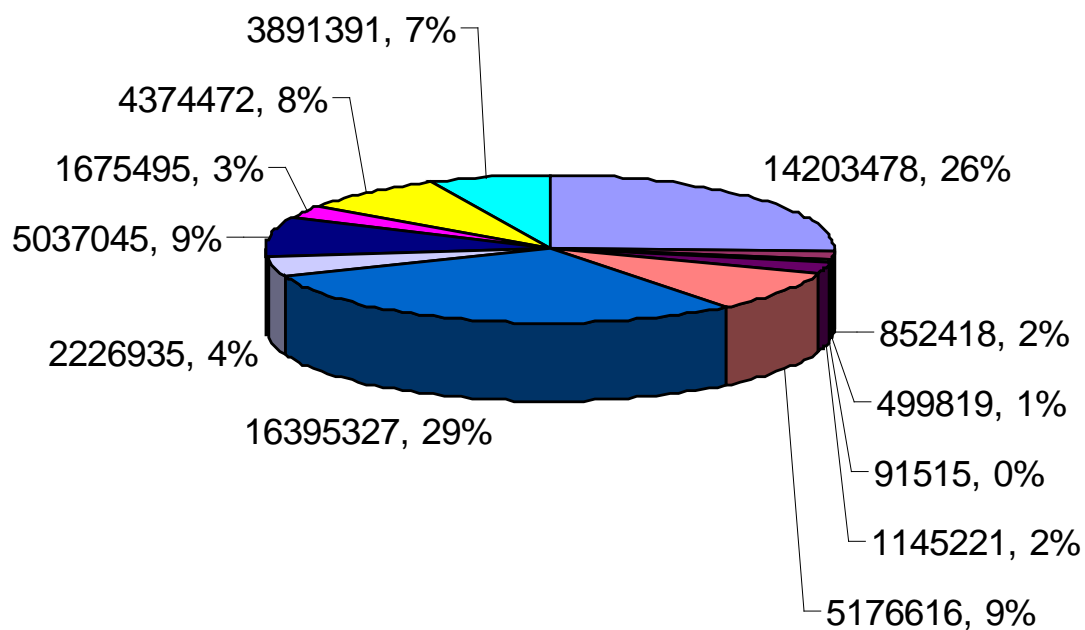
(30) PF Aluco sheet to main door side of BACA at AAU Anand.

(31) Construction of approach road with gate to Vet. Ladies hostel at AAU Anand.

Statement showing expenditure for works.

Sr. No.	Plan/Scheme	Expenditure in Rs.
1	Major works	1,42,03,478.00
2	Major plan works (Tribal)	8,52,418.00
3	Minor original work	4,99,819.00
4	Classified works	91515.00
5	Maintenance & Repairing work (M. & R.)	11,45,221.00
6	Mega seed project works.	51,76,616.00
7	ICAR woks	1,63,95,327.00
8	ICAR development works.	22,26,935.00
9	Experimental Learning-setting up of facilities for hands on training works.	50,37,045.00
10	KVK works.	16,75,495.00
11	Other agency works.	43,74,472.00
12	Revolving fund development works.	38,91,391.00
	TOTAL	5,55,69,732.00

Expenditure-2007-08



- Major works
- Major plan works (Tribal)
- Minor original work
- Classified works
- Maintenance & Repairing work (M. & R.)
- Mega seed project works.
- ICAR woks
- ICAR development works.
- Experimental Learning-setting up of facilities for hands on training works.
- KVK works.
- Other agency works.
- Revolving fund development works.

MAJOR EVENTS :

Sr. No.	Detail of event	Date
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1	Inauguration of Veterinary college Ladies hostel	31-05-2007
2	Inauguration of ATIC building	16-06-2007
3	Inauguration of Council office	29-06-2007
4	Inauguration of Tissue culture laboratory	12-08-2007
5	Inauguration of Epidemiology laboratory	07-09-2007
6	Inauguration of Floriculture laboratory	31-01-2008
7	Bhoomi puja of Bio- pesticide laboratory	31-01-2008
8	Inauguration of Bio-Diesel shed	11-02-2008

Inauguration of ATIC building Dt..16-06-2007



Inauguration of Council office Dt. 29.6.07

Inauguration of Tissue culture laboratory Dt.12.8.2007



Inauguration of Epidemiology laboratory Dt.7.9.2007



Inauguration of Floriculture laboratory Dt.31.1.2008



Bhoomi puja of Bio- pesticide laboratory Dt.31.1.2008



Inauguration of Bio-Diesel shed Dt.11-02-2008



HOUSING ACCOMODATION COMMITTEE:

Housing Accommodation committee is constituted for allotment of housing quarters to University employee staff as per rules under statute 42.A (G.A.U.).

The Housing Accommodation committee is statutory body formulated under statute 42.A Schedule XXVI para 4.1 as below :

Sr. No.	Name member	Designation	
1	Dr. A. R. Pathak	Director of Research	Chairman
2	Dr. P.P. Patel	Director of Extension Education	Member
3	Dr. A.M. Shaikh	Principal B.A.C.A.	Member
	Dr. J. V. Solanki	Principal, Vet. Sci. College	Invited member
5	Dr. B.P. Shah	Principal, Dairy Sci. College	Invited member
6	Dr. R.H. Patel.	Asso. Director of Research	Member
7	Dr. A.D. Patel	Research Scientist(Tobacco)	Invited member
8	Shri M.G. Vasava	Deputy Registrar	Invited member
9	Er. B.N. Bhalia	Executive Engineer	Member Secretary

Meetings of Committee :

Sr. No.	Meeting	Date
1	9 th meeting (114)	05-05-2007
2	10 th meeting (115)	22-06-2007
3	11 th meeting (116)	06-08-2007
4	12 th meeting (117)	16-01-2008

Finance & Accounts: Navigating through fiscal flow

The Accounts Officer-cum-Comptroller

Considering the responsibility and answerability that lie with the Accounts Officer-cum-Comptroller, Item-13 in Chapter-2 of the first Statutes of Anand Agricultural University is devoted to the office and duties of the Comptroller, as reiterated in the Gujarat Agricultural University Act, Section No.5, which ordains the Officer-in- Charge of this office to follow the directives mentioned there under.

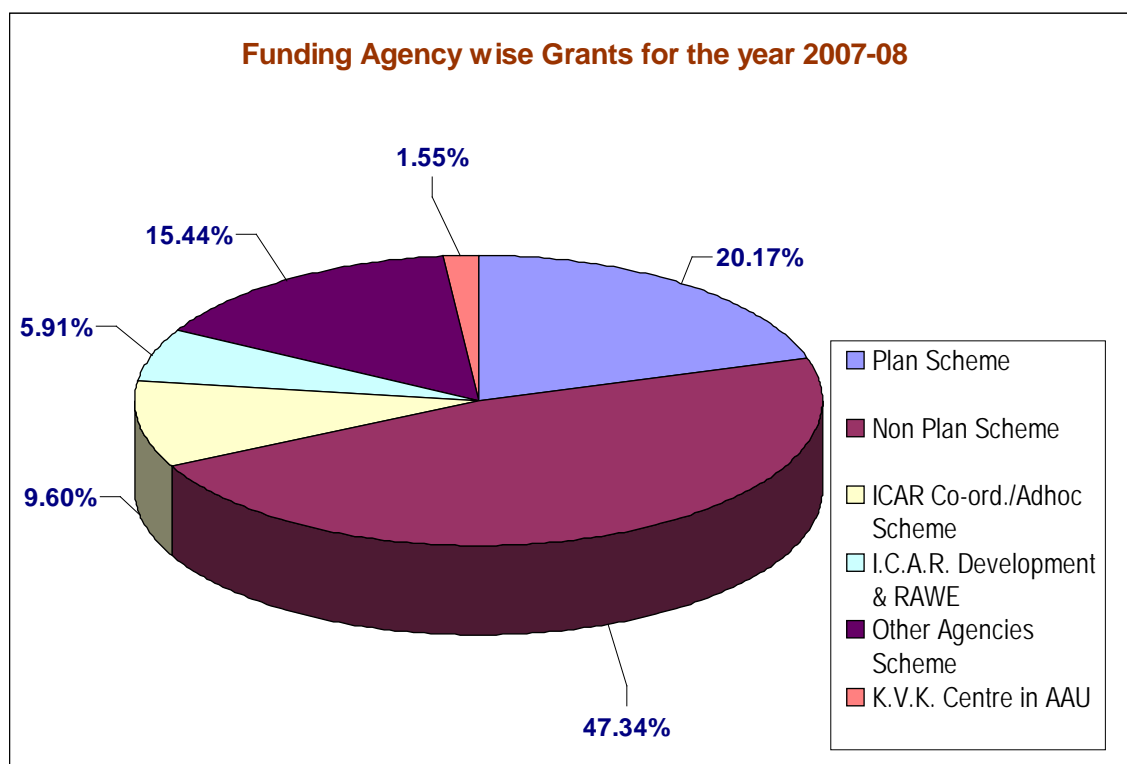
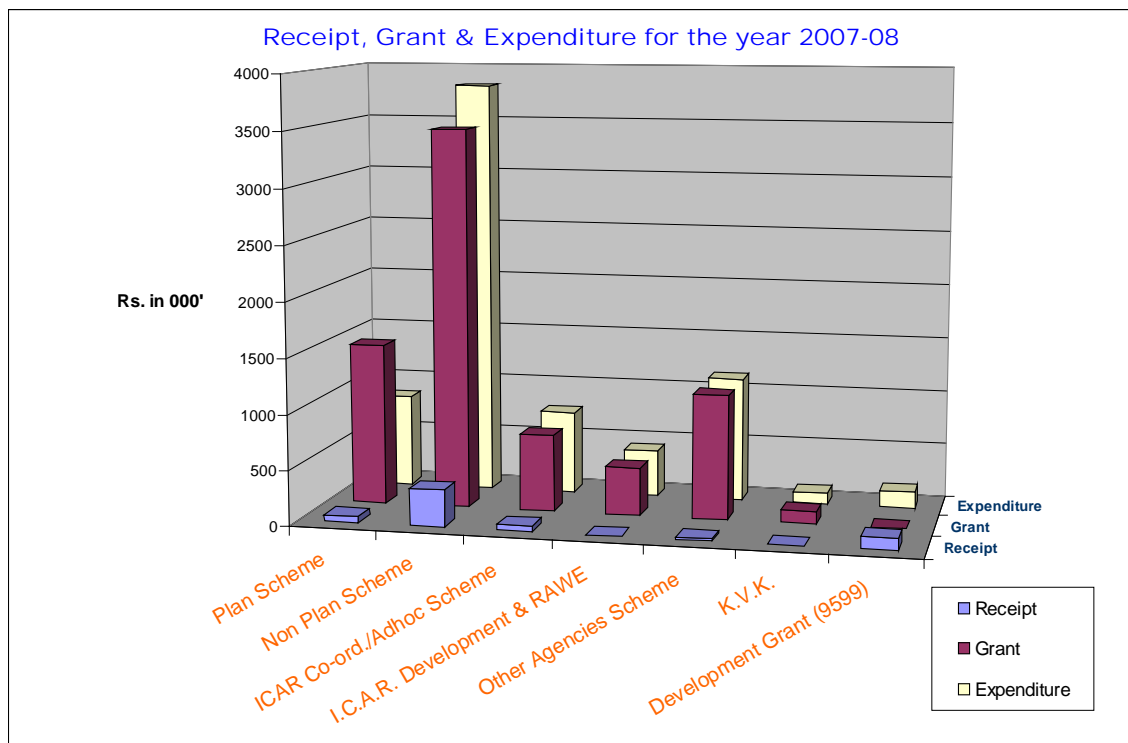
Shri P.S. Vyas was appointed as the Accounts Officer-cum-Comptroller by the Government of Gujarat vide Office Order No.GKV/102004/1661/K.2, dated 11.5.2004.

Annual Income/Expenditure Grant Statement

Anand Agricultural University has received State Plan & Non-Plan grants from Government of Gujarat. The research, extension & development grants were received from I.C.A.R., New Delhi. Further, Plan and Non-Plan grants for Extension Education Institutes were received from Government of India. The University also received grants from other related departments of State & Central Government including private industries, private agencies and NGOs.

Grant Received / Expenditure Incurred / Income Generated (2007-08)

Sr. No.	Particulars	Grant received		Income generated		Expenditure incurred	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
1	2	3		4		5	
(A)	Govt. Grant						
1	Plan Scheme	147600000.00		5743131.00		85178274.00	
2	Non Plan Scheme	346429000.00		33835459.00		381940025.00	
	TOTAL (A)	494029000.00		39578590.00		467118299.00	
(B)	Revenue Account						
1	I.C.A.R Co-ord./Adhoc Scheme	70239642.00		5157177.00		76086086.00	
2	I.C.A.R. Development	42710000.00		0.00		42376866.00	
3	RAWE	563000.00		0.00		562568.00	
4	Other Agencies Scheme	112961614.00		1974338.00		113778930.00	
6	K.V.K. Centre in AAU	11315000.00		0.00		10332000.00	
7	Development Grant (9599)	0.00		10898794.00		14834537.00	
	TOTAL:(B)	237789256.00		18030309.00		257970987.00	
	TOTAL : (A+B)	731818256.00		57608899.00		725089286.00	



Audit

The University Accounts are to be audited as per the following arrangements.

(i) Internal Audit

Due to shortage of manpower, the Internal Audit could not be conducted. The pay verification of pay fixation cases under R.O.P. & C.A.S. are verified by this office.

(ii) Examiner Local Fund Audit :

Last year Local Fund Audit verify for the year of 2003-04.

(iii) A.G. Audit

The compliance of old Audit Para raised by A.G. Audit Examiner is made duly for the year the A.G.Rajkot audit party verified the A/C for the year 2004-05.

Physical Store Verification

Due to the shortage of manpower, the physical store verification could not be conducted.

Resources of Income and Financial Estimates

The Revenue generated by the University during 2007-08 is mainly through sale of farm produces, milk & milk products, animal, bakery products, transport & guest house services, examination fee, tuition fee, hostel revenue, tender fee, house rent deductions, library fee, etc.

Financial Estimates

Following are the Plan and Non-Plan Budget Estimates for 2007-08, as approved by the State Government.

Sr. No.	Details of Head	Estimates for 2007-2008 (In Rs. lakhs)	
		Original	Revised
1	2	3	4
1.	Non Plan		
	Non-Plan (Normal)	** 2964.42	** 3417.95
	Non-Plan (Tribal)	46.34	46.34
	TOTAL (A)	3010.76	3464.29
2.	Plan		
	Education	237.15	237.15
	Extension Education	36.00	36.00
	Research	619.85	619.85
	TOTAL (B)	893.00	893.00

** Including Council for SAUs.

Training being looked after by the Registrar.

Pension

Details of Pension cases		No. of cases finalized
(1)	Final pension cases	74
(2)	Revised pension cases	04
(3)	Restoration pension cases	03

Provident Fund (PF)

The details of P.F. cases disposed during the year.

No. of Final withdrawal cases	125
No. of Part-final withdrawal cases	304

In addition the monthly PF accounts subscription, withdrawals & balancing for university employees in form of broad sheet & ledger were maintained. Initial P.L. accounts with Anand Treasury is opened & maintained.

The work of computerization of the system has been taken up and run on trial basis.

Others

Looking to the duties and functions of Accounts Officer-cum-Comptroller; total number of schemes, Budget Estimates, Manpower and number of offices, the manpower of the office is insufficient for entire financial control and accounts matters. However, the present manpower is insufficient. Hence, manpower is requiring improvement for Accounts Officer-cum-Comptroller office as per norms.

Chapter - 11

Information Technology Hi-Tech Savvy

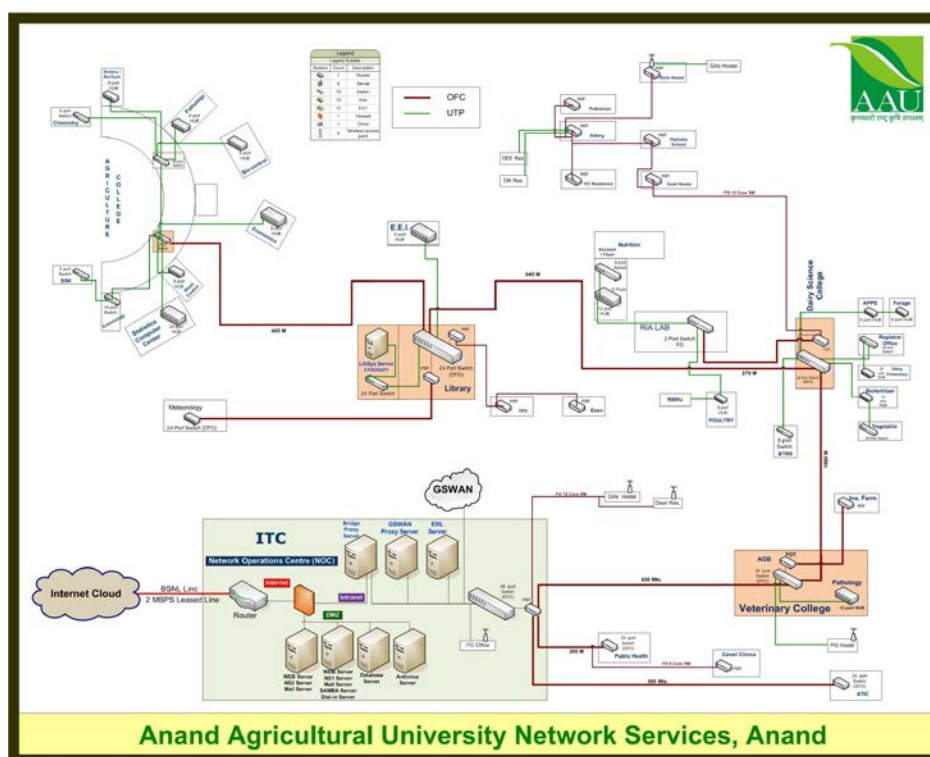
The Information Technology Center at Anand Agricultural University caters the demand for the use of Information Technology in the field of agriculture for the State Agricultural Universities of Gujarat and also for the Dept. of Agri. & Co-operation of State Government of Gujarat.

NETWORK SERVICES

Internet, Intranet, E-mail, CAB Database, J-Gate, Science Direct Personalizing Research, Annual Reviews, Springer Link and Consortium for e-Resources in Agriculture services at Anand Agricultural University have been provided and maintained through Local Area Network (LAN) having GSWAN and BSNL connectivity.

BENEFICIARIES

More than 3500 persons including the university staff, Undergraduate, Post-graduate students and the officials from various departments of the State have taken benefit of ITC network services. These services are very useful to the students in their educational and research activities.



TRAINING

Following short-term training courses were conducted for the officers of the Agricultural Universities and State Government at ITC, Anand.

1. Soil Health Card System
2. Website Updating
3. Database Management
4. Operating System
5. IIS Server
6. Microsoft Office Front Page 2003

Training given under Information Technology Center



NETWORK INSTALLATION & MAINTNCE

ITC looks after installation and maintenance services of the Network at the University level. A sizeable amount of money has been saved by using a free Network Operation System i.e. **Fedora 9**. The network is continuously monitored and the problem, if any, is attended and rectified. The Network Operating System is up-graded regularly adding the useful features.

PRESENTATIONS/ MODELS

ITC has following Multimedia presentations covering various areas of University activities, which are updated from time to time. These presentations have been shown or displayed during the visits of the Guests, Board of Management Meetings, Krushi Fairs or at Government level Meeting.

1. Soil Health Card System
2. Krushi Mahotsav- 2007

REFERENCE SERVICES

CAB Database, J-Gate, Science Direct Personalizing Research, Annual Reviews, Springer Link and Consortium for e-Resources in Agriculture services has been put on intranet. This enables the end users to get quick information through computer on any reference related to Agricultural research published from 1972 to 2008 through Network. This is unique kind of service not found anywhere in

India which is provided free of cost to the scientists and the students of the University. This has made the reference services very fast and has saved a lot of time of the scientists and the students.



SPECIAL CONTRIBUTION/ACHIEVEMENTS

Web Site For AAU

ITC has prepared a Web Site for Anand Agricultural University; the domain name is www.aau.in. This web site includes various aspects and activities of Anand Agricultural University like administration, faculties, colleges, education, and extension, e-library, tender, Right to Information Act etc. Further, a web mail service has been incorporated in the Web Site enabling the users to read and reply their e-mail from any computer of LAN. There are more than 4900 e-mail users. The web site has been maintained and updated regularly.



Web-Base Application for Soil Health Card Program

Government of Gujarat has selected the Anand Agricultural University to establish and implement the state wide programme on Soil Health Card. Under this programme, centre has developed the web-base application software, which generates and provides the fertilizer recommendations on the basis of soil analysis and the nutrient requirements of the crop for each field. This will increase the efficiency of the fertilizer and saving in consumption of the fertilizer.

On the basis of Moisture Availability Index and other soil and meteorological parameters, Soil Health Card programme also advises the individual farmer for the selection of crop and cropping system for his field with economic benefit. It also provides cultivation practices for all the crops.



The action plan for the agricultural production at taluka and village level is available under this programme to coordinate the efforts of all the functionaries.

The web-sites for Agricultural Universities, Department of Agriculture, Department of Animal Husbandry, Department of Horticulture and other Boards / Corporations engaged in agriculture has been established under this program, which provide information regarding different schemes, statistics, working system etc.

MEETINGS OF THE SOIL HEALTH CARD PROGRAMME COMMITTEE

Sr. No.	Particulars	Date
1	1 st Meeting	21-08-07
2	2 nd Meeting	6-12-07
3	3 rd Meeting	26-03-08

Technical Help

On inclusion in various committees of the university, the Director, IT took the measures to carry forward the IT activities at various levels. During the year, substantive work was done not only in the technical or administrative matters of ITC, but also pertaining Network problems at all the four Agricultural universities.

Because of the on-hand training given to various employees on computer applications, administrative and account activities have been improved. Further, theoretical and practical knowledge about IT and its related equipments are made available to other line department of the state, which help the other organization also to strengthen their IT activities.

Most importantly the Director, IT was given state level responsibilities regarding IT work of Soil Health Card by Agriculture and Co-operation Department, Government of Gujarat. The required activities were carried out effectively.

Visitors

The Center has been visited by a number of persons, who has remarked AAU a front-runner in IT activities out of all the Agricultural Universities of the Country.

Chapter-12

Dr. M. D. Patel Regional E-Library Blooming in to-e-era

Dr.M.D.Patel Regional e-Library is functioning independently with pride as "University Library"
The library is in possession of Foreign journals (58), Indian journals (182), and Bar-coded books (70403) for all the faculty of university. For on line access, the following database and e-journals were made available through aau. in web.

Particular	Features
CMIE Indian Harvest Databases	Agriculture, Harvest, Indian trade, Companies, Industry, Regional Data & others)
CAB Abstract (CD ROM) Database	Update of year 1973 to 2009 International Agricultural & Applied Sciences - 4 Million records.
J-Gate Online full text with customized all Foreign journals of AAU (No.58)	e-Journals & Database subject collection e-Journals No. 16700, Articles 22,051,776 - Basic Science - Engineering & Technology - Social Management Science - Agricultural & Biological Science - Biomedical Science - Library & Information Science
Science Direct – A Golden feather in AAU WEB. Multi disciplinary Subject collections – online full text	With back vol. from 1995 onward to Dec. 2008. e-Journals & Database Biochemistry, genetics and Molecular Biology - 222 Agricultural and Biological Science - 133 Immunology and Microbiology - 78 Pharmacology, Toxicology and Pharmaceutics. - 82

Under the national repository scheme of ICAR, NAIP, all the Doctoral Dissertations/ their abstracts & bibliography total of 111 (Agriculture, Dairy science & Veterinary faculty) were deposited in the form of soft as well as hard copy (Year 2000 on ward) to the Principal coordinator of ICAR, NAIP project at CCS, HAU, Hisar.

More over, the second library council meet was held on 26/10/07 under the chairmanship of Hon. Vice Chancellor, AAU, Anand and many important issues were discussed pertaining to development and modernization of library for the benefit of student, researchers & teachers of the university.

Seminar / Workshop attended:

Launching workshop of Krish Prabha- "Indian Agricultural Doctoral Dissertations Repository" ICAR, NAIP project was attended at CCS, HAU, Hisar during 25 to 26 March, 2008.

The Board of Management held the four meetings during the year and took important decisions as follows:

1. The Board of Management has decided to give special incentives to the employees for good performance. Under the scheme, the employees may be promoted out of seniority or will be given award/certificate. The Board has also adopted the government scheme for higher pay scale to those who complete 12 and 24 years in the non teaching cadres.
2. Under the HRD programmes the Board has decided that all the employees of the University should have computer literacy. Therefore a certificate Course on Computer Concepts (CCC) and the CCC examination have been made compulsory for all staff of the university. These examinations are made compulsory in the direct recruitment and in promotion also.
3. The Board of Management in its 12th meeting resolved to implement the reservation policy in all teaching posts.
4. The Board has approved the list of Chancellor & Vice Chancellor and other medals along with the degree for conferment at the convocation.
5. The Board has also approved the selection of Associate Professor in following disciplines.

Sr. No.	Name of post	Discipline	No. of Posts
1.	Associate Professor	Agronomy	
		Horticulture	
		Dairy Technology	
		Dairy Micro-biology	
		Veterinary Public Health	
		Livestock Production & Management	
		Veterinary Surgery	
		Veterinary Obstratics & Gynecology	

6. The Board has approved the new department of Seed Science & Technology with M.Sc. programmes in Seed Science & Technology from the academic year 2007-2008. Also approved was the PG programme leading the MBA in International Agri-business Management along with its regulations and course curriculum.
7. The Board has also approved the regulations of Medal/Gold medal and also revised regulations of 40 old Gold medals.

The Academic Council held the three meetings during the year and took important decisions as follows:

1. The Academic Council approved the list of eligible candidates for award of degree at the Fourth Annual Convocation and for the Chancellor, Vice Chancellor and other medals for recommendation of Board of Management. It also approved the common Academic Regulations for PG education in State Agricultural Universities as per the 3rd Deans Committee Report. The new regulations were implemented from the academic year 2007-08 and onwards. Also new Gold medal viz. Shradhha Dipakbhai Sheth Medal, Dr. M. N. Mannari Gold Medal, Smt. Ramaben B. Avasthi medal were also instituted.
2. The Academic Council also decided that B.Sc. (Dairy Tech.) / B.Tech. (Dairy Technology)/ B. Tech. (FPT) BE candidates to be considered eligible for M.Tech. degree in Dairy Science faculty in their respective disciplines.
3. The Academic Council approved the regulations and curriculum of two new PG diploma courses viz. Dairy and Food Quality Assurance and PG diploma in Agri. (IT).

October 3, 2009

Note submitted with respect:

The Draft Copy of the Chapter-11 of the Fourth Annual Report for the year 2007-2008 of Anand Agricultural University, Anand is prepared and submitted for approval please.

REGISTRAR

VICE CHANCELLOR