



Knowledge Consortium of Gujarat

Department of Education, Government of Gujarat

No/KCG/2016-17/ 2868

Date: 08/02/2017

To,
Hon'ble Vice Chancellors,
All Universities.

Sub: Regarding the 2016-17 Handbook of your All University.

Dear Sir,

Greetings from KCG,

KCG plans to collect and categorize the issues related to academic performance, management, infrastructure and Government schemes, so that the support can be offered wherever required and bring major qualitative changes in higher education by identifying the role of the State, university, college, management, alumni and other specific stakeholders, and time frame for completing the task.

This is the beginning of the year 2017; KCG comes up with HANDBOOK, in which is having all the necessary information of the each university as well as constituent colleges. KCG being a nodal agency of Department of Higher Education, Gujarat this data can be helpful for us in preparing various reports. We are sending you details of your university and a copy of handbook (2015-16) in softcopy. You are therefore informed to kindly update and send via mail on directorqa.kcg@gmail.com

Looking forward to have your co-operation and support.

With best regards,



Prof. A.U.Patel
Former Vice Chancellor (Guj. Uni.)
Advisor, KCG

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NAVSARI AGRICULTURAL UNIVERSITY

NAVSARI

Year of Establishment	2004
Accreditation Status	The NAU, Navsari is having ICAR accreditation and moreover, ICFRE, Dehradun accredited College of Forestry and ranked as A* in the year 2011-12. The Vanbandhu College of Veterinary Sciences and Animal Husbandry has also been recognized by Veterinary Council of India, New Delhi in the year 2014-15.
No. of affiliated college/ Constituent college	10
Number of Faculties	171
Number of Students	3350
Number of Academic Programmes	<p>Research Programme: University offers Doctoral Degree Programme in 31 subjects of various faculties including 10 in Agricultural, 5 in Horticultural, 3 in Forestry and 13 in Veterinary faculties.</p> <p>Post Graduate Programme: Masters Degree Programme in 45 subjects including 13 in Agricultural, 7 in Horticultural, 6 in Forestry, 16 in veterinary, 1 each in Agribusiness Management, ICT in Agriculture and Agricultural Engineering faculties.</p> <p>Undergraduate Programme: 07 viz. B.Sc. (Agriculture), B.Sc. (Horticulture), B.Sc. (Forestry), B.V.Sc. & A.H., B.Sc. (Agricultural Biotechnology), B.Tech. (Agricultural Engineering) and B.F.Sc.</p> <p>Polytechnic Programmes: The University offers three polytechnic programmes i.e. Polytechnic in Agriculture, Horticulture, Animal Husbandry and Agricultural Engineering</p>
Name of the Vice Chancellor	Dr. C.J. Dangaria ✓
Email	E-mail: vc@nau.in ✓
Contact Numbers	02637- 283869 ✓
Name of the Registrar	Dr. G.G. Radadia ✓
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Contact Numbers	02637-282823
Website (URL)	www.nau.in
Salient Features	<ol style="list-style-type: none"> 1. Generate middle level technicians in the field of agriculture, horticulture, livestock inspection, bakery and gardening. 2. Conduct training and demonstration to the officers of the line department / corporate/ co-operative /NGO's and other extension functionary. 3. Upscale farmers skill in modern agriculture and horticulture for green field employment. 4. Transfer of technology and farm Advisory services to the farmers through 5 KrishiVigyanKendras and Extension centres in South Gujarat by organizing various extension

- programmes and activities.
5. Involvement of scientists in Krushimahotsav and other collaborative programmes of Government and other organizations.
6. Single window system for providing information, inputs and advisory regarding agriculture and allied fields to the farmers.
7. In-service training to the officers of the line department, NGOs, Cooperatives and other extension functionaries.

Brief Profile:

The Navsari Zone of erstwhile GAU had attained the status of an independent State Agricultural University (SAU) with the promulgation of Gujarat Agricultural Universities Act 2004 on May 1, 2004 heralding formation of Navsari Agricultural University (NAU) with Navsari as headquarters. NAUs jurisdiction covers seven districts of South Gujarat viz., Narmada, Bharuch, Surat, Tapi, Navsari, Dangs and Valsad. The University has made remarkable growth in its tripartite activities i.e. Education, Research and Extension Education and simultaneously also made tremendous growth in infrastructure and Human Resource development.

MANDATE

1. Making provision for imparting higher and lower education in different faculties viz., Agriculture, Horticulture, Forestry, Veterinary Sciences and Animal Husbandry, Agribusiness Management, Agricultural Engineering and Technology and other fields of Agriculture and allied sciences like Food Processing Technology, Biotechnology etc.
2. Further advancement of education and location specific research in agriculture and allied sciences for all farmer's related problems.
3. Implement innovative extension education programmes for transfer of technology.
4. Such other academic and research programmes as the University may initiate from time to time based on the location specific need and demands including modern sciences.

MISSION

Attain excellence in education, relevance in research and outreach in extension education.

VISION

Transform Navsari Agricultural University into a Knowledge Power Centre by the year 2020

EDUCATIONAL ACHIEVEMENTS

Colleges/ Institutes: At the time of formation of NAU, Navsari on 1st May 2004, University had three colleges viz., N.M. College of Agriculture, Navsari (established in 1965), ASPEE College of Horticulture and College of Forestry (established in 1988). After formation of NAU, other colleges like Aspee Institute of Agri-Business Management (2007), Vanbandhu College of Veterinary Science and Animal Husbandry (2008) at Navsari, College of Agriculture at Bharuch and Waghai and Gujarat Agricultural Biotechnology Institute at Surat have been started during the year 2012. Further, the College of Agricultural Engineering at Dediapada (2013) and College of Fisheries Science (2015) were also established at NAU, Navsari. Thus the number of Colleges/Institutes increased from three (2004) to ten (2015). Meanwhile, University also upgraded existing four Diploma schools and Livestock Training Centre as Polytechnic colleges and also established two new Polytechnics and thus at present, there are seven Polytechnic colleges for middle level human resource development in agricultural and allied sciences to work at grass root level. During the year 2015-16, a total of

3350 students were on roll including 2000 undergraduates, 500 masters, 150 doctoral and 700 polytechnic students.

Degree Programmes:

Undergraduate: Presently, Navsari Agricultural University, Navsari offers Bachelor Degree Programme in seven faculties viz. B.Sc. (Agriculture), B.Sc. (Horticulture), B.Sc. (Forestry), B.V.Sc. & A.H., B.Sc. (Agricultural Biotechnology), B.Tech. (Agricultural Engineering) and B.F.Sc. The overall intake for seven Bachelors degree programme was 898 for the year 2015-16. The University doubled the UG degree programme from three (2004) to six (2015) and students admitted also increased from 66 (2004) to 460 (2015) and the rise in admitted students is seven folds.

Masters: NAU, Navsari offers Masters Degree Programme in 45 subjects including 13 in Agricultural, 7 in Horticultural, 6 in Forestry, 16 in veterinary, 1 each in Agribusiness Management, ICT in Agriculture and Agricultural Engineering faculties. The total intake for these masters degree programme was 249 for the academic year 2015-16. The masters degree programme increased from 14 (2004) to 45 (2015) and simultaneously students admitted to master degree programme also increased from 81 (2004) to 214 (2015) and the rise in admitted students to master degree programme is 264%.

Doctorate: University offers Doctoral Degree Programme in 31 subjects of various faculties including 10 in Agricultural, 5 in Horticultural, 3 in Forestry and 13 in Veterinary faculties. The intake for doctoral degree programme was 57 for the year 2015-16. The doctoral degree programme increased from 7 (2004) to 31 (2015) and simultaneously students admitted to doctoral degree programme also increased from 30 (2004) to 53 (2015).

Important Instrument/Equipments: LCMS/ MS, GCMS, HPLC, Q-PCR, DNA Sequencer, AAS, FTNIR, NMR, Super Critical Fluid Extraction, XRF, N2 Analyzer, Biology Gen 3 Micro-station, Gas Chromatography System, Photosynthesis Analysis System, NOX Analyzer, Ozone Analyzer, Automatic Microtome, Gel-doc, UV Spectrophotometer, Phase Contrast, Fluorescence, Stereo-zoom, Dark field Microscopes, Fully Automatic Biochemical and Blood Analyzer, Cryostat, Nano-drop, X-Ray Machine, Sonography Machine, C-Arm, Endoscope.

Polytechnic Courses: The University offers three polytechnic programmes i.e. Polytechnic in Agriculture, Horticulture, Animal Husbandry and Agricultural Engineering and admits 35 students every year in seven polytechnic colleges. At present there are three colleges of Polytechnic in Agriculture, two colleges of Polytechnic in Horticulture and one each college of Polytechnic in Animal Husbandry and Polytechnic in Agricultural Engineering.

Awards: NAU, Navsari has received four prestigious awards viz., (1) Mahindra Samridhi India Agri Award-2014, (2) ABP News National Education Award- 2015 for outstanding contribution to education on 23 July, 2015. (3) Federation of Gujarat Industries (FGI), Vadodara conferred two awards to NAU, Navsari for Best Innovative on "Banana Pseudostem Value Chain Project" during 2015 and (4) "NAUROJI- Stone-house trap: a saga of triumph over fruit flies" during 2012 (5) "Certificate of Recognition" for Kisan App developed by the University for providing of practices on mobile in Gujarati to the farmers by mBillionth Award South Asia 2015 (6) Harit Ratna Award of the year 2015 by NAAS, ICAR, New Delhi and (7) 24th Ujas Magazine Award-2016.

Scientific Awards: During last five years the scientists/ academia of NAU, Navsari have received 107 scientific awards for presentations of scientific papers during National Level Seminars/ symposia

Publications: The faculty members of NAU, Navsari have published 90 research papers in International Journals, 822 research papers in National Journals and also contributed 83 chapters in books or books during last 5 years.

HRD: During last 5 years, a total of 1381 faculty members have been deputed for attending national level seminars/ symposia and training programmes. Total of 945 faculty members were deputed for attending

national seminars/symposia, 158 for winter/summer Schools and 278 for short term trainings organized across the country.

Faculty Strength: The faculty strength was 171 including 7 Professors, 55 Associate Professors and 109 Assistant Professor during the year 2004-05. At present, faculty strength is 447 including 41 Professors, 107 Associate Professors and 299 Assistant Professor and the rise in faculty strength is noted as 261%.

Students Achievements: UG and PG students of NAU, Navsari excelled in various national level competitive examinations. During last 5 years, 148 students qualified ICAR-JRF, 8 students qualified ICAR-SRF, in all 132 students qualified National Eligibility Test (NET) conducted by ASRB, New Delhi. Besides, 18 students also received fellowships like INSPIRE, MANAGE etc. for undertaking higher studies in agricultural and allied fields.

Experiential Learning Units: Presently, eight experiential learning units are in operation in the N.M. College of Agriculture, Aspee College of Horticulture and Forestry of NAU and Vanbandhu College of Veterinary Science and Animal Husbandry. ELUs provide an opportunity to "Earn while Learn" and hands on training to UG students.

University Library: There are total 76781 documents available in the library including 58947 books, 335 e-books, 10327 periodicals, subscribed current periodical (Indian 148, Foreign 32). Library also subscribes several informative Indian and foreign online journals (CAB, AGRIS, AGRICOLA, CeRA, J-Gate and IBID). Further, it has collection of 5090 reports, 2082 theses and 455 educational CDs and DVDs during the year 2015.

Placement cell: A placement cell has been established for proper placement of the students in various reputed organization. More than 500 students have been properly placed in various institutions with the help of placement cell over last five years. This cell arranges campus interviews where reputed companies are invited for offering placements to students of NAU, Navsari.

Amenities: In the main campus of the University, other facilities available are Auditorium, Sports Complex, Primary Health Centre; Air conditioned Central Examination Hall, Guest House, International Hostel, Farmers' hostel, Bank, Post office and Shopping centre.

RESEARCH:

NAU has a strong research base to cater the needs of the farmers of South Gujarat. The primary goal of research in the university is to generate technologies for augmenting agricultural productivity and farm returns synchronizing with the state's objectives, socio-economic and cultural needs of the farming community on a sustainable basis. The University mainly undertakes research on the crops grown in South Gujarat viz., cotton, paddy, sugarcane, pulses sorghum, hill millets, niger, soybean, castor and horticultural crops like, mango, banana, sapota, papaya, cashew nut and vegetable crops.

Apart from this, University is also working on soil and water management, organic farming, bio-fertilizers and bio-pesticides, post harvest technology, value addition, Agroforestry, fisheries, animal husbandry, protected cultivation, climate change and agriculture, soil health, forage crops, food quality and food testing and nutritional security.

NAU has various research centres at different locations including some of them in main campus of Navsari. NAU has very good research set-up in terms of two each of main, zonal and regional research stations and nine verification and testing centres to accomplish area specific need based research activities in South Gujarat. These centres are spread over 897.26 ha area including 400.62 ha area at main campus of Navsari.

Research Projects: NAU, Navsari receives funds from Government of Gujarat, ICAR, New Delhi, Government of India and other private organizations for undertaking research for fulfilling the needs of farmers of South Gujarat. At present, there are 288 research schemes going on in NAU, Navsari including 165 schemes funded

by Government of Gujarat, 27 schemes funded by ICAR, New Delhi, 6 schemes funded by Government of India and 90 schemes financed by private companies and other agencies.

Patents: The University has successfully developed synthetic leather, cellulose powder, high quality paper, fibres, and edibles like candy, pickle, chips and RTS from waste banana pseudostem. The University has patented two technologies viz., "Preparation of candy from central core of banana pseudostem" and "Preparation of Novel Organic fertilizer from banana pseudostem".

Research Facilities: NAU, Navsari has very well developed research facilities like Bio-fertilizer and Bio-pesticide Unit, Banana Pseudostem Value Addition Unit, Soil and Water Management Unit, Food Quality Testing Laboratory, Central Instrumentation Laboratory, Post-Harvest Technology Laboratory, Tissue Culture Laboratory, Organic Farm, Horticultural Farm, Protected Cultivation of Vegetables and Flowers, Nurseries for horticultural and medicinal plants, Biotechnology Laboratory and latest Diagnostic and treatment facilities for animals. These facilities provide an opportunity to undertake quality research in agricultural and allied sciences. Moreover, NAU, Navsari also imparts farm skill development trainings to farm women for inculcating entrepreneurship and thereby to strengthen women empowerment.

Technologies Developed: After attaining the status of an independent University in the year 2004, NAU has developed a total of 494 technologies for the benefit of farmers and scientific communities. Technologies have been developed in the field of crop improvement (32), natural resource management (206), horticulture and agro-forestry (89), plant protection (110), agriculture engineering (22), animal health and fisheries (15), animal production (17), basic sciences (12) and social sciences (6). Over last 10 years, NAU, Navsari has developed GAP and technologies related to INM, IPM, IDM, IWM, Organic farming practices and IFS of various crops under cultivation in South Gujarat for benefitting farmers.

New Varieties: The NAU has released 29 high yielding good quality varieties of various crops including 7 varieties of cotton, 5 each varieties of rice and sugarcane, 3 varieties of nagli and 1 each variety of sorghum, moong, Indian bean, pigeon pea, vari, turmeric and little gourd, wal and pointed gourd. Moreover, 1 each variety of Pigeon pea-Vaishali, Sorghum- CSV-21F and Rice- NAUR-1 (Aerobic condition) have been endorsed by the University. Further, one each variety of pigeon pea (Vaishali-2) and coriander (COR-29) have been endorsed.

Out of above varieties, few varieties worth mentioning like Gujarat Sugarcane-5 with 140.00 t/ha productivity and other qualities like high sugar content, good ratooning ability in addition to wilt and red rot resistance. In cotton, two Bt cotton varieties viz., G.Cot.Hy.-6 (BG II) and G.Cot.Hy.-8 (BG II) have been released as first Bt hybrid in public sector and recorded productivity is 1981 kg/ha and 2231 kg/ha, respectively. These hybrids were free from spodoptera, heliothis and pink ball worm damage. In rice, Gujarat Navsari Rice - 4 (GNR - 4) a Bio-fortified fine grain rice with characteristics like dwarf statured, fine grained culture possessing red colour kernel has also been released.

The scientists of NAU have been working for evolving and optimizing technologies in relation to MIS with and without mulching, nutrient management based on soil health cards, schedule of nutrient supplement to enhance productivity of various crops grown in South Gujarat. Thus, NAU has recommended as many as 206 packages of practices for soil, water and nutrient management. Some of the important technologies like drip irrigation and nutrient management for fruit crops, grain crops and vegetables; drip irrigation, mulching and fertigation technology for banana and other crops, drainage technologies for prevention of soil erosion and water logging have been recommended by NAU. Other technologies for the benefit of farmers have been developed viz., Intercropping of banana and turmeric in oil palm, area based cropping sequences for round the year farming, planting time and schedule of nutrient management of various crops, green manuring, use of bio-fertilizers for seed and soil treatment, weed management, land configuration and utilization of banana pseudostem sap for substitution of chemical fertilizers in various crops.

Scientists of NAU developed technologies for minimizing losses caused by various diseases and pest in various crops. Based on feedback of farmers, specific IPM technologies have been developed and propagated for control of various crop diseases as well pest incidence to enhance productivity. NAU has recommended 110 technologies of IPM since 2004. Some important technologies like Methyl uginol and sex pheromone

traps for control of fruit flies in mango, sapota and vegetable crops; black Tulsi extract baited trap for chicku bud borer, effective control of white fly in okra, brinjal and cotton; sucking pest and bollworm in cotton, leaf blight and stem borer in paddy, stem borer, other borers, red rot and wilt in sugarcane, Culture of Mulberry worm in castor crop have been developed for the benefit of farmers of South Gujarat.

Besides, 89 technologies for improvement in the field of vegetables, fruits, flowers, medicinal and aromatic plants, forest and plantation trees have also been developed for the benefit of farmers of South Gujarat. Technologies worth mentioning are high density planting in mango, precision farming of banana, papaya, and brinjal; organic farming of fruits, vegetables and tuber crops; paired row planting in banana, nutrient management of banana, papaya and other vegetables; early flowering of mango, canopy management in mango, de-sucking of banana, post shooting management of banana, pitcher method of irrigation in mango and rejuvenation of mango. NAU, Navsari has also developed technologies of bee keeping for additional income of farmers. Further, technologies of value addition for enhancing the income of farmers like value addition of banana pseudostem, preservation of fresh mango pulp, value addition of fruits like banana, sapota, guava and flower crops and enhancement of shelf life of banana and mango have been developed.

Seed Production: Moreover, NAU Navsari also produces quality seeds for farmers of South Gujarat. During last 8 years, the University has produced 35334.75 quintals of quality seeds including nucleus, breeder, foundation, certified and truthfully labelled seeds. University also produced 67.3 lakhs of saplings and 19.18 lakh issue culture plantlets during last eight years under Mega Seed Project.

EXTENSION EDUCATION

Navsari Agricultural University is a pioneer institute in the South Gujarat region for transferring the agricultural technologies to the farmers to increase their agricultural production. The Directorate of Extension Education is actively involved in transfer of latest technologies to the farmer's field and giving its feed back to the research workers. The Directorate of Extension Education (DEE) has started functioning in 1972 during erstwhile Gujarat Agricultural University. The Directorate undertakes extension activities through 5 KVKs located at Navsari, Surat, Waghai, Vyara and Dediapada, Training Units (Sardar Smruti Kendra & Training and Visit System) at head quarter, ATIC, extension departments at different colleges along with the State Agricultural Management and Extension Training Institute (SAMETI), Gujarat assisting in extension reform programme.

Besides, there are various training centres viz., Advance Training Centre for Soil and Water Management and Demonstration-cum-Training centre for Inland Fisheries at Navsari, Vegetable and Fruit Demonstration scheme for Tribal women at Paria and Tribal Women Training Centre at Dediapada for providing skill development trainings and also to provide advisory services. NAU, Navsari also offers 16 short term Agro ITI courses for upliftment of rural youth by enhancing skills in farmer youths for scientific farming. The University established an Agricultural Educatorium (Agricultural Museum) at Navsari for effective exhibition of latest technologies related to agricultural and allied sciences. Kiosk facility is also available in the Museum with latest information in Gujarati language for farmers.

NAU, Navsari has been actively participating in organizing mega functions like KrushiMahotsav every year since 2005. During KrushiMahotsav various extension activities are organized every year for disseminating latest agricultural technologies directly to the farmers. Over a period of last 10 years, 236 farmers' day/farmers Shibir and 151 seminars have been organized during KrishiMahotsav in South Gujarat for benefitting more than 14000 farmers.

During last 5 years, NAU, Navsari has organized more than 19000 extension activities/programme and benefitted 5.95 lakhs farmers of South Gujarat. University organized 11701 FLDs, 922 On Campus Training, 402 Field Visits, 361 Off Campus Training, 206 Seminars/Workshops for Farmers, 189 Field Days, 177 Farmers' Shibir, 147 Veterinary Clinical Camps, 125 Video Film shows and 62 On Farm trials. Besides, University also participated in 63 Radio/TV programmes and released 534 literature and press notes in vernacular language for mass communications.

INFORMATION TECHNOLOGY

Department of Information Technology is playing vital role in process automation, swift communication and paperless administration. Department of IT is serving their services in following areas.

- NAU is having its own website as www.nau.in, which includes various aspects and activities of University like Administration, Education, Research, Extension Education, Library, Information for farmers, important announcements/events, tenders, advertisements, publications etc. The website is regularly updated in all respects and used as medium for communication amongst faculty, students, alumni and farmers. Besides, it also provides platform for processing annual rate contract of university in the online mode.
- NAU has implemented ERP system which results fastest execution in the area of administrative process like financial accounting, HRM, Payroll, Budget and Grant. For academic purpose, a customized web based application is developed which helps automation of examination process which includes online student enrolment, exam declaration, marks entry, result preparation, student's academic records keeping and bar coding of examination reports.