

EXTENSION EDUCATION

Annual Report

Year : 2017-18



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NAVSARI AGRICULTURAL UNIVERSITY

**Directorate of Extension Education
Navsari Agricultural University
Navsari-396 450 (Gujarat)**

Phone: 02637-282026, Fax : 02637-282706,
E-mail: dee@nau.in, Website: www.nau.in

EXTENSION EDUCATION

• ANNUAL REPORT 2017-2018 •

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Directorate of Extension Education
Navsari Agricultural University
Navsari-396450

ANNUAL REPORT 2017-18

1. INTRODUCTION

Navsari Agricultural University is a pioneer institute in the South Gujarat region for transferring the agricultural technology 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 has started functioning in 1972 during erstwhile Gujarat Agricultural University. Later on, as a consequence of the separation of Gujarat Agricultural University into four new universities in the State, Navsari Agricultural University (NAU) has come into existence on May 1, 2004. NAU encompasses seven districts, viz., Valsad, Navsari, Dangs, Surat, Tapi, Bharuch and Narmada of South Gujarat.

Geographically, the jurisdiction is stretched over 170 km. seashore on the western side and hilly terrain with dense forest on the eastern side enclosed with high fertile land and ample natural resources. Thus, presently the NAU serves to 4 districts of hills and 3 districts of plains in South Gujarat region. With varied geographical, biophysical and socio economic conditions of the region, the work of validation of newly developed technologies and transfer of technology has become very challenging. The Directorate undertakes extension activities through 5 KVKs (working at grass root level), 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.

2. VISION

To make the extension system '**Farmer-Driven**' and '**Market-led**' for augmenting production, productivity and income of the farming community.

3. MISSION

1. To bridge up the agricultural technology gap at grass root level.
2. To educate rural people to attain/participate in development.
3. To create awareness about health, hygiene, environment and bio-diversity conservation for sustainable development.
4. To link farmer with newly emerging globalized world by providing them information and guidance.
5. To develop a system of effective research and extension linkages.
6. To generate employment in the field of agriculture and allied disciplines.
7. To integrate IT in rural system for their development.

4. MANDATES

1. Facilitating planning, implementation, execution and monitoring of extension programmes carried out in South Gujarat region.
2. Emphasizing participatory technology generation, dissemination and utilization.
3. Offering training and field services to public, private, NGOs and corporate sectors.
4. Enhancing the agricultural vocations in the region.
5. Promoting the 'Market-led Extension'.
6. Organizing farm advisory services at the doorsteps of the farmers.
7. Encouraging women to work in groups at the grass root level.
8. Networking of extension and development systems through ICT-mode.

5. FUNCTIONS AND ACTIVITIES

1. Facilitating planning, coordinating, guiding, executing, implementing, monitoring, supervising, evaluating and reporting the various extension programmes carried out in South Gujarat region.
2. Liaison with State Government, Central Government, ICAR, District Development Departments, SAUs, Cooperatives, NGOs etc. for carrying out NAU Extension Programmes.
3. To assist and complement to state government department of agriculture, public sector and voluntary organizations in effective management of extension education systems.
4. To transfer the innovative technology through Krishi Vigyan Kendras.
5. To organize training programmes at headquarters.
6. To serve as a single window system for providing all information regarding agriculture, providing inputs like seeds & planting material through Agricultural Technology Information Center (ATIC).
7. To act as mediator for researchers by updating them with field problems of farmers and to help them in developing "Demand Driven Technology."
8. To publish extension literature and its distribution among farmers & extension functionaries.
9. To handle various collaborative extension projects for transfer of technology.

6. DETAILS OF TECHNICAL STAFF WORKING UNDER EXTENSION UNIT

S.N.	Designation	No. of Posts		
		Sanctioned	Filled	Vacant
1	Director of Extension Education	1	1	0
2	Training Associate	1	1	0
3	Assistant Extension Educationist	4	4	0
4	Agricultural Officer	3	2	1
5	Agriculture Supervisor	1	1	0
6	Agricultural Assistant	2	2	0
	Total	12	11	1

7. TRANSFER OF TECHNOLOGY (ToT) CENTRES & EXTENSION SCHEMES

7.1 ToT Centres : NAU Transfers agricultural technology to the farmers through ToT Centres..

Type	Name of Centre	Location
▶ Training Centres for Farmers/Farm Women /Rural Youths	● Sardar Smruti Kendra	Navsari
	● Advance Training Centre for Soil and Water Management	Navsari
	● Demonstration-cum-Training Centre for Inland Fisheries	Navsari
	● Vegetable and Fruit Demonstration Scheme for Tribal Upliftment	Pariya
	● Tribal Women Training Centre	Dediyapada
	● Extension Wing	Navsari
▶ Training Centres for Extension Workers	● Training and Visit System Sardar Smruti Kendra	Navsari
▶ Advisory Services	● Farm Advisory Services	Navsari
	● Agricultural Technology Information Centre (ATIC)	Navsari
	● Centre of Agricultural Extension Information System	Navsari
	● University Educational Museum	Navsari
	● Farm Publication	All Centres
▶ 1. On-farm testing 2. Frontline demonstrations 3. Trainings to farmers 4. Resource and knowledge centre of the district.	● Krushi Vigyan Kendra	Vyara, Waghai, Navsari, Surat, Dediyapada



Agriculture Educational Museum (Educatorium)



Agricultural Technology Information Centre (ATIC)

7.2 Vocational Certificate Courses for Rural Youth & Women:

S.N.	Name and location of the courses	Type	Duration	Intake capacity
1.	School of Baking: Navsari	Certificate	20 Weeks	16+16
2.	Landscaping and Gardening training centre: Navsari	Certificate	6 Months	20
3.	Nature and Wild life photography: Navsari	Certificate	1 Year (Weekly)	20
4.	Plant tissue culture training centre for women: Surat	Certificate	6 Months	10
5.	Turf grass management: Navsari	Certificate	6 Months	20
6.	Agro ITI: Navsari	Certificate	1 to 3 Months	20
7.	Certificate in Agricultural Extension Services for Input dealers: Navsari	Certificate	6 Months (Weekly)	40

7.3 Short duration Agro ITI courses for Skill Development in Rural Youths:

1. Seed production
2. Organic farming
3. Kitchen gardening
4. Farm management
5. Dairy farming
6. Flower dehydration
7. Tissue culture
8. Poultry farming
9. Gender friendly equipments for farm women
10. Farm power machinery
11. Bio-fertilizers & Bio-pesticides
12. Soil-Water-Plant analysis
13. Productive & beneficial insects
14. Commercial Mushroom production technology
15. Artificial insemination
16. Micro irrigation system

7.4 Ongoing Extension Schemes: *Extension activities through 33 Schemes*

S.N.	Plan Schemes : Development Charges (12)
1	Strengthening of the Directorate of Extension Education, Navsari
2	Upgrading of the existing Sardar Smruti Kendra, Navsari
3	Establishment of Centre for Agril. Extension Information System, Navsari
4	Agricultural Technology Information Centre (ATIC), Navsari
5	Establishment of Agro ITI Centre for Agricultural & Horticulture, Navsari
6	Establishment of University Educational Museum, Navsari
7	Testing of University technologies on farmers' fields through adaptive trials, Navsari
8	Demonstration-cum-Training Centre for Inland Fisheries, Navsari
9	Vegetable & Fruit Crops Demon. Scheme for Tribal Upliftment, Paria
10	Strengthening of Soil and Water Management Training Centre, Navsari
11	Strengthening of Tribal Women Training Centre, Dediypada
12	Strengthening of Extension Wing, Navsari
S.N.	Non-Plan Schemes : Standing charges (06)
1	Directorate of Extension Education
2	Establishment of Sardar Smruti Kendra, Navsari
3	Establishment of Farm Advisory Services, Navsari
4	Establishment of School of Baking, Navsari
5	Upgrading of School of Baking, Navsari
6	Bal Mandir, Navsari
S.N.	Other Agency (08)
1	Training & Visit System, Navsari (Non-Plan) , Navsari
2	Training & Visit System, Navsari (Plan) , Navsari
3	Soil Health Card Training, Navsari
4	Green/Net house Farmers' Training, Navsari
5	Diploma in Agricultural Extension Services for Input Dealers, Navsari
6	Certificate in Agricultural Extension Services for Input Dealers, Navsari
7	Krushu Mahotsav Programme, Navsari
8	Krushu Library, Navsari
S.N.	ICAR (07)
1	Krushu Vigyan Kendra, NAU, Vyara, Dist.-Tapi
2	Krushu Vigyan Kendra, NAU, Navsari
3	Krushu Vigyan Kendra, NAU, Dediypada, Dist.-Narmada
4	Krushu Vigyan Kendra, NAU, Surat
5	Krushu Vigyan Kendra, NAU, Waghahi, Dist.-Dangs
6	Providing support to DEE for knowledge empowerment, technological backstopping, HRD and overseeing of KVKs, Navsari
7	Farmer FIRST Programme

8. SALIENT EXTENSION ACTIVITIES & ACHIEVEMENTS

8.1 Extension activities carried out: *for the dissemination of new technology to farmers*

S. N.	Extension Programmes	No. of activities	No. of Beneficiaries			
			Farmers	Women	Youths	Total
1.	On campus Farmers' Training programme	283	6158	4215	1499	11872
2.	Off campus Farmers' Training programme	143	3125	2747	614	6486
3.	Training for Extension functionaries	16	573	56	38	667
4.	Seminar / Workshop / Symposium for Farmers	73	1846	1923	316	4085
5.	Seminar / Workshop / Interface / Symposium for Extension Officers	12	287	32	42	361
6.	Farmers' day / Field day	81	1792	1618	137	3547
7.	Agril. Fair / Agril. Exhibition	41	31487	36186	3056	70729
8.	Farmer shibir / Farm women shibir	71	1709	3372	280	5361
9.	Farmers' meeting/Krushigosthi	69	3041	3191	332	6564
10.	Front Line Demonstrations (KVKs)	793*	3275	397	417	4089
11.	Adaptive trials (NAU technologies)	994*	3504	462	498	4464
12.	On Farm Trials	26	201	17	31	249
13.	AICRP Demonstrations	122*	532	42	84	658
14.	Demonstrations (Research Stations)	72*	161	13	17	191
15.	Educational Tour / Exposure visit	34	619	583	111	1313
16.	Diagnostic team visit on farmers' field	29	136	7	9	152
17.	Veterinary Clinic Camp/ Animal Husbandry Shibir	26	662	518	198	1378
18.	Text SMS sent on farmers' mobile	407	146279	14428	17535	178242
19.	Telephonic guidance	2374	2023	147	204	2374
20.	Press-notes / Articles in vernacular Newspapers	186	Mass	Mass	Mass	Mass
21.	Radio & TV talk	50	Mass	Mass	Mass	Mass

22.	Farm Literature Publication	190	42156	31576	5588	79320
23.	Visitors (dignitaries, officers, farmers, students)	838	8423	7329	1584	17336

* Area in Ha.

8.2 Seminar/Symposium/Interface organized for farmers: *for capacity building of farmers*

S. N.	Subject/Topic	No. of Programm	No. of Beneficiaries
1	Paddy Crop	5	359
2	Sugarcane Crop	3	237
3	Cotton Crop	3	175
4	Fruit Crops	5	273
5	Flowers	4	164
6	Vegetable Crops	4	251
7	Pulse Crops	4	227
8	Nursery	2	91
9	Integrated Pest Management	5	307
10	Pre Harvest Technology	3	129
11	Post Harvest Technology	5	374
12	Green House Technology	3	138
13	Soil and Water Management	3	159
14	Agriculture farm Machinery	3	142
15	Animal Husbandry	5	273
16	Value Addition	5	247
17	Seed Production	4	196
18	Scientific storage of grain	3	163
19	Fishery and its Marketing	3	138
20	Prawn/Shrimp cultivation and its Marketing	1	42
Total		73	4085

8.3 Front-line Demonstrations :

The main objective of Front-Line Demonstrations is to demonstrate newly released crop production and protection technologies and its management practices in the farmers' field under different agro-climatic regions and farming situations. While demonstrating the technologies in the farmers' field, the scientist studies the factors contributing higher crop production; field constrains of production and thereby generates production data and feedback information. Total 4089 FLDs in 793 ha. and 849 other demonstrations in 194 ha. were conducted on farmers' fields under the close supervision of the NAU Scientists.

SN	Crop	No.of Demon.
1	Paddy	1479
2	Sugarcane	184
3	Pigeon pea	528
4	Gram	423
5	Green gram	258
6	Nagli	114
7	Sweet corn	99
8	Okra	291
9	Groundnut	215
10	Maize	182
11	Mango	158
12	Sapota	49
13	Cashew	62
14	Turmeric	47
Total		4089



FLD on new variety of turmeric



Demonstration on soybean



Demonstration on paddy

8.4 Adaptive Trials on University Technologies:

Adaptive or minikit trial is a method of determining the suitability or otherwise a new practice in the farmers' situations. This may be regarded as the on-farm participatory technology development (PTD) process which requires the farmers' choice and opinion about the practice as important. The main purpose of these trials was to test the new and promising practice under the local resources, constraints and abilities of the farmers.

During the year 2017-18, total 4464 adaptive trials were conducted on the farmer's fields through five KVKs in South Gujarat on newly released varieties of paddy, Ragi, gram, green gram, pigeon pea, sorghum, groundnut, Soybean, Castor, Indian bean and mango. Moreover, the trials on fruit fly trap, methyl euginol, fodder sorghum, mulching, bio-fertilizer, novel organic liquid fertilizer, kitchen garden, IPM, IPDM, etc. were also conducted.



Adaptive trial on french bean



Adaptive trial on Finger millet GNN 6

8.5 ATMA Convergence Quarterly Meetings: *An interface between ATMA, KVKs & NAU Scientists*

The Directorate of Extension Education convened the "ATMA Convergence" quarterly meetings under the Chairmanship of Hon. Vice-Chancellor of NAU for facilitating an interface between KVKs, PDs (ATMA), DAOs and Scientists of NAU. The details of the meetings are given in the following Table.

S.N.	Quarter	Date of Meeting	No. of Officers Participated
1.	January-March 2017	10-04-2017	20
2.	April-June 2017	07-07-2017	28
3.	July-September 2017	07-10-2017	21
4.	October-December 2017	03-01-2018	24



Dr. C.J. Dangaria, Hon. Vice Chancellor, NAU, Dr. G.R. Patel, DEE, DAOs, PD ATMA and staff of KVKs of South Gujarat in the quarterly convergence meetings

8.6 Zonal Research and Extension Action Committee (ZREAC) Meetings:

Directorate of Extension Education organized two ZREAC Meetings during onset of *kharif* and *rabi* seasons to review the work done in last season and to make the planning for forthcoming season in convergence mode. District wise agriculture status and feedback pertaining to problems faced by the farmers in adoption of new technology at grass root level were presented by the concerned District Officer. During the year 2017-18, the 27th and 28th ZREAC meetings were convened on 07-10-2017 and 08-02-2018, respectively.



Dr. C.J. Dangaria, Hon. Vice Chancellor, NAU addressing the house



Officers of NAU, Line Department and scientists of NAU in the meeting

8.7 Scientific Advisory Committee (SAC) Meetings of KVKs:

In order to review the activities carried out by KVKs and to seek the suggestions for better planning and implementation of activities for next year, the meetings of Scientific Advisory Committee of five KVKs run under NAU were organized as under:

S.N.	Name of KVK	Date of SAC
1	KVK Dediapada (Narmada)	09-03-2018
2	KVK Vyara (Tapi)	12-03-2018
3	KVK Waghai (Dangs)	12-03-2018
4	KVK Navsari (Navsari)	19-03-2018
5	KVK Surat (Surat)	19-03-2018



Dr. C.J. Dangaria, Hon. Vice Chancellor, NAU, Dr. G.R. Patel, DEE and members during SAC meetings

8.8 Extension Education Council meeting

Extension Education Council is a statutory body consisting of the Vice-Chancellor as its chairman and Director of Extension, Director of Research, Deans, University Officers, Heads of the Line Departments, Extension Educationist, Innovative Farmers and Experts in the field of extension as the members. The council meets at least once in a year to review the work, discuss and deliberate the policy issues on extension system and formulate the technical programme for different units of the Directorate of Extension Education. During the year, the ninth meeting of Extension Education Council was held on 29th September, 2017 at Navsari under the chairmanship of Dr. C.J. Dangaria, Hon'ble Vice Chancellor, NAU.



Dr. C.J. Dangaria, Hon.VC, Dr. G.R. Patel, Director of Extension Education and other members in the meeting

8.9 Review meeting of KVKs

Three Review meetings of Senior Scientist & Head and Scientists and one Annual Action Plan meeting of KVKs under NAU jurisdiction were organized during the year. During the meetings, the activities carried out against target for the month and planning for the next month was discussed in detail.



Dr. C.J. Dangaria, Hon.VC, NAU and Dr. G.R. Patel, DEE, NAU interacting with the KVK scientists at Navsari

8.10 Visits made by DEE to KVK

Director of Extension Education, NAU visited KVKs under NAU jurisdiction on different occasions and programmes. During the KVK farm visit and field visits, DEE discussed with KVK scientists about the activities carried out and he made suggestions for improvement of functioning of KVKs.



Dr. C.J. Dangaria, Hon.VC, NAU and Dr. G.R. Patel, DEE, NAU interacting with KVK scientists



Dr. C.J. Dangaria, Hon.VC, NAU and Dr. G.R. Patel, DEE, NAU interacting with KVK scientists

8.11 Agricultural Educatorium (University Educational Museum)

Agricultural Educatorium situated at Navsari is a one of the best agricultural Museums in India providing basics of agriculture to all walks of people. During the period, total 13986 visitors (farmers, dignitaries, scientists, students *etc.*) had visited the museum and got basic knowledge and information related to agriculture and allied subjects through various display media viz., storytelling board, kiosks, press button board, diorama, murals, show case, models, specimens etc.



Foreign team visiting the Agricultural Educatorium



Farm women visited the Agricultural Educatorium

8.12 Campus Visit and Comfortable Homely Stay of the Farmers

Large numbers of farmers from Gujarat, Maharashtra and Rajasthan States are visiting NAU Navsari campus round the year to see and learn about new technologies developed and demonstrated on NAU farms. During the year, total 139 farm visits were conducted and 7248 farmers had visited the SSK and 4848 visitors had visited farms at NAU Campus. Total 5298 farmers and other visitors stayed at Kisanghar-farmers' hostel (4697 from Gujarat state and 601 from other states).

8.12.1 Campus Visit



Farmers visit to different units at Navsari campus

8.12.2 Amenities in Kisan hostel



Clean and Comfortable Kitchen & Rooms in Kisan Hostels

8.13 Certificate courses on Bakery

Bakery Unit, DEE, NAU, Navsari organized 20-week duration two certificate course on bakery during the year. Visit of different bakery units at Navari, Bardoli and Surat was organized as a part of the course. Total 27 students have participated in the training programme. Another six skill oriented training programme of one week duration on baking were organized. Total 31 youth and farm women had participated in the one week training programmes.



Trainees doing practical on bakery product making during different courses

8.14 Workshop-cum-Training on CFLDs on Pulses and Oilseeds

Workshop-cum-Training on CFLDs on Pulses and Oilseeds for KVKs of Gujarat was jointly organized by ICAR-ATARI, Zone-VIII, Pune and Directorate of Extension Education, during 29-31st January, 2018 at NAU, Navsari. The programme was chaired by Dr. C.J. Dangaria, Hon. Vice Chancellor, NAU, Navsari in the solemn presence of Dr. Lakhan Singh, Director ICAR-ATARI, Zone-VIII Pune and Dr. G.R. Patel, DEE, NAU, Navsari. Nodal officers for CFLDs from 30 KVKs of Gujarat were participated in the programme. The review of Farmer FIRST and ARYA programme was also done.



Dr. C.J. Dangaria, Hon.VC, NAU, Dr. Lakhan Singh, Director ICAR-ATARI and other dignitaries during the inaugural function



Presentation by the Scientists and Nodal officers from KVKs of Gujarat

9. NEW INITIATIVES IN EXTENSION PROGRAMMES

9.1 "Diploma course" for Input dealers "Diploma in AESID"

NAU has completed the fourth batch of one year duration Diploma course "Agricultural Extension Services for Input Dealers" and the Valedictory programme was organized on 16 June, 2017 under the Chairmanship of Dr. C.J. Dangaria, Hon. Vice Chancellor, NAU in the presence of Dr. G.R. Patel, Director of Extension Education, NAU, Navsari. Total 40 input dealers from South Gujarat have received Certificate during the programme.



Dr. C.J. Dangaria, Hon. Vice Chancellor addressing the participants during the valedictory function



Hon. Vice Chancellor distributing certificate to the input dealers

9.2 "Certificate course" for Input dealers

Valedictory function of second “Certificate in Agricultural Extension Services for Input Dealers” of six months duration was organized on November 8, 2017 under the Chairmanship of Dr. C.J. Dangaria, Hon’ble Vice Chancellor of NAU in the presence of Dr. G.R. Patel, Director of Extension Education, NAU, Navsari. Total 40 input dealers received the certificate under the second programme conducted at ATIC, NAU, Navsari.



Dr. C.J. Dangaria, Hon.VC distributing certificates to the participants in the presence of Dr. G.R. Patel, DEE



Participants in certificate course for input dealers

9.3 Workshop on “Communication Skills for Effective Extension Services” for KVK and NAU Scientists:

Off campus workshop on “Communication Skills for Effective Extension Services” was jointly organized by Extension Education Institute, Anand and Directorate of Extension Education, NAU at Navsari during July 11-13, 2017 (3 days). Dr. C.J. Dangaria, Hon'ble Vice Chancellor, NAU has inaugurated the workshop, in the presence of Dr. A.C. Patel, Course Director, EEI, Anand. Total, 34 scientists from 7 KVKs and different faculties of NAU had participated in the programme.



Dr. C.J. Dangaria, Hon.VC, NAU addressing the participants during the workshop.



NAU faculty members and scientists participants doing practical exercise during the workshop

9.4 One week orientation training programme for technical staff on SHC

One week orientation training programme for technical staff on Soil Health Card, Chemical Analysis of Soil and Fertilizer Recommendation were organized by Directorate of Extension Education during July 24-29, 2017 at NAU, Navsari. Total 20 trainees from department of Agriculture of five district of South Gujarat viz., Surat, Tapi, Valsad, Navsari & Dangs were participated in the programme.



Dr. C.J. Dangaria, Hon.VC and Dr. G.R. Patel, DEE during the inaugural function



Lecture by Scientist on important aspects of SHC to the trainees

10 NATIONAL FLAGSHIP PROGRAMMES / CELEBRATIONS

10.1 Women empowerment fortnight

Women Empowerment Fortnight was celebrated by NAU during August 1-14, 2017. Different extension programmes *viz.*, Mahila Krishi Divas, Women empowerment shibir, women training programme *etc.* were organized by KVKs of NAU in the presence of dignitaries. Experts from various fields delivered lectures on different topics *viz.*, role of women in agriculture, kitchen garden, animal husbandry, package of practices of main crops, organic farming, value addition in fruits *etc.* During the fortnight total 386 farm women participated and benefitted from the programmes.



Dr. C.J. Dangaria, Hon.VC, NAU addressing the farm women at KVK Navsari



KVK scientists delivering lecture to the participants during the programme at KVK Surat

10.2 “New India Manthan - Sankalp se siddhi” programme

Programmes on “New India Manthan - Sankalp se siddhi” organized by KVKs operating under NAU during 19 to 30 August 2017. Shri. V.V. Vaghasiya, Hon’ble State Minister of Agriculture Gujarat and other dignitaries, MP, MLA were participated and guided the farmers. Numbers of events were organized including the video message of Hon’ble Prime Minister followed by the pledge for New India by different stakeholders of agriculture development for strengthening the country by doubling the farmers’ income by the year 2022. Technical information was delivered by experts of the KVKs to farmers. Total 3941 farmers and farm women were participated in the programme at different places.



Shri. V.V. Vaghasiya, Hon'ble State Minister of Agriculture, Gujarat participated in the programme at Navsari



Oath taking-sankalp during the sankalp se sidhdhi programme

10.3 Mahila Kisan Divas

Mahila kishan divas was celebrated on October 15, 2017 by five KVKs run under NAU. Lectures of scientist on role of women in agriculture, debate competition and training programmes were organized. Total 360 farm women participated in the programme and benefited.



KVK scientists delivering lecture to the participants during the programme at different places

10.4 Celebration of "Agriculture Education Day" by KVKs

For the celebration of "Agriculture Education Day" (December 3, 2017) different programmes for the farmers were organized by five KVKs run under NAU at different places. Lectures of scientists / experts on scope & importance of agricultural education, scope of agriculture development, competitions were organized. Total 426 students, farmers and farm women participated in the programmes.



KVK Scientists delivering lecture to the participants during Agriculture Education Day celebration

10.5 "World Soil Day" Celebration

As the Government of India decided to celebrate the "World Soil Day" on 5th December every year, KVKs operated under the NAU celebrated the "World Soil Day" on December 5, 2017. During the programme 175 Soil Health Cards distributed to the farmers. During the programmes, 370 farmers participated at different five places.



Dr. C.J. Dangaria, Hon.VC, NAU distributing Soil Health Cards to the farmers.



Dr. G.R. Patel, DEE, NAU addressing the audience at KVK, Tapi

10.6 Jay Kisan Jay Vigyan week celebration (23rd to 29th December, 2017)

Govt. of India celebrating "Jai Kisan Jay Vigyan" week during 23rd to 29th December every year on the birth anniversary of Shri Atal Bihari Vajpayee and Late Shri Chaudhary Charan Singh, two former Prime Ministers of India keeping in view of their immense contribution for promoting use of science for the welfare of farmers. KVKs of NAU organized different activities during December 23-29, 2017 to celebrate the week. Total 309 farmers and farm women participated in the programmes at different places.



Practical training on honey bee keeping



Mahila shibir

10.7 Farmer FIRST Programme

The Farmer FIRST project (FFP) entitled 'Ensuring Livelihood Security for Small and Marginal Farmers of South Gujarat' is being implemented in Pathri, Hansapore and Chijgam villages of Navsari district under NAU jurisdiction with six modules with 1000 families as partners. Different activities were organized during the period viz., Trainings, interface meet were organized and critical inputs viz., earthworm, bio-fertilizer etc. were distributed to the participating farmers under the project.



Dr. C.J. Dangaria, Hon. Vice Chancellor and other dignitaries enlightening the lamp during Kisan goshti



Distribution of critical inputs for vermicompost to the participants of FFP

10.7.1 “Farmers-Scientists Interface Programme” under FFP

“Farmers-Scientists Interface Programme” was organized under Farmer FIRST Project by the Directorate of Extension Education on December 19, 2017 at Hansapore village. Dr. C.J. Dangaria, Hon. Vice Chancellor of Navsari Agricultural University inaugurated the programme in the presence of Dr. G.R. Patel, Director of Extension Education. The Co-PIs of all six modules had discussed their research findings and gave solution of the queries raised by the farmers. Total 135 farmers participated in the programme.



Dr. C.J. Dangaria, Hon. Vice Chancellor of NAU enlightening the lamp during the function



Farmers, farm women and scientists participants in the Programme

10.7.2 “Farmers-Scientists Interface Programme” under FFP

“Farmers-Scientists Interface Programme” was organized under Farmer FIRST Programme by the Directorate of Extension Education on 31st January, 2018 at Pathri village. The programme was chaired by Dr. C.J. Dangaria, Hon. Vice Chancellor, NAU, Navsari in the solemn presence of Dr. Lakhani Singh, Director ICAR–ATARI, Zone-VIII Pune and Dr. G.R. Patel, DEE, NAU, Navsari. Dignitaries also visited the sapota orchard as well as sugarcane (variety CoN-13073) field under FFP module and discussed with the farmers about the technologies. During the programme, Co-PIs of all six modules had discussed their research findings and suggested solutions of the queries of the farmers. Total 163 farmers of Pathri village participated in the programme.



Dr. C.J. Dangaria, Hon.VC, NAU, Dr. Lakhon Singh, Director ICAR-ATARI, Pune and other dignitaries



Participants remain present in the programme



Dignitaries and participants visiting the FFP field



10.8 Creation of Seed-Hubs for increasing indigenous production of pulses in India

Project on Creation of Seed Hubs for increasing indigenous production of pulses in India is being implemented by NAU (KVK, Navsari and Tapi) with the aim of production of quality seed of pulses, to provide to the farmers on need base.

S.N.	Name of KVK	Budget allocation (Rs. In Lakhs)				Target of Seed Production				
		Seed processing & storage Infrastructure fund (2016-17)	Revolving Fund		Total allocation	Crop	Quantity of Seed Production (q)			
			2016-17	2017-18			2016-17	2017-18	2018-19	Total
1	Vyara, Dist: Tapi	50.00	30.00	70.00	150.00	Mungbean	150	300	300	2300
						Pigeon pea	150	300	300	
						Chickpea	200	200	400	
2	Navsari	50.00	35.00	65.00	150.00	Mungbean	150	300	350	2150
						Pigeon pea	300	400	650	
Total		100.00	65.00	135.00	300.00		950	1500	2000	4450



Scientists' visit to Seed production plot and standing crop in the field

10.9 Implementation of "Mera Goan Mera Gaurav" programme

"Mera Goan Mera Gaurav" programme launched by the Hon'ble Prime Minister on 25th July, 2015 at Patna, Bihar has been implemented by NAU. Total 41 teams of NAU Scientists were formed. Each team comprised of 4 Scientists for 5 villages. Total 164 Scientists were assigned the work in 205 villages selected under the programme.

Activities organised by Navsari Agricultural University, Navsari under MGMG

S. N.	Name of activity	No. of activities conducted	No. of farmers participated & benefitted
1.	Visit to village by teams	79	913
2.	Interface meeting/ <i>Goshthies</i>	63	1890
3.	Training organized	26	681
4.	Demonstrations conducted	47	47
5.	Mobile based advisories (No.)	2132	2132
6.	Literature support provided	137	2875
7.	Awareness created	83	4150
8.	Input support provided (q)	9	47
9.	Linkages developed with other agencies (No. of agency)	12	1961
10.	Facilitation for new varieties, seeds, technology	-	-
	i. New varieties (No.)	2 Varieties/25 ha	62
	ii. Technology (No.)	6	390
	iii. Seeds (q)	4	60
	iv. New crops (No.)	-	-
Total		2623	15208



Method demonstration



Field visit by Scientists

10.10 Unnat Bharat Abhiyan (UBA)

Unnat Bharat Abhiyan (UBA) is a flagship programme of Ministry of HRD, GoI. The UBA aims at transformation of rural economy by connecting the institutions of higher learning with villages. Navsari Agricultural University has taken up activities under UBA in the year 2017-18. Under the UBA activities, five villages namely; Kavdej, Mankunia, Bedmal, Choundha and Vadi chonda were selected in consultation with District collector, Navsari and formed rural cluster. An MoU was made with Indian Institute of Technology, New Delhi, National Coordinating Institute for UBA on 29/08/2017. Preliminary interactions with the villagers have been completed and the district/block administration works namely; village survey and house hold survey had been carried out. These are uploaded in the reporting portal of UBA.



Interaction with the villagers of selected Villages during the meeting

10.11 Sub-Mission on Agriculture Mechanization

In order to popularize the farm mechanization, KVK, Tapi under NAU organized one week duration Vocational training on “Post Harvest Management and Value Addition” in the low mechanized talukas, benefitting 20 farmers. Total grant Rs. 0.56 Lakh allotted under SMAM to NAU.



Practical training to trainees on post harvest Management and Value Addition under SMAM

10.12 Groundnut demonstrations by ICAR-DGR under TSP

For promoting improved technology of Groundnut production among the tribal farmers, ICAR- Directorate of Groundnut Research (DGR) Junagadh allotted the groundnut demonstrations of improved production technologies under the head Tribal Sub Plan (TSP). Three KVKs under NAU implemented the demonstrations in their districts as under.

Sr. No.	Implementing KVK	Season	No. of demo.	Area (ha)	Grant (Rs.)
1	KVK, Vyara, Dist : Tapi	Summer	59	20	264320
2	KVK, Dediapada, Dist: Narmada	Summer	50	20	224000
Total			109	40	488320



Dr. Y.V.Singh, ICAR-New Delhi addressing the farmers



Field day at Demonstration plot of Groundnut

10.13 Seminar on “Role and Scope of Fertigation in Agriculture”

Two days Seminar on “Role and Scope of Fertigation in Agriculture” was organized by Soil and Water Management Research Unit, NAU under PFDC during 22-23rd February, 2018 at PFDC, NAU, Navsari. The inauguration session chaired by Dr. C. J. Dangaria, Hon’ble Vice Chancellor, NAU, in presence of Dr. G. R. Patel, DEE and officer from CRIBHCO, Surat. Different lectures were delivered by experts on role and scope of fertigation in Agriculture, cost economics, research and development in fertigation for different crops etc. Feed backs related to fertigation were also sought from the participants with their problems and experience. More than 100 farmers and 40 others participations were remain present in the programme.



Dr. C.J. Dangaria, Hon.VC, NAU addressing the participants



Participants remain present in the seminar

11. MEGA EVENTS ORGANIZED DURING THE YEAR 2017-18

11.1 *Krushi Mahotsav-2017 Kharif*

Krishi Mahotsav-2017 from 6th May, 2017 to 27th May, 2017 (22 days) was celebrated at three places (Vyara, Ahwa and Ankleshwar) in South Gujarat, with one day Seminar & Exhibition. In the programme of Farmer's Seminar, the team of 4-6 Scientists remain present at each places during the programme. In Agri. Exhibition with 30 stalls of NAU out of total 100 stalls organized, the NAU scientists also remain present whole day with exhibition stall of University and provided guidance to the farmers.



Shri. Chimanbhai Sapariya, Hon. Agri Minister, GoG addressing the participant farmers at Vyara



Participants during the Krushi Mahotsav at Vyara

11.2 *Krushi Mahotsav-2017 Mega event*

Mega Agriculture Fair and Exhibition for Dang, Navsari and Valsad districts was organized by DEE and Dang District Administration and inaugurated by Hon. Chief Minister Shri. Vijaybhai Rupani at Police parade ground, Ahwa, Dang on 26th May, 2017 in the presence of Shri. Ganpatbhai Vasava, Minister (Tourism, Forest & Tribal development) GoG, Shri Chimanbhai Sapariya, Hon. Agri Minister, GoG and other dignitaries. In the Exhibition, 100 stall exhibited of Navsari Agricultural University, Line Departments and Input dealers – seed, fertilizer, farm implements and machinery with latest developed technology. More than 20700 farmers visited the exhibition and participated in the fair.



Shri. Vijaybhai Rupani, Hon. Chief Minister performing Gau puja and Balram puja





Shri. Vijay Rupani, Hon. Chief Minister addressing the audience during the Krushi Mahotsav mega event



Dignitaries and farmers visiting Exhibition during the Krushi Mahotsav 2017

12. AWARDS RECEIVED:

12.1 Cashless Award to KVKs

All 5 KVKs under NAU awarded with a prize of Rs. 50,000/- cash for starting cashless transactions facilities within a week in the KVKs by installing POS Terminal Machines, during the Annual Zonal Workshop of KVKs of Gujarat and Rajasthan held during June 11-13, 2017 at JAU, Junagadh.



Dr. G.R. Patel, DEE and Senior Scientist & Head, KVK, Dang receiving the award



Dr. G.R. Patel, DEE and Senior Scientist & Head, KVK, Narmada receiving the award

12.2 Best Krishi Vigyan Kendra Award (Zone-VIII) 2017

The KVK, NAU, Tapi was honored by “PANDIT DEEN DAYAL UPADHYAY KRISHI VIGYAN PROTSHAHAN PURASKAR 2017 Zonal (Zone-VIII)” by the ICAR in recognition of outstanding contributions in the respective category. On the occasion of 10th National Conference of KVKs, the prestigious award was conferred by Shri Narendra Modi, Hon. Prime Minister of India, on 17th March, 2018 at IARI Campus, New Delhi.



Shri Narendra Modi, Hon. Prime Minister of India, presenting award to Dr. P.D. Varma, Senior Scientist & Head, KVK, NAU, Tapi at IARI Campus, New Delhi



13. PUBLICATIONS

13.1 Farm publications

Directorate of Extension periodically publishes folders, leaflets and booklets on package of cultivation practices of main crops, diversified crops, newly released technology etc. of the area to make available to the farmers and extension workers as ready reference at very low cost or no cost.

Other publications–news letter/reports

- Research Accomplishments and Recommendations (Gujarati)
- Souvenirs
- Booklets on new emerging issues/technology

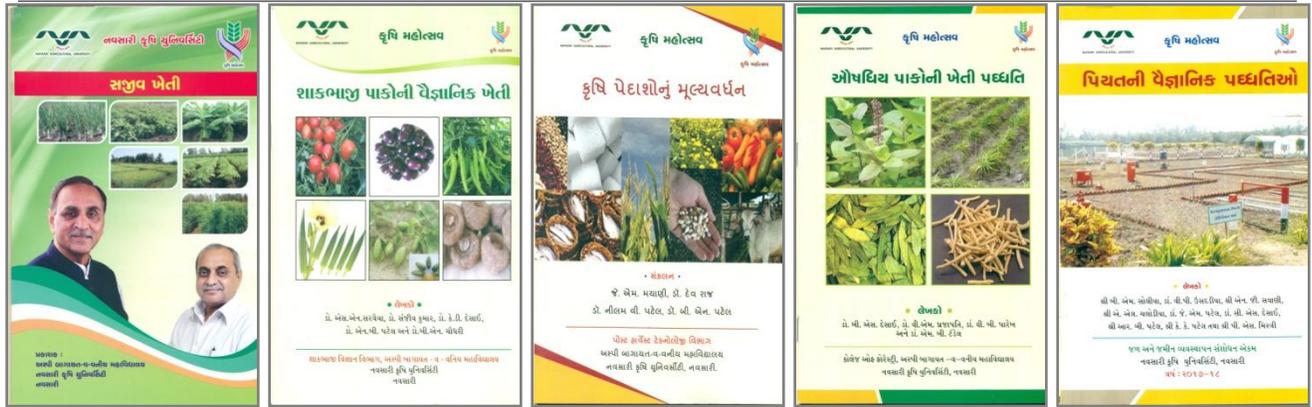
Farm VCD Publication

With a view to disseminate new agricultural technology through e-farm literature, theme based VCDs on 21 subjects mainly on package of practices of major crops of south Gujarat were published. Total 800 VCDs were prepared and distributed to the farmers during Krushi Mahotsav-2017.



University publication:

1) Book/booklets	: 30	5) Vision document	: 1
2) Folders	: 136	6) Conference proceeding	: 1
3) Training manual	: 20	7) Magazine	: 1
4) Pcket Diary	: 1		



Books



Folders

13.2 Research Papers

1. Kokani, P.P., Kalariya, G.B. and Rathod K.R.(2017). Evaluation of persistence toxicity of different insecticides against *Spodoptera litura* L. on castor (*Ricinus communis* L.) under laboratory conditions. *Trends in Biosciences*, 10(29): 6194-6196.
2. Thesiya, N.M., Dobariya, J.B. and Patel, N.N. (2017). Role of cluster Frontline Demonstrations in enhancement of green gram production in Dang District. *Trends in Bioscience*, 10 (32): 6856-6857.
3. Dobariya, J.B., Choudhary, Mahaveer and Prajapati, H.A. (2017). Knowledge and adoption level of beneficiary and non beneficiary farmers about okra production technology. *Multilogic in science*, Vol. VII, Issue XXIV: 155-157.
4. Kumbhani, S.R., Kavadi, S.D. and Patel, G.R. (2017). Adoption of improved Indian bean production technology. *Guj. J. Ext. Edu.* 28(1):20-24.

14. IMPACT OF EXTENSION PROGRAMMES

14.1 Spread of new technology in farming community

1. New crop-sweet corn has been introduced in tribal area of Vansda Taluka, which increases 65 per cent more income.
2. More than 74.00 % farmers adopted the new recommended varieties of paddy (NAUR-1, GNR-2, GNR-3) because of higher yield as compared to other.
3. More than 61 per cent farmers adopted yellow vein mosaic resistant variety meha of green gram.
4. About 570 ha. of area under paddy has been covered under HYVs of paddy replacing conventional varieties in Tapi District.
5. SRI technology in paddy being adopted by many farmers in the area.
6. Around 70.00 percentages of farmers and farm women trainees adopting kitchen garden at their own backyard also getting income through selling the surplus vegetables.
7. Awareness among women of adopted villages increased about health due to training on nutrition education.
8. Tailoring proved as better option for Self Employment and better Source of income for Tribal Women, which increased the income by 70%.
9. About 21.00 percentages of trainee farm women are preparing mango pulp, jam, and masalas at their home rather than buying it from market.
10. Area under drip and sprinkler systems of irrigation increased in South Gujarat in the crops like banana, fruit and vegetables, paired row planted sugarcane etc increased from 1.0 lakh ha to 13.0 lakh ha during last decade.
11. Adoption rate of MIS is up very fast in the crops like sugarcane, banana, vegetables, sapota, mango *etc.* as area increased from 1.0 lakh to 13.0 lakh ha during last decade.
12. As an impact of soil and water management, 42.00 percentages of farmers adopted the land configuration in Gram, Wheat and Pigeon pea crops.

13. Installation of piped subsurface drainage system by more than 61 farmers (132 ha) by bearing 100.00 % cost of the system.
14. The knowledge level of farmer about scientific cultivation of vine crops increased by 83% as a result of KVK intervention which was earlier 55%.
15. Farmers become aware about orchard management and getting 22.00 and 20.00 percentages higher yield in mango and sapota respectively.
16. Some of the technologies adopted by the farmers on large scale are: black plastic mulching in banana, papaya, water melon, *etc.*
17. Increased awareness about ill effect of pesticide, hence 30.00 % cost have been reduced in plant protection measures.
18. Total 13 unproductive village fish ponds of about 42 ha. adopted by KVK Navsari and farmers were provided with finger lings and trainings on various aspects of fish production.
19. Due to continuous efforts by KVK, Navsari, farmers now feeds the fish with balanced nutrients with food ingredients like ground nut oil cake, rice bran, fish meal, and wheat flour and vitamin mineral mixture *etc.*
20. About 50-60 per cent livestock owners are practicing scientific feeding & management of cows and timely feeding of colostrums to their new born calves.
21. Milk production has increased around 2 lit per day and fat content about 1.00 to 1.50 % per day due to the proper feeding and scientific management of the animals.
22. Problem of mastitis in lactating animals is reducing 58% by proper management of the animals.
23. The inter calving period in majority of the cows was reduced by 2-3 months and reach to near about 15 month.
24. Repeat breeding problems reduced around 52.00 %.

14.2 Successful cases of larger adoption in farming community

1. Short duration improved varieties of major crops of the area
2. Drip irrigation
3. Organic farming, Vermi-composting
4. INM in cotton & vegetables
5. Integrated pest management - Fruit fly traps in mango & cucurbits vegetables
6. Popularized pigeon pea variety - Vaishali for dual purpose
7. SRI method in rice cultivation
8. Small scale nursery, Low cost green house
9. Inland aquaculture
10. Rejuvenation of old mango orchard
11. INM and ICM in export oriented okra cultivation

