## **EXTENSION EDUCATION**

# **Annual Report**

Year: 2023-24



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 2022-2023 •

## INDEX

S.N.	Topic	
1	Introduction	3
2	Vision	3
3	Mission	3
4	Mandate	4
5	Functions and Activities	4
6	Staff Strength	4-5
7	Transfer of Technology Centres & Extension schemes	5-10
8	Salient Extension Activities & Achievements	10-22
9	New Initiations In Extension Programmes	23-28
10	National Flagship Programmes / Celebrations	28-36
11	Mega Events & Awards Received	36-42
13	Publications	42-47

## Directorate of Extension Education Navsari Agricultural University Navsari-396450

## **ANNUAL REPORT 2023-24**

#### 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			
3.IV.	Designation	Sanctioned	Filled	Vacant	
1	Director of Extension Education	1	1	0	
2	Training Associate	1	1	0	
3	Assistant Extension Educationist	4	2	2	
4	Agricultural Officer	3	3	0	

5 Agriculture Supervisor		1	0	1
6	Agricultural Assistant	2	2	0
	Total	12	9	3

## 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
<b>▶</b> T	► Training Centres for		Navsari
F	Farmers/Farm Women	• Advance Training Centre for Soil and	Navsari
/I	Rural Youths	Water Management	
		• Tribal Women Training Centre	Dediyapada
		• Extension Wing	Navsari
		• Agro ITI	Navsari
<b>▶</b> T	Training Centres for	• Training and Visit System	Navsari
E	Extension Workers	Sardar Smruti Kendra	Navsari
$\triangleright  A$	► Advisory Services		Navsari
		• Agricultural Technology Information	Navsari
		Centre (ATIC)	
		• Centre of Agricultural Extension	Navsari
		Information System	
		<ul> <li>University Educational Museum</li> </ul>	Navsari
		• Farm Publication	All Centres
	1. On-farm testing	<ul> <li>Krushi Vigyan Kendra</li> </ul>	Vyara,
2	2. Frontline demonstrations		Waghai,
	3. Trainings to farmers		Navsari,
4	4. Resource and knowledge		Surat,
	centre of the district.		Dediyapada



Agriculture Educational Museaum (Educatorium)



Sardar Smurti Kendra ( SSK )

### 7.2 Vocational Certificate Courses for Rural Youth & Women:

S.N.	Name and location of the courses	Туре	Duration	Intake capacity
1.	School of Baking: Basic Baking Science Course 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	20
4.	Certificate course on Protected Cultivation (NH/GH)	Certificate	15 Days	40
5.	Tailoring (cutting and stitching)	Certificate	90 Days	30
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
8.	Certificate Course on Integrated Nutrient	Certificate	15 Days	40
	Management for Fertilizer dealers		-	
9.	Certificate course on Insecticides Management for Insecticides Dealers/ Distributers	Certificate	12 weeks	40

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

Seed production 12. Diseases-insect identification and biological remedies 2. 13. Animal husbandry Farm management 14. Commercial mushroom production Organic farming 3. 15. Reproductive system in cow & Buffalo Natural farming 16. Cultivation in horticulture crops Soil-Water-Plant analysis 5. Micro irrigation system 17. Soil nutrient management 6. Bio-fertilizers & Bio-pesticides 18. Value addition in horticulture crops Kitchen garden/Terrace garden 19. Hydroponic farming 8. Bonsai & flower management 20. Canopy management in mango 10. Poultry farming 21. Cow shed planning 11. Tissue culture Agricultural entrepreneurship development

## **7.4 Ongoing Extension Schemes:** Extension activities through 29 Schemes

<b>S.N</b> .	в.н.	Plan Schemes: Development Charges (10)		
1	12505	Strengthening of the Directorate of Extension Education, Navsari		
2	12607	Upgrading of the existing Sardar Smruti Kendra, Navsari		
3	12305	Agricultural Technology Information Centre (ATIC), Navsari		
4	12240	Establishment of Agro ITI Centre for Agricultural & Horticulture, Navsari		
5	12304	Establishment of University Educational Museum, Navsari		
6	12306	Testing of University technologies on farmers' fields through adaptive trials,		
		Navsari		
7	12138	Vegetable & Fruit Crops Demon. Scheme for Tribal Upliftment, Paria		
8	12308	Strengthening of Soil and Water Management Training Centre, Navsari		
9	12307	Strengthening of Tribal Women Training Centre, Dediyapada		

10	12145	Strengthening of Extension Wing, Navsari		
S.N.	В.Н.	Non-Plan Schemes : Standing charges (05)		
1	4505	Directorate of Extension Education		
2	5116	Establishment of Sardar Smruti Kendra, Navsari		
3	6221	Establishment of Farm Advisory Services, Navsari		
4	6228-1	Establishment of School of Baking, Navsari		
5	7228-1	Upgrading of School of Baking, Navsari		
S.N.	B.H.	Other Agency (08)		
1	18246-3	Training & Visit System, Navsari (Non-Plan), Navsari		
2	18999-1	Green/Net house Farmers' Training, Navsari		
3	18013-7	Diploma in Agricultural Extension Services for Input Dealers, Navsari		
4	18146	Certificate in Agricultural Extension Services for Input Dealers, Navsari		
5	18199	Certificate Course on Integrated Nutrient Management for Fertilizer dealers		
6	18223	Certificate course on Insecticides Management for Insecticides Dealers/		
		Distributers		
7	18121	Krushi Library, Navsari		
8	18160	Farmer FIRST Programme		
S.N.	B.H.	ICAR (06)		
1	2704	Krushi Vigyan Kendra, NAU, Vyara, DistTapi		
2	2704	Krushi Vigyan Kendra, NAU, Navsari		
3	2704	Krushi Vigyan Kendra, NAU, Dediyapada, DistNarmada		
4	2704	Krushi Vigyan Kendra, NAU, Surat		
5	2704	Krushi Vigyan Kendra, NAU, Waghai, DistDangs		
6	2033	Providing support to DEE for knowledge empowerment, technological		
		backstopping, HRD and overseeing of KVKs, Navsari		

## 7.5 Introduction of Krishi Vigyan Kendra:

Krishi Vigyan Kendra (Farm Science Center) is a science/ technology led, farmer centric institution, established with the purpose of providing knowledge and skill training to the farmers, rural youth and field-level extension workers. Vocational training in agriculture and allied fields through KVK has become the need of the hour for ensuring livelihood security and enhancing farm income The farmers not only require knowledge and understanding of intricacies of new technologies but also more skills to adopt the same in varied and complex field situation on their farms. In view of this, the role of KVK was further enhanced by adding the responsibility of on-farm testing and front-line demonstrations of major agricultural technologies to dovetail the same with location specific environment. In order to equip the present-day farmers to face the challenges of information explosion and to bridge the digital divide, KVKs were also given the other responsibility of acting as knowledge and resource centre of agricultural and allied technologies. The use of ICT by KVKs has been substantial to provide necessary and timely information on weather, markets and solutions to various day to day problems faced by farmers.

#### **Mandates of KVKs:**

- On-farm testing to assess the location specificity of agricultural technologies under various farming systems.
- Organize frontline demonstrations to establish production potential of technologies on the farmers' fields.
- Capacity development of farmers and extension personnel to update their knowledge and skills in frontier agricultural technologies and enterprises.
- Work as Knowledge and Resource Centre for improving overall agricultural economy in the operational area.

### **Objectives of KVK**

- 1. To demonstrate the new improved technology to the farmers as well as to the extension agency directly in the farmers field with their active participation.
- 2. To identify the area specific problems of the farmers and prioritization of the identified problems as per their importance.
- 3. To collect feedback from farmers and extension agencies and to provide linkages with scientists for the modification or refinement of technology.
- 4. To impart training to the practicing farmers, rural youth and extension functionaries for capacity building.
- 5. To provide new and important information on agriculture and allied sectors to the extension agencies or NGO's for wider circulation to improve their economic condition.
- 6. To prepare different extension models and verify these models in the farmers field with their participation to create confidence among them.

## **KVKs Under Navsari Agricultural University:**

Navsari Agricultural University working in Jurisdiction of seven District of South Gujarat, and each district has its KVK among them Two KVKs i.e KVK Valsad is under Gujarat vidyapith and KVK, Chasvad is under BIAF (NGO). The remaining Five KVKs are under NAU, Navsari namely, Waghai, Vyara, Narmada, Navsari and Surat. The details of KVKs of NAU are as Under:

1.		
Name of KVK	Krushi Vigyan Kendra, NAU, Waghai, Dist Dangs	Krishi Vigyan Kendra, Waghai, Dist

Year of establishment:	1985
Area of Jurisdiction:	Dang district, Gujarat

2.	
Name of KVK	Krushi Vigyan Kendra, NAU, Vyara, Dist: Tapi
Year of establishment:	2004
Area of Jurisdiction:	Narmada district, Gujarat

3.		
Name of KVK	Krushi Vigyan Kendra, NAU, Narmada, Dist : Narmada	Krishi Vigyan Kendra, Dediapada, DistNarmada
Year of establishment:	2007	
Area of Jurisdiction:	Narmada district, Gujar	at

4.		
Name of KVK	Krushi Vigyan Kendra, NAU, Navsari , Dist: Navsari	
Year of establishment:	2008	
Area of Jurisdiction: Navsari district, Gujarat		

5.

Name of KVK	Krushi Vigyan Kendra, NAU, Surat, Dist : Surat	दृषि विद्याल ठेक, लक्ष्मोरी वृषि श्रुलिपविदेरी, शुक्त असामा प्रतापन स्थापन स्यापन स्थापन स्य
Year of establishment:	2011	
Area of Jurisdiction:	Surat district, Gujarat	

## 8. SALIENT EXTENSION ACTIVITIES & ACHIEVEMENTS

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

S.	Extension Programmes	No. of	No. of Beneficiaries			
N.		activities	Farmers	Women	Youths	Total
1.	On campus Farmers' Training programme	262	6955	10615	2135	17570
2.	Off campus Farmers' Training programme	253	5268	4995	1007	10263
3.	Training for Extension functionaries	39	1115	591	132	1706
4.	Seminar / Workshop / Symposium for Farmers	36	1925	1182	292	3107
5.	Seminar / Workshop / Interface/ Symposium for Extension Officers	12	410	48	39	458
6.	Farmers' day / Field day	68	1276	1407	274	2683
7.	Agril. Fair / Agril. Exhibition	214	27006	21141	3924	48147
8.	Farmer shibir / Farm women shibir	108	4980	5835	493	10815
9.	Farmers' meeting/Krushi gosthi	969	67768	76158	8471	143926
10.	Front Line Demonstrations (KVKs)	413.46	2159	4008	683	6167
11.	Adaptive trials (NAU technologies)	719.7	2644	3542	577	6186
12.	On Farm Trials	22	111	24	14	135
13.	AICRP Demonstrations	390.5	1534	0	153	1534
14.	Demonstrations (Research Stations)	2	10	0	3	10
15.	Exposure visit of the farmers	202	3271	3045	294	6316
16.	Diagnostic team visit on farmers' field	2584	2930	2565	433	5495
17.	Veterinary Clinic Camp/ Animal Husbandry Shibir	7	838	790	116	1628
18.	Text SMS sent on farmers' mobile	2881	598977	11403	63563	610380
19.	Telephonic / e-mail guidance	8313	16066	8393	2364	24459

20.	Press-notes / Articles in vernacular	344	Mass	Mass	Mass	Mass
	Newspapers					
21.	Radio & TV talk	25	Mass	Mass	Mass	Mass
22.	Extension Literature Distributed	84	1125	2533	325	3658
23.	Visitors (dignitaries, officers,	17416	20779	17148	2692	37927
	farmers, students)					
24	Film Show	166	2122	3592	435	5714
25	Celebration of important days	183	4452	5381	860	9833

<sup>\*</sup> Area in Ha.

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

S.	Subject/Topic	No. of	No. of
N.	~ <b></b> ~ <b>J***</b> **	Programm	Beneficiaries
1	Paddy Crop	3	421
2	Sugarcane Crop	2	317
3	Fruit Crops	2	53
4	Flowers	2	92
5	Vegetable Crops	2	60
6	Pulse Crops	3	149
7	Integrated Pest & Disease Management	2	193
8	Post Harvest Technology	2	66
9	Green House Technology	2	34
10	Soil and Water Management	2	105
11	Agriculture farm Machinery	2	90
12	Animal Husbandry	2	262
13	Value Addition	3	329
14	Natural / organic farming	7	697
15	Fishery and its Marketing	2	27
16	Prawn/Shrimp cultivation and its Marketing	2	21
	To	tal 40	2917

### **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 6167 FLDs in 414 ha. and 1544 other demonstrations in 392 ha. were conducted on farmers' fields under the close supervision of the NAU Scientists.

SN	Crop	No.of	Area(Ha)
		Demon	
1	Paddy	2412	162
2	Sugarcane	181	13
3	Pigeon pea	830	55
4	Gram	750	50
5	Green gram	520	35
6	Nagli	134	9
7	Sweet corn	91	6
8	Okra	422	28
9	Groundnut	225	16
10	Maize	198	13
11	Mango	137	9
12	Sapota	79	5
13	Cashew	101	7
14	Turmeric	87	6
Total		6167	414



FLD on GreenGram var: GM.7





FLD on Paddy GR-24 Parimal -2023

FLDs on- Gram variety-GG 5

## **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 2023-24, total 720 adaptive trials were conducted on the farmer's fields through five KVKs (Navsari, Vyara, Waghai, Dediapada and Surat) in South Gujarat on newly released varieties of Paddy, Pigeon pea, Cotton, Wheat, Castor, Green gram, Gram, Indian bean, Okra, Chickpea, Fodder Sorghum, Okra, Little gourd, Pointed gourd, Bitter gourd, Black gram, Dragon fruit, Drumstick, Lemon, Cucumber, Mango, Banana, Conocorpus, Ajwain were conducted. Other Demonstration on ICM, INM, IPDM, Novel organic liquid nutrient, Liquid Bio-fertilizer, Storehouse Fruit fly Trap with Culure, Pheromone trap, Mineral Mixture, Kitchen garden, Poultry, Paddy thresher, Hand weeder Mushroom Rubber Mat, Punjethi (Rack), Winnowing Fan, Plastic Jari, Stalk Puller were also conducted.



Adaptive trial-Green Gram GM-7 2023 by KVK, Tapi



Adaptive trial on Gram G.G.5 by KVK, Navsari



Adaptive trial on Indian bean (GNIB 22) by KVK, Dang



Adaptive trial-Paddy GR-20 Navsari Kamod by KVK, Tapi

## 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.34<sup>th</sup> Quartly Interface Convergence Meeting was organized in the presence of Dr. N. H. Chauhan, Director Of Extension Education at ATIC, NAU, Navsari on 02/11/2023.





Dr N M Chauhan, Director of Extension Education, NAU and members during 34th ATMA Convergence Quarterly Meeting

## 8.6 Bimonthly workshop

The Directorate of Extension Education organizes Bimonthly workshop under broad base extension training programme for agriculture and horticulture line department staff. During the period Bimonthly workshop were organized as under:

S.N.	Activities	Place	Date	Beneficiaries	
1	Bimonthly workshop, April -may., 2023	ATIC,	6/4/2023	24	
		NAU	0/4/2023	24	
2	Bimonthly workshop, August -sept . 2023	ATIC,	5/8/2023	46	
		NAU	3/6/2023		
3	Bimonthly workshop, JanFeb., 2024	ATIC,	30-01/2024	35	
		NAU	30-01/2024	33	
4	Bimonthly workshop, MarchApril,2024	ATIC,	14-15/03/2024	40	
	_	NAU	14-15/03/2024	40	





Bimonthly workshop organized with department of Horticulture in Presence of JDH, DDH and NAUs' scientists

## 8.7 34th Zonal Research and Extension Action Committee (ZREAC) Meetings:

Directorate of Extension Education organized one ZREAC Meeting 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 Department for all the seven Districts of South Gujarat. During the year 2023-24, the 34<sup>th</sup> ZREAC meeting was convened on 17-10-2023.





Dr.T.R.Ahlawat, Director of Research, NAU, addressing the house during 33rd Zonal Research and Extension Action

Committee meeting

## 8.8 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 meeting
1	KVK, Vyara (Tapi)	01/03/2024
2	KVK, Waghai (Dang)	01/03/2024
3	KVK, Navsari (Navsari)	02/03/2024
4	KVK, Surat (Surat)	02/03/2024
5	KVK, Dediyapada (Narmada)	05/03/2024



Scientific Advisory Committee Meeting of KVK Navsari,



Scientific Advisory Committee Meeting of KVK Surat



Scientific Advisory Committee Meeting of KVK Vyara,



Scientific Advisory Committee Meeting of KVK Dang

## 8.9 Review meeting of KVKs:

Three Review meeting of all the 7 KVKs under NAU was held under the Chairmanship of Dr. N. M. Chauhan, Director of Extension Education, NAU, Navsari during the period at NAU, Navsari. Head of all KVKs were presented progress of activities made during the month and planning for the next month and Various issues were discussed. In the meetings Senior Scientist & Head of all the 7 KVKs along with scientists were remain present.





Dr N.M. Chauhan, DEE review the Progress & wokdone by KVKs in the Review meeting.

## 8.10 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 5474 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.



visiters from ATMA jalgoan (MS)



visiters from surat Atma farmer



BAIF ,Jagdia,Bharuch



students from SPID, Surat

## 8.11 Campus Visit and Comfortable Homely Stay of the Farmers:

Large numbers of farmers from Gujarat, Maharashtra, Uttarpradesh 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 112 farm visits were conducted and 7123 farmers had visited the SSK and 1575 visitors had visited farms at NAU Campus. Total 5548 farmers and other visitors stayed at Kisanghar-farmers' hostel (4916 from Gujarat state and 632 from other states).

### 8.11.1 Campus Visit



Visitors visiting units at NAU Campus



Visitors visiting SSK Team at NAU Cmapus



Visitors visiting units at NAU Campus



On campus Farmers' Training programmeat SSK

## 8.11.2 Amenities in Kisan hostel:



Clean and Comfortable Kitchen in Kisan Hostels





Clean and Comfortable Rooms in Kisan Hostels

## 8.12 Certificate courses on Bakery:

Bakery school, DEE, NAU, Navsari organized 20-week duration two certificate courses on bakery during the year. Total 24 students have participated in the training programme, an exposure visit to South Gujarat's largest Bakery Chain- BREAD LINER, Surat, &"Swastik Bakery", Bardoli- a welknown Bakery Unit were conducted to provide skill based knowledge to design the custom cake and demonstrate the Qualitative bakery products to the students. Another two skill-oriented training programme of one-week duration on baking were organized. Total 12 youth and farm women had participated in the one-week training programmes.





Bakery students visited breadliner bakery chain

Students preparing bakery product

## 8.13 HRD programme for Scientists of KVKs and NAU faculties:

The training programme on "Video Production and Dissemination Skills for Agricultural Extension Functionaries" was jointly organized by KrishiVigyan Kendra, Surat; Directorate of Extension Education, Navsari Agricultural University, Navsari and Extension Education Institute, AAU campus, Anand at KVK, Surat during May 29-31, 2023. The programme was chaired by Dr. N. M. Chauhan, Director of Extension Education, NAU, Navsari with his valuable speech on importance of training. The technical sessions were conducted by faculties of EEI *viz.*, Mr.Vishvajeet Patel and Dr.Payal Vihariya. Dr. R. K. Patel, Scientist, KVK, Surat performed duties as course coordinator with guidance of Dr. J. H. Rathod, Senior Scientist and Head. Total 32 officers/staff were actively participated in three days training programme.





HRD Training "Video Production and Dissemination Skills for Agricultural Extension Functionaries" by EEI, AAU,

### 8.14 Interface between Farmer and Scientis:

"Interface between Farmers and Scientist" at S.S.K. Hall, NAU, Navsari (19/04/2023) Dr. Z. P. Patel Hon. Vice Chancellor of Navsari Agricultural University inaugurated the

programme and emphasized on ensuring the effective involvement of farmers in research process on farmers' fields. Dr. T. R. Ahlawat, Director of Research & Dean Post Graduate Studies, gave brief discussion of FFP. Dr. N. M. Chauhan Director of Extension Education, in his keynote address, described the main objectives of the project as well as various activities are being carried out under FFP for the benefits of the farmers. During the programme, the Co-PIs of all six modules had discussed their research findings and gave solution of the queries asked by the farmers. A total 126 farmers including 75 women farmers from three villages namely; Kesali, Changa-Dhanori and Vadsangal had participated in the programme. Total 15 members of various modules of FFP also participated in programme.





"Interface between Farmers and Scientist" at S.S.K. Hall, NAU, Navsari (19/04/2023)

## 8.15 Certificate course on Protected Cultivation (NH/GH): 15 days trainging:

Certificate course on Protected Cultivation (NH/GH): 15 days trainging was organized on 09/06/2023 to 23/06/2023 at ATIC, NAU, Navsari in which 35 farmers were participated. Dr. Z. P. Patel Hon. Vice Chancellor of Navsari Agricultural University inaugurated the programme. Director of Extension Education Dr. N. M. Chauhan, Dr Ruchira Sukla, Dean CoH ewre present in the programme. Course Co-ordinator was Dr. G.B. kalaria Training Associate, ATIC.



Dr. Z.P.Patel ,Hon Vice Chancellor , NAU handover the Certificate to the trainee



Certificate course on Protected Cultivation (NH/GH): 15 days trainging:

## 8.16 The 34th ZREAC meeting:

The 34th ZREAC meeting convened under the chairmanship of Hon'ble Vice-Chancellor Dr. Z. P. Patel at SSK, Navsari on October 17, 2023. The meeting saw the presence and active participation of Dr. N. M. Chauhan, DEE; Dr. R. M. Naik, Dean, Agriculture; Shri K. V. Patel, JDA, Surat; University officers, Heads of Departments, Research scientists, District Agriculture Officers (DAOs), Deputy Directors of Horticulture (DDHs), Project

Directors (PDs), scientists from KVKs, progressive farmers from South Gujarat, and faculties of NAU. The proceedings were expertly conducted by Dr. G. B. Kalaria (P.P.), Training Associate of the T & V System.





Dr. Z.P. Patel, Hon. Vice Chancellor, Dr. N.M.Chauhan, DEE addressing the ZREAC house

### **8.17** 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 Fourteenth meeting of Extension Education Council was held on July 26, 2023 at Navsari under the chairmanship of Dr. Z.P. Patel, Hon'ble Vice Chancellor, NAU, Navsari.





Dr. Z.P. Patel, Hon. Vice Chancellor, Dr. N.M.Chauhan, DEE, ADR and other members in the meeting

## 8.18 Training programme on "Agricultural Marketing" for Officers:

Directorate of Extension Education, Navsari Agricultural University, Navsari and Center for ICT and e-NAM, CCS National Institute of Agricultural Marketing, Jaipur jointly organizing an On campus training programme on "Agricultural Marketing" on 8th August, 2023 at SSK Traing Hall, NAU, Navsari at 9.00a.m Under the chairmanship of Director of Extension Education. Dr. S. R. Singh, Deputy Director, NIAM, Jaipur also presented in the

training. Total 53 Officers of NAU, Scientists of KVK and Officers Line departments of seven Districts of South Guj. have Participated in the said Training.





Training programme on "Agricultural Marketing" for Officers





Training programme on "Agricultural Marketing" for Officers

# 8.19 Training programme on "Agricultural Marketing" for Farmers and Stakeholders:

Directorate of Extension Education, Navsari Agricultural University, Navsari and Center for ICT and e-NAM, CCS National Institute of Agricultural Marketing, Jaipur jointly organizing an On campus training programme on "Agricultural Marketing" on 9th August, 2023 at KVK, Vyara Dist. Tapi, NAU, Navsari at 9.00 a.m Under the chairmanship of Dr. Z.P.Patel Hon.Vice Chancellor, NAU.Dr. N.M.Chauhan, DEE, NAU, Dr, V.R. Naik ADR, NAU and Dr. S. R. Singh, Deputy Director, NIAM, Jaipur also presented in the training. Total 53 Officers of NAU, Scientists of KVK and Officers Line departments of seven Districts of South Guj. have Participated in the said Training.





#### 8.20 GAU Tech -2023:

Navsari Agricultural University was participated in GAU Tech -2023, held during May 24th to 28th, 2023 at Rajkot & organized by Global Confederation of Cow Based Industries (GCCI).





GAU Tech -2023

#### 9. NEW INITIATIVES IN EXTENSION PROGRAMMES:

## 9.1 Workshop on "Technological Brainstorming Workshop for Technical Staff of KVKs":

A one-day training workshop on "Technological Brainstorming Workshop for Technical Staff of KVKs" was organized by the Office of the Director of Extension Education at Navsari Agricultural University on 06/04/2023 Under the chairman ship of Dr. Z. P. Patel Hon. V.C. Navsari Agricultural University. On this occasion Mr. Dr. R.B. Patel former Director of Extension Education and Dr. CL Patel Ex-Dean and Retired Scientist, Main Sugarcane Research Center, NAU, Navsari was present as special guest., During the program, the innovative extension works done by KVKs of the seven districts was presented. About 50 technical staff of KVKs of the seven districts of South Gujarat enthusiastically participated in the Workshop.

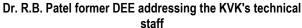


Inaugural ceremony of Technological Brainstorming Workshop in presence of Hon'ble V. C sir Dr. Z. P. Patel sir



Dr, Lalit Mahatmaa, ADR felicitating the participant







KVK's technical staff

## 9.2 International conference on (ICCGFLLES-2023):

NAU Navsari, is hosting a 3 days International conference on "Impact of Climate Changes on Global Food, Livestock, Livelihood and Environmental Security: Advanced Approaches and Mitigation Strategies (ICCGFLLES-2023) from December 28 to 30, 2023, under the presidentship of Hon'ble Vice-Chancellor, Dr. Z. P. Patel. Other collaborators of the event are National Agriculture Development Cooperative Ltd (NADCL), Baramulla, and ICAR-NAHEP-Centre for Advanced Agricultural Science and Technology (CAAST)-NAU-Navsari.

The event was inaugurated by Hon'ble Vice-Chancellor, Dr. Z. P. Patel. Dr. K. K. Singh, Additional Director General, Head, Agromet Advisory Services Division, India Meteorological Department (IMD), New Delhi, graced the occasion as the Chief Guest; while Dr. Subrata Kumar Roy, Director, ICAR-ATARI, Zone-VIII; Dr. R. A. Shah, Managing Chairman, NADCL, Baramulla, UT of J & K, graced as Guests of Honour. As an esteemed Special Guest, Dr. Paulraj Rajamani, Dean, School of Environmental Sciences, JNU, New Delhi and Dr. Timur Ahlawat, Director of Research & Dean PGS, NAU, Navsari. Dr. N. M. Chauhan, Organizing Chairman, extended warm welcome to all participants and Dr. Alpesh Leua, Organizing Secretary, provided a concise overview of the conference.

Hon'ble VC, in his presidential address, emphasised on carbon credit, biochar use and use of low-cost technology to mitigate the impact of climate change. Dr. Dr. K. K. Singh, Dr. Subrata Kumar Roy, Dr. R. A. Shah, Dr. Paulraj Rajamani and Dr. Timur Ahlawat, in their special remarks, discussed about the impact of climate change on Global Food, Livestock and Livelihood. The inaugural function was concluded with vote of thanks proposed by Dr. Alka Singh, Organizing Coordinator. Prof. Jaymin Naik was Master of Ceremony.

In the inaugural function, Hon'ble VC Dr. Z. P. Patel was conferred with the 'Best Administrator Award' and Dr. N. M. Chauhan, DEE with 'Life Time Achievement Award' by NADCL. Faculties, students, Industrialist, young professionals and 15 farmers and farm Women of South Gujarat were also awarded for their special contribution and achievement.

Out of 721 participants registered for this conference, 300 joined physically and remaining participated and presented their papers virtually.





3 days International conference on "Impact of Climate Changes on Global Food, Livestock, Livelihood and Environmental Security:2023





## 9.3 Technological Backstopping Workshop for Technical Staff of KVKs":

A one-day training workshop on "Technological Backstopping Workshop for Technical Staff of KVKs" was organized by the Office of the Director of Extension Education at Navsari Agricultural University on 14.03.2024 Under the chairman ship of Dr. N.M.Chauhan Director of Extension Education, Navsari Agricultural University. On this occasion Dr. S.P.Singh, Former Principal scientiest,ICAR was present as special guest. Dr. R.M.Naik, DSW & Dean ,NMCA, NAU, And Dr. Viradia, Librerian,NAU were also present.participants were acquainted through lectures on topics viz.Excellent Technologies of NAU, Biochar& its utility in agri. seed avilabilities at NAU & Agro tourism.During the program, the innovative extension works done by KVKs of the seven districts was presented. About 40 technical staff of KVKs of the seven districts of South Gujarat enthusiastically participated in the Workshop.



Inaugural of workshop-Dt.14.03.2024





Inaugural of workshop-Dt.14.03.2024





Welcome speech delivered by Dr. N.M.Chauhan ,DEE,NAU,Navsari



chief guest Dr. S.P.Singh,Pri scientiest,ICAR addressed to Participants



Participants of Workshop Dt.14.03.2024

#### Speech dilivered by Dr. R.M.Naik,DSW & Dean ,NMCA,NAU,Navsari



Lecture on Excellent Technologies of NAU

#### Participants of Workshop Dt.14.03.2024



Lecture on Biochar and its Utility in Agri.

## 9.4 Mango festival:

Krishi Vigyan Kendra, Surat and Department of Horticulture, Surat organized "Mango Festival" at ASPEE Biotechnology Institute, Surat on 25<sup>th</sup> May, 2023. The Programme was inaugurated by Dr. N. M. Chauhan, DEE, NAU, Navsari. Dr. B. K. Dawda, RS, MSRS, Surat, Dr. R. L. Lewa, I/C. Principal, ASPEE biotechnology, Surat, Mr. D. K. Padaliya, DDH, Surat, Dr. B. M. Tandel, I/C RS, RHRS, Navsari, Mr. N. G. Gamit, PD, ATMA, Surat, Mr. J. G. Gamit, RFO, Choryasi were participated in the programme. Dr. B. M. Tandel, I/C RS, RHRS, Navsari delivered the lecture on scientific cultivation of mango in details. Dr. R. K. Patel, Scientist, KVK, Surat delivered talk on integrated pest and disease management in mango with photographs. Total 170 farmers were actively participated in the programme.





Seminar on scientific cultivation of mango and exhibition of mango different varieties

## 9.5 Workshop on Bonsai:

KrishiVigyan Kendra, Surat organized workshop on bonsai and awareness programme on millets in collaboration with Science Centre, Surat Municipal Corporation, Surat on June 05, 2023. The programme was chaired by Dr. N. M. Chauhan, Director of Extension Education, NAU, Navsari and Mrs.PurnimabenDavle, chairman of cultural committee, SMC, Surat. The technical guidance about preparation of bonsai was provided by Mr. Ravi Bariya, Bardoli. Dr. J. H. Rathod, Senior Scientist & Head and team of KVK scientists gave technical guidance about millets. Total 120 Urban participants from Surat city were actively participated in the programme.





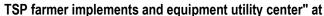
Workshop on Bonsai

**Exhibition of Bonsai** 

## 9.6 TSP farmer implement and equipment utility centre:

As a step towards improving the livelihood or Tribal farmers KVK, Waghai, Vyara, Waghai and Navsari established a "TSP Farmers Implements and Equipment Utility Centre" under TSPwith following Objectives

- ▶ To provide access to Tribal farmers to usage of farm implements and processing equipments / mills necessary for their farming of major crops there by reduce the cost of cultivation.
- ► To reduce drudgery of Agricultural labourers of Tribal populations.
- ► To provide work opportunities to skilled labour among Tribal populations.
- ► To increase efficiency in use of resources and applied inputs.
- ► To provide timely agricultural operations thereby increase production and income.
- ► To provide training and farm advisories by KVK Scientists exclusively to Tribal farmers/ Labourers on utility of Farm Implements and processing equipments.
- ► To ensure availability and accessibility of the cost and labour saving as well as income generating implemets and equipments





**KVK Navsari** 



KVK,Dang





KVK Tapi KVK Narmada

## 9.10 Memorandum of Understanding (MOU) signed: 18.05.2023:

Millet Processing Unit – MoU between Green Hub Foundation and K.V.K. Dediapada

Purpose to MOU: Tribal farmers cannot afford to clean millet in the market, they have raw material but do not have time to clean it and do not get good price to sell and buy it. Our aim is to create self-sustainable units that provide clean produce as well as educate them regarding packing, branding and selling and best effort to give the farmers a new identity as "Nutrition Entrepreneurs". Millet Processing Unit for Farming Community started at Dediapada. date: 18.05.2023





MOU for Millet Processing Unit at KVK -Narmada, NAU





Inaugurated Millet Processing Unit, Dall mill, Oil mill and common utility center





KVK Dediapada & green hub foundation jointly organized & inaugurated Millet Processing Unit, Dall mill, Oil mill and common utility center at KVK Narmada

#### 10 NATIONAL FLAGSHIP PROGRAMMES / CELEBRATIONS:

## 10.1 Celebration of 95th ICAR Foundation Day:

Krishi Vigyan Kendras Under NAU, celebrated "95<sup>th</sup> ICAR Foundation Day" on July 16, 2023. Various activitieslike kishan ghosti, Training, khedut sibir etc were organized by KVKs during the programme. The team of KVK guided to farmers on different subject *viz.*, Mango,vegetable farming, organic farming, plant protection, animal husbandryand Farm machinery. During this program about 240 Farmers & 257 farm women were participated.



Participants celibration of 95<sup>th</sup> ICAR foundation Day programme at KVK Narmada



Scientist delivering lecture to the participants during the programme

#### 10.2 Celebration of Parthenium Awareness week:

18<sup>th</sup> Parthenium Awareness Week (16 to 22 August 2023) celebrated by all KVKs NAU, Navsari. Training, awareness programmes were organized by KVKs. Total 838 farmers and farm women participated in the programmes at different places. KVK Scientists delivered lectures on all the aspects for creating awareness about parthenium weed. How it can be identified, He highlighted on how to control, and also its hazardous effects on human beings.



Celebration of Parthenium Awareness Week at KVK, Narmada



Scientists delivering awerness lecture during the programme, KVK, Navsari

## 10.3 Celebration of Poshan Maha Abhiyan and Tree Plantation:

In order to ensure community mobilisation and bolster people's participation, every year, the month of September is celebrated as POSHAN Maah Abhyan across the country. This month highlights the importance and role of the right nutrition for the human body. A balanced diet with a combination of essential nutrients and calories is pivotal for the smooth working and growth of the human body.

All the KVKs running under NAU also celebrated the month at KVK campus and at the villages in their jurisdiction on 17-28/09/2023. Various activities were organized by KVKs during the programme *viz.*, Poshan jagruti shibir, training on nutrition garden management, nutri thali competitionin Mahila sibir, Quiz on millets and Tree plantation, method demonstration, distribution of nutri-kitchen garden kit, seeds and seedlings in Farmers sibir etc. Total 333 farm women participated in the programmes at different places.



Dr Z.P.Patel Hon.VC, NAU, Navsari addressing the participants during the programme at KVK Navsari



Celebration of "Poshan Maha Abhiyan and Tree Plantation campaign" at KVK, Vyara

#### 10.4 Celebration of Krushi Mela:

Krishi Vigyan Kendra organizes the Krushi Mela to provide latest agricultural information, guide/motivate farmers to adopt new scientific and profitable practice. Through the Kisan Mela the farmers get interaction with scientists which helps for transfer of new agriculture technologies in different areas. Farmers get acquainted with latest and recent developments in agriculture sector. During the krushi mela Kishan sanghosti, Exhibition Lectures on Millets & Natural Farming, Seminar were organised as per the convinient Agril. time. During the krushi mela total 6623 farmers and farm women participated in various krushi mela organised by KVKs of NAU the year 2023-24.



Agri. Exibition



Kishan sanghosti





## **Celebration of Van mahotsav:**

Van Mahotsav is also known as the festival of trees and the festival of life. Thousands of saplings are planted across India by the people during this week of the year. Trees are the most precious gift given to mankind and it is our duty to save it.

Theme: Celebration of life, know your responsibility towards trees, environment and mother earth and Let us Plant a Tree, let us Plant a hope. KVK Dang and Surat celebrate vanmahotsav in the year 2023 on 14/07/2023





## 10.6 Celibration of World Environment Day:

Govt. of India celebrating Word Environment Day 2023 is hosted by cote d'voir and the theme was "Beat Plastic Pollution" needs & find to solution of Plastic Pollution to check climate crisis. To raise awareness about environment and its importance in agriculture and how to save environment and tree plantationas wellas irradicte Plastics from world to sustainable development, on 5<sup>th</sup> June, 2023. Different activities were organised at different places. During the programme 450 farmers and farm women participated



Awareness prog. for saving Environment



imp. of Tree for Environment Protection

## 10.7 Celebration of World Bee Day:

Govt. of India celebrating Word Bee Day to raise awareness of the importance of pollinators, the threats they face and their contribution to sustainable development, on 20<sup>th</sup> May 2023. The theme for the year 2023 is "Bee engaged in pollinator-friendly agricultural production" different activities were organised at different places. During the programme 206 farmers and farm women participated



Beekiping demonstrated by KVK Surat



celbration of world honeybeeday at KVK Surat

## 10.8 "world Food Day" celebration:

Government of India celebrates the "World Water Day" on 16<sup>th</sup> October every year, The theme was "" Water is life, Water is Food, Leave no one behind" KVKs operated under the NAU celebrated the "World Food Day"Traing Seminar is organised for Day celebration. During the programme 238 farmers and farm women participated at different places.





## 10.9 "World Soil Health Day" Celebration:

Government of India celebrates the "World Soil Day" on 5<sup>th</sup> December every year, KVKs operated under the NAU celebrated the "World Soil Day" on December 5, 2023. Lectures of dignitaries and Scientists, soil testing and farm visits were organized during the celebration. During the programme 1026 farmers and farm women participated at different places.





Awareness shibir on soil health at KVK Waghai -celibration Scientist from KVK Tapi delivering lecture to the participants of soil health Day-5/12/2023

## 10.10 Celibration of International yoga day:

The theme for International Yoga Day (21/06/2023) in 2023 is 'Yoga for Vasudaiva kutumbakam', fcus on parrticipation one and all without restriction of age, gender and class which is intended at bringing to light the physical, mental, and emotional state of people. The theme was selected with the aim to inspire the yoga community for global development. yoga can boost up your energy level, help you maintain a healthy weight and improve your body posture. Participating in Yoga activities and meditation can help in enhancing your mental health. The KVKs running under NAU organized various activities like pranayam, meditation, Aasans, yogasan, Awareness programme on 21/06/2023 as International Yoga Day. Total 191 farmers and farm women and youths participated in the programmes at different places.



KVK, Navsari with farming community joined in celebration of Internationational Yoga day



Scientist from KVK Waghai celebrating International Yoga day

## 10.11: Awarness of Jal Shakti Abhayan:

"Jal Shakti Abhiyan: Catch the Rain" focusing on saving and conserving rainwater with the theme "Source sustainability for drinking water" from 04 March 2024 to 30 November 2024 in the pre-monsoon and monsoon periods of 2024, covering both urban and rural areas of all the districts in the country. Kvks under NAU organised awareness Shibir on jalsakti Abhayan at their KVKs. Total 838 farmers and farm women participated in the programmes at different places.





Awareness shibir on Jal Shakti Abhiyan at KVK Navsari

## 10.12 Celebration of National Kisan Day:

The KVKs running under NAU celebrated Kisan Day on 23 December, 2023. Various activities were organized by KVKs during the programme *viz.*, Lecture on Kisan day, Farm Visit and Group Discussion, Kisan gosthi and information and impotance of Pre-planning cultivation of summer crops etc. Total 309 farmers and farm women participated in the programmes at different places.





Celebration of Kisan Diwash KVKSurat &KVK Navsari

## 10.13 Celebration of World Pulses Day:

KVKs under NAU Celebrated World Pulses Day on 10th February 2023 with the theme of "Pulses forsustainable future". different activities viz. kisan ghosti, khedut sibir etc were organised in programe. Total 3430 farmers and farm women participated in the programmes.







Scientist delivering lecture to the participants at KVK Vyara,

## 10.14 Celebration of International Women's Day' 2023:

International Women's Day (IWD) being celebrated all over the world on 8<sup>th</sup> March. KVKs working under NAU, Navsari also celebrated the IWD 2023 on 8<sup>th</sup> March 2024 in the presence of dignitaries. The theme of the programme was "Digit ALL: Innovation and Technoloy for gender Equality "empowering the women farmers Equality. Speech of dignitaries, Lecture of experts and different activities viz., Importance of Women in Agriculture, gender Equality, Cultural Events organized to encourage farm women, Technical lecture, Nari Sangam Prog. natural farming awareness, and exhibition stall, millet recipies, Mahila Shibir, ICT for Women's prosparity, Khedut Mahila Shibir etc. were organized. More than 1118 farm women were actively participated in the programme at different places.



KVK, NAU, Waghai addressing the women participants during the programme



Celebration of International women's day at KVK,

Dediapada

## 10.15 Swachhata Abhiyan:

The NSS unit of College of Agricultural Engineering and Technology and Polytechnic Agricultural Engineering, Dediapada was organized "Swachhata Abhiyan Drive" on date 2ndFebruary 2023. With the permission of Dr. S. H. Sengar, Principal & Dean, CAET and Dr. Arun Lakkad, Principal, PAE, Dediapada. The NSS volunteers of Diploma and B.Tech.2nd& 4th Semester were actively participated in this Swachhata Abhiyan Drive.





"Swachhata Abhiyan Drive"

## 10.16 Celebration of World Water Day:

KVKs working under NAU, Navsari celebrated the "World Water Day" on March 22, 2024 in the auspicious presence of dignitaries. the World Water Day theme is "Accelerating Changeto solve the water and sustain crisis" The theme signifies the importance of appropriately using water in humans' daily needs.

Scientists delivered lectures on importance of water for better productivity of crops, irrigation technology, watershed management for sustainable livelihood and agriculture *etc*. Total 133 participants including farmers, farm women and extension officers remained present at different places.





Scientist delivering lecture to the participants during the programme at KVK Narmada and Navsari

## **10.17 Farmer FIRST Programme:**

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 with six modules under the Directorate of Extension Education since 2016-2017. Different activities were organized during the period viz., Trainings and distribution of critical inputs to the participating farmers under the project.

#### 10.16.1 "Interface between Farmers and Scientist":

Dr. Z. P. Patel, Hon. Vice Chancellor of Navsari Agricultural University emphasized on farmers about the challenges of farming in changing weather conditions and how to deal with disease and pest. All scientists gave solution of the queries asked by farmers. Dr. N. M. Chauhan, Director of ExtentionEducation discuss about brief information about inputs of all six modules of FFP programme and also told how to take maximum benefits from farming by appropriate management and adequate cultural practices. Dr. N. B. Patel, Co-PI of Livestock based module gave detailed information about Lumpy Virus disease. Member of Horticulture

based module, Dr. P. D. Solanki gave information on scientific cultivation of Mango and Sapota and Dr. C. S. Desai informed about benefits of using Novel in crops. Dr. G. B. Kalaria also provide additional information about pest and disease of Mango and Sapota. Total 126 farmers including 29 women farmers from four villages namely; Pathari, Hansapor, Rahej and Khapariya had participated in the programme held on 19/04/2023.





Hon'ble Dr. Z. P. Patel sir, VC, NAU, Navsari inaugurated the "Farmer-Scientist interface" progarmme

### 10.16.2 Training under IFS & Horticulture based module:

Organized training on "Training under IFS & Horticulture based module" under dated 06/03/2024 at ATIC, N.A.U., Navsari in the Presence of DEE, NAU, PI and Co-PI of Farmer FIRST Programme. Dr. L K Arvadia, Co.PI, IFS model demonstrated IFS model. Total 34 farm women participated.





Training under IFS & Horticulture based module

### 11. MEGA EVENTS: ----

#### 12. AWARDS RECEIVED:

#### 12.1 Farmer Award:

#### 12.1.1 Best Farmer (Female) Award" 2023:

Smt. Ashmitaben Ashokbhai Patel received "Best Farmer (Female) Award" in International Conference on "Impact of Climate change on global food livestock, live hood and environmental security (ICCGFLLES-2023) organized at NAU, Navsarion 28-30 Dec.,2023 and she also received "Shrestha Khedut Mahila Award" by Hon'ble Governer of Gujarat Shri Acharya Devvratji in the 19<sup>th</sup> convocation of NAU, Navsari on 03/01/2024 for her distinguished work and contribution in the field of honey bee keeping.





## 12.1.2 "Best Farmer (male) Award" 2023:

Shri. Ashokbhai Gavit received "Best Farmer(male) Award" in by Hon'ble Governer of Gujarat Shri Acharya Devvratji in the 19<sup>th</sup> convocation of NAU, Navsari on 03 January 2024 for his distinguished work selling, distribution of indigineous seeds of Paddy, Millets and Vegitables and also creating a Seed Bank in Remote area at Subir-Dangs





#### 12.1.3 District Millionaire Farmers of India Award-2023.:

Shri Sanjaylal Maganlal Nayak, Navsari, Dr. Manoj M. Sharma, Olpad, District: Surat and Shri Jigarbhai Pravinbhai Desai, AAJAJI Organic farm, Siker, Ta. Valod, District: Tapi were felicitated with District Millionaire Farmers of India Award-2023 byKrushi Jagran at IARI, PUSA, New Delhi For contribution in Value addition and fruit processing, Aquaculture and Organic farming, respectively









#### 12.1.4 Best Farmers Award 2023:

Shree Hiteshbhai Patel was awarded with the Best Farmer Award in international conference "Impact of Climate change on global food livestock, live hood and environmental security (ICCGFLLES-2023) organized at NAU, Navsarion 28-30 Dec.,2023 For work in adopting latest technologies in horticultural crops particularly Mango, Dragon fruits and its Value addition.



### 12.2 Faculty Award:

### 12.2.1 The Excellence in Extension Award-2023:

Dr. Nikulsinh M. Chauhan, Director of Extension Education was felicitated by the Hon'ble Vice Chancellor Dr. Z. P. Patel in the presence of Dr. T.R. Ahlavat, Director of Research, Dr. H. V. Pandya, Registrar and Comptroller for his splendid achievement of getting conferred with the most coveted "The Excellence in Extension Award-2023" for outstanding contribution in the field of Agricultural Extension.

He was awarded this distinct recognition on the occasion of The Excellence in Extension Award-2023in the International Conference of Climate Change and its Impact organized by agriculture & Environment Technology Development Society (AETDS), Uttarakhand, India at Shere Kashmir University of Agriculture and Technology, Srinagar, Kashmir





#### 12.2.2 Best Institute Award 2023:

KVK, Navsari was awarded with Best Institute Award 2023in international conference "Impact of Climate change on global food livestock, live hood and environmental security (ICCGFLLES-2023) for Best Institutional extension work





### 12.2.3 Best presentation awards:

Dr. J. B. Dobariya, Senior scientist & head, at KVK, NAU, Waghai, Dist: Dangs, Dr. J. H. Rathod, Senior scientist & head, at KVK, NAU, Surat and Dr. Kinjal Shal, Senior scientist & head, at KVK, NAU, Navsari were conferred Best presentation awards in 6th Annual zonal workshop of KVKs by ICAR- ATARI, Pune & Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani on at KVK, Aurangabad-I, Maharshtra







#### 12.2.4 Young Extension Services Award 2023:

Mrs. Bhakti Panchal, Scientist (Horticulture)KVK, Surat was felicited with "Young Extension Services Award 2023" by The Indian Agriculture College, Radhapuram, Tamil Nadu, India.on 12th August, 2023





### 12.2.5 Best KVK Scientiest Award:

## 12.2.5.1

Minaxi V Tiwari, Scientiest, KVK, Narmada was awarded with "Best KVK Scientiest Award" in 1 st international conferance on natural VS organic Farming at GNFSU, Anand HARWS& IIMTU Muradabad (UP) on 24-26 Dec 2023



#### 12.2.5.2

Dr. P. P. Javiya, Scientist (Crop production) KVK, NAU, Waghai, Dist: Dangs awarded "Best KVK Scientiest Award" by Agricultural and Environmental Technology development Society (AETDS), UK, Indiaon 09 June 2023.



#### 12.2.5.3

Dr. J. B. Dobariya, Senior scientist & head, at KVK, NAU, Waghai, Dist: Dangswas felicited "Best KVK Scientiest Award " by University of Agricultural sciences, Bangalore on June 22-24, 2023



## 12.2.6 Young Scientist Award:

Mr. B. M. Vahuniya, Scientist (Plan Protection), KVK, NAU, Waghai, Dist: Dangs awarded "Young Scientist Award" by Reddy University, Hyderabad, Just agriculture Edu. Group and ISAHRD, Chandigarh for Evolving extension science towards secondary agriculture for sustainable development



### 12.2.7 Best veterinary Scientist Award:

Dr. S. A. Patel, Scientist (Animal science), KVK, NAU, Waghai, Dist: Dangswas felicited Best veterinary Scientist Award by Malla Reddy University, Hyderabad, Just agriculture Edu. Group and ISAHRD, Chandigarh for Evolving extension science towards secondary agriculture for sustainable development



#### 12.2.8 Home Scientist award:

Smt. Nital N. Patel, (Home Science), KVK, Navsari felicitated "Home scientiest Award" by Hon. Governer of Gujarat Shri Acharya Devvratji in Prakrutik Mahila Sammelan, Organized by Gujarat Natural Farming Science University, Halol in 2023



## 12.2.9 poster presentation award:

Prof. K. N. Rana, Scientist (Crop Production) KVK, Tapi, awarded poster presentation award in National Conference on "Transformation of Agro-Technologies for enhancing Production under diverse Agro-Ecosystem at Saputara (Hill station), Dang, Gujarat organised on 12-14 october, 2023





## **13. PUBLICATIONS:**

Sr. No.	Details of Publications	NAAS rating
12.1 R	Research Articles/ Notes:	
1	Javiya, P. P.; Baldaniya, M. J.; Vahunia, B. M.; Patel, S. A.; Rana, K. N. and Patel, V. M.(2023). Evaluation of frontline demonstration of new technology on chickpea ( <i>Cicer arietinum</i> L.) in Dang district of Gujarat. <i>Journal of Food Legumes</i> , 36(2 & 3): 183-186.	5.54
2	Kadam, D.M.; Chouhan, D.; Roy, T; Prajapati, H. A.; Tiwari, N.; Nandeha, Mishra, N. R. (2023). Digital Agriculture: the Future of Indian Agriculture. <i>International Journal of Environmental Science and Climate Change.</i> Volume 13, pp:3963-3976	5.16
3	Prajapati, H. A.; Kadam, D. M.; Aitwar, S. S.; Jagtap, P.D.; Singh, D.; Nandeha, N and Mukherjee, D. (2023). Application of Robotics, Artificial Intelligence and Deep learning in Modern Agriculture Technology: A Review. <i>International Journal of Plant and Soil Science</i> . <i>Volume 35</i> , issue 23 pp:106-116	5.07
4	Gurjar, R.A.; Salunkhe, S; Shah, K.A.; Prajapati, H. A. and Chauhan, N.M. (2023). Performance of frontline demonstration of Okra var. Purna Rakshak. <i>The Pharma Innovation Journal</i> , <b>12</b> (9): 932-934	5.23
8	Gurjar, R.A.; Shah, K.A., Nayka, P.; Prajapati, H. A. and Chauhan, N.M. (2023). Demonstrations plot study for yield and economic evaluation of little gourd (GNLG-1) and pointed gourd(GNPG-1) varieties. <i>The Pharma Innovation Journal</i> , <b>12</b> (9): 246-248	5.23
9	Sandipan, P. B., Patel, P. S., Patel, R. K. (2023). Assessment of bioagents against cotton diseases under South Gujarat of India. <i>Int. J. Agric. Sci.</i> , 19(1): 75-80 (ISSN: 0973–130X)	4.73
10	Patel, N., Sandipan, P. B., Saini, N., Patel, P. S. and Patel, R. K. (2023). Prevalence and incidence of Corynespora leaf spot disease of cotton under South Gujarat of India (2023). <i>The Pharma Innovation Journal</i> , 12(5): 2527-2532 (ISSN (E): 2277-7695)	5.23
11	Patel, R. K., Pandya, J. R., Desai, H. R., Patel, A. R. and Chaudhari, K. N. (2024). Evaluation of Cotton (Gossypium hirsutum L.) Varieties/Genotypes for Jassid, <i>Amrasca biguttula biguttula</i> (Ishida) Resistance under Rainfed Conditions. <i>Int. J. Plant Soil Sci.</i> , 36(3): 23-34 (ISSN: 2320-7035)	5.07
12	Gurjar. R. A,. and Chauhan. N. M.(_2023) Advancing Environmental Sustainability through frontline Demonstration of bio fertilizer. The Pharma Innovation Journal 2023	4.55
13	Chauhan. N. M.(2023) Performance of Bio Fertilizer on Yield of Mango and Sapota in Navsari District of Gujarat. J krishi vigyan 2023, 11 (2),:. 269-273.	4.55
14	Gurjar. R. A, Nayaka. Prbhu, Shah. K. A. and Chauhan. N. M.(2023) A Comprehensive Evaluation OF Bio Fertilizer on Mango and Sapota. <i>The Pharma Innovation Journal</i> 2023	5.23
15	Chuadhari. Rutika. U. Chauhan. N. M, and Chuadhari.K. L.,(2023). Assessment of Livelihood Security of Farmers in Coastal area of South Gujarat. <i>Journal of Gujarat Extension Education.</i> , 36(2), : 134-137.	5.30
16	Ranoliya. Priya D., Chauhan. N. M, and Chuadhari.K. L(2023), Relationship between profile of Mango Growers and thier Level of Awareness towards the Export Mango. <i>Journal of Gujarat Extension Education</i> , 36(2).	5.30
17	Vahunia, B. M.; Javiya, P. P. and Patel, S. A. (2023). Oyster mushroom cultivation - Enterprise for self employement of Rural Youth and farm women. Abstract In "Conference held at Malla Reddy University, Hyderabad, Just agriculture Edu. Group and ISAHRD, Chandigarh.	
18	Dobariya J.B., Patel S.A., Vahuniya B.M., Prajapati, H.A. and Javiya, P.P. (2023) Adoption of integrated farming system through proper water harvesting. <i>Agri gate</i> , Vol. 3, Issue 06, page 74-77.	

## 12.2 Book(s)/ Proceedings/ Book of Abstract/Souvenir:

- Javiya, P. P.; Baldaniya, M. J.; Vahunia, B. M.; Patel, S. A.; Rana, K. N. and Patel, V. M.(2023). In: *Proceedings of 5<sup>th</sup> International conference "Climate Change and its Impact (CCI, 2023) on Evaluation of Frontline Demonstration of new technology on Chickpea (Cicer arietinum L.) in Dang district of Gujarat.* Agricultural & Environmental Technology Development Society(AETDS), U.S. Nagar, Uttarakhand, India, and hosted by Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K) Srinagar, J&K., India. 291 p.
- Javiya, P. P.; Mathukia, R.K.; Kaneria, S.C. and Rupareliya, V.V. (2023). In: souvenir of National Conference "Transformation of Agra-Technologies for Enhancing production under Diverse Agro-Ecosystem" on Effect of various cow-based bio-enhancers and botanicals on growth, yield and quality of organic wheat (Triticum aestivum L.). College of Agriculture, NAU, Waghai and Navsari Chapter Indian Society of Agronomy, Navsari Agricultural University, Navsari, Gujarat. 245-246 p.
- Javiya, P. P.; Rupareliya, V.V.; Hirapara, K. V.; Patel, V. M.; Baldaniya, M. J. and Dholariya, H. P.(2023). In: souvenir of National Conference "Transformation of Agra-Technologies for Enhancing production under Diverse Agro-Ecosystem" on Influence of various cow-based bio-enhancers and botanicals on yield, nutrient uptake of organic wheat (Triticum aestivum L.). And soil properties. College of Agriculture, NAU, Waghai and Navsari Chapter Indian Society of Agronomy, Navsari Agricultural University, Navsari, Gujarat. 76-77 p.
- Vahunia, B. M.; Javiya, P. P.; Dobariya, J. B.; Patel, S. A.; Prajapati, H. A. and Patel, R. S. (2023). Sajivkhetinisaralsamaj (University Publication No. NAU/04/07/046/2023)
- Dobariya J. B.; Patel R. S. and Pandya R. D. (2023). A Scale to measure Aspiration of Educated youth towards Agricultural enterprises, Abstract book of national seminar on "Evolving Extension Science towards secondary Agriculture for Sustainable Development", University of Agricultural Sciences, Bangalore, 22 to 24 June 2023
- Dobariya J. B.; Patel, S.A and Vahuniya B. M.. (2023). Impact of KVK activities in adopted villages of KVK-Dangs, Abstract book of national seminar on "Evolving Extension Science towards secondary Agriculture for Sustainable Development", University of Agricultural Sciences, Bangalore, 22 to 24 June 2023
- 7 Shah,K.A, Gurjar,R.A., Patel, Salunkhe, Sumit,Rathava,p.(2023). Technological and Extension Yield Gaps in Chickpea in Navsari District of Gujarat, India. ICCGFLLES-2023
- 8 Gurjar,R.A ,Shah,K.A, Velamuri,Anusha,Chauhan,N.M.(2023). Significance of NAUROJI NOVEL Banan Pseudostem Based Organic Liquid Nutrients on Yield of Mango and Sapota. ICCGFLLES-2023
- 9 G.B. Kalariya and L.V. Ghetiya, (2023) Severe Infestation of whitefly, Alurolobus barodensis (Mask) under salt affected field conditions in Gujarat, 3 Days International Conference on Impact of climate changes on Global Food, Livestock, livelihood and Environmental Security: Advanced approaches and mitigation strategies.
- Nefla Y., Susheel Singh, T. R. Ahlawat G.B. Kalariya (2023), Impact of Weather Parameters on Coconut Rogues Spiraling Whitefly, 3 Days International Conference on Impact of climate changes on Global Food, Livestock, livelihood and Environmental Security: Advanced approaches and mitigation strategies pp. 89
- Nefla Y., Susheel Singh, T. R. Ahlawat, G.B. Kalariya (2023) Impact of Weather Parameters on Coconut Rogues Spiraling Whitefly and its Effect on Yield Loss, 3 Days International Conference on Impact of climate changes on Global Food, Live stock, livelihood and Environmental Security: Advanced approaches and mitigation strategies pp. 79
- Book: "A Compendium on NAU Activities for Celebration of International Year of Millets-2023" Dr. H. E. Patil, Dr. Timur Ahlawat and Dr. N. M. Chauhan with publication No. NAU/03/19/007/2023, September 2023 by Hill Millet Research Station, NAU, Waghai.
- Book: "Ensuring Livelihood Security for Small and Marginal farmes of South Gujarat" Dr. N. M. Chauhan, Dr. A. K. Leua with University publication No. NAU.01/04/045/2023, November, 2023 by Farmer First Programme, NAU, Navsari implemented by Director of Extension Education, NAU, Navsari.

Book: "Ambani Vaigyanink Kheti Padhdhti ane kerinu Mulyvardhan" Dr. R. A. Gurjar, Dr. Parag Pandit, Dr. K. A. Shah and Dr. N. M. Chauhan with publication No. NAU/04/04/07/2024, Year 2023-24 published by Krishi Vigyan Kendra, Navsari under the scheme of Arya Project B. H 18191.

## 12.3 Leaflets/ Brochure/ Extension literature/ Book Chapters in National and International Books:

- Javiya, P.P., Vahunia, B.M. and Dobariya, J.B. (2023). Shree ann nikhetima prakrutik ayamonu mahatv. "Shree ann ek postik anaj" Hill Millet research Station, NAU, Waghai. pp. 165-68
- Vahunia, B. M.; Rabari, D. S. and Baria, N. R. (2022). Nagli pak ma sankalit roganejeevat niyantran vyavsthapan. In 'Daxin Gujarat ma nagli pak ni takniko, mulyvardhn ane nikasni sambhvano ane jagruti. Pp.8 (University Publication No. NAU01/02/026/2022)
- Javiya, P.P., Vahunia, B.M. and Dobariya, J.B. (2023). Shreeannnikhetimaprakrutikayamonumahtv. In "Shree annekposhtikanaj" (University Publication No. NAU/03/19/001/2023)
- 4 Prajapati, H.A. (2023). Indian economy: Current Status and Perspective. "Frontiers of Indian". Elite Publishing house pp. 1-14.
- Prajapati, H.A. (2023).Production Technology of Grapes. "Production Technology of Tropical and Subtropical Fruit crops",(Kumar, A.; Chikkalaki, S.; Ausari, P. K. and Bhooriya, M. S. Elite Publishing house ,pp:100-110 (ISBN-978-93-58996-78-4)
- 6 Prajapati, H.A. (2024). Package and Practices of Strawberry. "Production technology of Fruits and Flower" Elite Publishing house*pp*:236-249 (ISBN-978-93-58999-83-9)
- 7 Prajapati, H.A. (2023).Shree anna ek postik anaj- mahatv, mulyvardhan ane sudharit kheti padhdhti. "Halka dhany pakoni prakrutik kheti padhdhti", HMRS, Waghai, dang
- Panchal, Bhakti B.; Gurjar, Tulsi D. and Gurjar, R. A. (2023). Classification of Vegetable crops. "Recent Trends in Vegetable Science: Unleashing the future Direction" Elite Publishing House, New Delhi. p. 15-29. (ISBN- 978-93-58992-62-5)
- Panchal, Bhakti B. (2023). Production Technology of Dolichus bean (*Dolicus lablab*). In: " *Production Technology of Tropical Vegetable Crop.*" (Lautre, R.; Sharma, A.;

  Bhadauria, S and Khedkan, I.) Elite Publishing House, New Delhi. p. 153-159.

  (ISBN-978-93-58991-82-6)
- Panchal, Bhakti B., (2023). Production Technology of Taro (*Colocasia esculanta*). In: "

  \*\*Production Technology of Tropical Vegetable Crop." (Lautre, R.; Sharma, A.;

  Bhadauria, S and Khedkan, I.) Elite Publishing House, New Delhi. p. 160-164.

  (ISBN-978-93-58991-82-6)
- Panchal, Bhakti B., (2023). Production Technology of French bean (*Phoseolus vulgaris*) *Production Technology of Tropical Vegetable Crop.*" (Lautre, R.; Sharma, A.; Bhadauria, S and Khedkan, I.) Elite Publishing House, New Delhi. p. 165-171. (ISBN-978-93-58991-82-6)
- Panchal, Bhakti B.; Prajapati Dixita D.; Chaudhary, Darshna B. and Patel, Henaxi (2024). Importance of protected cultivation. In: "Precision Farming & Protected cultivation in Digital Era" (Sikarwar, A.; Singh, D.; Maida, P.; Jyothsha, J. and Khanam, N.) Royal book publishing, Tamil Nadu. p. 174-178. (ISBN-9788119821686)
- Panchal, Bhakti B.; Gurjar, Tulsi. D.; Prajapati, Dixita, D. and Parekh, Bhamini. V. (2024). Protected Cultivation of Horticultural Crops. In: "Precision Farming & Protected cultivation in Digital Era" (Sikarwar, A.; Singh, D.; Maida, P.; Jyothsha, J. and Khanam, N.) Royal book publishing, Tamil Nadu. p. 179-193 (ISBN-9788119821686)
- Gurjar, Tulsi D.; Panchal, Bhakti B.; Pandey, A. K.; Prajapati, Dixita. and Patel, Henaxi. (2024): Automation in Protected cultivation. In: "Precision Farming & Protected

- *cultivation in Digital Era*" (Sikarwar, A.; Singh, D.; Maida, P.; Jyothsha, J. and Khanam, N.) Royal book publishing, Tamil Nadu. p. 194-215. (ISBN-9788119821686)
- Prajapati , Dixita.; Panchal, Bhakti B.; Solanki P. D.; Gurjar; Tulsi and Lad Bhumi(2024). Advances in Protected Cultivation. In: "Precision Farming & Protected cultivation in Digital Era" (Sikarwar, A.; Singh, D.; Maida, P.; Jyothsha, J. and Khanam, N.) Royal book publishing , Tamil Nadu. p. 120-149. (ISBN-9788119821686)
- Prajapati , Dixita.; Panchal, Bhakti B.; Lad, Bhumi and Naik, Saloni (2024). Hydroponics and protected cultivation. In: "Precision Farming & Protected cultivation in Digital Era" (Sikarwar, A.; Singh, D.; Maida, P.; Jyothsha, J. and Khanam, N.) Royal book publishing , Tamil Nadu. p. 150-173. (ISBN-9788119821686)
- 17 કાલરીયા જી. બી. (૨૦૨૩) ખેડૂતોપયોગી સંશોધન ભલામણો-૨૦૨૩ પ્રકાશક: વિસ્તરણ શિક્ષણ નિયામકશ્રીની કચેરી, નકૃયુ, નવસારી પ્રકાશન નં. ૪૮/૨૦૨૩-૨૪

### 12.4 Book/ Booklet:

- Sajiv Kheti Saral Samaj, Vahunia, B. M.; Javiya P. P.; Dobariya J. B; Patel S. A.; Prajapati H. A.; Patel R. S.; 31 march 2024, NAU, Navsari Publication NAU/04/07/046/2023, ISBN NO.:978-93-6128456-4
- Patel, Himani; Itwala, C. G.; Desai G. B.; Suthar, K. P.; Panchal, Bhakti B. and, Jadav, N. (2024). Indigenous Traditional Knowledge (ITK) on Tuber Crops of Gujarat. NAU Publication No. 02/02/088/2024.
- 3 Chauhan. N. M., Shah. K. A., Rathwa, Pradip, Patel. Nital. N., Chana ni vaignanik Kheti padhdhati- NAU Pub. No. 64/2023
- 4 Chauhan. N. M., Shah. K. A., Gujjar. R. A., Salunkhe .S. N., Shiyalu pak ni vaignanik Kheti padhdhati- NAU Pub. No. 65/2023
- 5 Chauhan. N. M., Shah. K. A., Nayka. Prbhu, Prakrutik Kheti NAU Pub. No. 66/2023
- 6 Chauhan. N. M., Shah. K. A, Gujjar. R. A., Vansapatijsnsy jsivik dsvsoni banavat- NAU Pub. No. 67/2023
- 7 Chauhan. N. M., Shah. K. A, Gujjar. R. A., Patel. Nital. N., Vermicompost & Vermivash NAU Pub. No. 68/2023
- 8 Chauhan. N. M., Shah. K. A, Gujjar. R. A., Patel. Nital. N. Nagli ni vaignanik Kheti padhdhati- NAU Pub. No. 72/2023
- 9 Chauhan. N. M., Halka dhanya pakonu poshan mulay ane tenu mulayvardhan NAU Pub. No. 73/2023

### 12.5 Popular article:

- Prajapati H. A.;Dobariya J. B; Ahir Tejas, Ankit Gadhaiya , Galgotani Vaigyanik kheti padhdhti, Krushi jivan, February, ,NAU, Waghai(Dangs)
- Gadhaiya Ankit ; Patel N. B.; Sankhala P. M.; Prajapati H. A., Cholini Viayanik Kheti Paddhati, Vahunia, Krushi jivan, February, KVK, NAU, Tanachha
- 3 Know about the impotence of breeding in cow and buffalo, Krishiprabhat, 28 july 2023
- 4 Vahunia, B. M. (2023). Gunvattsabharkrushi inputs niagtyataanetenafayda, *Krushijeevan*, Jan 2023
- Panchal, Bhakti B. (2024). Advances in use of PGRs in Date Palm. *Just Agriculture*: *e- newsletter*, 4(5). p. 26-36.
- Panchal, Bhakti B. (2023). Success Story Improve Nutritional Status Through Terrace Gardening. *Just Agriculture e- newsletter*, 4(3). p. 301:305.

- 7 Chauhan. N. M., Shah. K. A., Gujjar. R. A., Salunkhe .S. N., "Shiyalu Kathol Pakoni Kheti Padhdhti" published an artical in "Gujarat Green Revelution Co.Ltd," Magazene in October 2023 Page no : 25 to 28
- 8 Chauhan. N. M., Shah. K. A., Gujjar. R. A., Salunkhe .S. N., "Shiyalu Kathol Pakoni Kheti Padhdhti" by e published an artical in" Krushi Karma" Magazene in December, 2023 on page no. 3-6.
- 9 Chauhan. N. M., Shah. K. A., Rathwa, Pradip, Patel. Nital. N., "Chana ni Vaigynink Kheti Padhdhti" by published an artical in" Krushi Karma" Magazene in December, 2023 on page no. 7-11.
- Parmar, K. A.; Patel, U. T.; Parmar, M.; Vahunia, B. M. (2022). Karela ma rogjeevatniyantran, KrushiPrabhat, Pp-15.
- Parmar, K. A.; Vahunia, B. M.;Baria, N. R.;Rathava, A. (2022). *Chananarogo nu jaivikniyantran,KrushiPrabhat*, Pp-22
- Solanki, J. B., Patel, S.A., Bhinsara, D.B., Kumar, N. and Patel, D.C. (2023). *Pashuona agatyana paropjivi jany rogo ane tene atkavava matena pagla. Krishiprabhat:* 9/5/2023. P:18.
- Solanki, J.B.; Patel S.A., Bhinsara, Patel D.B.; D.C. and Kumar, N. (2023). *Know about the importance of breeding in cow and buffalo. Krishiprabhat:* 28/7/2023. P:15.
- **14** Gurjar,R.A.,Shah,K.A.Patel,Nitalben(2023). Amrafal: Poshak tatvono uttam strot, Krishi Govidhya January-2023
- Gurjar, R.A., Shah, Patel, Nitalben , Salunkhe, Sumit , Chauhan. N.M. (2023). Nutrional Garden: Kuposhan Dur Karvano Upayo, Koli Patel Mitra, February-2023
- Gurjar,R.A.,Shah,K.A.Patel,Prabh Nayka,,Chauhan.N.M.(2023). Amrafal: Poshak tatvono uttam strot., Koli Patel Mitra, May-2023
- 17 Shah,K.A, Gurjar,R.A.,.Patel, Salunkhe, Sumit ,Chauhan.N.M.(2023). Siyalu Kathol Pako ni Kheti Paddhati., Krishi Jivan, October-2023

