Activities and Achievements

GENESIS:

The Department of Post Harvest Technology (PHT) was established during 2004 under ASPEE College of Horticulture, NAU, Navsari. The department teaches undergraduate courses in Horticulture and offers post graduate programs supported by well-trained faculties. At present two years M.Sc. and three years Ph.D. degree programmes are running in the Department of Post Harvest Technology. These degree programmes are formulated for developing competent Human Resource for which significant job opportunities exist in this country. With the advancement in production technology, the high yield / area of crops lead to large amount of marketable surplus of food grains, fruits and vegetables and crop residues, demanding appropriate post harvest handling, processing, preservation, storage, marketing and utilization. The development of food processing industries to preserve the perishable agricultural produce will not only improve economic and nutritional status of our population but also it may help in employment generation in rural as well as urban areas of the country. This can be achieved by linking production and post-harvest technology in a synergistic way. For this purpose, the department is equipped with excellent Fruit and Vegetable Processing Units for pilot scale testing of technologies, providing in-plant training and imparting community canning service to the students, farmers and entrepreneurs.

ACADEMIC ACTIVITIES:

List of Courses offered by the Department for under Graduate Programme (As per 6th Dean's Committee)

B.Sc. (Hons.) Horticulture					
S.N.	**Sem.**	**Course Code**	**Title**	**Credit hrs.**	**Faculty**
1.	I	SEC -11	Post harvest Management of Horticultural Produce	2(0+2)	Dr. A. K. Senapati/ Dr. F. M. Sahu/ Dr. J. M. Mayani
Sub-Total				**2(0+2)**	

B.Sc. (Hons.) Agriculture					
2.	II	SEC-6	Post Harvest Processing Technology	2(0+2)	Dr. F. M. Sahu
Sub-Total				**2(0+2)**	

List of Courses offered by the Department for under Graduate Programme (As per 5th Dean's Committee)

B.Sc. (Hons.) Horticulture					
S.N.	**Sem.**	**Course Code**	**Title**	**Credit hrs.**	**Faculty**
2.	IV	NRMH-4.6	Farm Power and Machinery	2 (1+1)	Dr. F. M. Sahu
3.	V	PHT-5.2	Postharvest Management of Horticultural Crops	3 (2+1)	Dr. A. K. Senapati/ Dr. F. M. Sahu (practical)

4.	VI	PHT-6.3	Processing of Horticultural Crops	3 (1+2)	Dr. A. K. Senapati
5.	III	VAC-II	Agricultural Informatics and Artificial Intelligence	3 (2+1)	Dr. F M Sahu (Practical)
			Sub-Total	**11(6+5)**	
B.Sc. (Hons.) Forestry					
6.	VIII	BSH -8.11	Agricultural Informatics (Forestry)	2(1+1)	Dr. A. K. Senapati/ Dr. F. M. Sahu
			Sub-Total	**2 (1+1)**	
STUDENT READY-I: Experiential Learning Programme (ELP)					
7.	VII	**HWE-7.3**	**Post harvest handling and value addition in Horticultural Crops**	**10 (0+10)**	
		HWE-7.3.1	Preparation and evaluation of processed products	6 (0+6)	Dr. N. V. Patel Dr. A. K. Senapati Dr. Dev Raj
		HWE-7.3.2	Packaging and Marketing of processed products	4 (0+4)	Dr. P. S. Pandit Dr. H. G. Suthar
STUDENT READY-II: Rural Horticultural Work Experience (RHWE)					
8.	VIII	RHWE-8.1	Visit to progressive farmer's field and NGO	2 (0+2)	**Dr. P.S. Pandit** Dr. Naren K Patel Prof. Arvind P Chaudhary Dr. Smita Gupta
9.	VIII	RHWE-8.6	University farms (NAU) and private horticultural field visit of South Gujarat region	4 (0+4)	**Dr. P.S. Pandit** Dr. Naren K Patel Prof. Arvind P Chaudhary Dr. Smita Gupta
			Sub-Total Student Ready	**16 (10+6)**	
Grand Total				**33 (7+26)**	

List of Courses offered by the Department for Post Graduate Programme (As per BSMA Committee)

M.Sc. Horticulture- Post Harvest Management					
S.N.	**Sem.**	**Course Code**	**Title**	**Credit hrs.**	**Faculty**
1.	Odd	PHM-501*	Post Harvest Management of Horticultural Produce	3 (2+1)	Dr. N. V. Patel
2.	Even	PHM-502*	Post harvest Physiology and Biochemistry of Perishables	3 (2+1)	Dr. J. M. Mayani
3.	Odd	PHM-503	Packaging and Storage of Fresh Horticultural Produce	2(1+1)	Dr. F. M. Sahu
4.	Even	PHM-504	Packaging and Storage of Processed Horticultural Produce	2 (1+1)	Dr. A.K. Senapati & Dr. N. V. Patel
5.	Odd	PHM-505*	Principles and Methods of Fruit and Vegetable Preservation	3 (2+1)	Dr. Dev Raj
6.	Even	PHM-506	Laboratory Techniques in Postharvest Management	3 (1+2)	Dr. H.G. Suthar & Dr. F. M. Sahu
7.	Odd	PHM-507*	Processing of Horticultural Produce	4 (2+2)	Dr. A.K. Senapati
8.	Even	PHM-508	Quality Assurance, Safety and	3 (2+1)	Dr. P. S. Pandit

			Sensory Evaluation of Fresh and Processed Horticultural Produce		
9.	Odd	PHM-509	Functional Foods from Horticultural Produce	2 (2+0)	Dr. J. M. Mayani
10.	Even	PHM-510	Marketing and Entrepreneurship in Post Harvest Horticulture	2 (1+1)	Dr. A.K. Senapati & Dr. N. V. Patel
11.	Odd	PHM-591	Master's Seminar	1 (0+1)	PG Guide
12.	Even/ Odd	PHM-599	Master's Research (Major Subject)	30(0+30)	PG Guide
***Compulsory**			**Total**	**58 (16+42)**	
M.Sc. Horticulture/ABM- other department courses taken by PHT faculty					
13.	Even	VSC-514	Post Harvest Management of Vegetable Crops	3 (2+1)	Dr. N. V. Patel
14.	Even	PSMA-506*	Processing of Plantation Crops, Spices, Medicinal and Aromatic Plants	3 (2+1)	Dr. N. V. Patel
15.	Odd	ABM-510	Food technology and processing management	3 (3+0)	Dr. N. V. Patel
16.	Even	PGS-503	Intellectual property and its management in Agriculture (ACH)	1 (1+0)	Dr. A.K. Senapati
17.	Even	PGS-503	Intellectual property and its management in Agriculture (College of Forestry)	1 (1+0)	Dr. A.K. Senapati
18.	Even	MICRO-503	Microbial Genetics (Agriculture)	3 (2+1)	Dr. H. G. Suthar
19.	Odd	MICRO-591	Master's Seminar (Agriculture)	1 (1+0)	Dr. H. G. Suthar
***Compulsory**			**Total**	**15 (12+3)**	

Ph.D. Horticulture- Post Harvest Management					
S.N.	**Sem.**	**Course Code**	**Title**	**Credit hrs.**	**Faculty**
1.	Odd	PHM-601**	Ripening and Senescence of Fruits and Vegetables	2 (1+1)	Dr. N. V. Patel
2.	Even	PHM-602**	Recent Trends in Food Preservation	2 (1+1)	Dr. Dev Raj
3.	Odd	PHM-603	Management and Utilization of Horticultural Processing Waste	3 (3+0)	Dr. H.G. Suthar
4.	Even	PHM-604**	Supply Chain Management of Perishables	2 (2+0)	Dr. A.K. Senapati & Dr. N. V. Patel
5.	Odd	PHM-605	Export Oriented Horticulture	1 (1+0)	Dr. J. M. Mayani
6.	Even	PHM-606	Food Additives	2 (1+1)	Dr. P. S. Pandit
7.	Odd	PHM-607	Advances in Processing of Plantation, Spices, Medicinal and Aromatic Plants	3 (3+0)	Dr. N. V. Patel & Dr. A.K. Senapati
8.	Even	PHM-608	Value Addition in Ornamental Crops	2 (1+1)	Dr. J. M. Mayani
9.	Even/ Odd	PHM-691	Doctoral Seminar- I	1 (0+1)	PG Guide
10.	Even/ Odd	PHM-692	Doctoral Seminar- II	1 (0+1)	PG Guide
11.	Even/ Odd	PHM-699	Doctor's Research (Major Subject)	75 (0+75)	PG Guide
12.	Even	FSC- 604	Advanced Lab. Techniques	3 (1+2)	Dr. H. G. Suthar
13.	Even	VSC- 608	Advanced Lab. Techniques for Vegetable crops	3 (1 + 2)	Dr. H. G. Suthar
****Compulsory**			**Total**	**100 (15+85)**	

Practical Manuals Published

Sr. No.	Course No.	Title of the Course	Academic Year
1.	PHT 2.1	Fundamentals Food Science and Technology	2012-13 & 2014-15
2.	PHT 1.1	Fundamentals Food and Nutrition	2017-18
3.	PHT 5.2	Post Harvest Management of Horticultural Crops	2010-11, 2013-14 & 2015-16
4.	PHT 6.3	Processing of Horticultural Crops	2017-18
5.	BSC 1.3	Introductory Microbiology	2017-18
6.	FENG-204	Refrigeration and Equipment Engineering	2019-20
7.	FPT-201	Fish Freezing Technology	2019-20
8.	FPT-202	Fish Packaging Technology	2019-20
9.	FPT-301	Fish Canning Technology	2019-20
10.	PHT 5.2	Post Harvest Management of Horticultural Crops (As per 5th Dean's Committee)	2021-22
11.	PHT 6.3	Processing of Horticultural Crops (As per 5th Dean's Committee)	2021-22
12.	SEC 11	Post harvest Management of Horticultural Produce (As per 6th Dean's Committee)	2024-25

Activities under ELP

OBJECTIVES:-

1. To impart orientation for project formulation to establish processing plant.
2. To impart training on processing and value addition for development of entrepreneurship skills in students for self employment.
3. To train the students for quality evaluation of the processed products.
4. To work out economics and breakeven point of processed products.

Model Name: HWE 7.3 - Post harvest handling and value addition in Horticultural Crops		
Year	Students	Revenue Generated (Rs)
2011-12	10	-
2012-13	10	-
2013-14	11	89225
2014-15	18	297255
2015-16	22	412355
2016-17	16	448930
2017-18	29	574085
2018-19	19	428148
2019-20	18	360726
2020-21	25	100210
2021-22	43	93110

2022-23	44	296895
2023-24	42	350190
2024-25	41	314761
2025-26	55	In Progress

Guava Nectar processing

Guava Squash processing

Orange Nectar processing

Karonda Pickle

Labelling of Processed products

Pineapple Nectar processing

	
Preparation of dough for Pasta making	Spinach Juice Extraction for Pasta making
Processing of products – Post Harvest Technology ELP 2024-25	

Number of students awarded degree since commencement of PG programme in the Department

M.Sc. Horticulture/M.Tech (PHTPE)	Ph. D. Horticulture
74 (M.Sc.) + 5 (M. Tech PHTPE) = 79	16

Year wise PG student admitted and awarded degree since commencement of PG programme in the Department

Year	M.Sc. Horticulture (PHT)		Ph. D. Horticulture (PHT)		M.Tech. (PHTPE)	
	Admitted	Awarded	Admitted	Awarded	Admitted	Awarded
2004	04					
2005	00					
2006	05	02	1			
2007	06	02	1			
2008	03	04	1			
2009	04	07	2	2		
2010	01	03	0	0		
2011	03	04	1	1		
2012	01	01	2	1	2	
2013	06	03	0	1	3	
2014	04	01	2	0		1
2015	04	06	1	0		4
2016	02	04	1	2		
2017	03	04	1	2		
2018	05	02	2	1		
2019	03	03	0	1		
2020	05	05	1	0		
2021	07	03	0	4		
2022	08	05	0	0		
2023	06	07	2	01		
2024	07	08	1	-		
Total	**87**	**74**	**19**	**16**	**05**	**05**

PG students enrolled in Doctoral Programme (2023 - 24 and 2024 -25)

S.N.	Reg. No.	Name of Student	Title of the Research Programme	Major Guide	Year of enrollment
1	1020223005	Mandalik Ganesh Bheemrao	Standardization of protocols for preparation of nutraceuticals from noni (*Morinda citrifolia* L.) juice	Dr. Dev Raj	2023
2.	1020223010	Sangamesh	Preparation of Innovative Value added Products from Mango (*cv.* Kesar) and its Waste Utilization	Dr. Dev Raj	2023
3	1020224010	Thakarya Devyaniben Zinabhai	Processing and Value Addition of Sapota [*Manilkara achars* (Mill) Fosberg] into burfi, juice, jaggery and pomace based cookies	Dr. Dev Raj	2024

PG students enrolled in Master Programme (2023 - 24 and 2024 -25)

Sr. No.	Registration No.	Name of Student	Title of the research programme	Major Guide	Year of enrollment
1.	2020223007	Chaudhary Bharatkumar Gajabhai(4th Sem.)	Development of extruded product by using elephant foot yam (*Amorphophallus paeoniifolius* L.) powder	Dr. N. V. Patel	2023
2.	2020223017	Movaliya Krinal Bhupatbhai (4th Sem.)	Studies on preparation of dragon fruit [Hylocereus polyrhizus (Weber) Br. & R] and guava (Psidium guajava L.) blended nectar	Dr. S. L. Sangani	2023
3.	2020223018	Nila B Nair (4th Sem.) **ICAR Student**	Utilization of greater yam (*Dioscoria alata* L.) for preparation of noodles	Dr. N. V. Patel	2023
4.	2020223020	Panchal Yash Dipeshbhai (4th Sem.)	Production, extraction and characterization of microbial pigments using dragon fruit [*Hylocereus polyrhizus* (Weber) Br. & R] plant waste	Dr. J. M. Mayani	2023
5.	2020223026	Patel RanilRajeshbhai (4th Sem.)	Standardization of formulation for preparation of fruit bar from dragon fruit [*Hylocereus polyrhizus* (Weber) Br. & R] and guava (*Psidium guajava* L.)	Dr. S. L. Sangani	2023
6.	2020223028	Ramani Ishan Manojbhai (4th Sem.)	Standardization of protocol for preparation of carbonated sapota nectar	Dr Dev Raj	2023
7.	2020224001	Ajay M. (1st Sem.) **ICAR Student**	Standardization of protocol for preparation of blended fermented beverage from sapota and mango	Dr Dev Raj	2024

8.	2020224007	Chaudhary Pransi Kamleshbhai (1st Sem.)	Development and quality evaluation of pineapple-bottle gourd blended appetizer	Dr. S. L. Sangani	2024
9.	2020224012	G. Mithinkumar (1st Sem.) **ICAR Student**	Development of fermented ready to drink beverage from red dragon fruit [*Hylocereus polyrhizus* (weber) BR. & r	Dr. J. M. Mayani	2024
10.	2020224021	Panwala Anvi Rakeshkumar (1st Sem.)	Development of pro-biotic beverage from red dragon fruit [*Hylocereus polyrhizus]*	Dr. J. M. Mayani	2024
11.	2020224022	Patel Maitri Ajaybhai (1st Sem.)	Development of pickle from banana central core and mango	Dr. C. S. Desai	2024
12.	2020224027	Ramjiyani Ramkumar Narshibhai (1st Sem.)	Shelf life extension of sapota [*Manilkara achras* (Mill.) Fosberg] fruits for commercial adoption	Dr N. V. Patel	2024
13.	2020224031	Trivedi Aditya Parixitbhai (1st Sem.)	Studies on preparation of blended peanut butter with moringa leaves and banana pseudostem core powder	Dr. C. S. Desai	2024

Post Graduate Students who have cleared NET in the Discipline of Post Harvest Technology

Sr. No.	Name	Year
1.	Chirag S. Desai (04-00011-2004) (Horticulture)	2010
2.	Jilen M. Mayani (04-0265-2006)(Horticulture)	2010
3.	Patel NiketakumariBhikhubhai (04-0376-2007) (Horticulture)	2010
4.	Arbat Shakti Sahebrao(04-0361-2007) (Horticulture)	2011
5.	SanganiSandeepkumar L. (04-0383-2007) (Horticulture)	2011
6.	Nazaneen N. Shaikh (04-1343-2012) (Fruit Science)	2015
7.	VaghashiyaJaysukhbhai M.(1020215013) (Vegetable Science)	2016
8.	Chethan Prasad HP (2020213007) (PHT)- SRF	2016
9.	Tanveer Ahmad Qadeer Ahmad (1020214015) (Fruit Science)	2016
10.	Bhatt Zalakben K. (2020217004) (Vegetable Science)	2019
11.	Raghavendra H. R. (2020217028) (PHT)-SRF	2019
12.	Naik Poojaben Rajeshbhai (1020218008) (Vegetable Science)	2021
13.	Mehul Maganbhai Gohil (1020220006) (Fruit Science)	2021
14.	Vasantha S V (Reg. No. : 2020221042) in Vegetable Science	2023

Medalist Students of the Department

Sr. No.	Name of student	Year
ASPEE Foundation Gold Plated Silver Medal M. Sc. Horticulture		

1.	Patel NiketakumariBhikhubhai (M.Sc)	2011
2.	NazaneenNazeerahammad Shaikh (M. Sc)	2015
3.	LavanyaTehsildar(2020214019 -M.Sc. PHT)	2017
4.	Madhusudan R. (2020216014 MSc. PHT)	2019
Kalptaru Gold plated silver medal for quality research work related to Banana pseudostem in the subject of PHT		
1.	Raghavendra H. R (2020217028-M.Sc.)	2021
2.	Sushmitha M. B. (2020218046 M.Sc.)	2022
Best thesis award (Gold medal) on the basis of rating of the thesis (January 2019)		
1.	LavanyaTehsildar (2020214019 -M.Sc.)	2019
ASPEE Foundation Gold Plated Silver Medal for Ph. D. Horticulture		
1.	Arbat Shakti Sahebrao (Ph.D.)	2014

Ms. LavanyaTehsildar (2020214019 -M.Sc.)
Recipient of Vice-chancellor Gold medal for best thesis
14th annual convocation (January 2019)

Raghavendra H. R (2020217028-M.Sc.)
Kalptaru Gold plated silver medal for quality research work related to Banana pseudostem in the subject of PHT from Chancellor
(16th annual convocation of NAU Navsari (9th February 2021)

Madhusudan R. (2020216014 MSc. PHT)

Recipient of ASPEE Foundation Gold plated silver medal for securing highest OGPA and quality of research work in PHT from Chancellor
(15th Annual Convocation of the NAU, Navsari (19th December 2019)

Sushmitha M. B. (2020218046 M.Sc.)

Recipient of Kalptaru Gold plated silver medal for quality research work related to Banana pseudostem in the subject of PHT from Vice chancellor
(17th Annual Convocation of NAU Navsari 8th February, 2022)

SN	Name of Student	Name of Medal	Year
1	Naik Poojaben Rajeshbhai	"ASPEE Foundation Gold Plated Silver	2022-23

	Ph.D. (Horti.) in PHT	Medal" for M.Sc. (Horti.) Flori. L. A. or PHT	

NaikPoojabenRajeshbhai18th Annual Convocation Date : 04/03/2023

RESEARCH ACTIVITIES

Focus Areas

- Development of cool chain, low cost storage, handling and packaging techniques.
- Exploration of plant extracts in extension of storage life of fruits and vegetables.
- Development of processes for the preparation of instant and extruded food products.
- Development of technology for processing and value addition of wild fruits.
- Preparation of natural flavonoids, antioxidants, bio-colours and health foods.
- Research on fungal toxins occurrence and remedies in cereals, fruits, nuts and their products (e.g. patulin, aflatoxin, rubratoxin, fumonisin,ochratoxinetc).
- Development of convenient and functional processed products by incorporation of milk, milk products, oat, linseed, soybean, sunflower seed into fruit and vegetable products.
- Development and evaluation of natural colour from fruits and vegetables
- Establishment of HACCP protocols for different food commodities for TQM
- New convenience value added food products from wastes of fruit and vegetable industry.
- Technology for the preparation of health oriented appetizer, nectar, jam, squash, chutney, leather, toffee, instant powder etc.
- Screening of tomato varieties & hybrids for the preparation of juice, puree, paste, ketchup & canning.
- Technology for preparation of low calorie health drinks from fruits & vegetables.
- Technology for the preparation of dehydration of fruits and vegetables.
- Osmo-canning technology for suitable fruits and vegetables.
- Development of fruit juice based carbonated beverages.
- Development of technology for extraction of pectin & essence from mango waste. Utilization of mango peel for conversion of edible products.
- Development of protocol for extension of storage life of cut flower crops.
- To provide community canning services to the university employees and nearby farmers.

Research Schemes in Operation

SN	Title of Research Project	Year of Commencement& Budget Head	PI & Co-PI	Funding Agency
1	Centre of Excellence on Post Harvest Technology	2004-05 B.H.-12935	Dr. Dev Raj	Govt. of Gujarat (Plan)
2	Strengthening of P.G. Programme of Post Harvest Technology & Process Engineering (Phase-II)	2010-11 B.H.-12244	Dr. Dev Raj	Govt. of Gujarat (Plan)
3	Establishment of Fruits and	2009-10	Dr. Dev Raj	Govt. of Gujarat

	Vegetable Packaging Research Station Including Seeds	B.H.-12940		(Plan)

Objectives of scheme

1. Center of Excellence on Post Harvest Technology (BH: 12935)

Objectives:

a) To conduct basic and applied research in the area of handling, preservation, storage and processing of major horticultural crops.
b) To impart education on post harvest technology.
c) Testing of the developed technologies on commercial scale.
d) Training of the entrepreneurs.
e) Technology transfer to farmers and industries.
f) To provide advisory and consultancy services to agro processing industries.

2. Strengthening of P.G. Programme of Post Harvest Technology & Process Engineering (Phase-II) (BH: 12244)- (now P.G. Programme on PHT of Horticultural Crops)

Objectives:

a) To establish PG faculty of Post Harvest Technology & Process Engineering
b) Diversification and upgradation to Post Harvest Technology & Process Engineering education research and extension

3. Establishment of Fruits and Vegetable Packaging Research Station Including Seeds (BH: 12940)

Objectives:

a) To conduct applied research work on the subject of post harvest packaging, storage and transportation of fruits and vegetables as well as seed.
b) To popularize the methods and techniques of post harvest handling of fruits and vegetables as well as seed to avoid post harvest losses as per client specific requirement,
c) To provide all the basic facilities of Pack House on rental basis to the farmers, merchants, processors and Exporters.
d) To provide advisory and consultancy services to fresh supply chain and processing to industries for the export.

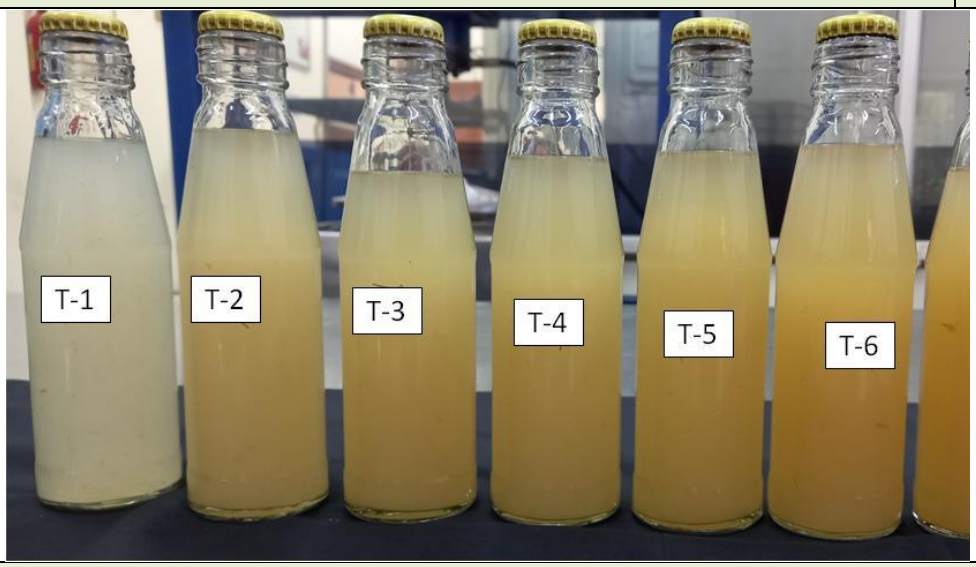
EXTERNALLY FUNDED PROJECTS

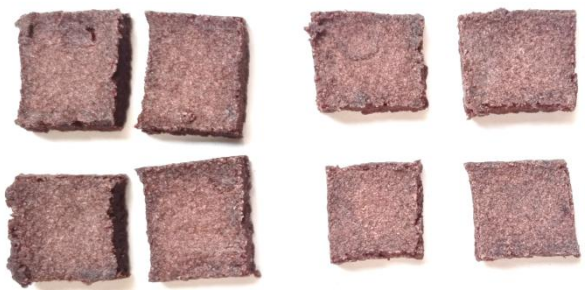
- Processing and value addition of Horticultural Produce under National Agricultural Higher Education Project under CAAST (ICAR)
- Performance evaluation of Conveyor type Hot Water System for Biter Gourd

: Research Recommendations:

Year : 2023-24 (20th AGRESCO)

S.N.	Title of Experiment and Recommendation	Name of PI / Co-PI/ Associate
1	**Title:** Standardization of process technology for the preparation of Aloe vera and Aonla blended juice ભલામણનુશીર્ષક:એલોવીરા - આમળાનોમીક્ષરસબનાવવામાટેનીવિકસીતપધ્ધતિ **Recommendation** ભલામણ પ્રોસેસરો અનેફળોના રસસાથેસંકળાયેલ ઉત્પાદકોને ભલામણ કરવામાં આવેછે	Dr. Dev Raj Dr. N. V. Patel Dr. A. K. Senapati Dr. H.G. Suthar

	કે, એલોવીરાઅનેઆમળાનોમીક્ષરસબનાવવામાટે૭૫:૨૫પ્રમાણમુજબ૮ગ્રામખાંડપ્રતિ૧૦૦મી.લી.સમાંઉમેરીટી.એસ.એસ.નુંપ્રમાણ૧૨°બ્રીક્ષજાળવીસંચળ૩ગ્રામઅનેઆદુનોરસ૩મી.લી. પ્રતિલીટર મીક્ષ રસપ્રમાણે ઉમેરવા. ત્યારબાદમીક્ષરસને૯૫ ±૧°સે. તાપમાનેપમીનીટસુધીગરમકરીકાચનીબોટલમાંભર્યાબાદ૯૫±૧°સે.પમાને૩૦મીનીટસુધીગરમકરવું.આરીતેપેકકરેલમીક્ષરસને૮માસસુધીસામાન્યતાપમાને સંગ્રહકરીશકાયછે.	
	 	
	એલોવીરા-આમળાનો મીક્ષ રસ	
2	**Title:** Standardization of suitable treatments for preparation of osmo-air dehydrated mango (*Mangifera indica* L.) slices કેસર કેરીની ચીરી ઓને ઓસ્મો-એર દ્વારા સુકવણી કરવા માટેની વિકસીત પધ્ધતિ **Recommendation** ભલામણ પ્રોસેસરોઅનેઉત્પાદકોનેભલામણકરવામાંઆવેછેકે,કેસરકેરીનાફળોમાંથીઓસ્મો-એરદ્વારાસુકવણીકરીનેચીરીઓતૈયારકરવામાટેકેરીનેઉતાર્યાપછીછઠ્ઠાદિવસે૧.૫±૦.૨સે મીજાડાઈનીચીરીઓને૪૦°સેતાપમાનેઅને૬૦°બ્રિક્ષખાંડનીચાસણીવાળાઓસ્મોટીકદ્રાવણમાં૨૪કલાકઓસ્મોટીકટ્રીટમેન્ટઆપ્યાબાદ૧૫±૦.૪ % ભેજનુંપ્રમાણરહેત્યાંસુધીકેબિનેટડ્રાયરદ્વારાસુકવણીકરવી. પધ્ધતિથી તૈયાર કરવામાં આવેલ ઓસ્મો-એરસુકવણીકરેલચીરીઓમાં૩૦.૮૬% ઉત્પાદન સાથે ઓછું બ્રાઉનીંગ તેમજ વધારે બીટા–કેરોટીન અને સારી સ્વીકાર્યતાધરાવેછે. ઓસ્મો-એરસુકવણીકરેલચીરીઓનોઉત્પાદનખર્ચ ૩.૮૩૩ પ્રતિકિલો થાયછે અને૯૫માઈક્રોનપોલીપ્રોપીલીનનીથેલીમાંસામાન્યતાપમાને૬મહિનાસુધીસંગ્રહકરીશકાયછે.	Dr. Dev Raj Dr. Y. N. Tandel Dr J. M. Patel

		
	કેસર કેરીની ઓસ્મો-એર સુકવણી કરેલ ચીરીઓ	
3.	**Title:** Standardization of formulation for preparation of fruit bar from sapota pulp ચીકુ પલ્પ અને શેરડીના રસ આધારીત ચીકુબાર બનાવવા માટેની વિકસીત પધ્ધતિ **Recommendation** ભલામણ: પ્રોસેસરો અને ઉત્પાદકો ને ભલામણ કરવામાં આવે છે કે, ચીકુ બાર બનાવવા માટે ચીકુપલ્પ અને શેરડીનો રસ ૬૦:૪૦ પ્રમાણ મુજબ મીક્ષ કરી,૦.૫ % પેક્ટીન ઉમેરી, ૪૦°બ્રીક્ષટી. એસ.એસ.થાય ત્યાંસુધી ખુલ્લા વાસણમાં ગરમ કરીતે માં૧૦૦ પીપીએમ પોટેશીયમ મેટાબાયસલ્ફાઇટ ઉમેરવુ. ત્યારબાદ આમીશ્રણને ૧૦મીમી જાડાઇનું લેયર એસ.એસ. ટ્રેમાંપાથરી, ૧૬±૦.૫% ભેજનું પ્રમાણ જળ વાઇરહે ત્યાંસુધી કેબિને ટડ્રાયર માં ૬૦°સે. તાપમાને સુકવવું. આરીતે તૈયાર થયેલ ચીકુબારના ૨.૫*૨.૫*૦.૬સેમીના ટુકડા ૯૫માઈક્રોન એચ.ડી.પી.ઇ. બેગમાં પેક કરવામાં આવેતો ઝાંખી પડ્યા વગર, વધારે આઇરનનું પ્રમાણ અને સ્વીકાર્યતા સાથે ૯માસ સુધી સામાન્ય તાપમાને સંગ્રહકરી શકાય છે.	Dr. Dev Raj Dr. A. K. Senapati Dr. N. V. Patel Dr F . M. Sahu
	 	
	ચીકુપલ્પઅનેશેરડીનારસમાંથીબનાવેલચીકુબાર	
4.	**Title:** Studies on quality of thermally processed Oyster Mushroom during storage **ઢીંગરી મુશરૂમની ડબ્બાબંધી માટેની વિકસીત પધ્ધતિ**	Dr. H.G. Suthar (PI) Dr. Dev Raj

	Recommendation ભલામણ: પ્રોસેસર્સ અને ઉદ્યોગસાહસિકો નેભલામણ કરવામાં આવેછેકે ઢીંગરી મુશરૂમને સારી ગુણવત્તા સાથે ૬મહિનાસુધી સંગ્રહિત અને ઉપયોગકરવા ,૮૫૦ગ્રા. ક્ષમતાવાળા એ-૨•૧/૨એસ. આર.ટીનકૅનમાં નીચે દર્શાવેલા પગલાં ક્રમ પ્રમાણે અનુસરી સાચવણી કરવી: મુશરૂમને 0.૧% પોટેશિયમમેટાબાઈસલ્ફાઈટ ના દ્રાવણમાં ધોયાબા દબ્લાન્ચિંગ કરવું, ૪૦૦ગ્રા. મુશરૂમને ડબ્બામાં ભરી, ૨.00 % સોડિયમક્લોરાઇડ અને 0.0૫ % સાઇટ્રિક એસીડ ધરાવતાં દ્રાવણથી કવરકરવું, ઢાંકણ નું ક્લીચિંગ,એક્ઝોસ્ટિંગ, સીમિંગ, ૧૨૧ ડિગ્રી સેલ્સિયસ તાપમાને અને૧૫ પી.એસ.આઈ. દબાણે, ૨૫ મિનીટ માટે રિટોર્ટિંગ કર્યા બાદ ચિલ્ડ પાણીમાંડૂ બાડી ઠંડાકરવા.	Dr. A. K. Senapati
		
	ડબ્બાબંધીકરેલઢીંગરીમુશરૂમ	

Year : 2022-23 (19th AGRESCO)

S.N.	Title of Experiment and Recommendation	Name of PI / Co-PI/ Associate
1	**Title:** Standardization of method for extraction of passion fruits (*Passifloraedulis*) juice. **Recommendation** Processors and entrepreneurs are recommended to extract passion juice by treating scooped pulpy seeds with combination of 0.05% pectinase and 0.05% cellulose for 2 hours to get higher juice recovery. The juice after extraction must be filtered, pasteurized (96^{o}C), packed in glass bottles followed by processing (96$\pm$1^{o}C) for 30 min. The packed juice has storage stability for 6 months at ambient temperature.	Dr. Dev Raj Dr. N. V. Patel Dr. A. K. Senapati
2	**Title:** Development of value added blended spiced squash using passion	Dr. N. V. Patel

	(*Passifloraedulis*) and bael (*Aegle marmelos*L.) fruits **Recommendation** It is recommended to the processors, and entrepreneurs that passion and bael fruits pulp can be blended for preparation of spiced squash using 25 per cent pulp (5:20 pulp proportion of passion:bael fruits) by maintaining with 45 ºBrix TSS and 1 per cent acidity along with spices and salts. The potassium meta-bisulphite @ 700 ppm should be added at the end of thermal processing (96 ± 1 ºC for 15 minutes) followed by hot filling in PET bottles. The blended spiced squash can be stored up to 9 months at ambient temperature.	Dr. Dev Raj Dr. A. K. Senapati

Photograph with caption

Recommendation-1

<table>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>1. Passion Fruits</td><td>2. Scooping of pulp and seeds</td><td>3. Enzyme treatments</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>4. Juice and Seed separation</td><td>5. Filtration</td><td>6. Pre-heating</td></tr>
<tr><td>  </td><td colspan="2">  </td></tr>
<tr><td>7. Pasteurization</td><td colspan="2">8. Storage (Passion fruit juice)</td></tr>
<tr><td colspan="3">Plate 1. Process steps for preparation of passion fruit juice</td></tr>
</table>

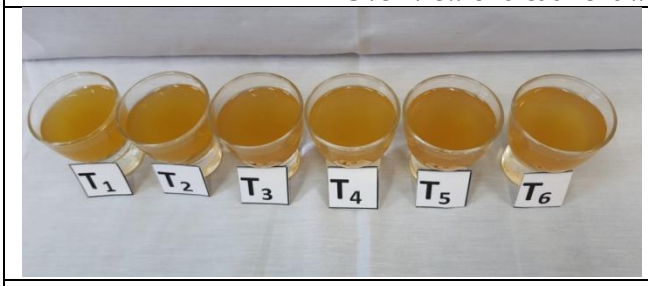
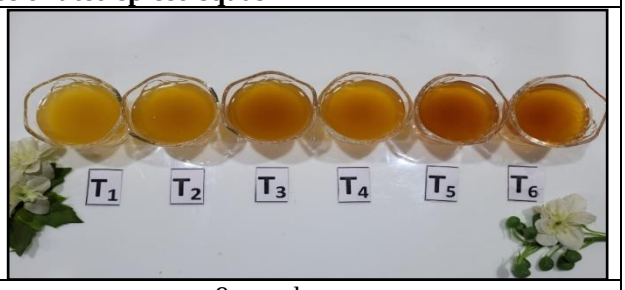
Recommendation-2

Methodology:

<table>
<tr><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>1. Passion fruits</td><td>2. Bael fruits</td><td>3. Passion fruit pulp</td><td>4. Bael fruit pulp</td></tr>
</table>

			
5. Sugar syrup with spices	6. Mixing of pulp	7. Bottle filling	8. Spiced squash
Plate 2. Process steps for preparation of spiced squash			

Experimental Result:

Over view of treatment wise spiced squash	
	
Initial	9 month storage
Over view of treatment wise diluted spiced squash	
	
Initial	9 month storage

Year : 2023-24 (20th AGRESCO)

S.N.	Title of Experiment and Recommendation	Name of PI / Co-PI/ Associate
1	**Title:** Standardization of process technology for the preparation of Aloe vera and Aonlablended juice **Recommendation** Processors and entrepreneurs associated with juice processing are recommended to produce blended juice with 75:25 proportion of Aloe vera :aonla juice by maintaining 12 °Brix TSS along with black salt 3 g and ginger juice 3 ml per liter blended juice. The blended juice must be heated (95±1°C for 5 minutes) and packed in glass bottles followed by thermal processing (95±1°C) for 30 minutes. The packed juice has storage stability for 8 months at ambient temperature	Dr. Dev Raj Dr. N. V. Patel Dr. A. K. Senapati Dr. H. G. Suthar
2	**Title:** Standardization of suitable treatments for preparation of osmo-air dehydrated mango (*Mangiferaindica* L.) slices **Recommendation** Processors and entrepreneurs are recommended to prepared osmo-air dehydrated mango slices from mango fruits after 6th day of harvesting by giving overnight osmotic dip treatment to 1.5±2cm thick slices with osmotic solution (sugar syrup) of 60°Brix at 40°C followed by air drying till moisture	Dr. Dev Raj Dr. Y. N. Tandel Dr. J. M. Mayani

	content of 15±0.4%. The osmo-air dehydrated mango slices prepared by this technique possess lower NEB along with higher beta-carotene and overall acceptability score. The osmo-air dehydrated mango slices had storage stability of six months in 380-gauge PP bags at ambient temperature	
3	**Title:**Standardization of formulation for preparation of fruit bar from sapota pulp **Recommendation** Processors and entrepreneurs are recommended to adopt technology developed by Navsari Agricultural University forpreparation ofSapota fruit bar by mixing60% Sapota pulp and 40% sugarcane juice with 100 ppm potassium metabisulphite (KMS) along with 0.5% pectin followed by open pan heat concentration upto 40^{o}Brix TSS and then pouring and spreading 10mm thick layer of mixture on SS trays and drying in cabinet air dryer at 60^{o}C till final moisture of 16±0.5%. Sapota fruit bar pieces (2.5x2.5x0.6 cm) packed in 380gauge HDPE bags possesses lower non-enzymatic browning, higher iron content and overall acceptability and remains shelf stable up to 9 months at ambient temperature storage	Dr. Dev Raj Dr. A. K. Senapati Dr. N. V. Patel Dr. F. M. Sahu
4	**Title:** Studies on quality of thermally processed Oyster Mushroom during storage **Recommendation** Farmers, processors, and entrepreneurs are recommended to preserve the oyster mushroom in eerf tsurtin can by following process steps like; moorhsumcleaning, blanching, filling with solution containing 2 % NaCl and 0.05 % citric acidin tin can, exhausting, seaming, retorting at 121°C for 35 min and cooling. The canned oyster mushroom can be stored and utilized up to 6 months	Dr. H. G. Suthar Dr. Dev Raj Dr. A. K. Senapati

Photograph with caption

Recommendation-1

Aloe vera slips

Aonla fruits

Aloe vera juice

Aonla juice

Heating (95°C, 5 min)
by adding Sugar, Black salt & Ginger juice

Mixing of juices

Thermal treatment (96±1°C, 30 min)

Aloe vera-Aonla blended juice

Plate 3. Process steps for preparation of *Aloe vera*-Aonla blended juice

Initial

8 Months of storage

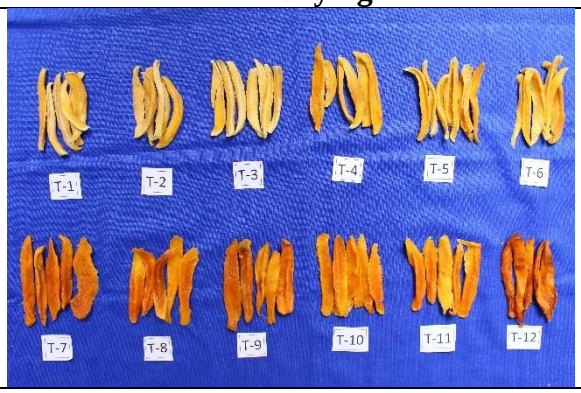
Plate 4. Over view of treatment wise *Aloe vera*-Aonla blended juice

Recommendation-2

Fresh Mangoes After Harvesting (Initial day)

Initial day

6th Day

Initial day slices	6th day slices
	
Syrup Preparation	**Syrup**
	
Osmotic Dip Treatment (Overnight)	**Air Drying**
	
	
Packing of the Osmo-air dehydrated mango slices	
Steps used for preparation of Osmo-air dehydrated mango slices)	

Recommendation 3

		
Ripen Sapota	**Sapota Pulp**	**Sugarcane Juice**
		
Heating of mixed sapota pulp and sugarcane juice	**Inside view of dryer**	**Drying of pulp in Tray dryer at** $60^{o}C$
		
Preparation of bar	**Dried pieces of bar**	**380 G HDPE packed bar**

Fig. 1:Process Steps for preparation of bar from sapota pulp and sugarcane juice

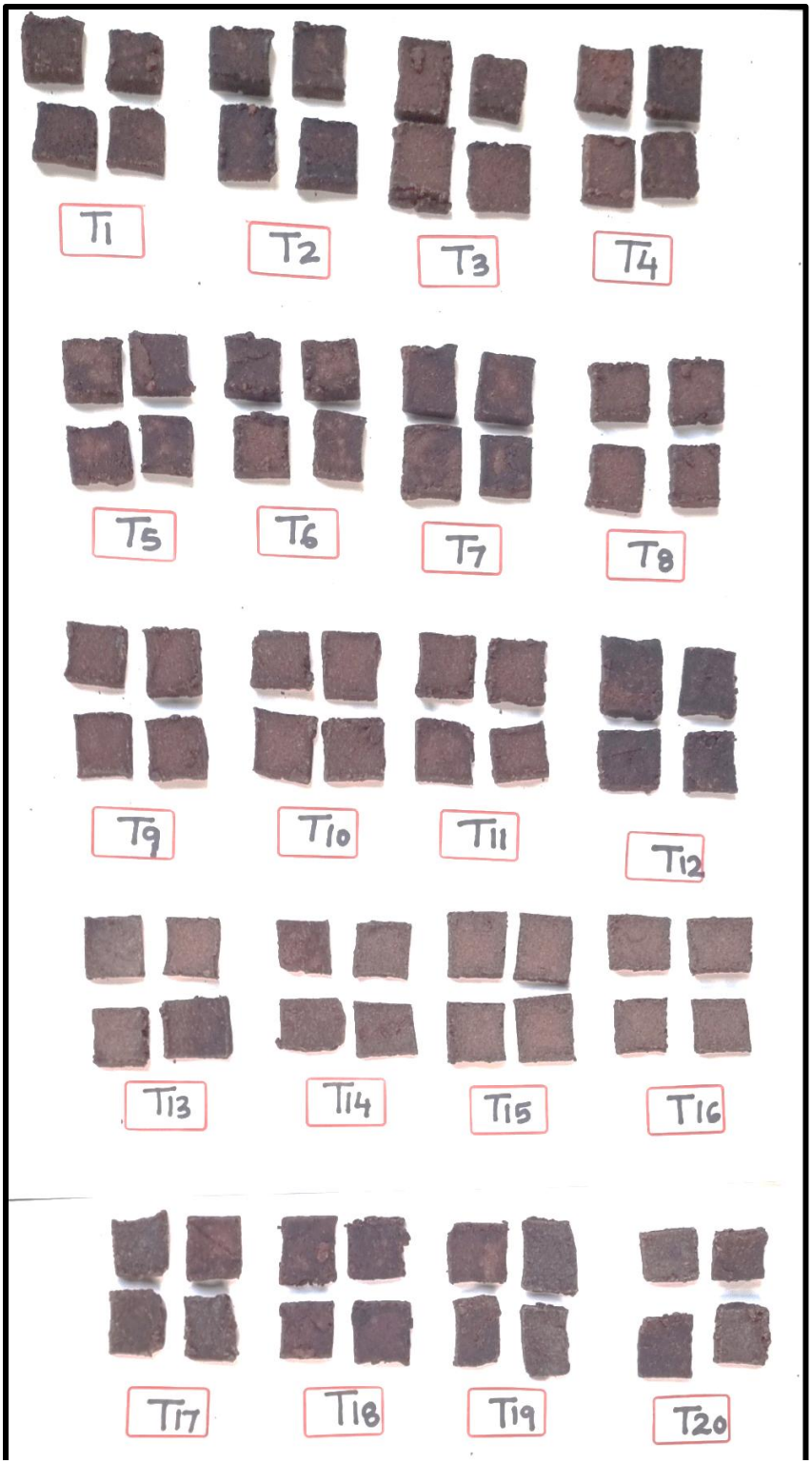


Fig 2. Treatments overview of the sapota fruit bar

Recommendation 4

Figure 1: (1) Oyster mushroom, (2) Blanching (3) Water drain from blanched oyster mushroom (4) Weighing (5) Oyster mushroom bottles (6) filling in containers (7) Seaming (8) Retorting (9) Cooling.

Our Products

PHT 2022-23

S.N.	Planting material/ Processed products	Crop and Cultivar	Quantity (No. of bottles/packets)
1.	Mango nectar (200 ml)	-	2516
2.	Guava nectar (200 ml)	-	6968
3.	Pineapple nectar (200 ml)	-	2388
4.	Orange nectar (200 ml)	-	1594
5.	Pineapple squash (750 ml)	-	262
6.	Guava squash (750 ml)	-	279
7.	Mango squash (750 ml)	-	160
8.	Orange squash (750 ml)	-	93
9.	Noni juice (200 ml)	-	56
10.	Mix Pasta (200 g)	-	274
11.	Mango pulp (Bottle-1 kg)	-	69
12.	Tuttifruiti (200 g)	-	48
13.	Aonla juice (500 ml)	-	196
14.	Mango pickles (250 g)	-	52
15.	Mango pickles (500 g)		12
16.	Mix fruit jam (500 g)	-	46
17.	KasuriMethi (30 g)	-	35
18.	Tomato ketchup (500 g)	-	17
19.	Banana wafers (200 g)	-	150
20.	Mix vegetable pickles (250 g)	-	17
21.	Mix vegetable pickles (500 g)	-	10
22.	Aloe vera juice (500 ml)	-	6
23.	Tomato Chutney (250 g)	-	16
24.	Tomato Chutney (500 g)	-	2
25.	Aonla Candy (100 g)	-	56

Photograph :

Mango nectar

Guava nectar

Orange nectar

Pineapple nectar

	
Aloe vera juice	Noni juice
	
Kasuri Methi	Guava squash
PHT : Processed products	

EXTENSION ACTIVITIES

TRANSFER OF TECHNOLOGY (ToT)

1. Training Programmes

Sr. No.	Date	Training Subject	No. of Days	No. of Participants	Organized by
1.	15-17/03/2025	Processing and Value addition of fruits and vegetables	03	39	Dept. Of PHT, ACH, NAU Navsari

Photographs :


3 days training on Processing and Value addition of fruits and vegetables at PHTC, ACH, NAU Dt. : 15-17/03/2025

2. Lecture delivered

Sr. No.	Date	No. of beneficiary	Subject	Vanue	Training organised by	Name of Faculty
1	07/06/2024	Approx. 20 (Horticulture Officers)	Processing and value addition in horticultural crops	ATIC, NAU, Navsari	ATIC, NAU, Navsari	Dr. N. V. Patel
2	26-12-2024	B. Sc. students = 60	Nitrogen fixation	Government Science College, Vankal	UG-CBC, Government Science College, Vankal	Dr. H. G. Suthar
3	27.1.2025	B. Sc./B. Tech students = 60	Biological nitrogen fixation	ASPEE Shakilam Biotechnology Institute, NAU, Surat	ASPEE Shakilam Biotechnology Institute, NAU, Surat	Dr. H. G. Suthar
4	15/03/2025	39	Importance of processing & value addition	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. Dev Raj
5	15/03/2025	39	Preparation of watermelon rind candy	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. Dev Raj
6	15/03/2025	39	Onion/ Methi/ Moringa leaves drying	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. N V Patel
7	15/03/2025	39	Preparation of wafers from banana	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. A K Senapati
8	15/03/2025	39	Practical training on	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. N V Patel

			pickle preparation			
9	16/03/2025	39	Mix fruit jam	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. N V Patel
10	16/03/2025	39	Preparation of turmeric powder	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. A K Senapati
11	16/03/2025	39	Processing and dehydration units visit	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. A K Senapati
12	17/03/2025	39	Preparation of tomato chutney	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. N V Patel
13	17/03/2025	39	Preparation of mango nectar	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. A K Senapati
14	17/03/2025	39	Preparation of pineapple squash	PHTC, ACH, NAU	Dept of PHT, ACH, NAU	Dr. A K Senapati

3. RAWE Programme

Sr. No.	Date	No. of Days	Students detail	No. of Students	Vanue	Attended by
1	1-4-24 to 6-4-24	6 days (2 Batch)	8th sem RHWE-8.1 NAU visit	64	PHTC, ACH, NAU	Dr. N. V. Patel Dr. F. M. Sahu
2	10-4-24	1 day visit	B.Tech. students from AAU	42	PHTC, ACH, NAU	Dr. F. M. Sahu
3	20-4-24	1 day visit	8th sem RHWE students from CoH, AAU	58	PHTC, ACH, NAU	Dr. A. K. Senapati
4	17-5-24	1 day visit	8th sem RHWE students from SDAU	54	PHTC, ACH, NAU	Dr. N. V. Patel
5	29-5-24	1 day visit	B.Tech. students from SDAU	23	PHTC, ACH, NAU	Dr. A. K. Senapati
6	06-6-24	1 day visit	8th sem RHWE students from CoA, AAU	28	PHTC, ACH, NAU	Dr. A. K. Senapati
7	27-02-2025 to 12-03-2025	15	B. Sc. (Hons.) Horticulture	67 Students	Educational Tour	Dr. J. M. Mayani
8	24/03/2025 to 29/03/2025	6 days (2 Batch)	8th sem RHWE-8.1 NAU visit	68	PHTC, ACH, NAU	Dr. P. S. Pandit Dr. F. M. Sahu

Visit of Students at MPUAT, Udaipur during educational tour

Visit of Students at NRC-Seed Spices, Ajmer during educational tour

Visit of Students at RARI, Jaipur during educational tour

Visit of Students at IARI,New Delhi during educational tour

Visit of Students at NIFTEM,Kundli during educational tour

Visit of Students at Dr. YSPUHF, Nauni during educational tour

4. Stall exhibition

Sr. No.	Date	No. of days	Event	Vanue	Name of faculty
1	25/06/2024	3	24th AGM of AICRP on Tuber Crops	NAU, Navsari	Dr. Dev Raj Dr. N.V. Patel Dr. J. M. Mayani Dr. A.K.Senapati
2	21-23/ 12/2024	3	Krishi Mela (Agro textile)	NAU, Navsari	All PHT Faculties
3	24/02/2025	1	Kisan Sanman Samaroh Programme by KVK, Navsari	Matya Patidar Wadi, Junathana, Navsari	Dr. Nilam V. Patel

Photographs

24th AGM of AICRP on Tuber Crops at ASPEE College of Horticulture, NAU, Navsari
Dt. : 25-27/06/2024

Visit by Dignitaries during Krishi mela
Dt. 21/12/2024

Stall Exhibition during Krishi mela
Dt. 21 to 23/12/2024

5. Special duties

Sr. No.	Date	Event	Subject	Vanue	Event organised by	Duty as	Name of Faculty
1	22/04/2024	Hostel evaluation	Hostel evaluati	Ahilya PG Hostel &	ACH, NAU,	Judge	Dr. N.V.Patel

		(UG & PG Girls)	on	Nandini UG Hostel	Navsari		

6. Visit of PHTC by students/ farmers/ officers/ entrepreneurs (April 01 to June 30, 2024)

Sr. No.	Category	No. of Visitors	Remark
1	Dignitaries/VIPs	6	State Finance Department, Gandhinagar
2	Entrepreneurs	25	From Ankleshwar, Valsad
3	Officers	58	Faculties from AAU, SDAU and NAU Dediyapada, Sir J J school (Navsari), Kota (RJ)
4	Students	1283	From AAU, SDAU and NAU Dediyapada Navsari, CoA- Jabugam, Guj., BAU- Jharkhand, Kota (RJ)
5	Farmers	146	From Navsari, Kheda, Nandurbar, MH
6	Others	-	-
	TOTAL	**1518**	

Photograph :

Educational Tour Visit of Final Year B. Tech. (Food Technology) Students of AAU, Anand on 10-04-2024

Infrastructure Available

Department

Department has excellent facilities for Teaching, Research & Development and Extension pertaining to Post Harvest Technology of Horticultural crops. Department of Post Harvest Technology has following facilities for Teaching, Research & Development and Extension:

- Food Product R&DLaboratory
- Quality ControlLaboratory
- Food MicrobiologyLaboratory
- SensoryLaboratory

- Post Harvest Physiology and PackagingLaboratory
- Post Harvest Engineeringlaboratory
- UGLaboratory
- Computer Net-WorkingLaboratory
- Seminar / conference Room well equipped with e- teachingaids

FACILITIES AVAILABLE IN LABORATORIES

Autoclave	Blade Mixer	Blanching Tank
BOD Incubator	BOD Portable Meter	Bomb Calorimeter
Box Compression Tester	Box Drop Tester	Bulk Density Meter
Colorimeter	Colony Counter	Deep Freezers
Digital pH Meter	Digital Refractometer	Digital Vernier Caliper
Double Seamer	Extruder	Fermenter
Filter Press	Flanger Hand	Freeze Dryer (lyophilizer)
Gas Analyser	Homogenizer	Hot Air Oven
Hot water Treatment Plant	Hydraulic Juice Press	Ice Flaking Machine
Incubator Shaker	Infrared Dryer	Infrared Moisture Balance
Kjeldal Distillation Apparatus	Laminar Air Flow	Mechanical Dehydrator
Microscope with Camera	Microwave Oven	Moisture Analyser
Multiparameter Meter	N_2 Estimation Apparatus	Online Data Logger
PE gauge Meter	Pulveriser	Reformer
Refrigerated Centrifuge	Rheometer	Rotary Flat Can Body
Shrink wrapped Machine	Size Grader	Spectrophotometer
Texture Analyser	Vacuum Dryer	Vacuum Packaging Unit
Vibration Testing Machine	Water activity Meter	Water Vapour Transmission Rate Meter
Waxing Machine	Weighing Balance	Weight Grader
PCR - Thermo cycler	Electrophoresis Unit	Emulsifier
Flame Photometer	Mini-centrifuge	Magnetic stirrer
Tintometer	Hot Twin Screw Extruder	Laboratory Spray Dryer
Carbonation Unit	Micro-encasulation Unit	Multi parameter Tester
Ice cream making unit	Fluidized bed dryer	

ADDITIONAL EXCELLENCE INFRASTRUCTURE

- **Centre of Excellence on Post HarvestTechnology**
- **Mango and Tomato Processing Plant having capacity of 500 kg per 8 hours**
- **Onion Dehydration Plant having capacity of 2 tonnes per 8hours**
- **Juice Processing Line having capacity of 50 litreperhour**
- **Banana ProcessingPlant**
- **Low Temperature Storage Structure having 20Tcapacity**
- **Pre-Cooling Unit having 2.5Tcapacity**
- **Fruit Ripening Chambers having 6Tcapacity**
- **Controlled Atmosphere Storage Unit having 3Tcapacity**
- **R.O. Water filtration Unit having 1200 L/hcapacity**

- **Freeze DryingUnit**
- **Heavy duty SprayDryers**
- **PackagingInfrastructure**
- **Generator with Power backup facility**

S.N.	Infrastructure or Facilities available	Area/No.
1	Processing laboratory	1
2	Analytical Laboratory	1
3	Packaging Laboratory	1
4	Sensory Laboratory	1
5	Food Microbiology Laboratory	1
6	Conference hall	1
7	Mango Processing Plant	1
8	Dehydration Plant	1
9	e-class room (smart class)	1 (48 seating capacity)

Photographs of Infrastructure

Processing laboratory

Analytical Laboratory

Packaging Laboratory

Sensory Laboratory

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Food Microbiology Laboratory</td><td>Conference hall</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Mango Processing Plant</td><td>Dehydration Plant</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td colspan="2">e-class room (smart class) with 48 seating capacity</td></tr>
</table>

Dignitaries Visit: Glimpses

Information regarding visit of Hon'ble Vice Chancellor / Dignitaries during last year 2023-24 and 2024-25

Year : 2023-24 and 2024-25

Sr. No.	VIPs/ Guests	Designation and Address	Date of Visit
1.	Dr. Anuradha Agrawal	National Coordinator, CAAST, NAHEP, ICAR, New Delhi	04/12/2023
2.	Kim Jong Ho	Seoul , Korea	20/12/2023
3.	Dr R. M. Sharma	Principal Scientist, FHT, ICAR, New Delhi	23/01/2024
4.	Dr. Manish Srivastav	Professor, FHT, ICAR, New Delhi	23/01/2024
5.	Dr. B. A. Jerard	Project Coordinator (Palm) , AICRP on Palm, ICAR-CPCRI, Kasargad	01/06/2024
6.	Shri. Kanwal Singh Chauhan	GB member-ICAR, Padmashree Awardee Farmer	05/07/2024
7.	Shri. Parsanjeet Kaur	IAS Probationer, Valsad	12/09/2024
8.	Ms. Vaishali R,	IAS Probationer, Navsari	12/09/2024
9.	Dr. S. N. Sudhakar Babu	Former Principal Scientist, and Head, Crop Production, ICAR-IIOR, Hyderabad Member RCGM, DBT, Govt. of India	19/11/2024
10.	Ms. Nazhat R Khan	Principal , ASPEE Nutan Academy, Mumbai, India	21/11/2024
11.	Dr. R. K. Mathur	Director, ICAR-IIOR, Hyderabad	05/12/2024
12.	Dr. A. K. Vyas	Vice Chancellor, Agricultural University , Kota Rajasthan	07/01/2025

Photographs :

Dr. B. A. Jerard, Project Coordinator, AICRP on Palm, ICAR-CPCRI, Kasargod, Kerala
Date : 01/06/2024

Officers from State Finance Department Gandhinagar Date : 27/06/2024

Visit of Hon'ble Minister of Agriculture, GOG Shri. Raghavjibhai Patel along with Dr. Z. P. Patel Hon'ble VC, NAU to PHT stall during Three day Mega Krushimela on December 21, 2024

Extra Achievements :

(A) Patents

(i) Patent No. 549385 : **Method For Preparation and storage of Green Tender Sorghum (Paunk) - granted on 30/08/2024** in the name of

1.Navsari Agricultural University
2.Pandit Parag Sudhirkumar
3.Suthar Harishkumar Govindbhai
4.Fakir Mohan Sahu

(ii) Jaggery Processing Device in the name of

1.Dr. Dev Raj,

2. Dr. Ashok K. Senapati,

3. Dr. Nilam V. Patel

4. Dr. Z. P. Patel

Design No. : 405374-001 April 2024

(iii) Electric Hydraulic Juice Extracting Machine in the name of

1.Dr. Dev Raj,

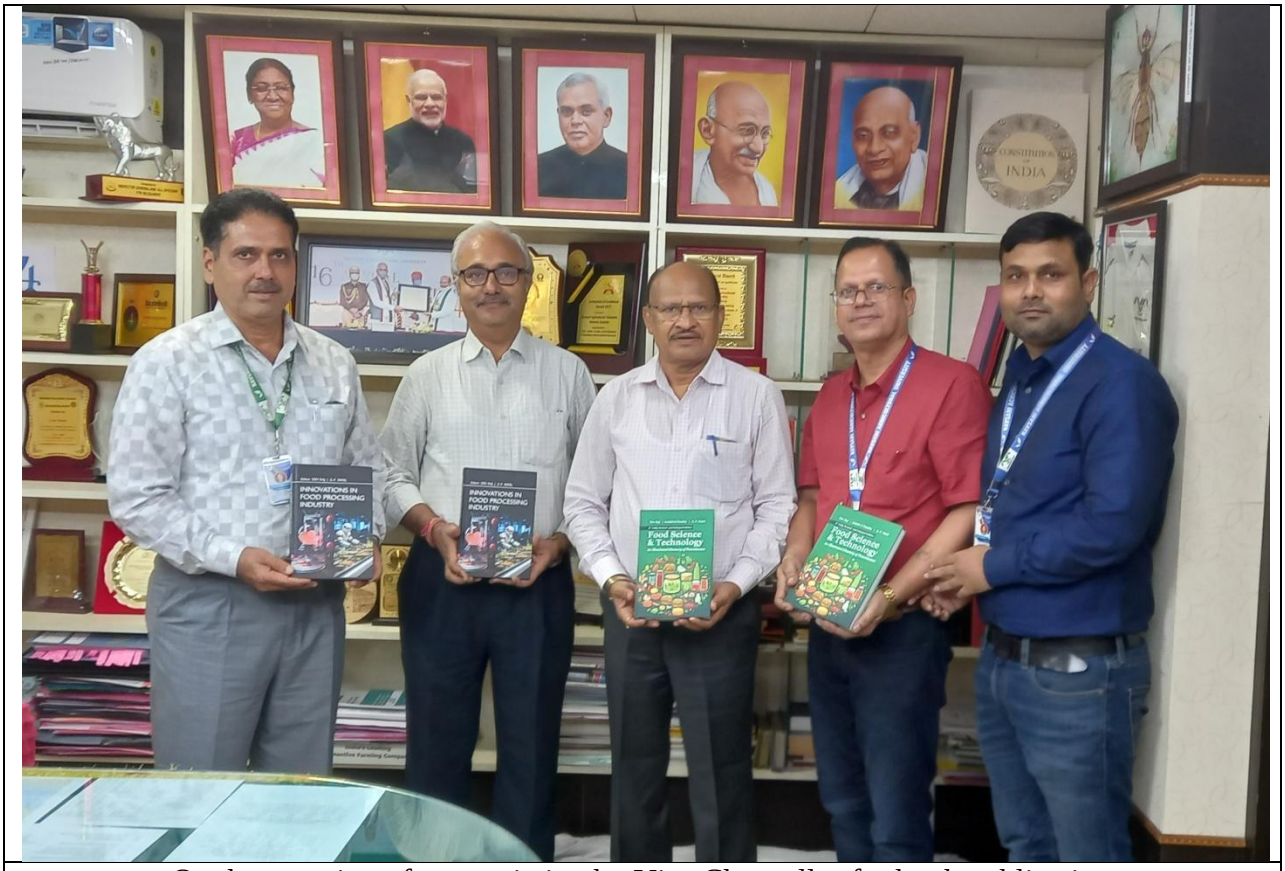
2. Dr. Ashok K. Senapati,

3. Dr. Z. P. Patel

Design No. : 406473-001 June 2024

(iv) Rava Making Device in the name of

1. Navsari Agricultural University,
2. Dr. Dev Raj,
3. Dr. Ashok K. Senapati,
4. Dr. Nilam V. Patel,
5. Dr. Z. P. Patel



On the occasion of appreciation by Vice Chancellor for book publication

On the occasion of appreciation by Vice Chancellor for Patent

On the occasion of appreciation by Vice Chancellor for Patent

(B) Print media publication

Sr. No.	Date	Name of News paper	Topic	Language	Remark
1	30/04/2024	Divya Bhaskar	Mango Export	Gujarati	Entrepreneur is Alumni of ACH, M.Sc. in PHT student

દિવ્ય ભાસ્કર સુરત 30-04-2024

સિઝન | જશાપુરના ખેડૂતની કેરીને વિદેશમાં પ્રતિ 3 કિલોના ભાવ 3 હજાર મળશે

તાલાલાની 1 નંગ કેરી અમેરિકામાં ₹.250માં વેચાશે

ગીર સોમનાથ

ભાસ્કર ન્યૂઝ તાલાલા

કેસર કેરીનું હબ ગણાતા તાલાલાગીરમાં હવે કેરીની સીઝન શરૂ થશે. જોકે, તે પહેલાં જ કેસર કેરી વિદેશ પહોંચી છે. જ્યાં સારા ભાવ મળી રહ્યાં છે. જોકે, જ્યાં માત્ર કેરીની જ હરાજી થાય છે. તે યાર્ડમાં 1 મેથી સીઝન શરૂ થશે ત્યારે જ હવે તો એક યુવાને વિદેશમાં કેરીની નિકાસ શરૂ કરી છે અને સારા એવા ભાવ મેળવી રહ્યો છે. વાતાવરણના પલટાથી આ વર્ષે ઉત્પાદન ઘટવાનો અંદાજ છે.

જશાપુર ગામના ખેડૂત યુવાન ચેતન કાનજીભાઈ મેંદપરાએ કહ્યું હતું કે હું દર વર્ષે વિદેશમાં કેરી

તાલાલા પંથકમાંથી કેટલાક દિવસથી કેરી વેચાણ અર્થે આવી રહી છે.

પહોંચાડું છું. જેમાં આ વખતે 3 કિલોના પેકીંગ કરી અમદાવાદ મોકલ્યા છે. ત્યાંથી પ્લેન મારફત કાલે અમેરીકા પહોંચશે. ત્યાંના ભાવની વાત કરીએ તો એક બોક્ષમાં 12 નંગ હોય છે અને તેમના ભાવ આશરે 2500થી લઈ 3000 ભાવ મળી રહે છે. એટલે કે એક નંગના 250 રૂપિયા મળે છે. વધુમાં કહ્યું હતું કે, અન્ય દેશ કરતા અમેરીકામાં નિકાસ કરવી એ થોડું અઘરૂ કામ છે. જોકે, તેમાં મને સફળતા મળી છે અને 3 કિલોના 400 બોક્સ મોકલવામાં આવ્યાં છે. વધુમાં કહ્યું હતું કે, અમારે 10 વીઘા જમીનમાં કેરીનો બગીચો છે.

હરાજી શરૂ થતા ગીરની કેસર બજારમાં દેખાશે

ચેતનભાઈએ કહ્યું હતું કે હું માત્ર અમેરીકા જ નહીં પરંતુ કેનેડા,લંડન,સિંગાપુર,દુબઈમાં પણ નિકાસ કરૂં છું બધે જ આ મુજબના ભાવ મળી રહે છે. ગીરમાંથી છેક 15000 કીમી દૂર અમેરીકામાં પહોંચેલી કેરી ત્યાં મોલમાં વેચાણ થશે. તેમજ કોઈ ઘરે મંગાવે તો તેમને ઘરે પણ મળી જાય તેવી વ્યવસ્થા ઉભી કરવામાં આવી છે. હવે હરાજી શરૂ થતાની સાથે જ ગીરની કેસર કેરી બજારમાં વેચાણ અર્થે આવશે. આવકમાં વધારો જોવા મળી શકે છે અને ખેડૂતો ઘર આંગણે જ વેચાણ કરી શકશે.

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