

ACTIVITIES AND ACHIEVEMENTS

ACADEMIC ACTIVITIES

LIST OF COURSES OFFERED BY THE DEPARTMENT (AS PER 5TH DEANS' COMMITTEE)

UG programme

B. Sc. (Hons.) Horticulture					
Sr. No.	Sem.	Course No.	Title of Course	Credit hrs	Faculty
1	Odd	FRT 1.1	Fundamentals of Horticulture	2+1	YN Tandel
2	Even	FRT 2.2	Plant Propagation and Nursery Management	1+1	C R Patel
3	Odd	FRT 3.3	Temperate Fruit Crops	1+1	RV Tank
4	Even	FRT 4.4	Tropical and Subtropical Fruits	2+1	YN Tandel
5	Even	FRT 4.6	Breeding of Fruit and Plantation Crops	2+1	A I Patel
6	Odd	FRT 5.7	Orchard and Estate Management	1+1	R V Tank
7	Odd	FRT 5.8	Dry land Horticulture	1+1	
Sub-Total				20 (12+8)	
STUDENT READY-I: Experiential Learning Programme					
9	Odd	HWE 7.2.1	Propagation and production of propagules	0+6	C R Patel
10	Odd	HWE 7.2.2	Packing and Marketing of planting materials	0+4	B M Tandel
11	Even	RHWE 8.3	University farms (JAU) and Visit to horticulture based industries of Saurashtra region	0+4	Y N Tandel/ R V Tank

**LIST OF COURSES OFFERED BY THE DEPARTMENT
(AS PER 4TH DEANS' COMMITTEE)**

B. Sc. (Hons.) Horticulture					
Sr. No.	Sem.	Course No.	Title of Course	Credit hrs	Faculty
1	Odd	FRT 1.1	Fundamentals of Horticulture	2+1	YN Tandel
2	Even	FRT 2.1	Plant Propagation and Nursery Management	1+1	CR Patel
3	Even	FRT 2.3	Tropical and Subtropical Fruits	2+1	YN Tandel
4	Odd	FRT 3.4	Temperate Fruits	1+1	TR Ahlawat
5	Even	FRT 4.1	Orchard Management	1+1	RV Tank
6	Odd	HWE 7.3.1	Orientation, Project Formulation, Layout and Planning	0+2	RV Tank
7	Odd	HWE 7.3.2	Propagation and Production of Fruit plants	0+6	C R Patel
8	Odd	HWE 7.3.3	Packaging and Marketing of Fruit Plants	0+2	S J Patil
9	Even	HWE 8.2	University farms (JAU) farmers field and visit to horticulture based industries of Saurashtra region	0+4	Y N Tandel / R V Tank

PG programme

M. Sc. & Ph. D (Fruit Science)					
Sr. No.	Sem.	Course No.	Title of Course	Credit hrs	Faculty
1	Odd	FSC-501	Tropical and Dry land fruit production	2+1	R V Tank
2	Odd	FSC-502	Subtropical and Temperate fruit production	2+1	Y N Tandel
3	Even	FSC-503	Biodiversity and conservation of fruit crops	2+1	T R Ahlawat
4	Odd	FSC-504	Canopy management in fruit crops	1+1	CR Patel
5	Odd	FSC-505	Propagation and nursery management for fruit crops	2+1	B M Tandel
6	Even	FSC-506	Breeding of fruit crops	2+1	T R Ahlawat
7	Odd	FSC-512	GAP for horticultural crops	1+0	B N Patel
8	Odd	FSC-603	Advances in growth regulation of fruit crops	2+1	S J Patil
9	Odd	FSC-606	Systematics of fruit crops	2+1	T R Ahlawat
10	Odd	ABM 524	Fruit production and post harvest management	2+0	Y N Tandel/ AK Senapati

Practical Manuals Published

Sr. No.	Course No.	Title of the Course	Faculty	Academic Year
1.	FRT 2.2	Plant Propagation and Nursery Management	Dr. B. V. Padhiar	2011-12
2.	FRT 3.4	Temperate Fruits	Dr. T. R. Ahlawat	2012-13
3.	FRT1.1	Fundamentals of Horticulture	Dr. Y. N. Tandel	2012-13
4.	FRT2.3	Tropical and Subtropical Fruits	Dr. Y. N. Tandel	2015-16

Activities under ELP

Commercial Production of Horticultural Crops

Year	No of students	Revenue Generate	Profit		
			75% profit	25% profit	Total
2012-13	13	299665.00	79288.00	19322.00	96610.00
2013-14	12	261446.00	49171.00	12293.00	61464.00
2014-15	25	37389.00	12621.00	3155.00	15776.00
2015-16	26	145285.00	71840.00	23947.00	95787.00
2016-17	25	93400.00	41490.00	13830.00	55320.00



Hon. Vice Chancellor Dr. C.J. Dangariya sir visited ELP unit



Vegetable seed sowing in raised bed



Visit to a commercial hi-tech nursery



Students happy with their produced plants

PG students presently enrolled in Master's Programme

Sr. No.	Name of PG Student	Title of the research programme	Name of Major Guide
1.	Patel Malhar Vishnubhai	Effect of media and foliar spray of organic on growth and vigor of acid lime.	Dr. B. R. Parmar
2.	Chavda Jay Kantilal	Effect of defoliation and storage of scion stick on growth and survival of softwood graft of Jamun var. 'Goma Priyanka'.	Dr. S. J. Patil
3.	Laxmi S. Bagewadi	Response of chemicals and photo-selective nets on growth of epicotyls grafting of mango (<i>Mangifera indica</i> L.).	Dr. R. V. Tank
4.	Makwana Kalpeshkumar Lakhmanbhai	Response of <i>Aloe vera</i> L. as influenced by organic and inorganic sources of fertilizers.	Dr. M. M. Patel
5.	Prajapati Vishalkumar Ramanbhai	<i>In vitro</i> regeneration of long pepper (<i>Piper longum</i> L.).	Dr. M. M. Patel
6.	Ankita Mantri	Effect of saline water on growth and physiological attributes of rayan (<i>Manilkara hexandra</i> L.).	Dr. Y. N. Tandel
7.	Archanaben Vasharambhai Mahida	Effect of foliar spray of iron and zinc fertilization on yield and quality of mango cv. Kesar.	Dr. Y. N. Tandel
8.	Halpati Ankitaben Prakashbhai	Effect of saline irrigation water on morpho-physiological and biochemical changes in jamun (<i>Syzygium cumini</i> L.) seedling.	Dr. C. R. Patel
9.	Khalasi Devangbhai Natvarbhai	Nutrients accumulation during fruit growth of mango (<i>Mangifera indica</i> L.).	Dr. A. K. Pandey

PG students presently enrolled in Doctoral Programme

Sr. No.	Name of PG Student	Title of the research programme	Name of Major Guide
1.	Kachhadia Palak Arvindbhai	Effect of foliar spray of different sources of silicon and boric acid on fruiting, nutritional status of leaves and fruit quality of mango	Dr. B. N. Patel
2.	Patel Dharmishthaben Mukeshbhai	Effect of silicon and seaweed extract on growth and fruiting of papaya cv. Red Lady	Dr. T. R. Ahlawat
3.	Patel Ronakbhai Jayantilal	Response of micronutrients and banana pseudostem sap at different pH levels of foliar spray solution on yield and quality of	Dr. S. J. Patil

		mango (<i>Mangifera indica</i> L.) cv. Kesar	
4.	Gamit Swati Dhirubhai	Studies on split application of potash fertilizer on growth, yield and quality of papaya cv. Red Lady Taiwan under South Gujarat conditions	Dr. T. R. Ahlawat
5.	Patel Ashishkumar Hasmukhbhai	Response of pre harvest chemicals spray on post harvest life of mango (<i>Mangifera indica</i> L.) cv. Kesar	Dr. Virendra Singh
6.	Amarcholi Jaykishan Jivraj	Integrated nutrient management in banana cv. Grand Naine under South Gujarat condition	Dr. B. R. Parmar

Post Graduate Students Awarded Masters Degrees in the discipline of Fruit Science

Sr No	Name of Student	Title of the Thesis	Name of Major Guide
Year 2005			
1.	Nileshkumar Ishwarbhai Patel	Effect of some chemicals and growth regulators on post-harvest life of banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. B. V. Padhiar
2.	Patil Kiran Dinkar	Influence of wrappers, IBA and time of ringing on air layering in Guava (<i>Psidium guajava</i> L.) cv. 'Sardar'.	Dr. B.N. Patel
Year 2006			
3.	Mukund Prabhakar Keny	Effect of plant growth regulators on stone grafting in mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. N.L. Patel
4.	Tandel Yatinkumar Naranbhai	Standardization of softwood grafting technique in sapota [<i>Manilkara achras</i> (Mill) Fosberg] cv. 'Kalipatti' under South Gujarat conditions.	Dr. C. B. Patel
5.	Vahora Arifhussain Mahmadbhai	Studies on physicochemical characters of some sapota cultivars fruits in different seasons in South Gujarat condition.	Dr. C. B. Patel
6.	Mhetre Dattu Ashok	Effect of different plant spacing and direction on growth, yield and quality of mango cv. 'Kesar'.	Dr. A.G. Naik
7.	Patel Chetnaben Manharbhai	Effect of post shooting treatments on yield, quality and maturity of banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. N.L. Patel
8.	Utkarsh Atulbhai Patel	Effect post-harvest treatments on storage behaviour og hubrid mango (<i>Mangifera indica</i> L.) fruits cvs. 'Amrapali and Neelphanso'.	Dr. B.N. Patel
9.	Patel	Weed management in mango (<i>Mangifera indica</i> L.)	Dr. B.N. Patel

	Nikunj Kumar Natubhai	seedling nursery	
Year 2007			
10.	Palkar Sachin Suryakant	Effect of high density planting on growth, yield and quality of banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. N.L. Patel
11.	Rathod Brijesh Kumar Sureshbhai	Effect of chemicals on vegetative growth, flowering, yield and quality of mango (<i>Mangifera indica</i> L.) cvs. 'Alphonso, Kesar and Rajapuri'.	Dr. N.L. Patel
12.	Nalage Nitin Abhiman	Study on the effect of height of rootstock and length of scion stick on success of epicotyls grafting in mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. B.V. Padhiar
Year 2008			
13.	Desai Jaymit Rajnikant	Studies on shelf life and quality of papaya (<i>Carica papaya</i> L.) cv. 'Red Lady Taiwan' as influenced by some ripening retardants under ambient condition.	Dr. C. B. Patel
14.	Somi Rajesh Kumar Gangadhar	Effect of pre harvest application of some chemicals on post harvest shelf life of banana (<i>Musa paradisiaca</i> L.) fruit cv. 'Grand Naine'.	Dr. C. B. Patel
15.	Savani Hitesh Kumar Mukeshbhai	Influence of various post harvest treatments for extending the storage life of mango cvs. 'Amrapali and Kesar'	Dr. C. B. Patel
16.	Bhalerao Pankaj Pandurang	Effect of growth regulators on shelf life of banana fruits (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. B. R. Parmar
17.	Mulla Anisha Mohyudin	Response of post harvest treatments on shelf life and quality of custard apple fruits (<i>Annona squamosa</i> L.) cv. 'Local'.	Shri. R. C. Patel
18.	Verma Jatin Chandubhai	Effect of NAA and 2,4-D sprays on fruit drop, retention and yield of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. B. V. Padhiar
19.	Bhalerao Rahul Ramesh	Pre-harvest spray of different sources of calcium to improve the shelf life of sapota fruits cv. 'Kalipatti'.	Dr. B. R. Parmar
20.	Shinde Kiran Avinash	Micropropagation in grape cv. 'Thompson Seedless'	Dr. R. M. Patel
21.	Rakesh Kumar Jat	Response of edible oils, chemicals and packaging materials on shelf life of guava (<i>Psidium guajava</i> L.) cv. 'Allahabad Safeda'.	Dr. C. B. Patel
22.	Salunkhe Shambhuraje Ganpatrao	Study on pre-cooling treatments for extending ripening in mango (<i>Mangifera indica</i> L.) cv. 'Kesar, Alphonso and Rajapuri'.	Dr. R. Z. Valia
Year 2009			
23.	Miss Premlata	Post harvest management in papaya (<i>Carica papaya</i> L.) cv. 'Taiwan Red Lady'.	Dr. B. N. Patel

24.	Mane Shailendra Ramdas	Assessment of influence of maturity indices, post harvest treatments and storage temperatures on shelf-life of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. B.N. Patel
25.	Vijay Anand	Vegetative propagation of cashew nut (<i>Anacardium occidentale</i> L) cv- Vengurla-4 by epicotyl grafting.	Dr. B.N. Patel
26.	Ghumare Vikas Shivajirao	Study of foliar spray of chemicals on flowering, yield, quality, morphophysiological parameters and leaf nutrient content of sapota cv. 'Kalipatti'	Dr. B. V. Padhiar
27.	Nistane Niraj Gunvantrao	Influence of micronutrients on flowering, yield, quality and leaf nutrient status of coconut cv. hybrid 'D x T'.	Dr. B. V. Padhiar
28.	Patel Jaiminkumar Ramanbhai	Micropropagation in papaya var. 'Red Lady'	Dr. R. M. Patel
29.	Gonge Amol Pralhad	Effect of maturity and storage temperature on shelf life and quality of banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. N. L. Patel
30.	Patel Rutvikkumar G.	Extending the shelf-life of sapota varieties in cold storage with application of GA ₃	Dr. B. R. Parmar
Year 2010			
31.	Nehete Dhiraj Surendra	Influence of micronutrient spray on flowering, yield, quality and nutrient content in leaf of mango cv. 'Kesar'.	Dr. B. V. Padhiar
32.	Chhattrola Ashutosh Shantilal	Effect of post shooting treatments on yield attributes and quality of banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. B. N. Patel
Year 2011			
33.	Kadam Smita Haridas	Micropropagation in guava cv. 'Allahabad Safeda'.	Dr. R. M. Patel
34.	Pushpraj Singh	Micropropagation in pomegranate cv. 'Ganesh'.	Dr. R. M. Patel
35.	Talane Sambhaji Madhavrao	Effect of post-harvest treatments on physico-chemical and physiological changes in banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine' (<i>Musa</i> AAA) during ripening under different storage conditions.	Dr. B. V. Padhiar
36.	Chaudhari Pawan Madhukarrao	Effect of pre-sowing treatments, sowing position and duration of sowing on germination and growth of mango stones.	Dr. B. N. Patel
37.	Inderjeet Prajapati	Effect of height of rootstock and length of scion on success of epicotyl grafting in Jackfruit (<i>Artocarpus heterophyllus</i> Lam.) cv. 'Konkan Prolific'.	Dr. B. V. Padhiar
38.	Ghadage Vishal Ramchandra	Effect of post harvest application of calcium chloride and wax emulsion on ripening and storage behavior of papaya (<i>Carica papaya</i> L.) cv. 'Taiwan Red Lady'.	Dr. Sanjay Attar

39.	Rana Jigarkumar Sanmukhlal	Micropropagation in rough lemon (<i>Citrus jambhiri</i> Lush.)	Dr. R.M. Patel
40.	Jarande Sambhaji Dattatray	Effect of sucrose and nutrient elements on fruiting of mango cv. 'Kesar'	Dr. B.N. Patel
41.	Kardile Rajendra Shridhar	Effect of precooling, packaging material and storage conditions on shelf life and quality of sapota fruits [<i>Manilkara achras</i> (mill.) Fosberg] cv. 'Kalipatti'.	Dr. N. L. Patel
42.	Panchal Rajeshkumar Kishorkumar	Micropropagation in custard apple (<i>Annona squamosa</i> L.) cv. 'Balanagar'.	Dr. R.M. Patel
43.	Chaudhari Abhijit Dhanaraj	Effect of surface coating materials on shelf life of guava (<i>Psidium guajava</i> L.) cv. 'Sardar'.	Dr. Sanjay Attar
44.	Narendra Kumar Nagar	Effect of resting period and pre sowing treatments on seed nut germination and height of seedling of coconut (<i>Cocos nucifera</i> L.) cv. D×T.	Dr. B. N. Patel
45.	Prajapati Ankurkumar Dineshchandra	Micropropagation in ber cv. 'Gola'.	Dr. R. M. Patel
46.	Borse Vishal Deelip	Effect of precooling, packaging material and storage conditions on shelf life and quality of aonla [<i>Emblica officinalis</i> G.] fruits cv. 'Gujarat Amla-1'.	Dr. N. L. Patel
47.	Kamthe Rohidas Baban	Effect of ripening retardants on shelf life of sapota (<i>Manilkara achras</i> (Mill.) Fosberg) cv. 'Kalipatti'.	Dr. Sanjay Attar
48.	Jadhav Vaibhav Shivnath	Effect of pre-harvest application of calcium on shelf life of papaya (<i>Carica papaya</i> L.) cv. 'Taiwan Red Lady'	Dr. Sanjay Attar
49.	Kale Saurabh Suhas	Micropropagation in <i>khirni</i> (<i>Manilkara hexandra</i> Roxb.)	Dr. R. M. Patel
50.	Patel Ankurkumar Sureshbhai	Alleviation of sap injury on mango cv. 'Alphonso' and 'Kesar' fruits.	Dr. Y. N. Tandel
Year 2012			
51.	Gohil Jigarkumar Hemrajbhai	Effect of different concentrations of IBA and NAA on air layering of cashewnut cv. 'Vengurla-4'	Dr. B. R. Parmar
52.	Manojkumar Tank	Studies on characterization of banana cv. 'Grand Naine'	Dr. Sanjay Attar
53.	Thakar Priyesh D.	Study on scion sticks storage methods on success of softwood grafting in mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. N. I. Shah
54.	Rakeshkumar	Influence of fruit bagging on quality of mango	Dr. N. I.

	Singh	(<i>Mangifera indica</i> L.) Varieties.	Shah
55.	Bariya Piyushkumar Jashvantlal	Effect of ripening retardants and storage conditions on shelf life of papaya (<i>Carica papaya</i> L.) cv. 'Taiwan Red Lady'.	Dr. Sanjay Attar
56.	Shrimali Mehul Natwarlal	Effect of 28-homobrassinolide on fruit set, yield and quality of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. C. R. Patel
57.	Parmar Dhara Pravinkumar	Effect of pre-cooling, packaging material and storage temperature on shelf life and quality of guava fruits [<i>Psidium guajava</i> (Linn.)] cv. 'Allahabad Safeda'.	Dr. N. L. Patel
58.	Abhilasha	Effect of environmental condition, planting media and scion storage on epicotyl grafting of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. B. N. Patel
59.	Rajput Nikhil Ramchandra	Estimation of heat units requirement for maturation of mango cultivars.	Dr. B. N. Patel
60.	More Mahesh Manikrao	Effect of precooling, packaging material and storage conditions on shelf life and quality of banana fruits [<i>Musa paradisiaca</i> L.] cv. 'Grand Naine'	Dr. B. R. Parmar
Year 2013			
61.	Patel Bijalkumar Bharatbhai	Response of mango varieties to epicotyl grafting on different rootstocks.	Dr. R. V. Tank
62.	Naguri Ashiya	Effect of organics and chemicals on germination and growth parameters of mango (<i>Mangifera indica</i> L.) rootstock.	Dr. R. V. Tank
63.	Kavita Leishanghem	Intercropping of tuber crops in young orchard of sapota cv. 'Kalipatti'.	Dr. B. N. Patel
64.	Prajapati Harshadkumar Amrutbhai	Effect of organics and chemicals on germination and growth of <i>khirni</i> [<i>Manilkara hexandra</i> (Roxb) Dub.] seeds	Dr. B.R. Parmar
65.	Jangala Ravi Kanth	Effect of organics and chemicals on seed germination and growth parameters of cashew (<i>Anacardium occidentale</i> L.) rootstock cv. 'V-4'.	Dr. B.R. Parmar
66.	Ravani Dineshkumar Ganeshbhai	<i>Ex-situ</i> macropropagation study in banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine' under South Gujarat condition.	Dr. A. N. Patel
67.	Mukeshkumar Saini	Micropropagation in noni var. 'Local'.	Dr. R. M. Patel
68.	Limbachiya Piyush Vasanlal	Response of gypsum and saline irrigation water on growth of cashew (<i>Anacardium occidentale</i> L.) graft cv. Vengurla-4.	Dr. B. N. Patel
69.	Patel Bhavinkumar Lallubhai	Effect of maturity days on shelf life and quality of mango cvs. 'Alphonso' and 'Kesar'.	Dr. Y. N. Tandel
70.	Bhuva	Effect of plant growth regulators on propagation of	Dr. B. R.

	Sharadkumar Kishorbhai	fig (<i>Ficus carica</i> L.) by hardwood and semi hardwood cuttings.	Parmar
71.	Prajapati Dixita Dalpatram	Influence of growth regulators on germination of jackfruit (<i>Artocarpus heterophyllus</i> Lam.) seed.	Dr. S. J. Patil
72.	Patel Bhoomikaben Ashokbhai	Effect of maturity stage, ethrel and cold storage on chilling injury and quality of mango cv. 'Kesar' fruits.	Dr. Y. N. Tandel
73.	Chaudhari Darshanaben Bhupendrabhai	Effect of foliar spray of growth retardants on flowering and fruiting of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. N. L. Patel
74.	Gurjar Tulsi Dharmvir	Effect of foliar spray of micronutrient on flowering and fruiting of mango (<i>Mangifera indica</i> L.) cv. 'Alphonso'	Dr. N. L. Patel
75.	Ganvit Swatikumari Arjunbhai	Effect of coating on shelf life and quality of mango cv. 'Kesar'.	Dr. C. R. Patel
76.	Chonpenthung R. Ngullie	Effect of salicylic acid and humic acid on flowering, fruiting, yield and quality of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. R. V. Tank
77.	Mr. Ravi Venkanna Babu	Effect of polyamines on fruit retention, yield and quality of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. T. R. Ahlawat
78.	Hadiya Vijay	Effect of PGRS and rooting media on air layering in guava (<i>Psidium guajava</i> L.) cv. 'L-49' (Sardar).	Dr. R. V. Tank
Year 2014			
79.	Gamit Swati Dhirubhai	Effect of post shooting foliar spray of fertilizers on banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. S. J. Patil
80.	Vaghela Deepakkumar Manubhai	Effect of season and growing environment on success of soft wood grafting in cashew (<i>Anacardium occidentale</i> L.) cv. 'Vengurla-4'.	Dr. D. K. Sharma
81.	Abhay Singh	Effect of bio-inoculants in combination with chemical fertilizers on growth of epicotyl grafts of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. B.N. Patel
Year 2015			
82.	Parekh Bhaminiben Vasantkumar	Studies on physical and bio-chemical changes during fruit growth of some mango (<i>Mangifera indica</i> L.) cultivars.	Dr. N. L. Patel
83.	Dayanand Yadav	Effect of washing and media on the seed germination and growth of papaya (<i>Carica papaya</i> L.) seedling.	Dr. N. L. Patel
84.	Kapil Mohan Sharma	Effect of foliar application of different chemicals on yield and quality of sapota [<i>Manilkara achras</i> (Mill.) Fosberg] cv. 'Kalipatti'	Dr. Virendra Singh
85.	Parmar Hardik	Efficacy of Indole Butyric Acid (IBA) on rooting of	Dr. S. J. Patil

	Bipinbhai	stem cuttings of Star gooseberry (<i>Phyllanthus acidus</i>).	
86.	Patel Ashishkumar Hasmukhbhai	Effect of different chemicals on flowering and fruiting of mango cv. 'Kesar'.	Dr. Y.N. Tandel
87.	Gohil Chiragkumar Hemrajbhai	Effect of seasons and growing environment on success of soft wood grafting in chironji (<i>Buchanania lanzan</i> Spreng.).	Dr. D. K. Sharma
88.	Amarcholi Jaykishan Jivraj	Induction of flowering and fruiting through foliar application of chemicals in 'Kesar' mango orchard.	Dr. Virendra Singh
89.	Momin Saeedanavar Kasambhai	Effect of foliar application of chemicals on fruit retention, yield and quality of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. S. S. Gaikwad
90.	Patel Falguni Champakbhai	Effect of presoaking treatments on seed germination and seedling growth of jackfruit (<i>Artocarpus heterophyllus</i> Lam.).	Dr. B.R. Parmar
91.	Patel Ronakbhai Jayantilal	Impact of pre-soaking treatments on germination and growth of mango (<i>Mangifera indica</i> L.) stones.	Dr. T. R. Ahlawat
92.	Patel Komal Vinodbhai	Effect of edible coating on shelf life and quality of sapota cv. 'Kalipatti'.	Dr. C. R. Patel
93.	Gamit Ankitkumar Ukajibhai	Effect of fruit thinning on fruit size, quality and yield of some mango (<i>Mangifera indica</i> L.) varieties.	Dr. N. I. Shah
94.	Chaudhri Gavri Vastabhai	Effect of putrescence on the shelf life and quality of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. T. R. Ahlawat
95.	Maggidi Spandana	Effect of fruit maturity and ethrel on ripening, quality and shelf life of mango fruits in low cost ripening chamber.	Dr. D. K. Sharma
96.	Patel Kalindi Sureshbhai	Effect of organic coating on shelf life and quality of organically grown mango cv. 'Kesar'.	Dr. S. J. Patil
97.	Ramani Manish Mukeshbhai	Effect of shoot thinning and 28-homobrassinolide spray on growth, flowering, yield and quality of mango cv. 'Kesar'.	Dr. C. R. Patel
98.	Patel Roshankumar Rameshbhai	Influence of media and seed treatment chemicals on the enhancement of germination and seedling growth of papaya (<i>Carica papaya</i> L.) cv. 'Madhu Bindu'.	Dr. R. V. Tank
99.	Patel Apekshaben Guntantbhai	Influence of type of cutting and IBA concentrations on rooting of wax apple (<i>Syzygium samarangense</i> L.) in mist chamber.	Dr. C. R. Patel
100.	Parmar Anirudhdh	Assessment of genetic diversity using d ² analysis in sapota [<i>Manilkara achras</i> (Mill.) Fosberg.	Dr. Y. N. Tandel

	Balvantsinh		
101.	Rathva Kajalben Kesarsinh	Effect of post harvest treatments on extension of shelf life of sapota [<i>Manilkara achras</i> (Mill.) Fosberg].	Dr. Y. N. Tandel
102.	Patel Dharmishtha Dhirajlal	Influence of seed priming treatments on germination and seedling vigour of custard apple (<i>Annona squamosa</i> L.) cv. 'Local'.	Dr. S. S. Gaikwad
Year 2016			
103.	Kachhadia Palak Arvindbhai	Response of post-shooting bunch spray of chemicals on ratoon banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'	Dr. R.V. Tank
104.	Le Khandu Thongdok	Effect of scion dip treatment of IAA, BAP and ZNSO ₄ on the success of epicotyl grafting in mango cv. 'Kesar'.	Dr. S. J. Patil
105.	Chaudhari Ashish A.	Response of paclobutrazol and KNO ₃ on top working of mango var. 'Sonpari'.	Dr. S. J. Patil
106.	Dharmishtha M. Patel	Effect of season and growing environment on success of patch budding in tamarind (<i>Tamarindus indica</i> L.).	Dr. D. K. Sharma
107.	Sen Dipakkumar K.	Micropropagation in fig (<i>Ficus carica</i> L.).	Dr. R. M. Patel
108.	Panchal Sureshbhai B.	Standardization of time and grafting method in custard apple (<i>Annona squamosa</i> L.) cv. 'Sindhan' under South Gujarat condition.	Dr. C. R. Patel
109.	Rathwa Alpeshbhai Damabhai	Influence of propagation media on rooting and growth of hardwood and semi-hardwood cuttings of pomegranate cv. 'Bhagwa'.	Dr. Virendra Singh
110.	Prerak J. Gondaliya	Influence of preharvest spray and postharvest dip treatments on physico-chemical properties and shelf life of sapota cv. Kalipatti fruits.	Dr. Y. N. Tandel

Post Graduate Students Awarded Doctoral Degrees in the discipline of Fruit Science

Sr. No	Name of PG Student	Title of the Thesis	Name of Major Guide
Year 2009			
1.	Kacha Parag Thakarshibhai	Effect of post harvest treatments on shelf-life, ripening and processed products of mango (<i>Mangifera indica</i> L.) fruits cv. 'Kesar'.	Dr. N. L. Patel
2.	Tandel Yatinkumar Naranbhai	Post harvest management of sapota [<i>Manilkara achras</i> (Mill) Fosberg] cv. 'Kalipatti' fruits.	Dr. N. L. Patel
Year 2010			

3.	Arifhussain M. Vahora	Induction of early flowering, yield and quality of mango cvs. 'Alphonso and Kesar' through various chemicals	Dr. B. N. Patel
Year 2011			
4.	Bhalerao Pankaj Pandurang	Effect of foliar application of Ca, Zn, Fe and B on physiological attributes, growth, yield and quality of papaya (<i>Carica papaya</i> L.) cv. 'Taiwan Red Lady'.	Dr. B. N. Patel
5.	Mhetre Dattu Ashok	Variability study of different mango cultivars and hybrids using morphological, biochemical and molecular markers.	Dr. B. V. Padhiar
Year 2013			
6.	Jadhav Parag Babaji	Effect of fertigation and mulching on growth, yield and quality of papaya (<i>Carica papaya</i> L.) cv. 'Red Lady'.	Dr. B. V. Padhiar
Year 2014			
7.	Bhalerao Rahul R.	Flowering and fruiting behavior with respect of nutrients and carbohydrate status in mango cv. 'Alphonso and Kesar'.	Dr. B. V. Padhiar
8.	Tandel Bhupendrabhai Mohanbhai	Effect of integrated nutrient management on growth, yield and quality of papaya (<i>Carica papaya</i> L.) cv. 'Taiwan Red Lady'.	Dr. B. N. Patel
9.	Mane Shailendra Ramdas	Response of water soluble fertilizers in banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. B. N. Patel
10.	Gonge Amol Pralhad	Comparative performance of water soluble and routinely used fertilizer in banana cv. 'Grand Naine' under drip irrigation.	Dr. B. N. Patel
Year 2015			
11.	Jarande Sambhaji Dattatray	Flowering and fruiting behaviour with respect to vegetative flush and leaf nutrient status in mango varieties.	Dr. N. I. Patel
12.	Solanki Pushprajsinh	Influence of time and intensity of pruning on the high density planted mango cv. 'Kesar'.	Dr. N. I. Shah
13.	Khopade Rohan Yuvraj	Effect of biofertilizers, GA ₃ and micronutrients on growth, yield and quality of sapota cv. 'Kalipatti'	Dr. A. N. Patel
14.	Ghadage Vishal Ramchadra	Effect of plant growth regulators on flowering, fruiting and quality of cashew (<i>Anacardium occidentale</i> L.) cv. Vengurla-4 grown under South Gujarat conditions	Dr. T. R. Ahlawat
15.	Patel Bijalkumar Bharatbhai	Comparative efficacy of potash fertilizers and magnesium on growth, yield and quality of banana (<i>Musa paradisiaca</i> L.) cv. 'Grand Naine'.	Dr. T. R. Ahlawat
16.	Ghadage Nitish	Effect of time and width of girdling on flowering, yield and quality of mango (<i>Mangifera indica</i> L.) cv.	Dr. S. J. Patil

	Jagannath	'Alphonso'.	
	Year 2016		
17.	Hiray Sachin Ashokrao	Effect of foliar spray of fertilizers and stages of application on yield and quality of mango (<i>Mangifera indica</i> L.) cv. 'Kesar'.	Dr. B. N. Patel
	Year 2017		
18.	Gurjar Tulsi Dharmvir	Response of foliar spray of novel organic liquid fertilizer and micronutrients on yield and quality of banana cv. Grand Naine	Dr. S. J. Patil

Post Graduate Students who have cleared NET in the Discipline of Fruit Science

Sr. No.	Name
	Year 2009
1.	Yatinkumar Naranbhai Tandel
2.	Dattu Mhetre
	Year 2011
3.	Parag Jadav
4.	Pravin Modi
	Year 2012
5.	Jigar Gohil
	Year 2014
6.	Dixitaben Dalpatram Prajapati
7.	Nitish Ghadge
8.	Swati Garvit
9.	Darshna Chaudhari
10.	Bhoomikaben Ashokbhai Patel
11.	Ravi Babu
12.	Chonpenthung
13.	Nazneen Shaikh
	Year 2015
14.	Chirag Gohil
15.	Jaykishan Amarcholi
16.	Kapil Mohan Sharma
17.	Le Khandu Thongdok
18.	Momin Saeed Anwar
19.	Shambhaji Jarande
20.	Tanveer Ahmed
21.	Tulsi Gurjar
22.	Amol Gonge
23.	Chetnaben Gaikwad
24.	Prajapati Harshad A.

25.	J. Ravikanth
	Year 2016
26.	Apeksha Patel
27.	Dharmishtha D. Patel
28.	Dharmishtha M. Patel
29.	Bhamini Parekh
30.	Hardik Parmar
31.	Piyush Limbachiya
32.	Sharad Bhuva
	Year 2017
33.	Vikas Gupta
34.	Pinal Parmar
35.	Gangode Anishaben M.
36.	Rajni Rajan
37.	Patel Manoli
38.	Joshi Champak
39.	Mutthappa Gotur
40.	Harish Patil
41.	Parmar Anirudhdh
42.	Rathwa Kajal
43.	Swati Gamit
44.	Patel Ashish H.
45.	Patel Ronak
46.	Kachhadia Palak
47.	Prarak Gondaliya
48.	Ashish Chaudhari
49.	Rajesh Panchal

**Post Graduate Students who have selected in ARS, ICAR
in the Discipline of Fruit Science**

Sr. No.	Name	Year
1.	Dr. Y. N. Tandel	2009

Medalist Students of the Department

Sr. No.	Name of student	Year
Vice Chancellor Medal for M. Sc. (Hort.)		
1.	Pushpraj Singh	2010-11
2.	Panchal Rajeshkumar Kishorbhai	2011-12
ASPEE Foundation Gold Plated Medal M. Sc. Horticulture		
1.	Gonge Amol Prahlad	2009-10

2.	Kadam Smita Haridas	2010-11
3.	Panchal Rajeshkumar Kishorbhai	2011-12
4.	Nikita Jain	2012-13
5.	Kavita Leishngthem	2013-14
6.	Chavan Raturaj Sayajirao	2013-14
7.	Ganvit Swatikumari Arjunbhai	2014-15
ASPEE Foundation Gold Plated Medal for Ph. D. Horticulture		
1.	Gonge Amol Prahlad	2014-15

Coaching Classes

Year	Coaching classes for JRF/SRF/NET	Period	Faculty Member
2017	NET	February to April	All Faculty Member
2015	NET	October to December	All Faculty Member
2014	JRF	26/11/2014 to Feb., 2015	Dr. Y. N. Tandel, Dr. C. R. Patel, Dr. A. I. Patel,
2013	NET	January and February, 2013 and October-December, 2013	Dr. S. J. Patil, Dr. T. R. Ahlawat, Dr. A. I. Patel

Exposure Visit of PG Students



**Visit of Strawberry cultivation,
At: Village Lahandabus,
Ahwa, Dist. the Dangs**



**Visit of Cashew processing unit,
At: Shubir taluka,
Ahwa, Dist. the Dangs**

Students who have won gold medals, poster paper awards, oral paper awards or other awards

SN	Name of Students	Award	Conference/ Seminar/ Symposium/ Flower show	Year
1	Naguri Ashiya	Best Poster Paper Award	National Seminar on "Tropical and Subtropical Fruits" organized at Navsari Agricultural University from 9-11 th , January, 2013.	2013
2	Shri R. C. Gajbhiye	Best Poster Paper Award	National Seminar on "Tropical and Subtropical Fruits" organized at Navsari Agricultural University from 9-11 th , January, 2013.	2013
3	Miss Dhara Parmar	Best Poster Paper Award	National Seminar on "Tropical and Subtropical Fruits" organized at Navsari Agricultural University from 9-11 th , January, 2013.	2013
4	Kapil Mohan Sharma	1 st prize	Amaethon-2014 (Food and Agribusiness and Rural Summit) conducted by Agri-Business Club, Indian Institute of Management, Ahmedabad on 11-12 th January, 2014	2014
5	Dixita Prajapati	Best Poster Paper Award	Global Conference on "Technological Challenges and Human Resources for Climate Smart Horticulture: Issues and Strategies" during 28-31 st May, 2014 at NAU, Navsari.	2014
6	Kapil Mohan Sharma	Young Talent Award	6 th Indian Horticulture Congress held at Tamil Nadu Agricultural University, Coimbatore on 6-9 th November, 2014	2014
7	Champak Joshi	Second Prize	Inter-University Debate Competition, NAU, Navsari during 19-20 th September, 2014	2014
8	Champak Joshi	Judges Special Mention Award	National Debate Competition organized at GBPUAT, Pantnagar, Uttarakhand from 14-15 th January, 2015	2015
9	Champak Joshi	Second Prize	Inter University Competition held at AAU, Anand during 9-10 th October, 2015	2015

10	Champak Joshi	Fourth Prize	Extempore Debate in 16 th All India Agricultural Universities Youth Festival held at OUAT, Bhubaneswar, Odisha from 1-4 th February, 2016.	2016
11	Kapil Mohan Sharma	Project	Spark-Up Fund by ICREATE, Ahmadabad (International Centre for Entrepreneurship and Technology) in March, 2016	2016

RECOGNITION AND AWARDS BY FACULTY

Sr. No.	Faculty member	Name of Award	Year	Awarding agency
1	Dr. S. J. Patil	Best Oral Presentation Award in Technical Session-V.	2013	Horticultural Society of Gujarat, Navsari
2		Best Oral Presentation Award in Technical Session-VI.	2013	Horticultural Society of Gujarat, Navsari
3		Best Oral Presentation Award in Technical Session-IV.	2013	Horticultural Society of Gujarat, Navsari
4		Best Poster Presentation Award in Technical Session-V.	2013	Horticultural Society of Gujarat, Navsari
5		II nd award for poster presentation	2014	NAU, Navsari
6		Best poster presentation award (Staff category)	2014	ASM Foundation, New Delhi
7		Best poster presentation award (Student category)	2014	ASM Foundation, New Delhi
8		Appreciation Award	2014	ASM Foundation, New Delhi
9	Dr. B. M. Tandel	Mahindra Smridhhi India Agri award: KVK Samman runner up award	2014	Mahindra & Mahindra and Zee news
10	Dr. T. R. Ahlawat	Best Keynote Address	2013	CHAI, New Delhi
11		Fellowship	2014	CHAI, New Delhi
12		Best Poster Presentation Award in Technical Session-XI.	2013	Horticultural Society of Gujarat, Navsari
13		Best Poster Presentation Award in Technical Session-XII	2013	Horticultural Society of Gujarat, Navsari
14		Best Teacher Award	2015	NAU, Navsari
15		Bir Singh Aasi Memorial Best Publication Award	2015	SADHNA, Solan
16	Dr. R. V. Tank	Best Poster Presentation	2013	Horticultural Society of Gujarat, Navsari
17	Dr. Y. N. Tandel	Best Thesis Award	2012	GAAS, Ahmedabad
18		Best Poster Presentation	2012	Horticultural Society of Gujarat, Navsari
19		Best Poster Presentation	2014	Horticultural Society of Gujarat, Navsari
20	Dr. C. R. Patel	1st Prize best poster paper	2011	CISH, Lucknow
21		Memento & Appreciation Letter	2011	Project coordinator AICRP Mango

RESEARCH

Following projects and experiments handled by the faculty

Projects:

1) Project for Research in Fruit Crops (B. H. 5014-3)

Objectives:

1. To find out the optimum nutrient requirement of major horticultural crops *viz.*, mango, sapota and coconut.
2. To introduce new fruit crops for the region.
3. To supply true to type planting material.
4. To produce new variety which may be superior to local in mango and sapota.

2) Strengthening of Research and Development Activities of Horticultural Crops. (B.H. 12095)

Objectives:

1. Introduction and evaluation of new fruits, vegetable and flower crops.
2. To develop the production technology for high yield, better quality fruits/vegetables/flowers including the orchard management like nutrition, water management, use of plant growth regulators, special horticultural plant production, *etc.*
3. Standardization of propagation techniques in fruit, vegetable and flower crops including seed production technology.
4. Standardization of protective cultivation including off season propagation and cultivation.
5. Qualitative studies of important fruit, vegetable and flower crops and post harvest studies of bio-chemical and physiological aspects. Such as extension of shelf life, nomination of post harvest indices in view of marketability.
6. Demonstrating feasibility of horticultural crops in semiarid and wastelands including problematic soils.
7. Inter disciplinary approach to the special problems like mango; irregular bearing, spongy tissue, insect-pest management; sapota-crop regulation and corkyness, Banana-stunted fruit growth.
8. The research work will be strengthened on the above major crops.

3) Project for Increasing the productivity of Mango and Sapota Phase- II (B.H. 12025)

Objectives:

1. Development of high density planting techniques in Mango.
2. To study the seasonal variation in production of Sapota.
3. To develop hi-tech production technology for quality production of Mango and Sapota.
4. Development of rejuvenation techniques in Mango and Sapota.

4) Project for Strengthening productivity of Mango and Sapota Phase- III (B.H. 12028)

Objectives:

1. Introduction, maintenance, evaluation and characterization of exotic mango germplasm for crop improvement and increasing productivity.
2. To standardize the root stocks for advance technology for multiplication of true-to-type planting material for ultra high density of mango.
3. To undertake basic and applied multi-disciplinary research for developing climate smart technology to enhance productivity of mango and sapota.
4. Development of high density planting techniques in Mango.
5. Development of rejuvenation techniques in Mango and Sapota.
6. To find out advance post harvest management and value addition technology in mango and sapota.

5) Project for Research in Papaya (*Carica papaya* L.) (B.H. 12137)

Objectives:

1. To collection and evaluation of papaya germplasm.
2. To develop Hi Tech production technology for quality production of papaya.
3. To carry out breeding programme in papaya.
4. Value addition in papaya including papain extraction.

6) Revolving fund scheme (B. H. 9510 - N. 3 R. F.)

Objectives:

1. To rotate the fund by using it for commercial purposes.
2. To use the farm land which is spare.

7) Revolving fund scheme ICAR. B.H. 2704-55 B (1)

Objectives:

1. To rotate the fund by using it for commercial purposes like seed programme of vegetable crop and preparation of grafts and seedling.

Experiments:

SN	Title of Experiments	Name of Scientist
1	Ultra high density plantation in mango cv. Kesar	Prof. K. A. Patel
2	Ultra high density plantation in mango cv. Sonpari	Prof. K. A. Patel
3	Effect of heading back and training on growth, flowering, yield and quality in old orchard of Rajapuri.	Prof. K. A. Patel
4	Evaluation of conserved germplasm (Earlier Gen.1)	Dr. P. P. Bhalerao
5	Collection, conservation and evaluation of location specific germplasm (Earlier Gen.1A)	Dr. P. P. Bhalerao
6	Evaluation of Tall x Tall coconut hybrids (Earlier Gen.10)	Dr. P. P. Bhalerao
7	Demonstration of released coconut varieties in different agro-climatic regions (Earlier Gen.12)	Dr. P. P. Bhalerao
8	Development of coconut based integrated farming system model for different agro-climatic regions.	Dr. P. P. Bhalerao

9	Observational trial on the performance of <i>Morinda citrifolia</i> as mixed crop in coconut gardens (Earlier Agr.11)	Dr. P. P. Bhalerao
10	Performance of cocoa varieties/hybrids for their performance as intercrop in coconut gardens (Earlier Gen.13)	Dr. P. P. Bhalerao
11	Effect of time and growing condition on success of softwood grafting in mango and sapota	Dr. C. R. Patel
12	Effect of time of inarch grafting on success and survival in mango cv. Kesar	Dr. C. R. Patel
13	Hybridization in Mango.	Dr. C. R. Patel
14	Seasonal influence on nutritional and physiological changes associated with flowering and fruiting behaviours in mango.	Dr. C. R. Patel
15	Effect of environment on behaviors and structures of flowering, pollen and fruit set characters in mango	Dr. C. R. Patel
16	Effect of temperature regimes on flowering of mango cv. Alphonso	Dr. C. R. Patel
17	Evaluation of bio agent, fungicides and physical method on germination and survival of mango (<i>Mangifera indica</i> L.) stone.	Dr. Y. N. Tandel
18	Effect of bio fertilizers on soil fertility, fruit yield and quality of Sapota cv. Kalipatti	Dr. Y. N. Tandel
19	Screening of rootstock for salt tolerance in mango from South Gujarat region	Dr. Y. N. Tandel
20	Study on seasonal variation in fruit growth of Sapota cv. Kalipatti.	Dr. Y. N. Tandel
21	Effect of graded doses of paclobutrazol on flowering yield and quality of mango cv. Alphonso.	Dr. Y. N. Tandel
22	Assessment of genetic diversity through D ² analysis and molecular markers in mango (<i>Mangifera indica</i> L.)	Dr. T. R. Ahlawat
23	Effect of liquid fertilizers foliar spray on growth, yield and quality of sapota cv. Kalipatti.	Dr. T. R. Ahlawat
24	Effect of different organics on growth, yield and quality of sapota cv. Kalipatti.	Dr. T. R. Ahlawat
25	Varietal evaluation of papaya under South Gujarat conditions	Dr. T. R. Ahlawat
26	Hybridization in mango using L X T analysis	Dr. Y. N. Tandel
27	Survey and seedling selection of mango	Dr. Y. N. Tandel
28	Study the management efficiency of mango and sapota growers in Navsari district	Dr. Y. N. Tandel
29	Standardization of foam mat dehydration process for preparation of mango powder (BH 12028).	Dr. Dev Raj
30	Standardization of suitable formulation for preparation of instant mango milk shake powder.	Dr. Dev Raj
31	Standardization of protocol for the extension of shelf life of fresh sapota fruit.	Dr. Dev Raj
32	Effect of time and dose of fertilizer application on yield and	Dr. R. V. Tank

	quality of sapota Cv. Kallipati (B.H.12025).	
33	Effect of post flowering sprays on fruit retention, yield and quality of mango cv. Kesar.	Dr. S. J. Patil
34	Effect of foliar spray of KNO ₃ and plant growth regulators on flowering and fruiting behaviour of mango cv. Alphonso.	Dr. S. J. Patil
35	Study the status and knowledge level of mango growers and nursery man regarding mango malformation in Navsari District	Dr. S. J. Patil
36	Effect of foliar application of GA ₃ and CPPU on yield and quality of mango (<i>Mangifera indica</i> L.) cv. Kesar	Dr. S. J. Patil
37	Multi locational trail for custard apple(<i>Annona squamos</i> L.)	Dr. S. J. Patil
38	Effect of pruning on sapota cv. Kalipatti planted at normal distance	Dr. S. J. Patil

RESEARCH ACHIEVEMENTS

Mango:

1. Out of 12 mango cultivars recommended, the most popular are Kesar, Rajapuri and Alphonso.



1. Alphonso

Tree: Medium to big size, vigorous, biennial bearing habit

Fruit: Medium size, cordial shape, yellow colour and upper portion remain orange, 250 to 300 g. of weight. Fruit contain 75.50 % pulp, fiberless, hard with good aroma, good keeping quality and best for export. TSS 18- 19.5%, Total Sugar 14.12% , used for juice and table purpose.

2. Kesar

Tree: Medium in size and vigorous, regular bearing

Fruit: Oval shaped, yellow colour, 250 to 300 g. of fruit weight, it contain 75.8% pulp, fibreless, saffron coloured, sweet and hard. Use of juice and table purpose, good keeping quality and best for export. TSS 18.5%, total sugar 13.7 %.

3. Rajapuri

Tree: Vigorous, spreading habit, medium to big and regular bearer

Fruit: Oval shaped, big, yellow colour. 550 to 600 g. in weight, it contain 80.3% pulp, medium sweet and soft. Best for pickle and juice, medium keeping quality, TSS 12.6 %, Total sugar 12.55%.

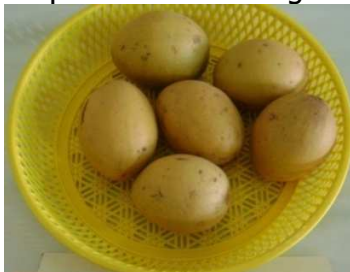
2. To exploit the maximum benefit from extra space up to five to seven years in young mango orchard, intercrops of tomato (Winter) followed by cluster bean for vegetable (Summer) should be grown (1980).
3. The farmers of South Gujarat, desiring to establish new orchard of mango cv. Kesar are advised to adopt softwood graft *in situ* for higher yield and net return. (2007)
4. The farmers of South Gujarat, desiring to establish new orchard of mango cv. Alphonso are advised to plant a filler tree of cv. Neelphonso in the centre of regularly planted four Alphonso trees at 10 m x 10 m for getting higher net realization and BCR. (2008)
5. The farmers of South Gujarat Heavy Rainfall Zone (AES – III) intend to adopt organic farming in mango cv. Kesar (20 years old tree) are advised to apply 100 % RDN through Neem cake (4.5 % nitrogen) with 100 kg FYM + Azotobacter @ 250 g + PSB @ 250 g/plant in the month of June. By adopting this organic farming, farmers can get higher yield as compared to inorganic farming with better quality fruits along with higher net realization and benefit cost ratio, it also improves the soil properties (2013-14).
6. The farmers of South Gujarat Heavy Rainfall Zone intend to adopt organic farming in high density plantation (5 m x 5 m) of mango cv. Kesar (16 years old tree) are advised to apply N 80 % of RDN from Neem Cake (5.22 % nitrogen) with *Azotobacter* + PSB (10^8 cfu 50 ml each /tree) in the month of June to get higher yield with quality production. It also improves the soil properties.
7. The farmers of South Gujarat Heavy Rainfall Zone are advised to head back their high density planted (5 m x 5 m) old mango orchard cv. Kesar at 4 to 5 m height from ground level and maintain 6 newly emerged tertiary limbs to get higher yield with quality production.

Note:

1. Rejuvenation should be done after cessation of monsoon.
2. For rejuvenation slant cut should be made and cut portion should be treated with copper fungicide.
3. Care should be taken for controlling stem borer by frequent visit of rejuvenated orchard.

Sapota :

Kalipatti is the leading variety commercially adopted in the region.



Best for Gujarat, Maharashtra and Karnataka.

Tree : Slow growth and branches are develop in pyramid shape.

Leaf : Dark green

Fruit : Round to oval, sweet taste, average fruit weight is 60 to 70 g. Good keeping quality.

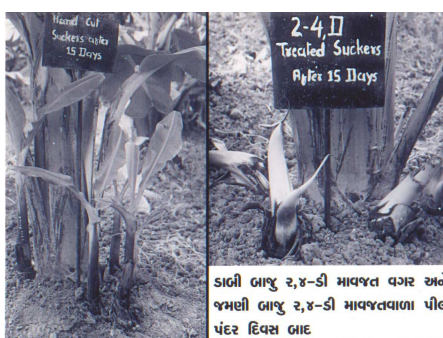
1. The bearing adult tree of sapota should be fertilized at the rate of 1000 g N + 500 g P₂O₅ + 500 g K₂O in two equal splits viz. Half in June and remaining half in October in addition to 50 kg FYM in June (1987).
2. The sapota trees should be irrigated at an interval of 30 days during winter and 15 days during summer (1998)
3. The farmers who are interested in organic farming are advised to apply vermicompost @ 5 tons/ha (50 kg/tree). The farmers who can afford higher cost can apply vermicompost @ 50 kg/tree along with 200 kg FYM/tree for getting higher yield with good quality fruits and for maintaining soil health. (2000)
4. Farmers are advised to grow cauliflower as an intercrop in young sapota orchard to get maximum income per hectare with the highest CBR (1.77). If it is not possible then either tomato or cabbage should be taken as an intercrop.(2000)
5. Nurserymen and farmers interested to grow Rayan seedlings for root stocks of sapota are advised to apply 11.5 g N/m² (Urea 25 g/m²) at monthly interval from 3rd month to 11th month after sowing and GA₃ 200 mg/l at 3, 6 and 9 months of age of Rayan seedlings for attaining graftable size of seedlings within 16 months. The basal dose of 5 kg FYM/m² and 0.5 kg caster cake/m² should also be applied at the time of sowing the seeds on raised bed. (2004)
6. The farmers of South Gujarat heavy rainfall zone-I, agricultural situation-III are advised to dip sapota fruits in 1 % calcium hydroxide for 5 minutes and wet rubbed after drying for improving the appearance of fruits then again dipped in 2, 4-D 4 ppm or GA₃, 300 ppm or kinetin 100 ppm for extending the shelf life without affecting quality of sapota fruits as compared to farmers practice *i.e.* wet or dry rubbing only (2011).
7. The wholesale buyers of sapota fruit (co-operatives/ traders) are recommended to establish a cold chain for extending shelf life of sapota fruits. Immediately after harvest, sapota fruits should be precooled at 5 or 10 °C for 8 hrs in precooling chamber. Subsequently, pre cooled sapota fruits should be packed in perforated polythene bag (50 micron) and kept in CFB box and then stored at 12 °C in cold storage. This cold chain treatment extend the shelf life of sapota fruits up to 15 days without adverse effect on quality (2011).

Banana :

1. Basrai and Lacatan are the commercial cultivars of the area.
2. Basrai banana should be planted using preferably fresh suckers or suckers rested up to 10 days, weighing 500 to 1500 g in the month of June (1982).
3. Basrai and Lacatan banana should be planted at 1.8 x 1.8 m distance for in time harvest of larger bunch having marketable fruits (1983).
4. To exploit more income, banana should be intercropped with *Curcuma longa* at distance of 30 x 20 cm and fertilized at the rate of 100 kg N and 50 kg P₂O₅ per hectare (1983).



5. To eliminate the regeneration of banana sucker, farmers are advised to apply 3 to 5 drops of 2, 4-D (1:16) solution on cut surface of sucker. To prepare 2,4-D solution, 60 g 2,4-D should be added in 1 litre of water (1984).



6. To minimize weed competition, the banana growers of South Gujarat are advised to apply Diuron 1 kg a.i. per hectare as pre-emergence at planting time followed by Paraquat 0.6 kg a.i. per hectare as post emergence each at 75 days after planting and 30 days after earthing up (2001).
7. Farmers of South Gujarat are advised to apply 10 kg FYM, 250 g nitrogen, 45 g phosphorus and 200 g potash per plant along with 6 kg PSM/ha and 6 kg Azotobacter/ha for getting maximum net return with higher cost benefit ratio. FYM should be applied as basal before planting. The bio-fertilizers should be applied in two equal splits after 1st and 2nd month of planting. While, full dose of phosphorus after 3rd month of planting and nitrogen and potash should be applied in 3 equal splits after 3rd, 4th and 5th month of planting (2006).
8. The farmers of South Gujarat heavy rainfall zone – I Agricultural Situation – III growing banana cv. Grand Nain are advised to apply 300 g N, 90 g P and 200 g K per plant for obtaining maximum net return with higher benefit cost ratio. Farm yard manure 10 kg per plant should be applied as basal. Nitrogen should be applied in four equal splits at 2, 3, 4 and 5 months after planting; full dose of phosphorus should be applied at three months after planting and potash should be applied in three equal splits at 3, 4 and 5 months after



planting (2007).

9. Farmers of South Gujarat are advised to grow Grand Nain variety of banana for getting early maturity with quality fruits and maximum net income with higher benefit cost ratio (2007).

Plant medium in height, higher productivity, good quality fruits, bigger than Basrai. Average bunch weight 25 to 30 kg. Good keeping quality and good for export.

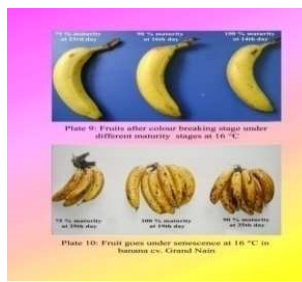
TSS. 21 to 220 Brix

Harvesting time: 12 months



10. Farmers of South Gujarat are advised to spray GA_3 100 mg l^{-1} on banana bunch cv. Grand Nain after complete opening and cover the bunch with blue polyethylene sleeve (18 micron) for better quality, higher production and net return (2008).

11. The farmers of South Gujarat heavy rainfall zone-I, AES-III growing banana cv. Grand Naine under medium black and clay loam soils are recommended to harvest banana (1) at 75% maturity stage (75 days after shooting) and store in cold storage at 12°C for export purpose (bunch weight will be decreased up to 19.55% at 75% maturity as compared to 100% maturity) (2) at 90% maturity stage (90 days after shooting) and store in cold storage at 14°C for distant market (bunch weight will be decreased up to 10.07% at 90% maturity as compared to 100 % maturity) (3) at 100% maturity stage (100 days after shooting) and store in cold storage at 16°C for local market. These treatments increase shelf life of banana fruits without deterioration in quality with the purpose for which it is recommended.



12. The farmers of South Gujarat Heavy Rainfall Zone growing banana cv. Grand Nain are advised to apply two spray of 1.5% Sulphate of Potash (SOP) on bunch after complete emergence and 15 days after first spray to get higher yield with quality fruits. Keep the bunch cover with blue polythene sleeve (18μ) (2014-15).

Phalsa :

1. To obtain two harvests, in phalsa the farmers are advised to prune the bush of phalsa at 75-100 cm height from ground level twice in a year, once in first week of September and again in first week of January. (1983)

Papaya:

1. The farmers of south Gujarat heavy rainfall zone (AES-III) growing papaya var. Madhu Bindu are advised to adopt fertigation and apply 80% recommended dose of N and K₂O (160 g N and 200 g K₂O/plant) in 12 equal splits starting from 45 days after transplanting and subsequently at 15 days interval through drip irrigation along with 100 g P₂O₅/plant at 1¹/₂ month and at 3 months after transplanting as soil application. By adopting drip method of irrigation and fertigation, farmers can get 32 per cent increase in yield and 20 per cent saving of water and fertilizer as compared to conventional method of irrigation along with maximum benefit cost ratio of 3.50. The distance between two laterals (16mm) should be 2.1 m and each plant having two drippers of 8 lph capacity placed at 30 cm on the either side of the plant trunk and run the system at pressure of 1.2 kg/cm². The drip system should be operated for 50 minutes during August to September except rainy days, 70 minutes during September to February and 2 hours from March onwards at an alternate day (2010-11).
2. The farmers of South Gujarat Heavy Rainfall Zone (AES – III) growing papaya cv. Taiwan Red Lady are advised to spray Calcium nitrate– 1000 + Borax– 30 + Zinc sulphate- 200 + Ferrous sulphate– 200 mg/l at 60, 90 and 120 days after transplanting along with the application of RDF. By adopting 3 foliar sprays of combined micronutrients, farmers can increase the yield with better quality of fruits along with higher net realization as compared to conventional method (2013-14).

Coconut :

1. Coconut variety West coast Tall and T x D as well as D x T hybrids are suitable in the area.
2. The coconut growing farmers are advised to apply 1500 g N, 750 g P₂O₅ and 1500 g K₂O per palm per year in two equal splits *i.e.* half in June and half in October in addition to 50 kg FYM in June. (1987)

EXTENSION ACTIVITIES

1. The articles related to different fruit crops are published in vernacular language for the benefits for farmers.
2. Training to subject matter specialist is imparted under T&V programme.
3. The training to farmers is also given which is organized by SSK and FTC.
4. Participation in *Krushhi mela*, farmer's day and *Krushhi mahotsava*.

EXTENSION HIGHLIGHTS

Lecture Deliverd



Lecture delivered in Ravi Krishi Mahostav



Lecture delivered in Mango Malformation



Lecture delivered in Horti Sangam 2016



Lecture delivered in Winter School at Udaipur



Lecture delivered in Khedut Shibir



Lecture delivered in Khedut Shibir



Lecture delivered in World Coconut Day

Farmers visit at Regional Horticultural Research Station Farm



Exposure visit of Scientist at different places



The Vegetable Center of Excellence in Vadrad, Gujarat



Dr BSKKV, Dapoli (M. S.)



CHES, Godhara



FRS, Mahuva



HORTICULTURAL EXHIBITION AT DIFFERENT PLACES



Horti Sangam 2016



Krishi Mahostav



Agricultural Fair at Surkhai



World Coconut Day 2nd September



Mango Exhibition

VISIT OF DIGNITARIES: AT A GLANCE



Hon'ble Agriculture Minister Shri Babubhai Bokhiriya and Dr. H.S. Gupta, DG, Borlaug Institute for South Asia



Sh. Chimanbhai D. Sapariya, Hon'ble Minister, Agriculture & Energy, Government of Gujarat



Dr. S. Ayyappan, Former Secretary, DARE and Director General, ICAR



Dr. S. Pal Director (NIAP), New Delhi



Sh. Jashabhai B. Barad, Hon'ble State Agriculture Minister, Government of Gujarat



Sh. Sanjay Prashad, Principal Secretary (Agriculture), GoG, Gandhinagar



Dr. Navin Patle, Deputy Commissioner (Hort.), GoI, New Delhi



Dr. J.S. Sandhu, DDG (Crop Science), ICAR, New Delhi

