

ACTIVITIES AND ACHIEVEMENTS

ACADEMIC ACTIVITIES

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

B. Sc. (Hons.) Horticulture				
SN	Sem.	Course No.	Title of Course	Credit hrs
1	II	*FLA 2.1	Ornamental Horticulture	2 (1+1)
2	III	*FLA 3.2	Commercial Floriculture	3 (2+1)
3	IV	*FLA 4.3	Principles of Landscape Architecture	2 (1+1)
4	VI	FLA 6.4	Breeding and Seed Production of Flower and Ornamental Crops	3 (2+1)
5	VI	FLA 6.5	Medicinal and Aromatic Crops	3 (2+1)
Sub Total (A)				13 (8+5)
STUDENT READY-I: Experiential Learning Programme				
1	VII	HWE 7.1	Protected Cultivation of High Valued Horticultural Crops	10 (0+10)
2	VII	HWE 7.1.1	Production of High Valued Crops	6 (0+6)
3	VII	HWE 7.1.2	Packaging and Marketing of High Valued Horticultural Crops	4 (0+4)
4	VII	HWE 7.4	Floriculture and Landscape Architecture	10 (0+10)
5	VII	HWE 7.4.1	Planning, Layout and Design of Landscape	6 (0+6)
6	VII	HWE 7.4.2	Consultancy and Maintenance of Garden	4 (0+4)
Sub Total (B)				20 (0+20)
STUDENT READY-II: Rural Horticultural Work Experience				
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Sub Total (C)				0 (0+0)
Total (A+B+C)				33 (8+25)

*Courses not offered due to application of 6th Dean's Committee

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

B. Sc. (Hons.) Horticulture				
SN	Sem.	Course No.	Title of Course	Credit hrs
1	I	FLS 1.1	Commercial Production of Flower crops	3 (1+2)
2	II	FLS 2.2	Plant Propagation and Nursery Management in Vegetables, Flowers and Medicinal crops	3 (1+2)
3	IV	FLS 4.3	Urban and Peri-urban Horticulture	2 (1+1)

		SEC	Skill Enhancement Courses	
1	II	SEC-4	Landscape Gardening (6 th Dean's Committee)	2 (0+2)
2		SEC 10	Turf and Turf Management	2 (0+2)
		EC	Elective Courses	
1	VII	EC-15	Turf Management	2 (1+1)
2	VII	EC-16	Protected Cultivation of Flower crops	3 (2+1)
3	VII	EC-17	Value Addition in Floriculture	3 (2+1)
4	VII	EC-18	Breeding of Ornamental crops	3 (2+1)
5	VII	EC-19	Principles of Landscape Architecture	3 (1+2)
6	VII	EC-20	Commercial Floriculture and Landscaping	3 (2+1)
7	VII	EC-21	Post-harvest handling of Floriculture crops	3 (2+1)
Sub Total				32 (15+17)

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

M. Sc. Horticulture				
SN	Sem.	Course No.	Title of Course	Credit hrs
1	Odd	FLS – 501*	Systematic of Ornamental Plants	2 (1+1)
2	Even	FLS – 502*	Breeding of Ornamental Plants	3 (2+1)
3	Odd	FLS – 503*	Commercial Production of Cut Flowers	3 (2+1)
4	Even	FLS – 504*	Commercial Production of Loose Flowers	3 (2+1)
5	Odd	FLS – 505*	Ornamental gardening and Landscaping	3 (2+1)
6	Even	FLS- 506	Indoor Plants and Interiorscaping	2 (1+1)
7	Odd	FLS – 507	Nursery Management in Ornamental Plants	3 (2+1)
8	Even	FLS - 508	Turf Grass Management	3 (2+1)
9	Odd	FLS- 509	Value Addition in Floriculture	3 (2+1)
10	Even	FLS – 510	Protected Cultivation of Flower Crops	3 (2+1)
11	Odd	FLS- 511	CAD for Landscaping	3 (1+2)
12	Even	FLS- 512	Seed Production in Flower Crops	2 (1+1)
Sub Total (A)				33 (20+13)
COMPULSORY NON-CREDIT COURSES				
1	Odd	PGS 501	Library and Information Services	1 (0+1)
2	Even	PGS 502	Technical Writing and Communication Skills	1 (0+1)
3	Odd	PGS 503	Intellectual Property and its Management in Agriculture (e-Course)	1 (1+0)
4	Even	PGS 504	Basic Concepts in Laboratory Techniques	1 (0+1)
5	Odd	PGS 505	Agricultural Research, Research Ethics and Rural Development Programmes (e-Course)	1 (1+0)
6	Odd	PGS 506	Disaster management	1 (1+0)
Sub Total (B)				6 (3+3)
Total (A + B)				39 (23+16)

**Compulsory Courses

List of Courses offered by the Department for Ph. D. Programme (As per BSMA Committee)

Ph.D. Horticulture				
SN	Sem.	Course No.	Title of Course	Credit hrs
1	Odd	FLS- 601**	Crop Regulation in Ornamental Crops	3 (2+1)
2	Even	FLS- 602**	Postharvest Biology of Floricultural Crops	3 (2+1)
3	Odd	FLS- 603	Specialty Flowers, Fillers and Cut Greens	2 (1+1)
4	Even	FLS- 604	Biotechnological Approaches in Floricultural Crops	3 (2+1)
5	Odd	FLS- 605**	Vertical Gardening	3 (1+2)
6	Even	FLS- 606	Advances in Breeding of Flower Crops	3 (2+1)
7	Odd	FLS- 607	Advances in Production Technology of Flower Crops	3 (2+1)
8	Even	FLS- 608	Advances in Protected Cultivation of Flower Crops	3 (2+1)
9	Odd	FLS- 609	Advances in Landscape Gardening	3 (1+2)
Sub Total (A)				26 (15+11)
COMPULSORY NON-CREDIT COURSES				
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Sub Total (B)				0 (0+0)
Total (A + B)				26 (15+11)

**Compulsory Courses

Activities under ELP

Course No.	Name of Model	No. of Students trained
HWE 7.1	Protected Cultivation of High Valued Horticultural Crops	68



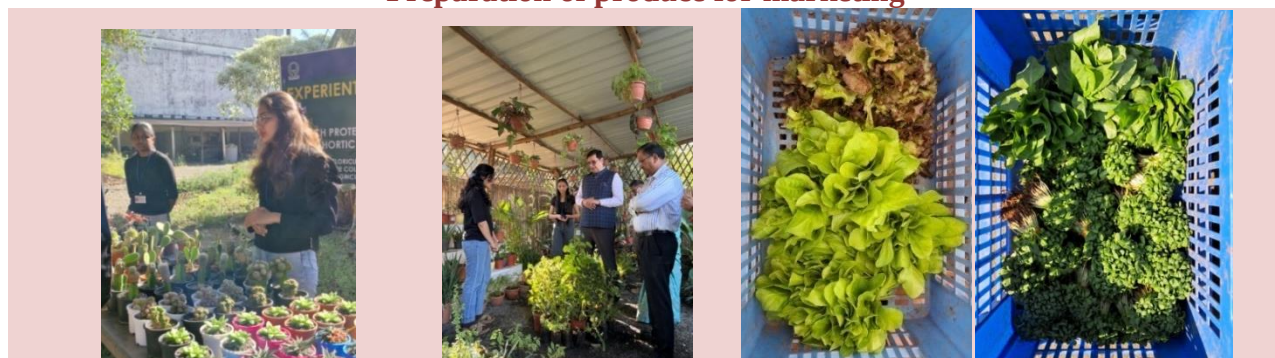
Planting of High Valued Horticultural Crops



Harvesting of Produce for selling



Preparation of produce for marketing



Exhibition of prepared pots and plants

RESEARCH ACTIVITIES

Focus Areas

1. Development of advance production technologies for higher yield and better quality in flower crops and ornamental plants.
2. Crop improvement in flower crops and ornamental plants.
3. Post harvest management of flower crops and ornamental plants.

Research Schemes in Operation

SN	Title of Project	Budget Head	PI & Co-PI
A	Plan Schemes		
1	Establishment of Research Project on Floriculture	329/12046-01	PI : Dr. SudhaPatil Co-PI : Dr. S. L. Chawla Dr. M. A. Patel Dr. Dipal Bhatt
2	Landscaping at University Campus	329/12712/02	PI :Dr. M A. Patel
3	Landscaping and Gardening Training Programme (<i>Mali Talim</i>)	329/12508	PI : Dr. H. P. Shah
4	Establishment of Practical Training Centre of Horticulture Students for the Hi-tech Horticulture	329/12970	PI : Dr. Alka Singh Co-PI : Dr. H. P. Shah
5	Advanced Technology Centre for Soilless System for Production of Various Crops	329/12041	PI : Dr. Alka Singh Co-PI : Dr. G. D. Patel Dr. S. T. Bhatt
6	Floriculture Mission for south Gujarat	329/12086	PI : Dr. Tejalbahen P. Patel Co-PI : Dr. S. L.

			Chawla Dr. M. A. Patel, DR. T. R. Ahir
B	Non-Plan Schemes		
C	Other Agency Schemes		
1	Development of DUS guideline for Adenium	329/18271	PI: Dr. Alka Singh Co-PI: Dr. G. D. Patel, Dr. A. K. Pandey, Dr. V. B. Patel
D	Revolving Schemes		
1	Model Nursery for Ornamental plants	329/9510 N - 50	PI : Dr. M. A. Patel
2	ELP on Hi- Tech Protected Cultivation of Horticultural Crops	329/9510-N-60	PI : Dr. Alka Singh
3	Certificate Course in Turfgrass Management	329/9510- N – 83	PI: Dr. S. L. Chawla Co-PI: Dr. M. A. Patel Dr. H. P. Shah
E	ICAR Schemes		
1	AICRP on Floriculture	329/2100/00	PI: Dr. S. L. Chawla Co-PI: Dr. Dipal Bhatt

: Research Recommendations:

Year 2023

1. Effect of different bio-stimulants on growth, quality and yield of Dendrobium orchid under NVPH

Farmers of Gujarat growing dendrobium orchid under naturally ventilated polyhouse are recommended to spray Novel Prime @ 2% (20 ml in 1 L water) at every 15 days interval to obtain higher cut flower yield and better quality.

2. Studies on phenophase based nutrient scheduling on flower yield and quality in China aster

Farmers of South Gujarat agro climatic zone growing China aster are recommended to apply 180:120:60 kg NPK/ha. Wherein, 25% should be applied as basal dose and remaining 75 % through drip system in three splits in the following manner for higher yield as well as net realization.

Splits of NPK	Phenophase	75% RDF through fertigation (kg/ha)			Remarks
		Urea	12:61:00 (MAP)	00:00:50 (K ₂ SO ₄)	
First (40:20:20)	Vegetative phase	109.49	29.52	18.00	Three equal splits of

(%)					fertilizers at weekly interval
Second (30:40:40 %)	Bud phase	72.51	59.04	36.00	Two equal splits of fertilizers at weekly interval
Third (30:40:40 %)	Flowering phase	72.51	59.04	36.00	Two equal splits of fertilizers at weekly interval

Note:

- 25% of RDF (Urea: 97.65 kg, SSP: 187.50kg and KCl: 25.05 kg/ha) should be applied as basal dose.
- Paddy straw @ 7.5 t/ha as much should be applied on raised beds.

3. Collection and evaluation of filler (*Asparagus*)

The farmers of South Gujarat agro climatic zone growing asparagus (*Asparagus densiflorus* Sprengeri) as cut greens are recommended to grow in pot under 50 % green shade net house for getting higher cut foliage production and net profit.

4. Collection and evaluation of filler (*Dracaena*)

Farmers of South Gujarat agro climatic zone growing dracaena (*Dracaena fragrans* ‘Massangeana’) as cut foliage are recommended to grow in pot under 50 % green shade net house to obtain higher production and net realization.

5. Collection and evaluation of filler (*Fern*)

Farmers of South Gujarat agro climatic zone growing fern (*Nephrolepis exaltata*) as cut foliage are recommended to grow in pot under 50 % green shade net house to obtain higher production and net realization.

6. Effect of IBA and season on rooting of African marigold (*Tagetes erecta* L.) cv. Pusa Narangi Gaiinda cutting under poly tunnel

The farmers and nurserymen of the Gujarat growing marigold are advised that the lower portion of tip cuttings treated with IBA 1500 mg/L for 5 (five) seconds and insert in slanting position in sand under poly tunnel gave higher number of rooted cuttings, number of roots per rooted cutting and higher survival percentage of marigold in all the seasons.

7. Integrated weed management in African marigold (*Tagetes erecta* L.) var. Pusa Narangi Gaiinda

It is inform to scientific community that spray of early post emergence pendimethalin 30 % EC@ 0.75 kg a.i./ha (3.33 L/ha) within 24 hours of transplanting followed by mulching of

paddy straw (5 cm thickness layer) and one hand weeding at 50 days after transplanting effectively controls weed and gives higher yield in African marigold var. Pusa Narangi Gaiinda during *Kharif* season.

8. Adenium variety Gujarat Adenium 5 (GAd-5: Shashank)

The nursery men dealing with ornamental plants, landscape designers and plant lovers are recommended to grow adenium variety GAd5 (Shashaank) under polyhouse for higher commercial value as well as in garden and house plant. Adenium variety GAd 5 is novel that it bears white coloured flowers having multipetalous flower form with dual whorls of petals (10) in each flower along with more flowers per cluster and flowering duration. It can be propagated by grafting on local pink root stock.

9. Turfgrass variety: Gujarat Turf Grass 1 (GTG 1: Arna)

The farmers, nurserymen and professional landscapers of the Gujarat state are advised to grow turf grass (Lawn) variety Gujarat Turf Grass 1 (GTG 1: Arna) with early establishment rate (minimum days taken for 90% coverage), high turfing ability, root depth and lower shoot-root ratio than the check Selection 1. The proposed variety having good aesthetic appearance, require less number of mowing and less incidence of pest and disease in proposed variety.

Year: 2024

1. Evaluation of Ferns in different growing media under benching system in Orchid (Dendrobium) NV polyhouse

Farmers growing orchid in NV polyhouse are recommended to grow *Nephrolepis exaltata* fern as a secondary crop in cocopeat growing media under benching system for obtaining better plant growth and yield as cut greens.

Note: Fertilizer application:

Urea- 50 mg/l of 100 ml/pot (Once a month in the first week)

19:19:19 NPK-50 mg/l of 100 ml/pot (Once a month in third week)

Pot size : Height 19 cm, top diameter 19 cm, bottom diameter:15 cm

2. Effect of type and height of rootstock for grafting in Moon Cactus

Nurserymen raising cactus under naturally ventilated polyhouse are recommended to graft *Gymnocalycium mihanovichii* (as Scion) cactus on 3 edged and 5 cm height of *Hylocereus monacanthus* rootstock to develop moon cactus for higher graft survival, more number of flowers and baby cactus.

3. Evaluation of new crosses in Adenium for profuse flowering habit

The germplasm NASDUS2 profusely bears red coloured flowers having single whorl. It can be further utilised in breeding program.

4. Effect of pinching and foliar application of nutrients on growth, quality and yield of African marigold (*Tagetes erecta* L.)

Farmers of South Gujarat, growing African marigold are recommended to pinch at 20 and 35 days after transplanting along with Novel Organic Liquid Nutrients @ 1% (1 liter/100 liter water) spray during 6th and 7th week of transplanting with the recommended dose of fertilizer (150:100:100 kg NPK/ha) along with 10 ton of well rotten Farm Yard Manure (FYM) per hectare to achieve maximum production and profit.

Year: 2025

1. Optimization of micronutrient doses for aster

Farmers of Gujarat growing China aster are recommended to apply micronutrients viz., Zn (2.5 kg/ha) + Mn (2.5 kg/ha) + B (1 kg/ha) + Fe (1.25 kg/ha) in soil at the time of planting along with FYM @ 20 t/ha + 180:120:60 kg NPK/ha as RDF and 200 kg of neem cake enriched with 1 kg of *Trichoderma harzianum* to get higher yield and net realization. Moreover, full dose of P and K should be applied as basal dose while N in three equal splits viz., first dose as basal, second dose at pinching and third dose at one month after pinching.

2. Standardization of planting time and geometry on growth and flowering of gaillardia (*Gaillardia pulchella* Foug.)

Farmers of South Gujarat are recommended to plant gaillardia at 45 cm x 45 cm spacing in the 1st week of January for getting higher production of flowers as well net realization.

3. Effect of plant growth retardants on growth and flowering in pot Kalanchoe

Nurserymen and garden amateur are recommended to apply Cycocel at 750 ppm (750 mg/L) as foliar application on kalanchoe at 30 and 45 days after pot planting for obtaining compact plant growth, profuse flowers and better visual appearance.

Note:

Plastic pot size: 17 cm-top diameter, ht 13 cm

Potting media: Cocopeat: sand: vermicompost (7:2:1 v/v)

Fertilizer application:

NPK 19:19:19 @50 mg/L of 100 ml/pot (once in 15 days)

NPK 13:0:45 @50 mg/L of 100 ml/pot (once in 15 days)

4. Standardization of N and K doses under fertigation in rose under NVPH

Farmers of Gujarat growing cut rose under naturally ventilated polyhouse are recommended to apply 300:100:100 mg/m²/week NPK through fertigation to obtain higher yield and net return.

5. Effect of different potting media on gerbera cultivation in NV polyhouse

Farmers of Gujarat growing gerbera under naturally ventilated polyhouse are recommended to use local black soil + leaf mold + rice husk + sand (2:2:1:1 v/v) as growing media for pot culture to obtain higher yield and better quality.

Note:

Drenching 19:19:19 NPK-50 mg/l of 100 ml/pot (Monday every week)

Drenching 13:0:45 NPK-50 mg/l of 100 ml/pot (Thursday every week)

Size of Pot : Height – 13 cm, Diameter – 19 cm

6. Snake plant variety: GSP1 (NavsariVaasuki)

Nurserymen of Gujarat and plant lovers are recommended to grow Gujarat Snake Plant 1 (Navsari Vaasuki) variety of snake plant for higher commercial value as well as for indoor pot plant. GSP1 (NavsariVaasuki) is a phytoremedial medium stature snake plant variety having dark green broad and stout leaves with whitish greyish variegated margin, produces 16.46 % and 26.03 % more suckers than local checks (Tall Yellow and Dwarf) and is efficient in indoor air quality purification by faster removal of TVOCs and HCHO.

Production of planting material

Year: 2024-25
B.H.: 329/12046-1 (Plan Project)
:Seed/Bulb/Corms:
Tuberose bulbs, lily bulbs, gladioluscorms, Heliconia rhizomes, Ornamental ginger rhizomes (No.)- 75203
:Nursery plants:
Rooted cuttings & seedlings of different ornamental plants (No.)-6095
:Cut flowers:
Gladiolus, rose, tuberose, goldenrod, orchid, heliconia ornamental ginger etc. (No.)-5541
:Loose flowers (kg):
Marigold, Chrysanthemum, Rose, gaillardia etc.- 558 kg
:Flower decoration:
Flower bouquets (small, medium & big), bowl and Channels (No.)- 510
B.H.:329/12970
:Flower bouquet:
Small, medium, large, floral bowl etc.- 71
:Plants:
Small bags (7"-5")-46, Medium bags (10"-8")-11, Large bags (14"-12")-2, Euphorbia-9, Hanging basket-14, Haworthia-22 and Indoor plants-15
B.H.:329/12041
: Nursery plants :
Grafted Adenium-100, Haworthia (Small pot)-77, Cactus-4, Succulents-14, Indoor Plant Pot-2, Portulaca-23, Palms-16, Palm-16, Euphorbia-31, Lettuce-120, Coriander-260, Ixora-4, Hanging plants-4, Small bags (7"-5")-410, Medium bags (10"-8")-24 and Large bags (14"-12")-43
B.H.:329/9510 N - 50 (Revolving Fund)
: Nursery plants :
Ornamental plants-2427, Medicinal plants-324, Trees-65, Palms-375
: Rooted cuttings :
Ornamental plants-340
: Seedlings:
Flower crops-4900
:Seed/Bulb/Corms:
Heliconia rhizomes, Ornamental ginger rhizomes (No.)-4
:Border plants:
Ornamental plants-1120
B.H.:329/9510 N - 60 (Revolving Fund)
:Cut flowers:

Gerbera, orchid etc.-11
:Flower bouquet:
Small, medium, large, floral bowl etc.-270 and Channel-29
: Dish garden :
Small (6”),-2, Medium (8”)-15 and Large (10”)-10
: Terrarium:
Small (6”-8”)-15
: Hanging basket :
Plastic-97, Coco-coir-42 and Bamboo-10
: Plants :
Large bags (14”-12”)-482, Medium bags (10”-8”)-333, Small bags (7”-5”)-484, Plastic pots (10”-12”)-7, Ceramic pot (10”)-8, Pot plant on rent 12”-990, Indoor plants-173, Haworthia-10, Succulents-10
B.H.:329/2100/00 (AICRP on Floriculture)
:Cut flowers:
Tuberose, cut greens like dracaena, golden rod etc.-548
: Flower decoration :
Flower bouquets (small & big) & bowl (No.)-178

EXTENSION ACIVITIES

- 1) **Dr. Alka Singh** delivered a lecture on “*Scope & Importance of Garden Skill Development*” in Ten days students’ Training Programme on ‘Gardening Skill’ organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 3rd April 2024 at ASPEE College of Horticulture, NAU, Navsari.
- 2) **Dr. Hardik P. Shah** delivered lecture on “*Classification and Identification of plants*” in Ten days students’ Training Programme on ‘Gardening Skill’ organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 3rd April 2024 at ASPEE College of Horticulture, NAU, Navsari.
- 3) **Dr. M. A. Patel** delivered lecture on “*Lawn –Land Preparation & planting*” in Ten days students’ Training Programme on ‘Gardening Skill’ organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 18th April 2024 at ASPEE College of Horticulture, NAU, Navsari.

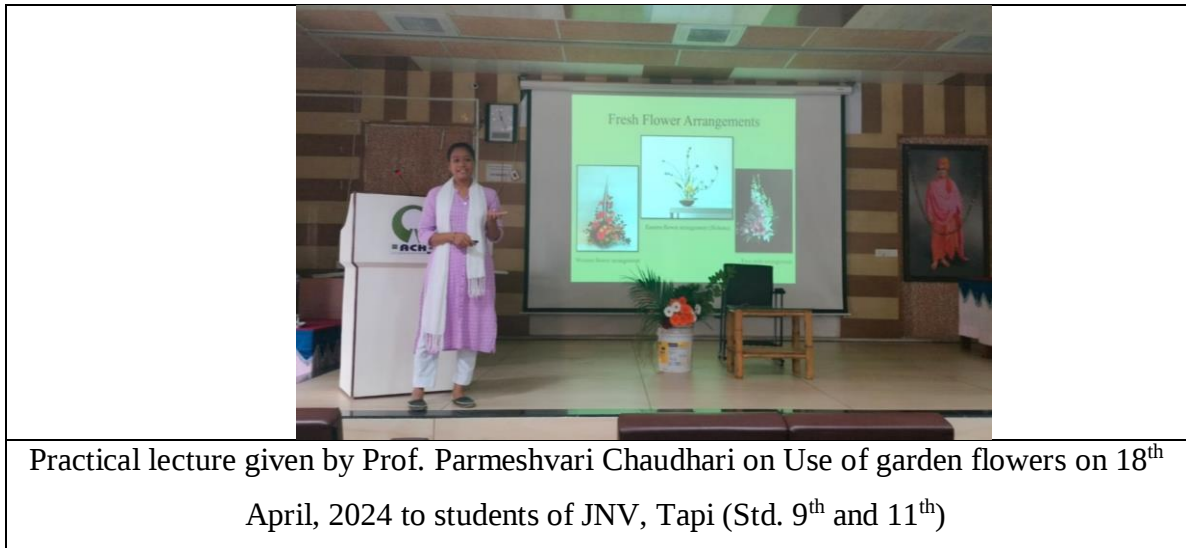
- 4) **Dr. Gaurang D. Patel** delivered lecture on “*Garden – Role of Trees & Environment*” in Ten days students’ Training Programme on ‘Gardening Skill’ organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 3rd April 2024 at ASPEE College of Horticulture, NAU, Navsari.
- 5) Hands on Training has been given by **Dr. Gaurang D. Patel** on “Preparation of Soilless Media for Raising of Seedling” at GST, Kharel on 25th May, 2024.



Hands on training on Preparation of Soilless Media for Raising of Seedling given by Dr. G. D. Patel at GST, Kharel on 25th May, 2024

- 6) **Dr. Dipal S. Bhatt** delivered lecture on “*Garden components: Plant (Living) Components*” in Ten days students’ Training Programme on ‘Gardening Skill’ organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 3rd April 2024 at ASPEE College of Horticulture, NAU, Navsari.
- 7) **Dr. Sudha Patil** delivered lecture on “*Pot Plant- care and maintenance*” in Ten days students’ Training Programme on ‘Gardening Skill’ organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 18th April 2024 at ASPEE College of Horticulture, NAU, Navsari.

- 8) **Prof. Parmeshvari Chaudhari** delivered practical lecture on “*Use of Garden Flowers*” in Ten days students’ Training Programme on ‘Gardening Skill” organized by ASPEE College of Horticulture, Navsari Agricultural University, Navsari and JNV, Tapi from 03-18 April, 2024 for the students of PM Shri School, Jawahar Navodaya Vidyalaya, Tapi (Std. 9th and 11th) on 18th April 2024 at ASPEE College of Horticulture, NAU, Navsari.



- 9) **Dr. Alka Singh** delivered a lecture on “*Greenhouse ma Gulabni kheti*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshitkheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 19th September 2024 at ATIC, NAU, Navsari.
- 10) **Dr. S. L. Chawla** delivered a lecture on “*Gerbera ane Gulab sivayana any fulpakoni shakyata*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshitkheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 21th September 2024 at ATIC, NAU, Navsari.
- 11) **Dr. Hardik P. Shah** delivered a lecture on “*Greenhouse ma Gerberani kheti*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 19th September 2024 at ATIC, NAU, Navsari.
- 12) **Dr. Hardik P. Shah** delivered a lecture on “*Greenhouse ma Orchid ni kheti*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshitkheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 19th September 2024 at ATIC, NAU, Navsari

- 13) **Dr. M. A. Patel** delivered a lecture on “*Floriculture vibhagni mulakat*” and “*Prayogik–fulpako mate midiya taiyar karavu*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 18th September 2024 at ATIC, NAU, Navsari.
- 14) **Dr. M. A. Patel** carried out a practical on “*Fulpako mate midiya taiyar karavu*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 20th September 2024 at ATIC, NAU, Navsari.
- 15) **Dr. Gaurang D. Patel** carried out a practical on “*Greenhouse ma soilless kheti*” and in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 21th September 2024 at ATIC, NAU, Navsari.
- 16) **Dr. Gaurang D. Patel** delivered a lecture on “*Hydroponiksh khetini shakyata ane samaj*” and in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 25th September 2024 at ATIC, NAU, Navsari.
- 17) **Dr. Dipal S. Bhatt** delivered a lecture on “*Fulpakoni nikasna dharadhoran*” and in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 23th September 2024 at ATIC, NAU, Navsari.
- 18) **Dr. Dipal S. Bhatt** carried out a practical on “*Ful ane shakbhajiu taravani padhdhati ane utarya pachhini mavjat*” and in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 18-27 September, 2024 on 27th September 2024 at ATIC, NAU, Navsari.
- 19) **Dr. Alka Singh** delivered a talk on “Urban Oasis: Maximizing Green Spaces in Minimal City Spots” in the training programme on “ECHO Urban Agriculture for Nutrition Security” through Online mode at MANAGE, Hyderabad on 17th April 2025.
- 20) **Dr. Alka Singh** delivered a lecture on “*Greenhouse ma Gulabni kheti*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)” organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 5 – 14 May, 2025 on 13th May 2025 at ATIC, NAU, Navsari.

- 21) **Dr. Gaurang D. Patel** delivered a lecture on “*Hydroponiksh khetini shakyata ane samaj*” and in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)’ organized by Directorate of Extension Education, Navsari Agricultural University, Navsarifrom 5 - 14 May, 2025 on 13th May 2025 at ATIC, NAU, Navsari.
- 22) **Dr. Gaurang D. Patel** carried out a practical on “*Greenhouse ma soilless kheti*” and in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)’ organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 5 – 14 May, 2025on 13th May 2025 at ATIC, NAU, Navsari.
- 23) **Dr. Dipal S. Bhatt** carried out a practical on “*Fulpakona grading, packing, mulyavardhan, vahanni pratyaksh talim ane nikasna dharadhoran*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)’ organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 5 - 14 May, 2025 on 13th May 2025 at ATIC, NAU, Navsari.
- 24) **Ms. Parmeshvari Chaudhari** carried out a practical on “*Greenhouse ma Fuloni kheti*” in Ten days farmers’ Training Programme on ‘Greenhouse/ nethouse (Rakshit kheti)’ organized by Directorate of Extension Education, Navsari Agricultural University, Navsari from 5 - 14 May, 2025 on 11 May 2025 at ATIC, NAU, Navsari.

TRANSFER OF TECHNOLOGY (ToT)

Interaction with farmers in <i>Rabi Krishi Mahotsava-2024</i> during 6-7 December, 2024 at Ta-Uchhal, Dist-Tapi		
Interaction with farmers in <i>Rabi Krishi Mahotsava-2024</i> during 6-7 December, 2024 at Ta-Chikhli, Dist-Navsari		



Herbal Gulal “**Nav Gul**” developed by Department from Marigold flowers



Diagnostic visit at farm of Mr. Natwarbhai Patel at Unn Village



MoU with Aga Khan Rural support Programme , India for the promotion of agriculture in south Gujarat

MoU with ICAR-IIHR, Bengaluru for hybrid seed production of marigold

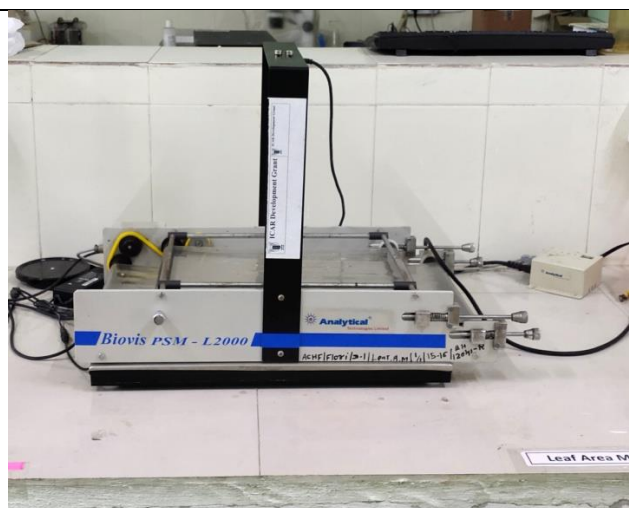
Infrastructure Available

Infrastructure or Facilities available at Department of Floriculture & Landscape Architecture

Sr. No.	Infrastructure or Facilities available	No.
1.	Laboratory-FLA 7 (For Biochemical work)	1
2.	Laboratory-FLA 6 (For general Floriculture work)	1
3.	Gardens (Rooftop garden, Zen garden, Sand garden, Strolling garden, Courtyard garden)	5
4.	Laboratory-FLA 5(For Value Addition in Flowers)	1



Laboratory - FLA 5
(For Value Addition in Flowers)



Laboratory-FLA7
(For Biochemical work)



College garden



Roof Top garden



Bio wall

Miniature Garden



Sand Garden

Zen Garden



Strolling Garden



“Tsubo-niwa” Courtyard garden

Infrastructure or Facilities created at Research Farm in Floriculture department

Sr. No.	Infrastructure or Facilities available	No.
1.	Floriculture Research farm (4 ha)	
	Naturally Ventilated Polyhouse for orchid (500 m ²)	1
	Net house for Heliconias (1500 m ²)	1
	Net house for Bird of Paradise (500 m ²)	1
	Selling unit net house (750 m ²)	1
	Net house for cut greens, foliage plants etc. (175 m ²)	1
	Rain shelter for chrysanthemum, gypsophila etc. (200 m ²)	1
	Propagation unit (550 m ²)	1
	Net house for orchids and anthurium (150 m ²)	1
	Godown cum store (22 m ²)	1
	Propagation unit with rain shelter (175 m ²)	1
	Poly tunnel (covered with UV stabilized plastic sheet) (54 m ²)	1
2.	Green House Complex (13250 m²)	
	Naturally Ventilated Polyhouse (768 m ²)	2
	Fan and Pad type Polyhouse -(672 m ²)	2
	Net house (150 m ²)	3
3.	Advanced Training Centre on Soilless Growing system for various crops (3500 m²)	
	Naturally Ventilated Polyhouse (500 m ²)	1
	Polyhouse with Fan and Pad system (500 m ²)	1



Rain shelter



Store room

Floriculture Research Farm



Chrysanthemum



Gladiolus



Ornamental Sunflower



Floriculture Research Farm

Infrastructure or Facilities created at Green House Complex

	
Gerbera - Fan & Pad Polyhouse	Orchid- NV Polyhouse
	
Gypsophylla in Fan & Pad Polyhouse	
Green House Complex	

Infrastructure or Facilities created at ATC Soilless System for various crops

	
Haworthia	Adenium
ATC Soilless System for various crops	

Dignitaries Visit: Glimpses



Dr. Sudhakar Pandey, ADG (Horticulture), ICAR, New Delhi visited Advance Training Centre of Soilless growing system, ACH, NAU, Navsari on 27/06/2024



Dr. Sudhakar Pandey, ADG (Horticulture), ICAR, New Delhi visited Advance Training Centre of Soilless growing system, ACH, NAU, Navsari on 27/06/2024



Dr. Rajiv Kumar, Principal Scientist, ICAR-IIHR, Bengaluru visited Floriculture Research Farm, ACH, NAU, Navsari on 09/09/2024



Dr. Alka Singh (Project Incharge) presented progress report on “Development of DUS testing Guidelines for Adenium” in front of Task Force Committee headed by Dr. Ramesh Kumar (Former Director ICAR-DFR), Pune during April 11-12, 2025	Visit of PPVFRA, New Delhi sponsored project “ <i>Development of DUS testing Guidelines for Adenium</i> ” by Dr. Ramesh Kumar, Dr. S.S. Sindhu, Dr. Naveen Kumar, Dr. D. S. Pilania, Dr. Dilip Patel escorted by Dr. Alka Singh (Project Incharge) and Co-PI on 11 th April, 2025
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