



Department of Natural Resource Management  
ASPEE College of Horticulture  
Navsari Agricultural University  
Navsari – 396450



## ACTIVITIES AND ACHIEVEMENTS

### ACADEMIC ACTIVITIES

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

B. Sc. (Hons.) Horticulture				
SN	Sem.	Course No.	Title of Course	Credit hrs
1	1 <sup>st</sup>	NRMH 1.1	Fundamentals of Soil Science	3(2+1)
2	2 <sup>nd</sup>	NRMH 2.2	Soil Fertility and Nutrient Management	2(1+1)
3	2 <sup>nd</sup>	NRMH 2.3	Water Management in Horticultural Crops	2(1+1)
4	2 <sup>nd</sup>	NRMH 2.4	Agro-meteorology and Climate Change	2(1+1)
5	3 <sup>rd</sup>	NRMH 3.5	Organic Farming	2(1+1)
6	4 <sup>th</sup>	NRMH 4.6	Farm Power and Machinery	2(1+1)
7	4 <sup>th</sup>	NRMH 4.7	Soil, Water and Plant Analysis	2(1+1)
8	5 <sup>th</sup>	NRMH 5.8	Weed Management in Horticultural Crops	2(1+1)
9	6 <sup>th</sup>	NRMH 6.9	Introduction to Major Field Crops	2(1+1)
10	6 <sup>th</sup>	NRMH 6.10	Introductory Agroforestry	2(1+1)
11	6 <sup>th</sup>	NRMH 6.11	Environmental Studies and Disaster Management	3(2+1)
Sub Total (A)				<b>24 (13+11)</b>
B.Sc. (Hons.) Forestry				
12	2 <sup>st</sup>	SAF 1.2	Introduction to Agronomy and Horticulture	3(2+1)
<b>Total</b>				<b>3(2+1)</b>

#### 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	Even	FSC 510	Organic Fruit culture (P)	2(1+1)
2	Odd	PSM 507	Organic spices and plantation crop Production (P)	3(2+1)
3	Even	VSC 511	Organic vegetable production (P)	2(1+1)
4	Odd	Soil 511 (Agri)	Management of problematic soils and waters	3(2+1)
5	Odd	Agron 513 (Agri)	Principles and Practices of Organic Agriculture	3(2+1)
6	Even	Agron 609 (Agri)	Stress Crop Production	3(2+1)
7	Even	Agron 609	Stress Crop Production	3(2+1)
<b>Total</b>				<b>19 (12+7)</b>
<b>Total</b>				<b>20(12+8)</b>

## RESEARCH ACTIVITIES

### Focus Areas

The growth of organic agriculture in India as well as in the state is increasing. The area under certified organic farming in India during 2003-04 was 42,000 ha and it was increase almost 20 fold during the last 5 years. By March 2010 India has brought more than 4.48 million ha area under organic certification process. This is mainly due to (1) the continuous use of chemical fertilizers with unscientific soil and water management led to soil degradation and (2) Increase awareness among the people about health. Number of farmers has started organic farming on their own way as they have no technical know how. Further, the efforts are scanty and patchy. Looking to this, Navsari Agricultural University has started the work on this aspect and converted 12 ha land in to organic farming and plan scheme was also sanctioned and initiated the experiment. The experiment was started using banana, papaya, sugarcane, elephant foot yam, greater yam, onion, garlic and turmeric. The preliminary result was good. For enhancement of organic farming required to work on development of organic package of practices, production of quality organic manure and organic pest control module. This requires to strength the existing scheme so as to achieve following objectives.

- To generate basic information about potential of organic farming, inorganic farming and combination of both from agronomy, soil science, soil and plant health, crop quality and nutrition and biochemistry view points.
- To asses intensity of pests and diseases in relation to different treatments and thereby to study pollution problem.
- To develop simple index based on quality difference and economics for assessing superiority of treatments and thereby make recommendation for farmers.
- Modelling and documentation of results.
- Develop organic package of practices for different crops.
- Evaluate quality of produce.
- Assess soil health.
- Training for creating awareness among farmers about organic farming.
- Demonstrate organic package of practice on farmers' fields.
- Helping farmers for organic certification and develop marketing linkages.
- Human resource development.

### Research Schemes in Operation

SN	Title of Project	Budget Head	PI & Co-PI
<b>A</b>	<b>Plan Schemes</b>		
<b>1</b>	Strengthening of organic farming cell	2012-13 & BH- 12022	<b>PI:</b> Dr. A.R. Kaswala <b>Co-PI:</b> Dr.P.K. Dubey
<b>2</b>	Centre of excellence for organic and natural farming	2023 BH 12088	<b>PI:</b> Dr. A.R. Kaswala <b>Co-PI:</b> Dr.P.K. Dubey

## : Research Recommendations:

### Research Recommendations for the farming community: 22

#### Achievements

##### Awards and Recognitions (Institute/College)

The 15th edition of BIOFATCH India, a preeminent trade fair for the organic industry, was organized by NürnbergMesse India in collaboration with APEDA, at Delhi from September 07-09, 2023. During this esteemed event, NAVSARI AGRICULTURAL UNIVERSITY was honored with the Jaivik India Award 2023 from the International Competence Centre for Organic Agriculture (ICCOA) by awarding 2nd prize in the "Research Institute" category in recognition of the exemplary contribution in the field of Organic Agriculture. The award was received by Dr. A. R. Kaswala, Head, Organic Farming Cell and this venture Hon'ble Vice-Chancellor Dr. Z. P. Patel extended heartfelt congratulations to the dedicated team of the Organic Farming Cell at ACoH, Navsari, for their remarkable achievement.

The award ceremony was graced by the presence of notable dignitaries including Shri Kakani Govardhan Reddy, Hon'ble Minister of Agriculture, Government of Andhra Pradesh; Shri Bharat Bhushan Tyagi, esteemed Padma Shri awardee and Board member of ICCOA, Bangalore; Shri Premchand Sharma, another distinguished Padma Shri awardee from Uttarakhand; Shri C. K. Ganguly, Vice President of IFOAM Organics International; Shri Dorai Raj, President of ICCOA; and Shri Manoj Kumar Menon, Executive Director of ICCOA.





<b>Awards</b>				
<b>SN</b>	<b>Name of Award</b>	<b>Awardee</b>	<b>Year</b>	<b>Awarding institute/ Agency</b>
1	Best Oral Paper Presentation	<b>Dr. P.K. Dubey</b>	2024	3 <sup>rd</sup> Progressive Horticulture Conclave (PHC) 2024 on Horticultural Technologies for a self-Reliant India organized by Progressive Horticulture-Society of Horticulture Research & Development (SHRD) Uttarakhand, India in collaboration with and at ASPEE College of Horticulture, Navsari Agricultural University, Navsari during 18-20 January, 2024
2	Best Poster Paper Presentation	<b>Dr. A.R. Kaswala</b>	2022	31th National Conference on "Innovative Resource Management Approaches for Coastal and Inland Ecosystems to Sustain Productivity and Climate Resilience "held at Navsari Agricultural University , Navsari, Gujarat on October 13-15, 2022.
3	Best Oral Paper Presentation	<b>Dr. P.K. Dubey</b>	2022	31th National Conference on "Innovative Resource Management Approaches for Coastal and Inland Ecosystems to Sustain Productivity and Climate Resilience "held at Navsari Agricultural University , Navsari, Gujarat on October 13-15, 2022.
4	Best Oral Paper Presentation	<b>Dr. A.R. Kaswala</b>	2021	National Seminar on “Advances in Sustainable Management Of Natural Resources For Food and Nutritional Security” held at Navsari Agricultural University, Navsari, Gujarat on August 26-27, 2021.

5	Best Oral Paper Presentation	<b>Dr. P.K. Dubey</b>	2021	National Seminar on “Advances in Sustainable Management Of Natural Resources For Food and Nutritional Security” held at Navsari Agricultural University, Navsari, Gujarat on August 26-27, 2021.
6	Young Scientist Award	<b>Dr. P.K. Dubey</b>	2018	International Conference on Food and Agriculture” ICFA-2018, 29-31 March, 2018 at Dhanbad, Jharkhand
7	Best Oral Paper Presentation	<b>Dr. P.K. Dubey</b>	2018	International Conference on Food and Agriculture” ICFA-2018, 29-31 March, 2018 at Dhanbad, Jharkhand
8	Best Oral Paper Presentation	<b>Dr. P.K. Dubey</b>	2018	National Seminar on “Technologies and Sustainability of Protected Cultivation for Hi-Valued Vegetable Crops” held at ACHF, Navsari Agricultural University, Navsari, Gujarat
9	Young Scientist Award	<b>Dr. P.K. Dubey</b>	2017	National Conference on Doubling Farmers Income for Sustainable and Harmonious Agriculture ’ DISHA-2017, 9-10th September, 2017 at Sri Venkateshwara University, Tirupathi, Andhra Pradesh
10	Best Oral Paper Presentation	<b>Dr.Smita Gupta</b>	2021	3 <sup>rd</sup> International Conference on "Food,Agriculture and Innovations(Hybrid mode) "held at Ranchi Jharkhand on 24 <sup>th</sup> -26 <sup>th</sup> December, 2021.
11	Best Research Scholar Award	<b>Dr.Smita Gupta</b>	2017	Advances in agricultural and biodiversity conservation for sustainable development at C.C.S,UniversityMeerut,UP,India..
12	Young Scientist Award	<b>Dr.Smita Gupta</b>	2016	Genesis urban and rural development society,Hyderabad

## EXTENSION ACIVITIES

### *Khedut Shibir/Training/Exposure visit/Agro Advisory service organized by department*

S.N.	Date	Place	Name of activity	Name of Faculty	Number of farmers Participate
1	July 19, 2023	CEH, NAU, Navsari	An Awareness workshop on Intellectual Property Rights, GI Tags and Patenting” was organized by the department	Dr A R Kaswala & Dept. team	225



2	August 23, 2022	ACHF, NAU, Navsari	One day training programme on “ <i>Aamba Ane Chiku Ma Aadhunik Rite Parampragat Kheti</i> “ was organized by Organic Farming Cell	Dr A R Kaswala	250
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- ❖ Participation of faculty in *Krusha Mahotsava* and *Krusha Mela* Programme.
- ❖ Lectures delivered in training programme organized by KVKs/ ATMA/Department on the Natural farming/ Organic farming for the farmers, in-service employee, class I & II officers etc.
- ❖ Lectures delivered in training programme organized by ATIC, DEE, NAU, Navsari to the Agro-input dealers.
- ❖ On-farm/ Off-farm and through mobile Technical guidance on Natural farming/ Organic farming provided to the organic growers.
- ❖ Dissemination of technology through field demonstration.

Books- 4

Research papers- 35

Folders- 19

Book chapters- 11

Lead papers- 11

Lectures delivered- > 127

## TRANSFER OF TECHNOLOGY (ToT)



Transfer of technology

## Infrastructure Available

### Department

- UG and PG Laboratories:
- Instrument room, Store room, sample room and office.
- Wi-Fi facility.



### Farm

- Farm Area: 10 ha
- Office, Museum and godawn
- Borewell: 01
- Farm implements, Vermicompost unit, NADEP compost unit, anaerobic compost unit, Net house.



