



Vidya Prasarak Mandal's

**B.N. BANDODKAR COLLEGE OF SCIENCE,
(AUTONOMOUS), THANE**

DEPARTMENT OF BOTANY

NAAC Re-accredited, 'A' Grade, Best College Award, University of Mumbai, ISO 21001:2018, Bureau of Indian Standard (BIS), Recipient of FIST, 'O' level Grant from DST, RBNQA, Commendation Certificate, Recipient of Grant for Star College Scheme from DBT, College with Potential Excellence CPE, 'O' from UGC, Received Cash and Trophy Majhi Vasundhara by Thane Municipal Corporation and Government of Maharashtra, Winner trophy for Nukkad Natak competition on beach cleaning organized by Ministry of Environment Forest and Climate Change, Government of India.

Notice

04/11/2025

All S.Y.B.Sc. Botany Major students are informed that -

An 'Orientation Session on Field Project under NEP 2020'

is arranged on Thursday 6th November 2025 from 7:30 am to 9:30 am in Botany Laboratory. During this session guidance will be given to students for project completion and Project Guide will be allotted to your selected project.

Important Note -

1. The students who will report after **7:25 am**, will be marked as **'ABSENT'**.
- 2, The students who will remain **ABSENT**, their Guide will **NOT** be allotted.

Urmila Kumavat
04/11/25

Session - In charge
Dr. Urmila Kumavat

V. M. Jamdhade
Head, Dept of Botany
Prof. V. M. Jamdhade

Activity Report

Name of activity	An Orientation Session on Field Project under NEP2020
Objectives of the activity (maximum 40 words)	This activity is intended to create awareness about methodology and presentation of field project under NEP2020
Organizing department/s	Department of Botany
Collaborative institute	Nil
Date (DD / MM / YYYY)	06/11/2025
Venue	Botany Laboratory
Mode	Offline
Details of Resource person (name, designation, institution)	Dr. Kumavat Assistant Professor, Dept of Botany B.N.Bandodkar College of Science (Autonomous), Thane
Key Participants	SYBSc Major Botany Students
Remarkable outcomes/ key take-away messages (max. three)	<ul style="list-style-type: none"> • Students were introduced to concept of Field project with the help of examples. • Students understood the methodology of field project along with project report writing skills • Students got to know all resources of references and possible exploration areas for field project
Details of participants	
Total Number	27
Outsiders	Nil
In-house	27
	Faculty members: 01 Students: 27
	Male:06 Female: 21 others: Nil
Additional information	<i>Study Material was also provided.</i>

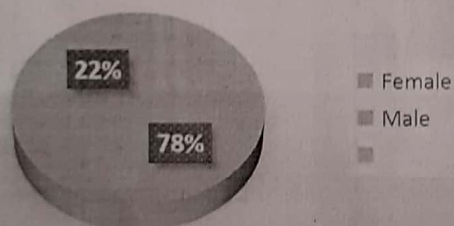
Name of Coordinator/ teacher in-charge: **Dr. Urmila Kumavat**

Dr. Kumavat
06/11/2025

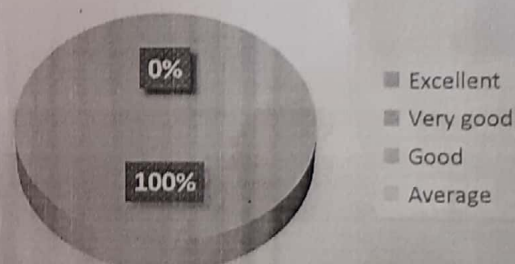
Geo-tagged Photos



Attendance



Feedback



Graphical representation of feed-back: The overall feedback of this activity was excellent.

[Handwritten signature]

Dr. V.M. Jamdhade
M.Sc., Ph.D.
Professor & Head,
Department of Botany,
B N Bandodkar College of Science
(Autonomous), Thane-400601

Attendance

Class: SYBSc

Title of the Activity: An Orientation on Field Project

Date: 06/11/2025

Day: Thursday

Time: 7.30 am to 9.30 am

Sr. No.	PRN	Name of the Student	Sign	Ex	VG	G	Av
1	2024420020	Aste Sneha Gunderao Renuka	<u>Aste</u>	✓			
2	2024420021	Yadav Abhishek Vijaykumar	<u>Abhishek</u>	✓			
3	2024420022	Panchal Sanskruti Dhananjay	<u>Sanskruti</u>	✓			
4	2024420023	Patil Divya Ashok Sangita	<u>Patil</u>	✓			
5	2024420024	Pardeshi Nikita Santosh Nilima	<u>Pardeshi</u>	✓			
6	2024420025	Shukla Bhumika Santosh Ranjana	<u>Bhumika</u>	✓			
7	2024420027	Chavan Sakshi Yuvraj Seema	Absent				
8	2024420028	Late Vrushali Digambar Puahpa	<u>Vrushali</u>	✓			
9	2024420029	Sayyed Jamir Sahil Jamir Aashabi	<u>Sahil</u>	✓			
10	2024420030	Jaiswal Ragini Dinesh Babita	<u>Ragini</u>	✓			
11	2024420033	Govekar Akshata Arun Saili	<u>Akshata</u>	✓			
12	2024420034	Gavit Anamika Chhagan Vanita	Absent				
13	2024420035	Yadav Rohit Kamlesh Mira	<u>Rohit</u>	✓			
14	2024420036	Belose Minakshi Sanjay Aasha	<u>Belose</u>	✓			
15	2024420037	Pawar Sanika Santosh Reshma	<u>Sanika</u>	✓			
16	2024420038	Bhor Snehal Prabhakar Shakuntala	<u>Snehal</u>	✓			
17	2024420039	Bhangare Shrutika Vitthal	<u>Bhangare</u>	✓			
18	2024420040	Khan Sadaf Mehboob Rehana	<u>Sadaf</u>	✓			
19	2024420041	Kadam Purva Sunil Manda	<u>Kadam</u>	✓			
20	2024420042	Anmol Kushal Mallesh Savita	Absent				
21	2024420043	Mishra Nitin Ram Meenu	Absent				
22	2024420044	More Swapnil Gorakh Nirmala	<u>Swapnil</u>	✓			
23	2024420045	Singh Preetikumari Prashant	<u>Preeti</u>	✓			
24	2024420047	Bait Urja Sudhakar Shubhda	<u>Bait</u>	✓			
25	2024420048	Sawant Tejasvi Shivaji Ranjana	<u>Tejasvi</u>	✓			
26	2024420049	Kamble Neha Charan Karuna	<u>Kamble</u>	✓			
27	2024420050	Gupta Yambika Mangal	<u>Yambika</u>	✓			
28	2024420068	Khatri Anjali Krishnanath Shobha	<u>Anjali</u>	✓			
29	2024420196	Sirsat Sudarshan Suresh Nanda	<u>S.S. Sirsat</u>	✓			
30	2024420492	Mankumare Srushti Sunil Archana	<u>S.S.M</u>	✓			
31	2024420493	Sharnagat Rohan Anil Archana	<u>Rohan</u>	✓			
32	2024420494	Sawant Janhavi Jaikar Jagruti	Absent				

Name & Sign of Teacher: Dr. Urmila Kumanavat

Urmila Kumanavat
6/11/2025

Botany Field Project Report Example I -

1. Title of the Project

A clear, concise title reflecting the main study focus. **Example:** "Formulation and evaluation of Herbal Product"

2. Introduction

- Background of the study - Brief introduction to **herbal cosmetics** and their growing importance.
- Global and Indian market scenario of herbal cosmetics.
- Advantages of herbal over synthetic cosmetics (e.g., safety, biodegradability, minimal side effects).
- Purpose and use of specific selected cosmetic product (e.g. face pack, lip balm, hair oil, etc.)

3. Objectives

Mention 3–5 specific aims.

- To identify and collect medicinal plants with cosmetic value.
- To formulate selected herbal cosmetic preparations (e.g., shampoo, face pack, lip balm).
- To study traditional uses and scientific validation of selected herbs. (Validation*)
- To evaluate the prepared formulations with stability and efficacy.
- To promote sustainable and eco-friendly cosmetic practices.

4. Review of Literature

- Summary of previous studies or references related to herbal cosmetics.
- Overview of commonly used **herbal ingredients** and their roles:
e.g. *Aloe vera* – moisturizer, skin healing, **Neem** (*Azadirachta indica*) – antibacterial, **Turmeric** (*Curcuma longa*) – anti-inflammatory, **Hibiscus** (*Hibiscus rosa-sinensis*) – hair conditioning, **Tulsi** (*Ocimum sanctum*) – antiseptic, antioxidant (Include citations in APA style)

5. Materials and Methods

A. Collection of Plant Materials

Information of plants based on ethnobotanical knowledge - Name, family, part used, medicinal value

Collection site details (with GPS or location map).

Authentication of plant specimens (by a botanist or herbarium reference).

Cleaning, drying (shade/natural/artificial), and powdering.

B. Preparation of Herbal Extracts

Solvent extraction methods (aqueous, ethanolic) Filtration and concentration of extracts

Storage and labeling.

C. Formulation of Herbal Cosmetics

Students can prepare **FIVE** products:

Product Type	Example Herbs	Objective
Herbal Shampoo	Hibiscus, Shikakai, Amla, Reetha	Cleansing, hair strengthening
Face Pack	Multani mitti, Turmeric, Neem, Rose petals	Skin purification

Herbal Lip Balm	Beetroot, Coconut oil, Shea butter	Moisturizing and coloring
Herbal Hand Cream	Aloe vera, Almond oil, Glycerin	Skin hydration
Herbal Hair Oil	Brahmi, Bhringraj, Amla	Hair nourishment

Provide formulation tables: Ingredients (with quantities), Method of preparation (step-by-step), Storage and labeling

D. Evaluation Parameters

Evaluate the prepared formulations for: **Physical appearance:** color, texture, odour, **pH**, **Viscosity** (for creams, gels)

Spreadability, **Foaming index** (for shampoos), **Stability test** (temperature, light), **Microbial basic test (basic)** and **User acceptability (survey-based)**

6. Observations and Results

Data tables of evaluation results.

Geo-tagged Photographs of formulation and testing process.

Graphs or charts showing comparisons (e.g., pH vs. standard).....if any

Field visit photographs, Herbarium specimen sheets, Sample labels or packaging design

Questionnaire for user survey

7. Discussion

Interpretation of results.

Comparison with market formulations or Analysis of Survey.

Comments on efficacy, stability, Sustainability and economic feasibility.

8. Conclusion

Summary of findings, Advantages of herbal cosmetics formulated and Future scope (e.g., scaling up production, clinical testing).

9. Achieved - Learning Outcomes

- Students gained hands-on experience in herbal formulation techniques.
- Understood plant-based cosmetics with scientific and traditional aspects.
- Developed of research, observation and teamwork skills.
- Aware about sustainable and ethical herbal product development.

10. References (All references in APA format)

- Cite all field guides, floras, books, and online resources used
- Use standard citation format (APA) - Sharma, P., & Gupta, N. (2022). Formulation and evaluation of herbal shampoo using natural ingredients. *Journal of Pharmacognosy and Phytochemistry*, 11(3), 102–109.

11, Suggested Duration - Total Duration: 8–10 weeks

Week 1: Topic selection, literature review, and plant identification

Week 2-3 : Field collection and processing of raw materials

Week 4–5: Extraction and formulation preparation

Week 6: Evaluation and data collection

Week 7-8: Report compilation and presentation

Botany Field Project Report Example II

1. Title of the Project

A concise and descriptive title.

Example: “*Survey of Cut Flowers/ Exotic Fruits in Local Market of adjoining regions of Vashi*”

2. Introduction

- Importance of **floriculture** or **fruit production** in India and local economy.
- Role of flower/fruit marketing in farmer's income and agribusiness.
- Current demand or trends in local, national and global market levels.
- Significance of market survey studies in understanding supply chains, pricing and consumer preferences.

3. Objectives

- To study the types and varieties of flowers/fruits available in the market.
- To identify the sources of supply and distribution channels.
- To analyze market demand, seasonal variation and pricing patterns.
- To understand marketing challenges faced by growers and traders.
- To document post-harvest handling, storage and packaging practices.
- To suggest improvements for efficient marketing and value addition.

4. Review of Literature

Brief summary of previous surveys or studies on flower/fruit markets.

Overview of:

Major cut flowers: Rose, Tuberose, Gerbera, Orchids

Major loose flowers: Marigold, Chrysanthemum, Jasmine

Major fruit crops: Mango, Banana, Guava, Pomegranate, Grapes, Citrus, Papaya.

National horticulture data or government schemes (NHM, MIDH, etc.).

Relevant research or reports on price trends, export potential and post-harvest management.

(Include 5–8 APA-format references.)

5. Materials and Methods

A. Study Area

Name and location of selected markets (e.g., local wholesale market, mandi, flower market or retail outlets).

Geographical details (latitude and longitude) and accessibility

Duration of study (mention dates and survey period).

B. Sampling and Data Collection

Primary Data: Collected through field visits, interviews and questionnaires with farmers, vendors and customers.

Secondary Data: From government reports, journals, agricultural departments, and online sources.

Survey Tools: Structured questionnaire or checklist, Photographic documentation, Price recording sheet

C. Data Parameters to be Recorded

For **Flowers:** Type and variety of flowers sold, Source of supply (local growers, other states, imports)

Quantity and price variation (wholesale vs. retail), Market demand (daily/seasonal/festival), Packaging and transportation method, Wastage percentage and disposal methods
For Fruits: Common fruit varieties available, Source and distance from production centers, Price fluctuation (seasonal and off-season), Grading, packaging, and preservation methods, Consumer preference and buying trends, Storage or cold-chain facilities

6. Observations and Results

Data presented in tables and charts, e.g.:

Name of Flower/Fruit	Source of Supply	Average Price (₹/kg or ₹/dozen)	Peak Season	Packaging Type	Remarks
Rose	Local (Pune)	120/dozen	Feb–Apr	Plastic wrap	High demand in weddings
Mango (Alphonso)	Ratnagiri	180/kg	Mar–May	Cardboard box	Premium quality

Graphs for price trends, supply volume, or seasonal variation, Geo-tagged photographs of field visits, vendors and market setups.

7. Analysis and Discussion

Interpretation of market data: Most popular varieties and reasons for preference, Seasonal variation in prices and availability, Challenges in marketing: transportation, storage, wastage, middlemen, Comparison between wholesale and retail markets, Suggestions for Improvement:

8. Conclusion

Summary of findings, Importance of systematic marketing for profitability, Opportunities for students to contribute through value addition, floriculture/fruit processing, or agribusiness startups.

9. Achieved Learning Outcomes

Understood real-world horticultural marketing systems.
 Developed skills in data collection, analysis and communication.
 Gained awareness of economic aspects of floriculture/fruit production.
 Understood local market dynamics and challenges.
 Developed teamwork and professional field reporting skills.

10. References (All references in APA format)

Example: National Horticulture Board. (2023). *Indian Horticulture Database 2023*. Ministry of Agriculture & Farmers Welfare, Government of India, pp 45-60.
 Patil, S. R., & Singh, D. (2022). Market analysis of cut flowers in Maharashtra. *Journal of Horticultural Research*, 14(2), 56–62.

11. Duration and Work Plan of 8-10 Weeks

Week 1 - Selection of market and literature survey
 Week 2 - Designing questionnaire and data collection tools
 Week 3–6 - Field visits and interaction with vendors/farmers
 Week 7-8 - Data analysis, charts, and report writing
 Week 9 - Presentation and submission of project