

# **Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar**

## **DEPARTMENT OF CHEMISTRY**

### **Consultancy Service for nearby Villagers**

#### **‘Soil and Water Analysis’**

To ensure the sustainability for long term basis, it is necessary to manage and proper planning of natural sources like soil and water. There has been continuous deterioration of soil and water due to lack of planning, improper crop pattern, over use of chemical fertilizers, herbicide, pesticide and other hazardous agrochemicals. Now a day, it is essential to inculcate awareness among the farmers regarding conservation of soil and water as a remedial activity to improve food potency and to minimize health problems.

Department of Chemistry in collaboration with **Krishi Vigyan Kendra, Babhaleshwar** runs a consultancy service ‘Soil and Water Analysis for native villagers. The main objective behind starting the consultancy service was that the most of the students and stakeholder belongs to the family with agricultural background. The farmers in rural area are not aware about the micronutrient level of soil and water utilized for agriculture purpose. By the use of excess fertilizers, insecticides and pesticides, the fertility of soils is reduced as a result of this the productivity is also declined. The decrease in annual crop yield weaken the farmers as economic point of view and also insufficient for the country like India which has increasing trend in population.

In order to aware the native villager farmers about the quality of soil and water used, , the Department of Chemistry was conducted Soil and Water analysis activity. And through which the parameters like pH, EC, Salinity, dissolve oxygen, TDS etc. were verified. The faculty members explained the parameters and guided the farmers. Student from chemistry department helps in consultancy service by providing their own soil and water sample from their farm.

The department organizes visits to KVK, Babhleshwar. The faculty members and students interact with the faculties of Department of Soil and Water Analysis KVK, Babhaleshwar and share the information regarding Soil and Water Analysis as consultancy service.



As a part of sustainable development of rural population, Savitribai Phule Pune University had adopted a village 'Kokangaon' from Sangamner tahasil for conducting and implementation of various schemes through National Service Scheme. NSS volunteer of our college had participated solely in this programme and decided to conduct activities like soil and water analysis, selection of assured and high yielding crop pattern and awareness of organic farming and use of bio-agrochemical.



In a preliminary assessment study, we have collected soil and water from seven selected sites of Kokangaon area in order to get an idea about average parameters. The samples were collected and sampling was done as per scientific methods and tested in Department of Chemistry, PVP College, Pravaranagar.

The **Soil Health Card (SHC)** scheme has been started by Government of India under the 'Ministry of Agriculture and Farmers' Welfare. All over India, it has been planned to implement through the Agriculture Department of all the State.

As per policy of 'Ministry of Agriculture & Farmers welfare, Government of India', a '**Soil Health Card**' is used to assess the current status of soil health all the State and Union Territory Governments. The main aim of this scheme is to determine the changes in soil health influenced by land management. SHC displays soil health indicators which are mainly

based on the practical experience of farmers and knowledge of local natural resources available.



As a part of Soil Health Card Scheme of Government of India, Department of chemistry in connection with Pravara Phale Bhajeepala Cooperative Society, Loni has been effectively involved in the analysis of soil samples from different villages of Rahata Tahasil. Nearly, 3000 soil samples from 24 villages were analyzed. Ten students from Department of Chemistry and four faculty members of the department were monitored the scheme.

*f. Thorat*  
Head  
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Padmashri Vilhe Patil College, Pravara



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*f. Jhazal*  
Head  
Department of Chemistry  
Padmashri Vikhe Patil College Pravara

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## DEPARTMENT OF CHEMISTRY

### SOIL HEALTH CARD

The **Soil Health Card (SHC)** scheme has been started by Government of India under the 'Ministry of Agriculture and Farmers' Welfare'. All over India, it has been planned to implement through the Agriculture Department of all the State.

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#### Key Features of Soil Health Card

As stated by Ministry of Agriculture & Farmers welfare **Soil Health Card** have following features



- To cover as many as all farmers under the scheme.
- It will cover all the parts of the country.
- In the form of soil card, the farmers will get a report. and this report will contain all the details about the soil of their particular farm.
- A farm will get the soil card once in every 3 years.

#### Advantages of SHC to farmers

- Soil Health Card Scheme is beneficial scheme for farmers in India.
- It is will useful to select crop pattern in order to get maximum yield by knowing quality and the type of the soil.
- It is also useful to improve the micronutrients level of the soil.
- The determination of soil health indicators from technical specialists helps to improve the crop benefits.
- The scheme will provides a formatted report by analysis helps to decide which crops should be cultivate.

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- The soil will monitor by technical authorities regularly i.e. once in every 3 years and reports will provide to farmers. Hence, the farmers get idea about changes in the soil parameters.
- It will help to get a proper soil health record for the soil management practices.
- This will give the clear cut idea nutrient deficiency of the soil to farmers.
- The main aim of SHC is to find out particular soil type and improve in it.

Soil Health Card determines the soil status with respect to 12 parameters, namely N, P, K (Macro-nutrients); S (Secondary- nutrient); Zn, Fe, Cu, Mn, Bo (Micro - nutrients); and pH, EC, OC (Physical parameters).

#### The list of the parameters stated for analysis

Sr.No.	Parameter	Test Value	Unit	Rating
1.	pH			
2.	Electrical Conductance(EC)			
3.	Organic Carbon (OC)			
4.	Available Nitrogen (N)			
5.	Available Phosphorus (P)			
6.	Available Potassium (K)			
7.	Available Sulphur (S)			
8.	Available Zinc (Zn)			
9.	Available Boron (B)			
10.	Available Iron (Fe)			
11.	Available Manganese (Mn)			
12.	Available Copper (Cu)			

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#### List of the Students

Sr.No	Name of the Students	Class
1.	Mr. Varpe Shubham	M.Sc-I
2.	Mr. Bhange Akshay	M.Sc-I
3.	Mr. Tarle Satish	M.Sc-I

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4.	Mr. Jarange Pramod	M.Sc-I
5.	Mr. Kolse Avinash	M.Sc-I
6.	Mr. Meghale Nitin	M.Sc-I
7.	Mr. Kakade Vaibhav	M.Sc-I
8.	Mr. Somwanshi Abhijeet	M.Sc-II
9.	Mr. Gholap Akash	M.Sc-II
10.	Mr. Changude Vaibhav	M.Sc-I

Sr. No	Place of Soil Samples Collected	Total Number of Soil Samples Analyzed	Remark
1.	Pimpri Lokai, Tal- Rahata	55	
2.	Gogalgaon, Tal- Rahata	83	
3.	Adgaon Bk, Tal- Rahata	115	
4.	Adgaon Kd. , Tal- Rahata	45	
5.	Khadkewake, Tal- Rahata	65	
6.	Chandrapur, Tal- Rahata	36	
7.	Walki, Tal- Rahata	14	
8.	Kelvad Bk, Tal- Rahata	214	
9.	Kelvad Kd. , Tal- Rahata	128	
10.	Pimpri Nirmal, Tal- Rahata	198	
11.	Nandurkhi, Tal- Rahata	31	
12.	Sasnapur, Tal- Rahata	115	
13.	Durgapur, Tal- Rahata	154	
14.	Dadh Bk. , Tal- Rahata	269	
15.	Savli Viheer, Tal- Rahata	64	
16.	Na.Pa Wadi, Tal- Rahata	119	
17.	Rastapur, Tal- Rahata	115	
18.	Astagaon, Tal- Rahata	277	
19.	Nandurkhi, Tal- Rahata	154	
20.	Dahegaon, Tal- Rahata	133	
21.	Pimpalwadi, Tal- Rahata	128	
22.	Dorhale, Tal- Rahata	89	
23.	Pimplas, Tal- Rahata	149	
24.	Korhale , Tal- Rahata	330	

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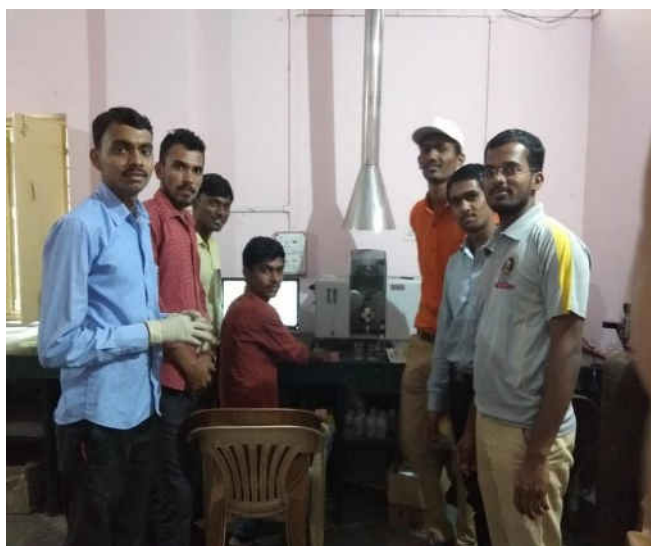


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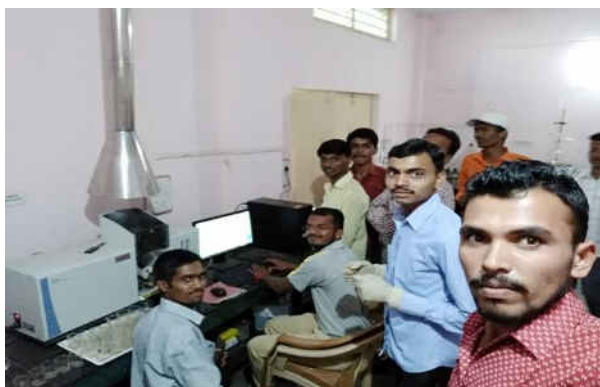
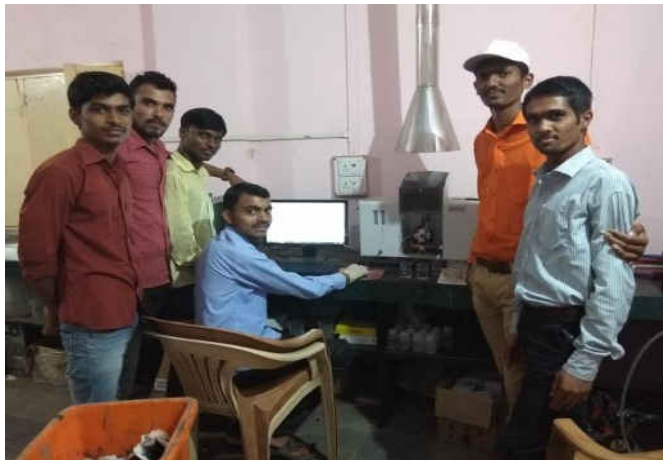


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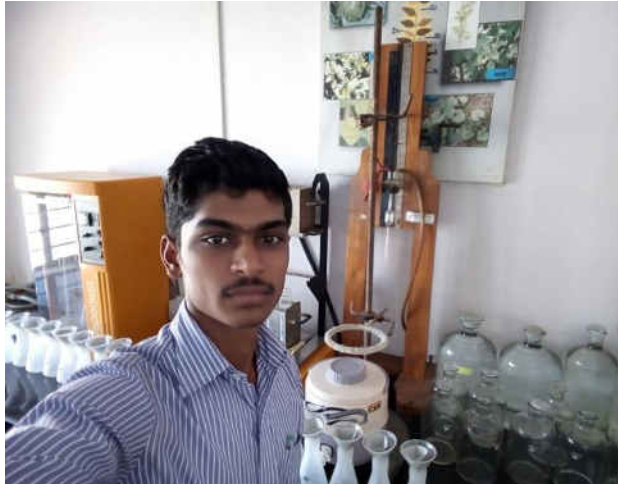




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Renewable energy awareness programme



Water Management programme

