

SOIL TESTING LABORATORY

Introduction:-

For Dapoli Urban Bank Senior Science College, distinctiveness is a characteristic that differentiates this institution from any other. Distinctiveness does not mean being unique or the absolute best; rather, we pursue distinctiveness to ensure that the college stands out from other institutions in higher education and is known among the best of all those pursuing similar goals. This distinctive characteristic becomes “what the institution is known for” by the general public.

An institution pursues distinctiveness as a way of focusing and offering intellectual energy and its resources wisely for a social cause. Institutional distinctiveness sets a central theme around which excellence is built. Academic circle here recognize our services to government departments’ and farmers in the vicinity. Students gain a training and hands-on knowledge of working with high-end instruments. These services also contribute in central government ambitious mission of providing soil health cards to all farmers.

History and Practice:-

In India, Fertilizer application and consumption is highly unorganized with wide variations. The NPK ratio, which is the measure of balanced use of fertilizer, shows wide inter-state and inter-crop disparity. Though there has been an impressive growth in the consumption of fertilizers in post green revolution period, their indiscriminate use has been one of the reasons for declining productivity. Studies and Evaluations have revealed that the lack of adequate soil testing facilities and related advisories have forced the farmers to depend on unreliable sources for advice on the fertilizer requirement, which is one reason for the unbalanced fertilizer use.

Soil test based nutrient management has emerged as a key issue in efforts to increase agricultural productivity and production since optimal use of nutrients, based on soil analysis can improve crop productivity and minimize wastage of these nutrients, thus minimizing impact on environment leading to bias through optimal production. Deficiencies of primary, secondary and micronutrients have been observed in intensive cultivated areas. Maharashtra is a state with different physiographic and agro-climatic zones. Soils are generally fertile, but some deficient and problematic soils need proper management. These facts clearly demonstrate the utmost need to establish more and more soil testing labs in the State.

To address above issues, college has set-up Micro-analytical Soil testing laboratory since 2013, where total 13 soil health parameters can be tested. The soil conservation department of Maharashtra state collects samples from farmers and then send to college for analytical testing. In a short span the institution has created a niche for itself by achieving success in providing its infrastructural facility supports to government and society in general. Along with government samples, individual farmers also approach laboratory for testing their samples.

Following parameters are tested in the micro-analytical laboratory

Sr. No.	Name of Parameter	Instrument used
1	Electrical conductivity	Conductivimeter
2	p ^H	PH meter
3	Iron (Fe)	Atomic Absorption Spectrophotometer (AAS)
4	Copper (Cu)	
5	Zinc (Zn)	
6	Manganese (Mn)	
7	Organic C	Double Beam Spectrophotometer
8	Phosphorous (P)	
9	Boron (B)	
10	Sulphur (S)	
11	Potassium (K)	Flame Photometer
12	Calcium (Ca)	
13	Nitrogen (N)	Automatic Nitrogen Analyser

Total number of soil health cards distributed to farmers (Year wise)

Ye10ar	Total Number of Samples tested	Number of parameters tested	Total number of soil health cards distributed to farmers
2018-2019	1027	13	9000

Teaching and non-teaching staff working on unaided courses are involved in the overall working of this activity. From 2015 considering the number of samples, needy students from UG and PG classes are also involved as a part of 'earn and learn scheme'. These students are trained and given different assignments related to this activity. Number of staff members and students trained under the scheme 'Earn and Learn.' The funds raised by this activity have contributed significantly in the development of institution. This activity is therefore one of the major contributor in the development of institution.

Year	Total Number of students trained under the scheme
2018-2019	14
