



Pravara Rural Education Society's
Arts, Commerce, Science and Computer Science College,
Ashvi (Kd). Tal: Sangamner, Dist: Ahmednagar, Pin:413738
Affiliated to Savitribai Phule Pune University, Pune
(I.D. No. PU/AN/ACS&CS/066/2001) ☎ (02425) 240051 Fax ☎ 02425-240051
Email ID : ashvicollege@rediffmail.com Web :www.pravara.in/acsbcs ashwi



Department of Chemistry

Soil and Water Analysis

Introduction:



Pravara Rural Education Society's Art, Commerce, Science and Computer Science College, Ashvi kd, Tal- Sangamner, District -Ahmednagar which provides education in science stream at under graduate level to educationally, economically, socially backward students of this area.

Soil testing is an efficient tool for determination of soil fertility status and to access the nutrient requirement of the crops. It is practical application of soil science to crop Production (Goswami, 1986). Liebig's law of minimum states that the growth of plant is limited by the plant nutrient element present in the smallest amount, all others being inadequate quantities. From this it follows that the given amount of soil nutrients is sufficient for any yield of given parentage nutrient composition.

Ramamurti et. al (1967) established the theoretical basis and experimental proofs for the fact that Liebig's law of the minimum operates equally for N, P, and K. This forms the basis for fertilizer application for targeted yield, first advocated by Troug (1960). Among the various methods of fertilizers recommendations the one based on yield targeting is unique in the sense that this method not only indicates soil test based fertilizer dose but also the level of yield the farmer can hope to achieve it.

The balance fertilization is the key of targeted yield equations thereby increase efficiency of applied fertilizers. The fertilizer application based on soil test and yield target help to save 10-15 % of fertilizer cost in each season.

Water is a universal solvent. It contains variable quantities of dissolved solids and gases. Sometimes, suspended and colloidal, organic and inorganic material occurs as well.

Waters are usually classified as hard and soft according to the concentration of calcium and magnesium ions. These ions when present in high concentration such waters are termed as hard waters. The irrigation water which contains calcium and magnesium ions is hard and not suitable for domestic use but makes the agricultural land soft. On the other hand water which contains sodium ions is soft for domestic use but makes the agricultural land hard.

As the college is situated in rural area and most of the students are from farmer background hence to aware them about soil and water parameters, the Academic Council of Art, Commerce, Science and Computer Science College in its meeting decided to introduce a Certificate Course in Soil and water Analysis for next five academic sessions w. e. f. 2014-15. The continuation of the course after five year will depend on interest and participation of students, course outcomes from the institution.

Social Commitments:

- Develop basic understanding regarding soil testing in the students.
- Introduce them with macro and micro nutrients for soil.
- Enhance their skills about water analysis.

Guidance to the farmers:



Guidance to the farmers



Soil Sampling

