

Soil Analysis of Shriwardhan Village

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Abstract: *The natural environment is clean, but due to multifarious activities of man, it gets polluted resulting in what is called environmental pollution. In the present study it was preferred to investigate the soil samples for its physico-chemical analysis of some parameters. representative samples were obtained and analyzed for its pH, EC, Phosphorus, Potassium, Sulfur and Carbon.*

Keywords: Physico-chemical, EC, PH, Phosphorus, Potassium, Sulfur and Carbon

I. INTRODUCTION

Shrivardhan (also spelled Shriwardhan) is a taluka, city, and local governing body in the Raigad district of the Indian state of Maharashtra. It is renowned as the birthplace of Balaji Vishwanath, the first Peshwa (1713–1720) and father of Bajirao I, who held the position of Deshmukh in the town. It has developed into a seaside resort, along with the nearby town of Harihareshwar, which also has a Shiva temple. Located on a peninsula, the town itself boasts many beaches, in addition to proximity to numerous other beach destinations such as Diveagar Beach and Kondivali Beach. People from across Maharashtra come to Shrivardhan and the nearby beaches all year round.

The taluka of Shrivardhan is an ancient place of historical importance and is mentioned as being visited by Arjuna Pandav in his pilgrimage. It was an important port in the past, well known to traders of Ahmednagar and Bijapur in the 16th and 17th centuries. It appears in the accounts of leading European travellers, for example, Ziffardan. In 1538, Dom Joao de Castro^[2] described it as having little water under the pier at low tide, but that the interior of the city was large and roomy. In 1713, Shrivardhan was one of the sixteen fortified places in the Konkan ceded by Balaji Vishwanath Peshwa to Kanhoji Angre of Kolaba. Balaji was the first Peshwa of Maratha Empire appointed by Chhatrapati Shahu, grandson of Chhatrapati Shivaji. Different soil samples have been collected for analysis. The soil forms the intermediate zone between the atmosphere and the rock cover of the earth, the lithosphere. It also forms the interface between water bodies (hydrosphere) and the lithosphere and thus forming a part of biosphere. The soil may be defined as the uppermost weathered layer of the earth's crust in which are mixed organisms and products of their death and decay. It may also be defined as the part of the earth's crust in which plants are anchored. The soil is a complex organization being made up of some six constituents' namely inorganic matter, organic matter, soil organisms, soil moisture, soil solution and soil air. Roughly, the soil contains 50-60% mineral matter, 25-35% water, 15-25% air and little percentage of organic matter (Chatwal et al, 2005). The soil pollution due to sewage is also very high. Several diseases are inflicted in human beings due to pathogenic forms present in the soil. It is the need of time that we have to study the physico-chemical parameters of soil to know its quality. representative samples were collected from various parts of the taluka and its physico-chemical analysis have been performed to know its different parameters like pH, Electrical Conductivity, Phosphorous, Potassium, Sulfur, Carbon and Boron.

II. MATERIALS AND METHODS

Surface soil (0-0.2m) samples of Shrivardhan village.

1. pH:

The most significant property of soil is its pH level, Its effects on all other parameters of soil. Therefore, pH is considered while analysing any kind of soil. If the pH is less than 6 then it is said to be an acidic soil, the pH range from 6-8.5 it's a normal soil and greater than 8.5 then it is said to be alkaline soil.

2. Electrical conductivity:

Electrical conductivity is also a very important property of the soil, it is used to check the quality of the soil. It is a measure of ions present in solution The electrical conductivity of a soil solution increases with the increased concentration of ions. Electrical conductivity is a very quick, simple and inexpensive method to check health of soils. It

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3. Phosphorus:

Phosphorus is a most important element present in every living cell. It is one of the most important micronutrient essential for plant growth. Phosphorus most often limits nutrients remains present in plant nuclei and act as an energy storage.

4. Potassium :

Potassium plays an important role in different physiological processes of plants, it is one of the important element for the development of the plant. It is involved in many plant metabolism reactions, ranging from lignin and cellulose used for the formation of cellular structural components, for regulation of photosynthesis and production of plant sugars that are used for various plant metabolic needs.

5. Sulfur:

Sulfur is as necessary as phosphorus and is considered an essential mineral. Sulphur in plants helps form important enzymes and assists in the formation of plant proteins. It is needed in very low amount, but deficiency can cause serious plant health problems and loss of vitality.

6. Carbon :

organic carbon is the basis of soil fertility. It release nutrient for plant growth, promotes the structure, biological and physical health of soil, and is buffer against harmful substances. Increasing soil organic carbon has two benefits- as well as helping to mitigate climate change, it improves soil health and fertility. Many management practices that increase soil organic carbon also improve crop and pasture yields

III. RESULT AND DISCUSSION

pH	7.7
EC (mmho/cm)	0.8
Phosphorus (kilo/hectare)	12.56
Potassium(ppm)	232.67
Carbon(%)	0.56

IV. CONCLUSION

It was observed that different areas of soil had influences on the physicochemical characteristics of the soils. However, application of more labile organic inputs, liming materials and suitable inorganic fertilizers (N-P-K) would be effective for sustainable man-agement and improving fertility status of the soils. Such type of monitoring of soil sample is beneficial to know the concentrations of various parameters present in soil samples.thissoilmis very use` fullincultivation of coconut,Magoes,betel palm etc.

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