Study Of Soil In Irrigated And Non-Irrigated Area Of Osmanabad Midc In Marathwada Region

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Abstract: As per the current environment conditions Marathwada is said to be drought zone in Maharashtra. There are eight districts in Marathwada such as Aurangabad, Osmanabad, Latur, Nanded, Beed, Jalna, Hingoli, and Parbhani in that district I have selected Osmanabad district MIDC area for studying environmental soil conditions in irrigated and non-irrigated area for identifying causes in soil and due to industrial wastewater and analyzing changes takes place in properties of soil due to industrial wastewater high temperature, poor rainfall and identifying technique to improving soil quality.

Key words: Environmental Causes, Irrigated area, Marathwada region, Non-irrigated area, Soil properties, Soil pollution, Wastewater.

1 INTRODUCTION

This district is located in Marathwada region Aurangabad division in that eight taluka places the total area of Osmanabad district is 7512.4sq km, in that urban area is up to 241.4sq km of total rural area up to 7271.08sq km and total industrial area is up to 172.08 hecter in industrial area of Osmanabad district. There are micro, medium, and large industries available. The climate condition in Osmanabad district in rainy season start from June to September, the humid climate in October and November and cool dry in November to January during summer season the temperature of Osmanabad 43 to 44 °c. Due to high temperature and poor rainfall soil condition in Marathwada region become a polluted and variation occur in soil property and nutrient availability in soil so that I have study this topic for analyzing variation occur in soil in winter and summer season.

2 LITERATURE REVIEW

1. This paper shows the root colonization of plant, plant species, and understand the which family of the plant, percentage of colonization, types of colonization, and spore population of arbuscular mycorrhizas fungi in plants in Osmanabad and Beed district in Marathwada region.

2. In this paper include the important nutrients required for plant or crop growth in Chakur tehsil and there range of various sample. Soil fertility is most important factor for growing crop for that nutrient required such as soil nitrogen, soil organic carbon, soil organic matter and soil pH

3. This paper shows geochemical values of surface soil in Nanded. Now a day’s pollution arises due to various human activity and it impacts on environment due to pollutant. This paper helps us to understand the various soil properties of soil in Nanded city. Properties such as chemical, biological, and physical and its range.

4. This paper gives the information about the situation of Osmanabad district and geographical area of district and annual rainfall of Osmanabad district. This paper helps us to understand about in Osmanabad district washi tehsil out of 54 villages 30 villages selected for study of soil for that 60 samples collected in such how that to cover the whole area of tehsil and analyses the physical, chemical and properties of soil and micronutrients in soil and its average range from washi tehsil of Osmanabad district under inceptisols.

5. In this paper the This paper understand about the study area soil under pomegranate are very deep to very shallow dark yellowish brown in color and therefore the texture of the soil is to clay to sandy and organic carbon content very low to high also the soil is study area is slightly or moderately alkaline. This paper also analyzed the morphological, physical, and chemical characteristics of soils under pomegranate orchards in Osmanabad district.

3 METHODOLOGY

Soil pollution now a day’s are increased due to industrialization, high temperature and poor rainfall in Marathwada. For analysing soil parameter in Marathwada I have selected Osmanabad district MIDC and collect the ten soil samples in irrigated and ten soil samples in non-irrigated area near to the Osmanabad MIDC and execute the past years physical, chemical and biological property of soil and present year property of soil. Also analyse the toxic pollutant present in soil samples and study the what effect observed the pollutant on soil fertility and plant growth and improved it by recycling the waste water in industrial area and maximum
plant cultivated in industrial area to spread maximum oxygen and suck carbon in industrial area and make an environment healthy.

4 NEED OF STUDY
As per the condition of environment Today Marathwada said to be drought region in Maharashtra due to poor rainfall and high temperature in summer season which affect the soil nutrients. And land near to the MIDC area the effluent present in industries which flows through heavy wind and mixed in soil. Industrial wastewater contains heavy metals and toxic compound which flows through the rainfall and mixed in near area of soil and reduce the fertility of soil for removing this problem I understand the soil properties in Osmanabad MIDC area soil and identified the which toxic compound affect the fertility of soil and improving it by using suitable technique.

5 FUTURE SCOPE
The author Soil is at the interface between the atmosphere, lithosphere, hydrosphere, and biosphere. Soil publishes scientific research that contributes to understanding the soil system and its interaction with humans and the entire earth system and environment. Today due to high industrialization surrounding area of industry become a polluted due to toxic gases and wastewater which is harmful to environment. It reduces surrounding soil quality. For protecting environmental soil quality near to the industrial area I analyse soil quality and improving it by knowing suitable technique.

6 FIELD ANALYSIS

Fig.1 Soil samples in Irrigated and Non Irrigated area

Fig.2 Nutrient Agar Solution.

This solution required for finding the common bacteria in soil samples. It can famous for the grow a variety of types of bacteria and contains many nutrients needed for the bacterial growth.

For making solution following compound required
Peptone – 1gm / 100 ml.
Sodium chloride – 0.5 gm / 100 ml.
Yeast extract – 0.3 gm / 100 ml.
Agar agar powder – 2.5 gm / 100 ml.
Heat the solution 127 ºc in 15 to 20 min.
For making this solution I analyse the biological parameter of soil samples.

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8 REFERENCES