Department of Chemistry Mary Matha Arts & Science College Mananthavady

Certificate Course

SOIL TESTING AND ANALYSIS SYLLABUS

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Course Code CCSTAMMCHE21	Theory	Practical	Time
	10 Hours	20 Hours	3.30 to 4.30

Programme Description

The purpose of soil analysis is to analyze the quality of soil collected from different parts of Wayanad district. Soil testing can provide a great deal of useful information about soil's physical and chemical characteristics. Knowledge of these characteristics offers improved decision making with respect to fertilizer used.

Learning Objectives

- To become familiar with different soil types and properties
- To gain experience with the range of methodologies for measuring soil properties and assessing soil quality
- Determination of acidity/ alkalinity of soil samples

<u>Syllabus</u>

1. Introduction:

Definition of Soil, Concept of Lithosphere, Soil as a natural body, Soil Components: Air, Water, inorganic and organic solids, Formation of Soil, Types of Soils & Basic Concepts.

2. Methods of soil analysis:

Sample Collection and Processing Purpose of Soil testing and analysis, selection of field, Method of Soil Sample collection Methods of soil sample processing, precautions during soil collection & processing, Preservation labeling and Storage of soil samples, various types of soil used for collection.

3. Study of Laboratory Setup

Laboratory Layout, Built up area, Laboratory requirements, working pattern, budget requirement, trained manpower, various funding schemes and agencies.

4. project (5 hours)

Soil testing and analysis

Reference

- 1. Soil Sampling, Preparation and analysis, Marcell Dekker, Inc, New York.
- 2. Soil Sampling and methods of analysis, carter M.R. and E.G.Gregorich, 2007,
- 3. Methods of soil analysis, Part, American society of Agronomy Inc., Kuete, A.Et.at., 1986

