

SOL203:MANURE AND FERTILIZER TESTING

L:0 T:0 P:4 Credits:2

Course Outcomes: Through this course students should be able to

- CO1 :: state the different types of manures and fertilizers along with their nutrient composition
- CO2 :: explain the principles, procedures, and importance of manure and fertilizer testing
- CO3 :: demonstrate laboratory tests to determine nutrient content in manures and fertilizers
- CO4 :: differentiate between quality and adulterated samples using analytical data
- CO5 :: assess the suitability of various nutrient sources for crop production and soil health
- CO6 :: formulate the recommendations and prepare technical reports based on analysis of manures and fertilizers.

List of Practicals / Experiments:

Fundamentals of organic Manures and fertilizers

- introduction to the organic manures and Fertilizers

Microbiological quality assessment of organic manures

- to study the microbial status (total viable count) of organic manures

Chemical analysis of primary nutrients in organic manures

- determination of the total nitrogen in organic manures
- determination of the total phosphorus in organic manures
- determination of the total potassium in organic manures
- determination of the sulphur in the organic manures
- determination of the calcium and magnesium in organic manures

Fertilizer sampling

- to study about the fertilizers sampling techniques

Moisture analysis and quality assessment of fertilizers

- determination of moisture in fertilizers

Nutrient analysis in fertilizers

- determination of the total nitrogen in nitrogenous fertilizers
- determination of phosphates in phosphatic fertilizers
- determination of potassium in potassic fertilizers

Text Books:

1. SOIL, PLANT, WATER AND FERTILIZER TESTING by P.K. GUPTA, AGROBIOS INDIA
2. PRACTICAL MANUAL FOR ANALYSIS OF SOIL, WATER, FERTILIZER AND MANURE by DR JAVID AHMAD SOFI, DAYA PUBLISHING HOUSE

References:

1. FERTILIZER A TEXT BOOK by RANJAN KUMAR BASAK, KALYANI PUBLISHERS

