INCUBATION, RESEARCH AND DEVELOPMENT CELL (PROPOSAL: 02)

Title of the Proposal: - Analysis of Soil samples of adjacent places by various techniques.

Proposal Submitted to: The Principal NSCBM, Govt PG College, Hamirpur

1.1 Introduction:

Testing the soil is an effective way to find out how fertile the soil is and what nutrients the crops need. It is the practical application of agricultural production soil science. The plant nutritional element that is present in the smallest amount—all other quantities being insufficient—is the one that restricts the growth of the plant. This means that for any yield with a certain parentage nutrient composition, the amount of soil nutrients present is adequate. Applying fertilizer according to yield target and soil test results can reduce fertilizer costs by 10% to 15%.

1.2 Objectives:

To teach students the fundamentals of soil testing and to familiarize them with soil macro- and micronutrients. Additionally, to improve their soil analysis abilities. Farmers may increase agricultural productivity by using better and more cost-effective fertilizer applications and improved soil management techniques owing to the soil testing services.

1.3 Methodology:

The pH, conductivity, and soluble salt content of numerous soil samples collected from various adjacent locations will be tested. Titrimetric, digital conductivity, and pH meters are the analytical techniques which are used.

1.4 Expected Outcomes:

Comprehensive knowledge on soil acidity, alkalinity, neutrality and conductivity. Understand various soil physical, chemical and biological properties and their impact on plant growth.

The knowledge gained in this project will be useful in understanding the behavior of soils in crop production.Explores the problems and potentials of soil and decide the most appropriate land use.

- Understanding of various soil parameters like conductivity, neutrality, alkalinity, and acidity.
- Recognition of the different physical, chemical, and biological characteristics of soil and how they affect the growth of plants.
- Applying the soil analysis data to choose crops that are most suited for the soil being used for agricultural purposes

Conclusion:

In order to classify soil as saline, non-saline, or moderately saline, the proposed project "Analysis of Soil samples of adjacent places by various techniques" seeks to ascertain the fertility of the soil based on pH, conductance, and titrimetric measurements.

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