

Preface

Plants are the cornerstone of existence on earth and a vital resource for human prosperity. All plants need nearly 15 essential elements in order to germinate properly. These essential elements are 'mineral nutrients' and are procured from the soil. This makes it imperative to have a proper comprehension of the soil.

The word 'soil' is evolved from Latin word Solum. Soil has numerous interpretations. For some users, soil is the foundation for concrete construction. On the other hand, several users including farmers and earth science specialists believe 'Soils clasp existence and universe'. Soil is a complex mix of minerals, air, water and innumerable microorganisms. It is primarily a medium for food, atmosphere, organisms, water and nutrients. Hence, soil is indispensable and requires much care and attention. In the modern era, soil should meet the communal necessities not only for food and shelter but also for natural environment.

There are many challenges for soil such as erosion and degradation, population, environment, land management, etc. Soil scientists are working hard to meet such needs and challenges. As an editor, I have thrown light on key facts and discoveries being revealed by soil scientists. Chapters in the book provide interdisciplinary nature of the soil, its properties and its effects on the growth and development of plants. The significance of nutrients for crop quality has also been discussed. Benefits of nitrogen fertilizers have also been talked about. In this book, there is also one chapter focussed on the recovery of plants after soil drought. The impacts of soil microbes are also discussed.

I hope that this book will prove to be useful for teaching, learning and research.

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