

Preface

Plant physiology is a subdiscipline of botany concerned with the functioning, or physiology, of plants. Nearly related fields include plant morphology, plant ecology, phytochemistry, cell biology, and molecular biology. Fundamental processes such as photosynthesis, respiration, plant nutrition, plant hormone functions, tropisms, nastic movements, photoperiodism, photomorphogenesis, circadian rhythms, environmental stress physiology, seed germination, dormancy and stomata function and transpiration, both part of plant water relations, are studied by plant physiologists. 116

Plant physiology includes the study of all the internal activities of plants—those chemical and physical processes associated with life as they occur in plants. This includes study at many levels of scale of size and time. At the smallest scale are molecular interactions of photosynthesis and internal diffusion of water, minerals, and nutrients. At the largest scale are the processes of plant development, seasonality, dormancy, and reproductive control. Major subdisciplines of plant physiology include phytochemistry and phytopathology.

We hope that the discussion made in this book will help the readers to understand and learnt about the different aspects of plant physiology in a most comprehensive way.

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