PREFACE

The study of developmental stages of any plant structure is a fascinating subject because development is a sum of all of those events that take place during the life of a plant. In addition to the construction of body structure development also helps to acquire the capacity to survive, to reproduce and to adapt to the environmental hazards. Mere description of structural changes that occur during development will not help us to understand the mechanism of developmental processes. What is needed is the analysis of the processes, which bring structural changes during the development.

In the present thesis ontogenetical and histochemical studies on the anthers *Moringa oleifera*, *Dregea volubilis* and *Dendrobium ovatum* are carried out to unravel the histochemical basis of anther development. Review of literature reveals that although extensive studies on anther development are made, the details on histochemistry of developing pollinium are very scarce. Hence the present ontogenetical and histochemical study on the
anthers of *M. oleifera* Lam. (Moringaceae), *D. volubilis* (L.f.) Benth. ex Hk. f. (Asclepiadaceae) and *D. ovatum* (Willd.) Kranz. (Orchidaceae).

This thesis is divided into six chapters. Chapter-I gives introduction, aim and scope of present work. Chapter-II comprises review of literature. Chapter-III describes the materials and methods used in the present investigation. In Chapter-IV results of the present work is given with illustrations. In Chapter-V results of present study is discussed in the background of results obtained on the other members of angiosperms. Chapter-VI summarizes the present work. List of references made is given at the end.

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