

# Preface

Nature has been kind enough to humans by providing a wide range of plants having therapeutic potential. Screening of plants for isolation and identification of the natural bioactive products not only enrich the therapeutic compendium but also provide a cheaper, effective and safe alternative approach for treating diseases. It is a combined effort of botanists and clinicians for utilizing these plants for research and developing new drugs in controlling the growing epidemic of dreadful diseases such as myocardial infarction, diabetes, cancer, stroke etc. *Bombax ceiba* Linn. is one such plant species which possesses immense potential pharmacological actions. Last decade has revolutionized research on this plant showing its hypotensive, hypoglycemic, hypolipidemic, hepatoprotective, chemopreventive, antioxidant and fibrinolysis enhancing properties in various animal and human studies. This has led us towards the present compilation in order to provide a desk ready reference on everything which one needs to know about *B. ceiba*.

The present book entitled “Pharmacology of *Bombax ceiba* Linn.” is a first monograph on the plant *Bombax ceiba* Linn., popularly known as Red Silk Cotton tree. It is in fact a compendium on this plant species containing total seven chapters and compiling all about *B. ceiba* starting from its historical and spiritual importance, distribution, botanical characterization and ethnobiological uses to modern phyto-pharmacy.

*Bombax ceiba* is well mentioned in the oldest written scriptures such as *Rigveda*, *Mahabharata* and *Ayurveda* along with a special role in many tribal cultures world wide. This handsome, deciduous tree is a part of tropical and sub-tropical forest ecosystem. Each part of the plant possesses immense medicinal value. A variety of chemical constituents including flavanoids, sesquiterpenoids, naphthoquinones, phenols, steroids, carbohydrates and amino acids have been isolated and many are yet to be discovered. List of the phytoconstituents along with chemical structures of some important bioactive molecules is also provided in [Chap. 3](#) for better understanding the chemistry of action. The fragmented research work done on its various biological activities in animal and human studies has been compiled in [Chap. 4](#) with appropriate discussion. Further, toxicological profile of the plant is also discussed. Thorough analysis of its phytochemical

profile and scientifically validated phyto-pharmacological properties will lead the way for research of newer phyto-pharmaceutical molecules beneficial for human health. Therefore, this book will prove a good reference material to go through.

The plant is not only rich in its history, ethnobiology, phytochemistry and pharmacology, but also possesses immense commercial and ecological importance. Hence, special chapters on these issues are provided which will be of interest to ecologists, agriculturists, foresters, industrialists and even to common people. Furthermore, the book has also incorporated some conservation strategies along with a case report on the sustainable conservation efforts done to preserve this plant species which is rapidly declining in many parts of the world due to ignorance of its importance. All photographs incorporated in the book are original and captured by authors themselves.

It is hoped that because of its vast scope and multifaceted coverage, the book will further accelerate the speed of research on this plant in various spheres world over which will rejuvenate this plant species for the betterment of health of future generation, a tree of infernal region will become the ornamental tree of gardens, an important project of research laboratories and a source of novel phyto-pharmaceutical compound for the treatment of dreadful diseases.

Undoubtedly, there may remain some errors in the text due to ignorance or misinterpretation of some aspects of the scientific literature. Authors welcome all critical comments and suggestions in order to improve the quality of future editions.

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