

Mulberry

The Story of Potential Miracle Plant





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Editors

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PREFACE

Mulberry plant is a well-known medicinal plant. The plant is commonly known as *Morus*, the genus of a flowering plant belonging to the Moraceae family. In Asian countries, mulberry plant has been grown to produce silkworms as the leaf is a major and important nutrient source for silkworms. Mulberry not only used in cooking and silk but it also provides a number of health benefits that make them highly appealing.

This book aims to provide a brief and simple description of the background, agronomy aspects and physicochemical properties of mulberry plant. This book will provide readers a comprehensive aspect of pre-processing methods of mulberry plant, and the potential of this plant as antimicrobial agent. Finally, this book also provides readers with a self-contained guide on the application of statistical analysis in mulberry plant related research.

Therefore, this book is designed as a quick reference text, with the aim that researchers, students, academicians with little experience in mulberry plant could grasp their understanding of the scientific aspects of the plant. This book will also be of significant interest to those working or doing research in the applied sciences.

Siti Nuurul Huda Mohammad Azmin
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REVIEW ON EXTRACTION TECHNIQUES OF MULBERRY

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INTRODUCTION

Plants extracts have been used in various economic sectors such as in the food industry and processing (antioxidant, texturizer, additives), pharmaceutical and medicinal industry (preventive and/or curative) and cosmetic industry (functional properties for beauty and well-being) (Ammar et al., 2017). The extraction process can be performed through a solid or liquid separation operation, where a solid object (the plant) brings in contact with a fluid (the solvent). In this process, the desired plant components are then solubilised within the solvent (Khaw et al., 2017). Thus, the extraction process can be defined as an operation, of the separation of one or several constituents (solid or liquid) contained in a solid object by solubilisation in a fluid (Figure 3.1). This fluid, which is generally known as a solvent, may be a liquid or a gas (water vapour or supercritical fluids).