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Molecular Markers: Advancements and Applications in Plant Science Research



First Edition



JPS, Scientific Publications, India

MOLECULAR MARKERS: ADVANCEMENTS AND APPLICATIONS IN PLANT SCIENCE RESEARCH

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Published by



JPS Scientific Publications India

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Published by



JPS Scientific Publications, Tamil Nadu, India.
E.mail: jpsscscientificpublications@gmail.com
Website: www.jpsscscientificpublications.com

Published in India.

International Standard Book Number (ISBN): 978-93-91342-17-3

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ABSTRACT

In the past few years there have been great advancement in the field of molecular markers. Every marker has its own advantages as well as disadvantages. In this review, we summarized various types of markers along with their advantages and disadvantages. We have also discussed the applications of these markers in different fields of plant science. Considerable advancement in the field of molecular biology has lead to the evolution of several molecular markers. Molecular markers are more advantageous than conventional morphological or phytochemical markers. It gives precise genetic information and detects genetic variations in

Contents

Chapter Chapter Title and Authors Page Number Number

1 Introduction 1

2 Types of Markers 3

3 Classification of Molecular Markers 6

4 Applications of Molecular Markers in Plant 36 Science Research

5 Conclusion 43 6 References 44 iv

1

INTRODUCTION

In the productive usage of plants, knowledge of the genetic variation within and in between different populations of plants plays an important role (Nadeem *et al.*, 2018). Various aspects like the method of gene flow, evolutionary background and density of the population are helpful in the disclosure of composition and levels of these genetic variations. The Breeding procedure can be made more systematic by utilizing recent technologies. This can be done by utilizing molecular marker technologies which enforce a large number of new proposals to upgrade the selection approach in cereal and animal breeding. Quality control and usefulness of herbal pharmaceuticals depend on the correct identification of medicinal plants employing molecular diagnostics methods