AN OVERVIEW ON TRANSGENIC PLANTS FOR INSECT RESISTANCE

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ABSTRACT

Insect-resistant plants may be created via plant genetic engineering, which involves introducing and producing entomopathogenic proteins in the plant. There have been two major approaches to investigating such plants.Plant genetic engineering allows for the development of insect-resistant plants via the insertion as well as expression of entomopathogenic proteins in planta. There are two major methods for obtaining such plants that have been investigated. The first includes the usage of delta-endotoxin coding sequences derived from Bacillus thuringiensis bacteria. Plantderived genes, including those producing enzyme inhibitors and lectins, are used in the second method. Much effort is being put in across the globe to find plants of various kinds that express such genes and are resistant to insect pests. This overview discusses ongoing research initiatives as well as an evaluation of the status and issues faced on the path to commercialization of transgenic plants.

KEYWORDS: Transgenic Plants; Insecticidal Proteins; B. Thuringiensis; Enzyme Inhibitors; Lectins; Resistance Management.

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