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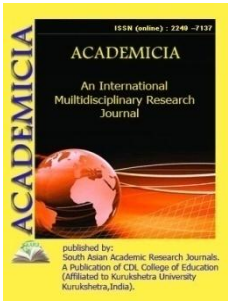

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GENETICALLY DISTINCT CULTIVAR HYBRIDS FOR THE TREATMENT OF INSECT PESTS AND INCREASED AGRICULTURAL PRODUCTIVITY

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ABSTRACT

Modern farming enables the easy migration of insect pests and illnesses from plant to plant, devastating cropping regions. According to the resistance and the theory of the adversary, increasing diversity of plants lowers quantity of plagues and damage. The growing diversity of plant species may improve the management of insects through bottom-up and top-down mechanisms, based on considerable study. Despite this support, logistical and financial constraints have precluded broad adoption of pesticide management and techniques for diversification of output. Intraspecific genetic diversity has been shown in both fundamental and practical research to enhance ecosystem stability and function. Planting cultivar mixtures may be a more viable way of enhancing genotypical variety of plants. Our aim is to combine data supporting intraspecific variation in order to achieve a viable pest management strategy for field insect pests. We have found important evidence that genotypical variety improved the fitness and productivity of plants in both wild and agricultural settings. Intra-specific variation may, according to many lines of research, assist to improve insect pest control. Empirical data or practical techniques of application in agricultural systems are seldom found. Limited usage of this method, therefore. Intraspecific varieties of plants enhance plant performance by decreasing pest population and promoting niche division. Further research is required to reduce the use of pesticides and increase production. Intraspecific crop diversity with low costs or changes to production may be introduced. Intraspecific diversity has been a popular and sustainable management approach because of the benefits of biodiversity for yield stability.

KEYWORDS: *Agriculture, Cultivar, Genotypical, IPM, Pest Management.*

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