



Quaternary Quinolinium Salts as a New Antifungal Agent for the Protection of Rice Crop

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Abstract: Quinoline was firstly prepared by Skraup's reaction and then series of quinoline and its derivatives based quaternary ammonium salts have been synthesized by condensing quinoline and quinaldine separately in the presence of ethanol using different alkyl halides having varying carbon chain length in the ratio of (1:14) equivalents. The structure of the final compounds were confirmed on the basis of salt analysis, conductivity measurements and their spectral studies. The synthesized quaternary quinolinium salts were examined for antifungal activity against two fungal strains of rice i.e. *Drechslera oryzae* and *Fusarium verticilloides*. The results of bioassay showed that some of the synthesized quaternary quinolinium salts emerged with excellent per cent spore inhibition at higher concentration against above mentioned organisms.

Key Words: Quaternary quinolinium salts, Rice, *D. oryzae*, *Fusarium verticilloides*
