

**SYNTHESIS OF QUATERNARY SALTS OF AMMONIA HAVING  
OXIME MOIETY AND THEIR PLANT GROWTH REGULATING  
ACTIVITY ON *ORYZA SATIVA***

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**ABSTRACT**

Twelve new quaternary salts of ammonia (1a-6a) and (1b-6b) from different aryl aldehydes(4-Cl, 3-NO<sub>2</sub>, 2-Cl and 4-CH<sub>3</sub>) and aryl ketones (acetophenone and benzophenone) were synthesized through the formation of their oximes. The oximes prepared were converted into epoxy compounds by reacting with epichlorohydrin. The epoxides thus procured were cleaved with secondary amines viz. diethyl amine and piperidine to get the desired hydroxy tertiary amines. The structure of these amines was established with the help of IR and PMR spectral studies. Biological activity of these compounds was tested using seed germination and seedling growth as bioassay of *Oryza sativa*. All the compounds showed plant growth retardant activity comparable to cycocel (CCC) at higher concentrations.

**KEYWORDS:** Aldehydes, Ketones, Cycocel, Germination, Seedling