



**Control of grasshopper *Hetiracris littoralis*
(Orthoptera: Acrididae) by using nano-imidacloprid in
Corn fields**

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Abstract: The effect of nano- imidacloprid (IMI) against grasshoppers under laboratory conditions, which show that the newly hatched nymphs recorded 151 mg/l, Last nymphal stage recorded 176, the adult females and males recorded 166 and 176 mg/l after treated with IMI under laboratory condition , respectively. Under semi-field conditions, the half life time of grasshopper treated with nano-IMI recorded, 103, 108, 119 and 129 mg/l, for Newly hatched nymphs, Last nymphal stage, adult males and females respectively.

Under field conditions inside corn plantations, the number of infestations of grasshoppers were significantly decreased after nano- IMI application.

During field experiments, the results during season 2014, obtained, 3800± 81.6kg/ feddan in plots treated with nano- -IMI as compared to 2590± 10.2 kg/ feddan in the control. The yield loss recorded during 2014 was 31.1%. During season 2015, the weight of corn determined kg/ feddan in plots treated with nano-IMI as compared to 2200 ± 70.2 kg/ feddan in the untreated plots. The percentages of yield loss recorded during 2015 was 44.8 among control plots.

Key wards: Nano, imidacloprid, *Hetiracris littoralis*.

International Journal of ChemTech Research

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