

Integrated pest management of Banana rust thrips, *Chaetanophothrips signipennis*

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Abstract

The experimental trial was conducted at Fruit Research Station, Navsari Agricultural University, Gandevi, Gujarat during 2009-11 to find out the most effective biocide for the management of banana rust thrips, *Chaetanophothrips signipennis*. The trial was laid out in Randomized block design with nine treatments viz; bunch sleeving at shooting stage (100 gauge thickness and 6 % ventilation), bud injections of azadirachtin (0.5 %) and imidacloprid (0.03%), foliar sprays of azadirachtin (0.5%), neem seed kernel extract (0.2 %), neem oil (0.2%), pongamia oil (0.2%), chlorpyrifos (0.05%) and untreated control each replicated four times on invitro produced banana cv. Grand Naine plants under field condition. All the treatments were found superior over untreated control, however, lowest thrips infestation was recorded in bud injection treatment of imidacloprid (16.88 %) followed by chlorpyrifos (24.94 %) which was at par with bud injection of azadirachtin (25.74 %). Bud injection of imidacloprid also resulted in highest bunch weight (18.72 Kg) and yield (57.78 t/ha.), though it was at par with chlorpyrifos (17.90 Kg and 55.24 t/ha.) and neem oil (17.87 Kg and 55.15 t/ha.), whereas bunch sleeving of fruit bunches recorded highest infestation of fruit bunch (54.63 %), lowest bunch weight (15.55 Kg) and yield (47.97 t/ha.). So, it can be concluded that though treatments of imidacloprid and chlorpyrifos recorded lower bunch infestation and higher bunch weight and yield, the biocides based on azadirachtin provided nearly the same results for the management of thrips.

Biography

Sushil Saxena completed his Ph.D degrees in Forest Entomology as well as in Agricultural Entomology at the age of 45 and 48 years from Forest Research Institute, Dehradun, and Navsari Agricultural University, Navsari, respectively. He is the Principal Investigator of ICAR funded IPM and NICRA Projects. He has published more than 50 research papers in various International journal and National journals and is on the advisory panel of **"Fruits"** (International journal) and **Journal of Applied Zoological Researches**. He has more than 29 years of research experience in Horticultural Entomology and has won two national awards.