

# Adoption of IPM Approach-An Ideal Module against Thrips ( *Thrips tabaci* Linderman ) in Onion

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### Abstract :

Onion (*Allium cepa* L.) is an important export oriented vegetable among the cultivated *Allium* crops in India. Onion Thrips (*Thrips tabaci* Linderman) is the key biotic factor for reducing yield losses in both onion as vegetable crop as well as seed crops. Besides direct damage to both foliage and bulbs, thrips can also indirectly aggravate purple blotch and act as a vector for viral disease such as Iris yellow spot. In absence of high levels of host plant resistance to *Thrips tabaci* and development of resistance towards number of pesticide of late, there is an urgent need to look at other IPM options for effective management. A field study was conducted under the All India Network Research Project on Onion and garlic, at the College of Horticulture (OUAT), Sambalpur, Odisha, India during the winter season 2010-11 to 2012-13 to find out the most effective eco-friendly IPM modules for management of thrips in onion. The treatment consists of M1: IPM module, M2: Farmers' Practices and M3: Control, laid out in RBD. The results obtained over three years indicated that both M1 and M2 not only significantly reduced the thrips population (21.68 and 21.02 thrips plant<sup>-1</sup>) but also increased total marketable yield (25.86 and 25.70 tha<sup>-1</sup>), respectively over the control, M3 (39.13 thrips plant<sup>-1</sup> and 20.58 tha<sup>-1</sup>). Higher BC Ratio was recorded in M1 (3.26) than M2 (2.70). It is concluded that adoption of the IPM module approach consisting of planting of border crop of two rows of wheat and one row of maize, 10-15 days prior to planting of onion seedling, dip treatment with Carbosulfan and need based insecticides spray, when thrips population exceed ETL (30 thrips/plant<sup>-1</sup>) not only reduces the thrips infestation but also increases the bulb yield with quality of onion bulbs.

### Key Word :

BC ratio; IPM; Marketable bulb yield; Onion Thrips; *Thrips tabaci* infestation

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