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Adoption of IPM approach- An ideal module against thrips (*Thrips tabaci* Linderman) in onion

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Onion (*Allium cepa* L.) is an important export oriented vegetable among the cultivated *Allium* in India. Onion thrips (*Thrips tabaci* Linderman) is the key biotic factor for reducing yield loses in both bulb as well as seed cobs in onion. Besides direct damage to both foliage and bulbs, thrips can indirectly aggravate purple blotch and vector for viral diseases, Iris yellow spot as well. Though host plant resistance is a crucial component of IPM, 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. Field study was conducted under All India Network Research Project on Onion and Garlic, College of Horticulture (OUAT), Sambalpur, Odisha, India during Rabi 2010-11, 2011-12 and 2012-13 to find out the effective eco-friendly IPM modules for management of thrips (*Thrips tabaci* Linderman) 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⁻¹) but also increased total marketable yield (25.86 and 25.70 tha⁻¹), respectively over the control, M₃ (39.13 thrips plant⁻¹ and 20.58 tha⁻¹). Higher BC ratio was recorded in M₁ (3.26) than M₂ (2.70). It may be concluded that adoption of IPM module approach consisting of planting of border crop of two rows wheat and maize, 10-15 days prior to planting, seedling dip treatment with carbosulfan and need based insecticides spray, when thrips population exceed ETL (30 thrips plant⁻¹) not only reduces the thrips infestation but also increases the bulb yield with quality bulbs in onion.

Biography

Pradyumna Tripathy has completed his Ph.D. from Bidhan Chandra Krishi Viswavidyalaya, West Bengal and postdoctoral studies from Orissa University of Agriculture & Technology, Bhubaneswar, Odisha. He is presently working as Horticulturist in AICRP on Cashew, OUAT, Bhubaneswar. He served as Principal Investigator for four years in 100% sponsored ICAR project in All India Network Research Project on Onion and Garlic. He has published 52 research papers in various national & international journals. He has also published 6 practical manuals for BSc (Hort.) students, 2 book chapters on organic farming in vegetable crops. He also attended a number of International and national seminars, symposiums and workshops. He is the life member of several professional bodies and societies and has been examiner in different universities. Dr. P. Tripathy is also the author of book entitled, "Organic Farming in India: Problems & Prospects".

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