

Effect of some botanical pesticides on growth and yield of tomato plants infested with root-knot nematodes in Jaunpur district

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Received October 5, 2016 and Accepted January 10, 2017

ABSTRACT : Jaunpur district is being known for better production of tomatoes and farmers obtain good returns on sale of tomatoes in market but due to infection of most devastating root-knot nematode *Meloidogyne incognita* its production decreased to very low level, hence a field survey has been conducted in 12 tomato growing villages of Jaunpur District during the year 2015-16 for assessment of population and severity of root-knot nematode and other plant parasitic nematodes and out of 662 inspected fields, 545 fields were found with heavy infestation. It has been found that 60-80% fields were infested with root knot nematodes and other plant parasitic nematodes while the 50-75 % yield losses existed in the tomato crops in their fields but farmers were unaware about their field infestation and losses caused by nematodes. The present study was carried out at Bioved Research Farm to assess the effect of different botanical pesticides against root knot nematodes viz. Bionema @38 kg /ha and @ 50 kg/ha, Achook, Nemani, Neemark and Nimbecidine at the concentration of 5 and 10% and Control 0 concentrations in the lab and field conditions. It was observed that the no. of egg masses and no. of galls reduced very significantly and yield was also increased to 58% and 47% in lab and field conditions respectively as compared to control.

Key Words: Tomato, nematode, bio-active products, botanical pesticide, Bionema.