Current Nematology, **27**(1) : 45–49, 2016 http://biovedjournal.org/

Nematode centric IPM of traditional rice management in Shivamogga (Karnataka)

Mukesh Sehgal[1], H. Ravindra[2], H.B. Narasimhamurthy[3] and K. Jayalakshmi[2]

Received February 16, 2016 and Accepted May 16, 2016

ABSTRACT : Extensive surveys for rice root-knot nematode were conducted during 2013-15 in Shivamogga and Davanagere districts of Karnataka. Hotspots were also identified in different taluks of both the districts. Wider area validation and economic analysis of adaptable integrated pest and disease management technologies in rice fields with farmers participatory approach were carried out in different taluks and villages of Shivamogga and Davangere districts. Integrated disease management technologies comprised, bioagents *P. fluorescens*, carbofuran, fungicide Carbendazim and pheromone traps. Maximum number of tillers per plant were found in the nursery beds treated with *P. fluorescens*, followed by carbofuran application to the nursery at the time of sowing and 40 days after transplanting. With regard to number of dried shoots, more damage was observed in untreated control. Yields were on par in both the treatments and least in untreated control. Least galls were noticed in beds treated with carbofuran and fungicides and insecticides. Maximum number of galls were recorded in control. More adults of stem borer were trapped in control and least number in *P. fluorescens*, fungicides and insecticides treated beds. Least blast severity was recorded in carbofuran, fungicide and insecticide treated beds. Severe blast incidence was found in control. Number of plants dried due to stem borer was more in control compared to treated beds and least yield was recorded in control. Final nematode population, galls/20 seedlings and blast incidence was maximum in control. All these parameters were least in carbofuran treated nursery beds. In general, carbofuran application in nursery, in addition to fungicide and insecticide, registered less number of galls, less number of adults per trap, less blast severity and less dried plants due to stem borer. Nursery application with carbofuran with another application 40DAT recorded least final nematode population, least number of galls and less blast incidence with more yield compared to nursery treated with *P. fluorescens* and control.

Key Words: *P. fluorescens*, rice root-knot nematode, survey, pheromone traps.