

Mahatma Phule Krishi Vidyapeeth, Rahuri

AICRP on Plant Parasitic Nematodes in Agriculture

1.	Year of Start	:	10 June 1981			
2.	Contact Details					
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3.	Objectives/Mandates	:	Mandate:			
3.			 To conduct co-ordinated trials for reducing crop losses caused by nematode pests. To demonstrate the nematode management technologies through on-farm trials. Objectives Research: To develop state-wise distribution maps of nematodes. To validate and document crop losses and nematode management technologies in irrigated and rain-fed cropping systems. Multi-location on farm testing of nematode management options for root-knot, reniform, cyst and burrowing nematodes. To determine cropping systems for nematode management. To identify sources of resistance and develop nematode resistant cultivars. Pest risk analysis for major nematode pest in Indian Agriculture. Training: 			
			• To update the knowledge of scientists through			
			specialized short term training programmes.			
			Extension:			
			Demonstrations of nematode management			
	T 0		technology in vegetables, pulses and oilseeds.			
4.	Infrastructure	:	0.401 (0.201 1 1: 1: 1:			
	Land	:	0.40 ha. (0.30 ha under cultivation)			
	Irrigation facilities	:	Wells and seasonal canal irrigation			

5.	Human Resource	:				
	Technical Staff	:	SN	Designation	Discipline	Remarks
			1	Assistant Nematologist	Agril. Entomology	Filled
	Non-Technical Staff	:	Nil			
6.	Research Achievements	:				
	Varieties	:	1			
	Recommendations	:	18			
7.	Ongoing Research	:				

Sr.		Title Of Experiments				
No.	A. I. a	Nematode biodiversity, identification of hot spots and pest free areas for economically				
1	A. 1. a	important plant parasitic nematodes in Pulse & Oilseed crops, Fruits crops, Ornamental				
		crops, Vegetable Crops and Spices.				
2	C1	Screening, confirmation and field evaluation of promising resistant germplasm against RKN.				
3	CD1	Demonstration of efficacy of bioagents in the management of <i>Meloidogyne</i> species in bitter				
		gourd.				
4	D1	Screening, confirmation and field evaluation of promising resistant germplasm of pulse				
		crops against important nematodes.				
5	D2	Management of root-knot nematodes (<i>Meloidogyne</i> sp./race) in pulses by crop rotation.				
6	D.3	Management of phytonematodes in chickpea by bacterial bioagents.				
7	E.1	Screening of oilseed and fiber crops against key nematode pests.				
8	E.2	Management of <i>Rotylenchulus reniformis</i> in cotton through bioagents.				
9	F.4.	Biomanagement of root-knot nematode and fungal wilt complex in pomegranate.				
10	F.5.	Biomanagement of root-knot and fungal wilt complex in guava.				
11	F.12.	Biomanagement of root-knot nematode, <i>Meloidogyne</i> spp. and fungal wilt complex,				
		Fusarium spp. in pomegranate.				
12	F.13.	Evaluation of new chemical molecules against <i>Meloidogyne</i> spp. infecting Guava.				
13	F.14.	Documentation of nematode infested horticultural nurseries in the state (New Experiment).				
14	FD.2	Effect of organic amendments and biocontrol agents in citrus against Tylenchulus				
		semipenetrans.				
15	FD.4.	Integrated management of root-knot nematode <i>M. incognita</i> infecting pomegranate.				
16	H.1.	Management of root-knot nematodes (<i>Meloidogyne</i> spp.) in polyhouse by using organic amendments.				
17	H.2.	Screening of crop genotype against root-knot nematodes for polyhouse conditions.				
18	Н.3	Management of root-knot nematodes (Meloidogyne spp.) on cucumber in polyhouse by using				
		bioagents.				
19	H.4.	Management of root-knot nematodes (<i>Meloidogyne</i> spp.) in polyhouse through crop rotation.				
20	H.7	Evaluation of new chemical molecules against Meloidogyne spp. infecting cucumber in				
		polyhouse (New Experiment).				
21	HD.2.	Biomanagement of root-knot nematode, Meloidogyne spp. infesting capsicum under				
		protected polyhouse conditions.				
22	HD.3.	Integrated management of root-knot nematodes in protected/ polyhouse conditions (tomato).				
23	HD. 4.	Demonstration on integrated nematode management in cucumber in polyhouse (New				
		Experiment).				