Mahatma Phule Krishi Vidyapeeth, Rahuri

AICRP on Plant Parasitic Nematodes in Agriculture

1.	**Year of Start**	:	January, 1978
2.	**Contact Details**	:	
	Postal Address	:	Department of Entomology, MPKV, Rahuri Tal: Rahuri, Dist: Ahmednagar , Pin: 413 722
	Phone No.	:	02426 243234
	Email	:	hdent_mpkv@rediffmail.com
3.	**Objectives/Mandates**	:	**Mandate :** • 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 technology in vegetables, pulses and oilseeds.
4.	**Infrastructure**	:	
	Land	:	0.40 ha. (0.40 ha under cultivation)
	Irrigation facilities	:	Wells and seasonal canal irrigation

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

Sr. No.		**Title Of Experiments**
1	**A. I. a**	Nematode biodiversity, identification of hot spots and pest free areas for economically 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 *Meloidogyne* 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 (*Meloidogyne* 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 *Rotylenchulus reniformis* 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, *Meloidogyne* spp. and fungal wilt complex, *Fusarium* spp. in pomegranate.
12	**F.13.**	Evaluation of new chemical molecules against *Meloidogyne* 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 *M. incognita* infecting pomegranate.
16	**H.1.**	Management of root-knot nematodes (*Meloidogyne* spp.) in polyhouse by using organic amendments.
17	**H.2.**	Screening of crop genotype against root-knot nematodes for polyhouse conditions.
18	**H.3**	Management of root-knot nematodes (*Meloidogyne* spp.) on cucumber in polyhouse by using bioagents.
19	**H.4.**	Management of root-knot nematodes (*Meloidogyne* 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).