Mahatma Phule Krishi Vidyapeeth, Rahuri

Zonal Agricultural Research Station,Ganeshkhind Pune
National Agricultural Research Project, Ganeshkhind, Pune

1.	**Year of Start**	:	1986
2.	**Contact Details**	:	
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3.	**Objectives/Mandates**	:	• This research project acts as a centre for lead functions for fruit crops, vegetables, flower crops, microbiological research, biological control of pest and verification functions for the crops like cereals, pulses, oilseeds together with cropping system research, micronutrient research, post harvest technology. • Yield & quality improvement in fruits like, grapes, pomegranate, guava, sapota, fig, by way of seedling selection, clonal selection, grafting, budding and breeding. • Collection, maintenance and evaluation of improved varieties of various fruit and flower crops. Propogation for production of disease free planting material of horticultural crops through tissue culture. • Development and standardization of agro-techniques for fruits and field crops of the Plain Zone. • Survey and research on soil fertility, improvement of soil health, micro & macro-nutrient for fruit and fruit crop. • Research on appropriate use of bio-fertilizer in cereals, pulses, oilseeds, flower, fruit and vegetable crops. • Integrated pest & disease management of fruit crops & vegetables. • Collection, maintenance and assessment of Rajma bean germplasm for vegetable and seed. • Physiological studies for attributing higher yield in fruits crops. • Investigations on physiological disorders in fruits crops. Use of plant growth regulators for improvement of quality and yield of flowers. • Development of vegetable based cropping sequences under irrigated condition. • Post harvest handling, processing and storage studies like packaging, transportation, preservation in different horticultural crops along with research on processing machineries. • Constraint analysis in adoption of improved technologies by farmers. • Marketing studies in respect of fruits, vegetables and flowers. • Economics of farming system. • Adaptability studies and development of packages for spices and

plantation crops and their cropping systems.

- Production of disease free and healthy planting material of fruits and flower crops.

4. Infrastructure :

Land : As per requirement from 58.77 ha

Laboratories : Yes

Irrigation facilities River and Borewell

5. Human Resource :

Technical Staff :

SN	Designation	Discipline	Remarks
1.	Associate Director of Research -1	Horticulture	Vacant-1
2.	Professor -1	Horticulture	Filled
3	Associate Professor	Plant Breeding,	Filled
4	Associate Professor	Economics	Filled
5	Associate Professor	Post Harvest Tech	Pooled
6	Associate Professor	Agronomy	Vacant
7	Associate Professor	Pomology	Filled
8	Assistant Professor	Pomology	Filled
9	Assistant Professor	Plant Pathology	Pooled
10	Assistant Professor	Tissue culture	Vacant
11	Assistant Professor	Statistics	Filled
12	Assistant Professor -2	Entomology	Vacant
13	Assistant Professor	Agril. Proc. Engg.	Filled
14	Assistant Professor	Soil Sci & Chem	Filled
15	Assistant Professor	Microbiology (Pl. Pathology)	Filled
16	Assistant Professor	Floriculture	Filled
17	Assistant Professor	Post Harvest Tech	Filled

Non-Technical Staff :

SN	Designation	No of posts	Remarks
1	Office Superintendent	1	Pooled
2	Asstt. Superintendent	1	Filled
3	Jr. Steno.	1	Vacant
4	Artist/Photo	1	Filled
5	Wireman	1	Filled
6	Tractor Driver	1	Vacant
7	Jr. Mechanic	1	Filled
8	Jeep Driver	2	Vacant

6.	**Research Achievements**	:	**Varieties: 2** ***Rajmash bean- Varun*****, Mango-** ***Phule Abhiruchi*** **Recommendations: 32**
7.	**Ongoing Research**	:	

Sr. No.	Title of the Experiment
	Pomology
Mango	
1	Ultra high density planting in Mango.
Guava	
1	Evaluation of F_1 guava hybrids.
2	Evaluation of red flesh guava selections under Plain Zone conditions.
3	Evaluation of $L_{24} P_{1 \text{ and }} L_{24} P_{15}$ (Sel.) for horticultural Performance
4	Development of guava hybrids.
Sapota	
1	Rejuvenation of sapota orchard.
	Rajmah Breeding (Botany)
Kharif **, 2019**	
1	Conduct of Rajmah breeding trials.
2	Multilocation varietal trial of Rajmash at NARP, Ganeshkhind, A.R.S., Karad and CSRS, Padegaon.
3	Station trial of promising genotypes of Rajmash bean.
4	Study of Mutation breeding of Rajmash bean var. GRB-902.
5	Study of advanced generations F_1, F_2, F3, F_4, F_5 and F_6.
Hybridization programme	
1	Nucleus seed production programme of released variety Varun and GRB-902.
2	The crosses will be made by using six parents of Rajmash bean (1) GRB-902 (2) GRB -701 (3) GRB-804 (4) PDR-14 (5) Varun (6) HUR-137
Multi location varietal trials of other crops	
1	Regional varietal Trial of Pigeon pea.
2	Multi location Varietal trial of Maize.
3	Multi location varietal trial of sweet corn.
Rabi, **2019**	
1	Advance varietal trial of Rajmash bean (MULLaRP).
2	Initial varietal trial of Rajmash bean (MULLaRP).
3	Multilocation varietal trial of Rajmash bean.
4	Breeder and Truthful Seed production programme of Varun and P. Rajmah.
5	Evaluation of germplasm of Rajmash bean.
6	State Multilocation varietal trials of Chickpea (Deshi irrigated).
7	State Multilocation varietal trials of Chickpea (Kabuli).

8	Regional varietal trial of Chickpea (DL).
9	State Multilocation Varietal trial of Chickpea (DL).
Agronomy	
1	Effect of sowing windows and genotypes on yield and economics of Rajmah (grain)- Rajmah (green pods)-Coriander cropping sequence under irrigated conditions.
2	Integrated weed management in Rajmah-Groundnut (TPG-41)-Okra (Phule Utkarsha) cropping system under irrigated conditions.
3	To study the effect of sowing dates and genotypes in soyabean -Rajmah (green pods)- Groundnut cropping system under irrigated conditions.
Soil Science and Agril. Chemistry	
1	Effect of soil and foliar applications of humic acid on growth, yield, quality parameters of brinjal (Krishna) and chemical properties of soil.
2	Influence of iron and zinc on growth, yield, nutrient uptake and quality of China aster.
3	Influence of graded levels of NPK dose on yield and quality of tuberose (Cv. *Phule Rajani*).
4	Multi location trial on Papaya Nutrition .
Agricultural Microbiology	
1	Effect of split doses of biofertilisers and chemical fertilizers on growth and yield of tuberose (Cv. Rajani).
2	Effect of split doses of biofertilisers and chemical fertilizers on growth and yield of gladiolus (Cv. Phule Neelrekha).
3	Effect of split doses of biofertilisers and chemical fertilizers on growth and yield of aster (Cv. Phule Ganesh Pink).
4	Effect of biofertilisers and EM (Effective Microorganisms)
5	Effect of biofertilisers and EM (Effective Microorganisms) on yield of lettuce (Cv. Padma).
6	Effect of biofertilisers and EM (Effective Microorganisms) on yield of Rajmah (Cv. Varun).
Plant Pathology	
1	Development of gynodioecious papaya variety tolerant to papaya ring spot virus (PRSV) disease.
2	Study on resistance in okra against YVMV.
3	Breeding for powdery mildew resistance in fenugreek.
4	Evaluation of pea germplasm lines.
5	Survey for occurrence of crop diseases in plain zone area.
6	Epidemiological studies in rust and powdery mildew of pea (rabi).
Statistics	
1	Rainfall variability and its impact on crop area,

			production and productivity of Paddy in Pune district.
		2	Rainfall variability and its impact on area, production and productivity of selected crops (Cotton, Bajara, Tur, Mung) in Jalgaon district.
		3	Rainfall variability and its impact on area, production and productivity of Banana in Jalgaon district.
		Economics	
		1	Economic Impact of Paddy variety Indrayani in Maharashtra
		2	Retrospect's and Prospects for export of Grapes from India
		3	Trends in Arrivals and Prices of selected fruits (Guava, Sapota, Fig, Custard apple and Papaya) in APMC market, Pune.
		Entomology	
		1	Screening of tuberose cultivars against thrips (Thrips tabaci) under field condition.
		2	Screening of tuberose cultivars against mites under field conditions.
		3	Screening of F1 guava hybrids against major pests.
		4	To study the efficacy of some pesticides against leaf webber, Orthaga euadrusalis Walker infesting mango.