



## Mahatma Phule Krishi Vidyapeeth, Rahuri

### All India Coordinated Research Project on Pigeonpea

1.	<b>Year of Start</b>	:	2000																				
2.	<b>Contact Details</b>	:																					
	<b>Postal Address</b>	:	Pulses Improvement Project, MPKV, Rahuri-413722																				
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3.	<b>Objectives/Mandates</b>	:	<ul style="list-style-type: none"> <li>• Collection, evaluation and maintenance of the pigeonpea germplasm.</li> <li>• Development of high yielding varieties of pigeonpea resistant to Fusarium Wilt and Sterility Mosaic Disease (SMD).</li> <li>• Development of extra early/early, indeterminate genotypes.</li> <li>• Development of mid late duration varieties suitable for intercropping.</li> <li>• Development of varieties tolerant to drought.</li> <li>• Production of nucleus and breeder seed of pigeonpea varieties.</li> </ul>																				
4.	<b>Infrastructure</b>	:																					
	<b>Land</b>	:	42.76 ha																				
	<b>Irrigation facilities</b>	:	Lift irrigation, Farm pond and Well																				
	<b>Laboratories</b>	:	01																				
	<b>Advanced facilities</b>	:	Rainout shelter-1, polycarbonate house-1, Shednet-2																				
5.	<b>Human Resource</b>	:																					
	<b>Technical Staff</b>	:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">SN</th><th style="width: 40%;">Designation</th><th style="width: 30%;">Discipline</th><th style="width: 20%;">Remarks</th></tr> </thead> <tbody> <tr> <td>1</td><td>Sr. Scientist</td><td>Pl. Breeding</td><td>Filled</td></tr> <tr> <td>2</td><td>Scientist</td><td>Entomology</td><td>Filled</td></tr> <tr> <td></td><td>Scientist</td><td>Pl. Pathology</td><td>Filled</td></tr> <tr> <td></td><td>Scientist</td><td>Agronomy</td><td>Filled</td></tr> </tbody> </table>	SN	Designation	Discipline	Remarks	1	Sr. Scientist	Pl. Breeding	Filled	2	Scientist	Entomology	Filled		Scientist	Pl. Pathology	Filled		Scientist	Agronomy	Filled
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	<b>Non-Technical Staff</b>	:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">SN</th><th style="width: 40%;">Designation</th><th style="width: 30%;">No of posts</th><th style="width: 20%;">Remarks</th></tr> </thead> <tbody> <tr> <td>1</td><td>Lab. Boy</td><td>02</td><td>Filled-2</td></tr> </tbody> </table>	SN	Designation	No of posts	Remarks	1	Lab. Boy	02	Filled-2												
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6.	<b>Research Achievements</b>	:																					
	<b>Varieties</b>	:	03																				
	<b>Recommendations</b>	:	12																				
7.	<b>Ongoing Research</b>	:																					

#### a. Plant Breeding

##### Short term planning

1.1. Evaluation of promising genotypes:

1.1.1. Coordinated trials :

a) Coordinated trials

b) ISOPOM (Hybrid trials)

1.1.2. ICRISAT trials

1.1.3. University trials

### **Medium term Planning**

- a) Development of early/mid early high yielding pigeonpea genotypes through mutation
- b) Development of wilt and sterility mosaic resistant genotypes/varieties of pigeonpea through mutation.
- c) Stability studies in pigeonpea genotypes in relation to climate change

### **Long term planning**

- A. Hybridization programme in Pigeonpea :
- B. Evaluation of advance generation breeding material.
- C. Evaluation and maintenance of germplasm.

### **b. Agronomy**

1. Performance of pigeonpea + soybean intercropping system at different spacing.
2. Enhancing production potential of pigeonpea through foliar nutrition.
3. Effect of Gibberlic acid on management of moisture for enhancing productivity of pigeonpea.
4. Evaluation of post emergence herbicides in pigeonpea.
5. Agronomic evaluation of AVT-II entries.

### **c. Plant Pathology**

1. Evaluation of pigeonpea entries against *Fusarium* wilt
2. Evaluation of pigeonpea entries against the sterility mosaic
3. Monitoring of races /strains of *Fusarium udum* in sick plot through host plant Differentials
4. Variability in pigeonpea sterility mosaic virus (PPSMV)
5. Pigeonpea production oriented survey (2019-20)
6. ICAR-ICRISAT collaborative research programme on screening of pigeonpea genotypes

### **d. Entomology**

1. Host Plant Resistant of AVT-1 & AVT-2 advanced varietal trials against major insect pests of pigeonpea
2. Evaluation of insecticides against pod fly in pigeonpea
3. Evaluation of eco-friendly approaches for the management of insect pest complex
4. Monitoring of major insect pests of pigeonpea and their natural enemies
5. Survey of farmers field regarding incidence of major insect pest and extent of damage
6. Formulation and evaluation of IPM modules for pigeonpea
7. Screening of different genotypes of State Multilocation Varietal Trial SMVT-I of pigeonpea
8. Screening of different genotypes of State Multilocation Varietal Trial SMVT-II of pigeonpea
9. Testing of different product testing varieties of pigeonpea against major pest of pigeonpea