



Mahatma Phule Krishi Vidyapeeth, Rahuri

All India Coordinated Research Project on Cotton

1.	Year of Start	: 1972-73
2.	Contact Details	:
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3.	Objectives/Mandates	Objectives <ul style="list-style-type: none"> • To develop high yielding varieties and hybrids suitable for summer irrigated cultivation in Deccan canal tract of Western Maharashtra. • To incorporate desirable traits of dwarf growth habit, early maturity (less than 150 days), high ginning out-turn, superior fiber quality and tolerance/ resistance to major pests and diseases and physiological stress. • To formulate production technology for summer cotton for increasing gross monetary returns. • To identify suitable sequence and intercropping systems for summer cotton for increasing gross monetary returns. • To screen breeding material for disease and pests. • To formulate suitable and economical plant protection for control of major pests and diseases by incorporating IPM technology. • To produce breeder and foundation seed of cotton varieties and parental lines of hybrids as per indents received from State Dept. of Agriculture and ICAR. Mandates <ul style="list-style-type: none"> • To develop short duration varieties for fitting in multiple cropping programmes in irrigated areas and for mixed or intercropping with other crops. • To develop superior long staple varieties in cottons for irrigated areas. • To develop agronomic practices for promising hybrids/high yielding varieties. • To improve quality of hybrid cottons. • To formulate suitable and economical IPM and IDM technology
4.	Infrastructure	:
	Land	3 ha.
	Irrigation facilities	One leaf & one borwell
	Laboratories	Bio control lab

5.	Human Resource : Technical Staff :	SN	Designation	Discipline	Remarks
		1	Cotton Breeder	Botany	Filled
		2	Cotton Agronomist	Agronomy	Filled
			Cotton Entomologist	Entomology	Filled
	Non-Technical Staff :		JRA	Botany Entomology	Filled-1 Vacant-1
		SN	Designation	No of posts	Remarks
		1	Agril Asstt	05	Filled-3 Vacant-1 Pooled-1
6. Research Achievements :					
Varieties : 15					
Recommendations : 28					
7. Ongoing Research :					

A) Ongoing Research Programme of Cotton Breeding

- 1 Br.02 (a) Initial Evaluation Trial of *G. hirsutum* varieties
- 2 Br.06 (a-1) Initial Evaluation trial of compact genotypes un-der irrigated conditions
- 3 Br12(a) Initial Evalua-tion Trial of *G. barba-dense* varieties
4. Br.15(a) Preliminary hybrid trial of h X b hybrids

II. Central Zone Trials

- 1 Br.03 (a) Preliminary Varietal Trial of *G. hirsutum*
- 2 Br.04 (a) Coordinated Varietal Trial of *G. Hirsutum*
- 3 Br.05 (a) Coordinated Conventional Hybrid (h x h) Trial
- 4 Br.06 (a-1) Preliminary Varietal Trial of compact genotypes un-der irrigated conditions
- 5 Br.13 (a) Preliminary Varietal Trial of *G. Barbadosense*
- 6 Br.14 (a) Coordinated evaluation Trial of *G. Barbadosense*
- 7 Br.15 (a) Coordinated Conventional Hybrid (h x b) Tri

Maintenance breeding

- 1) Collection, maintenance and evaluation of germplasm of cultivated species of *Gossypium* and their utilization in breeding programme.
- 2) Collection, maintenance and evaluation of germplasm of wild species and races of *Gossypium* for utilization in resistance breeding and fibre quality improvement programmes.

Cotton Agronomy

- 1 Agronomic requirement for promising pre-release *hirsutum* varieties (*G. hirsutum*) GSHV-172, CCH15-1 and Phule Yamuna (RHC 0717) under irrigated condition
- 2 Technology for organic cotton production -
- 3 Enhancing Nitrogen use efficiency in *Bt. Cotton*
- 4 Conservation agriculture in cotton based cropping system

Cotton Entomology

1. Screening of breeding material for resistance to insect pests (National and Zonal Trials).
2. Advanced screening of promising entries for development of repository for sucking pests.
3. Population dynamics to develop suitable forecasting model.
4. Survey for key and emerging pests in cotton in farmers fields for weekly advisory
5. Determination of ETLs and estimation of yield losses for cotton pink bollworm.
6. Validation of IPM module for PBW- NEW
7. Evaluation of Botanical Pesticide for management of Pink Bollworm.

