

11.2: List of On-going Projects

Sr. No.	Name of Project	Principal investigator (PI)/ Project Leader (PL)/ Project Associate (PA)/ CCPI/	Duration
INSTITUTE			
Crop Improvement			
1.	Improvement of tetraploid and diploid cottons for fibre properties through population improvement approaches.	V. N. Waghmare (PL) Vinita Gotmare (PA)	2000-2015
2.	Conservation, characterization and utilization of wild species, races of cultivated species, perennials and synthetic polyploids of <i>Gossypium</i> .	Vinita Gotmare (PL) G. Balasubramani (PA)	2008-2013
3.	Collection, conservation, evaluation, documentation and maintenance of germplasm of cultivated species of <i>Gossypium</i> .	Punit Mohan (PL), S. Manickam (PA), V. S. Nagrare (PA), R. A. Meena (PA) A. B. Dongre (PA), R. K. Deshmukh (PA) V. Santhy (PA), P.R.Vijayakumari (PA) Vinita Gotmare (PA), M. Chakrabarti (PA) K. P. M. Damayanthi (PA), K. Rathinavel (PA) K. P. Raghvendra (PA)	2006-2013
4.	Breeding of upland cotton for improved fibre quality and resistance to biotic stress (bollworms and jassid).	S. M. Palve (PL), M. K. Meshram (PA), V. Gotmare (PA)	2005-2012
5.	Development of heterotic pool for superior medium staple in tetraploid cotton (<i>G. hirsutum</i>).	S. M. Palve (PL)	2006-2013
6.	Development of improved male sterility system through induced mutation	S. B Singh (PL), O. P. Tuteja (PA)	2008-2011
7.	Development of drought tolerant genotype with good fibre quality.	S. B. Singh (PL), A. H. Prakash (PA)	2008-2013
8.	Development of mapping population for different economically important traits.	P. K. Chakrabarti (PL), V. N. Waghmare (PA), S. M. Palve (PA), S. B. Singh (PA), Vinita Gotmare (PA), T. R. Loknathan (PA) P. R. Vijayakumari (PA), Punit Mohan (PA) S. Manickam (PA)	2008-2012
9.	Development of transgenic cotton resistant against major diseases of cotton.	P. K. Chakrabarty (PL) S. B. Nandeshwar (PA)	2009-2012
10.	Studies on genetic enhancement of <i>hirsutum</i> cotton.	T. R. Loknathan (PL)	2002-2012
11.	Development of heterotic pools in <i>G. arboreum</i> and <i>G. hirsutum</i> .	S. K. Verma (PL), O. P. Tuteja (PA), S.L. Ahuja (PA)	2008-2012
12.	Development of markers for breeding programme.	S. K. Verma (PL), S. L. Ahuja (PA)	2008-2012
13.	Development of varieties and hybrids resistant to CLCuV.	O.P. Tuteja (PL), D. Monga (PA), Rishi Kumar (PA)	2008-2013
14.	Development of transgenic diploid cotton for insect resistance.	S. B. Nandeshwar (PI), S. B. Singh (PA) P. K. Chakrabarty (PA), V. S. Nagrare (PA)	2008-2011
15.	Development of efficient agro-techniques for enhancing the productivity and seed quality of cotton varieties.	R. K. Deshmukh (PL), K. Rathinavel (PA)	2008-2011
16.	Assessment of working seed sample size for Bt seed testing based on estimation of <i>cry1Ac</i> protein.	P. R. Vijayakumari (PL), K. R. Kranthi (PA)	2008-2011
17.	Technology to enhance the better crop establishment and yield in cotton.	R. A. Meena (PL), D. Monga (PA)	2007-2012.
18.	Breeding new <i>G. hirsutum</i> varieties with new plant type - Development of medium staple varieties.	K. N. Gururajan (PL), S. Manickam (PA)	1989-2011
19.	Development of long staple <i>G. hirsutum</i> with improved fibre strength.	S. Manickam (PL), V. N. Waghmare (PA) S. L. Ahuja (PA)	2008-2014
20.	Development of extra-long staple high spinning hybrids with wider adaptability.	KPM Dhamayanthi (PL), S. Manickam (PA)	1986-2011

Crop Production			
21.	Development of high density planting systems (HDPS) for maximizing productivity of rainfed cotton.	M. V. Venugopalan (PL), P. R. Bharambe(PA), Jagvir Singh (PA), Punit Mohan (PA), Vinita Gotmare (PA), S.M. Palve (PA), A. H. Prakash (PA), S. Kranthi (PA), Chinna Babu Naik (PA), A. K. Mukherjee(PA), G. Majumdar (PA), A. R. Reddy (PA), S. L. Ahuja (PA), D. Monga (PA), Rishi Kumar (PA)	2010-2014
22.	Developing efficient carrier based microbial delivery system for cotton nutrition and soil health.	K. Velmourougane (PL), Jagvir Singh (PA), A. R. Raju (PA)	2008-2011
23.	Amelioration of leaf reddening and parawilt in cotton.	A. H. Prakash (PI), Jagvir Singh (PA), V. S. Nagrare(PA)	2010-2014
24.	Effect of different levels of fertilizers on Cry protein expression of Bt hybrids and effect of Bt gene on soil health, oil and gossypol content of Bt hybrids compared to their non Bt counterparts.	M. Chakrabarty (PL), Jagvir Singh (PA), K. Velmourougane (PA)	2007-2011
25.	Economic Impact of Bt Cotton Cultivation in India.	A. R. Reddy (PL), Isabella Agarwal (PA), Rishi kumar (PA)	2008-2011
26.	Assessment of cotton based intercropping system and its popularization through farmer to farmer participatory learning approach.	S. M. Wasnik (PL), S. Usha Rani (PA), A. R. Raju (PA)	2008-2012
27.	Performance of white leghorn layers under feeding of Bt and Non-Bt cotton seed.	S. N. Rokde (PL)	2010-2011
28.	Herbigating herbicide/ herbicide mixture/ herbicide rotation for efficient and environmentally safe weed control and its effects on succeeding pulses.	P.Nalayini (PL), K.Sankaranarayanan (PA), K.Velmourougane (PA)	2008-2012
29.	Evaluation of cotton base cropping system for higher economic returns	K. Sankaranarayanan (PL), P. Nalayini (PA), K. K. Bandyopadhyia (PA)	2005-2011
30.	Studies on Soil Aggregation and Aggregate Associated Carbon in Cotton Based Cropping System	K.K. Bandyopadhyia (PL) and K. Velmourougane (PA)	2008-2011
31.	Simulation of effect of N management strategies on nitrogen dynamics in soil plant system and nitrogen use efficiency of ELS bt cotton in a climate change scenario	K.K.Bandyopadhyia (PL), A. H. Prakash (PA), B. Dhara Jothi (PA)	2009-2012
32.	Identification and utilization of adaptive responses to abiotic stresses in cotton.	SESA Khader (PL), N. Gopalakrishnan (PA), K.N.Gururajan (PA),	1995-2011
33.	Studies on the mechanism of cuticular absorption of nutrients and hormones in Bt cotton	S.E.S.A.Khader (PL)	2008-2012
34.	Economic impact of trade liberalization in cotton economy of India	Isabella Agarwal (PL)	2010-2012
35.	Comparative analysis of conventional, biotech and organic cotton production systems in India	S. Usha Rani (PL), S. M.Wasnik (PA), K. Sankaranarayanan (PA)	2008-2011
36.	Gender and labour issues in Cotton hybrid seed production sector in India	S. Usha Rani (PL), M. Sabesh (PA), S.M. Wasnik (PA)	2010-2012
37.	MCDA based Decision Support System for Selecting Cotton Cultivars for Different Agro Climatic Conditions	M. Sabesh (PL)	2010-2013
Crop Protection			
38.	Isolation and characterization of native Bt strains using conventional and molecular methods, for cotton pest management.	S. Kranthi (PL), K. R. Kranthi (PA)	2008-2011
39.	Bt resistance in pink bollworm <i>Pectinophora gossypiella</i> (Saunders) - monitoring mechanism and management.	Chinna Babu Naik (PL), S. Kranthi (PA)	2010-2012

40.	Screening and Identification of effective bio-control agents for the management of foliar cotton diseases.	M. K. Meshram (PL), A. K. Mukherjee (PA)	2008-2011
41.	Identification of bacterial blight and grey mildew disease resistant genotypes in upland cotton.	M. K. Meshram (PL), A. K. Mukherjee (PA)	2008-2011
42.	Identification of sources of resistance and phylloplane microflora against Rhizoctonia root rot in tetraploid and fusarium wilt in diploid cotton and their utilization for management.	R. C. Ukey (PL), V. N. Waghmare (PA)	2006-2011
43.	Studies on inoculum source and economic thresholds of cotton leaf curl and virus disease.	D. Monga (PL), Rishi Kumar (PA)	2008-2011
44.	Identification and characterization of viral diseases of cotton in India.	A. K. Mukherjee (PL), M. K. Meshram (PA)	2010-2012
45.	Studies on the role and effect of insecticides in cotton ecosystem	T. Surulivelu (PL)	1989-2011
46.	Standardization of bioassays techniques for resistance monitoring in <i>Pectinophora gossypiella</i> Saunders to transgenic cotton and development of management strategies.	B. Dhara Jothi (PL)	2007-2012
47.	Studies on epizootiology, pathogenicity and pathogenic mechanism of Entomopathogenic fungal pathogens against cotton mealybug.	M. Amutha (PL)	2008-2011
48.	Establishment of <i>Beauveria bassiana</i> as a symbiotic insecticide against major insect pests and diseases of cotton.	M. Amutha (PL), M. Gunasekaran (PA)	2010-2013
49.	Identification of hot spots for plant parasitic nematodes in cotton growing zones of India.	J. Gulsar Banu (PL), N. G. Narkhedkar (PA)	2006-2011
50.	Isolation of novel insecticidal proteins from bacterial symbionts of native entomo-pathogenic nematodes	J. Gulsar Banu (PL), N. G. Narkhedkar (PA) B. Dhara Jothi (PA)	2006-2011
EXTERNALLY FUNDED PROJECTS			
NAIP			
1.	Research into development of decision support systems for management of insect pests of major rice and cotton based cropping systems.	V. S. Negrare (CCPI), G. Majumdar (CoPI), Rishi Kumar (CoPI), B. Dharajothi (CoPI), M. Sabesh (CoPI), M. Amutha (CoPI)	2008-2012
2.	A Value Chain for Cotton Fibre, Seed and Stalks: an innovation for higher economic return to farmers allied stakeholders.	N. Gopalakrishnan (CoPI), Sankaranarayanan (CoPI), P. R. Bharambe (CCPI), D. Monga (CCPI), Rishi Kumar (CoCCPI)	2009-2012
3.	Georeferenced soil information system (Geosis) for land use planning and monitoring soil and land quality for agriculture.	M. V. Venugopalan (CCPI), K. Velmourougane (CoCCPI)	2009-2013
DBT/DST			
4.	Enhancing sustainability of transgenic crops through gene stacking" Funded by the DBT under 'Indo-Australian –International Science Linkages' programme.	K. R. Kranthi (PI)	2008-2012
5.	Cloning and characterization of potent toxin gene from heat tolerant isolate of <i>Heterorhabdus Indica</i> , an Entomopathogenic nematode.(DBT)	N. G. Narkhedkar (PI), P. K. Chakrabarty (PA)	2009-2012
6.	Engineering virus resistant cotton through dsRNAi-mediated targeting of cotton leaf curl virus. (DBT)	P. K. Chakrabarty (PI), S. B. Nandeshwa(PA) D. Monga (PA), B. M. Khadi (PA)	2007-2010
7.	Identification of Molecular markers and tagging genes for Bacterial blight resistance. (DBT)	P. K. Chakrabarty (PI), Punit Mohan (PA), V. N. Waghmare (PA), B. M. Khadi (PA)	2008-2011

8.	“Gene stacking in Bt Cotton”. (DBT)	G. Balasubramani (PI), S. B. Nandeshwar (PA), S. B. Singh (PA)	2008-2011.
9.	Isolation and identification of seed specific promoter and gossypol synthesis genes for silencing through RNA interference. (DBT)	K. P. Raghavendra (PI), J. Amudha (PA)	2010-2013
10.	Molecular mapping of fibre quality and lint yield traits: construction of a framework linkage map in <i>desi</i> cotton (<i>Gossypium</i> sp.) (DBT)	V. N. Waghmare (PI), A. B. Dongre (PA), Vinita Gotmare (PA), S.B. Jadhav (PA)	2006-2011
11.	Molecular mapping of fibre quality traits QTLs and marker assisted selection (MAS) in upland cotton (<i>Gossypium hirsutum</i> L.) (DST)	V. N. Waghmare (PI)	2007-2010
12.	Fine mapping and advance backcross QTL analysis of fiber quality and economic traits in diploid cotton.	V. N. Waghmare (PI), T. R. Loknathan (PA)	2010-2012
Indo -US-AKI			
13.	Development of drought resistant transgenic cotton and identification of new genes for high water use efficiency	J. Amudha (PI), A. H. Prakash (PA), G. Balasubramani (PA)	2008-2011
GEAC			
14.	Event based approval mechanism (GEAC)	S. Kranthi (PI)	2009-2011
CSIR : NMITLI			
15.	Novel approaches for production of hybrid seeds with characteristics of improved insect resistance and higher yield.	K. R. Kranthi (PI)	2008-2012
ICAR Network Project			
16.	Impact, adaptation and vulnerability of Indian agriculture to climate change. Sub project- changes in soil carbon reserves as influenced by different ecosystems and land uses in India.	M. V. Venugopalan (CCPI)	2009- 2012
17.	Transgenics in Crops (NPTC): Development of bollworm resistance transgenic cotton.	G. Balasubramani (PI), S. B. Singh (CoPI), J. Amudha (CoPI), S. B. Nandeshwar (CoPI) A. B. Dongre (CoPI), K. R. Kranthi (CoPI) P. K. Chakrabarty (CoPI)	2006-2012
18.	Contractual research project on DNA bar coding of cotton insect pests.	S. Kranthi (PI), K. R. Kranthi	2010-2012
19.	Mega Seed Project - Seed production in Agriculture crops.	P. K. Chakrabarty (Nodal Officer), P.R. Vijayakumari (PI), R. K. Deshmukh (PA), V. Santhy (PA), K. Rathinavel (CCPI), R. A. Meena (CCPI)	2007-2012
20.	National Seed Project (crops).	K. Rathinavel (PI), P. R. Vijayakumari (PA), R. A. Meena (PA)	1999-2012
PRIVATE SEED COMPANIES			
21.	Monitoring changes in baseline susceptibility of cotton bollworm to transgenes deployed in pest resistant transgenic cotton	S. Kranthi (PI), B. Dhara Jothi Rishikumar, C.B. Naik	2009- 2012
DUS			
22.	Testing & Documentation of Extant Varieties, hybrids and their Parents for Distinctness, Uniformity & Stability (PVP & FR ACT, 2001).	N. Gopalakrishnan (PI), K. Rathinavel (CCPI) V. Santhy (CCPI), P. R. Vijayakumari (CCPI) R. K. Deshmukh (CCPI)	2003-2012
Govt. of Maharashtra			
23.	Crop pest surveillance and advisory project (CROPSAP)	V. S. Nagrare (PI)	2010-2011

TECHNOLOGY MISSION COTTON (TMC) : Mini Mission I - 2007-2012

Project code	Project Title	Name of PI/CCPI
MM 1.1	Development and promotion of medium and long linted diploid cottons (<i>G.arboreum</i> and <i>G.herbaceum</i>)	S. K. Verma - PI, T. R. Loknathan - CCPI Punit Mohan - CCPI
MM 1.2	Development of extra long staple <i>G.barbadense</i> cotton with improved fibre qualities to meet the requirements of textile industry	K. N. Gururajan - PI
MM 1.3	Identification of <i>G. hirsutum</i> genotypes suitable for machine picking and development of agronomic package	V. Gotmare - CCPI
MM 1.4	Development and promotion of Bt transgenic cotton for bollworm resistance	S. Manickam – CCPI, Suman Bala Singh - CCPI, S. B. Nandeshwar – CCPI S. M. Palve - CCPI, O. P. Tuteja - CCPI
MM 1.5	Molecular characterization of cotton germplasm using DNA markers	A. B. Dongre – PI, V. N. Waghmare - CoPI, R. K. Deshmukh - CoPI, Vijaya Kumari - CoPI, V. Santhy - CoPI, K. Rathinavel - CCPI, R. A. Meena - CCPI
MM 1.6	Exploitation of apomixis and TGMS system in hybrid cotton seed production	S. M. Palve – PI, V. Gotmare - CoPI V. Santhy - CoPI
MM 2.1	Development of production technologies for Bt cotton and improvement of water and nutrient use efficiency with precision farming techniques	J. V. Singh - PI, P. R. Bharambe - CoPI, M. V. Venugoplan CoPI, S. Sankaranarayanan - CCPI
MM 2.2	Identification of innovative Bt cotton based cropping systems.	P. Nalayini - PI, K. K. Bandopadhyay - CoPI, A. R. Raju - CCPI, P. R. Bharambe - CCPI, G. Majumdar - CCPI, R. A. Meena - CCPI
MM 2.3	Mechanization of cotton production	G. Majumdar - PI, A. R. Raju - CoPI
MM 2.4	Physiological manipulation of Bt plant morphoframe for enhanced productivity under varied agro-climatic conditions	A. H. Prakash - PI, R. K. Deshmukh - CoPI
MM 3.1	Emerging and key pests: - their characterization, taxonomy, genetic diversity and control	S. Kranthi - PI, K. R. Kranthi - CoPI, M. K. Meshram - CoPI, V. S. Nagrare - CoPI, A. K. Mukherjee - CoPI, V. Chinna Babu Naik - CoPI, T. Surulivelu - CCPI, B. Dharajothi - CCPI, D. Monga - CCPI, Rishi Kumar - CCPI, J. Gulsar Banu - CCPI
MM 3.2	Development and validation of IPM / IRM strategies for Bt and conventional cotton under different eco-systems.	S. Kranthi - CCPI , V. S. Nagrare - CoPI, V. Chinna Babu Naik - CoPI Rishi Kumar - CCPI
MM 3.3	Development, validation, utilization and / or commercialization of bio-pesticides and bio inoculants	P. K. Chakrabarty - PI, T. Surulivelu - CCPI, J. Gulsar Banu - CCPI, N. Narkhedkar - CCPI, D. Monga - CCPI
MM 3.4	Development of farmer friendly diagnostic kits for transgenic event seed purity.	K. R. Kranthi - PI
MM 4.1	Quality evaluation of cotton fibres	M . Chakrabarty - CCPI
MM 5.1	Total factor productivity of cotton in India	Isabella Agarwal - PI, A. R. Reddy - CCPI S. M. Wasnik - CCPI
MM 5.3	Indian cotton portal	M. Sabesh - PI, N. Gopalakrishnan-CoPI, G. Majumdar - CCPI, A. R. Reddy - PI, M. V. Venugopalan - CoPI,
MM 5.4	TMC MMI Co-ordination and Monitoring Cell	V. Santhy - CoPI
TECHNOLOGY MISSION COTTON (TMC) : Mini Mission II - 2007-2012		
	Dissemination of IRM strategies in India.	K. R. Kranthi (PI), B. Dharajyoti - CCPI , D. Monga - CCPI, Rishi Kumar - CCPI