

**CENTRAL INSTITUTE FOR COTTON RESEARCH**  
**LIST OF APPROVED ONGOING PROJECTS**  
**2015-16**

S.No.	Project title	Duration
	<b>Crop Improvement</b>	
	<b>Cotton Breeding Program (CBP)</b>	
1	CBP 1: Improvement of tetraploid and diploid cottons for fibre properties through population improvement approaches. V. N. Waghmare (PI), Vinita Gotmare (PA), O. P. Tuteja (PA), S. K Verma	2000-20
2	CBP 2: Studies on Genetic Enhancement of G. hirsutum. T. R. Loknathan (PI)	2002-16
3	CBP 3: Development of drought tolerant genotypes with good fibre quality in G. hirsutum. Suman Bala Singh (PL), A. H. Prakash (PA)	2008-17
4	CBP 4: Breeding of upland cotton for improved fibre quality and resistance to biotic stress (Jassid). S. M. Palve (PI)	2005-16
5	CBP 5: Development of long staple G. hirsutum variety with improved fibre strength. S. Manickam (PL), V. N. Waghmare (PA), S. L. Ahuja (PA)	2008-17
6	CBP 6: Development of early maturing, medium staple varieties and hybrids Resistant to CLCuV. O. P. Tuteja (PL), D. Monga (PA), S. K. Verma (PA), Rishi Kumar (PA), S. M. Palve (PA)	2008-17
7	CBP 7: Development of G. hirsutum genotypes with high yield and high GOT. S. L. Ahuja (PL), R. A. Meena (PA), D. Monga (PA), Rishi Kumar (PA)	2012-18
8	CBP 8: Development of high yielding, early maturing extra long staple G. barbadense genotypes with high GOT. K. P. M. Dhamayanthi (PL), R. B. Singandhupe (PA), M. Saravanan (PA)	2012-17
9	CBP 9: MAS/MAB for Water-logging in Cotton. Vinita Gotmare (PL) , S.E.S.A. Khader (PA), M. Saravanan (PA), J. H. Meshram (PA), J. Annie Sheeba (PA)	2012-20
10	CBP 10: Breeding for early maturity compact plant type and jassid tolerance in cotton. H. B. Santosh (PI), S. Manickam (PA)	2014-19
11	CBP 11: Identification of male sterile plants in genetic male sterility (GMS) using molecular markers. O. P. Tuteja (PL), S. B. Singh (PA), M. Sarvanan(PA)	2012-17
12	CBP 12: Development of Cotton leaf curl virus resistant genotypes using G.arboreum/ G.herbaceum through introgression. S.K. Verma (PI),O. P. Tuteja (PA), D.Monga (PA), Rishi Kumar (PA), Vinita Gotmare (PA), H. B. Santosh (PA)	2015-21
	<b>Cotton Germplasm Management Program (CGMP)</b>	
13	CGMP 1: Collection, conservation, evaluation, documentation and maintenance of germplasm of cultivated species of Gossypium. Punit Mohan (PL), S. Manickam (PA), R. A. Meena (PA), K. P. M. Damayanthi (PA)	2006-17
14	CGMP 2: Conservation, characterization and utilization of wild species, races of cultivated species and synthetic polyploids of Gossypium. Vinita Gotmare (PL), G. Balasubramani (PA).	2008-18
15	CGMP 3: Exploration, collection and conservation of land races of desi cotton and perennials and from different regions of India. M. Saravanan (PL)	2011-16
16	DUS characterization and DNA finger printing of public sector cotton varieties. V. Santhy (PL), H. B. Santosh (PA)	2012-17
17	Studies on Genetic Purity of Public released Cotton Hybrids and its Parents with the help of SDS-PAGE. P. R. Vijayakumari (PL), K. R. Kranthi (PA)	2013-16

18	Studies to improve the seed and boll setting efficiency in cotton. R. A. Meena (PL), Rishi Kumar (PA), K. Rathinavel (PA)	2012-18
<b>Biotechnology</b>		
19	Deployment of biotechnological tools for enhancing cotton seed by-product utilization: Reduction of gossypol content using CYP6AE14 gene. K. P. Raghavendra (PI), Sandhya Kranthi (PA), G. Balasubramani (PA), K. Velmourougane (PA)	2014-17
20	Basic Studies on Somatic embryogenesis of Cotton. Joy Das (PI), Rakesh Kumar, S.B. Nandeshwar (PA)	2015-17
21	Development of novel methods for gene delivery into cotton. Rakesh Kumar (PI), Joy Das (PA)	2015-17
<b>Crop Production</b>		
22	Allelopathy as an alternative weed management strategy in cotton. Blaise Desouza (PI), P. Nalayini (PA), A. Manikandan (PA)	2012-17
23	Correlation of leaf colour transmittance with relation to soil/plant nutrient status. J. Annie Sheeba (PI)	2014-17
24	Evaluation of Structured water for cotton production. P. Nalayini (PI)	2014-19
25	Role of Leaf Phytochemicals in cotton leaf reddening and plant responses to management through growth chemicals, nutrients and insecticides. J. Annie Sheeba (PI), A. Manikandan (PA)	2012-17
26	MCDA based decision support system for selecting cotton cultivars for different agro climatic conditions. M. Sabesh (PI)	2011-16
27	Evaluation of nano-formulated micronutrients foliar spray for yield maximization in different cotton genotypes. D. Kanjana (PI)	2012-17
28	Efficient nitrogen fixing legumes for cotton based cropping systems. A. Manikandan (PI), P. Nalayini (PA)	2015-20
29	Development of cotton nursery techniques and validation (Ad hoc project). K.Sankaranarayanan (PI), A.H. Prakash (PA)	2015-16
<b>Crop protection</b>		
30	Gene discovery for useful traits. K. R. Kranthi (PI), Sandhya Kranthi (PA), K. P. Raghavendra (PA), K. Velmourougane (PA), J. Annie Sheeba (PA), A. Sampathkumar (PA)	2014-19
31	Role of epicuticular wax in reaction of cotton genotypes to whitefly/ CLCuD. Rishi Kumar (PI), D. Monga (PA), Sandhya Kranthi (PA), J. Annie Sheeba (PA)	2014-17
32	Isolation and characterization of endophytes in cotton and endo-symbionts in bollworms. M. Amutha (PI)	2012-17
33	Production, stabilisation, formulation and validation of microbial agents and their natural products against insects and nematode pests of cotton. J. Gulsar Banu (PL), M. Amutha (PA)	2012-17
<b>Technology Mission on Cotton MM I</b>		<b>2012-17</b>
34	TMC MM 1.1: Development of multi-gene constructs and Bt cotton varieties for sustainable pest management. K. R. Kranthi (PI), S. B. Singh (PA), K. P. Raghavendra (PA), S. B. Nandeshwar (PA), G. Balasubramani (PA), K. Velmourougane (PA), Sandhya Kranthi (PA)	
35	TMC MM 1.2: Marker Assisted Breeding for Cotton Leaf Curl Disease (CLCuD), Bacterial Leaf Blight (BLB) and Nematodes Resistance in Cotton. V. N. Waghmare (PI), A. Sampath Kumar (PA), N. Narkhedkar (PA), S. Manickam (PA), J. Gulsar Banu (PA)	
36	TMC MM 1.4: Evaluation of genotypes and agrotechniques for high density planting system and surgical cotton varieties. M. V. Venugopalan (PI), Blaise DeSouza (PA), V. Chinna Babu Naik (PA), Punit Mohan (PA), T. R. Lokanathan (PA), A. R. Raju (PA), A. Sampath Kumar (PA), K.Shankarnarayanan (PA), S. L. Ahuja (PA), R. A. Meena (PA)	

37	TMC MM 1.5: Simulation models/Sensor based gadgets for Cotton. Sandhya Kranthi (PI), K. R. Kranthi(PA),V. S. Nagrare (PA), V. Chinna Babu Naik (PA), A. R. Reddy (PA), Anuradha Narala (PA), A. H. Prakash (PA), M. Amutha (PA), K. Shankarnarayanan (PA), Isabella Agarwal (PA), B. Dharajothi (PA), Rishi Kumar (PA), M. Sabesh (PA), J. Annie Sheeba (PA)	
38	TMC MM 1.6: E-Kapas Network and Technology Documentation. S. M. Wasnik (PI), A. H. Prakash (PA), S. Usha Rani (PA), O. P. Tuteja (PA), M. Sabesh (PA), Anuradha Narala (PA)	
39	TMC MM I 1.7: Development of cotton picking machinery for small scale cotton production systems. G. Majumdar (PI)	
<b>Externally funded projects</b>		
40	DBT: Development of saturated genetic linkage map for Gossypium hirsutum L. using SSR and SNP markers. V. N. Waghmare (PI), Punit Mohan (PA)	2012-16
<b>Consortia Research platform- Natural Fiber</b>		
2015-17		
41	Life cycle analysis, environmental impact assessment and possible remediation strategies in cotton production and processing. M. V. Venugopalan (PI), M. Sabesh (PA)	
42	Engineering stronger cotton fiber using novel genes. Sandhya Kranthi (PI), G. Balasubramani (PA), K. P. Raghavendra (PA), H. B. Santosh (PA), Rakesh kumar (PA), A. H. Prakash , S. Manickam (PA), KPM Dhamayanthi (PA)	
43	Deployment of biotechnological tools for reduction of gossypol content in cotton seed and it's by products. K. P. Raghavendra (PI), Sandhya Kranthi (PA), G. Balasubramani (PA), Joy Das (PA)	
44	Development of tissue culture technology for cotton fibre initiation. S. B. Nandeshwar (PI), Rakesh Kumar (PA), Joy Das (PA)	
45	Consortia Research Platform on biodiversity. Punit Mohan (PI), Vinita Gotmare (PA), J. H. Meshram (PA), S. Manickam (PA), R. A. Meena (PA)	2014-17
46	UGC: Association mapping of fiber traits in Gossypium arboreum L. accessions using SSR, ISSR and AFLP markers. S. K. Verma (PI)	2012-16
47	NSP: National Seed Project (Crops). K. Rathinavel (PI)	1999-17
48	DUS: Implementation of PVP legislation 2001 and DUS testing of cotton under ICARSAU system. K. Rathinavel (PI)	2003-17
49	MSP: ICAR project on Seed Production in Agricultural Crops and Fisheries. P. R. Vijayakumari (Nd Offi), V. Santhy (PA), K. Rathinavel (PA), R. A. Meena (PA)	2007-17
50	NASF: Molecular characterization and validation of fiber strength genes with fiber specific promoter for improvement in cotton. G. Balasubramani (PI), Raghvendra (PA), J. Amudha (PA), S. B. Nandeshwar (PA)	2012-17
51	NPTC: Transgenics in crops. Insect and disease resistant transgenic cotton. G. Balasubramani (PI), J. Amudha (PA), S. B. Nandeshwar (PA), K. P. Raghvendra (PA), Suman Bala Singh (PA)	2012-17
52	NICRA: Climate change- adaptation and mitigation strategies in cotton. S.E.S.A Khader (PI), A.H. Prakash (PA), Blaise Desouza (PA), M.V. Venugopalan (PA)	2013-17
53	DST: Design & Development of a cotton picking head. G. Majumdar (PI)	2012-16
54	DST: Development of vision based expert system for vacuum picking of cotton. G. Majumdar (PI)	2013-16
55	Mahyco: Monitoring changes in baseline susceptibility to Cry toxins in the cotton bollworm, H. armigera, pink bollworm and Spodoptera litura. Sandhya Kranthi (PI), K. R. Kranthi (CoPI) , V. Chinna Babu Naik (CoPI)	2012-16
56	GEAC: Event based approval mechanism. Sandhya Kranthi (PI), K. R. Kranthi (CCPI)	2010-16
57	TMC MM II: Dissemination of IRM strategies in India. K. R. Kranthi (PI), Sandhya Kranthi (PA), D. Monga (PA), B. Dharajothi (PA), Rishi Kumar (PA)	2007-16

58	DST: Entomopathogenic-endophytes mediated plant defense as a novel approach for the management of boll worms in cotton. <a href="#">M. Amutha (PI)</a>	2013-17
59	Consortia Research Platform IIHR (Lead centre): ORP on Management of sucking pests in horticultural crops. <a href="#">Sandhya Kranthi (PI)</a> , <a href="#">M. Amutha (PA)</a>	2014-16
60	Maha. Govt: Crop pest surveillance and advisory project (CROPSAP) in Maharashtra. <a href="#">V. S. Nagrare (PI)</a>	2010-16
61	NFSM-OPMAS: On line pest monitoring and advisory services (OPMAS) under NFSM –commercial crops. <a href="#">R. K. Tanwar (PI)</a> , <a href="#">D. Monga (PA)</a> , <a href="#">Rishi Kumar (PA)</a>	2012-17
62	DST: Engineering root-knot nematode resistance in cotton by RNAi mediated silencing of parasitism genes of <i>Meloidogyne incognita</i> . <a href="#">N. G. Narkhedkar (PI)</a> , <a href="#">S. B. Nandeshwar (CoPI)</a>	2013-16
<b>List of approved projects in mid-term IRC</b>		
63	Breeding to improve performance of <i>Gossypium herbaceum</i> for adaptation to climate change in central India. <a href="#">D.V. Patil (PI)</a> , <a href="#">Punit Mohan (PA)</a>	2015-20
64	Development of high yielding, early maturing Asiatic cotton ( <i>Gossypium arboreum</i> ) genotypes suitable to south Zone. <a href="#">A. Manivannan (PI)</a> , <a href="#">Punit Mohan (PA)</a>	2015-20
65	Evaluation of exogenous application of plant growth hormones and other chemicals on seed yield and quality of cotton. <a href="#">Sunil Mahajan (PI)</a>	2015-17
66	Impact of Bt cotton and pesticides on nitrogen fixing soil bacteria in cotton-legume intercropping systems. <a href="#">Savitha Santosh (PI)</a>	2015-16
67	Development of remunerative cotton based cropping systems based on conservation agriculture principles. <a href="#">R. Raja (PI)</a> , <a href="#">D. Kanjana (PA)</a>	2015-19
68	Development of reverse transcription loop mediated isothermal amplification (RT- LAMP) for early detection of cotton leaf curl and tobacco streak viruses of cotton ( <i>G. hirsutum</i> ). <a href="#">S. P. Gawande (PI)</a> , <a href="#">Dilip Monga (PA)</a>	2015-16