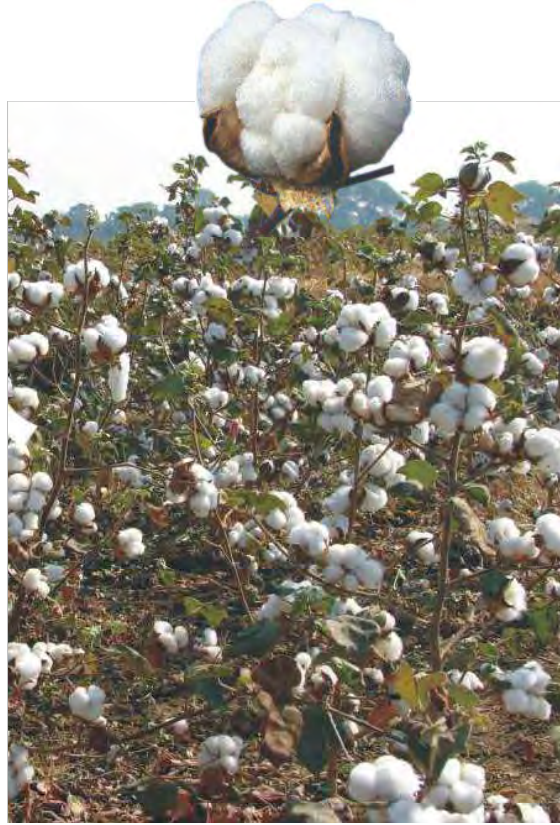




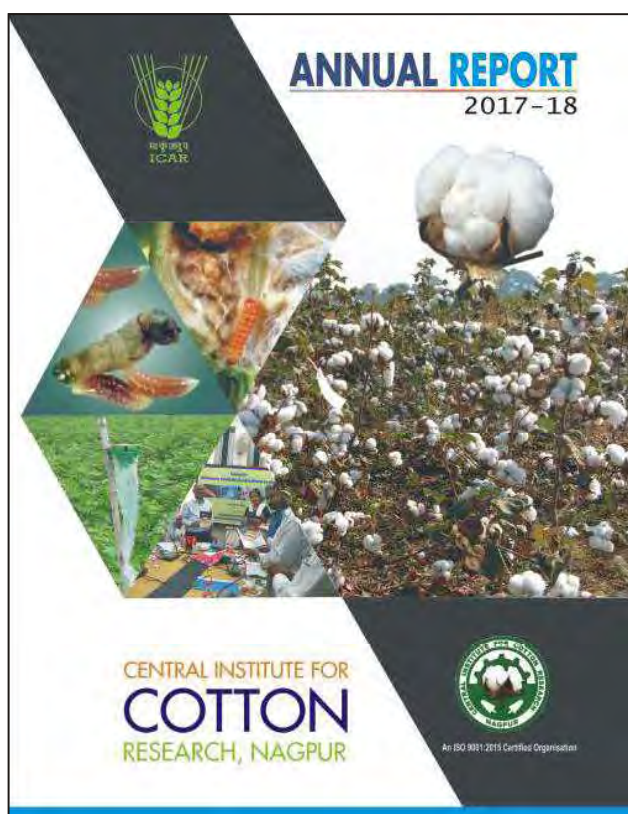
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2017-18



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ICAR- CENTRAL INSTITUTE FOR COTTON RESEARCH, NAGPUR



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## PREFACE



Cotton, the 'White Gold' is the most important natural fibre. Cotton crop not only provides fibre for the textile industry, but also plays a vital role in the feed and oil industries with its seed, rich in oil and protein. The area under cotton increased from 10.8 m ha in 2016-17 to 12.429 m ha in 2017-18. However, there was decline in area of *desi* cotton, *G. arboreum* from 80,000 ha to 40,000 replaced by BGII hybrids. For the first time, 8 Bt varieties carrying *Cry1Ac* gene developed by public sector institutes were approved for commercial cultivation in the country. With the ongoing evaluation across different AICRP centers and ICAR-CICR, more promising Bt and non-Bt varieties will be made available for cultivation and farmers will have options to retain seeds from the produce, thereby reducing cost on seed and cotton production. Two *G. hirsutum* varieties, CCH 12-2 and CCH 12-3 were developed and identified for Central zone under irrigated condition. CCH 14-1 has also been identified for irrigated conditions of South zone. In addition, two varieties namely, CCH 15-1 (for irrigated conditions of central and south zones) and CSA 1028 (for rainfed conditions of central zone) have been promoted to Agronomic trials.

The ICAR-CICR is maintaining 11648 germplasm accessions and wild genetic resources of *Gossypium*. During 2017-18, institute enriched its Germplasm Bank by adding 58 exotic accessions and three variants of landraces. A protocol for somatic embryogenesis in Coker genotypes has been standardized which will pave way to development of indigenous transgenics in future. Sunhemp has been identified as the most effective legume cover crop for weed management in cotton. The resistance development of pink bollworm on BG-II and non Bt cotton fields was continuously monitored across all cotton growing states. The analysis of historical data on population dynamics of whitefly indicated that there has been an advancement shift in peak occurrences of whitefly infestation. Tobacco Streak Virus (TSV) on *G. hirsutum* was recorded in some fields of Punjab and Haryana and also on *G. barbadense* cotton in Tamil Nadu.

The Institute was in spotlight and under public scanner on account of widespread infestation of pink bollworm in all major cotton growing states, deaths of farmers and farm labourers due to indiscriminate and unscientific use of pesticides in Yavatmal district of Maharashtra and illegal cultivation of Herbicide Tolerant cotton in the states of Maharashtra, Gujarat, Telangana, Andhra Pradesh and Karnataka. The institute has ably provided leadership and coordinated the implementation of strategies to manage pink bollworm in Gujarat. Similar proactive strategies were devised for management of this pest in the states of Maharashtra, Telangana, Andhra Pradesh, Karnataka and Madhya Pradesh. Awareness campaign was launched involving all stakeholders including Researchers / Scientists of ICAR-CICR, SAUs and KVKs and officials of State Departments of Agriculture, representatives of Seed and Pesticide Industries and Gineries. Our efforts to reach out to the farmers were vigorously pursued through the 'Mera Gaon Mera Gaurav' (MGMG) programme and Tribal Sub Plan (TSP). Weekly articles on various improved production and protection technologies for the benefit of cotton farmers were further disseminated through the



ICAR-CICR



popular articles in agricultural daily newspaper in Marathi / local languages through bulletins, radio talks and farmers meets. More than 6.11 lakh voice messages were delivered to 87,132 registered farmers on their mobiles in Nagpur district alone.

I am grateful to Dr. Trilochan Mohapatra, Secretary DARE & DG ICAR, Dr. A.K. Singh, DDG (CS), Dr J.S. Sandhu, [the then DDG (CS)] and Dr R. K. Singh, ADG (CC) for their constant encouragement, guidance and support. Contributions of Dr. M.S. Ladaniya in managing the activities of the institute during his tenure as Director (Addl.Charge) is gratefully acknowledged. The Heads of Divisions I/c, Dr Blaise Desouza and Dr Nandini Gokte Narkhedkar, Dr. S. Kranthi and Dr D. Monga, Head, Regional Station, Sirsa, Dr A. H. Prakash, PC and Head I/c, Regional Station, Coimbatore and Dr M. V. Venugopalan, Principal Scientist & I/c PME Cell have contributed immensely to the execution of research programmes and their contribution in making of this report deserve special gratitude. Thanks are also due to the Editorial Committee members for their sincere efforts in bringing out this publication. Mrs. Rama Iyer, Sh. Sameer Chalkhure and Mrs Vandana Satish deserve special appreciation for their dedication, sincerity and commitment in bringing out this Annual Report to a beautiful shape in a short span of time.

**(V. N. Waghmare)**  
Director (Acting)



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